GOLDSBORO

URBAN AREA 2045 MTP

GOLDSBORO
BE MORE DO MORE SEYMOUR

Kimley»Horn

September 2019 DRAFT

Acknowledgements

The Goldsboro Urban Area 2045 Metropolitan Transportation Plan (2045 MTP) is the result of a collaborative process involving the talents and efforts of the Steering Committee, an extensive list of stakeholders, local staff, elected officials, and the North Carolina Department of Transportation and Federal Highways Administration. In addition, the contributions from the residents of the City of Goldsboro, Village of Walnut Creek, Town of Pikeville, and Wayne County provided invaluable feedback during the planning process.

CHAPTER 1

INTRODUCTION

Chapter 1: Introduction

The Goldsboro Urban Area's 2045 Metropolitan Transportation Plan (MTP) defines the vision for creating a regional transportation system that accommodates the current mobility needs of its citizens while looking to the next 25 years to anticipate where needs may arise. Residents and visitors alike rely on transportation to access education, health care, and jobs, while cities and industries rely on a functional network to keep the region moving. Ultimately the 2045 MTP offers strategies to guide multimodal improvements to the region's transportation network.

Transportation Planning

Transportation planning is vital to the success of the transportation system of a region. The Goldsboro MTP serves as a blueprint for guiding transportation investments, directing federal, state, and local dollars towards projects that the community needs and values.

On a broader level, the MTP is governed by the Fixing America's Surface Transportation Act (FAST Act), transportation legislation that ensures that the plan meets federal requirements: strengthening America's highways, establishing a performance-based program, creating jobs and supporting economic growth, supporting the United States Department of Transportation's (USDOT) aggressive safety agenda, streamlining Federal Highway Administration (FHWA) transportation programs, accelerating project delivery, and promoting innovation. The FAST Act legislation extends through 2020. The ten federal planning factors listed below directly influence the goals and objectives of the 2045 MTP, which in turn guided project selection and evaluation.

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety of the transportation system for motorized and nonmotorized users.
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- Increase the accessibility and mobility of people and for freight.
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements, and state and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.
- Improve the resiliency and reliability of the transportation system and reduce or mitigate storm-water impacts of surface transportation.
- Enhance travel and tourism.

Defining Vision and Goals

In order to develop a plan that reflects the region's intentions throughout its development, it is important to develop a clear and concise series of vision and goals. The vision and goals express the needs and values of the Goldsboro region established in the previous MTP and refined during the first round of public engagement. These goals are further vetted against the planning factors and performance measurement areas defined through the FAST Act. The series of goals create a Goldsboro region-specific lens and framework for the entirety of the 2045 MTP planning process.

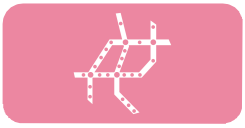
The vision and goals are the results of the collaboration between the MTP Steering Committee, the MPO Transportation Technical Committee, the MPO Transportation Advisory Committee, and the public. The vision and goals help establish project priorities within the 2045 MTP.

Vision Statement

The 2045 Metropolitan Transportation Plan will provide a safe, efficient, and sustainable regional multimodal transportation system that meets the diverse needs of the Goldsboro area's residents, businesses, and visitors.

Goals and Objectives

ACCESSIBILITY



Ensure that roads provide safe access points to local businesses to increase traveler safety and network efficiency.

CONNECTIVITY

Provide a well-connected transportation network for automobiles, bicycles, and pedestrians.

ECONOMIC DEVELOPMENT

Support regional economic development with a transportation system that makes it easier to move people and goods within and through the region and promotes overall job growth.

EFFICIENCY

Ensure the transportation system benefits form efficiency in coordinated policy and technology decisions.

ENVIRONMENT

Preserve and enhance the Goldsboro region's valued places and environment to provide a resilient transportation system.

MAINTENANCE

Emphasize preservation of the existing network that maximizes benefits to the transportation system while minimizing costs.

SAFETY

Limit crashes in the region and provide safe facilities for bicyclists and pedestrians.

SECURITY

Provide safe access to evacuation routes and Seymour Johnson Air Force Base, while maintaining a flexible transportation system that aids the response to and recovery from natural and man-made disasters.

Public Outreach

Public involvement – whether through direct or indirect contact with citizens, stakeholders, elected officials, and other community representatives – is an important part of successful transportation planning. Fully understanding the community's transportation vision and the dynamics involved in achieving it requires a collaborative approach. As a result, local staff and the project team reached out to the community throughout the planning process in a variety of ways.

Steering Committee

A 14-person steering committee, composed of staff from member jurisdictions, Seymour Johnson Air Force Base, and local transit and transportation agencies met several times throughout the planning process. Committee members had the opportunity to:

- Provide direction for the development of the plan
- Establish plan goals
- Share local knowledge of transportation deficiencies and needs
- Share public engagement opportunities with constituents
- Review the plan's final content

Stakeholder Interviews

Information was gathered through several stakeholder interviews. Stakeholder interviews were conducted in small groups organized around shared interests:

- Development Representatives
- Industry and Business Representatives
- Community Organizations
- School Representatives
- Town Representatives

Public Workshops

As part of the planning process, two public meetings were held; one at the beginning and one at the end of the plan's development. These meetings were held at Goldsboro City Hall on June 6, 2019 and September 17, 2019 respectively to help obtain vital information from local residents on problems and issues they see in the region and to provide feedback on recommendations. Activities that helped to gather this information included: information boards, needs identification, a One Word exercise where participants wrote one word to describe transportation today and one word for their future vision, as well as a station where participants were able to review multimodal recommendations and offer feedback on prioritization and inclusion in the cost feasible plan. Attendees were also given a passport at the first workshop that provided them with an itinerary of activities and offered a chance to fill out a short questionnaire.

Online Survey

To encourage a broad range of participants and perspectives in the early phases of the 2045 MTP, an online survey was designed to collect community input. The survey launched on June 13, 2019 with the first public workshop and stakeholder meetings and was available online through July 25, 2019. Through this platform, the survey allowed participants to identify transportation issues, prioritize goal areas most important to them, and allocate a set budget to various transportation improvement types according to their preferences. Questions were structured to complement the topics being addressed at the public workshop, as well as to parallel questions asked as part of the previous MTP update.
A total of 154 users participated in the survey, and over 300 comments were gathered. The survey results are shown throughout the plan with the icon at right.

Previous Planning Efforts

The section below inventories previous plans and documents completed in the Goldsboro area. Organized by geography, the inventory summarizes planning efforts and includes comprehensive plans, corridor studies, bicycle and pedestrian plans, feasibility studies, and vision plans. These plans were referenced during the development of recommendations for the 2045 MTP.

2040 GOLDSBORO URBAN AREA METROPOLITAN TRANSPORTATION PLAN

The 2040 Goldsboro Urban Area Metropolitan Transportation Plan (MTP) was adopted by the MPO in October 2014 and was developed through coordination with NCDOT and FHWA. The 2040 MTP looks at all modes of transportation from a regional perspective and provides financially-constrained recommendations to improve the transportation system between 2014 and 2040.

2015 GOLDSBORO MPO BICYCLE, PEDESTRIAN, AND GREENWAY MASTER PLAN

The 2015 Goldsboro MPO Bicycle, Pedestrian, and Greenway Master Plan provided an opportunity to explore the non-motorized network needs in additional detail for the region. The plan identified on-street and off-street recommendations and explored implementation strategies.

ENVISION 35 CITY OF GOLDSBORO URBANIZED AREA COMPREHENSIVE PLAN

The Envision 35 City of Goldsboro Area Comprehensive Plan (Envision 2035 Plan) is a 20-year plan for the Goldsboro Urbanized Area and the five future interchanges to be constructed along the US 70 Bypass. The plan provides a creative and dynamic framework to guide the future long-term growth and development. The Envision 2035 Plan was adopted in May 2013.

NCDOT COMPLETE STREETS PLANNING AND DESIGN GUIDELINES

NCDOT adopted a Complete Streets policy in July 2009. Under the policy, NCDOT must collaborate with cities, towns, and communities during the planning and design phases of new streets or improvement projects. Together, decisions are made pertaining to how best to provide the transportation options needed to serve the community and compliment the context of the area. The policy directed NCDOT to develop planning and design guidelines.

2010 GATEWAY TRANSIT COMMUNITY TRANSPORTATION SERVICE PLAN

The January 2010 Gateway Transit Community Transportation Service Plan reviewed the current performance and direction of the Goldsboro—Wayne County Transportation Authority (GATEWAY Transit) and recommends alternative strategies for all aspects of GATEWAY Transit service, including operations, capital programming, marketing strategies planning, facility relocation, and staffing that

strives to increase mobility options for passengers and improve the efficiency and effectiveness of the organizations and transportation services. Elements of the plan were based on the guiding principles establish by the NCDOT Public Transportation Division.

THE WAYNE COUNTY COMPREHENSIVE PLAN

The Wayne County Comprehensive Plan was adopted March 18, 2008, and readopted August 4, 2009. It contains vision statements, policies, and actions to guide decision-making, as well as a future growth strategy map. The policies contained in the plan have been designed for regular use in guiding public decisions at the county level as well as in providing information for private discussions. As officially adopted policies of Wayne County, they are to be used primarily in managing growth and development and as a foundation for decisions on county facilities and services.

GOLDSBORO-WAYNE TRANSPORTATION AUTHORITY ADMINISTRATION/ OPERATIONS FACILITY PLANNING AND NEEDS ASSESSMENT

The Administration/Operations Facility Planning and Needs Assessment included the following tasks:

- Reviewing the maintenance needs of the City of Goldsboro, Wayne County, and GATEWAY and exploring all possibilities for maintenance including the sharing of maintenance facilities and resources.
- Determining the administrative and operations needs of GATEWAY for current and future planning as well as determining site requirements for the GATEWAY service facility to include existing service levels and projected service growth through 2025.
- Identifying and reviewing the potential of three alternative sites for consideration for the GATEWAY system operations and potentially a maintenance facility.
- Conducting an environmental review of recommended site location and preparing a Categorical Exclusion document for submittal to the FTA regional office for their approval.
- Developing a conceptual site layout and estimate the costs associated for the development of the recommended site location.

GOLDSBORO UNION STATION MULTIMODAL TRANSPORTATION CENTER STUDY

This was a feasibility study completed in August 2009 to analyze the potential of refurbishing the historic Goldsboro Union Station (GUS) Multimodal Transportation Center. This report addressed the impacts related to the proposed Gateway Transit Bus Transfer Center, which will occupy the northern portion of the larger GUS Site, between the existing historic station building and Mulberry Street. Also, this transfer station is programmed to become the primary transfer point for Gateway Transit bus services and is expected to become the Greyhound intercity bus station and accommodate taxi services and future passenger rail connectivity.

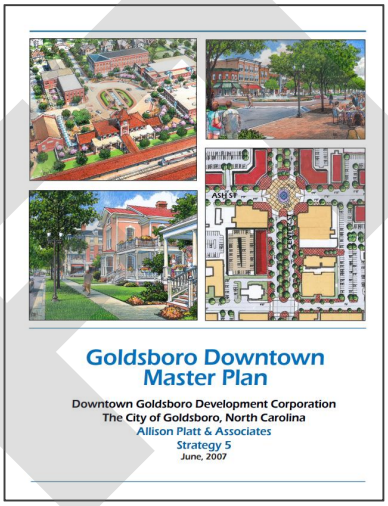
SHARED CORRIDOR COMMUTER RAIL CAPACITY STUDY

The North Carolina Railroad Company (NCRR) is the state-owned company that owns the rail corridor from Morehead City through Goldsboro to Raleigh, Greensboro, and Charlotte. The rail NCRR prepared

the Shared Corridor Commuter Rail Capacity Study in 2008 to explore the possibilities for commuter rail service on existing tracks in their network. This study was a further investigation of the information covered in the Southeast High-Speed Rail Plan and helped to determine the feasibility of sharing tracks for commuter and freight trains and evaluate the infrastructure costs required to accommodate the increased network traffic.

GOLDSBORO DOWNTOWN MASTER PLAN

The Goldsboro Downtown Master Plan was commissioned in 2006 to develop a plan and vision for the commercial district of downtown and its surrounding historic residential neighborhoods. The development of the plan included input from citizens derived from four public forums and numerous personal stakeholder interviews. One of the main premises and concepts of the plan is the work and attention needed to support the ongoing Comprehensive Historic Neighborhood Revitalization Plan adopted by the city 2006. Additionally, a market analyses and strategies to support current plans for downtown anchors was included as part of this plan; including recommendations for streetscape improvements.



SOUTHEASTERN NORTH CAROLINA PASSENGER RAIL STUDY

This study was completed in 2005, with the intent of evaluating possible passenger rail routes through the major housing and employment centers in North Carolina. Two options evaluated within the study included routes that would pass through Goldsboro. The study concluded that both of the Raleigh to Wilmington route options (via Goldsboro and Fayetteville) held promise, but the difficulty for implementation would be associated with the availability of public funding. In addition, benefits and limitations of the current infrastructure were evaluated to determine additional capital expenditures needed to make the routes a success. This study built upon a study first completed in 2001, adding an increased focus on security options and the need for alternative modes of transportation.

EASTERN NORTH CAROLINA FREIGHT PLAN

The Eastern NC Freight Plan commenced in early 2019 as a multi-county, multi-regional effort including the Goldsboro MPO area. The intent of this plan was to provide eastern North Carolina with additional information on freight needs and opportunities beyond those identified in the Statewide Freight Plan. The plan identifies a series of corridors for future projects and improvements.

NCDOT STRATEGIC HIGHWAY CORRIDORS

In September 2004, the North Carolina Board of Transportation adopted the Strategic Highway Corridors (SHC) concept as part of the state's Long-Range Statewide Multimodal Transportation Plan. The intent of this state program is to enhance transportation, economic development, environmental stewardship

throughout the state. The Strategic Highway Corridors Vision Plan identifies two corridors in the Goldsboro Urban Area:

- Raleigh to Morehead City (Corridor 46) - US 70 - Freeway, Boulevard
- Wilmington to Wilson (Corridor 50) - US 117 - Expressway

US 70 CORRIDOR COMMISSION

The US 70 Corridor Commission is a united effort involving Johnston, Wayne, Lenoir, Jones, Craven, and Carteret counties intended to create positive change along the US 70 corridor. The Commission envisions converting the corridor to a full freeway, replacing traffic signals with interchanges, and driveways with rear or side access to a connected secondary street system. To accomplish this, the Commission partners with local, regional, and state government agencies to support initiatives promoting safety, mobility, and economic vitality along the corridor. This is a multi-year initiative promoting land use planning, transportation improvement, and economic development strategies.

VILLAGE OF WALNUT CREEK, NORTH CAROLINA CODE OF ORDINANCES

Section 92.07 (Comprehensive Plans) of the Village of Walnut Creek, North Carolina Code of Ordinances includes details pertaining to how comprehensive plans should be applied to development within the village. The comprehensive plan and any ordinances are intended to guide and help accomplish a coordinated, adjusted, and harmonious development of the village and its environs. This includes adequate provision for traffic, the promotion of the healthful and convenient distribution of population, the promotion of good civic design and arrangement, the wise and efficient expenditure of public funds, and the adequate provision of public utilities, services and other public requirements.

TOWN OF PIKEVILLE, NORTH CAROLINA CODE OF ORDINANCES

The Town of Pikeville, North Carolina Code of Ordinances contains regulations pertaining to traffic, businesses, and land use. The ordinances regulate building structures, zoning, and subdivisions. Within the ordinances, the Pikeville Historic District is defined (Chapter 156) as the original downtown business district of the town and its accompanying residential area. This area has been deemed historically significant to the local economic well-being of the greater Pikeville area.

CHAPTER 2

EXISTING CONDITIONS AND NEEDS ASSESSMENT

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Chapter 2: Existing Conditions and Needs Assessment

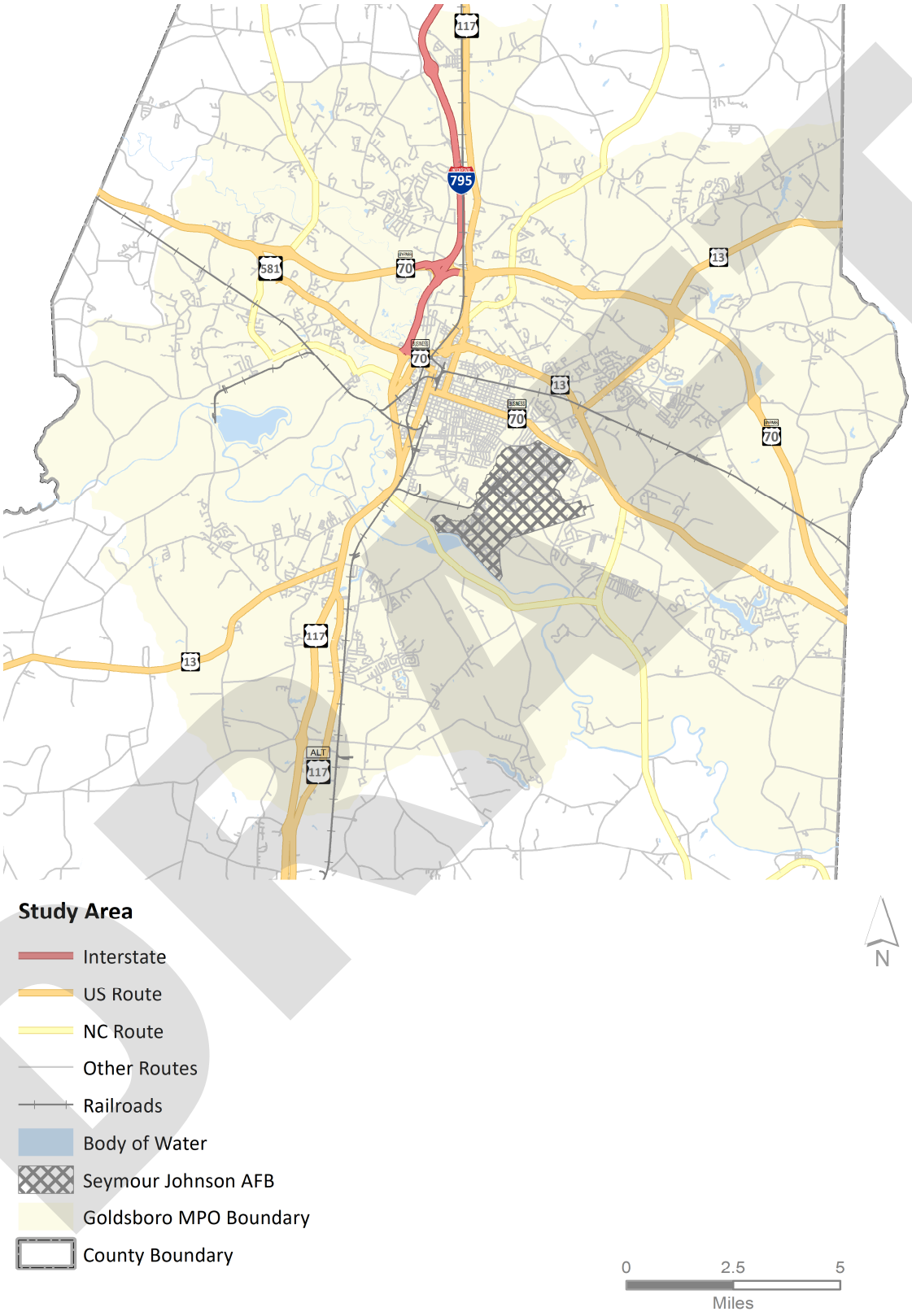
Purpose and General Definitions

This chapter considers the conditions and trends affecting transportation within the MPO boundary of the Goldsboro region, as shown in **Figure 1**. Data was derived from existing plans, studies, research, and public outreach. General feelings and concerns with regard to transportation in the area was obtained through the use of public outreach, as described in **Chapter 1**. Relevant survey results can be found throughout the report.

This chapter has been broken into four topical subsections. These include:

- **People.** Background on demographic trends related to population change, household size and makeup, race and ethnicity, and aging.
- **Prosperity.** An examination of conditions and trends related to the regional economy, employment patterns, personal and family prosperity, educational attainment, and health and wellness.
- **Place.** A summary of the unique characteristics of the region's natural and built environment. This section includes information related to land use, density, building patterns, housing, utilities, parks and trails, and other place-based conditions and trends.
- **Mobility.** Characteristics, advantages, and limitations of the region's transportation system. Data and findings relate to the movement of people and goods and their impact on the people, prosperity, and places of the region.

FIGURE 1: THE MPO BOUNDARY



People

The people section examines demographic trends within the Goldsboro MPO. For context, the analysis will compare the region to the state of North Carolina, and to the nation where appropriate.

Population

Wayne County as a whole has grown steadily from 80,000 residents in 1970 to 124,000 in 2017. From 2000-2010, county population grew by 8.2% and slowed in 2010-2017 to 1.3%. However, during this same time period, the City of Goldsboro and other incorporated municipalities have seen negative growth rates, indicating significant growth in non-incorporated areas of the county.

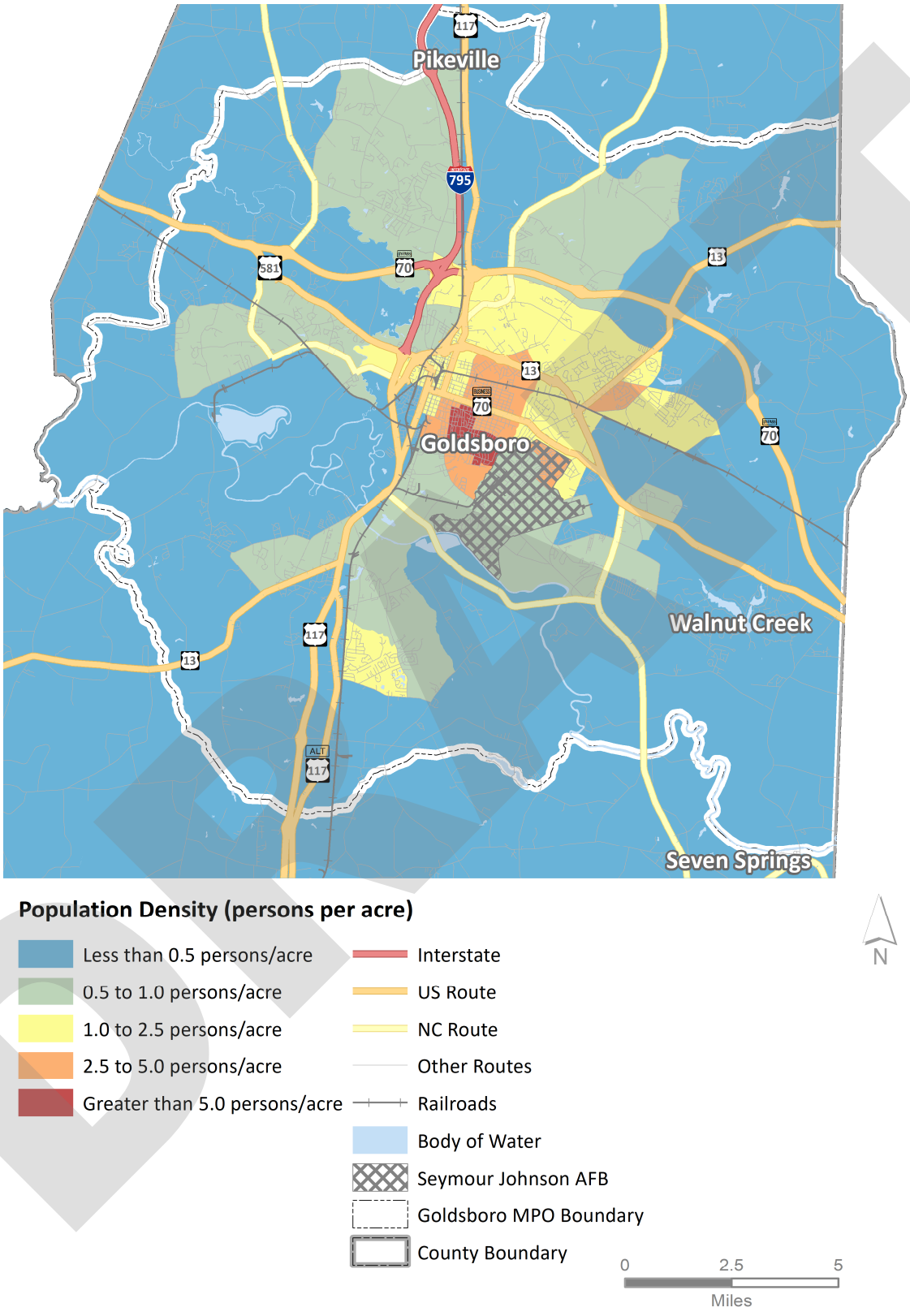
Only 6.6% of land in Wayne County is an incorporated municipality and as of 2017, 33% of residents lived in a municipal area. The Goldsboro MPO accounts for 90% of Wayne County's population. The population of Wayne County is projected to increase to 140,000 residents in 2038, a 12% increase from 2017. The state of North Carolina has a whole is expected to grow by 1.2% by 2038. The population density in the Goldsboro MPO is shown in **Figure 2**.

The City of Goldsboro is located just outside the Piedmont Atlantic Megaregion, which includes the major population centers of the Southeast, including Raleigh-Durham-Chapel Hill, Charlotte, and Atlanta. The region is characterized by fast growth, a low cost of living, and a high quality of life.

HOUSEHOLDS

There are 43,171 households in the Goldsboro Urban Area with an average household size of 2.27 persons. 60% are family households and 30.6% of all households have children under 18. Goldsboro household characteristics parallel Wayne County as a whole. 68% of households in Wayne County are family households and 38.4% have children under 18.

FIGURE 2: POPULATION DENSITY BY BLOCK GROUP



Age

The median age of residents in the Goldsboro region is 37 years old, a year younger than the State median age. Approximately 38% of the MPO is 20 years old or younger. The Village of Walnut Creek has a slightly larger proportion of residents over age 65 at 20.1%, compared with the rest of the municipalities in the MPO. **Figure 3** shows the age by cohort for both Goldsboro, Wayne County, and North Carolina, while **Figure 4** shows the distribution of population age 65 and older within the region.

FIGURE 3: AGE BY COHORT

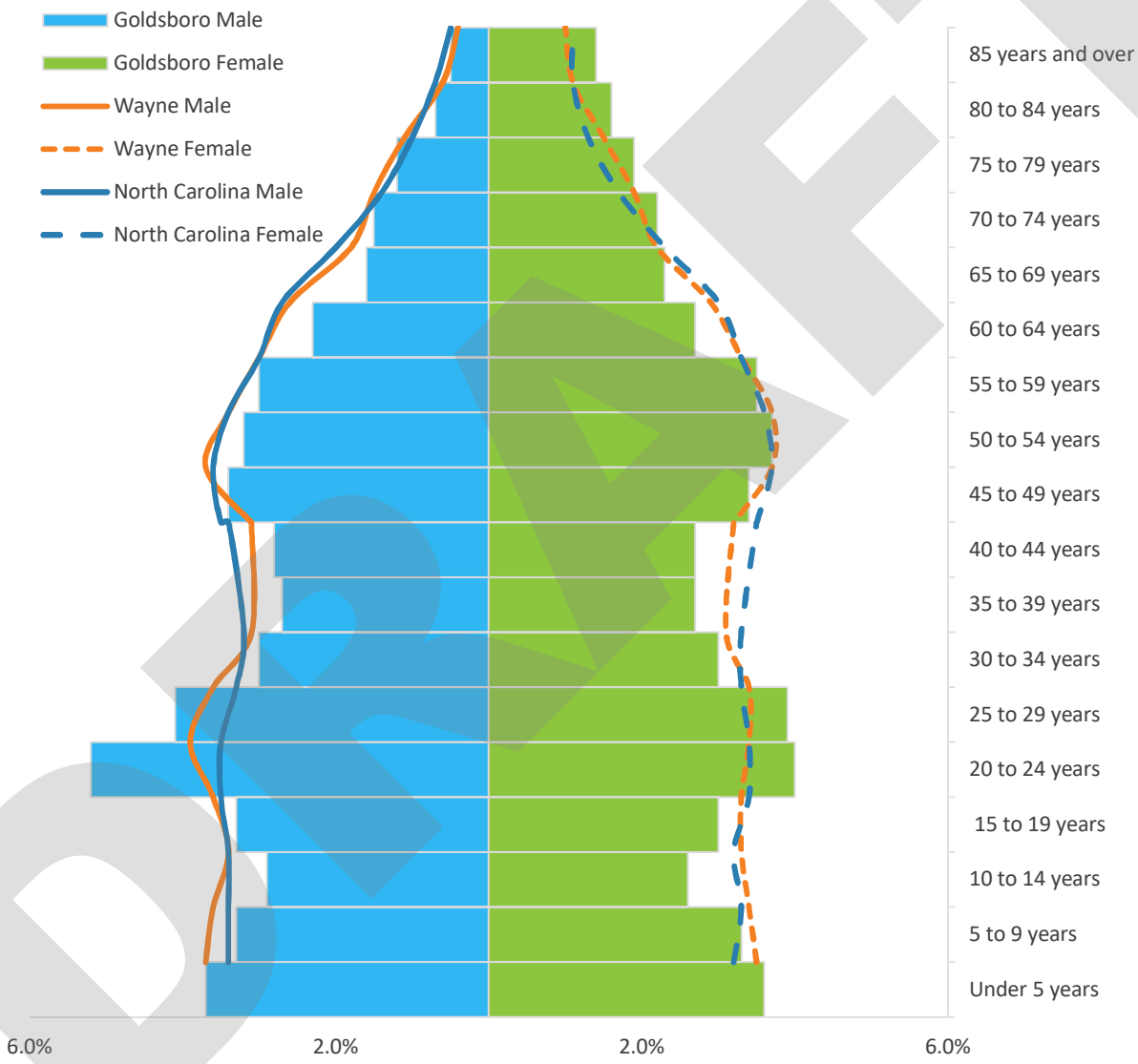
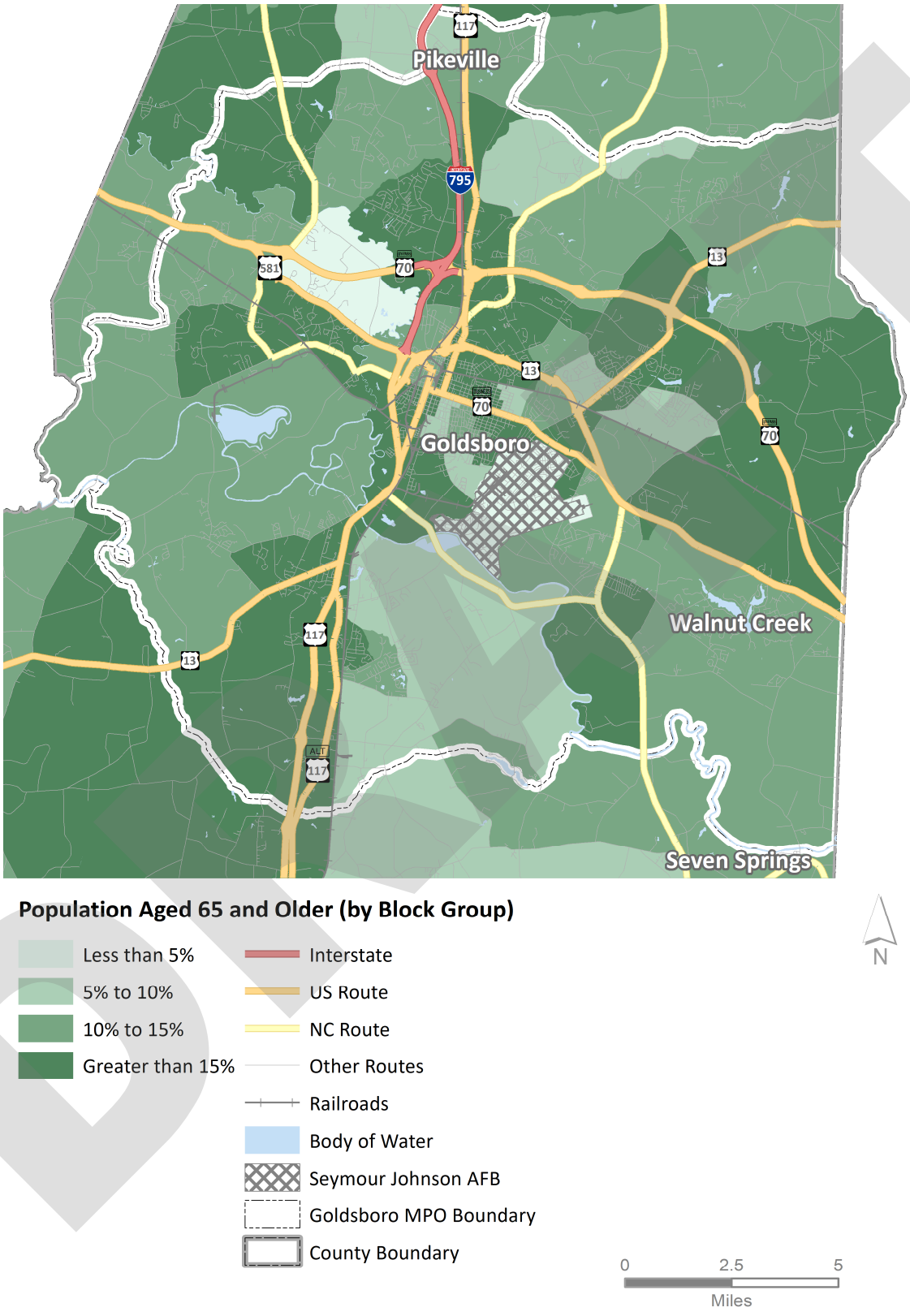


FIGURE 4: POPULATION AGED 65 AND OLDER BY BLOCK GROUP



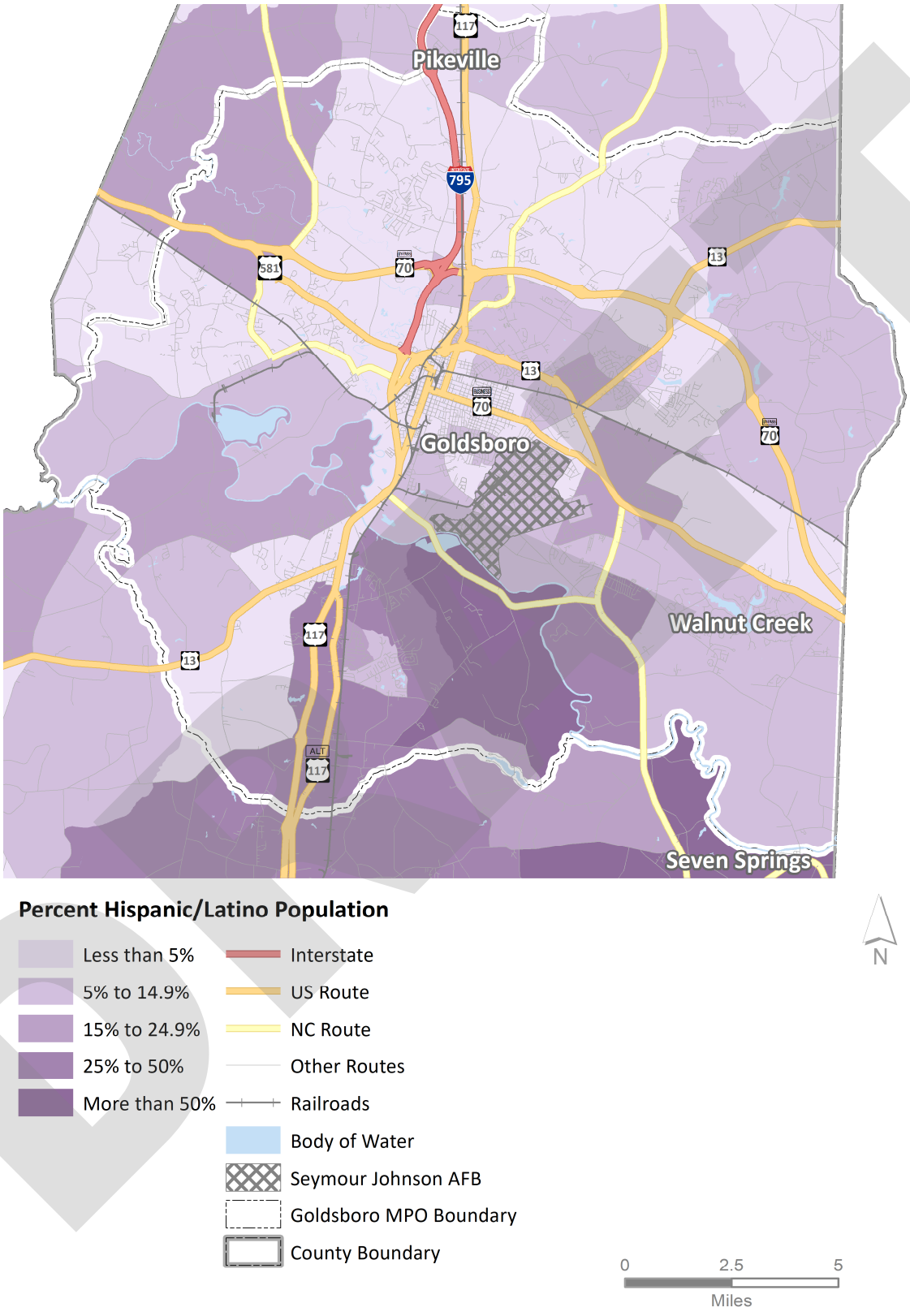
Diversity

The Goldsboro Urban Area experienced a significant increase in the number of residents who identify as two or more races, adding more than 1,000 residents for a growth rate of nearly 175%. This follows a national trend, where between 2000 and 2010 the number of white and black biracial Americans more than doubled, while the population of adults with a white and Asian background increased by 87%. Between 2000 and 2017 this segment grew by 150% in Wayne County, adding over 8,000 residents. The Goldsboro Urban Area experienced similar growth, adding 1,300 Hispanic and Latino residents in the same time period, for a growth rate of 125%. **Figure 5** shows the distribution of Hispanic and Latino population within the MPO region Please note race and ethnicity are not synonymous.

Approximately 5.7% of individuals in the MPO speak a language other than English. Spanish is the most common second language spoken at nearly 4.5%. The Goldsboro region meets the thresholds for Limited English Proficiency or LEP, meaning that free language assistance is required to be provided to those looking to access federally assisted programs and activities.

The number of residents identifying as two or more races in the Goldsboro Region has experienced a growth rate of nearly 175%.

FIGURE 5: PERCENT HISPANIC/LATINO POPLULATION BY BLOCK GROUP



Prosperity

The prosperity section presents data pertaining to the health and diversity of the local economy and how that translates to the personal prosperity of its residents. Additionally, the section analyzes the relative performance of the region in education and health indicators.

Economy and Employment

The top employers in the region are predominately composed of military, public, and health sectors. Seymour Johnson Air Force Base is by far the largest employer in the region, followed by Wayne County Public Schools and Wayne UNC Healthcare[1]. Additionally, Wayne County is home to a robust agricultural industry, ranking fourth in the state of North Carolina for agriculture income.[2] **Table 1** provides an overview of the major employers in the MPO area.

The region employs over 57,700[3] people and had an average unemployment rate of 4.3% in 2018[4], which was slightly higher than the national average of 3.9% (Bureau of Labor Statistics).

TABLE 1: MAJOR EMPLOYERS IN THE GOLDSBORO MPO

Employer	# of Employees
Seymour Johnson Air Force Base	6,482
Wayne County Public Schools	2,997
Wayne UNC Healthcare	1,685
Case Farms	1,081
County of Wayne	1,112
Cherry Hospital	997
O'Berry Hospital	756
Goldsboro Milling Company	800
Mount Olive Pickle Company[5]	674
Georgia Pacific	559

[1]Wayne County Development Alliance; http://www.waynealliance.org/Business-Retention-Expansion/Top-Employers.aspx
[2]North Carolina Agricultural Statistics 2017, USDA National Agricultural Statistics Service; https://www.nass.usda.gov/Statistics_by_State/North_Carolina/Publications/Annual_Statistical_Bulletin/AgStat2017.pdf
[3] 2017 American Community Survey, plus the number of active duty and reservist military jobs reported by the Wayne County Development Alliance.
[4] BLS, Local Area Unemployment Statistics for the Goldsboro MSA
[5] Mount Olive Pickle Company is the only Wayne County, Top 10 Employer not located in the Goldsboro MPO Boundary

Personal Prosperity

The poverty levels in metropolitan area are slightly higher than the North Carolina average, with the exception of the Village of Walnut Creek, as shown in **Figure 6**. The median household income in the MPO is $41,766 which is 17% lower than the North Carolina average and 28% lower than the national average. However, the median income in the Goldsboro MPO has seen growth in the past several years. When looking at the individual municipalities within the MPO (see **Figure 7**), the City of Goldsboro has the lowest median household income at $33,480, while the Village of Walnut Creek is significantly higher at $126,250. Generally, the cost of living in the Goldsboro area is low; approximately 80 percent of the national average.

FIGURE 6: PERCENT OF POPULATION BELOW THE POVERTY LINE

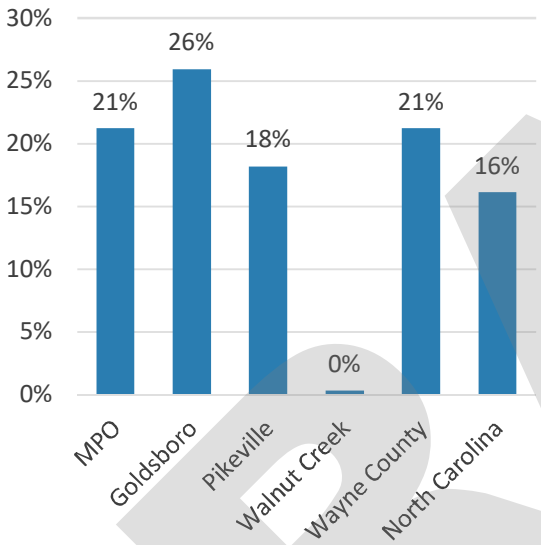
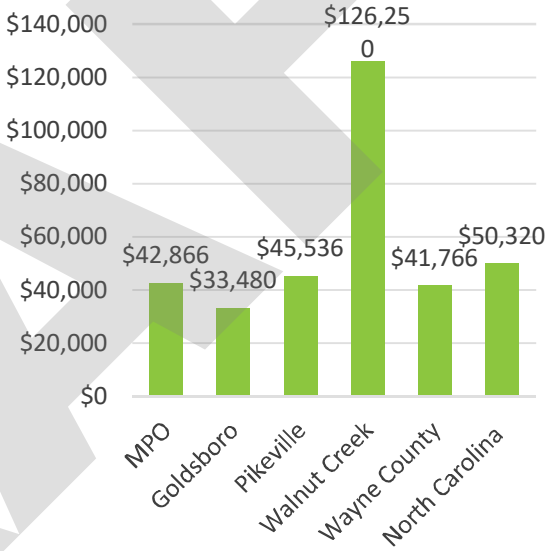
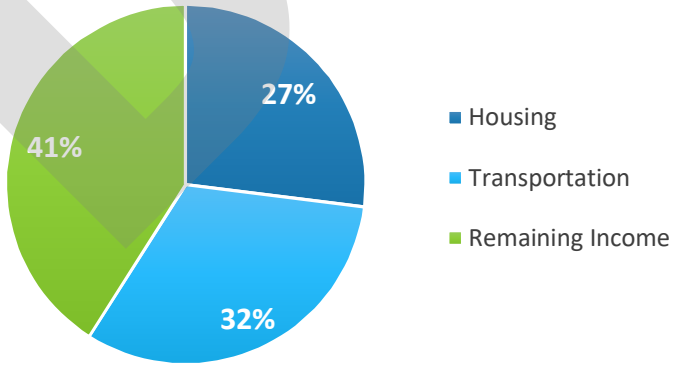


FIGURE 7: MEDIAN HOUSEHOLD INCOME



Residents of the Goldsboro MPO spend approximately 60% of their income on housing and transportation costs, as shown in **Figure 8**. As a whole, residents are not considered cost-burdened for housing (paying more than 1/3 of income toward housing).

FIGURE 8: MONTHLY HOUSEHOLD COSTS



Lifelong Learning

EDUCATION LEVELS

91% of residents in the Goldsboro MPO have attained a high school diploma or higher, which is higher than both the state and national averages. However, only 5% of Goldsboro MPO residents have a bachelor's degree or higher, which is significantly lower than both the state and national averages.

K-12 EDUCATION

Wayne County Public Schools enrolls approximately 19,675 students in grades K-12. The district has 9 elementary schools, 6 middle schools, and 5 high schools within the MPO. Wayne County Public Schools have two special focus high schools: Wayne School of Engineering which offers a STEM focused curriculum for 6-13th grades and Wayne Early/Middle College High School which is located on the campus of Wayne Community Colleges and offers a high school diploma and Associate Degree in 4-5 years. Among all public schools in Wayne County, the drop-out rate in the 2017-2018 school year was 2.51%.

POST-SECONDARY EDUCATION

There are three post-secondary institutions in Goldsboro: Wayne Community College (2-year), North Carolina Wesleyan College (4-year), and United Christian College (4-year). In Wayne County, 6,552 residents are enrolled in undergraduate programs and 1,512 in graduate or professional degrees.

Health and Wellbeing

ACCESS TO HEALTH CARE

Wayne UNC Health Care is a general hospital with 905 beds offering emergency care, cancer care, heart and vascular services, neurology services, orthopedic services, primary care services, rehabilitation and therapy, general surgery, and women's health services. The hospital holds a wide variety or classes and events such as childbirth classes and diabetes care and education.

86.3% of the population has health insurance coverage with most being provided on employee plans. The number of uninsured residents has declined by approximately 6% over the past few years.

HEALTHY LIVING

Over three-quarters of North Carolina residents have access to exercise opportunities while only half of Wayne County adults enjoy the same access. As a result, Wayne County adults exercise less on average than adults statewide. In addition, 18% of adults are food insecure, a higher proportion than 15.4% in the state. Both heart disease and diabetes in the county have a higher occurrence than the state as a whole.

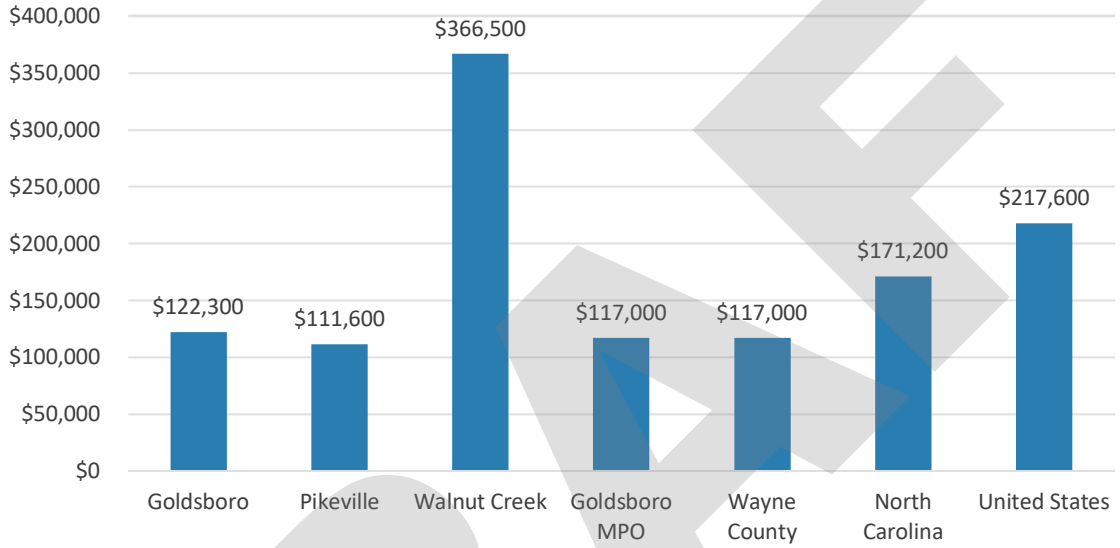
Place

This section addresses the existing land use, development form, housing stock and characteristics, as well as a general assessment of parks, trails, and open spaces.

Housing

In 2017, the median property value in the Goldsboro area was $117,000, a 1.45% increase from previous years. **Figure 9** shows the dramatic difference in property value amongst municipalities within the MPO.

FIGURE 9: MEDIAN PROPERTY VALUE



LOWER RATES OF HOMEOWNERSHIP

60.9% of homes within the metropolitan area are owner-occupied. While this is slightly lower than both the state and national average, the number of owner-occupied homes has increased from previous years. The rate of homeownership across the nation has decreased since 2000 but the rate of decrease is faster in Goldsboro and Wayne County. Furthermore, there is a large disparity between the different municipalities in the MPO with regard to home ownership. On the low end, the City of Goldsboro had a 2017 homeownership total of 36.5% while the Village of Walnut Creek had a total of 84%.

MIDDLE-AGED HOUSING STOCK

The majority of homes in Goldsboro (61%) were constructed between 1950 and 1989, as shown in **Figure 10**. Over 80% of homes in Goldsboro were built before 2000. Home construction in Wayne County as a whole boomed from 1990-1999 even as construction in Goldsboro began to wane. Home construction overall was significantly impacted by the 2008 economic recession. The number of building permits for new housing units in Goldsboro plummeted in 2008 and has held steady with signs of significant recovery, as shown in **Figure 11**.

FIGURE 10: AGE OF HOUSING STOCK

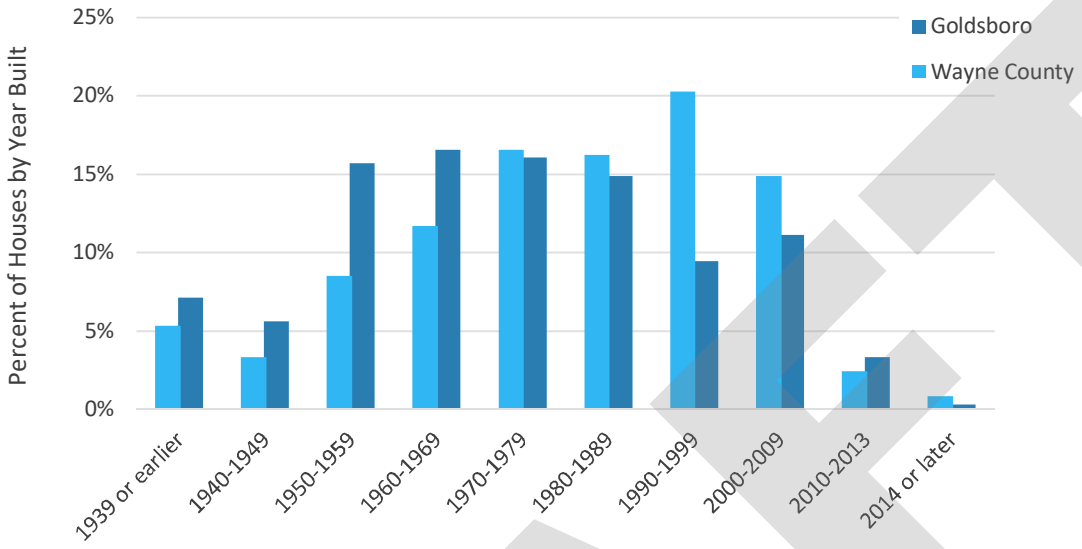


FIGURE 11: GOLDSBORO SINGLE FAMILY HOME BUILDING PERMITS

Parks, Trails, and Open Space

The Goldsboro Area boats a number of recreational options for both residents and visitors. Facilities range from golf courses and sports complexes to pools and traditional parks areas.

- Berkeley Memorial Park
- Dees Memorial Park
- Fairview Park
- H V Brown Park
- Henry C Mitchell Park
- Herman Park
- Mar-Mac Community Park
- Minai Weil Park
- North End Community Park
- Peacock Park
- Quail Park
- South End Neighborhood Park
- Stoney Creek Park
- Washington Park
- Waynesborough Park

Additionally, the area has two greenways, the Reedy Branch Greenway and the Stoney Creek North Greenway. The Reedy Branch Greenway is a 1-mile paved greenway located behind Wayne Memorial Hospital and connects to the New Hope Road multiuse path. The Stoney Creek North Greenway consists of 3 miles of single-track bike trails as well as a paved greenway. Trail access can be found at Peachtree Street and Fairview Park.

Source: goldsboroparksandrec.com/parks

As stated in the Goldsboro Bike Ped Greenway Plan, the Stoney Creek Greenway was identified as a top priority for new sections in the 2012 Goldsboro Parks and Recreation Master Plan Update. The plan recommended next steps for five sections of the greenway which included the coordination of access easements, new pedestrian crossings, and the obtainment of new land for greenway extensions. Several other greenways were recommended as part of this plan and will be discussed in more detail later in the MTP.

Mobility

The mobility section addresses the region's transportation and its impact on daily life. Multiple forms of transportation are available; however, many mobility challenges remain.

Regional Connections

The Goldsboro MPO region is situated approximately 20 miles east of the I-95 corridor which connects to Washington, DC in the north and continues down the coast to the south. Regionally, I-95 connects Goldsboro to Fayetteville and Rocky Mount. Raleigh lies 50 miles northeast and is connected to Goldsboro by I-40 and US 70. Within the MPO itself, I-795 runs north/south through the center of the study area and connects Pikeville and Goldsboro to Mt. Olive and Wilson.

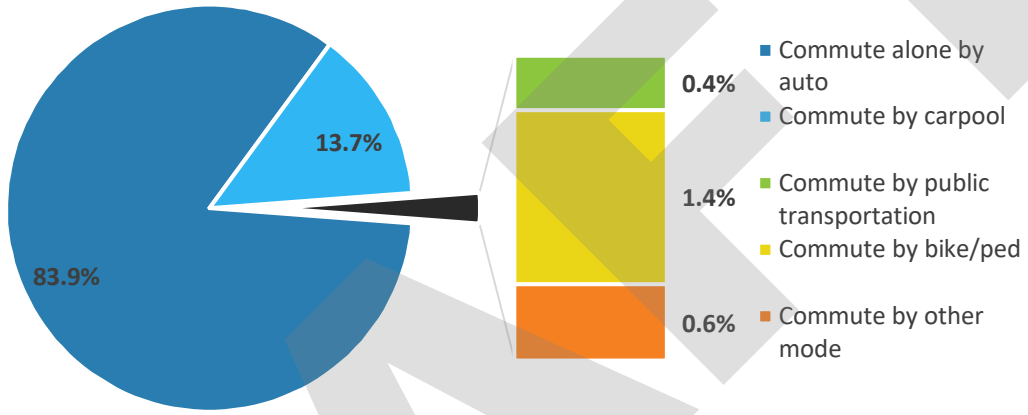
Travel Patterns and Options

As of 2015, 17,270 people commute into the MPO for work, but live outside of the MPO boundary; 22,701 live and work within the MPO boundary; and 23,701 live within the MPO boundary but commute outside of the area for work. It should be noted that these totals may not include information from Seymour Johnson Air Force Base and may in fact be higher than reported here.

TRAVEL TIME AND MODE SHARE

The average commute time in the Goldsboro area is 23 minutes. This is slightly less than both the state and national averages (23.4 and 26.1 minutes respectively). More than 50% of the region's residents commute less than 30 minutes to work. Additionally, 1.5% of commuters in the area have what is known as a "super commute" or a commute in excess of 90 minutes. Goldsboro area residents predominately drive alone to work, but do carpool at a higher precentage than the rest of the state (see **Figure 12**).

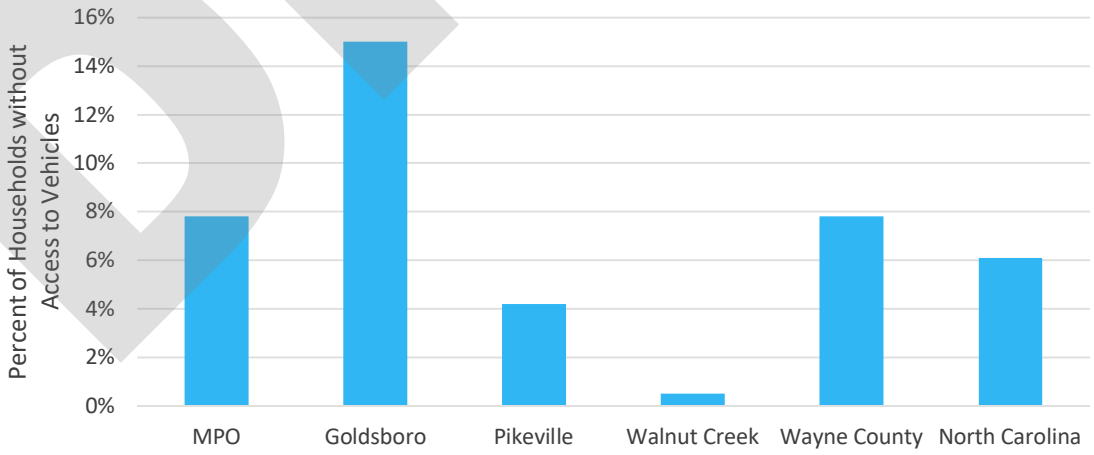
FIGURE 12: GOLDSBORO MPO MEANS OF TRANSPORTATION TO WORK



VEHICLE ACECSS

The majority of households in the Goldsboro area have access to two cars, which falls in line with both state and national trends (see **Figure 13**). Although City of Goldsboro households have an average of two vehicles per household, 32.7% of households had access to one vehicle as of 2017. Additionally, 15.0% of households within the City owned no cars. Although transit is available within the Goldsboro city center, the lower number of vehicle ownership coincides with the lower median income in the area.

FIGURE 13: HOUSEHOLDS WITHOUT ACCESS TO VEHICLES



Roadway

The transportation network in the Goldsboro region is primarily oriented to serve vehicular travel. Wayne County has a myriad of major roadways that cover large vehicular volumes, such as US 70 Bypass (Future I-42), I-795, and US 70/13/117 (Martin Luther King Jr. Expressway). These major corridors are just a portion of the network in the Goldsboro region, where there are more than 1,132 miles of roadways. Much of the region's transportation system is composed of lower classification roadways that provide access to more local commercial centers and residents.

FUNCTIONAL CLASSIFICATION

Functional classifications are defined by FHWA and used to designate the characteristics of the roadways in the system. The functional classification system categorizes roadways along a general hierarchy that accounts for the inverse relationship between access and mobility. Roadways with higher volumes and speeds tend to limit access to local land uses while roadways with lower volumes and lower speeds tend to provide greater access. As recommendations are considered along corridors, it is important to understand the various roles the roadways play and the most appropriate transportation and land use modifications that enhance their operation. Functional classification often reinforces that various agency partnerships and coordination are required in making a transportation system functional. For example, the North Carolina Department of Transportation (NCDOT) maintains the interstates and major state roadways while the local jurisdictions maintain more of the local and collector routes. The roadway functional classifications in the Goldsboro MPO area as defined by NCDOT are shown in **Figure 14**.

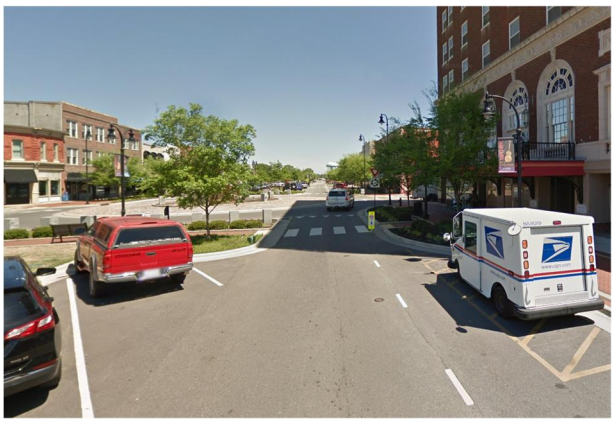
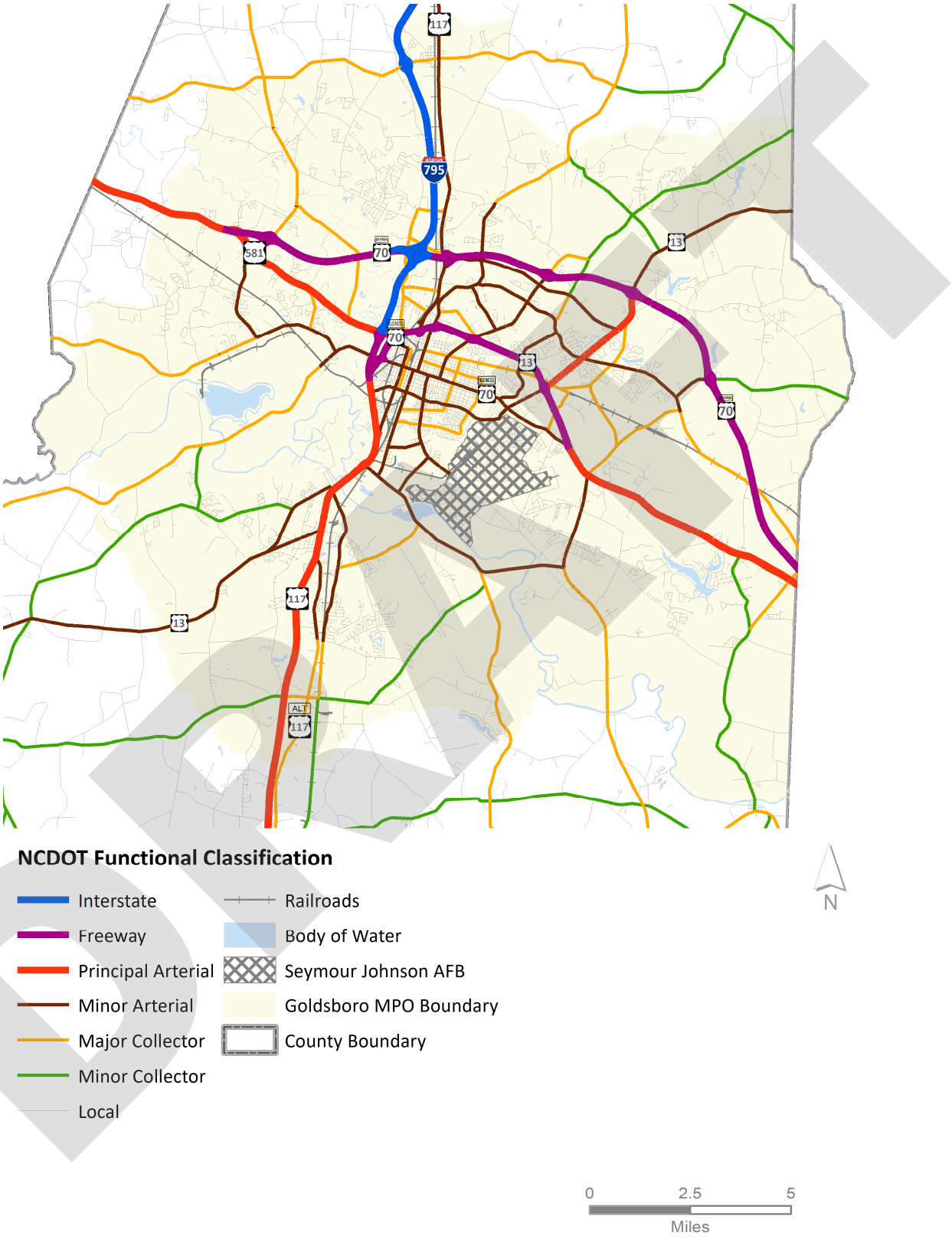


FIGURE 14: NCDOT FUNCTIONAL CLASSIFICATION



Safety

When considering transportation safety within the Goldsboro MPO, it is important to consider both the frequency and severity of crashes. The majority of crashes within the MPO are in the City of Goldsboro, with particularly high crash frequencies on Ash Street and Wayne Memorial Drive. The following intersections have the highest crash frequency:

- Wayne Memorial Drive at Lockhaven Drive
- Berkeley Boulevard at Cashwell Drive
- Berkeley Boulevard at Ridgecrest Drive
- 11th Street at Wayne Memorial Drive
- US 13 at Old Mt. Olive Highway
- US 70 at Ash Street/NC 581
- US 13 at Spence Avenue
- US 70 Business at Berkeley Boulevard
- US 13 at US 70
- US 13 at Wayne Memorial Drive

Figure 15 on the next page show the location of intersections with severe crash locations, as well as intersections with a high Equivalent Property Damage Only, or EPDO, crash rate. The EPDO rate is a tool to help combine frequency and severity to understand the total impact. Intersections identified by NCDOT for inclusion within the Highway Safety Improvement Program (HSIP) are also displayed.

When survey participants were asked to identify their top three priorities for the Goldsboro Region's Transportation Plan, safety was identified as the number one priority. Based on comments, providing safe facilities for bicyclists and pedestrians is a key issue. Throughout the survey, many comments called out dangerous intersections, lack of sidewalk connectivity, and the need to invest in safe pedestrian infrastructure. After safety, the second most cited priority was accessibility followed by connectivity. These priorities emphasize the necessity for a transportation network that can accommodate all types of needs through a variety of transportation modes.

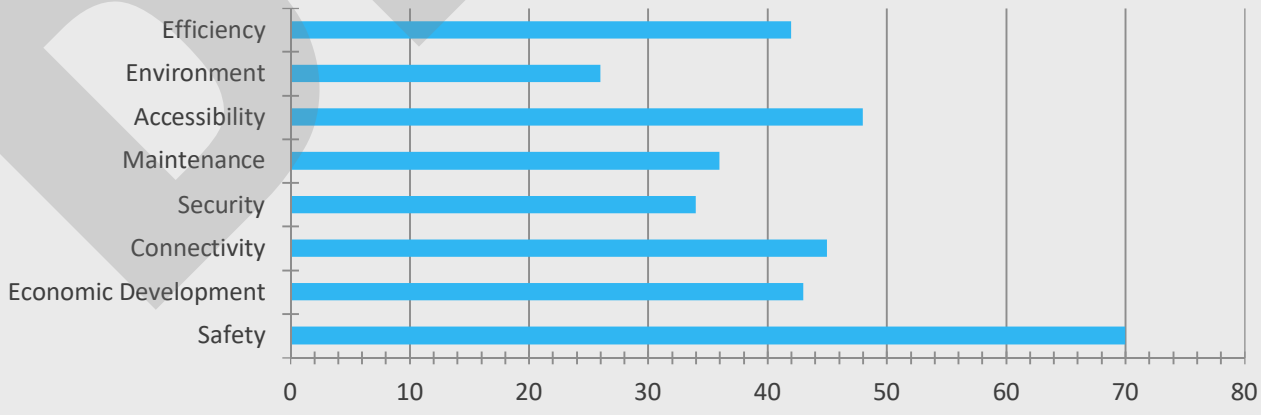
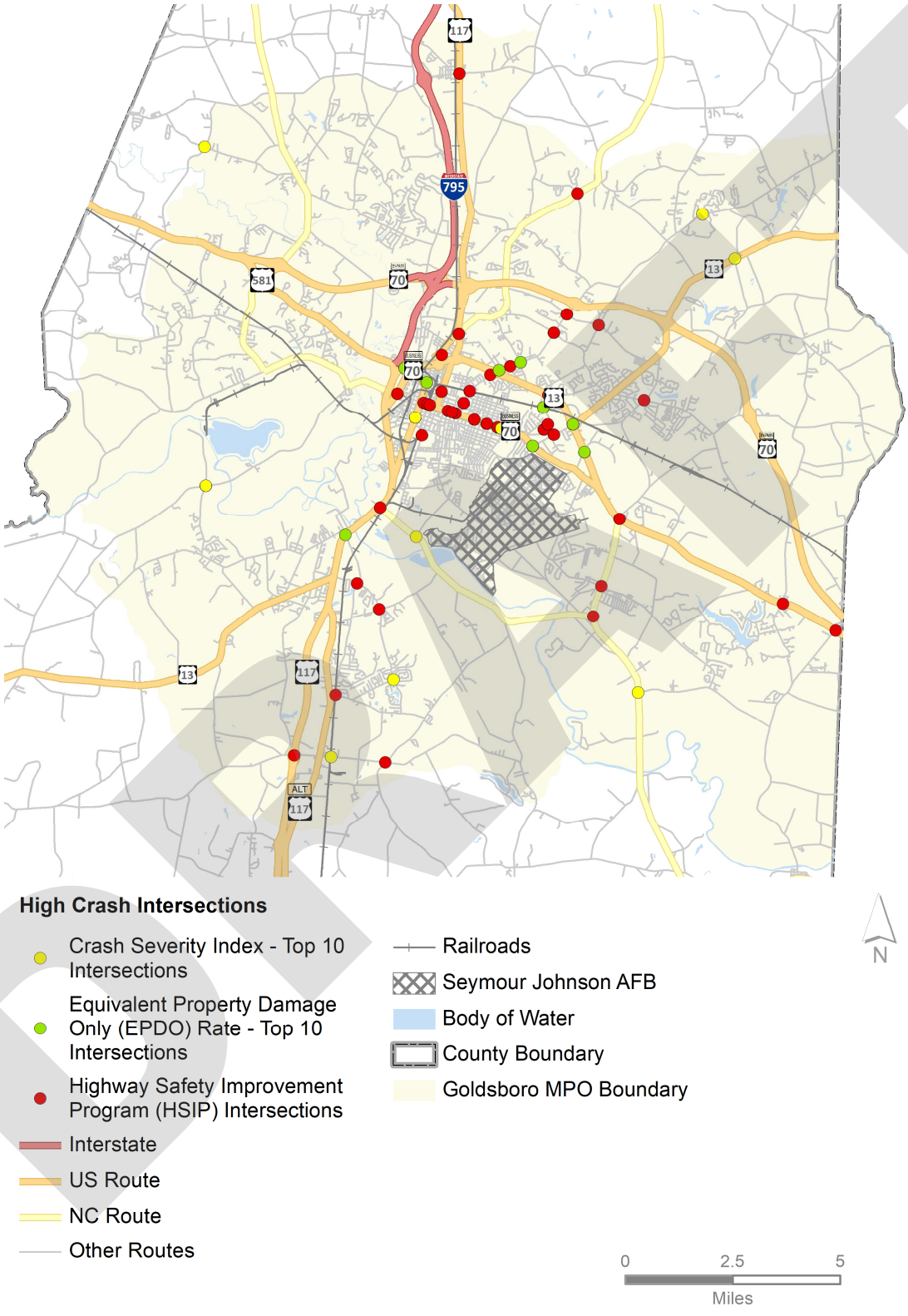


FIGURE 15: HIGH CRASH INTERSECTIONS

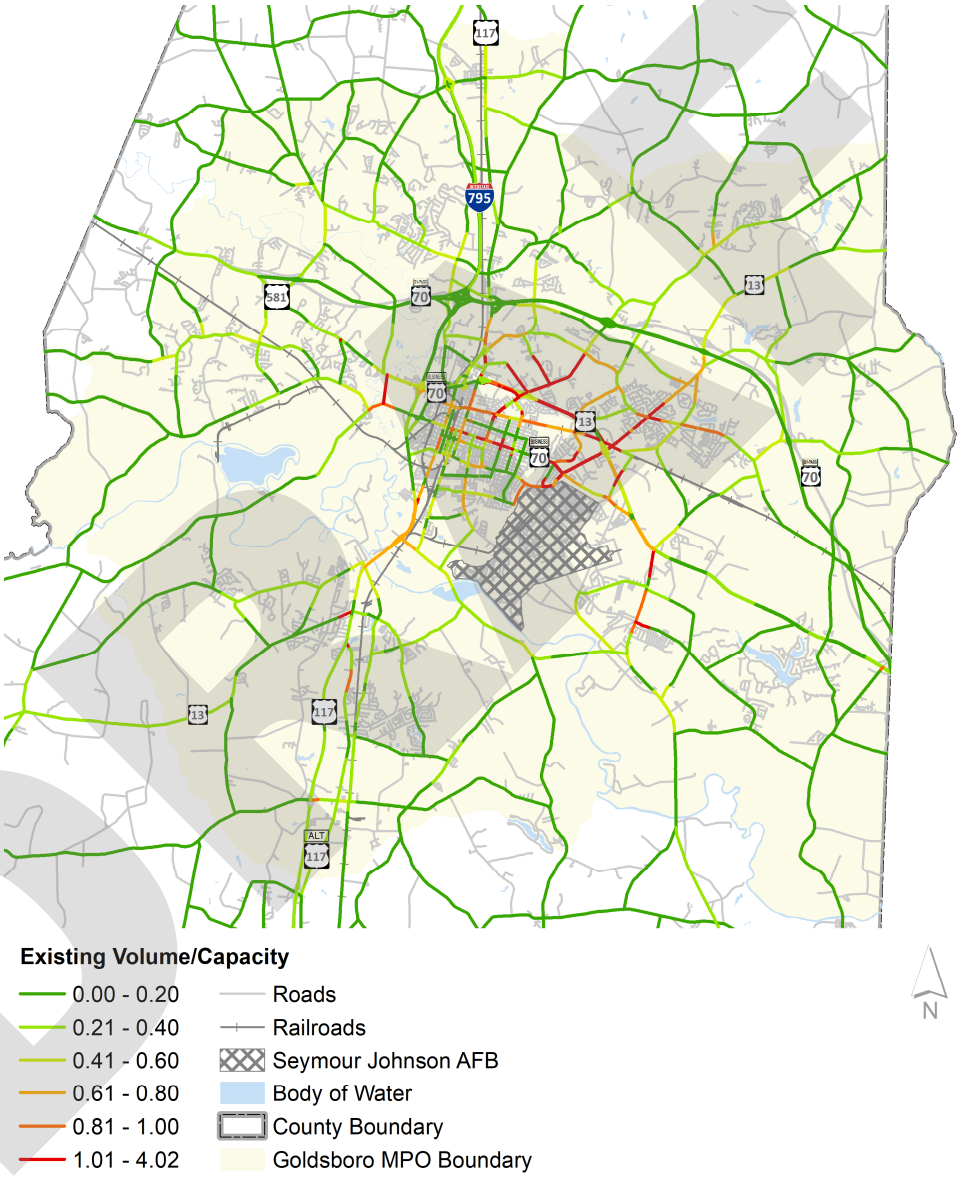


Congestion

EXISTING VOLUME/CAPACITY

The majority of roads within the study area currently operate under capacity which allows for general, free flow traffic. 5% of roads are approaching or near capacity, while 10% of roads are over capacity (see **Figure 16**). These roads fall mainly within Goldsboro city limits, or just outside of them. The five roads with the highest capacity are: Wayne Memorial Drive, Ash Street, and US 13/Berkeley/ Boulevard, Royall Avenue, and NC 111.

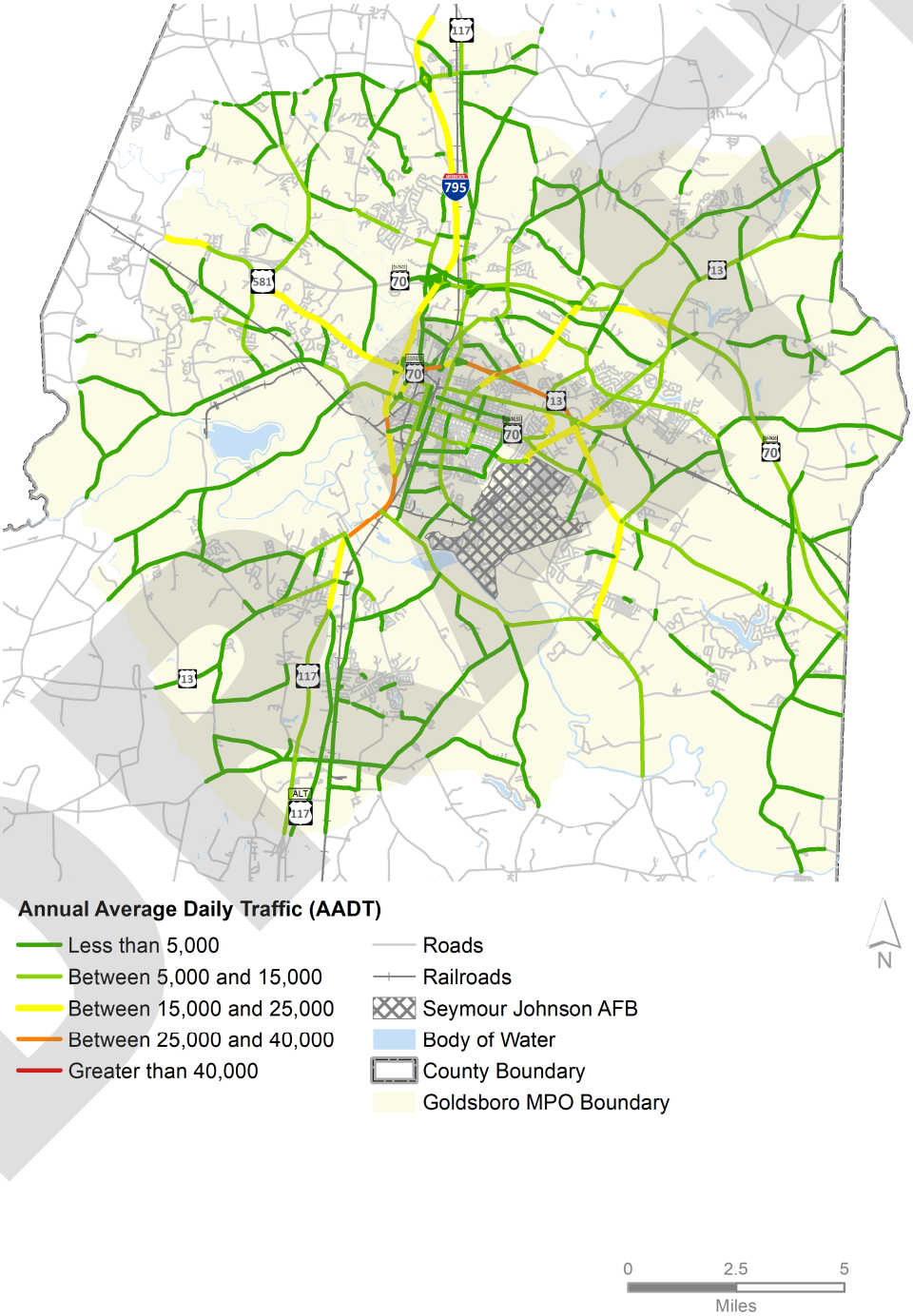
FIGURE 16: EXISTING CONGESTION



ANNUAL AVERAGE DAILY TRAFFIC (AADT)

The corridors with the highest AADT, as shown in **Figure 17**, reflect the most frequently traveled roads in the area. Data was obtained from NCDOT and is updated every few years to ensure accurate data. These roads are I-795, US 70 BUS, US 70 Bypass, US 117, US 13, and NC 111. There are no roads within the Goldsboro MPO with more than 40,000 trips per day.

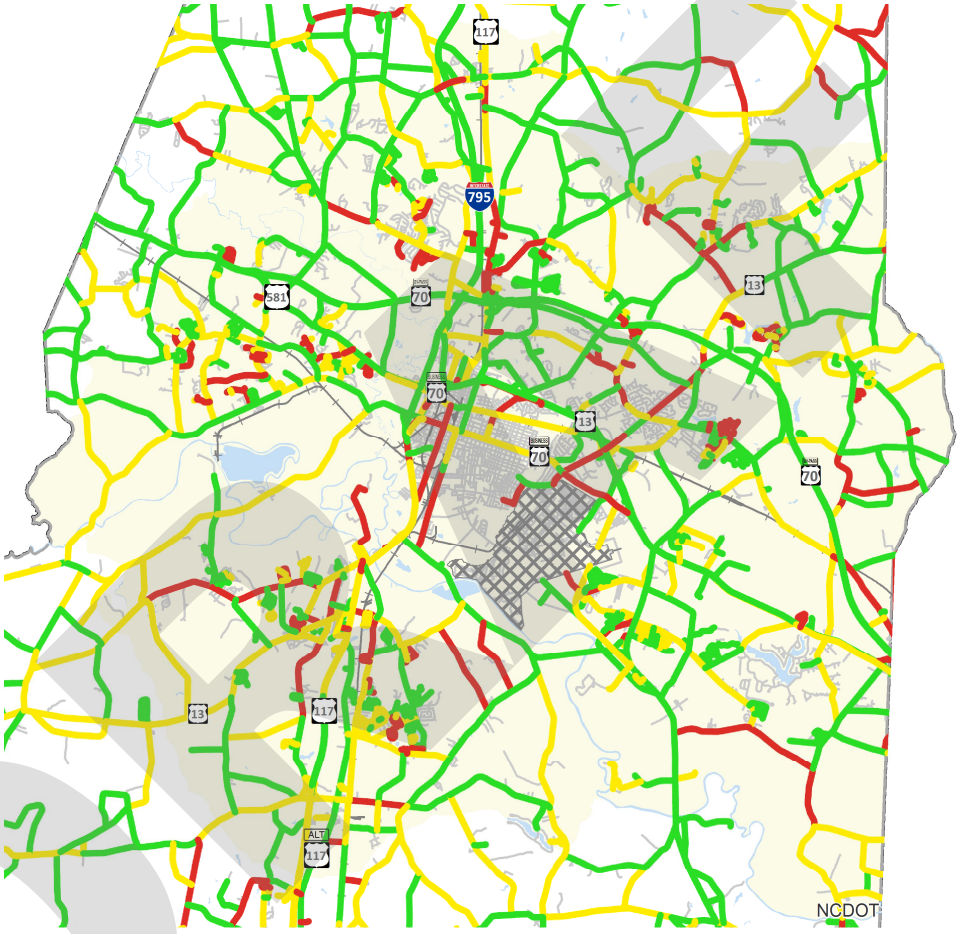
FIGURE 17: AVERAGE ANNUAL DAILY TRAFFIC (AADT)



Maintenance

The North Carolina Department of Transportation rates roads based on eight characteristics: alligator cracking, traverse, rutting, raveling, oxidation/weathering, bleeding, ride quality, and patching. A significant amount of the roads within the Goldsboro MPO are state-maintained roads, the majority of which have a pavement quality of fair or better. However, several roads have sections that are in poor condition, as seen in red in **Figure 18**. These roads include, but are not limited to: Berkeley Boulevard, Buck Swamp Road, George Street, John Street, Saulston Road, SR 1736, and Woodland Church Road.

FIGURE 18: EXISTING PAVEMENT QUALITY



Existing Pavement Quality

- Poor Condition : < 60
- Fair Condition : >=60 and <80
- Good Condition : >= 80

- Roads
- Railroads
- Seymour Johnson AFB
- Body of Water
- County Boundary
- Goldsboro MPO Boundary

N

0 2.5 5
Miles

Committed Roadway Improvements

The State Transportation Improvement Plan (STIP) is North Carolina's state and federally-mandated plan that identifies the funding levels, time periods, and project phases for transportation projects throughout the state. This list is updated regularly. The most recent version of the STIP as of the time of this writing (September 2019) was considered for this plan. Several roadway projects in the Goldsboro region are slated for design, right-of-way acquisition, or construction funding during the life of the STIP. **Table 3** lists the projects included in the STIP during the period between 2020-2029.

TABLE 2: STIP COMMITTED PROJECTS (SEPTEMBER 2019)

ID #	Project Name	Project Extents	Jurisdiction
EB-5850	Berkeley Boulevard Sidewalk (east side)	Ash Street to Elm Street	Goldsboro
AV-5740	Goldsboro Wayne Municipal Airport Land Acquisition	N/A	Wayne County
AV-5843	Goldsboro Wayne Municipal Airport Runway Extension	N/A	Wayne County
I-6047	I-795 Guardrail, Shoulder, and Median Repairs (9.2/14.2 miles)	Wilson County Line to Ash Street (SR 2075)	Wayne County
U-3125C	Future I-795	Country Club Road to South Landfill Road	Goldsboro/Wayne County
U-3125D	Future I-795	Landfill Road to Genoa Road	Goldsboro/Wayne County
U-3125E	Future I-795	Genoa Road to Arrington Bridge Road	Goldsboro/Wayne County
U-3125F	Future I-795	Arrington Bridge Road to I-795	Goldsboro/Wayne County
U-2714	US 117 Widening and Safety Improvements	US 70 Bypass to Fedelon Trail (SR 1306)	Goldsboro
I-6048	US 117 (Future I-795) Pavement and Bridge Rehabilitation	US 70 to Duplin County Line	Wayne County
R-5853	US 13 Widening	Saulston Road (SR 1572) to Rodell Barrow Road (SR 1700)	Wayne County
U-3609B	US 13 (Berkeley Boulevard) Widening	New Hope Road (SR 1003) to Saulston Road (SR 1572)	Goldsboro
U-5724	US 13 (Berkley Boulevard) at Central Heights Road (SR 1709) Realignment	N/A	Goldsboro
U-4407	US 70 Business (Ash Street) Widening	Berkeley Boulevard (SR 1579) to US 70	Goldsboro

ID #	Project Name	Project Extents	Jurisdiction
U-4753	Wayne Memorial Drive (SR 1003) Widening	New Hope Road (SR 1003) to New US 70 Bypass	Wayne County
U-5994	Wayne Memorial Drive (SR 1556) Access Management	Lockhaven Drive to Country Day Road	Goldsboro
U-6207	NC 581 Modernization	Arrington Bridge Road to NC 111	Wayne County
u-6205	Wayne Memorial Drive (SR 1556) Widening	US 70 Bypass to Saulston Road	Wayne County
U-6204	Wayne Memorial Drive (SR 1556) Access Management	Country Day Road to New Hope Road	Goldsboro
U-6206	Miller's Chapel Road Modernization	US 70 to Thoroughfare Road	Goldsboro
U-6110	US 70 and Oak Forest Road Intersection Improvement	N/A	Goldsboro

Bicycle and Pedestrian

The Goldsboro MPO bicycle and pedestrian network was studied in additional detail through the 2015 Bicycle, Pedestrian, and Greenway Plan. That plan placed an emphasis on the implementability of the non-motorized network and identifying near term projects. This plan remains a resource for details on the existing constraints and opportunities for the non-motorized network.

Since the completion of the 2015 plan, several bicycle and pedestrian facilities have been implemented within the MPO area.

COMPLETED BICYCLE FACILITIES:

- New Hope Rd sidepath complete to the Wayne Memorial Dr intersection
- Reedy Branch Greenway complete along Reedy Branch from Wayne Memorial Hospital to New Hope Rd.
- Stoney Creek Greenway section from Quail Park to Royall Ave is scheduled to be completed in 2020
- Stoney Creek North Greenway complete from Royall Ave to Peachtree St.
- Stoney Creek North Mountain Bike Trail complete
- Unpaved Stoney Creek Greenway complete from Stoney Creek Park to Elm St.
- Elm St bike lanes (includes striped buffer) complete from George St to US 117
- Center St bike lanes complete south to Spruce St.

COMPLETED PEDESTRIAN FACILITIES:

- New Hope Rd sidepath complete to the Wayne Memorial Dr intersection
- Reedy Branch Greenway complete along Reedy Branch from Wayne Memorial Hospital to New Hope Rd.
- Stoney Creek Greenway section from Quail Park to Royall Ave is scheduled to be completed in 2020
- Stoney Creek North Greenway complete from Royall Ave to Peachtree St.
- Stoney Creek North Mountain Bike Trail complete
- Unpaved Stoney Creek Greenway complete from Stoney Creek Park to Elm St.
- Sidewalks completed adjacent to bus station
- Various intersection crossing improvements

As part of the online survey, participants were asked to hypothetically allocate funds to eight categories based on what they thought the community should invest in. These eight categories included reduce congestion, system maintenance, intersection improvements, pedestrian improvements, bicycle improvements, public transportation, carpool/van pool/park & ride, and access management. The largest amount of aggregate funds was allocated to pedestrian improvements followed by reducing congestion and system maintenance. Investing in pedestrian improvements would include the creation of crosswalks, sidewalks, and other pedestrian facilities. The emphasis on pedestrian infrastructure was prominent throughout the entirely of the survey.

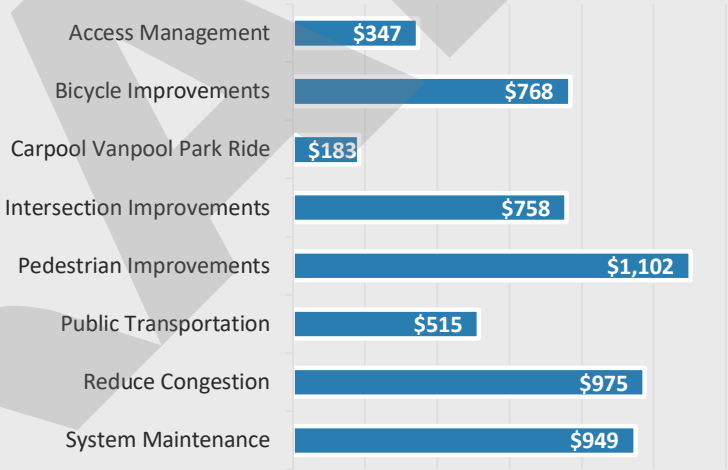


FIGURE 19: EXISTING BICYCLE FACILITIES

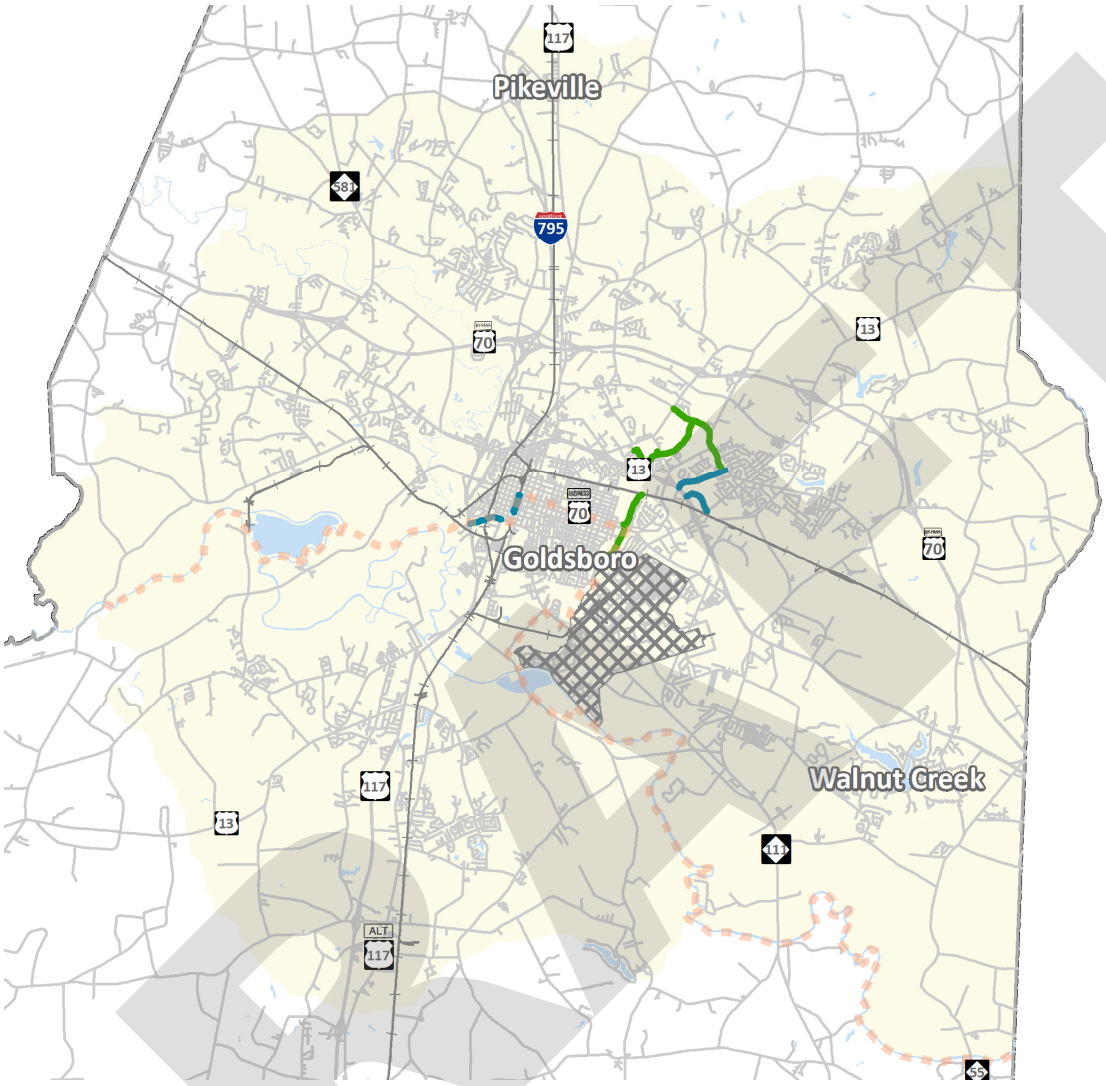
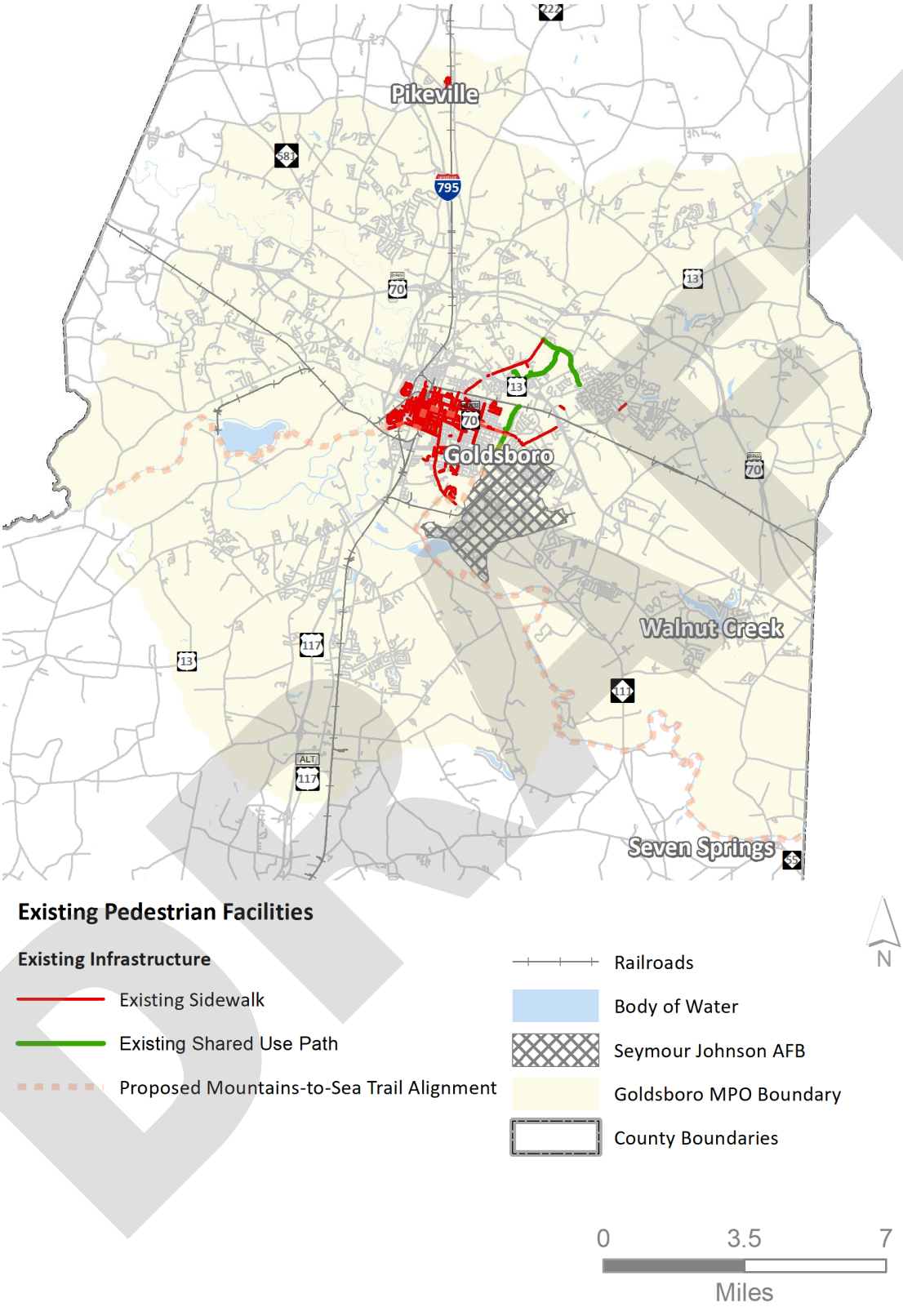


FIGURE 20: EXISTING PEDESTRIAN FACILITIES



Transit

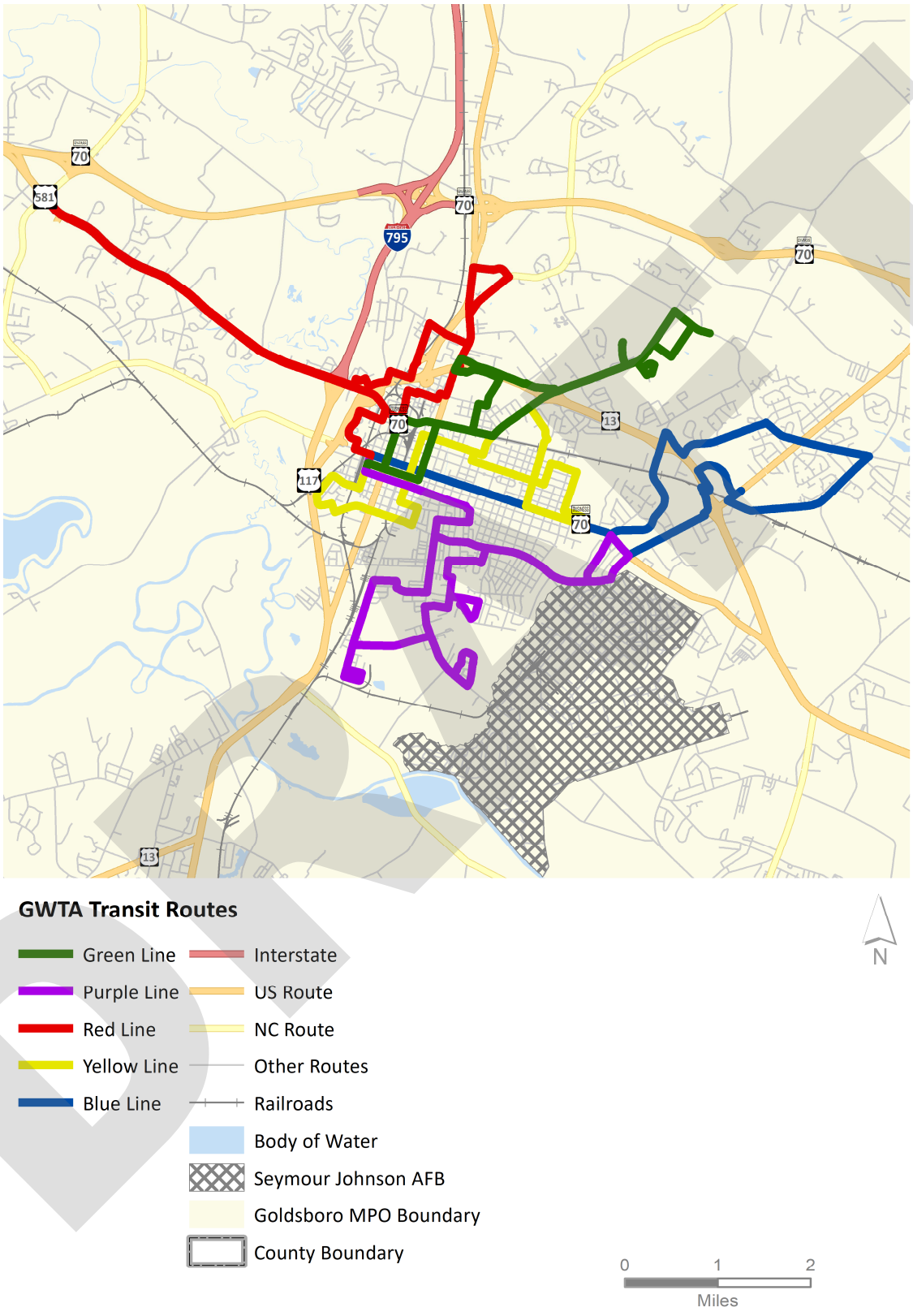
The Goldsboro-Wayne Transit Authority (GWTA) has 5 local routes serving the City of Goldsboro and the immediate surrounding region (see **Figure 21**). In 2017, GWTA provided 261,740 trips, of which 30% were demand response. All routes go through Goldsboro Union Station which provides connections to long-range buses, such as Amtrak and Greyhound. Rural/Urban General Public Transportation and Dial-A-Ride provides demand response service for a fee to all residents, and at a fixed fee for ADA passengers within ¾ mile of a bus stop.

Using the existing GWTA routes shown in **Figure 21**, and existing population and employment figures, the percent coverage of GWTA service was determined for the City of Goldsboro.

TABLE 3: GWTA TRANSIT COVERAGE IN THE CITY OF GOLDSBORO

	Population within ¼ mile of transit route	Percent Coverage	Jobs within ¼ mile of transit routes	Percent Coverage
2017	23,194	65%	19,790	82%

FIGURE 21: GWTA TRANSIT ROUTES



CHAPTER 3

FUTURE MULTIMODAL FRAMEWORK

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Chapter 3: Future Multimodal Framework

Recommended Improvements

Developing system-level recommendations began with a review of previous plans, followed by discussion with stakeholders and feedback from the community, and vetted with technical analysis. These sources indicate that even as the need persists to move traffic more efficiently, demand for multimodal facilities for users of all types is growing. Underlying concepts for modal integration and connectivity are consistent themes in the coordinated transportation strategies that follow. The plan for roadways coordinates closely with other elements, notably through an emphasis on incidental projects for cyclists and pedestrians and the general notion that improvements to the roadway network benefit future transit and freight opportunities.

Roadways

As residential, commercial, and industrial growth occurs, and more vehicles take to the road, roadway improvements are needed to reduce traffic congestion and improve safety. One of the unique demands in creating and sustaining a successful transportation system is blending access and connectivity function while preserving mobility. This blending begins with roadway recommendations.

The roadway recommendations also provide a starting point for advancing complete streets. From here, bicycle, pedestrian, and transit strategies provide balance and create a well-rounded network. Recommendations for the future multimodal system consider roadways at a corridor level and provide improvements for all travel modes along the corridor in a way that is compatible with surrounding land use. While not explicitly stated, these projects also improve freight movement, as well as the safety and security of the network.

TYPES OF IMPROVEMENTS

Roadway recommendations take numerous forms, ranging from intersection improvements to corridor enhancements. A vibrant MTP features a combination of many of these different improvement types.

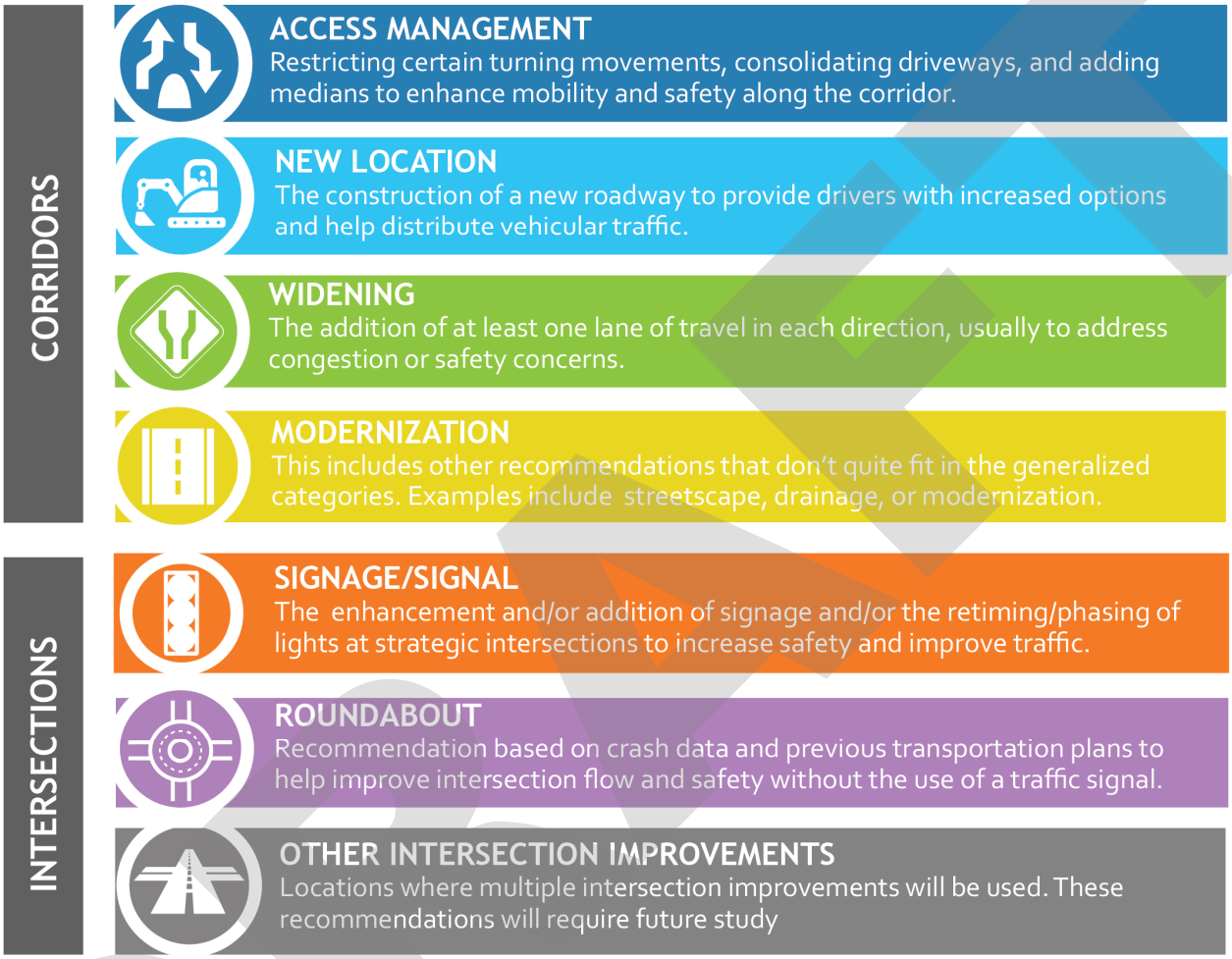
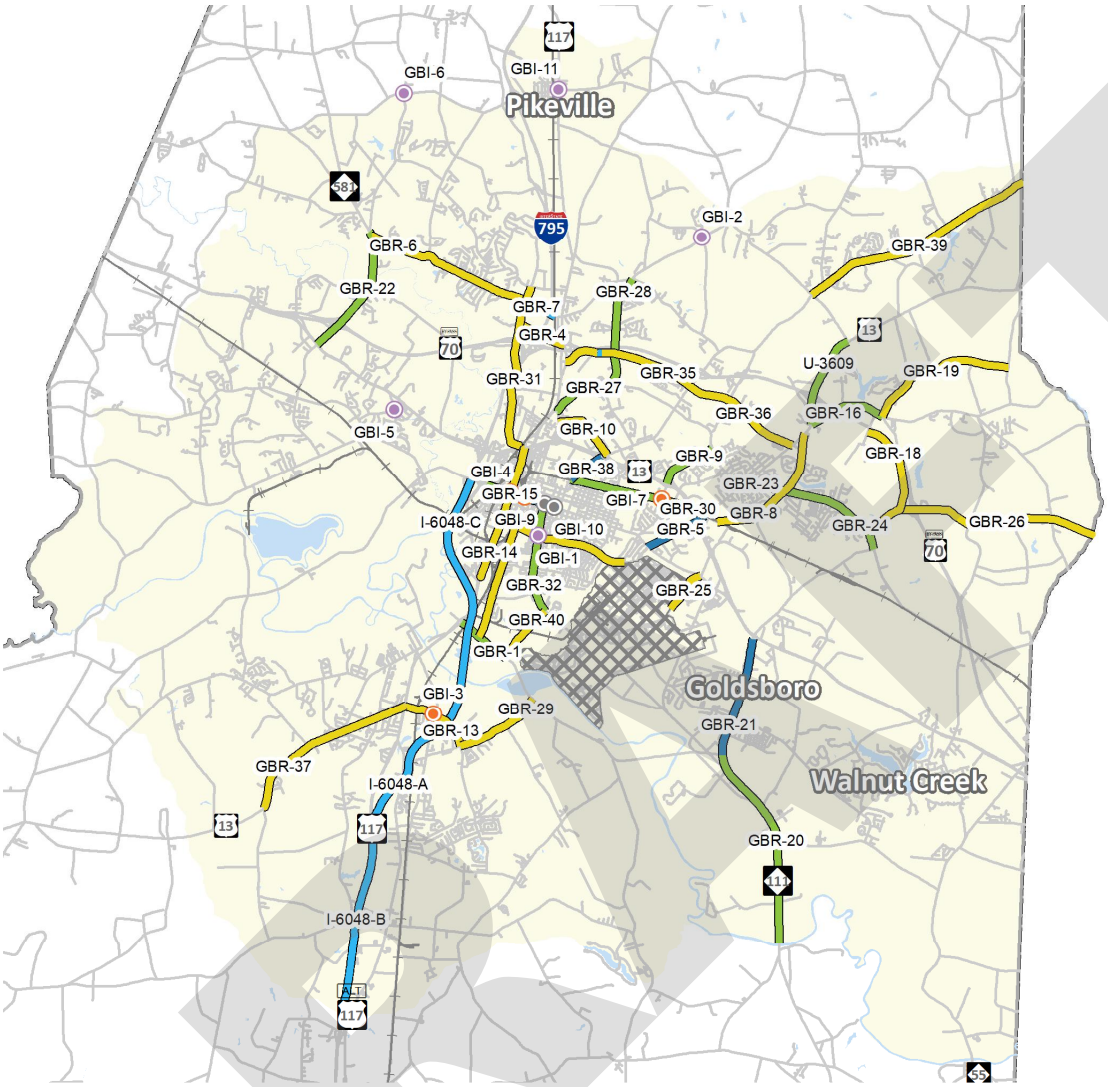


FIGURE 22: ROADWAY AND INTERSECTION RECOMMENDATIONS



Roadway and Intersection Recommendations

- Access Management
- Access Management/Road Diet
- Modernization
- New Location
- Widening
- Signage/Signal
- Roundabout
- Other
- Railroads
- Body of Water
- Seymour Johnson AFB
- Goldsboro MPO Boundary
- County Boundaries

TABLE 4: WIDENING AND NEW LOCATION PROJECTS

ID	Project Name	Project From	Project To
GBR-1	Arrington Bridge Road (NC 581) Widening	US 117	Westbrook Road
GBR-2	Ash Street (US 70 BUS) Widening	Georgia Avenue	US 117
U-3609	Berkeley Boulevard (US 13) Widening	Hood Swamp Road	Saulston Road
GBR-7	Buck Swamp Road Extension	Salem Church Road	Collier Street
GBR-9	Cuyler Best Road Widening	US 70/US 13	New Hope Road
GBR-16	Hood Swamp Road Widening	Mark Edwards Road	Berkeley Boulevard (US 13)
GBR-20	NC 111 Widening	Bill Lane Boulevard (NC 581)	Neuse River
GBR-22	NC 581 Widening	Nor-Am Road	US 70
GBR-23	New Hope Road Widening	Berkeley Boulevard	Central Heights Road
GBR-24	New Hope Road Widening	Central Heights Road	Millers Chapel Road
GBR-27	Patetown Road (NC 111) Widening	William Street (US 117 BUS)	Tommy's Road
GBR-28	Patetown Road (NC 111) Widening	Tommy's Road	Stoney Creek Church Road
GBR-30	Royall Ave Widening	Herman Street	Berkeley Boulevard (US 13)
GBR-32	Slocomb Street Widening	Ash Street (US 70 BUS)	Westbrook Road
GBR-33	Tommy's Road Extension	End of road west of Howell Branch	End of road east of Howell Branch

TABLE 5: ACCESS MANAGEMENT PROJECTS

ID	Project Name	Project From	Project To
GBR-3	Ash Street (US 70 BUS) Road Diet	George Street	Herman Street
GBR-5	Berkeley Boulevard Access Management	Ash Street (US 70 BUS)	Royall Avenue
GBR-21	NC 111 Access Management	US 70	Bill Lane Boulevard
GBR-38	Wayne Memorial Drive Access Management	Royall Avenue	US 70/US 13

TABLE 6: MODERNIZATION PROJECTS

ID	Project Name	Project From	Project To
GBR-4	Belfast Road	Salem Church Road	William Street (US 117 BUS)
GBR-6	Buck Swamp Road	NC 581	Salem Church Road
GBR-8	Central Heights Road	Berkeley Boulevard (US 13)	Central Heights Road
GBR-10	Eleventh Street	William Street (US 117 BUS)	Wayne Memorial Drive
GBR-11	Elm Street	Slocumb Street	Spence Avenue
GBR-12	Elm Street	John Street	Slocumb Street
GBR-13	Genoa Road	US 117	Pecan Road
GBR-15	George Street	US 117 (near A Street)	Elm Street
GBR-14	George Street (US 117 BUS)	US 117 (near Sherman Street)	Elm Street
GBR-17	John Street	Elm Street	Arrington Bridge Road (NC 581)
GBR-18	Mark Edwards Road	Rodell Barrow Road	Hood Swamp Road
GBR-19	Mark Edwards Road	Corbett Road	New Hope Road
GBR-26	Parkstown Road	Mark Edwards Road	MPO Boundary
GBR-29	Pecan Road	Arrington Bridge Road	Genoa Road
GBR-31	Salem Church Road/Ash Street	George Street	Stoney Hill Road
GBR-36	Tommy's Road	Berkeley Boulevard (US 13)	Wayne Memorial Drive
GBR-35	Tommy's Road	Wayne Memorial Drive	West of Patetown Road
GBR-34	Tommy's Road	US 117	East of Deans Lane
GBR-37	US 13	US 117	Herring Road
GBR-39	Wayne Memorial Drive	Saulston Road	MPO Boundary
GBR-40	Westbrook Road	Arrington Bridge Road (NC 581)	Slocumb Street

TABLE 7: INTERSECTION PROJECTS

ID	Project Location
GBI-4	Ash Street at George Street
GBI-9	Ash Street at John Street
GBI-10	Ash Street at Lionel Street
GBI-8	Ash Street at Slocumb Street
GBI-11	Goldsboro Street at Main Street/Big Daddy's Road
GBI-2	NC 111 at Daw Pate Road
GBI-6	Nor-Am Road at Pikeville-Princeton Road
GBI-5	O'berry Center Road at Perkins Mill Road
GBI-3	Old Mt. Olive Highway at Genoa Road
GBI-1	Slocumb Street at Elm Street
GBI-7	Spence Ave at Royall Avenue

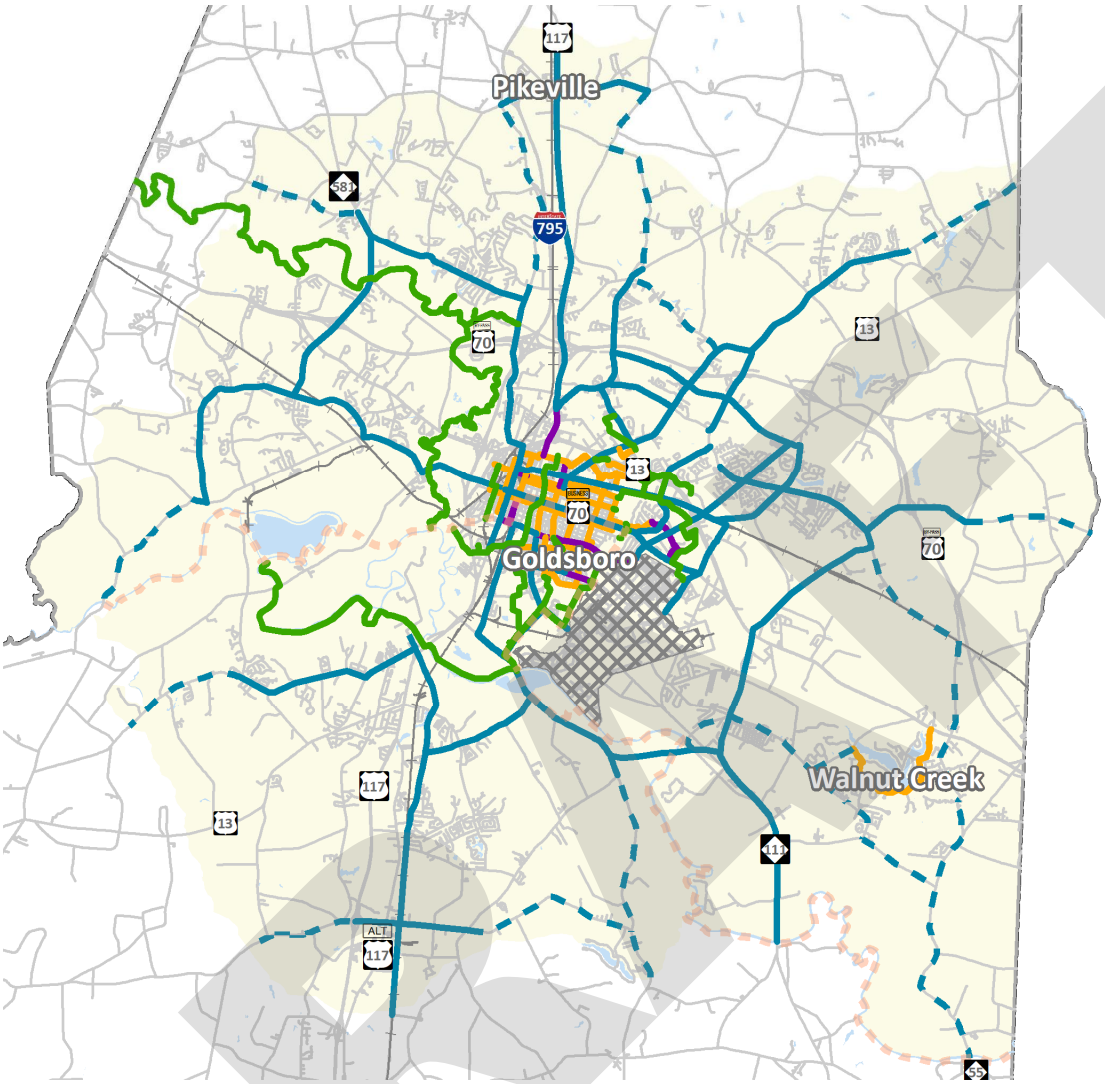
Bicycle and Pedestrian

As part of the 2045 MTP, an update to the recommended bicycle and pedestrian network was completed. The maps on the following pages show the proposed network for both bicycle and pedestrian facilities.

Key projects include:

- 400' greenway connection from Stoney Creek North Greenway to Stoney Creek Park, including a HAWK signal for at grade crossing of Ash Street.
- Construction of bridge over Royall Avenue and Railroad to connect greenway along Stoney Creek
- Shared use path along south side of New Hope Road from Wayne Memorial Drive to Patetown Road (extension of existing shared use path along south side of New Hope Road)
- Construction of bridge over existing Hwy 70 along Stoney Creek to connect Stoney Creek Greenway sections
- Paved shoulders for bicyclists along NC 581 from George Street to Rosewood Road.
- Paved shoulders for bicyclists along Royall Avenue from Wayne Memorial Drive to Berkeley Boulevard.
- Sidewalks along both sides of Elm Street from Slocumb Street to Berkeley Boulevard.
- Sidewalks along both sides of Spence Avenue from US 70 Bypass to US 70 Business (Ash Street).
- Sidewalks along both sides of Herman Street from Royall Avenue to Beech Street.

FIGURE 23: RECOMMENDED BICYCLE NETWORK



Bike Recommendations

Recommended Facility Types

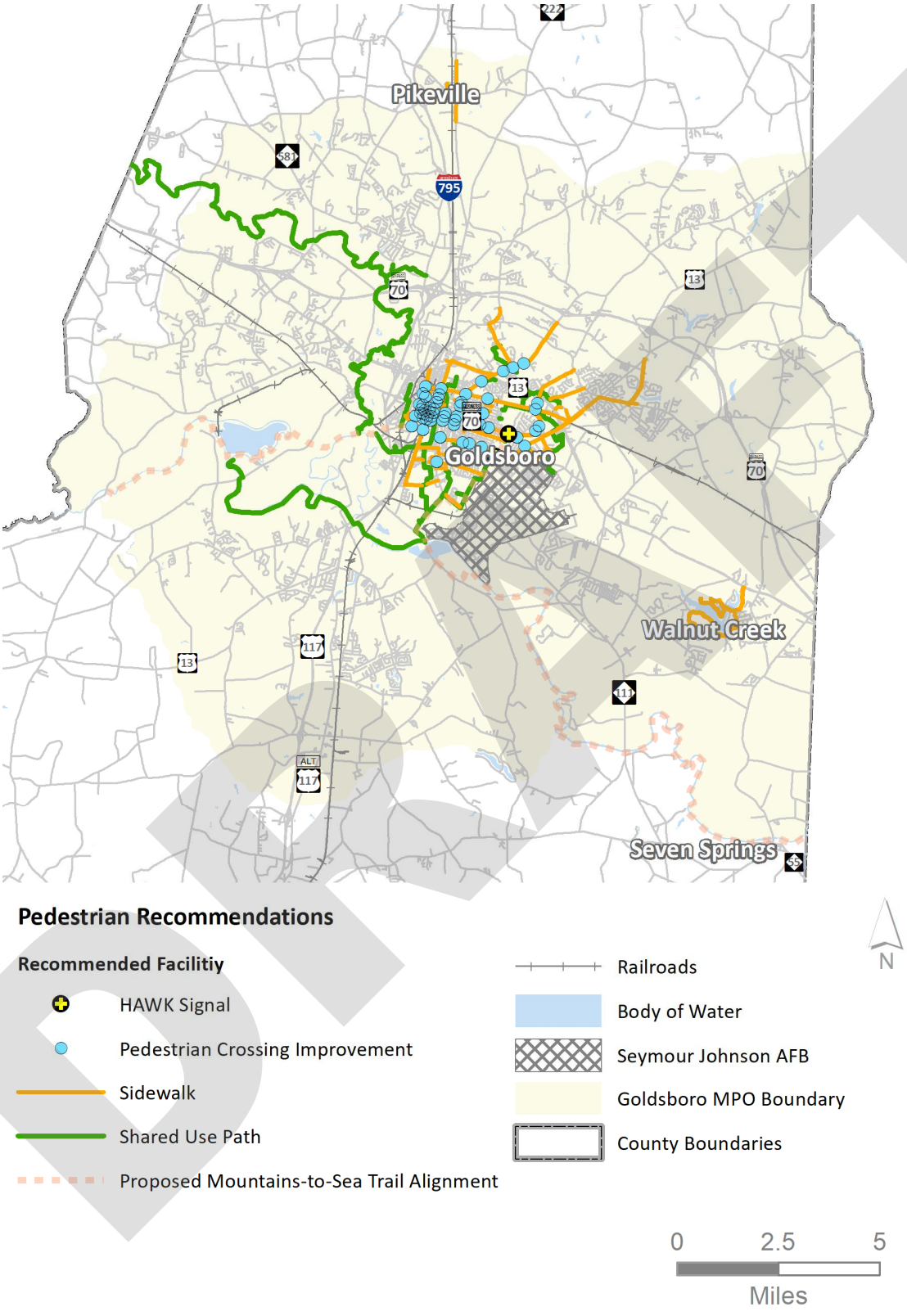
- Bike Boulevard
- Paved Shoulder
- Separated Bicycle Facility
- Separated Bicycle Facility (potentially within existing curb)
- Shared Use Path
- Proposed Mountains-to-Sea Trail Alignment

- Railroads
- Body of Water
- Seymour Johnson AFB
- Goldsboro MPO Boundary
- County Boundaries

N

0 2.5 5
Miles

FIGURE 24: RECOMMENDED PEDESTRIAN NETWORK



Transit

GWTA

Source: ridegwta.com/van-services/

As mentioned in the existing conditions analysis, the Goldsboro-Wayne Transit Authority (GWTA) currently operates 5 local routes that serve the City of Goldsboro and the surrounding region. GWTA is growing at a rate of 2% and have seen an increase in ridership from predominately Latino communities. Additionally, calls to their demand response service has increased as elderly residents remain in their homes versus going to care facilities or leaving the area. Based on the latest STIP funding, GWTA plans to replace five of their urban vehicles, increase the number/improve existing transit shelters, and add cameras to existing facilities.

Recommendations and Considerations

While GWTA is responsible for their own planning efforts, there are several recommendations and considerations that came out of public outreach efforts that bear noting.

- Considerations should be given to increasing headways and expanding/adding routes to provide additional connections (i.e. hotels and Maxwell Center) and provide transit access to those who currently do not.
- Expand the hub in downtown Goldsboro to allow for increased capacity.
- Consider the construction of a park and ride lot to encourage a “park once” mentality and increased ridership.

As GTWA plans for the future, existing routes and service times should be evaluated to ensure effectiveness or needed modifications. Additionally, GWTA should place an emphasis on prioritizing locations for shelter and bus stop amenity improvements.

PASSENGER AND COMMUTER TRANSIT

Greyhound and Amtrak bus services are both currently offered within the Goldsboro area with stations located off of US 117 and the GWTA Transfer Center respectively. Additionally, in conjunction with Carteret County Area Transportation System (CCATS), the Down East Express, which has a stop at the GWTA Transfer Center, offers daily service to Raleigh, Durham, and Research Triangle Park. Currently, the ridership is approximately twice what was anticipated for the Goldsboro area. CCATS should consider additional times and/or vehicles as this service continues to increase.

Freight

During the completion of the MTP, the Goldsboro MPO participated in the Eastern North Carolina Freight Plan. This plan assessed the existing freight network to better understand freight flows, users, and needs. This information was used to develop strategies that enhance the movement of goods within and through the region. As the Goldsboro region continues to grow and the economy places higher

demands on the freight network, the condition and efficiency of freight movement into, out of, and through the region will be a major contributor to the region's economic well-being.

The region's major freight corridors include I-795, US 70 Bypass (Future I-42), US 13, US 117, NC 111, and NC 581. These corridors connect commercial, economic, and military hubs to locations within the region and to other regions in the state and beyond. These highways are joined by railroads, airports, and pipelines to complete the region's freight network. The network's performance impacts growth and development as well as economic vitality. Critical projects to ensure the success of freight movement in the Goldsboro region include:

- Upgrading US 70 to Interstate 42
- Extending Interstate 795
- Enhancing mobility along Berkeley Boulevard
- Ensuring the rail switching yard on Millers Chapel Road continues to effectively serve Seymour Johnson Air Force Base
- Enhancements to Slocumb Street near the Seymour Johnson Air Force Base gate to aid in processing of commercial traffic

Aviation

Aviation needs within the Goldsboro region are served by both civilian and military uses, by the Wayne Executive Jetport and the Seymour Johnson Air Force Base respectively. The Wayne Executive Jetport features a 5,500-foot runway and serves more than 50 airplanes. The Goldsboro MPO should continue to coordinate with the Wayne Executive Jetport and Seymour Johnson Air Force Base about potential access improvements as well as upcoming enhancement plans that should be coordinated with other transportation modes.

Programs and Strategies

The transportation systems of cities, states, and nations are transforming. As a 2045 plan, the Goldsboro Urban Area 2045 MTP must respond to not only to the transportation needs as the stand today, but also the potential changes in the future. To do this, we must look beyond the current transportation strategies and technologies being leveraged to better understand what trends are on the way. This section describes strategies and technological applications that could combine with recommendations in previous chapters to change the transportation network in the future. As the plan is update, the technology and application levels are sure to change. The Goldsboro MPO will do its best to promote the strategies and technologies that affect positive change in the region and set the transportation infrastructure up to incorporate them efficiently.

TRANSPORTATION DEMAND MANAGEMENT

TDM refers to strategies to efficiently use the transportation system without adding additional capacity to the transportation network. TDM strategies are policies or programs that change travel patterns, such as shifting commuters from automobile to non-automobile modes, from single-occupant vehicles to higher occupancy vehicles, and from peak-hour travel to off-peak travel. In other words, TDM refers to

attempts to change travel behavior (i.e., how, when, and where people travel) to increase the efficiency of transportation systems and roadways. Strategies of a TDM plan focus on the demand side (i.e., behavior changes) rather than the supply side (i.e., infrastructure improvements).
TDM strategies typically involve employers and public agencies who can influence the travel behavior of employees and citizens. Benefits of TDM include:

- Reduced congestion on area roadways
- Reduced car maintenance and usage costs
- Increased safety and community appeal
- Increased mobility and options for non-drivers
- Energy conservation
- Improved water and air quality

TDM Strategies

TDM strategies can generally be grouped into five categories—rideshare; bicycle and pedestrian; alternate work hours; land use and development; and marketing, education, and implementation. Specific strategies within these categories are detailed in this section.

Rideshare

Ridesharing typically refers to carpooling and vanpooling and is a direct effort to maximize the number of passengers in each vehicle. Ridesharing can be a cost-effective approach to reducing single occupancy vehicles (SOV), particularly in areas like Goldsboro that have several major employment centers. Rideshare participation is maximized when it provides flexibility and commuters can choose to rideshare part-time (e.g., 2 or 3 times per week).

Ridesharing options can be categorized into the following alternatives:

- Carpools typically use vehicles owned by the users themselves.
- Vanpools are more suitable options for longer commutes and typically use vans supplied by employers, for-profit vanpool companies, non-profit organizations, or government agencies. If riders cover operating expenses, vanpools can be self-supporting.
- Transit and shuttle services can provide direct transportation from home to work or allow those who carpool or vanpool a way to move between destinations once they arrive at work.

An interesting dynamic of ridesharing, particularly in regard to carpooling and vanpooling, is how greater use of the service provides more opportunities for prospective riders to find someone with similar commuting patterns (e.g., origin, destination, time). This shows how marketing, education, and implementation strategies, described later in this plan, affect the success of rideshare programs. Rideshare programs typically provide matching services as part of a marketing and implementation strategy. Participation incentives include, but are not limited to, priority lane use for high occupancy vehicles (HOV), preferential parking spaces, and reimbursements. Because the overall effectiveness of ridesharing depends on the number of active users, marketing and customer service is critical.

Bicycle and Pedestrian

The transportation systems of vibrant communities include infrastructure for bicycles and pedestrians as well as methods for travelers to conveniently switch modes. With some momentum for bicycling and walking in the region already, Goldsboro must pay attention to ancillary infrastructure and programs that encourage bicycling and walking. With respect to TDM implementation, a variety of bicycle and pedestrian issues exist. With a sound understanding of the benefits, safety concerns, planning issues, and infrastructure improvement opportunities related to bicycling and walking, TDM administrators and local officials can more easily secure investments in bicycle and walking infrastructure and programs.

Alternate Work Schedules

Alternate work schedules balance demand on the transportation system by modifying the time or frequency of travel and include compressed work weeks, flexible work hours, staggered work hours, and telecommuting.

- In a compressed work week, employees work more hours each day so they can reduce the total number of days worked. This process reduces the number trips to the work site. A common compressed work week includes 9-hour work days with one day off every other week. Because most employees choose Monday or Friday as their day off, the cumulative impact to congestion and other benefits is not as significant as compared to other alternate work schedule options.
- Flexible work hours (or flex time) provide employees options regarding their starting and quitting times. In this alternative, employees must adhere to a range of starting and quitting times and must be at work during core periods (typically 9:30AM to 11:30AM and 1:30PM to 5:30PM). Flex time has the potential to provide significant congestion relief near major employment centers.
- Staggered work hours are a more rigid approach to flexible work hours in which employee starting and quitting times are spread over a 1- to 3-hour period. Groups of employees report and leave at 15- to 30-minute intervals. Staggered work hours are an option in large facilities that have regular work schedules.
- Telecommuting (e.g., working from home) allows an employee to work at a remote location, such as their home, one or more days a week rather than commute to the work site. As with the other alternate work schedules, telecommuting employees generally have a fixed schedule negotiated with their employer.

Marketing, Education, and Implementation

Marketing, education, and implementation are continuous needs of an inclusive process—from plan development, through initiation, to evaluation. These strategies further define consumer needs and preferences, refine appropriate products and services, distribute information about these products and services to existing and potential users, and promote their use. Because public knowledge and attitude have such a large impact on travel behavior, marketing, education, and implementation are critical components of implementing TDM strategies and reducing SOVs.

- Marketing is a dialogue between provider and consumer and extends beyond simply promoting a product, activity, or service. Effective marketing programs for TDM strategies involve

numerous partners and stakeholders, including public officials, community organizations, and individuals, who support transportation alternatives. Marketing initiatives must be balanced by the level of service offered. In other words, the adequate level of service must be confirmed prior to marketing the service.

- Education programs maximize public investment by encouraging the use of TDM programs. A challenge for education programs is delivering different messages to different types of people. For example, the message to encourage regular carpooling is different for those who have tried the program compared to those who have not tried it and perhaps perceive it as inconvenient or unfeasible.
- Implementation occurs in multiple phases. Initially, implementation refers to actions required to implement and enforce a policy or launch a new service or program. Consideration for marketing and education efforts should be ongoing and provide continued support and refinement. In this way, the Goldsboro MPO and local jurisdictions can adjust to changes in travel behavior and respond to future opportunities. Many implementation strategies are the framework upon which other strategies are built.

TDM Application

The Goldsboro region has an attractive mix of employment and residential types within the path of growth. As such, the region is well positioned to consider applying one or more TDM strategies.

TRANSPORTATION SYSTEMS MANAGEMENT

TSM is the process of optimizing the existing transportation system and infrastructure through less capital-intensive measures. Unlike TDM strategies, which focus on travel times and travel options, TSM strategies focus on physically enhancing the existing transportation infrastructure to increase roadway capacity, increase travel options, and reduce congestion and delay.

The basic premise of TSM is that minor targeted improvements to transportation infrastructure can significantly increase the capacity, efficiency, and usefulness of the transportation system. For example, the signal timings along a corridor can be optimized and intersection improvements, such as turn lanes, pedestrian crosswalks, and vehicle detectors, can be implemented to improve the traffic flow and increase capacity. Some of the commonly implemented TSM strategies include traffic signal optimization, geometric roadway modifications, spot roadway and lane modifications, intersection modifications, access management, and pedestrian and bicycle enhancements.

The 2045 MTP embraces small-scale projects that address targeted needs as applications of the TSM approach. The Goldsboro MPO should continue to prioritize these projects as well as the funding types that best support their implementation.

Intelligent Transportation Systems (ITS)

One useful TSM strategy that is already being employed in the Goldsboro region is ITS, which describes various technologies that provide benefits when implemented as part of an overall transportation management strategy. ITS is one way transportation planners manage traffic flow to limit congestion for

normal and unexpected delays, reduce crashes, and minimize fuel consumption and emissions. While some people may not be familiar with the term, they should be familiar with the many ITS applications they use or experience each day. These applications include dynamic message signs along highways, coordinated traffic signals, video cameras and special sensors to monitor traffic, and ways to give emergency and transit vehicles priority to proceed safely through signalized intersections.

The Goldsboro region should continue to leverage its existing ITS resources and improve its capabilities as technology advances. The Goldsboro MPO and its member jurisdictions should continue to partner with NCDOT to identify opportunities for ITS enhancements and seek funding. Since these projects have the ability to make better use of available transportation infrastructure, they are an efficient implementation strategy for the network both now and into the future.

CHAPTER 4

PROJECT EVALUATION

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Chapter 4: Project Evaluation

Prioritization

Prioritization is a critical tool for implementation of the identified transportation projects for the Goldsboro Urban Area. This financially constrained prioritization exercise considers a wide variety of factors and project characteristics, including cost, adherence to local and regional guiding principles, economic benefits, and more. This section outlines the details of the prioritization methodology, and the results.

Methodology

The assessment of roadway projects for the Goldsboro MTP includes both quantitative and qualitative metrics. The metrics used for analysis were defined using the NCDOT SPOT 6.0 methodology as the baseline and modified based on the Goldsboro MTP guiding principles, outreach efforts, and the availability of local data. Similar to the statewide methodology, projects in the Goldsboro MTP were analyzed with respect to their state funding category: Statewide (Mobility), Regional (Impact), and Division (Needs).

STATEWIDE MOBILITY PRIORITIZATION CRITERIA

The statewide mobility category considers projects based on both quantitative and qualitative data for the MTP prioritization process. This is a deviation from the statewide projects are scored using only quantitative data. **Table 8** outlines the metrics used to prioritize statewide projects. Eligible roadways include Future I-795 and US 70.

TABLE 8: STATEWIDE PROJECT PRIORITIZATION CRITERIA

Metric	Weight	Guiding Principle Served
Congestion	30%	• Accessibility • Connectivity • Efficiency
Cost Effectiveness	25%	• Accessibility • Connectivity • Maintenance
Freight	20%	• Economic Development
Safety	10%	• Safety
Economic Competitiveness	7.5%	• Connectivity • Economic Development
Public Support	5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security
Transportation Plan Consistency	2.5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security

REGIONAL IMPACT PRIORITIZATION CRITERIA

Regional impact projects will be considered based on both quantitative and qualitative data for the MTP prioritization process, as shown in **Table 9**. Unlike the SPOT 6.0 prioritization process, the Goldsboro MTP considers economic competitiveness at the regional level. Additionally, the SPOT process attributes 30% to local input. For the Goldsboro MTP, 7.5% of this will be counted towards public support and the remaining portion will be distributed to the additional metrics not given a formal weight in the SPOT process (economic competitiveness, multimodal benefit, lane and shoulder width, pavement condition, etc.). Roadways that are categorized as regional include NC 111, US 13 South, and more.

TABLE 9: REGIONAL PROJECT PRIORITIZATION CRITERIA

Metric	Weight	Guiding Principle Served
Congestion	20%	• Accessibility
Cost Effectiveness	20%	• Accessibility • Maintenance
Safety	10%	• Safety
Accessibility/Connectivity	10%	• Accessibility • Connectivity • Environment
Freight	10%	• Economic Development
Economic Competitiveness	4%	• Economic Development • Maintenance
Multimodal Benefit	5%	• Connectivity • Environment
Project Feasibility	1%	• Efficiency
Lane and Shoulder Width	2.5%	• Maintenance • Safety
Pavement Condition	2.5%	• Maintenance
Right-of-Way Status	1%	• Accessibility • Connectivity • Maintenance
Public Support	7.5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security
Transportation Plan Consistency	7.5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security

DIVISION NEEDS PRIORITIZATION CRITERIA

Projects in the division needs category will be considered based on both quantitative and qualitative data for the Goldsboro MTP prioritization process as shown in **Table 10**. Like regional impact projects, economic competitiveness was added to the prioritization metrics. Additionally, the SPOT process attributes 50% to local input. For the Goldsboro MTP, 12.5% of this will be counted towards public support and the remaining half will be distributed to the additional metrics not given a formal weight in the SPOT process (economic competitiveness, multimodal benefit, lane and shoulder width, pavement condition, etc.). Eligible roadways include Wayne Memorial Drive, Berkeley Boulevard, Central Heights Road, and more.

TABLE 10: DIVISION PROJECT PRIORITIZATION CRITERIA

Metric	Weight	Guiding Principle Served
Congestion	15%	• Accessibility • Efficiency
Cost Effectiveness	15%	• Accessibility • Maintenance
Safety	10%	• Safety
Accessibility/Connectivity	5%	• Connectivity • Environment • Maintenance
Freight	5%	• Economic Development
Economic Competitiveness	4%	• Economic Development
Multimodal Benefit	10%	• Connectivity • Economic Development
Project Feasibility	1%	• Efficiency
Lane and Shoulder Width	2.5%	• Accessibility • Maintenance • Safety
Pavement Condition	5%	• Maintenance
Right-of-Way Status	2.5%	• Accessibility • Connectivity • Maintenance
Public Support	12.5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security
Transportation Plan Consistency	12.5%	• Accessibility • Connectivity • Economic Development • Efficiency • Environment • Maintenance • Safety • Security

CHAPTER 5

PERFORMANCE MEASUREMENT

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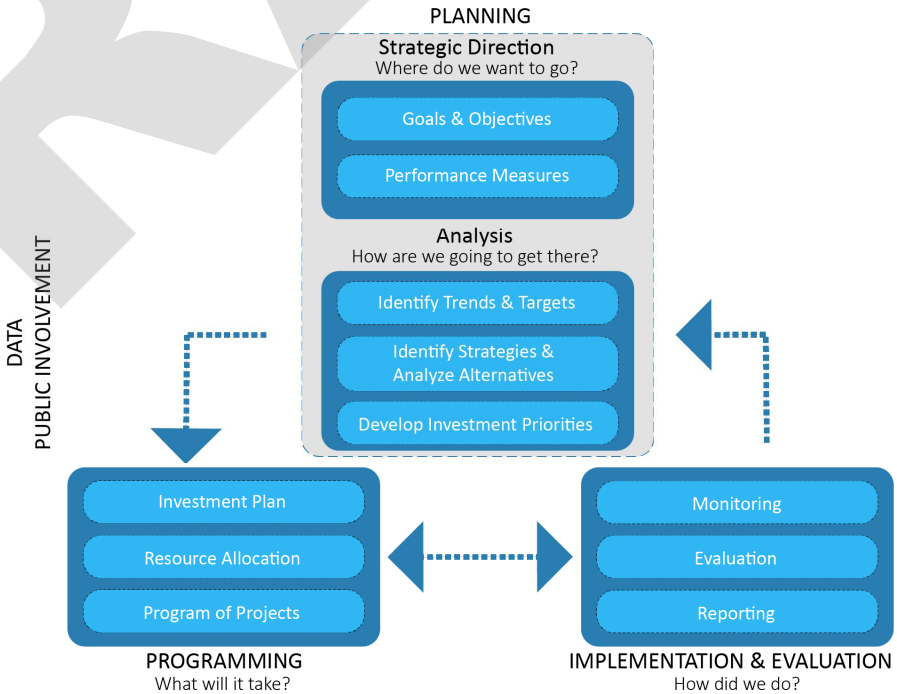
Chapter 5: Performance Measurement

Introduction

The Goldsboro MTP is the result of an ongoing partnership between local, state, and federal representatives. The guiding principles of this plan reflects the community's vision for the transportation system as well as the MAP-21 (Moving Ahead for Progress in the 21st Century) planning factors, local context, and regional needs. MAP-21 was signed into law on July 6, 2012 and allocated over $105 billion for fiscal years 2013 and 2014 to fund surface transportation programs. Following MAP-21, the Fixing America's Surface Transportation Act (FAST Act) was signed into law on December 4, 2015 and allocates over $305 billion for fiscal years 2016 to 2020 to fund highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, research, technology, and statistics programs to continue MAP-21's overall performance management approach. Additionally, the FAST Act is the first federal legislation that provides a dedicated source of federal funding for freight projects. The concept of performance management is implemented through this process to better serve the community and make effective funding decisions.

Performance-Based Planning and Programming (PBPP) refers to the methods transportation agencies use to apply performance management and standard practice in their planning and programming processes. The goal of PBPP is to ensure that transportation investment decisions – both long term planning and short-term programming – depend on the ability to meet established goals. As a federal requirement, states will invest resources in projects to achieve individual targets that make collective progress toward national goals. MPOs are also responsible for developing MTPs and TIPs through a performance-driven, outcome-based approach to planning.

This chapter provides insight into the MPO's transition to a more strategic PBPP. Notably, the performance measurement targets and methodology detailed in this chapter are focused on overall system-wide performance. Project-level performance for roadway projects has been addressed through this plan's prioritization process, which is covered in Chapter 4.



National Goals and Measures

Highway Measures

Specific performance measures correlate with the national goal areas developed in MAP-21 and the FAST Act. The Federal Highway Administration (FHWA) requires state department of transportations (DOTs) and metropolitan planning organizations (MPOs) to monitor the transportation system using these specific performance measures. The goals are illustrated through seven broad planning factors identified for special focus within the MPO's long-range transportation planning program. The Goldsboro MTP addresses these national goals areas for highway performance and performance measures.

SAFETY

To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

- Number of Fatalities
- Fatality rate (per 100 million vehicle miles traveled)
- Number of serious injuries
- Serious injury rate (per 100 million vehicle miles traveled)
- Number of non-motorized fatalities and non-motorized serious injuries

INFRASTRUCTURE

To maintain the highway infrastructure asset system in a state of good repair

- Percentage of pavements on the Interstate System in Good condition
- Fatality rate (per 100 million vehicle miles traveled)
- Number of serious injuries
- Serious injury rate (per 100 million vehicle miles traveled)

CONGESTION REDUCTION

To achieve a significant reduction in congestion on the National Highway System

- Annual hours of peak-hour excessive delay per capita
- Percent of non-single-occupant vehicle travel*

*Only applies in areas designated as Transportation Management Area (TMAs)

SYSTEM RELIABILITY

To improve the efficiency of the surface transportation system.

- Percent of person miles traveled on the Interstate System that are reliable
- Percent of person miles traveled on the non-interstate NHS that are reliable

FREIGHT MOVEMENT AND ECONOMIC VITALITY

To improve the performance of the transportation system while protecting and enhancing the natural environment.

- Truck Travel Time Reliability Index

ENVIRONMENTAL SUSTAINABILITY

To enhance the performance of the transportation system while protecting and enhancing the natural environment.

- Total emissions reduction*

*Only applies in non-attainment or maintenance areas over a prescribed population threshold.

REDUCES PROJECT DELIVERY DELAYS

To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Transit Performance

Recipients of public transit funds—which can include states. Local authorities, and public transportation operators—are required to establish performance targets for safety and state of good repair; to develop transit asset management and transit safety plans; and to report on their progress toward achieving targets. Public transportation operators are directed to share information with MPOs and states so that all plans and performance reports are coordinated. The list below identifies performance measures goals outlines in the National Public Safety Transportation Plan, released by the Federal Public Transit Administration (FTA), and in the final rule for transit asset management. The Goldsboro MPO will be required to coordinate with Goldsboro-Wayne Transit Authority (GWTA) to set targets for these measures.

SAFETY

- Total number of reportable fatalities and rate per total vehicle miles by mode
- Total number of reportable injuries and rate per total vehicle revenue miles by mode
- Total number of reportable events and rate per total vehicle revenue miles by mode
- Mean distance between major mechanical failures by mode

INFRASTRUCTURE CONDITION (STATE OF GOOD REPAIR: TRANSIT ASSET MANAGEMENT)

- Equipment: percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)
- Rolling Stock: percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB
- Facilities: Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model scale

Federal Requirements

Federal performance measurement guidance has sought to identify and streamline a process for the introduction of performance-based planning into MPO led documents such as the MTP and TIP. The target identification, reporting, and assessment phases of this process are described in this section.

Targets

- The Goldsboro MPO is required to establish performance targets no later than 180 days after NCDOT or a public transportation operator sets performance targets.
- For each performance measure, the Transportation Advisory Committee (TAC) will either decide to support a statewide target or establish a quantifiable target specific to the planning area.
- NCDOT, MPOS, and public transit operators must coordinate performance measure targets to ensure consistency to the extent practicable.

Reporting

- The Goldsboro MTP and subsequent updates must describe the performance measures and targets, evaluate the performance of the transportation system, and report on progress made.
- The TIP must link investment priorities to the targets in the MTP and describe, to the extent practicable, the anticipated effect of the program on achieving establish targets.
- The Goldsboro MPO must also report to NCDOT the baseline roadway transportation system condition, performance data, and progress toward achieving targets.

Assessments

- FHWA and FTA will not directly evaluate the MPO's progress toward meeting performance measure targets. Instead, the MPO's performance will be assessed as part of regular cyclical transportation planning process reviews.
- FHWA will determine if NCDOT has met or made significant progress toward selected targets for the highway system.

Performance Targets

The Goldsboro MTP is shaped by several elements, including federal legislation and the direction of state and local agencies. Establishing performance targets is an ongoing process and must be coordinated between the NCDOT and MPOs. Once the statewide performance targets are established, the MPO staff and Transportation Advisory Committee (TAC) members must decide whether to adopt the statewide targets or establish their own targets. This section is intended to be dynamic and will undergo several revisions following the initial adoption of this plan. As performance targets get adopted by the TAC, they will be incorporated into this section.

Performance Targets Summary

A summary of performance targets for the Goldsboro Area MPO is provided in **Table 8** on the following page. This table is intended to be continuously updated as additional performance targets are adopted by the Goldsboro MPO TAC.

TABLE 11: PERFORMANCE TARGETS

National Goal Areas	Measure	FAST Act Target			Adopted on
Safety	Number of fatalities	reduce by	5.10%	each year	12/31/2018
	Fatality rate (per 100 million vehicle miles traveled)	reduce by	4.75%	each year	12/31/2018
	Number of serious injuries	reduce by	5.10%	each year	12/31/2018
	Serious injury rate (per 100 million vehicle miles traveled)	reduce by	4.75%	each year	12/31/2018
	Number of non-motorized fatalities and non-motorized serious injuries	reduce by	5.30%	each year	12/31/2018
Infrastructure Condition	Percentage of pavements on the Interstate System in Good condition (4-Year Target)		37.0%	by 12/31/2021	9/11/2018
	Percentage of pavements on the Interstate System in Poor condition (4-Year Target)		2.2%	by 12/31/2021	9/11/2018
	Percentage of pavements on non-Interstate National highway System (NHS) in Good condition (2-Year Target)		27.0%	by 12/31/2019	9/11/2018
	Percentage of pavements on the non-Interstate NHS in Good condition (4-Year Target)		21.0%	by 12/31/2021	9/11/2018
	Percentage of pavements on the non-Interstate NHS in Poor condition (2-Year Target)		4.2%	by 12/31/2019	9/11/2018
	Percentage of pavements on the non-Interstate NHS in Poor condition (4-Year Target)		4.7%	by 12/31/2021	9/11/2018
	Percentage of NHS bridges classified as in Good condition (2-Year Target)		33.0%	by 12/31/2019	9/11/2018
	Percentage of NHS bridges classified as in Good condition (4-Year Target)		30.0%	by 12/31/2021	9/11/2018
	Percentage of NHS bridges classified as in Poor condition (2-Year Target)		8.0%	by 12/31/2019	9/11/2018
	Percentage of NHS bridges classified as in Poor condition (4-Year Target)		9.0%	by 12/31/2021	9/11/2018
System Reliability	Percent of person miles traveled on the Interstate System that are reliable (2-Year Target)		80.0%	by 12/31/2019	9/11/2018
	Percent of person miles traveled on the Interstate System that are reliable (4-Year Target)		75.0%	by 12/31/2021	9/11/2018
	Percent of person miles traveled on the non-Interstate NHS that are reliable (4-Year Target)		70.0%	by 12/31/2021	9/11/2018
Freight Movement and Economic Vitality	Truck Travel Time Reliability Index (2-Year Target)		1.65	by 12/31/2019	9/11/2018
	Truck travel Time Reliability (4-Year target		1.70	by 12/31/2021	9/11/2018
Congestion Reduction*	Annual hours of peak-hour excessive delay per capita		N/A		
	Percent of non-single-occupant vehicle travel		N/A		
Environmental Sustainability**	Total emissions reduction		N/A		

*Only applies in regions designated as transportation Management Areas

**Only applies in non-attainment or maintenance areas over a prescribed population threshold

Chapter 6: Financial Plan

Financial Plan Development

Overview

Transportation planning has historically balanced the technical aspects with engaging the public and elected leaders in the decision-making process. However, there is often a disconnect between public policy and this approach. This can make it difficult to evaluate how well the transportation system addresses the community's needs and how well future transportation projects will improve quality of life. The 2045 MTP serves as the region's long-range transportation strategy and combines technical data with engagement results.

In accordance with state and federal requirements, this plan is also financially constrained. This process demonstrates how the recommended and prioritized projects can realistically be funded during the life of the plan. Due to limited transportation funding, it is critical that measures be taken to ensure that appropriate projects and programs are prioritized and eventually implemented.

To do this, the Goldsboro MPO must demonstrate a reasonable expectation of future funding levels, estimate project costs, and project the future needs of all travel modes. The financially-constrained plan allows the MPO and supporting agencies to focus on near-term opportunities and identify strategies for implementation.

Fixing America's Surface Transportation Act (FAST Act), Public Law 114-94, was signed into law on December 4, 2015. The FAST Act funds transportation programs for fiscal years 2016 through 2020. It is the first long-term surface transportation authorization enacted in a decade that provides funding certainty for surface transportation. The FAST Act supports critical transportation projects to ease congestion and facilitate freight movement on major roads by establishing and funding new policies and programs. The FAST Act builds off the prior federal legislation— Public Law 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21)—and continues that law's emphasis on performance evaluation and addresses national priorities, as identified below.

The financially-constrained plan, required by the FAST Act and MAP-21 for regional LRTPs, shows proposed investments that are realistic based on future funding availability during the life of the plan and a series of funding periods. Meeting this test is referred to as "financial constraint." The funding periods identified for the 2045 MTP are:

- 2020-2024
- 2025-2029
- 2030-2034
- 2035-2039
- 2040-2045

The 2020-2029 funding periods includes the committed projects and associated funding from the STIP. Projects and funding levels identified during this time period were identified as priority projects during

previous planning efforts and have been discussed in previous chapters of this document. As such, they are not re-evaluated as part of this plan. The 2030–2045 funding periods divide the remainder of the projected revenues and projects into time bands. Projects that cannot be funded within the 2045 financially-constrained plan are considered part of the unfunded vision plan.

Roadway Maintenance Funding

Although the 2045 MTP is primarily focused on capital improvements to the multimodal system, maintenance funding also needs to be considered. Maintenance funding in the Goldsboro region is applied to areas such as roadway maintenance, bridge replacements, or bicycle and pedestrian infrastructure. Maintenance of these types of uses is funded either by state and federal sources or by local sources, depending on the ownership of the facility being considered. NCDOT tracks historic maintenance at the county level for state-maintained facilities, as shown in the table below. The average annual maintenance funding for Wayne County is shown in the table as well as the most recent fiscal year's (2017-2018) dollar value.

While this data is not specific to the MPO, it still provides a helpful understanding of the funding trends for maintenance. Future year maintenance funding was not projected. However, it is reasonable to assume that all maintenance funding that is made available within the MPO area will be fully utilized. The MPO should continue to work with member jurisdictions and NCDOT to determine whether a maintenance shortfall could exist and how that could be addressed through future planning efforts. Data from the performance measures introduced in Chapter 5 will serve as a helpful guide for this conversation.

TABLE 12: MAINTENANCE REVENUES

	Maintenance Revenues
2017-2018	
2030-2034	
2035-2039	
2040-2045	
2030-2045	

Capital Roadway Funding

CAPITAL ROADWAY FUNDING BY HORIZON YEAR

Projections of funding for capital roadway projects are based in large part on current funding levels shown in the FY 2020-2029 Statewide Transportation Improvement Program (STIP). The average annual funding level from the STIP is approximately $15 million; however, MPO staff feels that the level of funded projects in the current STIP and contribution of BUILD NC Bond dollars is more than what can be reasonably expected in the future. As a result, the revenue projections do not consider approximately $27 million in BUILD NC Bond money. Revenue forecasts were adjusted within this projection period to reflect a conservation 1.5% inflation rate.

Based on the forecasting methodology, the available capital highway funding in the Goldsboro MPO totals approximately $321 million dollars. **Table 13** summarizes the anticipated capital roadway funding broken out by Statewide Highway, Regional Highway, and Division Highway by horizon band.

TABLE 13: CAPITAL ROADWAY REVENUES BY HORIZON BAND

	Statewide Highway	Regional Highway	Division Highway
2030-2034	$ 13,256,144	$ 34,274,677	$ 44,712,935
2035-2039	$ 14,280,632	$ 36,923,561	$ 48,168,529
2040-2045	$ 18,600,989	$ 48,094,142	$ 62,741,079
2030-2045	**$ 46,137,765**	**$ 119,292,380**	**$ 155,622,543**

FINANCIALLY CONSTRAINED PROJECT LIST BY HORIZON YEAR

Table 14 presents the financially constrained projects and their cost estimates inflated to the midpoint year of the horizon band. Each of these lists of projects is constrained based on the amount of revenue projected to be available during the horizon band time period. Unfunded vision projects, while not projected to receive funding as part of this plan, are still considered viable recommendations and so remain in the plan. The supporting map following **Table 14** shows the roadway projects included in all of the horizon bands of the 2045 MTP.

TABLE 14: FINANCIALLY CONSTRAINED ROADWAY PROJECTS

2030-2034				
Project Name	**From**	**To**	**YOE Cost (thousands)**	**STI Category**
Ash Street at George Street Intersection Improvements	N/A	N/A	$67	Regional
Ash Street at John Street Intersection Improvements	N/A	N/A	$67	Regional
Ash Street at Lionel Street Intersection Improvements	N/A	N/A	$167	Regional
Ash Street at Slocumb Street Intersection Improvements	N/A	N/A	$30	Regional
Ash Street Widening	Georgia Avenue	US 117	$11,570	Regional

2030-2034				
Project Name	**From**	**To**	**YOE Cost (thousands)**	**STI Category**
NC 111 at Daw Pate Road Intersection Improvements	N/A	N/A	$ 42	Regional
US 117 Widening and Safety Improvements*	US 70 Bypass	Fedelon Trail	$ 6,918	Regional
US 13 (Berkeley Boulevard) Widening*	New Hope Road	Saulston Road	$ 5,020	Regional
US 13 (Berkley Boulevard) at Central Heights Road (SR 1709) Realignment*	N/A	N/A	$7,143	Regional
Goldsboro Street at Main Street/Big Daddy's Road	N/A	N/A	$1,499	Division
Miller's Chapel Road Modernization*	US 70	Thoroughfare Road	$ 2,498	Division
NC 581 Modernization*	Arrington Bridge Road	NC 111	$ 9,075	Division
Nor-Am Road at Pikeville-Princeton Road Intersection Improvements	N/A	N/A	$ 77	Division
Oberry Center Road at Perkins Mill Road Intersection Improvements	N/A	N/A	$ 82	Division
Old Mt. Olive Highway at Genoa Road Intersection Improvements	N/A	N/A	$ 3	Division
Slocumb Street at Elm Street Intersection Improvements	N/A	N/A	$ 10	Division
2035-2039				
Project	**From**	**To**	**YOE Project Cost**	**STI Category**
Ash Street	George Street	Herman Street	$ 14,188	Regional
George Street	US 117 (near A Street)	Elm Street	$ 20,244	Regional
George Street	US 117 (near Sherman Street)	Elm Street	$ 3,928	Regional
Elm Street	Slocumb Street	Spence Avenue	$ 1,266	Division
Tommy's Road	End of Road West of Howell Branch	End of Road East of Howell Branch	$ 1,877	Division
Wayne Memorial Drive (SR 1556)	Royall Avenue	US 70/US 13	$ 6,151	Division
Wayne Memorial Drive (SR 1556) Widening*	US 70 Bypass	Saulston Road	$ 68,742	Division
2040-2045				
Project	From	To	YOE Project Cost	STI Category
Arrington Bridge Road Widening	US 117	Westbrook Road	$ 22,970	Regional
NC 111 Access Management	US 70	Bill Lane Boulevard	$ 23,831	Regional
Berkeley Boulevard Access Management	Ash Street	Royall Avenue	$ 12,878	Division
Genoa Road Modernization	US 117	Pecan Road	$ 5,947	Division
John Street Modernization	Elm Street	Arrington Bridge Road	$ 7,191	Division
Mark Edwards Road Modernization	Corbett Road	New Hope Road	$ 10,938	Division
Oak Forest Road Modernization	Ash Street (US 70 Bus)	Central Heights Road	$ 20,177	Division
Westbrook Road Modernization	Arrington Bridge Road	Slocumb Street	$ 5,027	Division
*projects partially funded in 2020-2029 STIP, Dollar amounts shown here are to complete bond payback or future year construction				

FIGURE 25: 2030-2035 FINANCIALLY CONSTRAINED PROJECTS

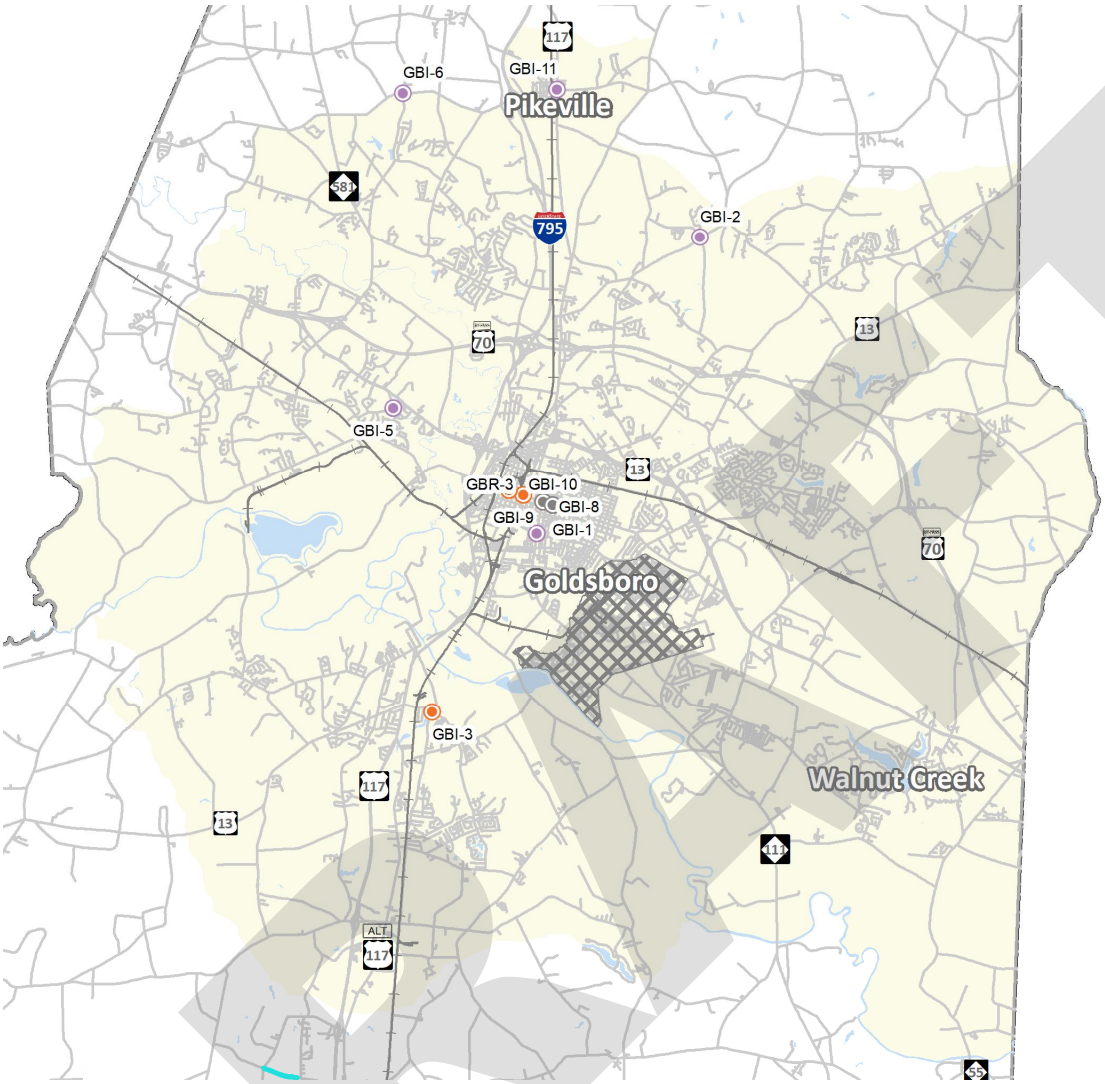


FIGURE 26: 2035-2040 FINANCIALLY CONSTRAINED PROJECTS

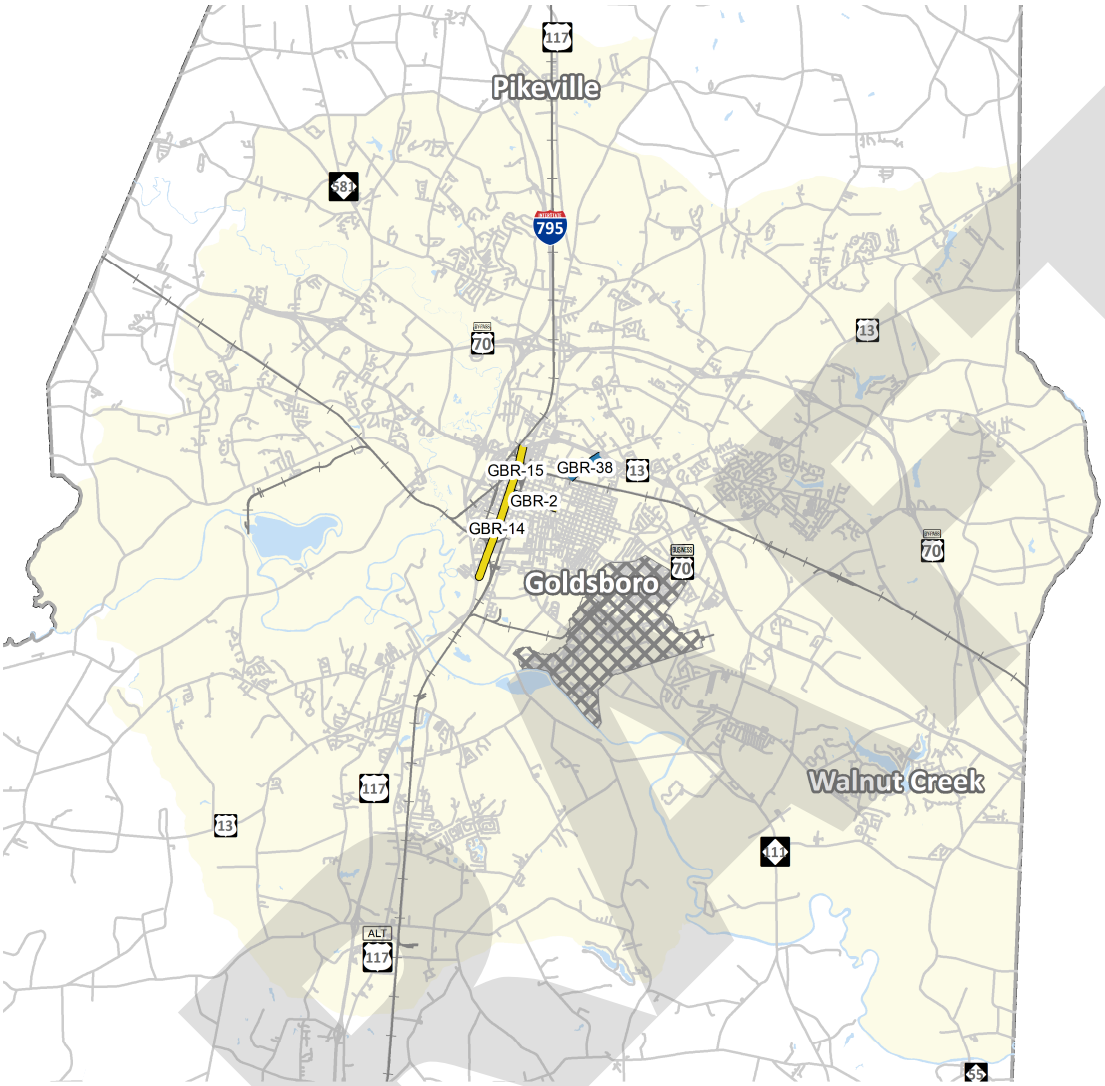
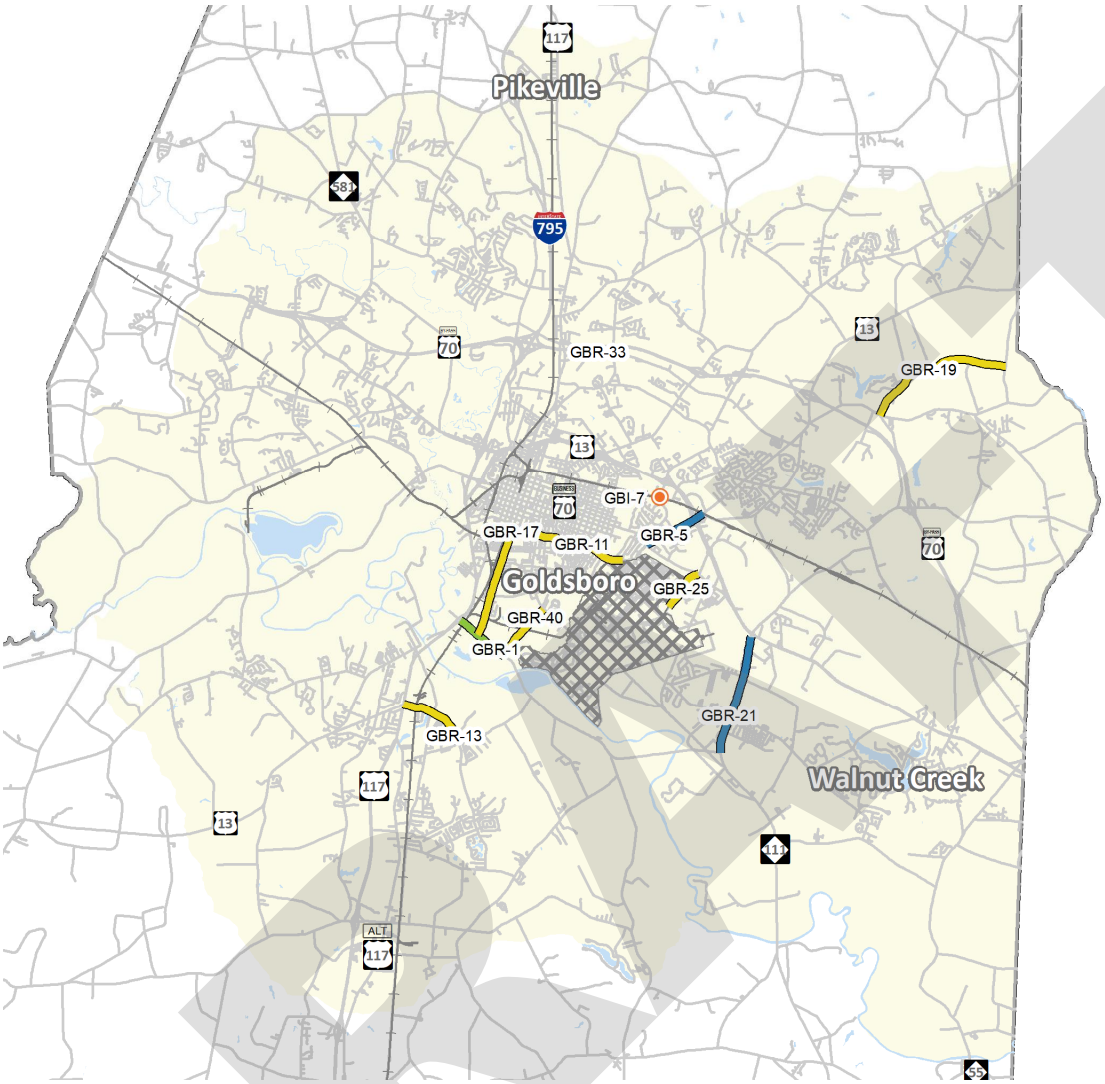


FIGURE 27: 2040-2045 FINANCIALLY CONSTRAINED PROJECTS



Active Transportation

BICYCLE AND PEDESTRIAN MAINTENANCE FUNDING

Currently funding for bicycle and pedestrian maintenance can be provided using Powell Bill funds, although none of the member jurisdictions have a dedicated amount of funding set aside for the up-keep of bicycle and pedestrian facilities. Pedestrian and bicycle facilities that are part of the state-maintained facilities are typically maintained as part of those larger facilities.

CAPITAL BICYCLE AND PEDESTRIAN FUNDING

Currently, new bicycle and pedestrian facilities in the Goldsboro region are primarily funded using federal programs, discretionary funds, and local dollars. The City of Goldsboro has successfully funded the completion of several segments of greenway or multi-use path since the adoption of the MPO's Bicycle, Pedestrian, and Greenway Plan in 2015, as well as secured STIP funding for the completion of sidewalk projects.

TABLE 15: CAPITAL BICYCLE AND PEDESTRIAN FUNDING BY HORIZON BAND

	Revenues
2030-2034	$ 963,167
2035-2039	$ 1,037,605
2040-2045	$ 1,351,514
2030-2045	**$ 3,352,286**

Public Transportation

The table below reflects the projected operates and maintenance revenues to fund GWTA over the life of the MTP. An annual inflation value of 1.5% was applied to these operations and maintenance funding levels as well. The Goldsboro MPO will continue to work closely with NCDOT and GWTA to understand the financial needs of the transit system. GTWA will continue to provide more detailed insight into their costs and revenues through their own independent planning efforts.

TABLE 16: TRANSIT OPERATIONS AND MAINTENANCE REVENUES BY HORIZON BAND

	Operations and Maintenance Revenues
2030-2034	$ 7,460,965.9
2035-2039	$ 8,037,579.3
2040-2045	$ 10,469,208.9
2030-2045	**$ 25,967,754.1**

Aviation

Aviation projects in the Goldsboro region are funded using a blend of federal, state, and local funds. The table below shows revenue anticipated for capital projects as part of the STIP. Local capital, operations, and maintenance funds are not reflected here. The Goldsboro Wayne Municipal Airport Authority prepares its own master planning and financial assessments, which will contribute to serve as an in depth and comprehensive look at the funding levels for that entity.

TABLE 17: AVIATION FUNDING BY HORIZON BAND

	Operations and Maintenance Revenues
2030-2034	$ 2,471,947
2035-2039	$ 2,662,989
2040-2045	$ 3,468,630
2030-2045	**$ 8,603,567**

Conclusion

The 2045 MTP envisions a region that ensures equitable access to reliable transportation, provides a wide variety of travel options, and promotes a high quality of life throughout. This plan is a regional vision for mobility that supports economic development and system efficiency, while placing a new focus on safety enhancing and preservation focused projects.

Included in the Goldsboro Urban Area 2045 MTP are transportation strategies that consider the existing and future needs of residents, visitors, and employers. The creation of this financially constrained plan ensures that the identified projects can be reasonably funded during the life of the MTP and the priorities expressed throughout the public involvement process will influence the region's transportation planning decisions.

As the region moves forward and projects advance toward funding and implementation, the Goldsboro MPO will continue to work with NCDOT and FHWA to determine how best to advance recommended projects and will continue to engage the public and adjust future planning efforts and project lists as necessary. Ultimately, continued collaboration between state and local agencies will provide more opportunities to foster a safe and accessible multimodal transportation system that makes the Goldsboro region an attractive place to live.