CHAPTER 4
Roadway

Introduction

The Greensboro Urban Area transportation system plays an integral role in promoting economic vitality, quality of life, and community through the movement of people and goods. The roadway network serves as a basis for the implementation of alternative modes of transportation, such as bicycling and walking. MAP-21 states that the Metropolitan Transportation Plan (MTP) should be updated to validate and ensure consistency with existing and future transportation conditions. Considerable efforts were made in evaluating existing and future roadway networks and improvements.

The roadway analysis is as a foundation for several types of roadway plans. Each plan serves a different purpose, but is based upon the same technical analysis. The plans include the Thoroughfare Plan, Comprehensive Transportation Plan, Collector Street Plan, and the MTP Recommended Highway Plan. Primary discussion focuses on the MTP Recommended Highway Plan, but also includes discussion of the first three plans. The Recommended Highway Plan meets the MAP-21 requirements by identifying existing and future transportation improvements to meet the demands of people and goods through 2040.

Thoroughfare Plan

Since adoption of the first Thoroughfare Plan for the Urban Area in 1954, Thoroughfare Plans have been developed in cooperation with the NCDOT for over 40 years. A Thoroughfare Plan is carefully prepared to provide safe, efficient, and convenient movement of vehicles into, out of, and through the urban area. The plan is based on an analysis of the functionally classified roadway network in the MPO. The Thoroughfare Plan also represents an unconstrained set of future roadway needs. The current Thoroughfare Plan was adopted on October 27, 2004 by the MPO and on December 2, 2004 by NCDOT. The plan was last amended December 17, 2007. The plan maps existing and proposed highways, major thoroughfare streets, minor thoroughfare streets, interchanges, and grade-separations. The Thoroughfare Plan is not financially constrained or required for the MTP, but provides a framework for developing the MTP Recommended Highway Plan.

Functional Classification *is when streets and highways are grouped into classes by their intended level of service. Functional Classification guidelines are set by the Federal Highway Administration and identified in cooperation with local governments. All roadways in the Urban Area are not classified as only significant roadways are identified.*

Due to changes in North Carolina Law, the Thoroughfare Plan is no longer required by NCDOT. However, the Greensboro Urban Area MPO continues to maintain the Plan as a land-use planning tool that corresponds with local development ordinance requirements for right-of-way dedication, building setbacks from the roadways, and road construction, to reduce significant impacts to developed properties. A copy of the Thoroughfare Plan has been included in Appendix C.

Comprehensive Transportation Plan (CTP)

The Comprehensive Transportation Plan (CTP) is required by NCDOT as a result of revisions to North Carolina Law in 2001. This revision removed the requirement for Thoroughfare Plans and replaced it with Comprehensive Transportation Plans and was based upon NCDOT's effort to move from exclusive roadway planning to multi-modal planning.

The CTP consist of a series of map components including a Highway Map, Public Transportation and Rail Map, Bicycle Map, and Pedestrian Map. The Plan looks 20 or more years in to the future and is not financially constrained. The CTP Highway Map and Thoroughfare Plan are very similar since both plans represent roadway networks handling present and future travel demand. The CTP highway component classifies facilities on the Thoroughfare Plan according to a system based on the access control of each facility. The CTP maps included in **Appendix C** were mutually adopted by NCDOT and the Greensboro Urban Area MPO in 2010.

Collector Street Plan

The Collector Street Plan is not required by North Carolina Law, but recommended to complement the Thoroughfare Plan and CTP. The Collector Street Plan identifies existing and future collector streets.

Collector streets link thoroughfares to local streets. Both the City of Greensboro's Land Development Ordinance and Guilford County's Development Ordinance include definitions of the terms "collector street" and "collector street plan." The Collector Street Plan promotes orderly step-by-step execution of the collector street

network. Implementation of the plan produces many benefits, including assistance in local planning for public transportation, pedestrian, and bicycle facilities, and improved traffic circulation and traffic control as future land developments occur within the MPO area.

The MPO worked cooperatively with a Technical Committee consisting of City, County, and Town staff to develop a Draft Collector Street Plan.

Several factors were evaluated when designating existing and future streets as collectors:

- Existing designations
- Existing and future land uses
- The degree of connectivity between local streets and major and minor thoroughfares
- Impacts on the environment, both natural and cultural

The Proposed Greensboro Urban Area MPO Collector Street Plan was presented for public review and comment at four public workshops in the spring of 2005. These meetings were held throughout the MPO area to provide the greatest opportunity for public input. Following the public review and comment period, the Greensboro Urban Area MPO Collector Street Plan was endorsed by the Transportation Advisory Committee on April 27, 2005.

The MPO requested each jurisdiction, including Guilford County, approve the Collector Street Plan as each will be responsible for its implementation. The following policy boards have adopted the portion of the Greensboro Urban Area MPO Collector Street Plan within their respective jurisdictions:

Greensboro City Council, September 6, 2005

Summerfield Town Council, September 6, 2005

Sedalia Town Council, October 3, 2005

Guilford County Board of Commissioners, August 24, 2006

Oak Ridge Town Council, October 5, 2006

Stokesdale Town Council, January 22, 2008

The Greensboro Urban Area MPO Collector Street Plan is included in **Appendix C**.

The Pleasant Garden Town Council chose not to adopt the Collector Street Plan following an additional public workshop at its request in early 2006. The MPO will be coordinating with the Technical Committee to update the Plan.

Regional Highway Projects

The Piedmont Triad Region is anchored at the crossroads of five interstates and over a dozen major highways. The Triad's mid-Atlantic location and inter-connected network provides efficient access to 3 international airports (within 2 hours) and 5 major ports (within 6 hours). The Triad's transportation planning is performed by four Metropolitan Planning Organizations (MPOs): Winston- Salem MPO (Forsyth, Davidson), High Point MPO (Davidson, Guilford and Forsyth), Greensboro MPO (Guilford) and Burlington-Graham MPO (Alamance, Guilford, and Orange). According to 2010 Census Bureau data, over 90% of the population located in the Triad MPO planning area commute to work by car with an average 43% of workers commuting outside their resident county. Regional cooperation among the four Piedmont Triad (MPOs) is key to the continuation of building upon the strong roadway network.

The MPOs closely coordinate on regional projects from inception and study to design and securing funding. The main focus of the regional coordination is to provide a seamless roadway network across planning boundaries that maximizes mobility and positions the Triad for future economic development. **Figure 4-1** includes major roadway projects the MPOs have coordinated on at regional level.

Roadway Name	Project ID Number	Project Description	Project Phase	MPO location
Airport Connector (I-73/I-74)	N/A	Facility on New Location from Winston-Salem Northern Beltway to NC 68 in Greensboro.	Initial Concept Study	Winston-Salem, Greensboro
Johnson Street/ Sandy Ridge Road	U-4758	Widen from Skeet Club Road in High Point to I-40 in Greensboro.	Funding Secured	High Point, Greensboro
Sandy Ridge Road	FS-0707A	Widen from I-40 to W. Market Street.	Securing Funding for Construction	Greensboro, High Point
East Mountain Street	U-3617	Widen from Bunker Hill Road in Greensboro to NC 66 in Kernersville.	Securing Funding for Construction	Winston-Salem, Greensboro
West Market Street	R-2611	Widen from NC 68 to Bunker Hill Road.	Construction Complete	Greensboro
High Point Road/ Greensboro Road	U-2412 A, B	Widen and Part on New Location from Proposed 311 Bypass in High Point to Hilltop Road in Greensboro.	Securing Funding for Construction; Funding Secured for A	High Point, Greensboro
I-73 (US 220/ NC 68 Connector, I-73 Connector)	R-2413, I-5110	Facility on new location from US 220 to Western Urban Loop	Under Construction	Greensboro
US 70	U-2581, R-2910	Widen from Penry Road in Greensboro to Westbrook Avenue in Burlington.	Securing Funding for Construction	Greensboro, Burlington
I-40	TBD	Widen from 4 lanes to six lanes between us 311 and I-40 Bus./US 421 I-40, Widen Interstate from 4 lanes to six lanes between US 311 and I-40 Bus./US 421W	Securing Funding for Construction	Winston-Salem, Greensboro

FIGURE 4-1
Triad Regional Projects

Performance Based Planning

Coordination at the regional level for securing funding has become increasingly important with the passage of Executive Order No. 2 in 2009 by the Governor. The order mandated a professional approval process for project selection. In response, NCDOT created the Strategic Prioritization Process.

The process was further refined with the passage of House Bill 817, known as the Strategic Transportation Investments (STI). The bill established funding tiers (Statewide, Regional, and Division) and allocations across all modes.

This Prioritization Process is used by NCDOT to identify projects to be funded in the State's Transportation Improvement Program (TIP). The heavily data driven process is aimed at allocating limited funding to projects with the highest need. The MPOs have participated in three cycles of the process which resulted in the MPOs

pooling resources on regional priority projects. Regional coordination among the Triad MPOs will become increasingly more important as highway funding becomes more heavily weighted on performance measures.

MTP Recommended Highway Plan

The MTP Recommended Highway Plan shows improvements from 2016 through 2040 based upon technical and fiscal analysis. The Plan is different from the others mentioned above because it is financially constrained, per federal requirements. This means the MPO must identify a reasonably foreseeable funding plan for project construction. A discussion on the financial analysis is included in **Chapter 10**. In addition the Plan also includes projects recently completed between 2009 and 2015.

It is important to note that the highway recommendations are at various stages in the project development process. Many projects are conceptual in nature, particularly those listed in later years. Some projects in the earlier years have been through the project development process and are ready for construction. The MTP 2040 allows the MPO to reassess the transportation system for impacts of recently constructed projects and for roadways needing additional capacity.

Travel Demand Model

The reassessment of the transportation system uses a tool known as the Travel Demand Model (TDM). A regional travel model was developed for the four Triad MPOs: Greensboro, Burlington-Graham, High Point, and Winston-Salem. The travel model was developed with oversight from the Piedmont Authority for Regional Transportation (PART) in cooperation with the four MPOs. The first version of a new Triad Regional Model was completed in November 2006. An updated version of the regional model was completed February 2015 for the 2040 MTP. The updated travel model estimates traffic flows for horizon years 2013, 2021, 2030, and 2040. The Triad travel model is based on the four-step modeling process: trip generation, trip distribution, mode choice, and trip assignment. Full documentation on the travel model can be found in *Piedmont Triad Regional Model Version 4.0 Model User Guide*.

Significant investments have been made by the Triad MPOs over recent years to provide the best available data for input into the Travel Demand Model (TDM). Socioeconomic data was updated based on the 2010 Census in n preparation for the 2040 MTP.

The Piedmont Authority for Regional Transportation (PART) in conjunction with the four Triad MPOs, initiated a study in 2013 by consultant Kimley-Horn to forecast socio-economic data for the new model. The study developed socio-economic (SE) data forecasts for years 2013, 2021, 2030, and 2040 for population, houses, and employment. A full overview of the process and results has been included in **Chapter 2**.

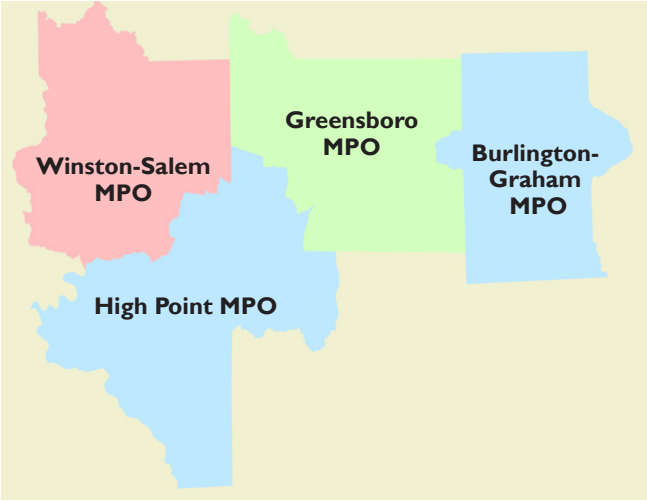


FIGURE 4-2
Triad MPO Urban Areas

Congestion Management Process

Several steps were taken to identify deficient or congested roadways in the transportation system. The first major step is the development of the Congestion Management Process (CMP). The CMP is a MAP-21 requirement for urban areas with a population greater than 200,000. An effective congestion management process serves many functions, one being the comprehensive collection of all regional traffic and roadway data. The CMP also assists in setting priorities for both the short term and long term strategies for addressing congestion. Additional information on the CMP can be found in Chapter 8 or in a separate document known as the *Greensboro Urban Area 2015 Congestion Management Process.*

The need for existing and future highway projects are verified or recommended based on the results of the CMP. Existing projects with funding are placed in a horizon year depending upon the construction schedule. Future highway projects are phased in by horizon years depending upon the timing of funds in the financial analysis. Model runs were made for 2013, 2021, 2030, and 2040, which include the recommended highway projects. The 2013 model run creates an existing year network.

Several figures are included to show the performance of the model and travel demand for the region and MPO area. The results from the updated model are slightly different from the previous version. The differences are a result of updated data and enhancements to the model. The model was updated with population and employment data based on the 2010 Census data and recalibrated with NCDOT 2013 traffic counts.

The first chart, **Figure 4-3** summarizes the changes in vehicle miles traveled (VMT) between 2013 and 2040 for the Triad Region and Greensboro Urban Area. The VMT is the number of vehicles on the roadway system multiplied by the miles traveled in the Region and Greensboro Urban Area. The total 2040 VMT for the entire Triad model area is 50.8 million, while the MPO's is 17.2 million VMTs.

The next **Figure 4-4** compares the Triad Region and MPO area by vehicle hours traveled (VHT). The graph reflects the time (in hours) vehicles spend traveling on the roadways. Increased congestion and slower speeds can increase VHT. Conversely, higher speeds can reduce VHT. VHT is a useful indicator of the relative efficiency of the roadway system. The Region travels 1.2 million hours in 2040, while the MPO area travels almost 420 thousand hours.

As mentioned earlier, congestion has a direct impact on travel speed. **Figure 4-5** shows the average travel speed during the PM Peak for the Triad Region and the Greensboro Urban Area. The PM Peak is defined as the hours between 3 and 6 pm. The average travel speed during the PM peak through 2040 remained relatively constant. This is the result of several projects opening in between 2021 and 2030.

The next three figures identify the congested roadways for 2013, 2021, and 2040 based on results from the Travel Demand Model. Congestion can be measured several different ways, including the calculation of the volume to capacity ratio (V/C). The V/C ratios are used to express the quality of traffic service on a roadway system. A low ratio (less than or equal to 0.80) corresponds with a high level of service, indicating relatively free-flowing traffic or no congestion. A high V/C ratio (1.0 or higher) means conditions are not free-flowing and the facility is congested.

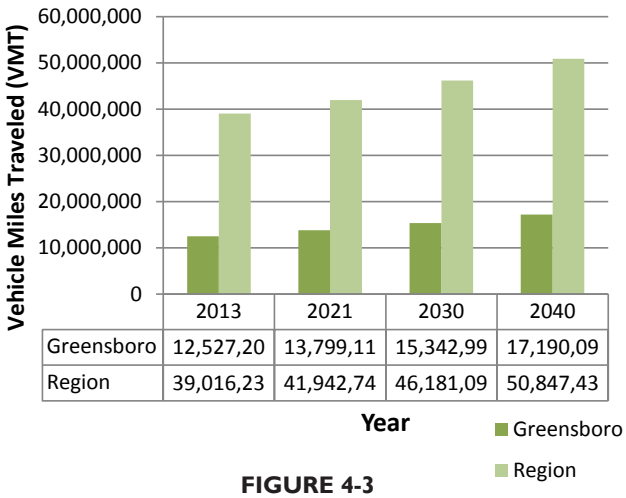


FIGURE 4-3
Vehicle Miles Traveled for Region and Greensboro Urban Area

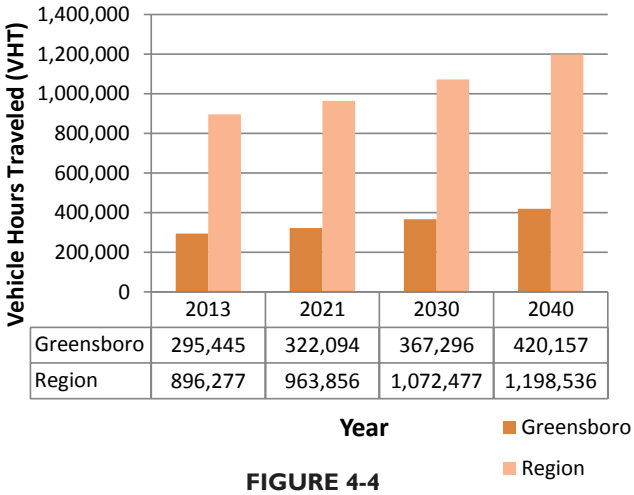


FIGURE 4-4
Vehicle Hours Traveled for Region and Greensboro Urban Area

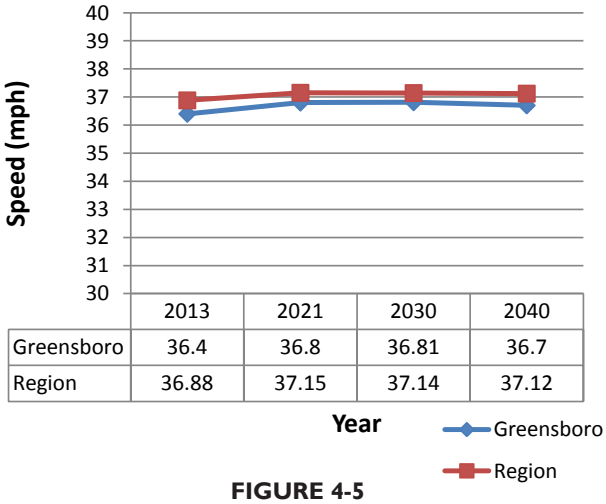


FIGURE 4-5
Average Travel Speed for Region and Greensboro Urban Area

Ratio	Capacity	Congestion
V/C<0.8	Below capacity	Little or none
0.8<V/C<1.0	Approaching capacity	Occasional and intermittent
1.0<V/C<1.2	At capacity	Moderate and consistent
V/C>1.2	Over capacity	Severe and persistent

The Travel Demand Model is an important tool in forecasting future traffic conditions when informed by existing data and knowledge to make realistic project recommendations. The maps show PM Peak (3 - 6 pm) congestion based on a systems level analysis. Although a further detailed analysis would be required at the project level, the maps do provide initial identification of roadways that may need improvements.

The first map (**Map 4-1**) identifies congested facilities during the PM Peak in the base year 2013 and represents the roadway system without future improvements. It is important to note that the map includes the two Urban Loop sections that opened between 2007 and 2008. Both segments are pieces of the Western Urban Loop and are six-lane divided. The first section opened in December 2007 from I-40 to Bryan Boulevard. The larger and more significant segment from I-85 to I-40 opened February 2008. This segment completes the southern half of the Urban Loop and allows for an alternate route to I-40. The map shows widespread congestion in central and northwest portions of the urban area. Corridors showing significant congestion include:

US 158

This US route is located in the northwest corner of the Urban Area and extends from the Rockingham County line to Forsyth County line and travels through the Town of Stokesdale. Portions of the route show congestion. Construction could begin before 2040 for two state Projects (R-2577 & R-2580) to widen the 2-lane roadway to four lanes with a median cross-section but they are currently unfunded.

Bryan Boulevard

Bryan Boulevard is an east-west route providing a link between the airport and downtown. The four lane divided facility is classified as a freeway with access points only at the interchanges. The route is heavily used by commuters and to access shopping destinations.

US 29 North

US 29 is a north-south link between Reidsville and Danville, Virginia. The four lane divided facility is classified as a freeway. The facility has been designated for the future I-785 route. A portion of the route is being widened with the Eastern Urban Loop and State Project R-4707 will replace the existing interchange at Reedy Fork Parkway with an updated and larger interchange.

US 70

This is an east-west corridor providing access between Greensboro and Burlington. The two-lane route also serves as an alternate to I-40 extending over to Durham. US 70 shows congestion between Knox Road and the Urban Area boundary. In addition to it being an alternate to I-40, the route is experiencing a significant amount of high density development, particularly in the Burlington and Elon areas. Two State Projects (U-2581 & R-2910) propose widening the roadway, but are currently unfunded. However, the environmental study is currently under development. The environmental study is required for certain federally funded projects and must be completed before construction begins. Preparing the study now will enable the project to move to construction quicker when funding becomes available.

The second map (**Map 4-2**), known as the 2021 Future Year, identifies congested facilities in the year 2021. Unlike the first map, this includes future improvements. It represents existing roadways and State and City transportation projects that are assumed to be constructed by 2021, as demonstrated by existing financial commitments in the Transportation Improvement Program (TIP) or Greensboro's Capital Improvement Program (CIP). The map shows congestion increasing on the facilities identified in the 2013 Base Year map and additional facilities. Corridors showing significant congestion include:

Pleasant Ridge Road

Pleasant Ridge Road provides access to the Piedmont Triad International Airport and the Town of Summerfield to the north. Portions of the facility are approaching congested. Projects are proposed to be complete in 2030 and 2040 that would widen the facility to a 4-lane divided roadway.

Pleasant Garden Road

Pleasant Garden Road provides a north-south route just south of the Urban Loop. The facility is designated as a minor arterial with various levels of congestions between Ritters Lake and Neelley Road. A local project proposes a Roundabout at the Spur/ Nesbitt Road intersection in 2021.

Congestion is also shown on I-40/ Bus 85 just east of US 29, Southern Urban Loop, US 421 south, NC 150, and Southeast School Road.

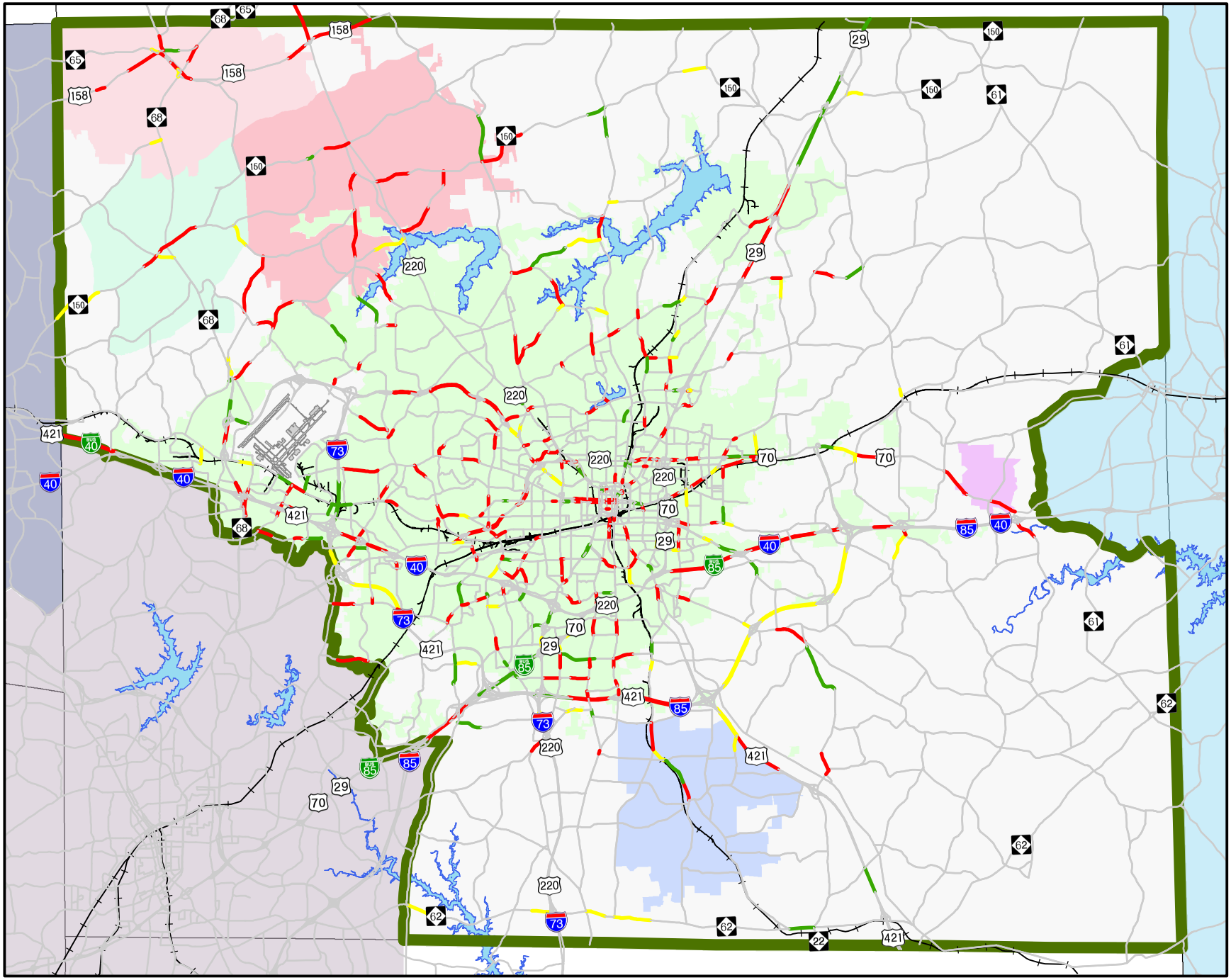
The last map (**Map 4-3**), known as the 2040 Future Year, identifies congested facilities in the year 2040.

It represents existing roadways and State and City transportation projects which are assumed to be constructed by 2040, as demonstrated by existing financial commitments in the Transportation Improvement Program (TIP) or Greensboro's Capital Improvement Program (CIP). The map shows congestion increasing on facilities identified in the 2013 and 2021 maps, and additional facilities. Corridors showing significant congestion include:

Gallimore Dairy Road

Gallimore Dairy Road, just south of I-40 and the Airport area, is expected to be highly congested in 2040. The facility serves both commercial and industrial uses. The proposed State Project U-4015A would widen the roadway from a two-lane to a four-lane divided facility.

As stated earlier, these maps allow early identification of possible improvements that will be needed on roadways in the future. It is important to note a detailed analysis at the project level based on actual traffic count trends and land development patterns would be necessary before a new project is recommended.



2040 METROPOLITAN TRANSPORTATION PLAN

Roadway Map

2013 Base Year

Volume to Capacity Ratio

Legend

PM Peak Congestion

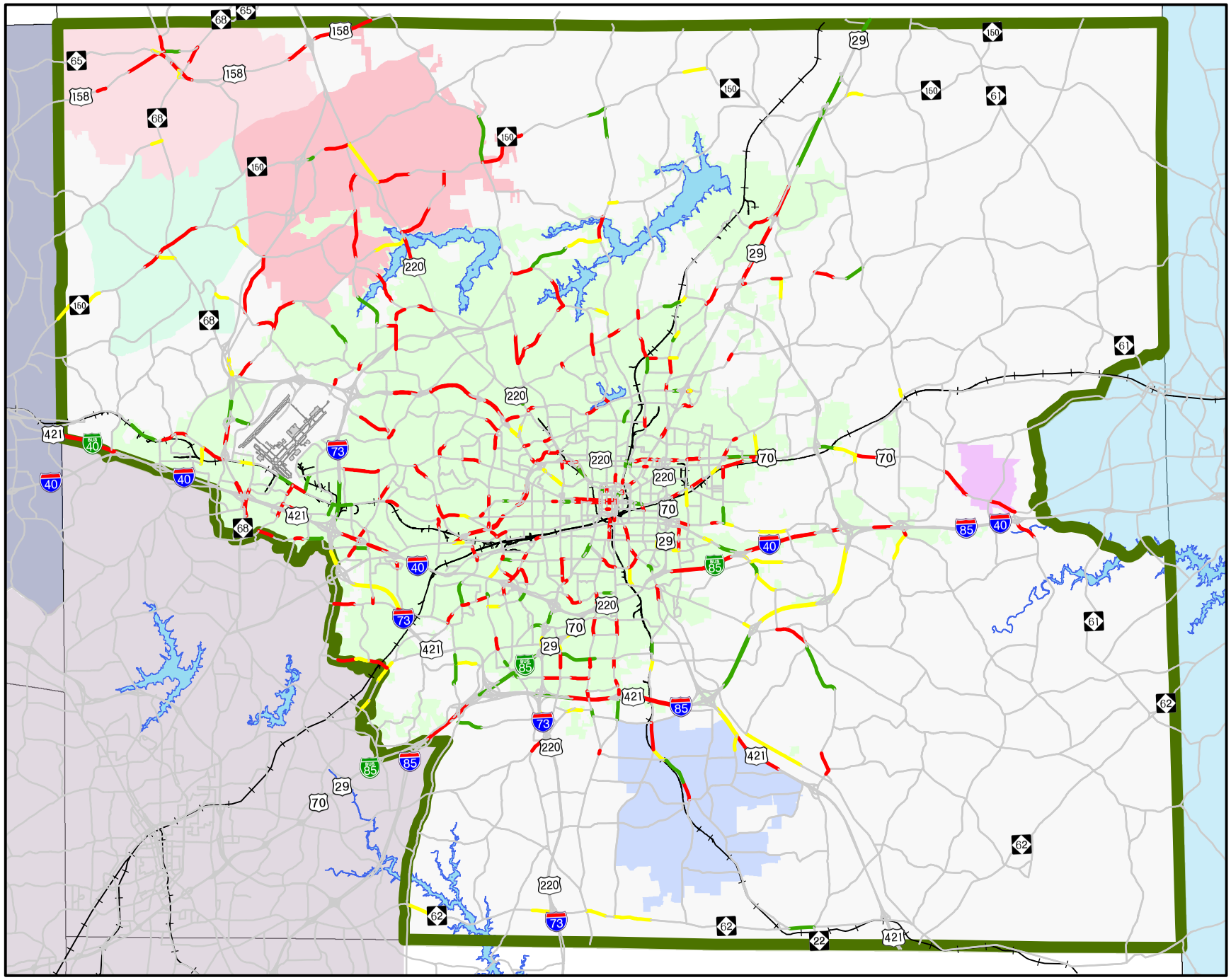
- 0 - 0.80 (No Congestion)
- 0.80 - 1.00 (Approaching Congestion)
- 1.00 - 1.20 (Congested)
- 1.20 or Greater (Highly Congested)

N W E S

0 0.5 1 2 Miles

Map 4-1

greensboro urban area MPO metropolitan planning organization



2040 METROPOLITAN TRANSPORTATION PLAN

Roadway Map

2021 Future Year

Volume to Capacity Ratio

Legend

PM Peak Congestion

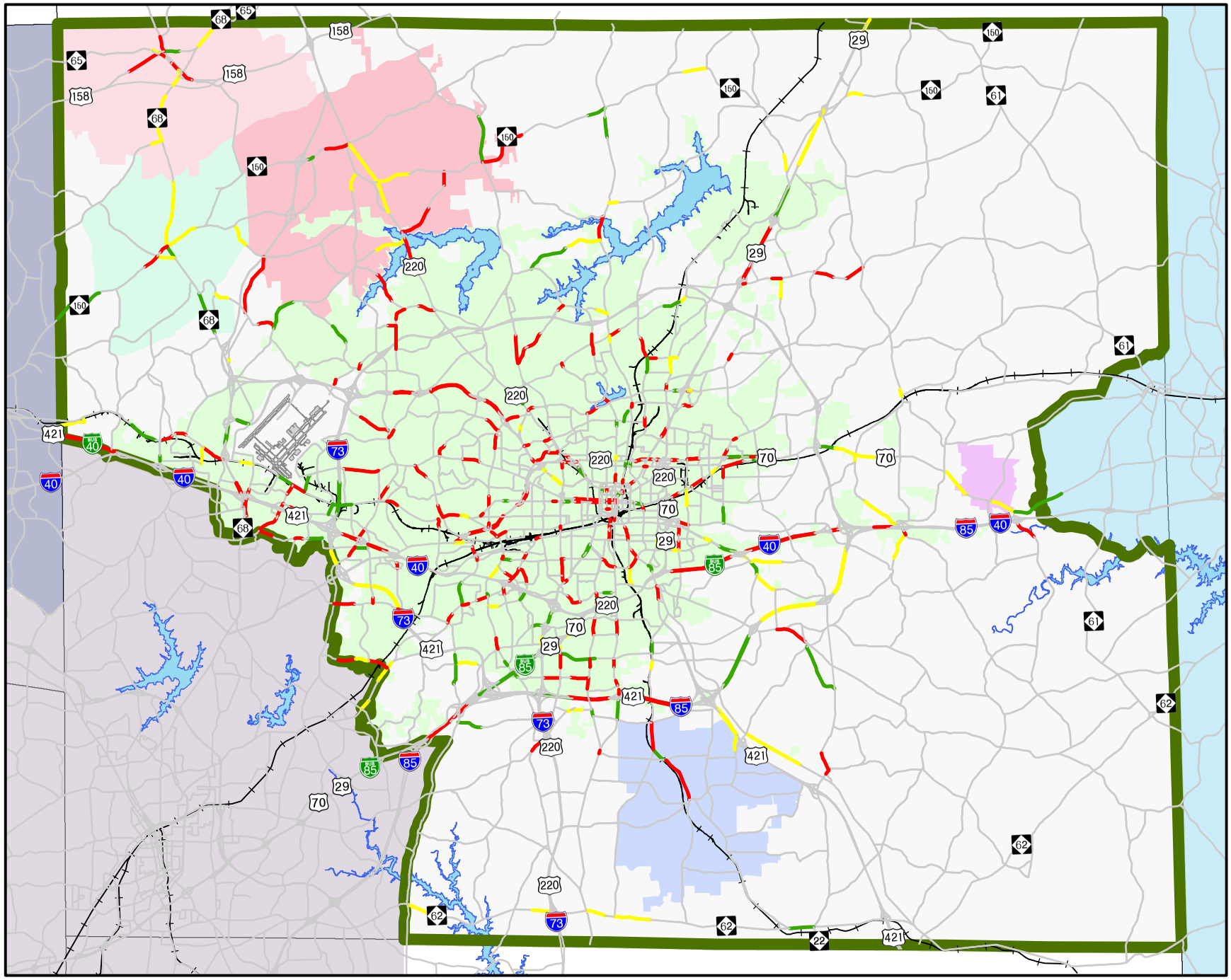
- 0 - 0.80 (No Congestion)
- 0.80 - 1.00 (Approaching Congestion)
- 1.00 - 1.20 (Congested)
- 1.20 or Greater (Highly Congested)

N W E S

0 0.5 1 2 Miles

Map 4-2

greensboro urban area MPO metropolitan planning organization



2040 METROPOLITAN TRANSPORTATION PLAN

Roadway Map

2040 Future Year

Volume to Capacity Ratio

Legend

PM Peak Congestion

- 0 - 0.80 (No Congestion)
- 0.80 - 1.00 (Approaching Congestion)
- 1.00 - 1.20 (Congested)
- 1.20 or Greater (Highly Congested)

N W E S

0 0.5 1 2 Miles

Map 4-3

greensboro urban area MPO metropolitan planning organization

Project Recommendations

Project Recommendations for the 2040 MTP are based on an extensive technical and financial analysis of the Urban Area transportation system. The analysis indicates over $1.6 billion in highway investments exceeding will be needed to meet future travel demand through 2040.

Recommended projects range from short term implementation to long range conceptual projects for further consideration. Some projects in the earlier horizon years have completed the project development process and are ready for construction. Projects listed in the later years, especially 2040, are often more conceptual in nature and have not yet entered the project development process.

A detailed listing of the project recommendations are shown in **Figures 4-6 through 4-10**. Each figure is followed by the corresponding **Maps 4-4, 4-5, 4-6, 4-7, and 4-8** depicting the projects for each horizon year. The listing is a combination of projects with state, federal, and local funding. The NCDOT's Transportation Improvement Program (TIP) is expected to fund the state and federal projects while Greensboro's 2000 and 2008 Transportation Bond and future transportation bonds will help fund the local or candidate projects. The projects are ordered within the horizon years 2021, 2030, or 2040. The projects shown from 2013-2015 reflect recently completed projects. A listing of illustrative projects is also included. This list represents projects that may need to be constructed in the future, but are not a current priority for obtaining funding. The projects are not included in the financial analysis and therefore are not eligible to receive State or Federal funds. The phasing of the projects is based on actual project commitments, project development status, the anticipated future project schedule, and ultimately on the need to balance costs and revenues. Each project listing includes:

- Map ID (use to identify projects on maps)
- Funding Type or Source
- TIP or Local (bond) ID
- Facility
- Project Description (describes extent of project)
- Length
- Existing # Lanes (current number of lanes)
- Horizon Year # Lanes (proposed lane improvements)
- BiPed (notes whether the project includes accommodations for bicycles and/or pedestrians)

An exemption category has been included for each horizon year. The exemption allows projects to proceed to construction in the absence of a conforming transportation plan and TIP.

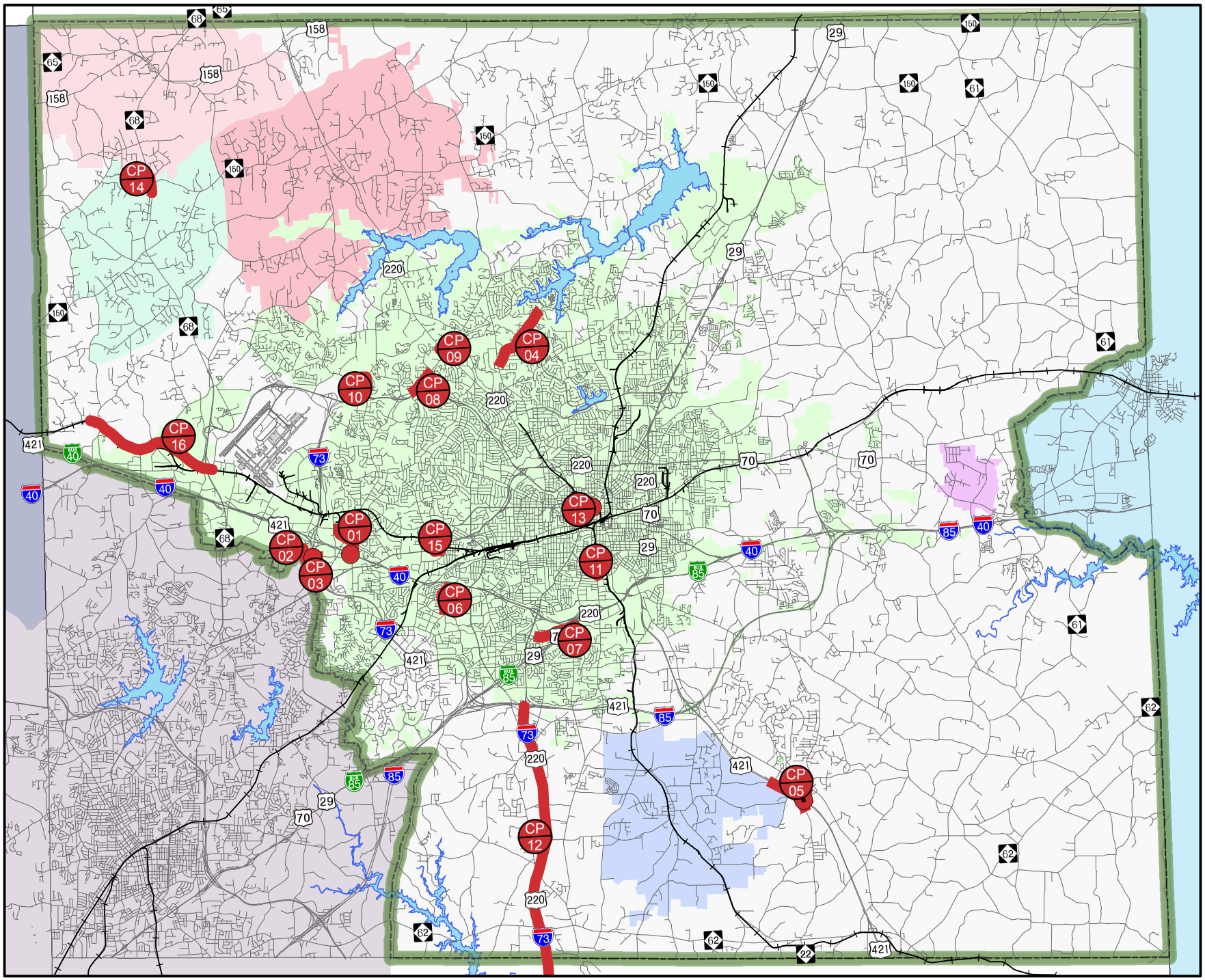
Previously Completed Roadway Projects

2009-2012					
Map ID	**Funding**	**TIP or Bond ID**	**Facility**	**Description / Extents**	**Length (miles)**
CP-01	**Federal**	U-4006	Bridford Parkway Extension	Hornaday Rd. to Burnt Poplar Rd. (see Map ID C1) *Mitigation & partial construction*	1.1
CP-02	**Local**	PO4160	Hornaday Rd. Extension	Hornaday Rd. to Chimney Rock Rd.	0.6
CP-03	**State**	U-4750	Hornaday Rd. Bridge	Grade Separation over Greensboro Urban Loop	N/A
CP-04	**Federal**	U-5162	Lake Jeanette	Widening, intersection improvements, and sidewalks from Lawndale to Bass Chapel/ Elm Street.	1.4
CP-05	**Federal**	R-2612 A	US 421	Company Mill Rd. and Woody Mill Rd. realignment and interchange	0.0
CP-06	**Local**	P03880	Merritt Drive	I-40 to High Point Road	
CP-07	**Local**	P03878	Creek Ridge Road	Rehobeth Church Rd. to Randleman Rd.	1.2
CP-08	**Local**	P03741	New Garden Road	Jefferson Rd. to Brassfield Rd.	0.8

Recently Completed Roadway Projects

2013-2015					
Map ID	**Funding**	**TIP or Bond ID**	**Facility**	**Description / Extents**	**Length (miles)**
CP-09	**Federal**	U-5306D	Battleground Avenue	Intersection and sidewalk improvements at (D) Brassfield Road.	N/A
CP-10	**Federal**	U-5505	Fleming Road Relocation and Isaacson Boulevard	Roadway & intersection project	0.0
CP-11	**Federal**	C-5511	Florida St / Randolph Ave	Intersection improvement	N/A
CP-12	**Federal**	I-5329	Future I-73/Future I-74	South of Ellerbe in Richmond County to I-73/I-85/US 421 in Guilford County (signage)	6.5/ 23
CP-13	**Federal**	U-4711	Greensboro Signal/ ITS System	Replacement and Expansion	N/A
CP-14	**Federal**	W-5114	NC 68	East Harrell Rd. to Bartonshire Drive Add left turn lanes at two intersections between East Harrell Road and Bartonshire Drive.	0.4
CP-15	**Federal**	U-5322	Wendover Avenue	Wendover Avenue/ Clifton Road intersection improvements	N/A
CP-16	**Federal**	R-2611	West Market Street	Widening, NC 68 to Bunker Hill Rd.	3.6

FIGURE 4-6
Previously Completed Roadway Projects



2040 METROPOLITAN TRANSPORTATION PLAN

Highway Projects Map

Completed Projects

Legend

Existing Freeway & Interstate

Roadway Project Locations

Complete

Interchange Grade Separation Project Locations

Interchange Complete

Grade Separation Complete

Project Reference ID

CP # Complete

N W E S

0 0.5 1 2 Miles

Map 4-4

greensboro urban area MPO metropolitan planning organization

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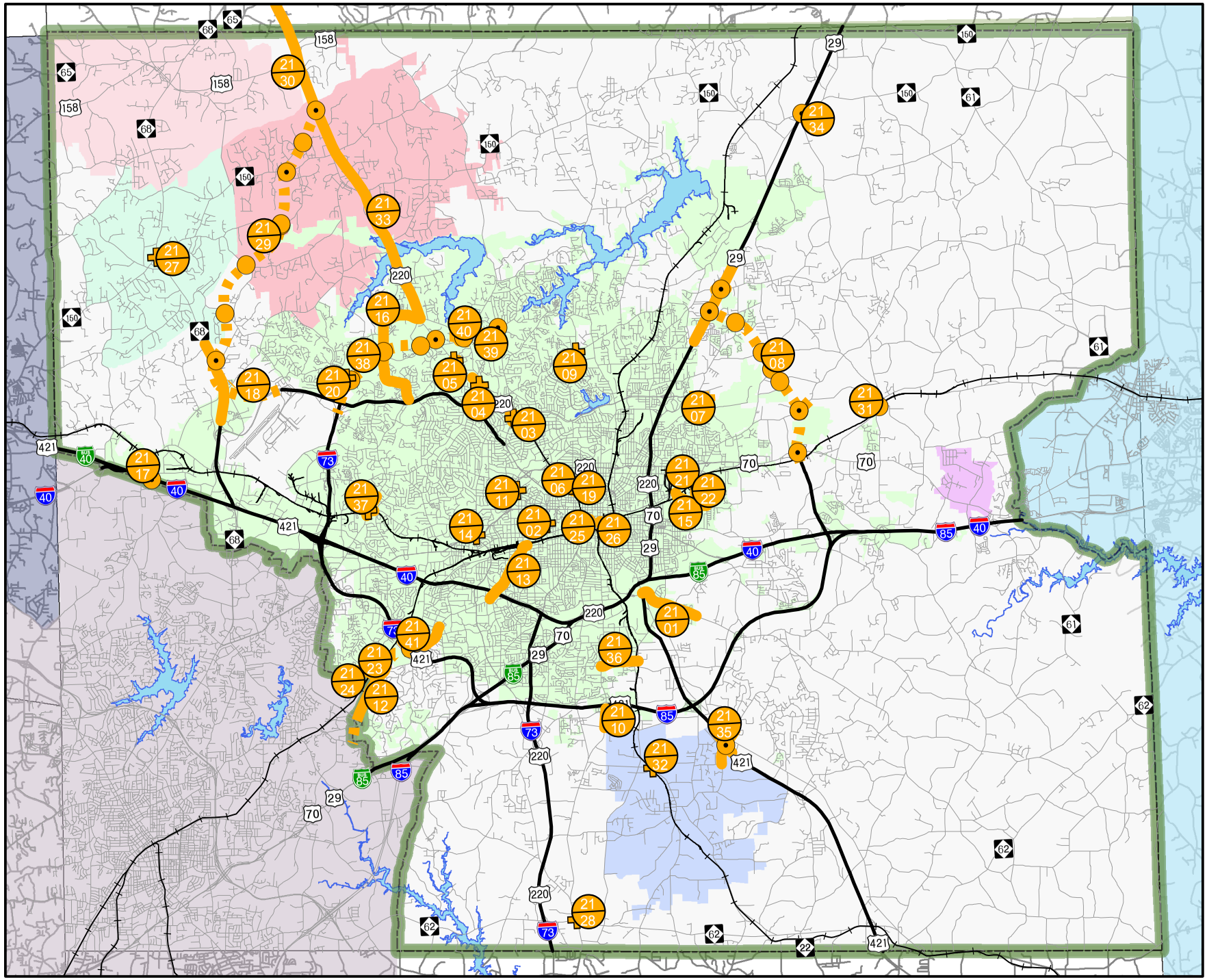
2016-2021

Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed Sidewalk	BiPed Bike	Regionally Significant?	Exempt?	Exemption Category	Project Cost
21-01	**Local**	P05187	Alamance Church Road	Widening - Martin Luther King Jr. Dr. to City Limits	1.6	2 lane	2 lane divided	Minor Arterial	Yes	Yes	No	No		4,037,760
21-02	**Federal**	U-5532 A	Aycock Street / Walker Avenue	Intersection & corridor pedestrain safety improvement project	N/A	N/A	N/A	Minor Arterial	Yes	Yes	No	Yes	126	1,284,430
21-03	**Federal**	U-5306A	Battleground Avenue	Intersection and sidewalk improvements at Benjamin Parkway/ Cone Boulevard	N/A	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	127	under construction
21-04	**Federal**	U-5306B	Battleground Avenue	Intersection and sidewalk improvments at Westridge Road	N/A	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	127	3,922,490
21-05	**Federal**	U-5306C	Battleground Avenue	Intersection and sidewalk improvements at New Garden,	N/A	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	127	right of way in progress
21-06	**Local**		Battleground/ Benjamin	Intersection improvement for Atlantic and Yadkin Greenway; remove slip lane	N/A	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	127	253,060
21-07	**Local**	P04164	Cone-Nealtown Extension (PH I)	New location - Existing Cone Blvd. to Nealtown Rd. Extension (includes Nealtown Rd. Extension)	1.1	N/A	2 lane	Minor Arterial	Yes	Yes	No	No		16,634,520
21-08	**Federal**	U-2525 B	Eastern Urban Loop	US 29 to US 70	12.6	N/A	4 lane freeway	Interstate	No	No	Yes	No		72,819,110
21-09	**State**	U-5842	Elm Street / Pisgah Church Road	Intersection improvement	N/A	N/A	N/A	Minor Arterial	Yes	Yes	No	Yes	127	1,176,750
21-10	**Local**		Elm-Eugene Street	Widening - I-85 to Ritters Lake Rd	0.5	2 lane	4 lane divided	Minor Arterial	No	Yes	No	No		4,269,570
21-11	**State**	U-5841	Friendly Avenue	Intersection improvements at Lindell Road	N/A	N/A	N/A	Minor Arterial	No	No	No	Yes	127	294,820
21-12	**Federal**	U-2412 B	High Point Road	Vickrey Chapel Rd. to Hilltop Rd. (Section A in HPMPO)	3.8	3 lane	6 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		under construction
21-13	**Local**	P05068	High Point Road	Streetscape, Pinecroft to Coliseum Blvd.	1.5	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	126	10,795,010
21-14	**Local**		Holden Road / Ashland Drive	Intersection improvements.	N/A	N/A	N/A	Minor Arterial	No	No	No	Yes	127	126,530
21-15	**Federal**	EL-5101 DM	Holts Chapel Road Upgrade	C&G and sidewalks - East Market St. to Franklin Blvd.	3.6	2 lane	3 lane	Local	Yes	Yes	No	Yes	126	4,428,620
21-16	**Local**	P04945	Horse Pen Creek Road	Widening - New Garden Rd. to Battleground Ave.	3.4	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		36,175,220
21-17	**Federal**	I-5712	I-40 / Sandy Ridge Road	Interchange Reconfiguration	N/A	N/A	N/A	Interstate	No	No	No	Yes	127	2,752,070
21-18	**State**	I-5110	I-73 Connector	New location - NC 68 to Bryan Boulevard (Western Loop) construction	3.0	N/A	6 lane freeway	Interstate	No	No	Yes	No		24,547,190
21-19	**Federal**	EB-5518	Latham Park Greenway	Greenway improvement on Hill St from Battleground Ave to Mendenhall St	0.2	4 Lane divided	2 lane divided	Local	Yes	Yes	No	Yes	126	in progress
21-20	**Local**		Lewiston Road / Fleming Road	Intersection improvements. Construct turning lanes and curb and gutter.	N/A	N/A	N/A	Collector	Yes	No	No	Yes	127	316,330
21-21	**Federal**	Y-4807 B	Lowdermilk Street / Sykes Avenue	Intersection Realignment at East Market Street	0.1	2 lane	3 lane	Minor Arterial / Local	Yes	Yes	No	Yes	127	2,001,730
21-22	**Local**	EL-5101 DM	Lowdermilk Street Upgrade	C&G and sidewalks - Cameron St. to Holts Chapel Rd.	0.6	2 lane	2 lane	Local	Yes	Yes	No	Yes	126	Included in funding for project 21-15
21-23	**Federal**	U-2412 B	Mackay Road	Widening - High Point Rd. to Atwater Drive (part of U-2412B)	0.2	2 lane	5 lane	Collector	Yes	Yes	No	No		Under construction
21-24	**Local**	P04556	Mackay Road	Widening - Atwater Dr. to Williamsborough Ln.	0.7	2 lane	5 lane	Collector	Yes	Yes	No	No		3,922,490
21-25	**Local**		McGee Street	Edgeworth Street to Blandwood Avenue. Intersection improvements and reconstruct roadway.	0.1	N/A	N/A	Proposed Collector	Yes	No	No	Yes	127	316,330
21-26	**Local**		McGee Street/ Davie Street/ Martin Luther King Jr. (Hamburger Square)	Intersection improvements and reconstruct roadway.	N/A	N/A	N/A	Mionr Arterial	Yes	Yes	No	Yes	127	2,214,310
21-27	**State**	R-5725	NC 150 / NC 68	Intersection improvements and adding crosswalks	N/A	N/A	N/A	Other Principal Arterial	Yes	No	No	Yes	127	883,190

FIGURE 4-7
2021 Roadway Projects

2016-2021														
Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed Sidewalk	BiPed Bike	Regionally Significant?	Exempt?	Exemption Category	Project Cost
21-28	**State**		NC 62 / Randleman Road	Intersection improvements.	N/A	N/A	N/A	Minor Arterial	No	No	No	Yes	127	316,330
21-29	**State**	R-2413 A/B	NC 68 - US 220 Connector	New location - NC 68 to US 220	7.5/12.4	N/A	4 lane freeway	Interstate	No	No	Yes	No		under construction
21-30	**State**	R-2413 C	NC 68 -US 220 Connector	Widening - NC 68 / US 220 Intersection to Haw River (In conjunction with R-2309 AB)	3.9/12.4	N/A	4 lane freeway	Interstate	No	No	Yes	No		under construction
21-31	**Federal**	P-5204	Piedmont Corridor	Piedmont Corridor. Construct Safety Improvement; grade separation of McLeansville Road	N/A	N/A	N/A	Collector	No	Yes	No	Yes	126	under construction
21-32	**Local**		Pleasant Garden Road	Spur Rd/Nesbitt Rd Roundabout	N/A	N/A	N/A	Mnor Arterial	Yes	Yes	No	Yes	126	961,640
21-33	**Federal**	R-2309 AB	US 220	Widening - Horse Pen Creek Rd. to US 220-NC 68 Connector (In conjunction with R-2413)	6.3	2 lane	4 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		under construction
21-34	**State**		US 29 at NC 150	Exit ramp improvements, convert from partial clover interchange to diamond interchange	NA	NA	NA	Freeway/ Expressway	No	No	No	Yes	127	683,270
21-35	**Federal**	R-2612 B	US 421	Neelley Rd. and Williams Dairy Rd. realignment and Interchange	0.6	2 lane	2 lane	Freeway / Expressway & Minor Arterial	No	No	Yes	No		under construction
21-36	**Local**	P04500	Vandalia Road	Widening - Elm-Eugene St. to Pleasant Garden Rd.	1.4	2 lane	3 lane	Minor Arterial	Yes	Yes	No	No		5,440,870
21-37	**Federal**	U-5326	West Market Street / Guilford College Road	Intersection Improvements	N/A	5 lane	N/A	Minor Arterial	Yes	Yes	No	Yes	127	1,897,980
21-38	**Federal**	U-2524 C	Western Urban Loop	Bryan Blvd to Battleground Ave		N/A	6 lane freeway	Interstate	No	No	Yes	No		134,807,090
21-39	**State**	U-2524 D	Western Urban Loop	Battleground Ave. to Lawndale Dr.	1.5	N/A	6 lane freeway	Interstate	No	No	Yes	No		82,846,760
21-40	**State**	U-2524 D	Western Urban Loop	Lake Brandt / Cotswold Connector (Lake Brandt Rd. to Cotswold Rd. part of U-2524 D)	0.3	3 lane	3 lane	Collector	Yes	No	No	No		right of way in progress
21-41	**State**	U-2524 AE	Western Urban Loop	Interchange at High Point Rd. Relocation (construction with U-2412B)	N/A	N/A	N/A	Other Principal Arterial	No	No	Yes	No		under construction
N/A	**Various**	Various (B)	Various	Bridge Projects	N/A	N/A	N/A	Various			No	Yes	126	N/A
N/A	**Various**	Various (W, SI)	Various	Hazard Elimination Projects	N/A	N/A	N/A	Various			No	Yes	126	N/A
N/A	**Various**	Various (P)	Various	Passenger Rail Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (E)	Various	Enhancement Projects	N/A	N/A	N/A	N/A			No	Yes	126	N/A
N/A	**Various**	Various (T)	Various	Public Transportation Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (C)	Various	Congestion Mitgation and Air Quality (CMAQ) Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (C)	Various	Maintenance (roadway)	N/A	N/A	N/A	N/A			No	Yes	126	N/A

FIGURE 4-7
2021 Roadway Projects


2040 METROPOLITAN TRANSPORTATION PLAN
Highway Projects Map
2021 Projects
Legend
Existing Freeway & Interstate
Roadway Project Locations
Existing Alignment
Future Alignment
Intersection Interchange Grade Separation Project Locations
Intersection
Interchange
Grade Separation
Project Reference ID
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Map 4-5
greensboro urban area
MPO
metropolitan planning organization

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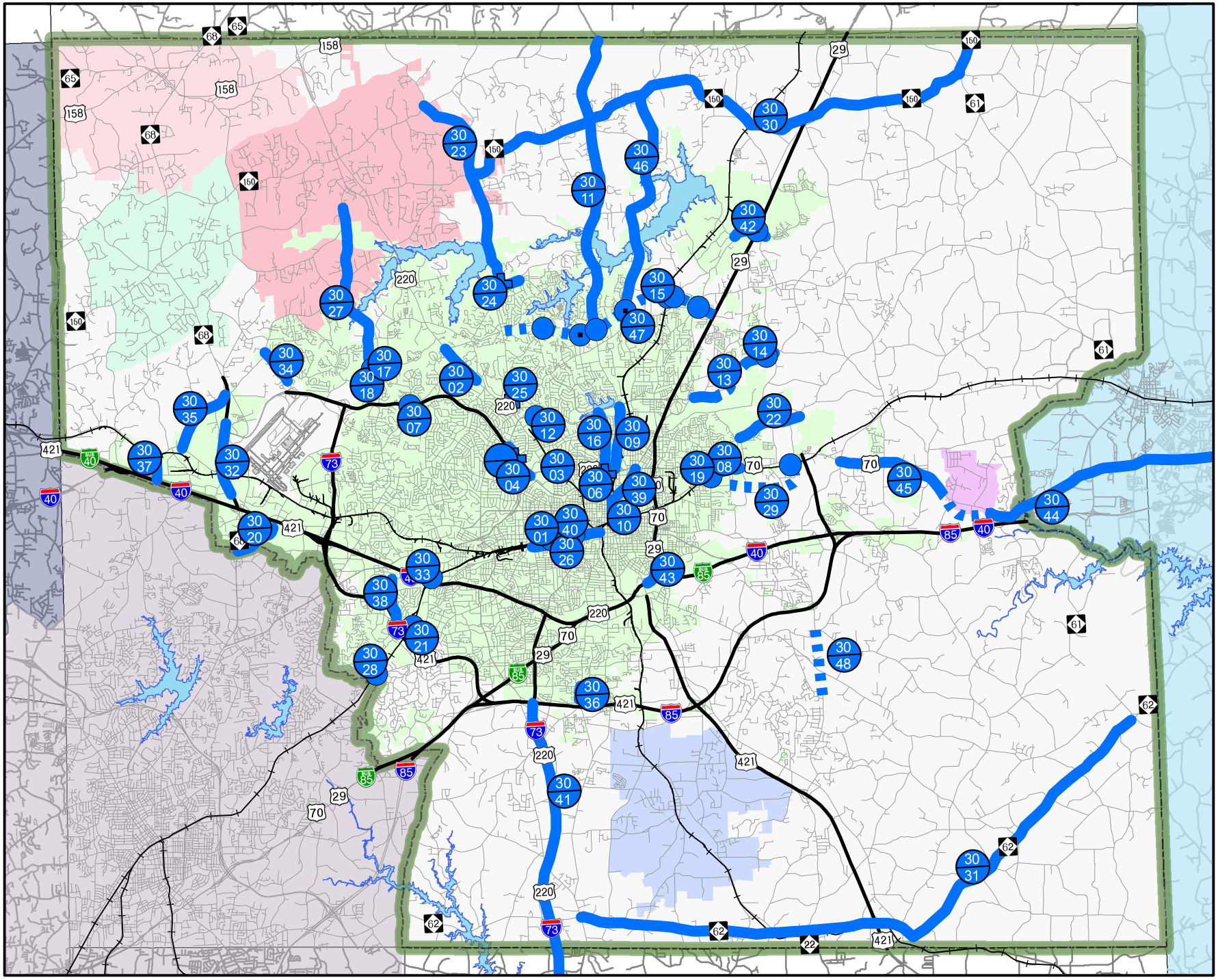
2022-2030														
Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed		Regionally Significant?	Exempt?	Exemption Category	Project Costs
									Sidewalk	Bike				
30-01	**Federal**	U-5849	Aycock Street	Railroad overpass replacement & road widening	N/A	3	5	Mionr Arterial	Yes	Yes	No	No		3,320,940
30-02	**Federal**		Battleground Avenue	Widening - Cotswold Ave. to Westridge Road	1.4	5 lane	6 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		23,925,530
30-03	**Local**		Battleground Avenue	Widening- Mill Street to Northwood Street	0.2	5 lane	6 lane	Minor Arterial	Yes	No	Yes	No		450,240
30-04	**Federal**	U-5852	Benjamin Pkwy / Bryan Blvd	Widening - Holden Road to Wendover Avenue	1.2	5 lane	6 lane	Freeway / Other Principal Arterial	Yes	Yes	Yes	No		24,161,460
30-05	**Local**		Benjamin Pkwy / Cornwallis Dr	Intersection Improvement	N/A	N/A	N/A	Other Principal Arterial / Major Collector	Yes	No	No	Yes	127	360,190
30-06	**Local**		Bessemer Ave / Elm St	Intersection Improvement	N/A	N/A	N/A	Major Collector / Minor Arterial	Yes	Yes	No	Yes	127	360,190
30-07	**Local**		Bryan Boulevard/New Garden/Horse Pen Creek Road	Interchange Improvements. Design and construct new ramp form westbound New Garden Road to westbound Bryan Boulevard.	N/A	N/A	N/A	Other Freeway	No	No	No	Yes	127	3,601,890
30-08	**Local**		Burlington Road	Widening - Franklin Blvd. to Ward Rd.	0.4	2 lane	3 lanes	Minor Arterial	Yes	Yes	No	No		4,815,720
30-09	**State**	U-5851	Church Street	Widening - Wendover Ave. to Cone Blvd.	1.8	3 lane	4 lane divided	Collector	Yes	Yes	No	No		28,402,680
30-10	**Local**	Bond Project	Church Street	Streetscape, Washington St. to Summit Ave.	0.4	N/A	N/A	Collector	Yes	Yes	No	Yes	126	9,004,720
30-11	**State**		Church Street	Add Shoulders - Urban Loop to MPO Boundary (Rockingham County line)	7.2	N/A	N/A	Minor Arterial/ Collector	No	Yes	No	Yes	126	7,780,080
30-12	**Local**		Cone Boulevard / Lawndale Drive	Interchange Improvements.	N/A	N/A	N/A	Minor Arterial	Yes	No	No	Yes	127	18,009,440
30-13	**Local**		Cone Boulevard Extension (Phase II)	Nealtown Rd. Extension to Hines Chapel Rd. (includes widening of existing and new location)	2.0	2	4 lane divided	Minor Arterial	Yes	Yes	No	No		32,514,230
30-14	**Federal**	U-2525 D	Cone Boulevard Extension Interchange	Interchange with I-840/I-785	N/A	N/A	N/A	Interstate	No	No	Yes	No		27,014,150
30-15	**State**	U-2525 C	Eastern Urban Loop	Lawndale Dr. to US 29	5.8 / 12.6	N/A	6 lane freeway	Interstate	No	No	Yes	No		305,881,250
30-16	**Local**		Elm Street	Widening - Wendover Ave. to Cone Blvd.	1.6	3 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		22,639,660
30-17	**Local**		Fleming Rd / Lewiston Rd Connector	New location - Fleming Rd. to Lewiston Rd.	0.6	N/A	4 lane divided	Collector	Yes	Yes	No	No		27,014,150
30-18	**State**	U-2524 F	Fleming /Lewiston Interchange	Interchange with I-840	N/A	N/A	N/A	Interstate	No	No	Yes	No		27,014,150
30-19	**Federal**	P-xxxx	Franklin Boulevard	Railroad grade separation	N/A	3 lane	3 lane	N/A	Yes	Yes	No	Yes	126	15,308,020
30-20	**Federal**	U-4015 A	Gallimore Dairy Road	NC 68 to south of I-40	1.6	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		14,677,690
30-21	**Local**		Hilltop Road	Railroad grade separation	N/A	N/A	N/A	N/A	Yes	Yes	No	Yes	126	27,014,150
30-22	**Local**		Huffine Mill Road	Widening - Penry Road to Eastern Urban Loop	1.8	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		39,440,660
30-23	**State**		Lake Brandt Road	Add Shoulders - Plainfield Road to Town Limits.	5.5	N/A	N/A	Minor Arterial/ Collector	No	Yes	No	Yes	126	9,905,190
30-24	**Local**		Lake Brandt Road/ Air Harbor Road	Intersection Improvement.	0.5	N/A	N/A	Collector	Yes	No	No	Yes	127	9,783,720
30-25	**Federal**	U-5812	Lawndale Drive / Pisgah Church Road	Intersection Improvement.	N/A	N/A	N/A	Minor Arterial	Yes	Yes	No	Yes	127	1,674,880
30-26	**Local**	Bond Project	Lee Street	Streetscape - Coliseum Boulevard to Eugene St.	1.8	N/A	N/A	Other Principal Arterial	Yes	Yes	No	Yes	126	13,512,480
30-27	**Federal**		Lewiston Road / Pleasant Ridge Road	Widening - North of Urban Loop to Summerfield Road	5.0	2 lane	4 lane divided	Collector	Yes	Yes	No	No		49,567,370
30-28	**Local**		Mackay Road	Railroad grade separation	N/A	N/A	N/A	N/A	Yes	Yes	No	Yes	126	27,014,150
30-29	**Federal**	P-xxxx	Naco Road Extension	New Location - O'Ferrell St. to US 70	1.9	N/A	3 lane	N/A	Yes	Yes	No	No		12,282,430
30-30	**State**		NC 150	Add Shoulders - Lake Brandt Road to Poley Road.	15.5	N/A	N/A	Majpr Collector	No	Yes	No	Yes	126	16,748,770
30-31	**State**		NC 62	Add Shoulders - Groometown Road to NC 61	21.5	N/A	N/A	Minor Arterial	No	Yes	No	Yes	126	23,232,170
30-32	**Federal**	U-5607	NC 68	Widening - Triad Center Drive to Pleasant Ridge Road	2	4 lane	6 lane divided	Other Principal Arterial	No	No	Yes	No		42,542,790

FIGURE 4-8
2030 Roadway Projects

2022-2030														
Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed		Regionally Significant?	Exempt?	Exemption Category	Project Costs
									Sidewalk	Bike				
30-33	**Federal**		Norwalk Street Extension	New location - Existing Norwalk St. to Boston St. (includes RXR grade separation & improvements at Wendover)	0.3	N/A	3 lane	Proposed Collector	Yes	Yes	No	No		12,325,660
30-34	**Local**		Old Oak Ridge Road	Widening- Muirfield to Pleasant Ridge Road	1.2	2 lane	3 lane	Minor Arterial	Yes	No	No	No		5,402,830
30-35	**Local**		Pleasant Ridge Road	Widening - West Market St. to NC 68	2.4	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		36,652,800
30-36	**State**	U-5850	Randleman Road	Widening - Glendale Drive to Elmsley Drive	0.6	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		3,886,440
30-37	**Local**		Sandy Ridge Road	Widening - I-40 to West Market Street	1.0	2 lane	6 lane divided	Collector	Yes	Yes	No	No		37,643,320
30-38	**Local**		Stanley Road	Widening - Koger Boulevard to Hilltop Road	1.1	2 lane	5 lane	Collector	Yes	Yes	No	No		11,581,870
30-39	**Local**	Bond Project	Summit Avenue	Streetscape - Murrow Boulevard to Wendover Avenue	1.0	N/A	N/A	Minor Arterial	Yes	Yes	No	Yes	126	18,009,440
30-40	**Federal**		Tate Street	Railroad grade separation	N/A	N/A	N/A	N/A	Yes	Yes	No	Yes	126	18,009,440
30-41	**Federal**	I-4921	US 220 (Future I-73/I-74)	Asheboro to I-85; Upgrade to Interstate Standards	6.5/ 23	N/A	N/A	Freeway/Expressway	Yes	Yes	No	Yes	126	47,400,830
30-42	**Federal**	R-4707	US 29	Reedy Fork Parkway / US 29 Interchange (includes improvements to Summit Ave. and Reedy Fork Parkway)	0.0	4 lane freeway	4 lane freeway	Freeway/Expressway	Yes	Yes	Yes	No		79,464,830
30-43	**Federal**	U-5754	US 29/ US 70/US 220	Widen southbound exit ramp to two lanes; with northbound on ramp to two lanes and replace I-40/ I-85 Bus overpass.	0.5	1 lane	2 lanes	Freeway/Expressway	No	No	Yes	No		30,731,300
30-44	**Federal**	R-2910	US 70	Widening - Rock Creek Dairy Road to MPO Boundary (remaining portion in Burlington-Graham MPO)	0.32 / 5.4	2 lane	4 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		2,247,580
30-45	**Federal**	U-2581 B	US 70	Widening - Mt Hope Church Rd. to Rock Creek Dairy Rd.	5.2	2 lane	4 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		39,980,950
30-46	**State**		Yanceyville Road	Add Shoulders - Lees Chapel Road to NC 150	3.0	N/A	N/A	Collector	No	Yes	No	Yes	126	3,241,700
30-47	**Local**		Yanceyville Road	Widening - Lees Chapel to Urban Loop Interchange	0.1	2 lane	4 lane divided	Collector	Yes	Yes	No	No		1,350,710
30-48	**State**		Youngs Mill / Southeast School Connector	New location - Millpoint Rd. to Southeast School Rd.	1.2	N/A	2 lane	Collector	Yes	Yes	No	No		36,249,390
N/A	**Various**	Various (B)	Various	Bridge Projects	N/A	N/A	N/A	Various			No	Yes	126	N/A
N/A	**Various**	Various (W, SI)	Various	Hazard Elimination Projects	N/A	N/A	N/A	Various			No	Yes	126	N/A
N/A	**Various**	Various (P)	Various	Passenger Rail Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (E)	Various	Enhancement Projects	N/A	N/A	N/A	N/A			No	Yes	126	N/A
N/A	**Various**	Various (T)	Various	Public Transportation Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (C)	Various	Congestion Mitgation and Air Quality (CMAQ) Projects	N/A	N/A	N/A	N/A			No	No		N/A
N/A	**Various**	Various (C)	Various	Maintenance (roadway)	N/A	N/A	N/A	N/A			No	Yes	126	N/A

FIGURE 4-8
2030 Roadway Projects


2040 METROPOLITAN TRANSPORTATION PLAN
Highway Projects Map
2030 Projects
Legend
Existing Freeway & Interstate
Roadway Project Locations
Existing Alignment
Future Alignment
Intersection Interchange Grade Separation Project Locations
Intersection
Interchange
Grade Separation
Project Reference ID
30 # 2030
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Map 4-6
greensboro urban area MPO metropolitan planning organization

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2031-2040

Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed		Regionally Significant?	Exempt?	Exemption Category	Project Costs
									Sidewalk	Bike				
40-01	**Local**		Alamance Church Road	Widening - City Limits to I-85	1.2	2 lane	3 lane divided	Minor Arterial	Yes	Yes	No	No		8,733,280
40-02	**Local**		Bass Chapel Rd / Elm St	Widening - Air Harbor Rd. to Old Lake Jeanette Rd.	2.0	3 lane	4 lane divided	Collector	Yes	Yes	No	No		41,083,200
40-03	**Federal**		Battleground Avenue Crossover	Reconstruction - Cornwallis Dr. to Northwood Street	1.0	5 lane	6 lane divided	Other Principal Arterial	Yes	No	Yes	No		39,987,540
40-04	**Federal**		Benbow Road	Railroad grade separation	N/A	N/A	N/A	N/A	Yes	Yes	No	Yes	126	9,996,890
40-05	**Local**		Burnt Poplar Road	Widening - Swing Rd. to Regional Rd.	2.9	2 lane	3 lane	Local	Yes	Yes	No	No		31,046,200
40-06	**Local**		Church Street	Widening - Cone Blvd. to Old Lake Jeanette Road	2.2	3 lane	4 lane divided -5	Collector	Yes	Yes	No	No		36,288,700
40-07	**State**		Clapps Farm Road	Widening - McConnell Rd. to Mt. Hope Church Rd.	2.0	N/A	4 lane divided	Local	Yes	Yes	No	No		35,498,280
40-08	**Federal**		East Market Street	Railroad underpass replacement	N/A	N/A	N/A	N/A	Yes	Yes	No	Yes	126	79,975,090
40-09	**Federal**		Hamburg Mill	Add shoulder. US 220 to Pleasant Ridge Road	1.4	N/A	N/A	Local	No	Yes	No	Yes	126	839,740
40-10	**Local**		Hicone Road	Widening - Summit Ave. to Hines Chapel Rd.	3.3	2 lane	5 lane	Minor Arterial	Yes	Yes	No	No		42,975,950
40-11	**Local**		Hicone Road Extension	New location - Existing Hicone Rd. to Lee's Chapel Rd.	0.6	N/A	3 lane	Minor Arterial	Yes	Yes	No	No		7,714,930
40-12	**Local**		Holts Chapel Road Extension	Widening & New Location - Franklin Blvd. to Naco Rd Extension	2.3	2 lane / N/A	3 Lane	Collector	No	Yes	No	No		42,376,130
40-13	**State**		McConnell Road	Widening - Beaumont Ave to I-40	1.6	N/A	4 lane divided	Collector	Yes	Yes	No	No		54,497,690
40-14	**Federal**		NC 68	Widening - Leaborne Rd. to Rockingham County Line	8.9	2	4 lane divided	Other Principal Arterial	No	No	Yes	No		53,316,730
40-15	**Federal**		NC 68 / I-40	Interchange Reconfiguration	N/A	N/A	N/A	Minor Arterial	No	No	No	Yes	127	69,181,120
40-16	**Federal**		NC 150	Add Shoulders - Town Limits to US 220; US 220 to Eversfield Road.	7.5	2 lane	3 lane	Minor Arterial/ Major Collector	No	Yes	No	Yes	126	148,151,190
40-17	**Local**		Nealtown Road Extension	New location - East Cone Blvd. to McKnight Mill Rd.	2.0	N/A	3 lane	Proposed Collector	Yes	Yes	No	No		34,074,720
40-18	**State**	U-5003	Pegg / Thatcher Connector	Widening - Gallimore Dairy Rd. to Market St. (includes grade separation over I-40)	2.1	N/A	4 lane divided	Collector	Yes	Yes	No	No		93,845,440
40-19	**State**		Pleasant Ridge Road	Widening - Old Oak Ridge Rd. to Lewiston Rd.	3.2	2 lane	3 lane	Minor Arterial	Yes	Yes	No	No		40,510,050
40-20	**Local**		Pleasant Ridge Road	Widening - NC 68 to Old Oak Ridge Rd.	1.0	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		20,209,710
40-21	**Federal**		Pleasant Ridge Road /Summerfield Road	Intersection Improvement. Construct Roundabout.	N/A	N/A	N/A	Minor Arterial	Yes	Yes	No	Yes	126	1,999,380
40-22	**Federal**		Sandy Ridge Road Extension	New location - West Market St. to Marshall Smith Road	1.9	N/A	4 lane divided	Minor Arterial	Yes	Yes	No	No		46,918,720
40-23	**Federal**		South Dudley Street	Railroad grade separation	N/A	N/A	N/A	N/A	No	No	No	Yes	126	39,987,540
40-24	**Federal**		South English Street	Railroad grade separation	N/A	N/A	N/A	N/A	No	No	No	Yes	126	39,987,540
40-25	**Local**		Summit Avenue	Widening - McKnight Mill Rd. to Bryan Park Rd.	4.7	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		82,225,060
40-26	**Federal**		US 29	Upgrade to Interstate Standards, S. of Reedy Fork Parkway to Rockingham Co. line	5.5	4 lane freeway	6 lane freeway	Freeway/ Expressway	No	No	Yes	No		23,518,010
40-27	**State**	R-2577 C	US 158	Widening & new location - Anthony Rd to US 220 (includes Bypass; A & B Sections in Winston-Salem MPO)	6.8 / 18.8	2 lane	4 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		80,508,260
40-28	**State**	R-2580	US 158	Widening - US 220 to Rockingham Co Line (remaining portion in Rockingham Co.)	1.6/ 15	2 lane	4 lane divided	Other Principal Arterial	Yes	Yes	Yes	No		80,508,260
40-29	**State**		Vandalia Road Extension	New location - Pleasant Garden Rd. to Alamance Church Rd. includes interchange with J M Hunt Jr Expressway	2.5	N/A	4 lane divided	Minor Arterial	Yes	Yes	No	No		73,663,190
40-30	**Federal**		Wendover Avenue / I-40	Interchange Reconfiguration	N/A	N/A	N/A	Other Principal Arterial	No	No	No	Yes	127	53,316,730
40-31	**Federal**	U-3617	West Market Street (E. Mountain Street)	Widening- Bunker hill Road to Forsyth County Line	1.5/3/6	2 lane	4 lane divided	Minor Arterial	Yes	Yes	No	No		35,274,350
40-32	**State**		Wiley Davis Road	Widening - Groometown Road to Clair Place	1.0	2 lane	4 lane divided	Minor Arterial	No	No	No	No		18,287,640
40-33	**State**		Williams Dairy Road/ Millpoint Road Connector	New location - Millpoint Rd. to Southeast School Rd.	0.8	N/A	2 lane	Collector	Yes	Yes	No	No		8,754,610
40-34	**State**		Youngs Mill Rd. Extension	New location - McConnell Rd. to US 70 (includes Railroad Grade Seperation)	1.0	N/A	4 lane divided	Collector	Yes	Yes	No	No		114,537,660
N/A	**Various**	Various (B)	Various	Bridge Projects	N/A	N/A	N/A	Various			N/A	Yes	126	N/A
N/A	**Various**	Various (W, SI)	Various	Hazard Elimination Projects	N/A	N/A	N/A	Various			N/A	Yes	126	N/A
N/A	**Various**	Various (P)	Various	Passenger Rail Projects	N/A	N/A	N/A	N/A			N/A	No		N/A
N/A	**Various**	Various (E)	Various	Enhancement Projects	N/A	N/A	N/A	N/A			N/A	Yes	126	N/A
N/A	**Various**	Various (T)	Various	Public Transportation Projects	N/A	N/A	N/A	N/A			N/A	No		N/A
N/A	**Various**	Various (C)	Various	Congestion Mitgation and Air Quality (CMAQ) Projects	N/A	N/A	N/A	N/A			N/A	No		N/A
N/A	**Various**	Various (C)	Various	Maintenance (roadway)	N/A	N/A	N/A	N/A			N/A	Yes	126	N/A

FIGURE 4-9
2040 Roadway Projects

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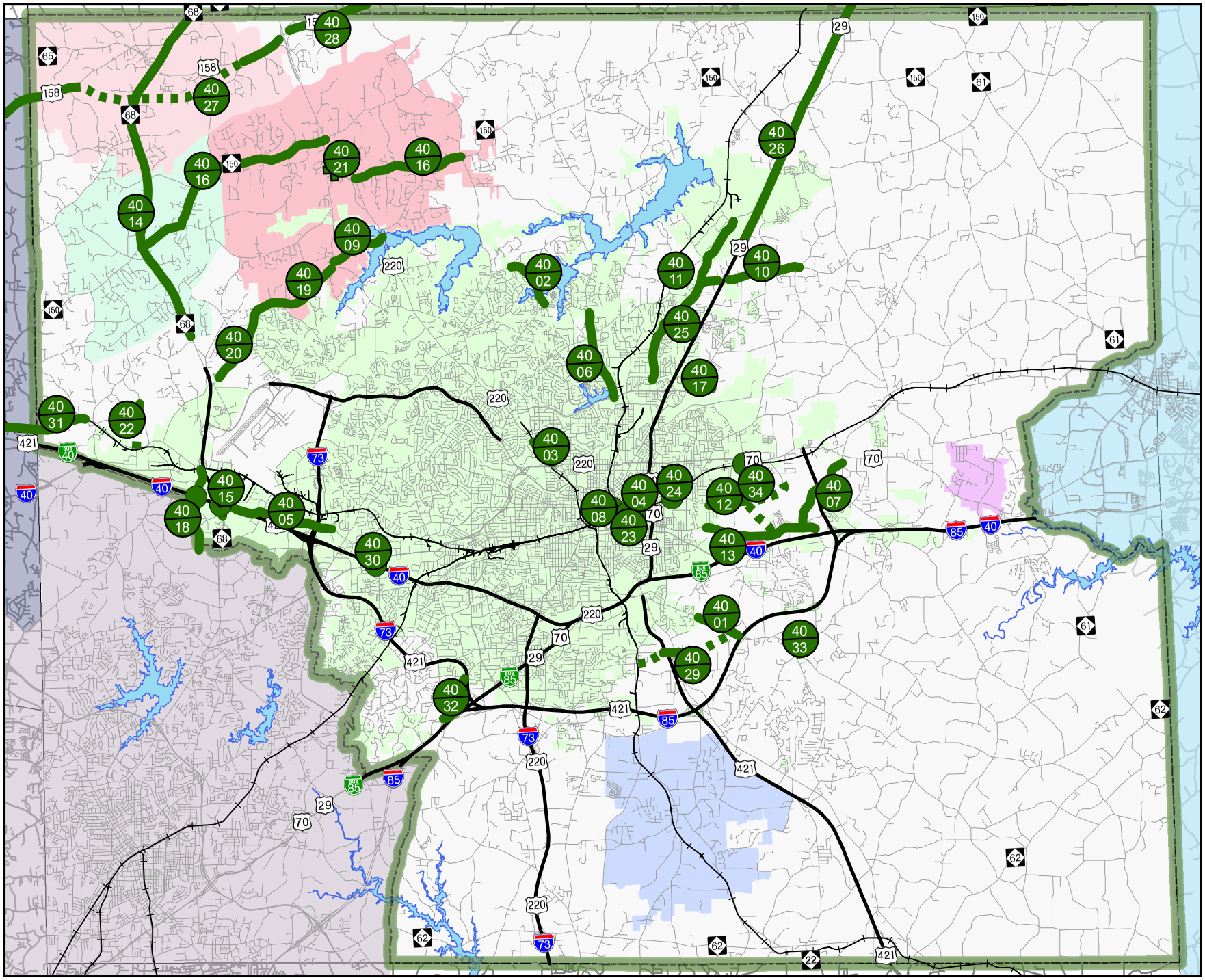

2040 METROPOLITAN TRANSPORTATION PLAN

Highway Projects Map

2040 Projects

Legend

Existing Freeway & Interstate

Roadway Project Locations

Existing Alignment

Future Alignment

Intersection Interchange Grade Separation Project Locations

Intersection

Interchange

Grade Separation

Project Reference ID

40 # 2040

N W E S

0 0.5 1 2 Miles

Map 4-7

greensboro urban area MPO metropolitan planning organization

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Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed		Estimated Project Costs
									Sidewalk	Bike	
Beyond 2040											
IL -01	**Federal**	I-4924	Airport Connector (I-73/I-74)	New location - Forsyth Co. Line to NC 68	4.8	N/A	4 lane divided	Other Principal Arterial	No	No	$39,600,000
IL-02	**State**		Bishops Rd. / Vernondale Rd. Connector	South Holden Rd. to Rehobeth Church Rd.	0.5	2 lane	3 lane	Collector	Yes	Yes	$4,424,200
IL-03	**Federal**		Brown Summit Road at US 29	Summit Ave. to Brangu St. and Interchange	N/A	N/A	4 lane divided	Minor Arterial	Yes	No	$35,237,000
IL-04	**State**		Burnetts Chapel / Steeple Chase / Hagen Stone Park Connector	Burnetts Chapel Rd. to Steeple Chase Rd.; Steeple Chase Rd. to Hagan Stone Park Rd.; Hagan Stone Park Rd. to Company Mill Rd.	5.2	2 lane	2 lane	Proposed Minor Arterial	Yes	Yes	$35,225,000
IL-05	**Federal**		Carmon Road Extension	Knox Rd. to McLeansville Rd.	1.0	N/A	2 lane	Collector	Yes	No	4,200,000
IL-06	**State**		Eversfield Road Extension	New location - Oak Ridge Rd. to Brookbank Rd.	1.4	N/A	2 lane	Proposed Collector	Yes	Yes	$5,599,000
IL-07	**State**		High Rock Road Extension	US 70 to Frieden Church Rd. (improve existing and new location)	3.1	2 lane	2 lane	Collector	Yes	Yes	$20,402,000
IL-08	**State**		South Holden Road	Widening & new location - Glendale Drive to Kivett Road	2.6	2 lane	4 lane divided	Minor Arterial	Yes	Yes	$20,177,000
IL-09	**State**		Mt. Hope Church Rd. Extension	New location - McPherson-Clay Rd. to Alamance Church Rd.	0.4	N/A	2 lane	Collector	Yes	Yes	$1,497,000
IL-10	**Local**		Rankin Mill Rd. / Flemingfield Rd. Connector	New location - South of Keeley Rd. to Huffine Mill Rd.	0.7	2 lane	3 lane	Minor Arterial	Yes	Yes	$4,069,000
IL-11	**State**		Ritters Lake Road Extension	New location - Elm-Eugene St. to Randleman Rd.	0.4	2 lane	3 lane	Minor Arterial	Yes	Yes	$4,817,000
IL-12	**State**		Turner Smith Road Extension	New location - McLeansville Rd. eastward to Existing Turner Smith Rd.	0.5	N/A	3 lane	Proposed Collector	Yes	Yes	$3,409,000
Beyond 2040											
Map ID	Funding	TIP or Local ID	Facility	Description / Extents	Length (miles)	Existing # Lanes	Horizon Year # Lanes	Federal Functional Class	BiPed		Project Costs
									Sidewalk	Bike	
N/A	**Various**	Various (T)	Various	Public Transportation Projects	N/A	N/A	N/A	N/A			N/A

FIGURE 4-10
Illustrative Roadway Projects

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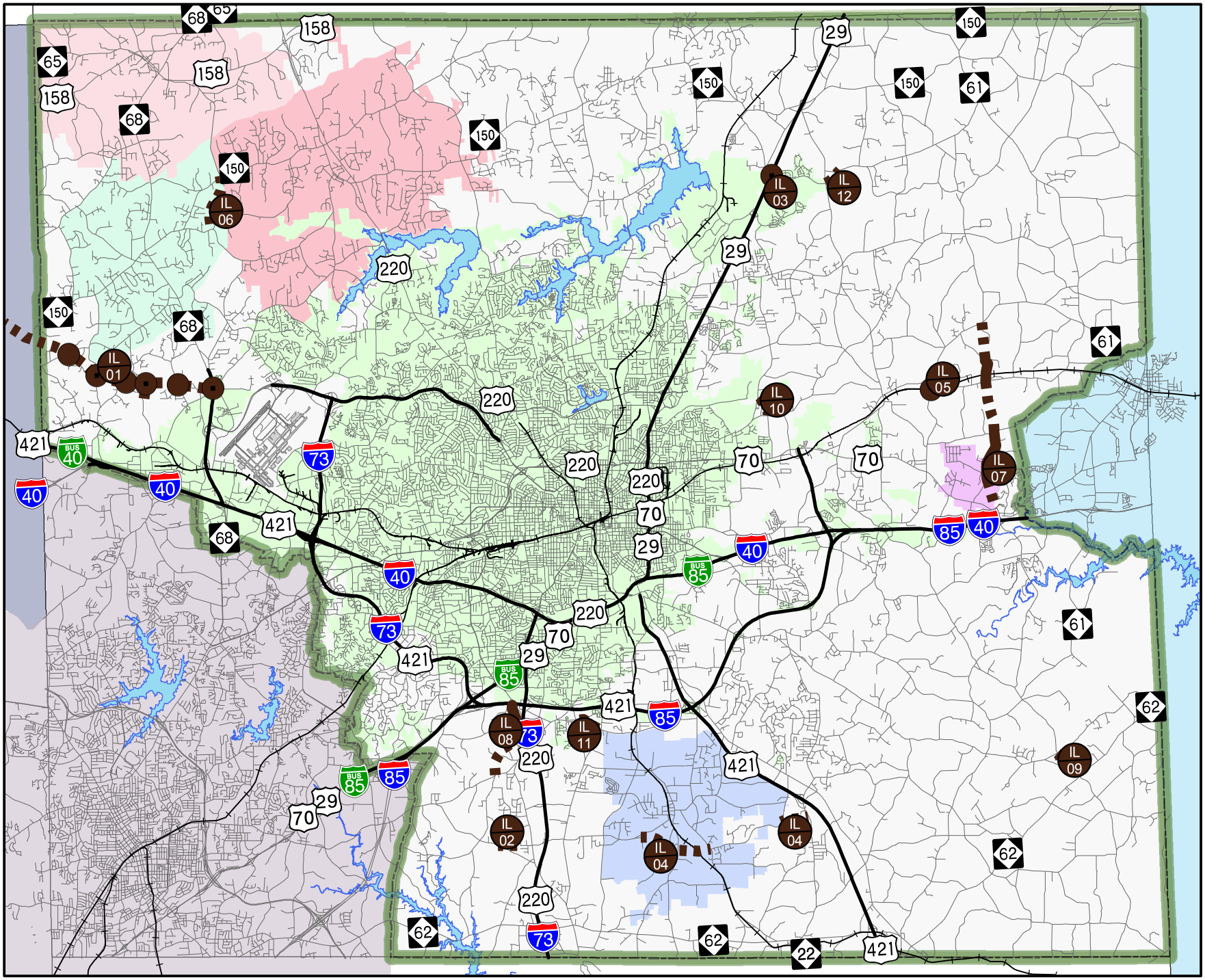

2040 METROPOLITAN TRANSPORTATION PLAN

Highway Projects Map

Illustrative Projects

Legend

Existing Freeway & Interstate

Roadway Project Locations

Existing

Proposed

Interchange Grade Separation Project Locations

Interchange Complete

Grade Separation Complete

Project Reference ID

IL # Illustrative

Map 4-8

greensboro urban area MPO metropolitan planning organization

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Other Significant Transportation Plans

Several types of transportation plans are prepared at the national, state, and local level. The Strategic Transportation Corridors and the Intrastate System are two important plans that impact the Urban Area's transportation system..

Strategic Transportation Corridors

The Strategic Transportation Corridors (STC) is an update to the Strategic Highway Corridor (SHC) concept which was developed by NCDOT in collaboration with the Department of Commerce (NCDOC) and Department of Environment and Natural Resources (NCDENR). The STC was adopted by the NCDOT Board of Transportation in March 2015 to support the 25-Year Vision for North Carolina plan. The plan represents a network of 25 existing multimodal high priority strategic transportation corridors which will form the state's core network of highly performing facilities for movement of high volumes of people and freight. The policy establishes that preservation of those facilities at a consistently high level of functionality, in terms of classification, condition, and service, will guide long-term planning at statewide, regional, and corridor levels and should be considered the state's highest priority when such corridors are being analyzed within the framework of regional or local transportation and land use plans.

The Strategic Corridors Goals include:

1. System Connectivity: Provide essential connections to national transportation networks critical to interstate commerce and national defense.
2. Mobility: Facilitate high volume inter-regional movements of people and goods across the state.
3. Economic Prosperity: Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers.

Figure 4-13 is the Strategic Transportations Corridors Network for Division 7 which includes the Greensboro MPO Area. Several roadways in the Greensboro area have been identified.

Improvements for corridors identified on the SHC Plan included in the MTP are as follows:

- **US 220 North:** (State Project R-2309AB) - Widen facility to multi-lane.
- **Norfolk Southern Railroad:** (State Project P-5700) - Construct Parking Lot and storage for containers.
- **US 220 South:** (State Project I-4921) - Upgrade to interstate standards.
- **US 421 South:** (State Project R-2612) - Make full control of access and construct interchanges at Neelley Road (under construction) and Woody Mill Road (complete).
- **US 29 North:** (State Project R-4707)- Upgrade to interstate standards and reconfigure interchange at Reedy Fork Parkway.

The Strategic Transportations Law & the Repeal of the North Carolina Intrastate System

Between 1989 and 2013 North Carolina's General Statue 136-178 held that "the Intrastate System is established to provide high speed, safe travel service throughout the State. It connects major population centers both inside and outside the State and provides safe, convenient, through travel for motorists. It is designed to support statewide growth and development objectives and to connect to major highways of adjoining states. All segments of the routes in the Intrastate System shall have at least four travel lanes except those for which projected traffic volumes and environmental considerations dictate fewer lanes. When warranted, segments of the Intrastate System shall have vertical separation or interchanges at crossings, more than four travel lanes, or bypasses. Access to a route in the Intrastate System is determined by travel service and economic considerations."

Roadways in the Greensboro Urban Area included on the Intrastate System included I-85, I-40, US 29, US 220, US 421, US 158, NC 68/US 220, and the Urban Loop. Many roadway improvements were made under the Intrastate and Urban Loop Programs during this time.

However, the Strategic Transportations Investment law, enacted in 2013 repealed the Intrastate Projects and the Urban Loop program and made the majority share of the state Highway Trust Fund that was dedicated to those programs available for projects across the state through a needs based project selection process subject to the provisions of the STI law. The STI law established funding tiers (Statewide, Regional, and Division). Statewide tier includes interstates and major US and NC routes, as well as class 1 railroads (Norfolk Southern) and the PTI Airport. Regional tier includes other US and NC routes as well as services operated by PART. Division Needs tier includes everything else, including all other functionally classified roadways, GTA service, individual freight rail intermodal facilities , passenger rail, or transit facilities. 40% of STI dollars are dedicated to the Statewide Tier,

30% to the Regional Tier, and 30% to Division Needs. Overall, the STI law has enabled NCDOT to achieve a considerably more effective mix of projects in the FY 2016-2025 Transportation Improvement Program. Even though the Department has not yet been able to increase its funding base, through the STI it has been able utilize that funding base more effectively.

The Strategic Transportation Corridors Plan and the Strategic Transportation Investment tiers play an integral role in determining transportation priorities. Many projects are listed in **Figures 4-6 through 4-9**, both existing and recommended, for the Greensboro Urban Area through 2040. However, rising roadway construction costs have narrowed the list of projects NCDOT is able to fund. Therefore, plans like the Strategic Transportation Corridors and Strategic Transportation Investment tiers assist in determining priorities that not only enhance Urban Areas transportation system, but also the transportation system for North Carolina.

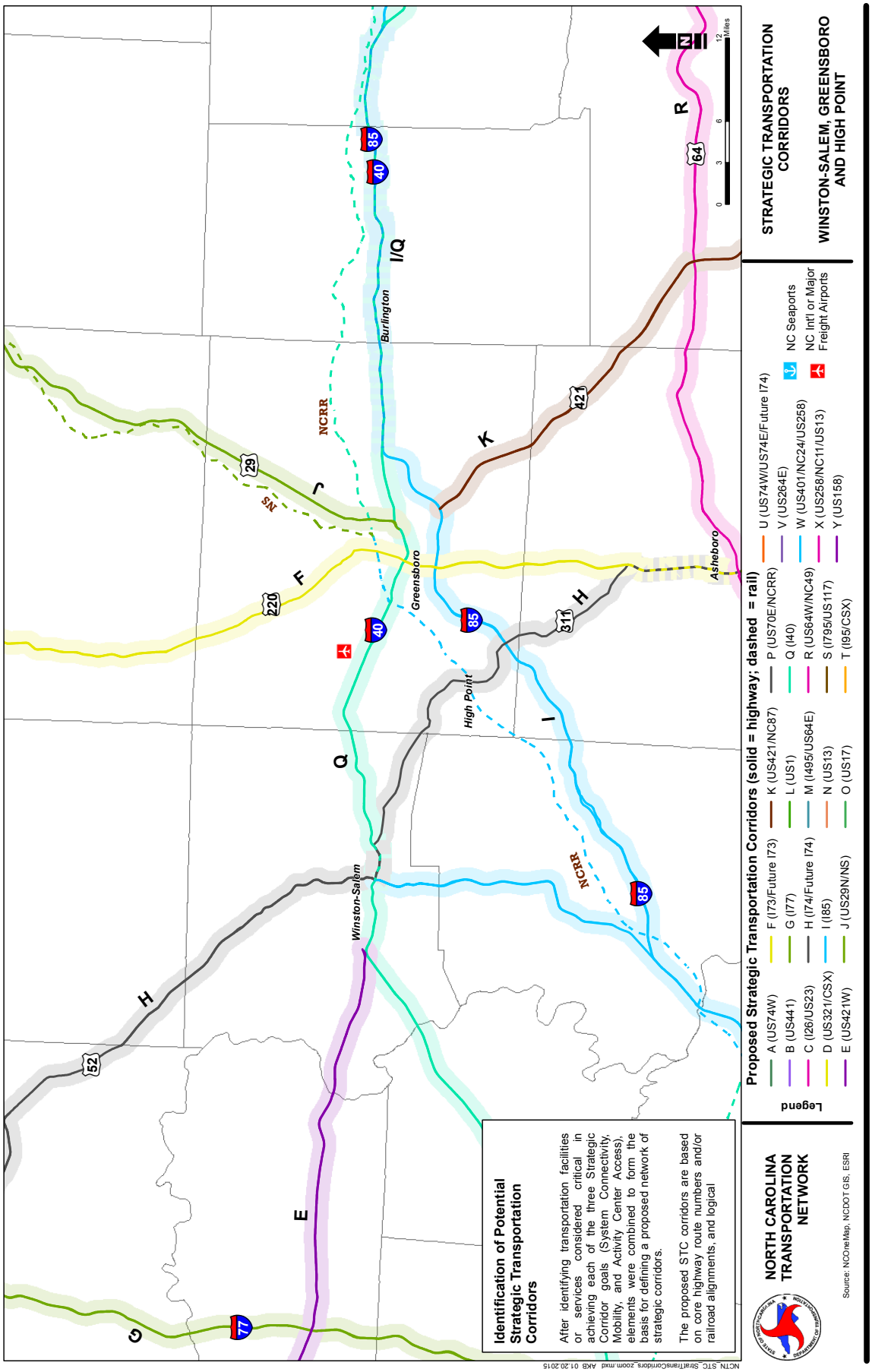

FIGURE 4-11
Division 7 Strategic Transportation Corridors

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