

GAINESVILLE-HALL METROPOLITAN PLANNING ORGANIZATION

2020 REGIONAL TRANSPORTATION PLAN

REPORT



The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily those of the Department of Transportation, State of Georgia, or Federal Highway Administration. Prepared in cooperation with the Department of Transportation, Federal Highway Administration.



GAINESVILLE-HALL
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**A Resolution by the Gainesville-Hall Metropolitan Planning Organization
Policy Committee Adopting the Regional Transportation Plan: 2020 Update**

WHEREAS, the Gainesville-Hall Metropolitan Planning Organization is the designated Metropolitan Planning Organization for transportation planning within the Gainesville Metropolitan Area Boundary which includes all of Hall County and a portion of Jackson County following the 2010 Census; and

WHEREAS, Moving Ahead for Progress in the 21st Century (MAP-21) requires the Metropolitan Planning Organization to develop and adopt a Regional Transportation Plan (RTP); and

WHEREAS, GHMPO did develop the RTP in conformance with GHMPO's Participation Plan and through appropriate technical and review processes; and

WHEREAS, GHMPO did conduct a required 30-day public comment period on the RTP: 2020 Update and no significant comments were received.

NOW, THERE, BE IT RESOLVED that the Gainesville-Hall Metropolitan Planning Organization adopts the Regional Transportation Plan: 2020 Update.


A motion was made by PC member Commissioner Jeff Stowe and seconded by PC member Mayor Mike Miller and approved this the 12th of May, 2020.



Chairman Richard Higgins, Vice-Chair
GHMPO Policy Committee

Subscribed and sworn to me this the 12th of May, 2020





Notary Public
My commission expires May 22, 2020

TABLE OF CONTENTS

Gainesville-Hall Metropolitan Planning Organization	1
Introduction	5
The Planning Process	8
Past Studies	9
Chapter 2: Planning For Mobility	11
Goals and Planning Factors	11
GHMPO RTP Goals and Objectives.....	12
Performance-Based Planning.....	15
National Transportation Performance Measures and State Targets	15
PERFORMANCE MANAGEMENT GROUP 2 (PM2).....	16
Chapter 3: Existing Conditions: People, Places, and Travel Patterns.....	19
Title VI and Environmental Justice.....	19
SocioEconomic Data.....	31
Travel Demand Modeling	31
Population - 2015	32
Employment - 2015.....	34
Population - 2050	37
Employment – 2050	38
Land Use.....	40
Modes and Travel Patterns	42
Roadway Network.....	43
Level of Service	46
Transit Network.....	50
Bicycle and Pedestrian Facilities.....	53
Rail.....	56
Freight.....	56
Airports.....	57
Chapter 4: Plan Development.....	60
Future Roadway Conditions	60
Travel Demand Model and the National Performance Management Research Data Set (NPMRDS)	63
Top 10 Corridors Operating at LOS F in 2015 (GDOT 2015 Base Year Model)	63
Top Ten Corridors Operating AT LOS F in 2050 (GDOT 2050 Do Nothing Model).....	63
NPMRDS Travel Time Index	64
Safety and Crash Data.....	64
Bridge Conditions	71
Pavement Condition Measures	71
Traffic Volumes	72

Public and Stakeholder Involvement	76
Technical Team	76
The GHMPO RTP Technical Subcommittee.....	76
Public Involvement.....	77
Outreach Activities.....	77
Project Branding and Outreach Materials	77
Online Engagement	77
1.3.2.1 Project PublicInput Hub, Webpage, and Social Media Accounts Creation and Maintenance....	78
Online Survey.....	78
Social Media Campaign.....	78
In-Person Engagement.....	79
Community Events.....	79
Meeting with Adjacent Jurisdictions.....	80
Facilitated Interaction with Community Leaders from Underserved Populations	80
Public Meetings	81
Performance Based Project Assessment and Prioritization.....	81
Project prioritization	82
Financial Assessment.....	85
Transit Costs.....	87
Environmental Considerations.....	89
Chapter 5: Investment and Strategies	91
2050 Regional Transportation Plan Project Lists.....	91
Financially Constrained Project List	91
Constrained Project List Tables.....	94
Projects with Other Funding Sources:.....	100
Policy Recommendations	103
NON-MOTORIZED recommendations	104
Existing Non-Motorized Facilities.....	104
Non-motorized Recommendations:.....	105
Atlanta to Charlotte Passenger Rail Corridor.....	110
Implementation and Monitoring.....	110

LIST OF TABLES

Table 1: Population growth	5
Table 2: Previous LONG-RANGE Transportation Plans	8
Table 3: Recently Completed pLans and Studies Since 2015 RTP Adoption.....	9
Table 4: 2050 RTP Goals and Objectives	13
Table 5. Performance Management Group 1	16
Table 6. Performance Management Group 2.....	17
Table 7. Performance Management Group 3.....	18
Table 8: GHMPO SE Data Summary.....	31
Table 9. Population and Households.....	32
Table 10. SE Data: 2015 Employment Totals	34
Table 11. 2015 SE Data: Employment by Category.....	34
Table 12: Population Projections.....	37
Table 13: Forecast 2050 population.....	37
Table 14: Forecast 2050 Employment by Category	38
Table 15: Number of Through lanes	43
Table 16: Level of Service Designations and Descriptions	46
Table 17: Hall County Transit Fares	50
Table 18: Jackson County Transit Fares	53
Table 19: Bicycle and Pedestrian Facility Lengths.....	54
Table 20: Projects Change in Growth From Top Hall County Trading Partners	56
Table 21: Highest Fatality Crash Rate Segments.....	65
Table 22: Highest Injury Crash Rate Segments.....	65
Table 23: Highest Overall Crash Rate Segments.....	66
Table 24: Highest Injury Crash Rate Project Intersections	66
Table 25: Highest Overall Crash Rate Project Intersections.....	67
Table 26: Bridge Descriptions and Sufficiency Ratings	71
Table 27: Hall County: Ten Lowest Pavement Ratings.....	72
Table 28: Jackson County Ten Lowest Pavement Ratings.....	72
Table 29: Project Lists and Improvement Types.....	84
Table 30: Yearly Transportation Funding Predictions From 2020 to 2050	86
Table 31: Hall Area Transit Funding	87
Table 32: Jackson County Transit Funding	88
Table 33: Financial Balancing	92
Table 34: Band 1 Project List (2020-2025)	95
Table 35: Band 2 Project List (2026-2030)	96
Table 36: Band 3 Project List (2031-2040)	96
Table 37: BAND 4 PROJECT LIST (2041-2050).....	97
Table 38: Projects with Other or Local Funding	100
Table 39: Bicycle and Pedestrian Facility Lengths.....	104
Table 40: Assumed Project Contribution to Performance Targets	111

CHAPTER 1: INTRODUCTION

INTRODUCTION

Purpose and History of the MPO

Pursuant to the Federal Aid Highway Act of 1962, Metropolitan Planning Organizations (MPOs) serve as the planning and policy board for the management of the metropolitan transportation planning process and act as representatives for the jurisdictions within their planning boundaries. MPOs are created to represent US Census defined urbanized areas with populations over 50,000 individuals and lead the prioritization and programming of federal funding for local transportation projects. By understanding the existing conditions, the growth of the area can be projected in order to determine necessary improvements and changes over the planning horizon.

The Gainesville-Hall area was classified as urban after the 2000 Census; thereby, requiring the development of an MPO to serve the area. This new classification led to the creation of the Gainesville-Hall Metropolitan Planning Organization (GHMPO), the area's first MPO. The Hall County Planning Department was designated as the host agency for the creation and staffing of the GHMPO in 2003. GHMPO was created to serve as the regional MPO; thereby, managing transportation planning and funding allocations. The original planning area consisted of Hall County and the jurisdictions located within it; however, the GHMPO planning boundary was extended into the western portion of Jackson County as a result of the 2010 Census. **Figure 1** depicts the current planning boundary. **Table 1** depicts the estimated population growth between 2010 and 2015.

TABLE 1: POPULATION GROWTH

County	2010*	2015**
Hall	177,870	194,997
Jackson***	15,198	16,297
Total	193,068	211,294

*Previous 2015 Regional Transportation Plan Update;

**Final base year socioeconomic data estimate

*** Reflects the portion of Jackson Co within GHMPO

The Planning Area

The Gainesville-Hall Metropolitan Planning Organization (GHMPO) consists of the entirety of Hall County and a portion of western Jackson County. In addition to the two (2) counties, GHMPO coordinates with nine (9) local municipalities (Town of Braselton, City of Buford, Town of Clermont, City of Flowery Branch, City of Gainesville, City of Gillsville, City of Hoschton, City of Lula, and City of Oakwood). A small portion of Forsyth and Gwinnett Counties are also within the GHMPO planning area; however, this area is managed by the Atlanta Regional Commission (ARC), Atlanta's MPO. GHMPO manages a small portion of Hall County for the ARC through agreement. **Figure 1** shows the GHMPO Planning Boundary.

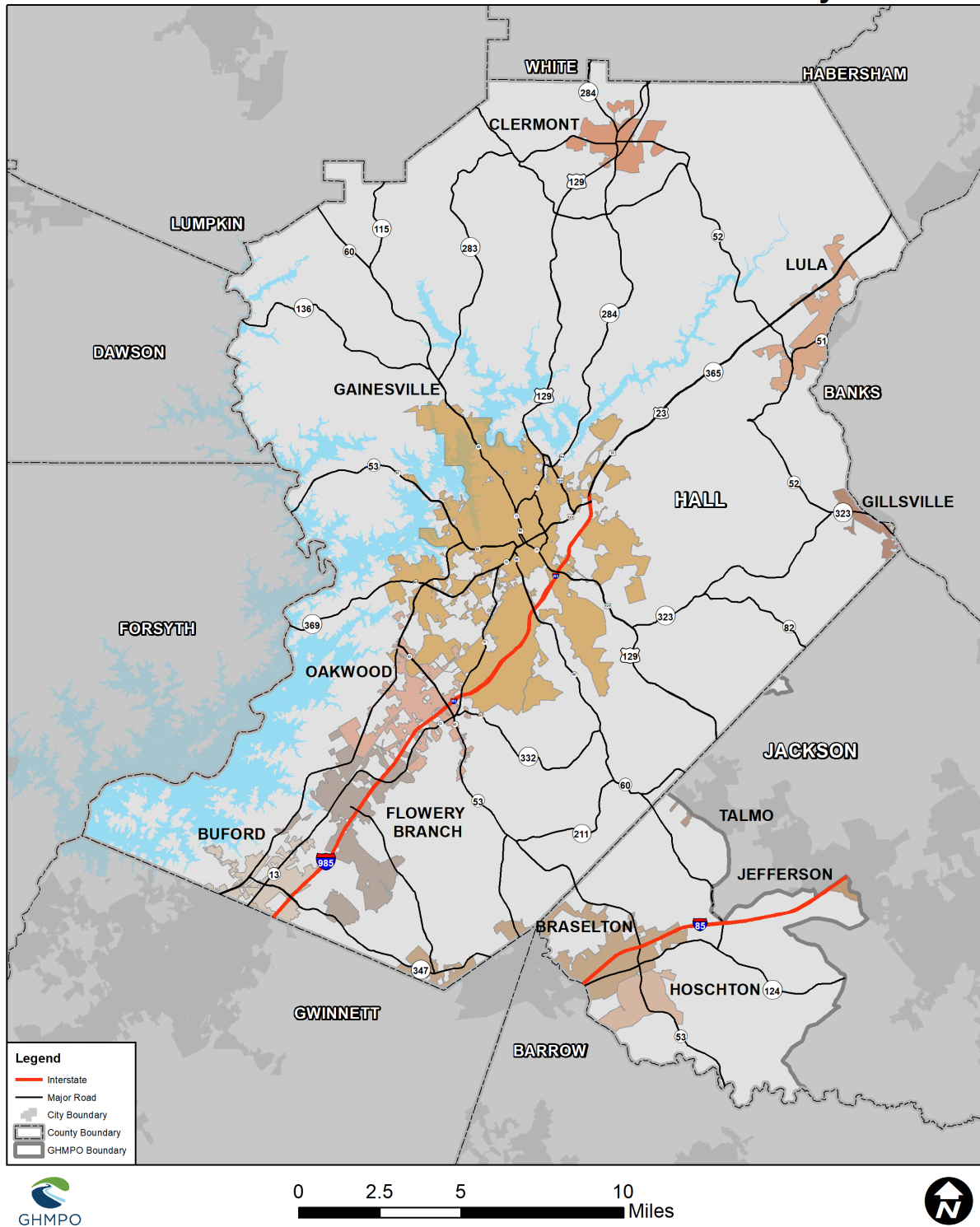
Because GHMPO plans in coordination with multiple jurisdictions, the formation of three (3) committees was necessary when the MPO was initially established, including:

- Citizens Advisory Committee: Volunteers, appointed to provide citizen feedback to GHMPO
- Technical Advisory Committee: Georgia Department of Transportation (GDOT) and local jurisdiction staff that provide technical feedback to GHMPO
- Policy Committee: Elected officials from the local jurisdictions and GDOT staff that has been appointed to the committee.

The GHMPO standing committees were periodically briefed as part of the development of the 2020 GHMPO Regional Transportation Plan, as further discussed in **Chapter 4**.

FIGURE 1: GHMPO BOUNDARY

Gainesville-Hall MPO 2020 RTP: MPO Boundary



THE PLANNING PROCESS

The Regional Transportation Plan

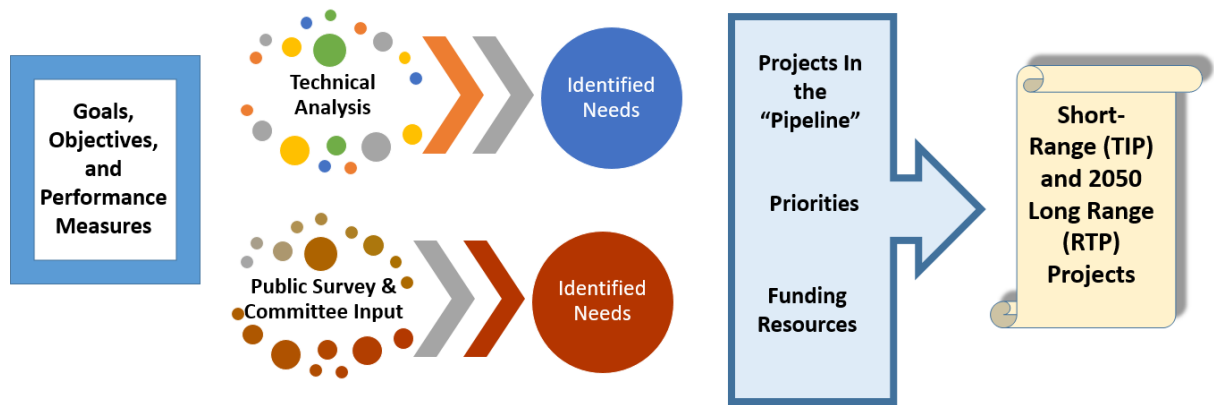
The purpose of the Regional Transportation Plan (RTP) is the identification of short and long-term strategies for the management and improvement of the regional transportation network. This resulting plan complies with the federal requirements established by the Federal Highway Administration's (FHWA) Fixing America's Surface Transportation Act (FAST Act). The FAST Act mandates a 20-year minimum planning horizon and the creation of a financially feasible list of transportation projects. Through the creation of this plan, the anticipated funding from state and federal resources is projected to fall short of the total financial needs being proposed. As result of this shortcoming, portions of some projects are anticipated to be unfunded within this plan update, while others are anticipated to be funded through local or other funding opportunities. The 2020 RTP will have a base year of 2015 and will consider projects out to the horizon year of 2050. However, regional transportation plans must be updated every five-years to accurately identify the existing conditions and transportation needs within the MPO. The previous iterations of this plan had various designations and adoption years, as presented in **Table 2**.

TABLE 2: PREVIOUS LONG-RANGE TRANSPORTATION PLANS

Regional Plan Document Designation	Year Adopted
2030 Long Range Transportation Plan (LRTP)	2004
2030 LRTP Update	2007
2040 Metropolitan Transportation Plan (MTP)	2011
2015 Regional Transportation Plan (RTP)	2015
2020 RTP Update	2020 (anticipated)

Throughout the creation of this plan, local, state and federal agencies, as well as the public and local stakeholders, have been given the opportunity to provide input. By collecting stakeholder input, a more encompassing understanding of the needs and conditions of the MPO has been attained. **Figure 2** visually depicts the creation of the RTP from the development of the plan goals to the prioritization and development of projects. **Chapter 2** includes a detailed discussion of the process and methodology for development of the 2020 RTP.

FIGURE 2: REGIONAL TRANSPORTATION PLAN PROCESS



PAST STUDIES

In order to establish an understanding of the region and the ongoing planning efforts in the area, relevant planning documents and studies completed since the adoption of the 2015 RTP were reviewed. These documents show the planned infrastructure and land use changes to the area that will be vital for the creation of an improved transportation network.

TABLE 3: RECENTLY COMPLETED PLANS AND STUDIES SINCE 2015 RTP ADOPTION

Past Study/Plan	Information Used
<i>Bicycle and Pedestrian Plan Update, April 2014</i>	Location and planning for the bicycle/pedestrian network
<i>Gainesville-Hall Regional Transportation Plan 2015 Update, May 2015</i>	Identification of previously identified projects and regional goals
<i>GHMPO Regional Freight Study, February 2018</i>	Identification of desired freight routes and trends in the area
<i>Gwinnett Trails Countywide Trails Master Plan, April 2018</i>	Identification of potential trail connections
<i>Microtransit Feasibility Study – Hall County, February 2019</i>	Understanding of the transit system and potential changes
<i>South Hall Trail Study & Gainesville Trail Study, February 2019</i>	Identification of planned and existing trail connections
Local Comprehensive Plans	Development patterns and future land uses

Bicycle and Pedestrian Plan Update, April 2014

Similar to the trail studies mentioned previously, this plan compiled information regarding existing and desired facilities for cyclists and pedestrians. Bicycle and pedestrian facilities are vital components of the transportation network by offering transportation alternatives.

Gainesville-Hall Regional Transportation Plan 2015 Update, May 2015

The 2015 Update to the RTP represents the previous planning efforts directly related to this RTP. The 2015 Update provide vital baseline information regarding the previous conditions and project lists.

Uncompleted projects from the 2015 Update were carried over into the current plan if they still aligned with the MPO's needs.

GHMPO Regional Freight Study, February 2018

The GHMPO Regional Freight Study provides a vital look into the current and future movement of goods within the MPO. The data contained within this study aided in the development of additional roadway projects and increased the overall understanding of the regional freight network.

Gwinnett Trails Countywide Trails Master Plan, April 2018

Similar to the Gainesville & South Hall Trail Studies, the Gwinnett Countywide Trails Master Plan, depicts an analysis and location of the proposed trail network in Gwinnett County. Using this information, potential connections and access to these trails could be identified.

Microtransit Feasibility Study – Hall County, February 2019

One of the most recent studies conducted within GHMPO is the Microtransit Feasibility Study. This study analyses the current trends of the Hall Area Transit (HAT) system and makes recommendations based on this information. This report shows a desire to maintain and provide an efficient transit service within GHMPO. Recommendations from the study will soon be initiated including modification of several HAT fixed routes and pilot to transition the system's on-demand services using Microtransit third-party technology.

Gainesville & South Hall Trail Studies, February 2019

The Gainesville & South Hall Trail Studies provides data and recommendations for the implementation of trails in Hall County. The data in this report helped identify areas where potential trails or sidepaths would be implemented into the future. Using this information, recommendations can be made along the road network to supplement these more regional trails via access or crossings.

Local Comprehensive Plans

Local comprehensive planning documents for Hall and Jackson Counties and their municipalities were analyzed to gain further understanding of the local conditions and desired areas of growth. The local plans were used to identify character areas that could be emphasized or improved through transportation projects.

CHAPTER 2: PLANNING FOR MOBILITY

GOALS AND PLANNING FACTORS

One of the major features of this plan is the implementation of the Federal Highway Administrations' (FHWA's) Fixing America's Transportation Act (FAST Act). The FAST Act states that the metropolitan transportation planning process must address specific planning factors being shown below. Each of the planning factors addresses a different impact of transportation projects with two (2) new factors (resiliency and tourism) included in the 2020 RTP update.



- Support economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase accessibility and mobility of people and freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvement 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 stormwater impacts of surface transportation
- Enhance travel and tourism

Adherence to the FAST Act guidelines and incorporation of these planning factors creates the foundation for the RTP specific goals and objects. By using these factors, the plan and proposed projects will be able to meet federal goals as outlined within the FAST Act. The national goals include the following:

- Enhance the performance of the transportation system while protecting and enhancing the natural environment
- Achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- Achieve a significant reduction in congestion on the National Highway System
- Improve the efficiency of the surface transportation system
- Maintain the highway infrastructure asset system in a state of good repair
- Reduce project costs, promote jobs and the economy and expedite the movement of people and goods by accelerating project completion through elimination of delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

- Improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development

Similar to the national goals, the state of Georgia has developed a series of transportation related goals. These goals are developed through the GDOT Statewide Transportation Plan (SSTP, 2018) and updated every two (2) years. The update happens every two (2) years to ensure that the existing goals remain consistent with the current needs and priorities of the State system. The SSTP goals which helped develop the RTP goals include the following:

- Improve safety
- Maintain and preserve the system
- Improve reliability
- Relieve congestion
- Improve freight and economic development
- Improve the environment

GHMPO RTP GOALS AND OBJECTIVES

Using the national and state goals and planning factors, a series of goals have been developed that directly relate to the GHMPO RTP. In addition to guidance provided at the state/federal levels, stakeholder and local agency feedback was gathered to further modify the recommended goals. These goals are designed to shape the future of the transportation network and to ensure that the needs of the local community are being addressed by the proposed projects. Through coordination with the Technical Advisory Committee and standing GHMPO committees, the goals for the 2020 RTP update were incorporated unchanged from the previous 2015 RTP, as follows:

Coordination and Outreach – Develop a financially feasible plan that will increase the likelihood of successful implementation through agency, stakeholder, and public coordination

Multimodal Connectivity – Provide a more integrated multimodal and intermodal transportation system that includes increased travel options by prioritizing transit, pedestrian, and bicycle travel throughout the region

Safety and Security – Maintain and improve transportation system safety and security for motorists, transit riders, pedestrians, and bicyclists

System Preservation and Maintenance – Take steps to continually monitor and maintain the transportation system

Environment – Develop a transportation system that conserves energy, promotes the attainment of air quality standards, protects the natural environment, and minimizes adverse impacts

Mobility and Economic Vitality – Provide a transportation system that provides for the movement of people and goods safely and efficiently and advances the region's economic competitiveness

Land Use Integration – Develop a transportation system that is efficient by integrating transportation planning with land use decisions and other comprehensive planning tools

The goals listed above show the general trends as desired by the GHMPO. The objectives for the 2020 RTP update remain unchanged from the 2015 RTP. The objectives support the policy framework and priorities for the 2020 RTP. **Table 4** depicts how the goals and objectives build upon each other.

TABLE 4: 2050 RTP GOALS AND OBJECTIVES

Goals	Objectives
COORDINATION AND OUTREACH Develop a financially feasible plan that will increase the likelihood of successful implementation through agency, stakeholder, and public coordination	Develop an integrated plan that is based on sound revenue projections
	Develop a plan that includes public participation from business owners, Chamber of Commerce, and other business groups
	Preserve the existing roadway, transit, bicycle, and pedestrian system assets by identifying adequate funding in the financial element of the plan
	Engage local residents in the decision-making process of the plan
	Engage Federal, State, Regional, and Local resource agencies in the decision-making process of the plan
	Develop a plan that includes public participation from all groups, with special emphasis in reaching minorities, low income, persons with disabilities, and senior citizens
MULTIMODAL CONNECTIVITY Provide a more integrated multimodal and intermodal transportation system that includes increased travel options by prioritizing transit, pedestrian, and bicycle travel throughout the region	Establish and utilize measurable criteria to evaluate how well the multimodal transportation system is operating and addressing identified needs
	Identify and implement appropriate programs intended to reduce or shift vehicular travel patterns, and the need to expand roadway capacity
	Identify bicycle and pedestrian service improvements, and funding sources that would improve mobility and accessibility
	Identify transit facility, service improvements, and funding sources that would make HAT operations more effective in improving mobility options for all residents
	Provide mobility-challenged populations, such as low-income persons with disabilities and senior citizens, with more feasible travel options
SAFETY / SECURITY Maintain and improve transportation system safety and security for motorists, transit riders, pedestrians, and bicyclists	Reduce the incidence of crashes on the system, particularly at high-crash locations
	Review traffic crash data to systematically identify potential safety problems on roadway sections, bridges, and intersections with traffic and develop a list of projects necessary to eliminate deficiencies
	Prioritize and schedule road, bikeway, and sidewalk maintenance expenditures to maintain safe conditions for travel
	Provide adequate access for emergency service vehicles throughout the system
	Assist HAT in continually improving the safety and efficiency of its active vehicle fleet

Goals	Objectives
SYSTEM PRESERVATION AND MAINTENANCE Take steps to continually monitor and maintain the transportation system	Determine the backlog of deferred maintenance and the annual maintenance requirements of the area roadway system
	Determine area-wide roadway system reconstruction needs
	Prioritize and carry out maintenance and reconstruction activities through the annual maintenance and reconstruction program process
	When projects are planned, designed, or constructed evaluate the life-cycle costs and make appropriate decisions at each step to minimize future maintenance costs
ENVIRONMENT Develop a transportation system that conserves energy, promotes the attainment of air quality standards, protects the natural environment, and minimizes adverse impacts	Develop a plan that reduces vehicle miles of travel (VMT), vehicle hours and greenhouse gas emission to improve air quality in the Atlanta nonattainment area
	Promote transportation projects, programs and/or policies that encourage reducing energy consumption
	Coordinate transportation planning activities with appropriate Federal, State, and Local agencies responsible for natural resources, environmental protection, conservation, and historic preservation
	Discourage development in conservation or preservation areas by limiting access to those areas
	Develop projects, programs, and policies that will not negatively impact precious natural resources
MOBILITY AND ECONOMIC VITALITY Provide a transportation system that provides for the movement of people and goods safely and efficiently and advances the region's economic competitiveness	Develop a plan that will support existing businesses' and industries' transportation needs, economic development, and accessibility to jobs
	Designate, prepare and maintain a map of the Truck Route System
	Consider freight and truck utilization and impacts on adjacent land uses
	Proposed transportation projects should consider incorporating features to enhance freight movement and provide adequate design to accommodate large freight vehicles

Goals	Objectives
LAND USE INTEGRATION Develop a transportation system that is efficient by integrating transportation planning with land use decisions and other comprehensive planning tools	Develop a plan that reduces vehicle hours of delay
	Promote orderly development in the region by coordinating transportation planning activities with local agencies responsible for land use management
	Develop the roadway system to provide an acceptable balance between land use and travel mobility
	Encourage jurisdictions to consider establishing appropriate guidelines for determining where property access may or may not be allowed along the roadway system (access management), and coordinate traffic signals along congested corridors using advanced technologies
	Improve east-west regional connectivity in an environmentally sensitive manner

PERFORMANCE-BASED PLANNING

The main tenants in the creation of an RTP are cooperation, comprehensive, continuous and consistent with the Federal Planning Factors. Working alongside these features, the need for performance-based planning is also required by the FAST ACT. The act states “the metropolitan transportation planning process shall provide for the establishment and use of a performance-based approach to transportation decision-making to support national goals.” This legislation is intended to ensure the development of planning practices that are consistent with goals and practices at the national level. The use of performance-based planning will also ensure that projects will be ranked based on need rather than strictly political or financial purposes.

The creation of this RTP involved the following steps:

- Existing conditions analysis
- Public outreach
- Update of goals and objectives from previous plan
- Develop a project list
- Financial analysis of the region and project list
- Develop a financially constrained project List

National Transportation Performance Measures and State Targets

The FAST Act also prescribed the national goals for performance management to be included in Transportation Plans at the state and local levels. The states and MPO’s are required to coordinate to develop measures and targets for transportation plans in the areas of safety, interstate and National

Highway System (NHS) pavement condition, interstate and NHS bridge condition, system reliability, freight reliability, peak hour excessive delay, and total emissions reduction. These measures are broken into 3 groups with incremental implementation:

- PM1: Safety Performance Measures: Initial targets were adopted by the GHMPO in 2018 and updated annually.
- PM2: Pavement and Bridge Condition on Interstate and non-Interstate NHS roads: Initial Targets were adopted in 2018 and will be updated every four (4) years.
- PM3: Travel Time Reliability, Peak Hour Excessive Delay, and Freight Reliability on Interstate and non-Interstate NHS roads: Initial Targets were adopted in 2018 and will be updated every four (4) years.

SAFETY PERFORMANCE MEASURES (PM1)

The FAST Act requires MPOs to develop specific safety performance targets or agree to support those developed by the State department of transportation. As such, GHMPO agreed to support the Safety Performance Targets identified by GDOT, which are updated annually using rolling five-year averages. These targets, shown in **Table 5**, provide a critical element of the performance-based planning framework and ongoing performance management.

TABLE 5. PERFORMANCE MANAGEMENT GROUP 1

National Safety Performance Measures	GDOT Statewide Performance (2012 – 2016)	GDOT Statewide Performance (2013 – 2017)	GDOT Statewide Performance (2015 – 2019)
Number of Fatalities	1,305.2	1,376.3	1,655.0
Rate of Fatalities per 100 million VMT	1.148	1.172	1.310
Number of Serious Injuries	17,404.6	23,126.8	24,324.0
Rate of Serious Injuries per 100 million VMT	15.348	19.756	18.900
Total Number of Non-motorized Fatalities and Non-Motorized Serious Injuries	1,138.0	978.4	1,126.0

VMT = Vehicle Miles Traveled refers to the total annual miles of vehicle travel within subject geographic region

PERFORMANCE MANAGEMENT GROUP 2 (PM2)

The PM2 targets consist of the pavement and bridge condition measures on all interstates and non-interstate roadways designated as part of the NHS. As with the safety performance measures, MPOs could develop their own specific targets or agree to support the GDOT targets. GHMPO has adopted GDOT's targets. The targets in this group are updated every four (4) years after the initial adoption, and with a possible revision at the two-year interim. GHMPO agreed to support the PM2 targets developed by GDOT. These targets, shown in **Table 6**, provide a critical element of the performance-based planning framework and ongoing performance management.

TABLE 6. PERFORMANCE MANAGEMENT GROUP 2

Performance Measures	Georgia Performance (Baseline)	Georgia 2-Year Target (2019)	Georgia 4-Year Target (2021)
Percentage of Interstate Pavement in Good Condition	60%	N/A	$\geq 50\%$
Percentage of Interstate Pavement in Poor Condition	4%	N/A	$\leq 5\%$
Percentage of non-Interstate NHS Pavement in Good Condition	44%	$\geq 40\%$	$\geq 40\%$
Percentage of non-Interstate NHS Pavement in Poor Condition	10%	$\leq 12\%$	$\leq 12\%$
Percentage of NHS Bridges Classified as in Good Condition	49.1%	$\geq 60\%$	$\geq 60\%$
Percentage of NHS Bridges Classified as in Poor Condition	1.35%	$\leq 10\%$	$\leq 10\%$

PERFORMANCE MANAGEMENT GROUP 3 (PM3) TARGETS

The PM3 targets consist of travel time reliability, freight reliability, peak hour excessive delay, and total emissions reduction on all interstates and non-interstate NHS roadways. As with PM 1 and PM2, GHMPO has agreed to support the PM3 targets developed by GDOT. Similar to PM2, these targets are updated every four (4) years, with possible revisions at the two-year interim. These targets, shown in **Table 7**, provide a critical element of the performance-based planning framework and ongoing performance management.

TABLE 7. PERFORMANCE MANAGEMENT GROUP 3

National Performance Measures: Travel Time Reliability, Freight Reliability, Peak Hour Delay, and Total Emissions Reduction	Georgia Performance (Baseline)	Georgia Performance 2-Year Target (2019)	Georgia Performance 4-Year Target (2021)
Percentage of Person-Miles Traveled on the Interstate System that are Reliable	80.4%	73.0%	67.0%
Percentage of Person-Miles Traveled on non-Interstate NHS that are Reliable	84.9%	N/A	81.0%
Truck Travel Time Reliability Index	1.44	1.66	1.78
Annual Hours of Peak Hour Excessive Delay per Capita (PEHD)	20.4 hours	N/A	24.6 hours
Percent Non-SOV Travel	22.1%	22.1%	22.1%

CHAPTER 3: EXISTING CONDITIONS: PEOPLE, PLACES, AND TRAVEL PATTERNS

Title VI and Environmental Justice

Title VI of the 1964 Civil Rights Act states “No person in the United States Shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” (42 U.S.C. 200d). Adding upon these protections, Executive Order 12898 was signed in order to mitigate uneven negative impacts to select populations by projects and agencies receiving federal funding. As a result, Title VI and Environmental Justice are always considered for projects being implemented by GHMPO. Using the available data, efforts have been made to identify and as needed contact the applicable populations to ensure their involvement within the planning process. Because of its dedication to the inclusion of all applicable populations, GHMPO has created the *Title VI Program and Environmental Justice Analysis* report (2015) to explain how these laws are enacted by GHMPO and to identify populations they are intended to protect. To adequately identify areas where these populations are, a regional average of each was gathered to compare densities of the population groups. Several maps have been created to depict the locations where environmental justice populations are in higher density than the regional average. Descriptions of the environmental justice populations that were considered are identified below, as well as depicted in **Figures 3 – 12**.

COMBINED MINORITY POPULATION

Each of the minority groups have been combined to create **Figure 4** below which shows that the majority of the minority populations above the GHMPO Average of 1.05% live in central Hall County and east of Gainesville.

AFRICAN AMERICAN POPULATION

African American populations above the regional average of 7.04% are located primarily within central Hall County, and in several of the block groups located in the urbanized area surrounding I-985.

ASIAN POPULATION

The regional average for Asian population in GHMPO is 1.51% with above average populations spread throughout the region. Higher concentration areas appear along I-985, however, higher than average block groups are dispersed throughout the area.

HISPANIC/LATINO POPULATION

The regional average for Hispanic/Latino populations is 24.34% (the highest regional average for an environmental justice population in the region). Those areas that exceed this average are primarily in central and eastern Hall County.

OTHER POPULATIONS – INDIVIDUALS WHICH IDENTIFIED AS THREE OR MORE RACES

The block groups with the largest concentration of “other” populations above the regional average of 3.78 are generally spread throughout central Hall County, with the largest concentration located along the border with Jackson County.

DISABLED POPULATION

The regional average population for those with a disability is 11.54% and areas above that average are generally dispersed throughout GHMPO. Areas of higher percentages of disabled individuals are in northern and southern Hall County in addition to the western portion of GHMPO within Jackson County.

ELDERLY POPULATION

Elderly populations are considered those individuals 65 years or older and the regional average for this population is 14.85%. The areas with above average disabled populations are primarily central and western Hall County.

IMPOVERISHED POPULATION

The regional average of impoverished populations is 15.57% and the areas with higher than average populations are primarily within central Hall County/Gainesville area.

ZERO CAR POPULATION

Populations without access to a vehicle have a regional average of 1.97%. The areas with above average populations without vehicles are generally located in the Gainesville/central Hall County areas, in addition to several areas along the northern GHMPO boundary.

FIGURE 3: 2050 POPULATION DENSITY BY TAZ

Gainesville-Hall MPO 2020 RTP: 2050 Future Year SE

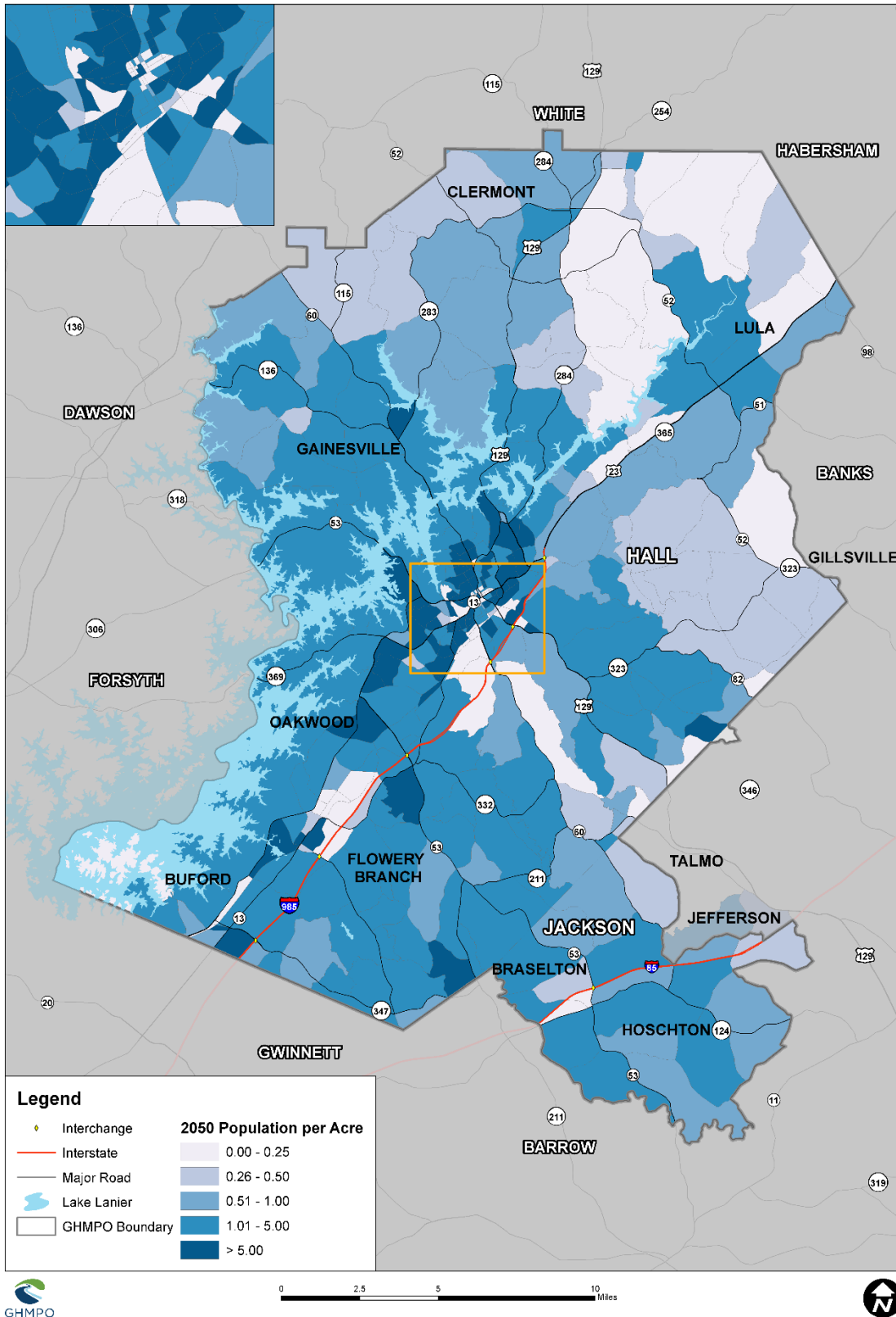


FIGURE 4: COMBINED MINORITY POPULATION

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

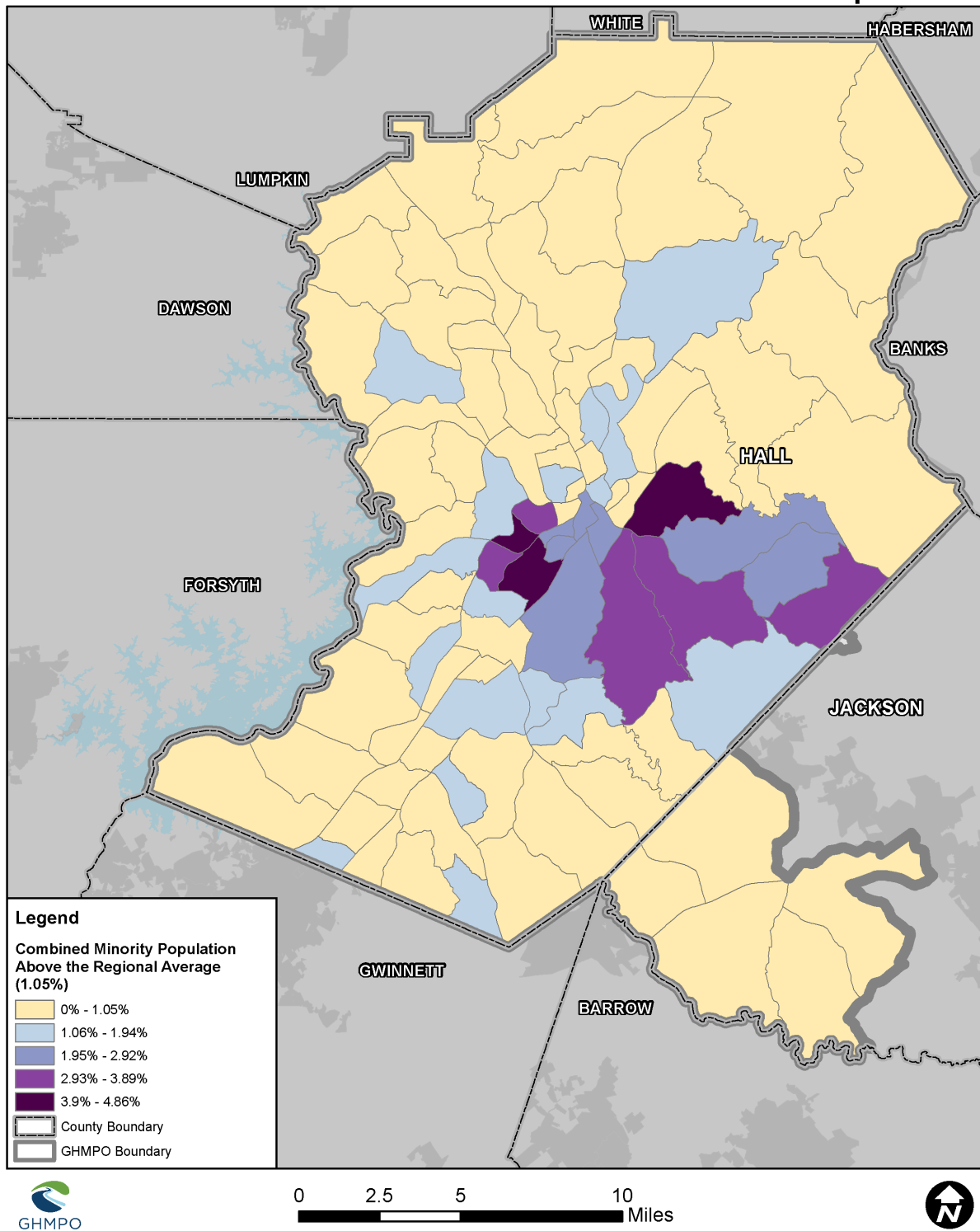


FIGURE 5: AFRICAN AMERICAN POPULATION

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

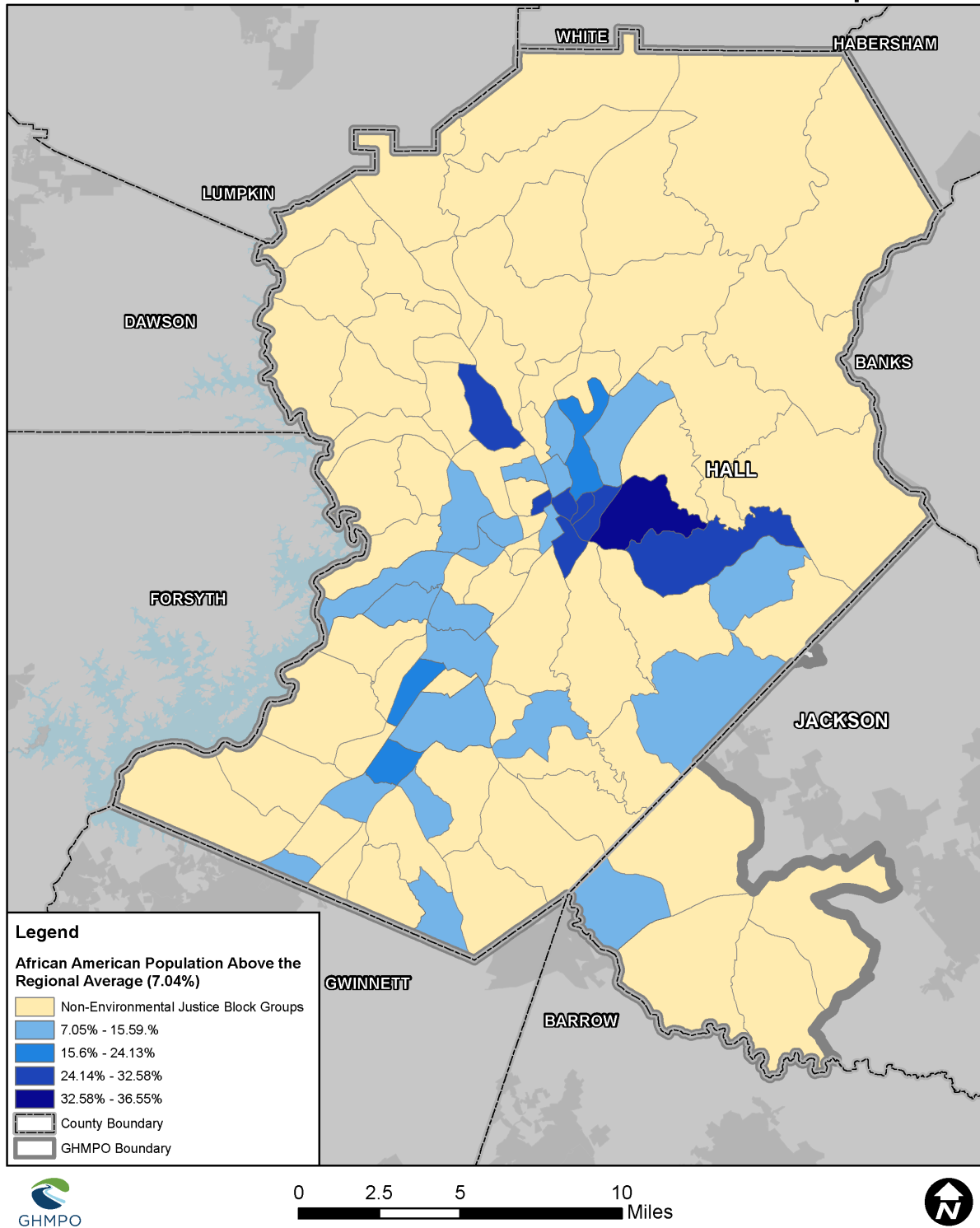


FIGURE 6: ASIAN POPULATION

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

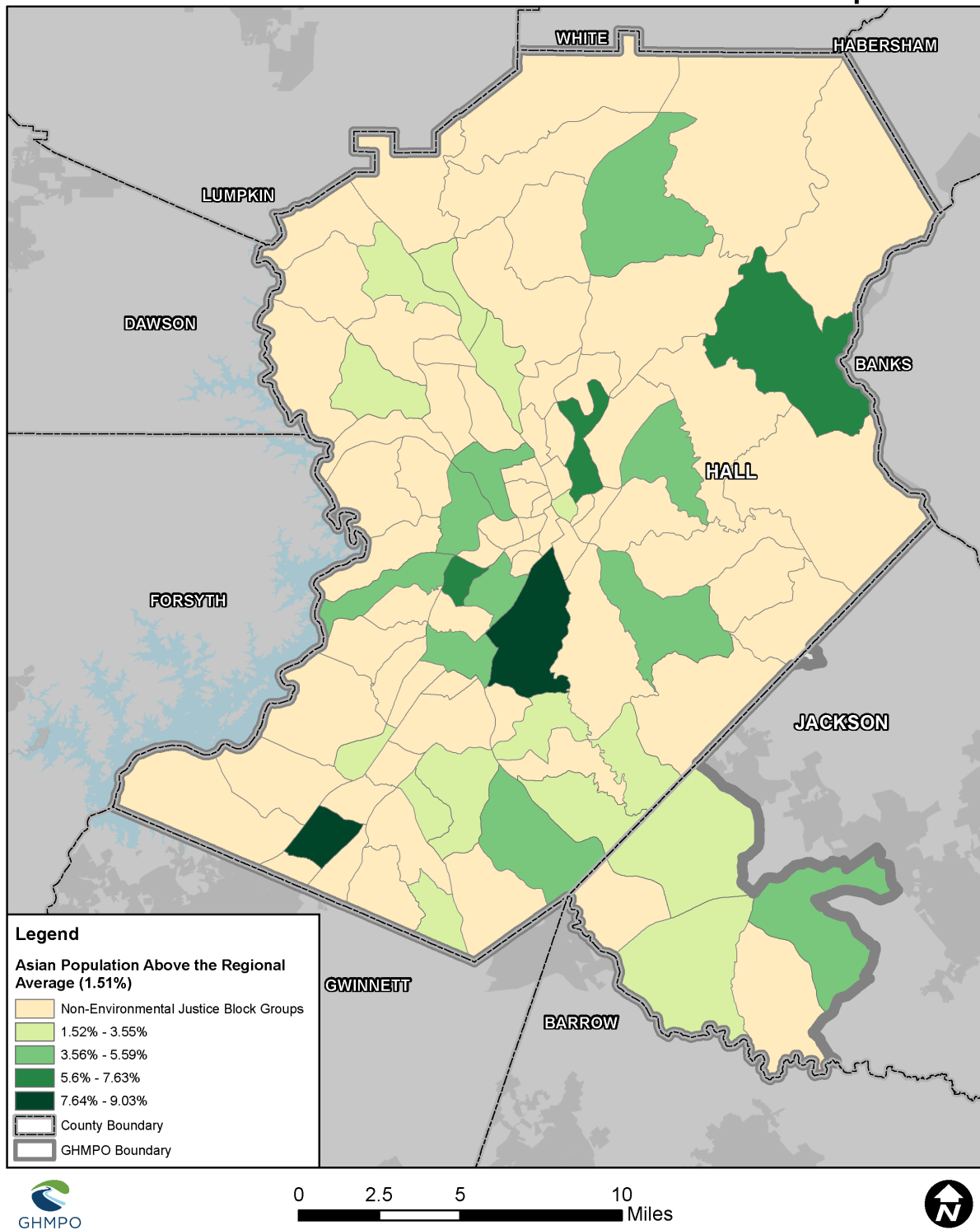


FIGURE 7: HISPANIC POPULATION

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

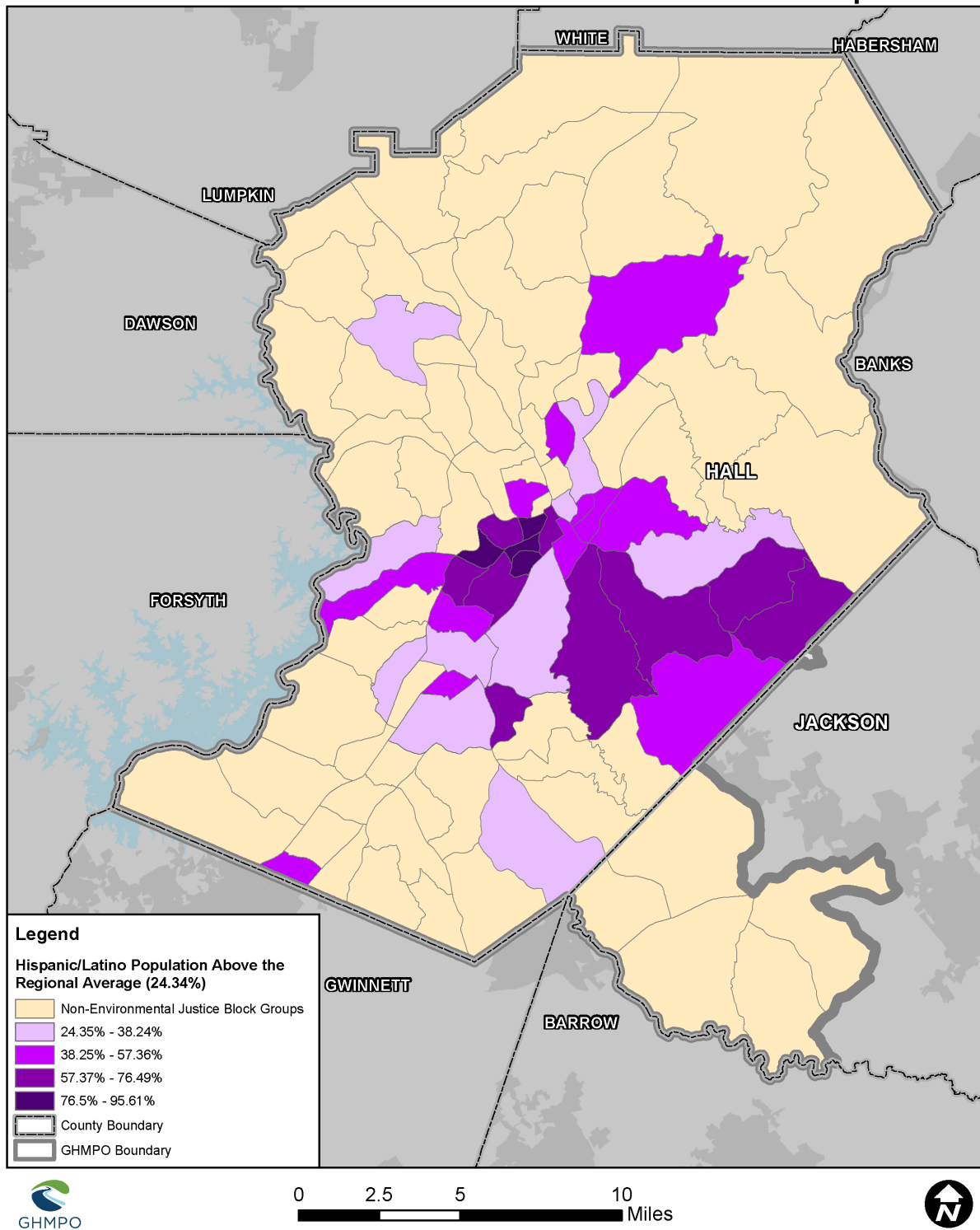


FIGURE 8: OTHER RACE – NOT CAUCASIAN, AFRICAN AMERICAN, ASIAN, OR HISPANIC/LATINO

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

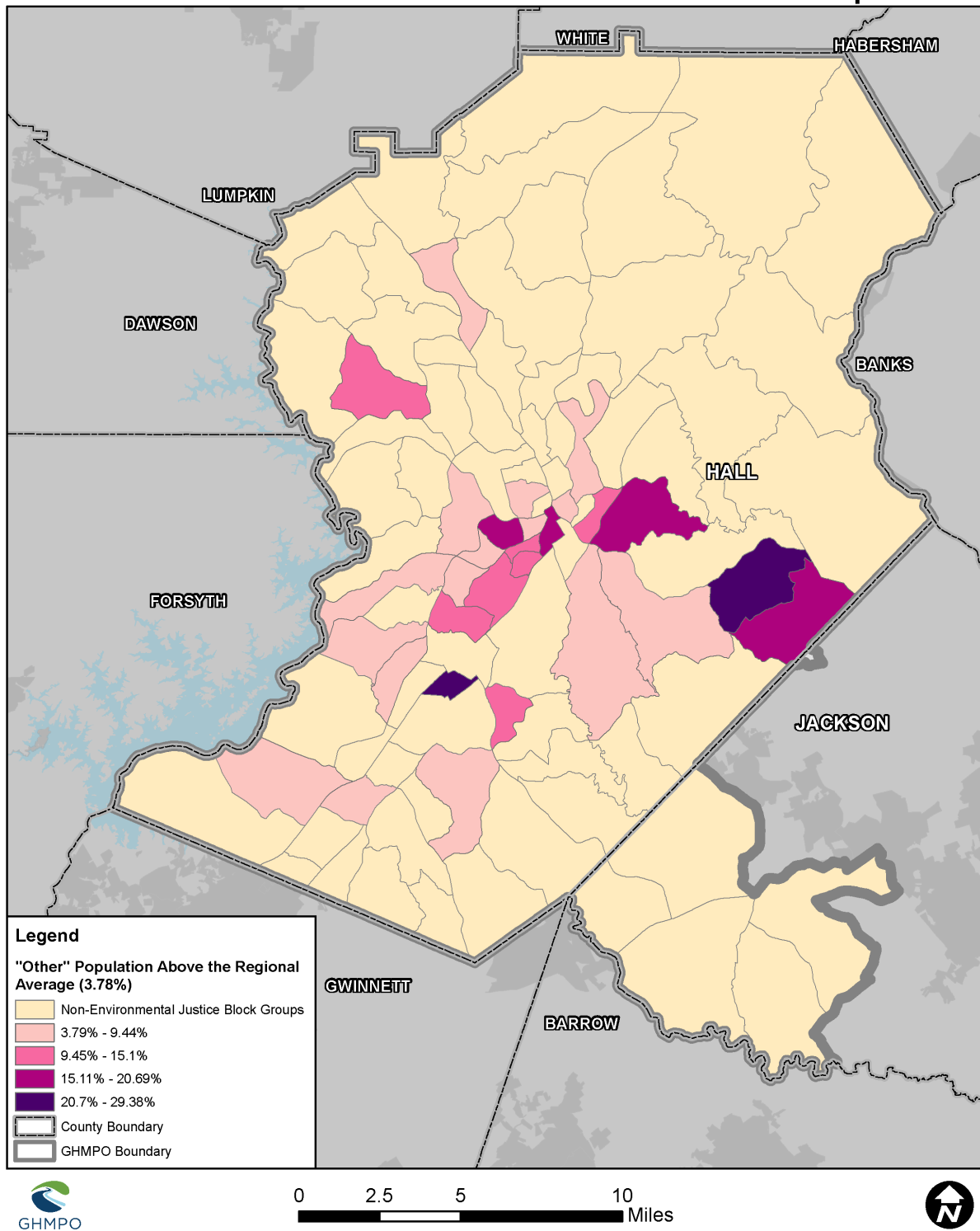


FIGURE 9: PERSONS WITH DISABILITIES

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

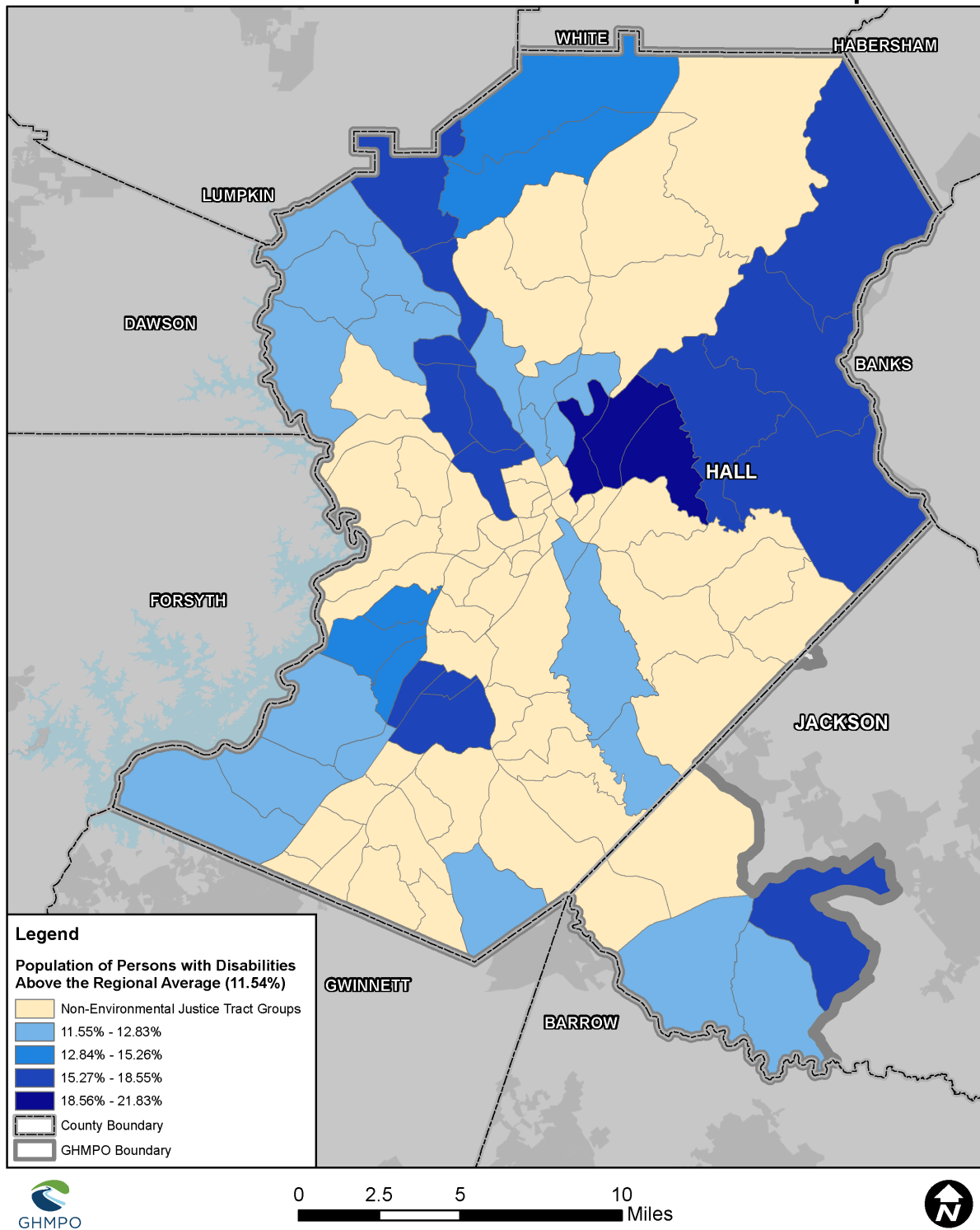


FIGURE 10: ELDERLY – AGE 65 OR OLDER

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

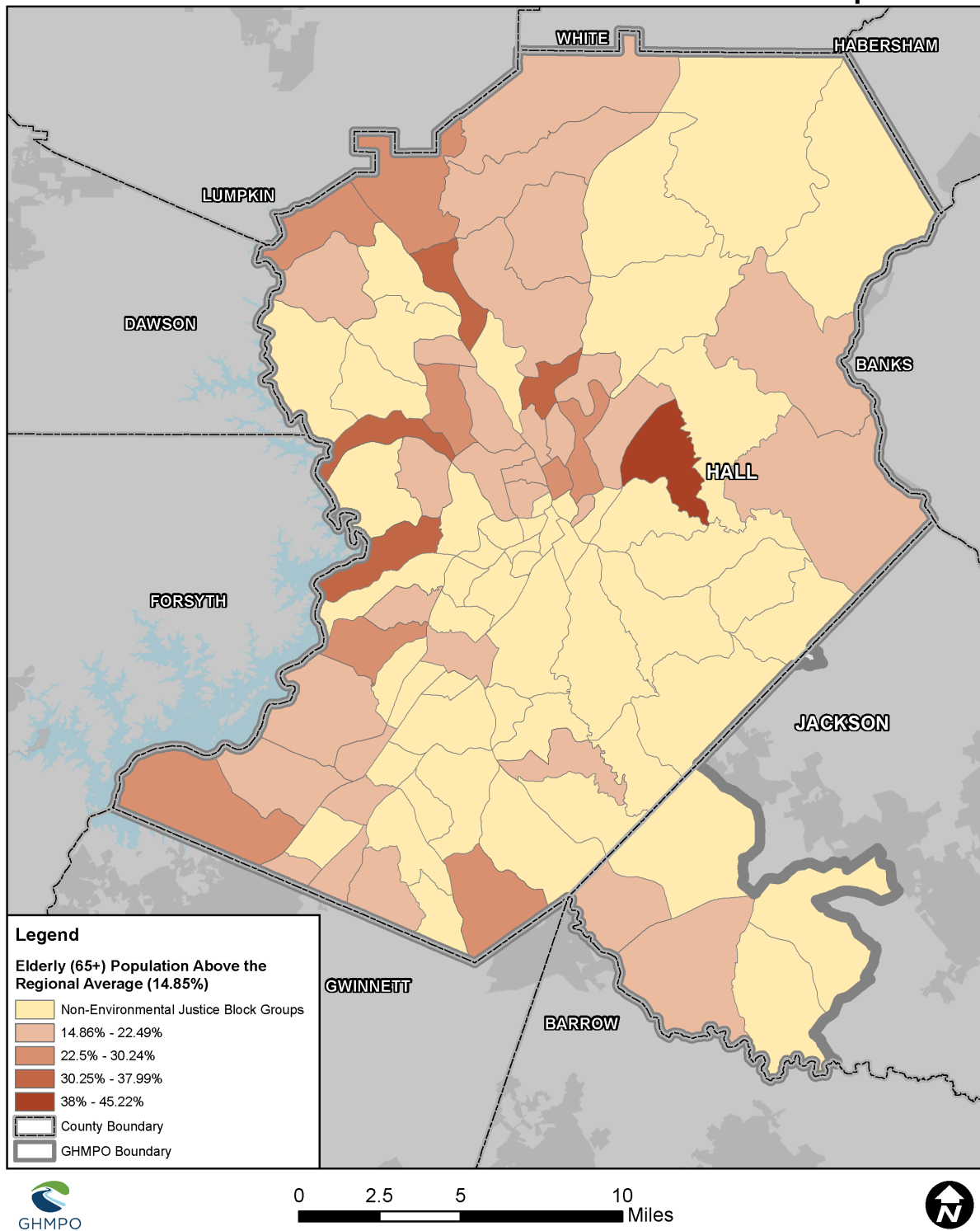


FIGURE 11: IMPOVERISHED POPULATION

Gainesville-Hall MPO 2020 RTP: Environmental Justice Population

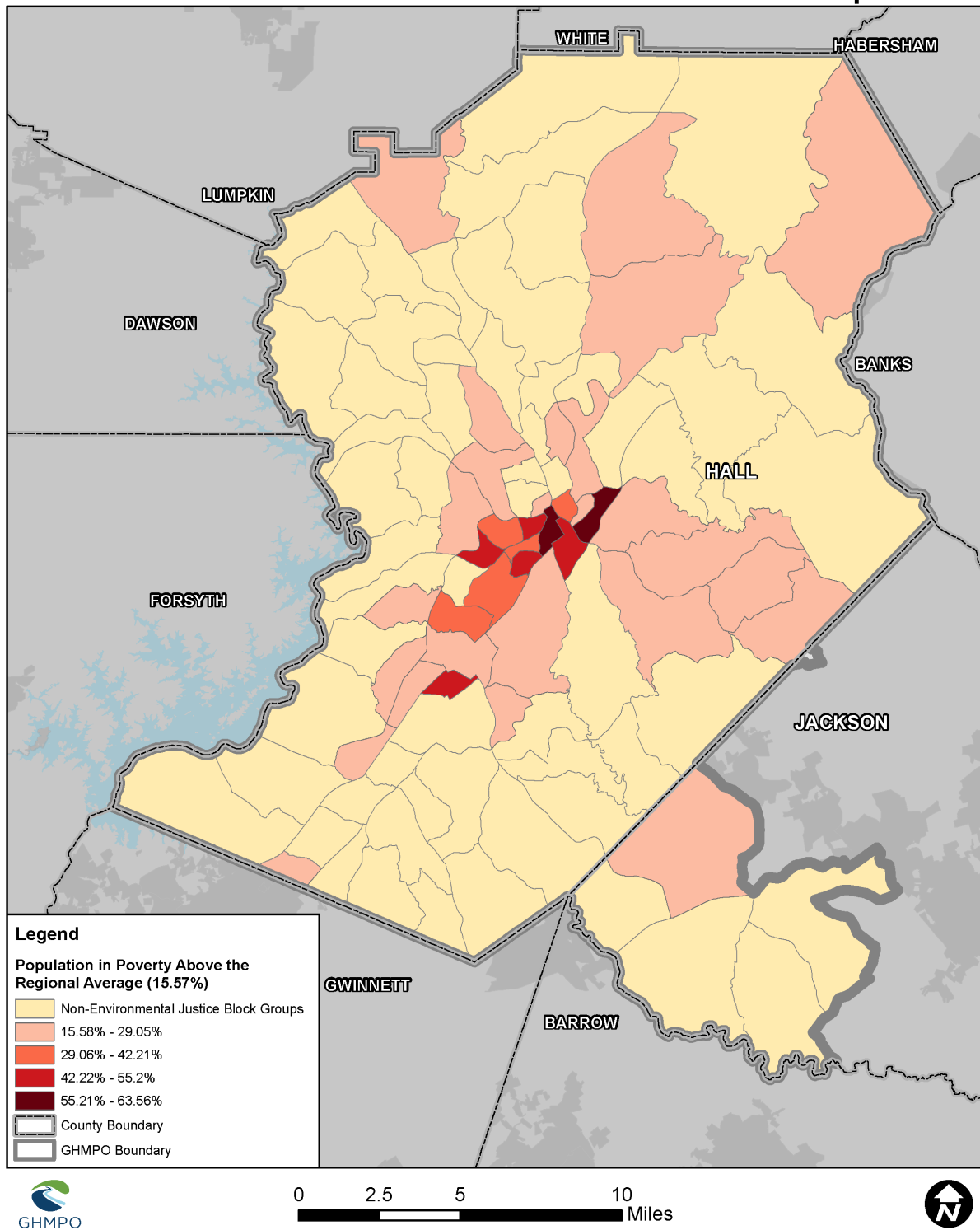
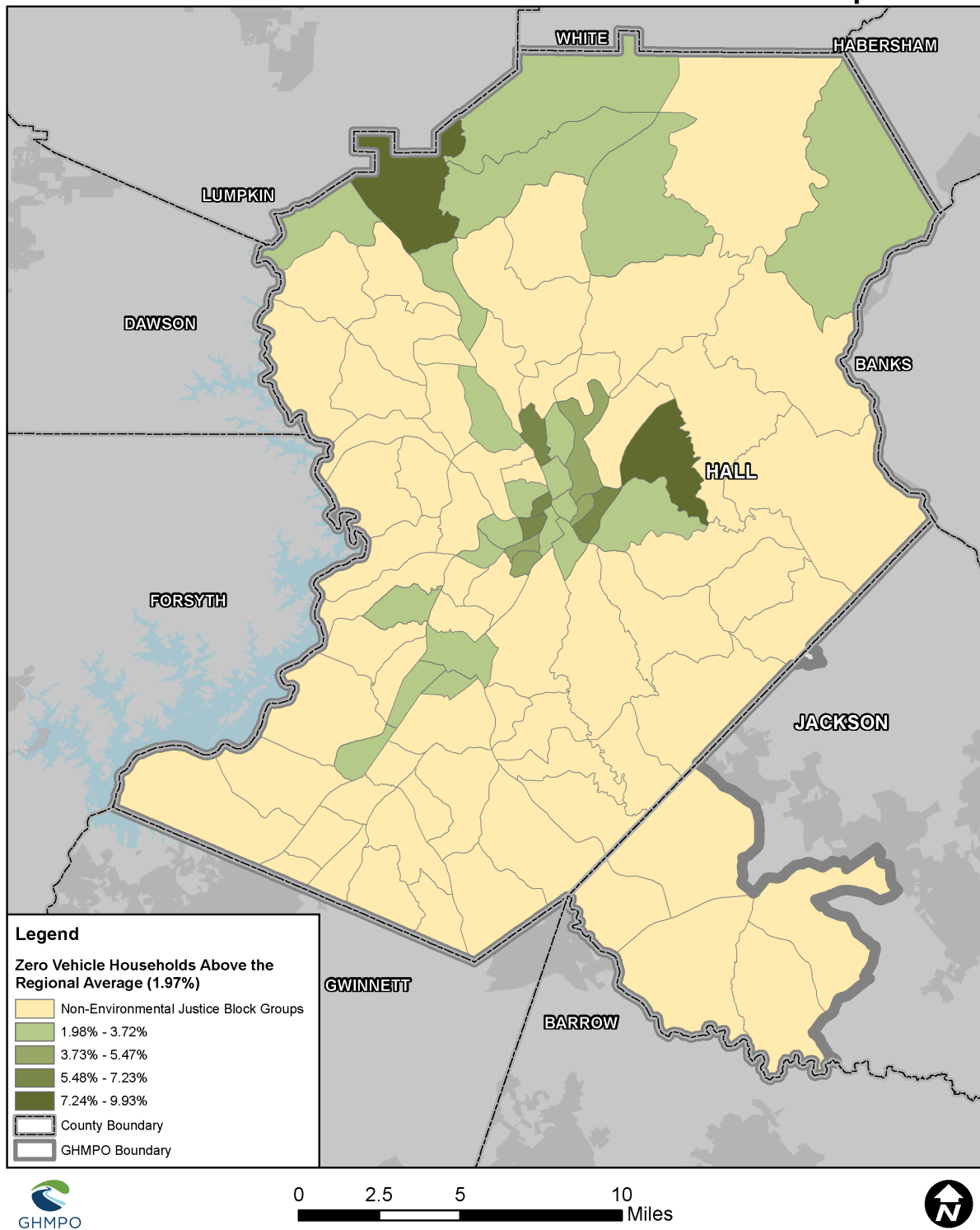


FIGURE 12: HOUSEHOLDS WITHOUT ACCESS TO AN AUTOMOBILE

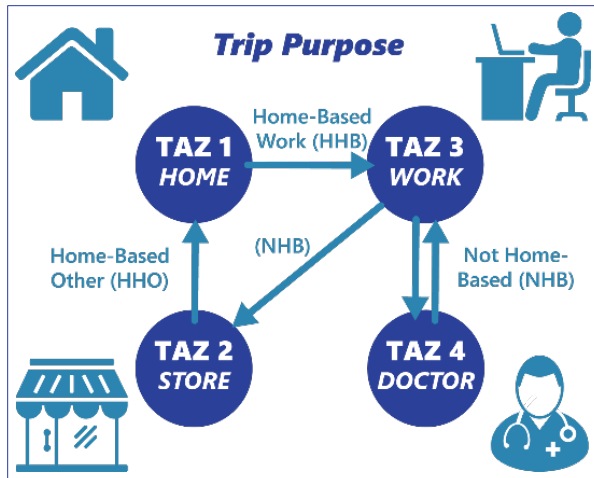
Gainesville-Hall MPO 2020 RTP: Environmental Justice Population



SOCIOECONOMIC DATA

The understanding of the people, employment, and significant features of the region is an important feature of any RTP. Using available census data and the previously created planning documents within the region, a thorough understanding of the existing population and employment centers can be attained. By incorporating additional planning reports, predicting growth, and review of future land use plans, assumptions can be made for future 2050 conditions. This information is then used to develop a

FIGURE 13: TDM TRIP PURPOSE



transportation demand model which creates visual representations of the traffic conditions. Overall, SE data included within this model includes:

- Population data
- Employment data
- Household data
- University and student enrollment information

Table 8 presents the GHMPO SE data summary using the assumptions and methodologies presented in the subsequent sections.

TABLE 8: GHMPO SE DATA SUMMARY

	2015			2050		
	Hall	Jackson	Total	Hall	Jackson	Total
Population	194,997	16,297	211,294	383,214	36,185	419,399
Households	75,630	6,070	81,700	157,441	13,674	171,115
Employment	102,051	8,071	110,122	274,946	10,614	285,560
Service	54,540	2,901	57,441	124,345	3,616	127,961
Retail	10,953	660	11,613	39,688	865	40,553
AMC*	7,606	361	7,967	17,062	406	17,468
MTCUW**	28,952	4,149	33,101	93,851	5,727	99,578
Student	38,236	2,680	40,916	76,378	8,931	85,309
College	10,130	-	10,130	22,057	-	22,057

*Agriculture, Mining, Construction

** Manufacturing, Transportation, Communication, Utilities, Warehousing

Travel Demand Modeling

The travel demand model (TDM) is one of the major tools used in analyzing the existing and future transportation network as part of the development of the RTP. The travel demand model utilizes two (2) sets of inputs: transportation network characteristics and socioeconomic (SE) data to estimate and predict future conditions. GDOT develops and runs the GHMPO model using SE data and network information

developed and provided by the GHMPO. The data utilized includes the base year information (2015) and the projected information for the planning horizon year (2050). The GDOT model follows the traditional four-step transportation planning process:

1. Trip generation (how many trips?)
2. Trip distribution (where are the trips going?) **Figure 13**
3. Modal choice (what mode is being use?)
4. Trip assignment (what route is being used?)

In order to create the TDM, the planning area is stratified into Traffic Analysis Zones (TAZ). The TAZs are geographic areas that are typically defined by similar characteristics, a geographic feature or transportation facility. The SE data for the 2015 base year and 2050 future year are developed for the TAZs and submitted to GDOT for incorporation into the model.

Population - 2015

Data from the US Census was used to develop the population estimates for the 2015 base year. This data included 2015 American Community Survey estimates on the block and tract level. A significant portion of the population and the highest densities are found in the Gainesville urbanized area near central Hall County. The population numbers were loaded into the appropriate TAZ, screened and adjusted as needed according to the criteria identified above. Both population and number of households were estimated for 2015 and 2050 for entirety of GHMPO.

Table 9 displays the population and household information.

TABLE 9. POPULATION AND HOUSEHOLDS

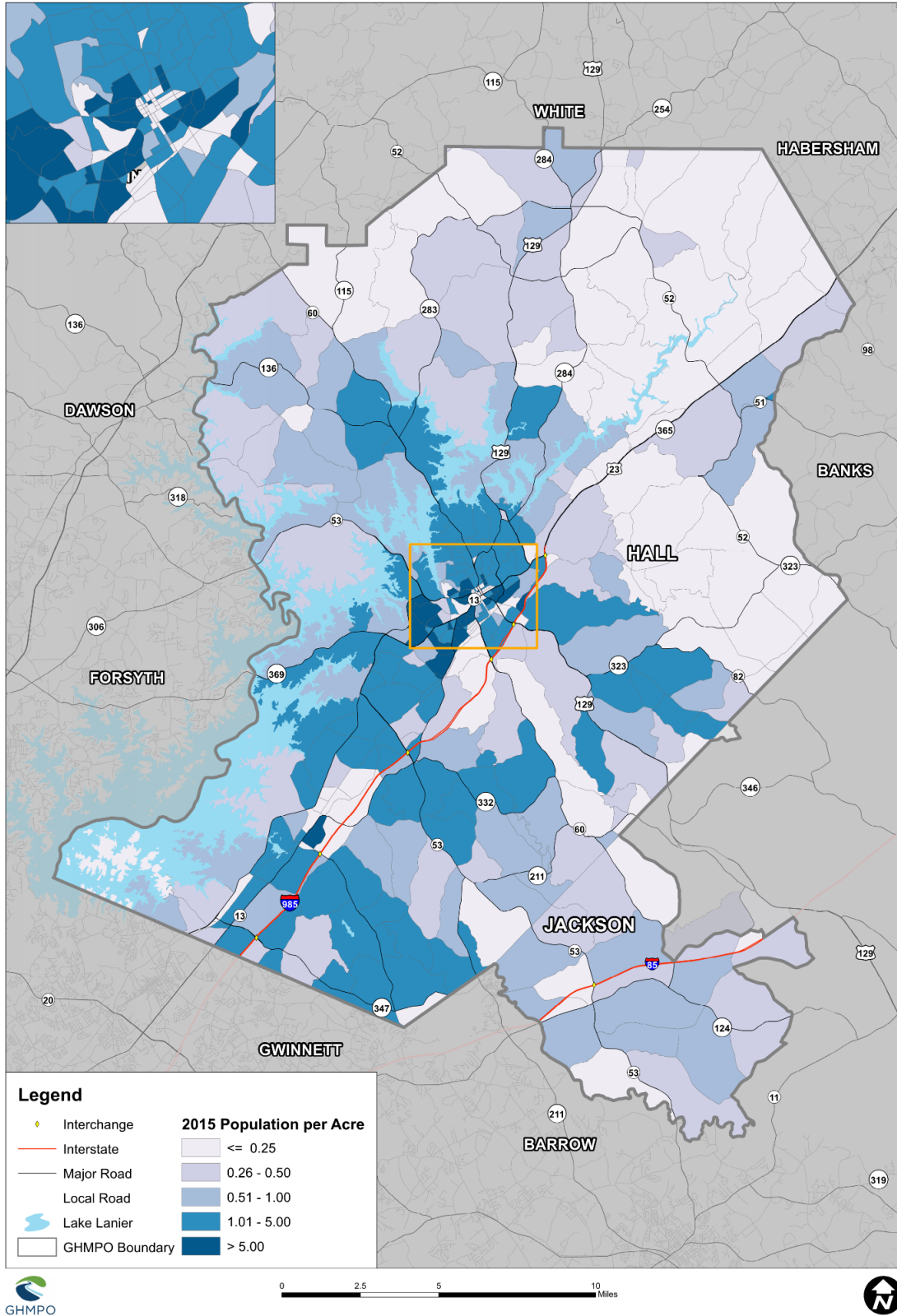
County	Population		Households	
	2015		2015	
	Census	Model	Census	Model
Hall	187,916	194,977	72,133	75,630
Jackson*	15,245	16,297	5,678	6,070
Total	203,161	211,294	77,811	81,700

**Portion of Jackson County within GHMPO boundary*

The 2015 base year population densities are shown in **Figure 14**. As can be seen from the map, most of the highest population densities occur in Hall County. The area of Jackson County with the greatest density is in the central portion of Jackson County adjacent to I-85.

FIGURE 14: 2015 POPULATION DENSITIES BY TAZ

Gainesville-Hall MPO 2020 RTP: 2015 Base Year SE



Employment - 2015

Sources for the employment data include information from a variety of agencies on the national, state and local levels. Geographically oriented data is obtained from the US Census Longitudinal Employer-Household Dynamics (LEHD), Georgia Department of Labor (GDOL), County Business Patterns provided by the US Census Bureau, and the Bureau of Economic Analysis (BEA) housed at the US Department of Commerce (USDOC). LEHD data served as the primary source of employment information. This dataset combines several sources of labor market data and provides information and statistics on employment, earnings, and job flow at a geographic and industrial level.

The employment information for the 2015 base year was stratified in several different ways for this analysis. Employment totals were categorized by economic sector or category, as well as geographically in the GHMPO region. **Table 10** displays the employment totals for each county identified by data source.

TABLE 10. SE DATA: 2015 EMPLOYMENT TOTALS

County	2015			
	BEA	GDOL	LEHD	Model
	# of Jobs	Avg. Emp.	Jobs	Tot. Emp.
Hall	107,186	79,681	81,321	102,051
Jackson	3,824	5,986	4,373	8,071
Total	111,010	85,667	85,694	110,122

Source: BEA, GDOL, LEHD, USDOC

The employment by category was also identified to better understand the labor force characteristics. The North American Industry Classification System employment categories from the LEHD data were used as the base and then converted into the employment categories for the travel demand model based on the guidance provided by GDOT. **Table 11** depicts the categories and employment.

TABLE 11. 2015 SE DATA: EMPLOYMENT BY CATEGORY

Category*	2015			
	BEA	GDOL	LEHD	Model
Retail	11,975	9,476	8,344	11,613
Service	63,153	43,710	44,507	57,441
MTCUW*	28,018	28,230	28,568	33,101
AMC*	7,864	4,251	4,275	7,967
Total	111,010	85,667	85,694	110,122

*Notes: MTCUW: Manufacturing, Transportation, Communication, Utilities, Warehousing

AMC: Agriculture, Mining, Construction

The 2015 employment was then mapped by TAZ. Hall County is the primary employment center within the GHMPO region, with additional areas of high-density employment located in Jackson County. In order

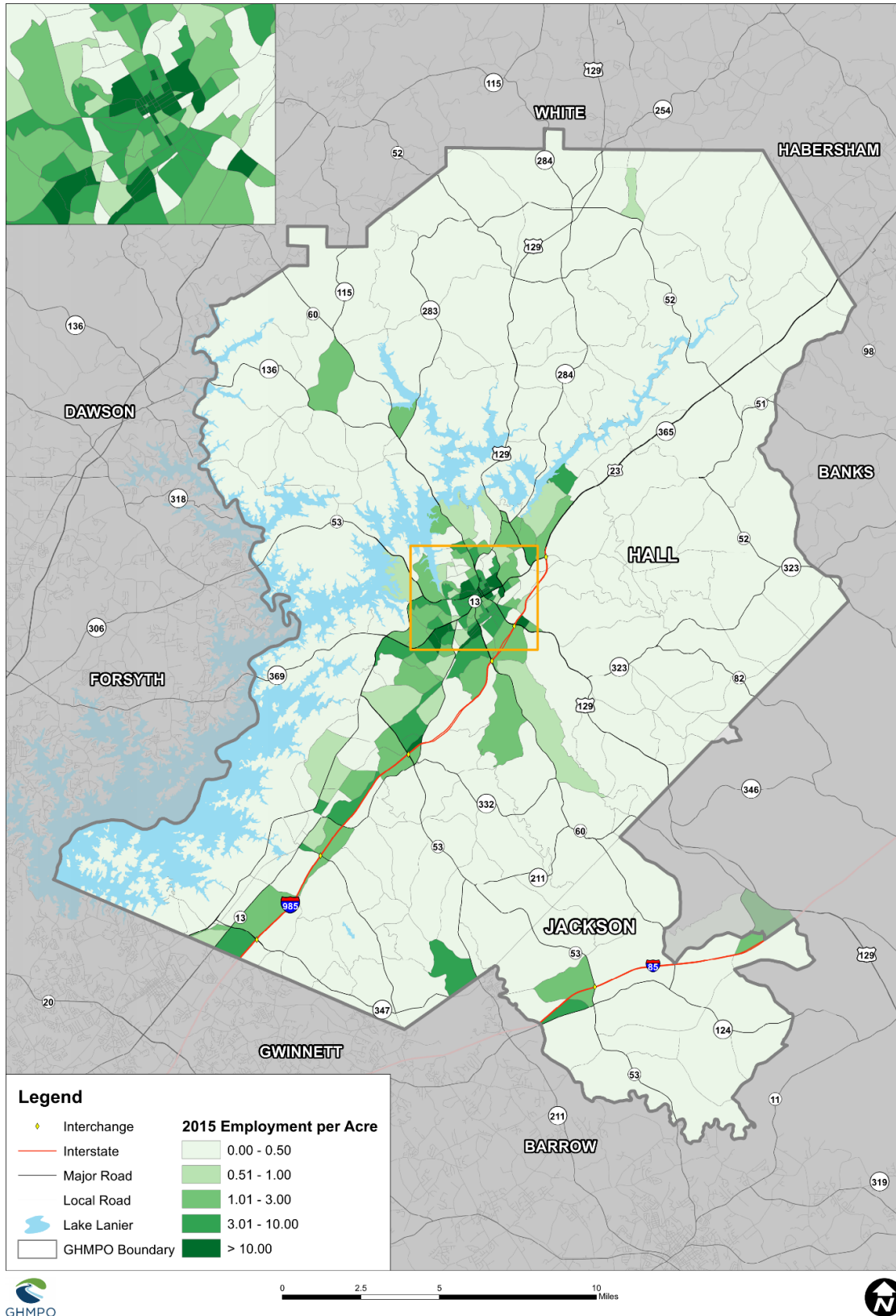
to fully understand the employment densities when shown geographically, major employers in the area with the highest employment densities were identified as a reasonableness check. **Figure 15** shows the employment densities within the region and GHMPO boundary. The largest employers in GHMPO include:

- Northeast Georgia Medical Center
- Kubota Manufacturing of America
- Fieldale Farms Corporation
- Hall County Government
- Cottrell, Inc.
- Gainesville City School System
- Pilgrims
- Wrigley Manufacturing Company
- Victory Processing, LLC

Source: Economic Development Council – Economic Development Report 2015

FIGURE 15: 2015 EMPLOYMENT DENSITIES BY TAZ

Gainesville-Hall MPO 2020 RTP: 2015 Base Year SE



Population - 2050

The first step in developing future year projections is to estimate total regional population growth. Countywide population projections were collected for both Hall and Jackson Counties from the following primary sources:

- REMI dataset for GHMPO Region – 2020 to 2050
- Georgia OPB, 2015 Series – 2015 to 2062 Projections
- 2015 Regional Transportation Plan (RTP), Previous Study – 2010 to 2040 Projections

OPB data includes population projections by county, where REMI and RTP provides population and employment projections for the TDM region. Growth rates were determined based on source data and then applied to the base year population. Population projections are summarized in **Table 12**. The REMI growth rate is the most conservative at 0.82% per year between 2015 to 2050, whereas the OPB dataset indicates growth at 1.40%. Previous RTP study estimates the highest growth at 2.50%.

TABLE 12: POPULATION PROJECTIONS

Source	Geographic Coverage	AAGR (%) *
REMI	TDM region	0.82
OPB	Hall and Jackson County	1.40
2015 RTP	TDM region	2.50

*Average Annual Growth Rate

Recommended 2050 Population

The population and employment projections are used as input parameters as part of the TDM development. Typically, the TDM will generate higher traffic volumes from higher population and employment input projections. With this assumption, the use of higher projections for development of the SE data draft totals takes a conservative planning approach to ensure future needs are identified for a range of potential growth scenarios. RS&H concluded REMI data may not accurately depict recent development trends due to the estimate being an outlier compared to the other sources. As a result, recommended population growth rate was determined to be 1.95% for Hall County and 2.31% for Jackson County, a value falling between the previous RTP and OPB estimates. Recommended population AAGRs by county are shown in **Table 13**.

TABLE 13: FORECAST 2050 POPULATION

County	Recommended AAGR (%)	Geographic Coverage	2050 Population
Hall	1.95	TDM region	383,214
Jackson	2.31	TDM region	36,185

Employment – 2050

Subsequent to determination of the 2050 population control totals, RS&H developed employment control totals based upon the jobs-to-housing ratios from the 2015 base year, the industry mix included in the REMI's employment projections, and local input that would cause future growth rates to deviate from historical trends. Local inputs included in future projections are detailed in the subsequent section and describe adjustments on a TAZ level.

LOCAL CONSIDERATIONS

One major infrastructure improvement found was the Exit 14 project, situated off Interstate 985 in Flowery Branch. The new connection road will be at the intersection of H.F. Reed Industrial Parkway and Thurmon Tanner Parkway. The infrastructure change will provide H.F. Reed Industrial Park (TAZ 68, 125, 308, 334, and 335) direct access to Interstate 985. It is estimated that manufacturing, transportation, communication, utilities, and warehousing (MTCUW) employment will increase by an additional 5% with the completion of Exit 14. Other major developments listed below, including the one just described, are as follows:

- Additional 5% growth in MTCUW employment for TAZ (68, 125, 308, 334, and 335)
- Concentrate service and retail growth along I-985 due to Gateway Centre Industrial Park and Gainesville Downtown development.

Additional service employment growth due to specific plans for college expansions and new schools were identified as follows:

- Mundy Mill Academy (K-5th) Opening in TAZ 37
- UNG Expansion of Gainesville Campus in TAZ 123
- New Lanier Technical College in TAZ 145
- Expansion of Brenau University in TAZ 262
- Cherokee Bluff Middle and High School redevelopment of Flowery Branch High in TAZ 362

RECOMMENDED 2050 EMPLOYMENT

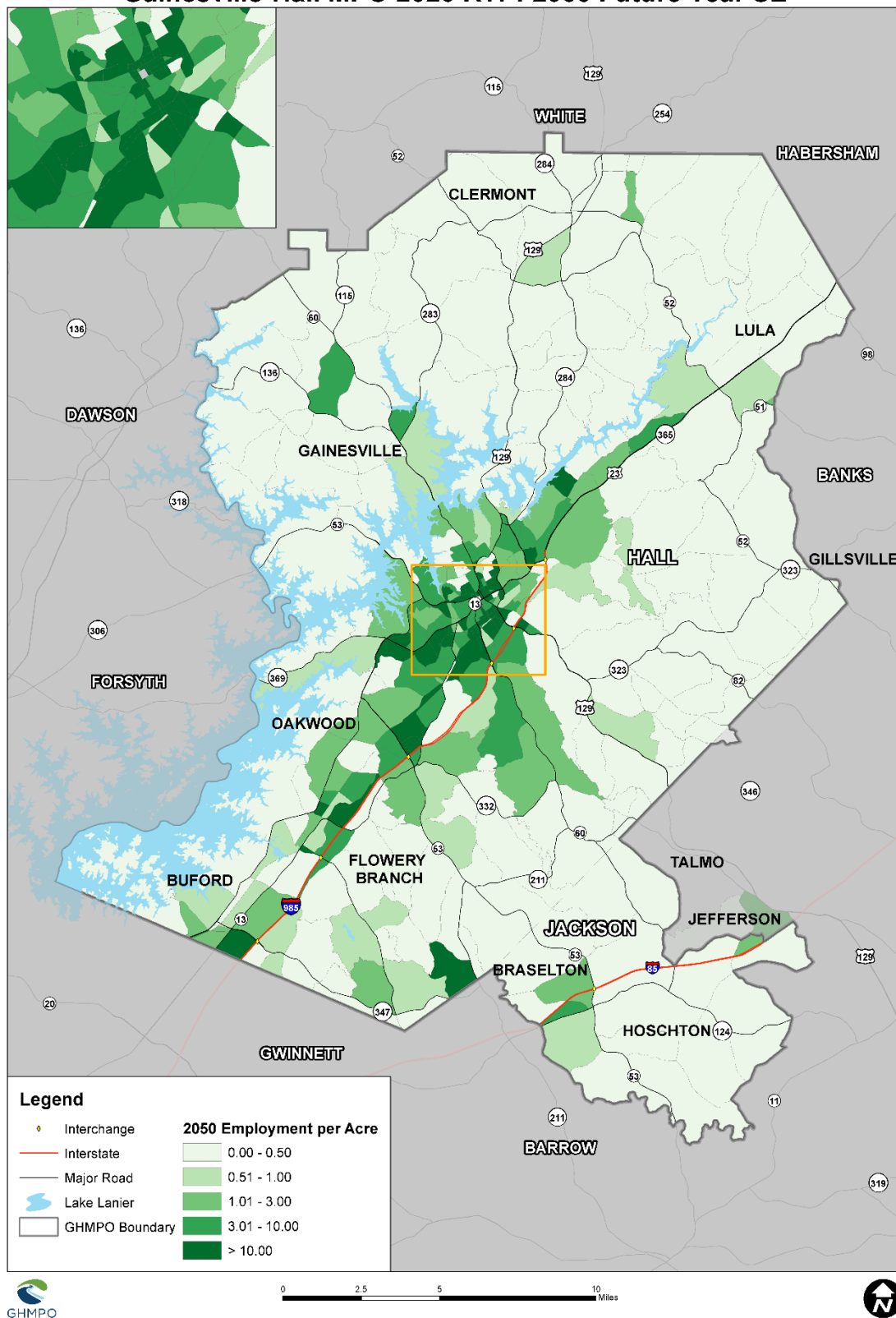
Table 14 presents the recommended employment totals by county and industry mix. Employment is expected to remain primarily in the urbanized areas of Hall County with some expected growth and development along the US 23/SR 365 Corridor. This corridor is expected to see additional growth from the inland port that is being proposed that would increase freight/industry activity north of Gainesville.

TABLE 14: FORECAST 2050 EMPLOYMENT BY CATEGORY

County	Employment	Service	Retail	AMC	MTCUW
Hall	274,946	124,345	39,688	17,062	93,851
Jackson	10,614	3,616	865	406	5,727
Total	285,560	127,961	40,553	17,468	99,578

FIGURE 16: 2050 EMPLOYMENT DENSITY BY ACRE

Gainesville-Hall MPO 2020 RTP: 2050 Future Year SE

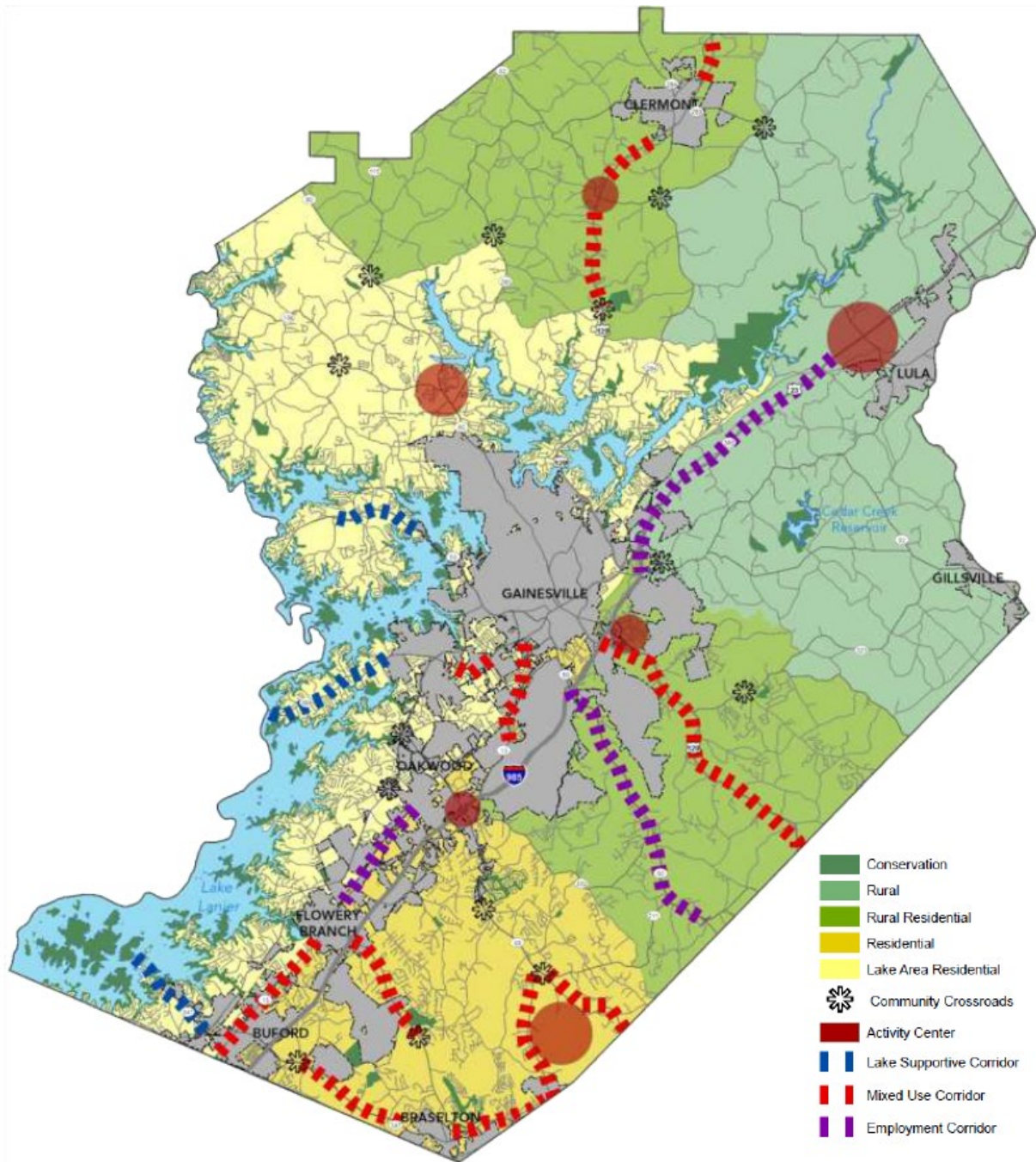


LAND USE

The direct relationship between land uses and the needs/use of the transportation network can't be understated. By understanding the local land uses, assumptions can be made to better plan for the needs of the transportation network. The GHMPO boundary contains all of Hall County and portions of Jackson County, therefore, an understanding of the planned growth in these two (2) counties is necessary. The included portion of Jackson County is generally more rural in nature but the MPO boundary does include urbanized areas of Braselton and Hoschton.

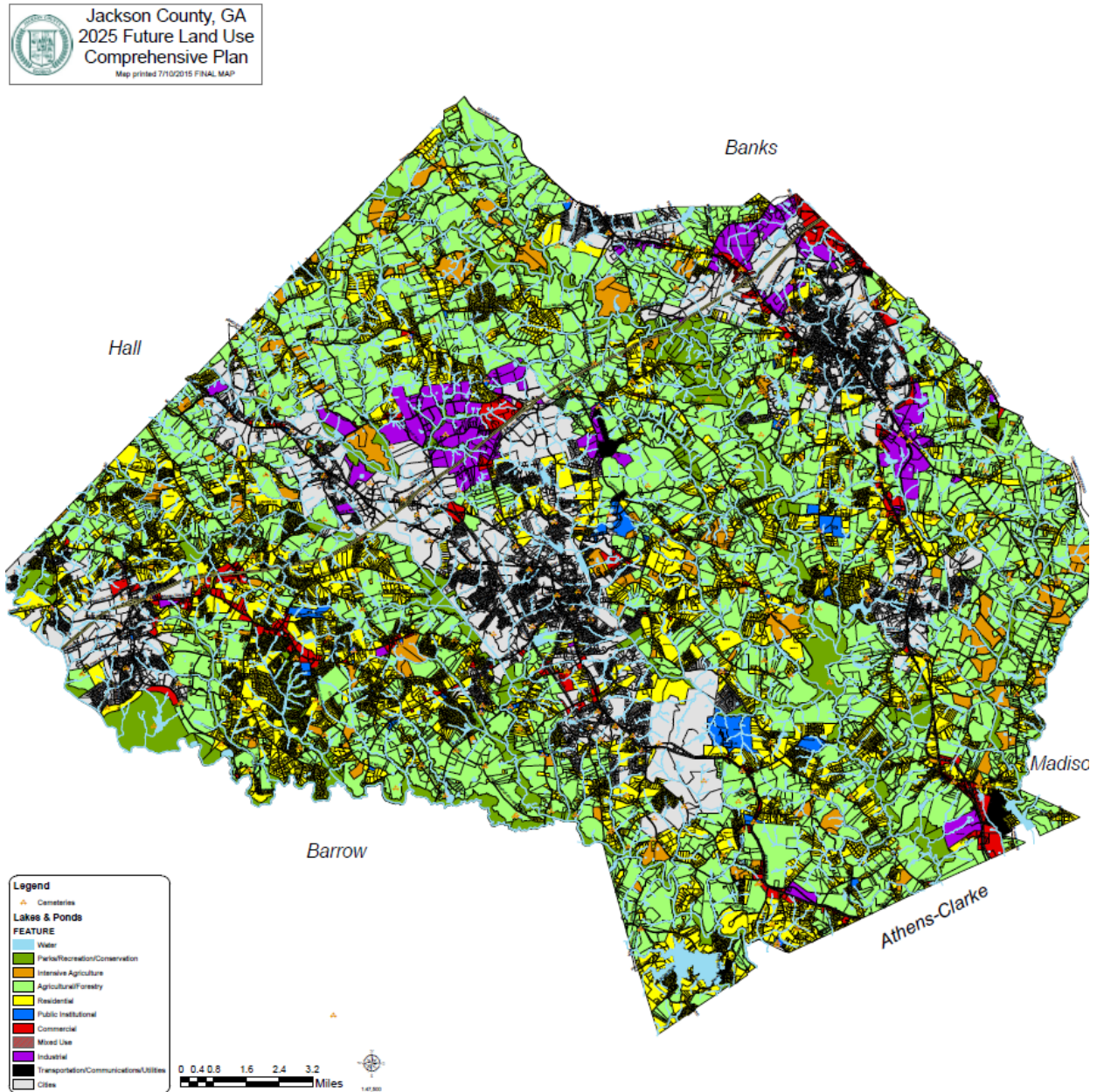
Hall County is the more urbanized of the two (2), with the City of Gainesville being the largest municipality within GHMPO. Hall County makes up the majority of the population and employment centers within GHMPO. By using the current and future socioeconomic data for the MPO, an understanding of the transportation needs can be established. As part of the understanding of these needs, the future land use maps for the two (2) counties have been included. Hall County's Future Development Map was adopted in 2017 as part of its comprehensive planning process and is depicted in **Figure 17** below; similarly, Jackson County adopted its Future Land Use Map in 2017, **Figure 18**.

FIGURE 17: HALL COUNTY FUTURE DEVELOPMENT



Source: Hall County Forward

FIGURE 18: JACKSON COUNTY FUTURE LAND USE



Source: Jackson County - 2025 Future Land Use Comprehensive Plan

MODES AND TRAVEL PATTERNS

Transportation within the GHMPO area is achieved through an interconnected network of transportation facilities providing access for people and goods through several different modes. GHMPO is heavily reliant on the road network; however, the other multimodal transportation facilities are present within the area and included in this multimodal RTP.

Roadway Network

The road network within GHMPO spans the majority of the two-county area, with from high capacity interstates (I-85 and I-985) and a substantial network of US and State roadways. The most significant regional connections are I-85 and I-985 that provide northeast/southwest connections especially southward toward the Atlanta urbanized area. The road network is the primary mode of transportation; however, freight is also conveyed by rail through the region.

FUNCTIONAL CLASSIFICATION

Nationwide, the transportation system is divided into seven (7) functional classifications that are used to categorize the system by type of roadway. Functional Classification is a method used by GDOT to identify roadways based on their characteristics and use. **Figure 19** presents the GHMPO roadway functional classifications. Using the accepted GDOT Functional Classifications, the GHMPO road network can be described using seven (7) categories:

- Interstate – Highest classification of arterial created for mobility, long distance travel, and limited access
- Freeway/Expressway – Similar to interstates with limited access and a generally divided bi-directional travel
- Principal Arterial – Focus on mobility but adjacent land uses can be served by the roadway
- Minor Arterial – Typically create connections to the larger arterial system and serve moderate length trips
- Major and Minor Collector – Both collector types have a great deal of overlap, but each generally is designed to serve as a connection between local roads that the arterial network
- Local Roads – Generally designed to service short trips and prevent cut through traffic.

NUMBER OF LANES

GHMPO is home to a variety of roadway classifications and sizes serving local and regional trips. Using information available from GDOT with review of existing conditions, **Table 15** depicts the through lane counts and corresponding length in miles.

TABLE 15: NUMBER OF THROUGH LANES

Number of Through Lanes	Approximate Number of Miles
1-2 Lanes	1,683
3-4 Lanes	105
5+ Lanes	7

Figure 20 has been developed to depict the road network and the locations of the differing lane numbers. The majority of the 3-4 lane roadways are the US and SRs located nearby the urbanized areas, including I-985 (two-lanes each direction). The only two (2) roadways where identified with over five (5) lanes are segments of SR 347/Friendship Road, and SR 53. As shown in the table above, the majority of the roadways are 1-2 lanes.

FIGURE 19: ROADWAY FUNCTIONAL CLASSIFICATION

Gainesville-Hall MPO 2020 RTP: Functional Classification (2017)

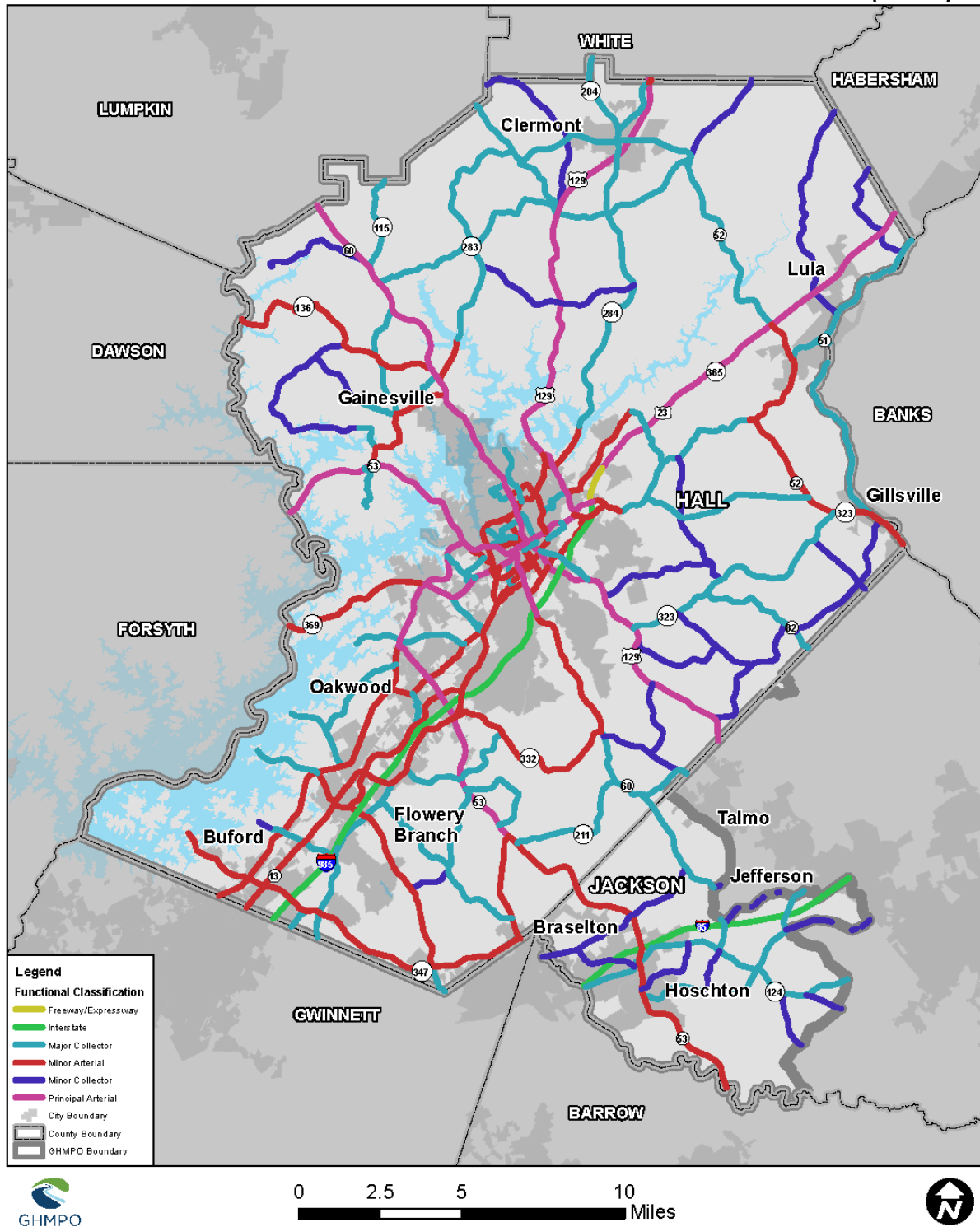
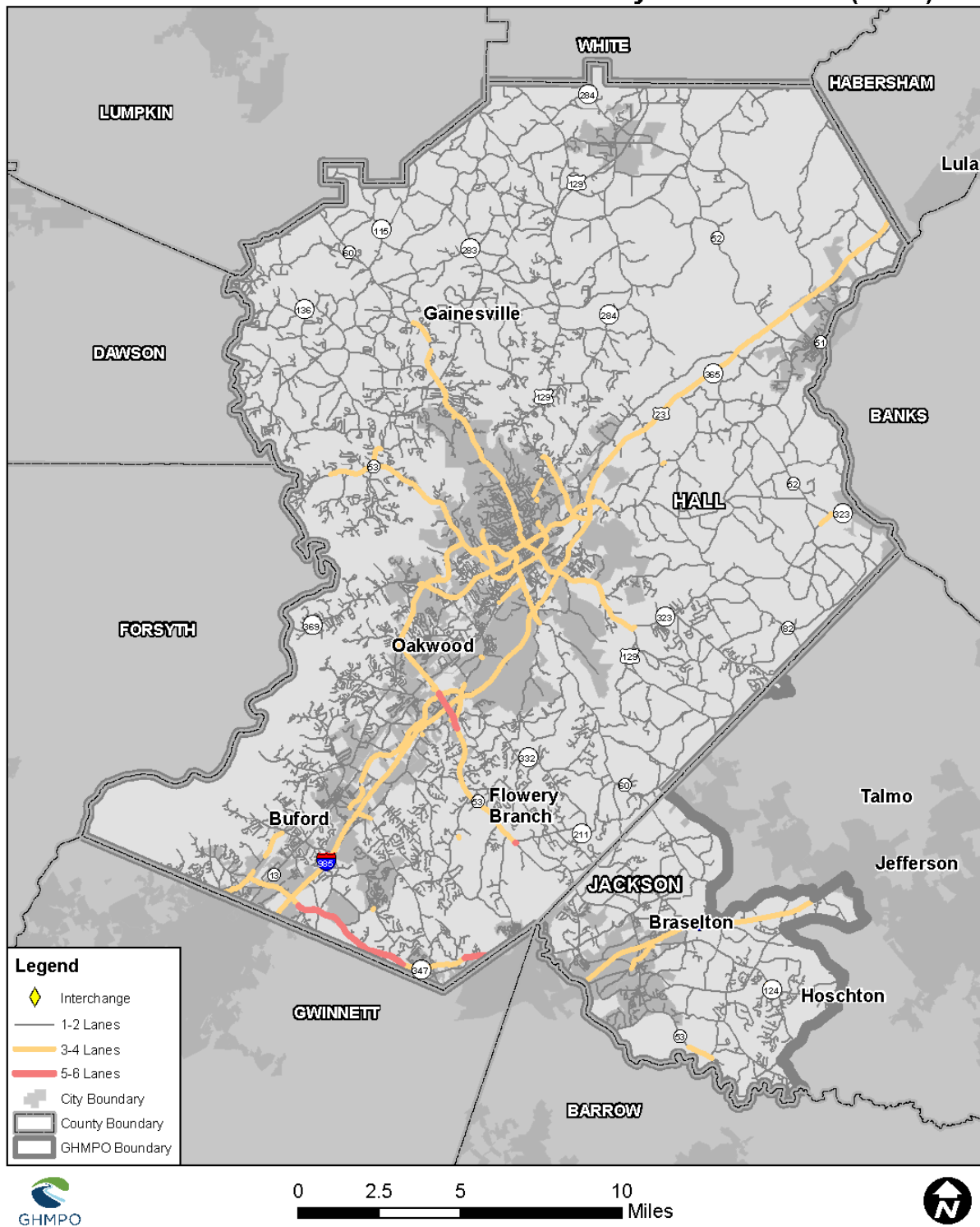


FIGURE 20: NUMBER OF TRAVEL LANES

Gainesville-Hall MPO 2020 RTP: Roadway Lane Counts (2017)



Level of Service

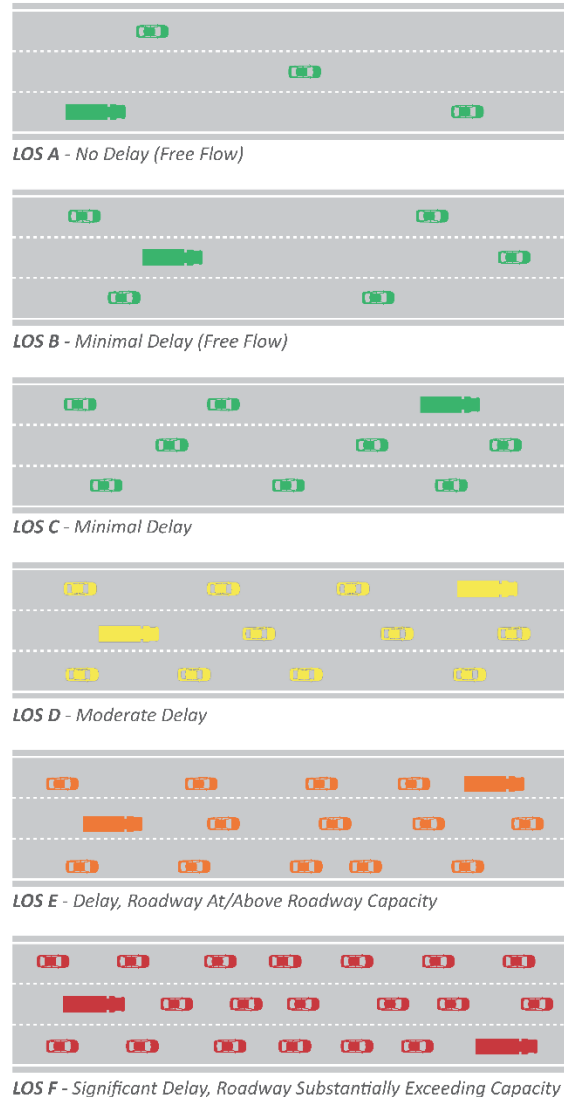
Level of Service (LOS) is a metric used to determine how well a roadway is handling current vehicle volumes and speeds. LOS is divided into six (6) measures, A-F, where A indicates a roadway with the ability to handle additional capacity and F indicates a roadway that is unable to handle the current vehicle volumes. A depiction of the LOS categories can be seen in **Figure 21** while descriptions of the levels are described in **Table 16**. Using the available roadway characteristics, a model was created by GDOT to depict the approximate LOS conditions throughout the planning area in the 2015 Base Year. These 2015 base year conditions are depicted within **Figure 22** below.

TABLE 16: LEVEL OF SERVICE DESIGNATIONS AND DESCRIPTIONS

Level of Service Designation	Description
A	Free flow with individual users virtually unaffected by the presence of others in the traffic stream.
B	Stable flow with a high degree of freedom to select speed and operating conditions but with some influence from other users.
C	Restricted flow which remains stable but with significant interactions with others in the traffic stream. The general level of comfort and convenience declines noticeably at this level.
D	High-density flow in which speed and freedom to maneuver are severely restricted and comfort and convenience have declined even though traffic flow remains stable.
E	Unstable flow at or near capacity levels with poor levels of comfort and convenience.
F	Forced flow in which the amount of traffic approaching a point exceeds the amount that can be served, and queues form, characterized by stop and-go waves, poor travel times, low comfort and convenience, and increased accident exposure.

Source: Transportation Planning Handbook (2nd Edition), Institute of Transportation Engineers, 1999.

FIGURE 21: LEVEL OF SERVICE VISUALIZATION



Fortunately, the 2015 model shows the majority of the major corridors throughout GHMPO with LOS C or better. The corridors with worse LOS are dispersed within the planning area, with smaller segments being identified with the urbanized areas and longer segments in the unincorporated areas. Due to the high-level scale of the model outputs, this data should be used in conjunction with local knowledge and site-specific studies for verification.

SIGNALIZED INTERSECTIONS

Based on the data provided by the GHMPO and GDOT (2017), **Figure 23** was developed to depict the locations of signalized intersections within GHMPO. Most of the signalized intersections are located along the arterials (State roads and US Highways) throughout the area.

FIGURE 22: 2015 TDM LEVEL OF SERVICE

Gainesville-Hall MPO 2020 RTP: 2015 GDOT Model

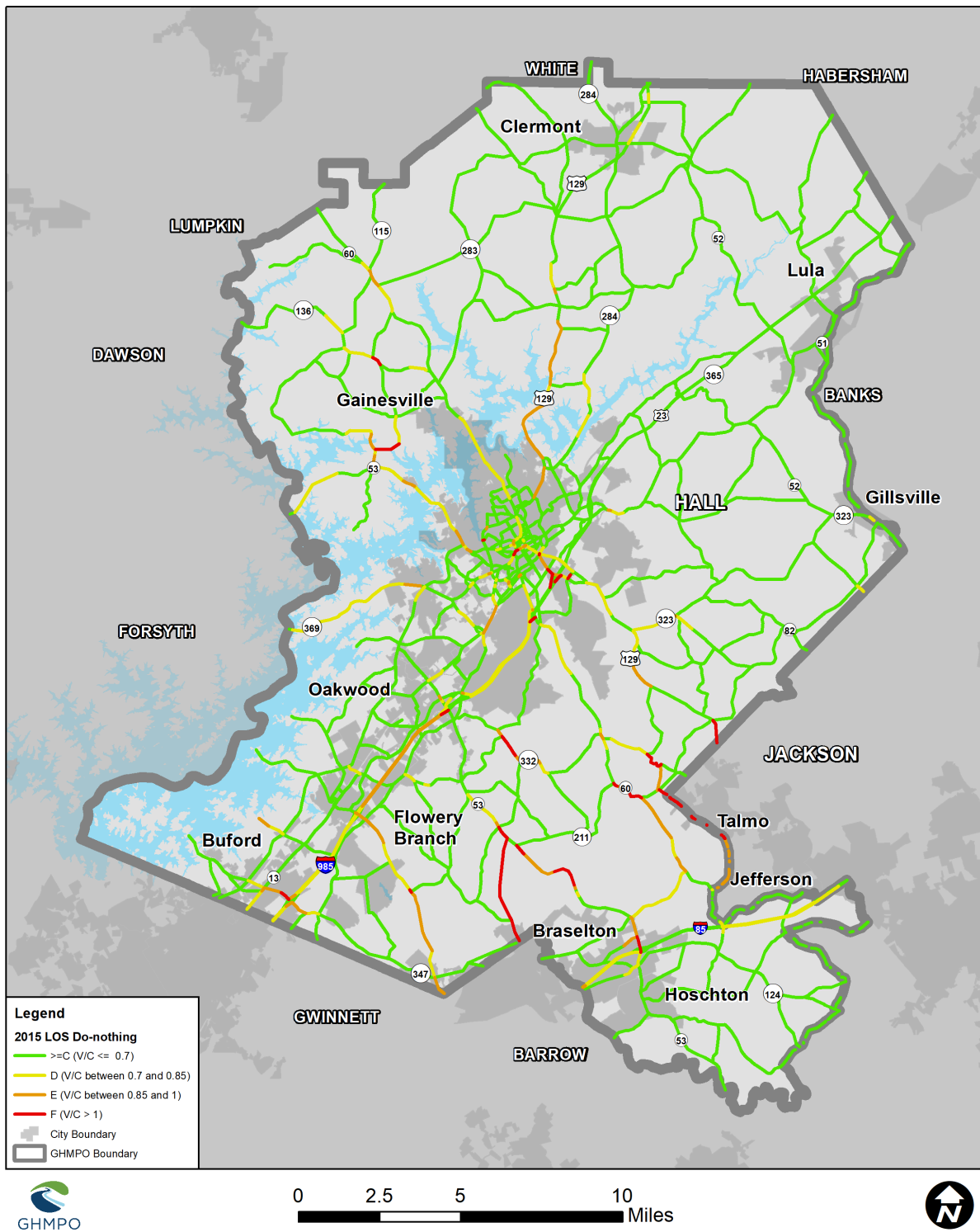
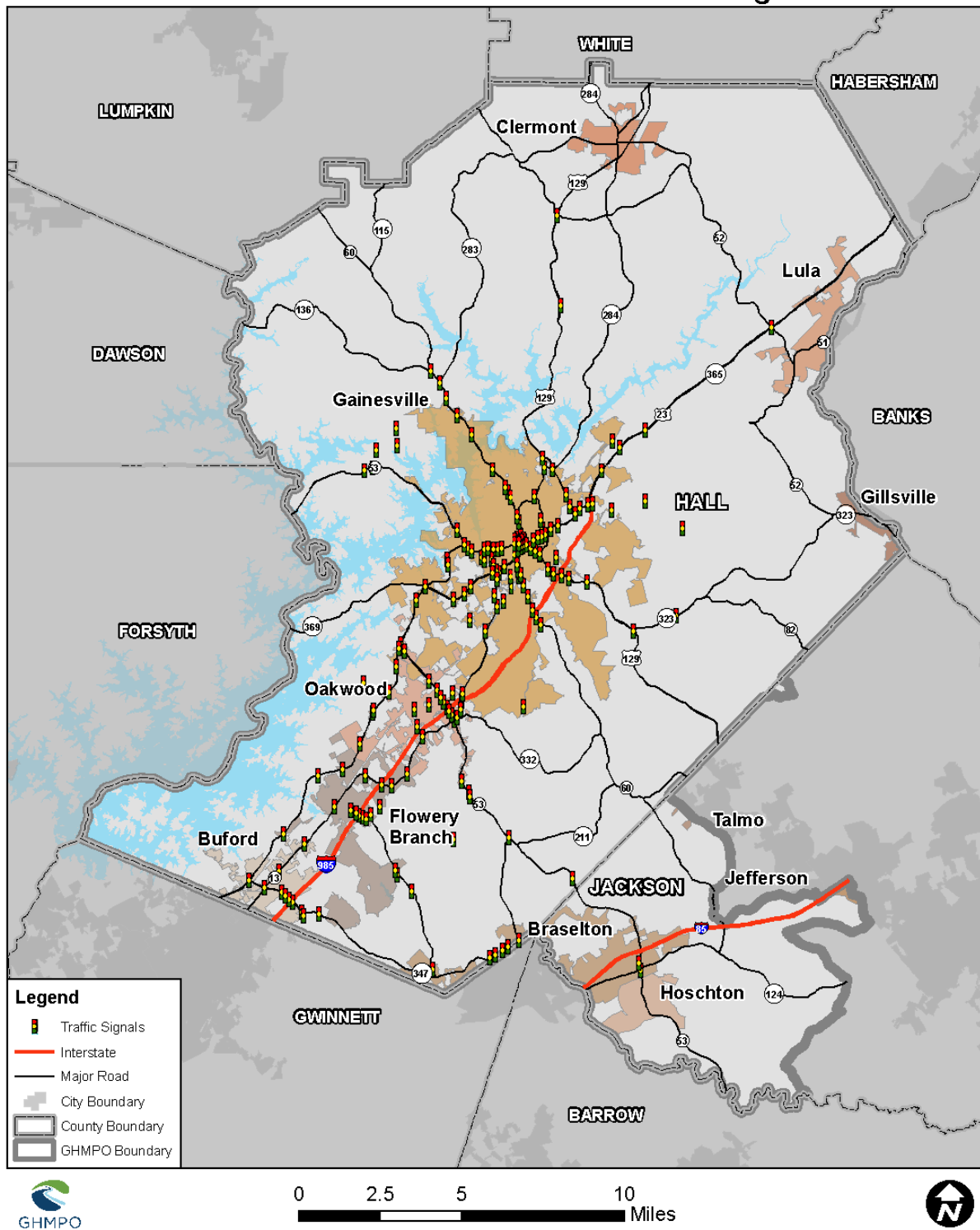


FIGURE 23: GHMPO SIGNALIZED INTERSECTIONS

Gainesville-Hall MPO 2020 RTP: Traffic Signals



Transit Network

TRANSIT

Public transportation is an important feature for urbanized areas and is a growing consideration within the GHMPO planning area. Currently there are two (2) main transit providers within the GHMPO region, Hall Area Transit (Hall County) and Jackson County Transit. Each of these agencies is further described below.

Hall Area Transit

Hall Area Transit (HAT) operates a fixed route bus system named the Gainesville Connection. The Gainesville Connection primarily serves the City of Gainesville with routes extending into the City of Oakwood and unincorporated Hall County. HAT is currently updating their fleet to include “Hometown” buses, with a historic look similar to traditional trolleys. These newer buses are intended to serve the Downtown and Midland (Midtown is currently being rebranded) areas. Additionally, the transit operator has proposed the implementation of supplemental microtransit to supplement and enhance existing service within Hall County. The full implementation of microtransit will likely be a multiyear process, prioritizing urban areas, then extending service to other areas.

Table 17 Shows the typical HAT fares and **Figure 25** depicts the current HAT route system. In addition to the fixed route service, DIAL-A-Ride provides paratransit service to the Hall County area. Dial-A-Ride operates during the weekday and charges a \$2 fare that increased with each mile traveled.

TABLE 17: HALL COUNTY TRANSIT FARES

Transit Fares	Children	Persons 7-59 yrs.	Persons 60+ or those with a disability	Daily Pass Unlimited rides (Varies)	Monthly Pass With Unlimited Rides (Varies)
Total	\$0.00	\$1.00	\$0.50	\$1.00-2.00	\$20.00-30.00

The service information from HAT is presented in **Figure 24**. This informational fact sheet (2019) depicts the number of trips the services are providing and the general cost per trip. The overall ridership of the program has been varying from year-to-year with some years showing increases and others in decline.

FIGURE 24: HALL AREA TRANSIT FACT SHEET (2019)

Hall Area Transit Fact Sheet

Gainesville Connection Fixed Route Bus Services



Established January 2001
Known as Red Rabbit from 2001-14
Eight 15-passenger Buses

Year	# of Trips	Operating Cost	Cost Per Trip
FY10	142,530	633,533	\$ 4.44
FY11	215,433	753,331	\$ 3.50
FY12	240,190	731,497	\$ 3.05
FY13*	155,733	723,774	\$ 4.65
FY14	146,797	714,390	\$ 4.87
FY15	149,642	740,858	\$ 4.95
FY16	141,590	745,763	\$ 5.27
FY17	137,294	804,803	\$ 5.86
FY18	145,706	815,592	\$ 5.60
FY19	145,948	902,285	\$ 6.18

Mobility Plus ADA Complimentary Service



Established January 2001
2 Wheelchair Equipped 10-passenger vans serving ADA eligible residents within 3/4 mile

Most Popular Travel Destinations

35% Senior Services/Nutrition Sites
30% Medical Appointments
17% Employment Sites
8% Personal Shopping
6% Educational Sites
4% Social Sites

Ridership Demographics

60% Seniors
33% Persons w/Disabilities
FY'13 ridership decline followed 50% fare increase

Dial-A-Ride Curbside Van Pool Services



Established in 1985
Ten 10-passenger Vans
Service Area: Hall County
Requires 48 Hours Reservations

Year	# of Trips	Operating Cost	Cost Per Trip
FY10	28,119	561,467	\$ 19.97
FY11	25,992	559,283	\$ 21.52
FY12	27,116	586,010	\$ 21.61
FY13	25,345	613,956	\$ 24.22
FY14	26,647	569,100	\$ 21.36
FY15	26,900	590,646	\$ 21.96
FY16	25,627	623,717	\$ 24.34
FY17	24,962	616,360	\$ 24.69
FY18	8,485	508,868	\$ 59.97
FY19	10,619	460,044	\$ 43.32

DATA: From FY'01 to FY'04 information and data for the Red Rabbit and Dial-A-Ride services were reported together. Figures reported here for those years are estimates.

FUNDING: Hall Area Transit receives operating & capital funds from the Federal Transit Administration through the Georgia Department of Transportation. Federal funds pay for 50% of operating costs and 80% of capital costs.

ADMINISTRATIVE ADDRESS

687 Main Street, Gainesville GA 30501

PHONE NUMBER

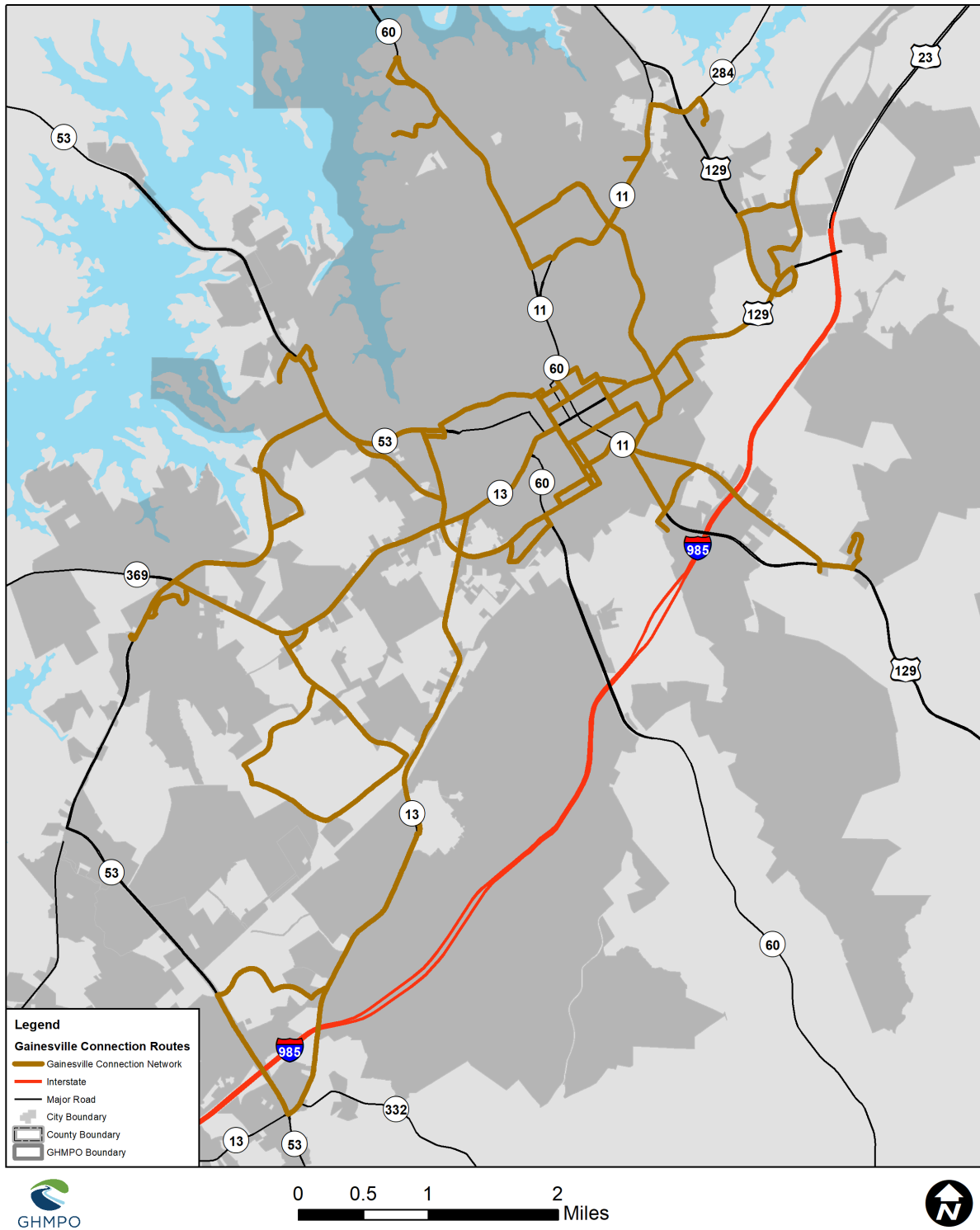
770.503.3333

CONTACTS

Phillippa Lewis Moss
G-H Community Service Center Director

FIGURE 25: HALL AREA TRANSIT: FIXED ROUTES

Gainesville-Hall MPO 2020 RTP: Transit Routes



Jackson County Transit

Jackson County operates an on-demand shared ride transit system that provides service within Jackson County and to three (3) adjacent counties (Athens-Clarke, Barrow, and Hall). Jackson County is currently undergoing a transit feasibility study to determine potential changes to the offered services, and to gain further understanding of the current conditions. As the Atlanta Metropolitan area continues to grow, it is anticipated that GHMPO will continue to experience the growth and pressures associated with urbanization. Subsequently, this increased urbanization is likely to provide additional warrant for a robust transit system within Jackson County. Currently, trends in transit travel tend to be individuals frequenting medical facilities and employment centers. Jackson County maintains a fleet of three (3), 10-passenger vans that operate Monday through Friday from 7am to 4 pm. **Table 18** depicts the typical Jackson county transit fares.

TABLE 18: JACKSON COUNTY TRANSIT FARES

Transit Fares	One-Way / In County	Round Trip / In County	One-Way / Out of County	Round Trip / Out of County
Total	\$4.00	\$8.00	\$9.00	\$18.00

Bicycle and Pedestrian Facilities

Bicycle and Pedestrian travel and safety is a very important feature of the transportation network. Recreation and transportation safety can be improved by the development of designated bike lanes and paved trails/sidewalks. The creation of paved trails/side paths can promote development and generate economic boosts in the areas surrounding these trails through increased recreation and use. Bike lanes and other bicycle safety infrastructure are generally recommended to be implemented along roadways where the separation of cyclists and motor vehicles is necessary to improve safety. The GHMPO completed the Bicycle and Pedestrian Plan originally in 2006 and completed an update to this plan in 2014. The purpose of the GHMPO Bicycle and Pedestrian plan was to identify exiting facilities and make recommendations for improvement of the multimodal network. As the MPO continues to grow, it is recommended that the proposed projects within the Bicycle and Pedestrian Plan be implemented and that the Plan be regularly updated to ensure its priorities are in line with future conditions. Existing pedestrian and bicycle facilities are depicted in **Figure 26**. Descriptions of the existing conditions are found below.

Pedestrian Network

Sidewalks are the most prevalent non-motorized facility throughout GHMPO and are generally found in the municipalities. The most significant sidewalk networks are located within the Gainesville, Oakwood and Flowery Branch municipalities.

Bicycle Network

Currently, only two (2) areas of designated bike lanes have been developed within GHMPO. The first is a one (1) mile stretch of bike lanes along Atlanta Highway near the intersection of I-985, and the second is a newly completed bridge over I-985 along HF Industrial Pkwy. Additionally, paved shoulders (wider than 4 ft) are dispersed throughout the area, providing additional areas for cyclists to potentially use.

Side Paths and Paved Trails

Several side paths/paved trails have been developed within GHMPO located primarily within Gainesville and along Friendship Road in southern Hall County. Two (2) recent trail studies have recently been completed. The first focused on an area in Gainesville evaluating a connection between the Midtown Greenway and Chicopee Trail. The second study was focused on South Hall evaluating potential connections between the Chicopee Trail and Friendship Road.

Table 19 below shows the approximately length of the bicycle and pedestrian facilities within GHMPO

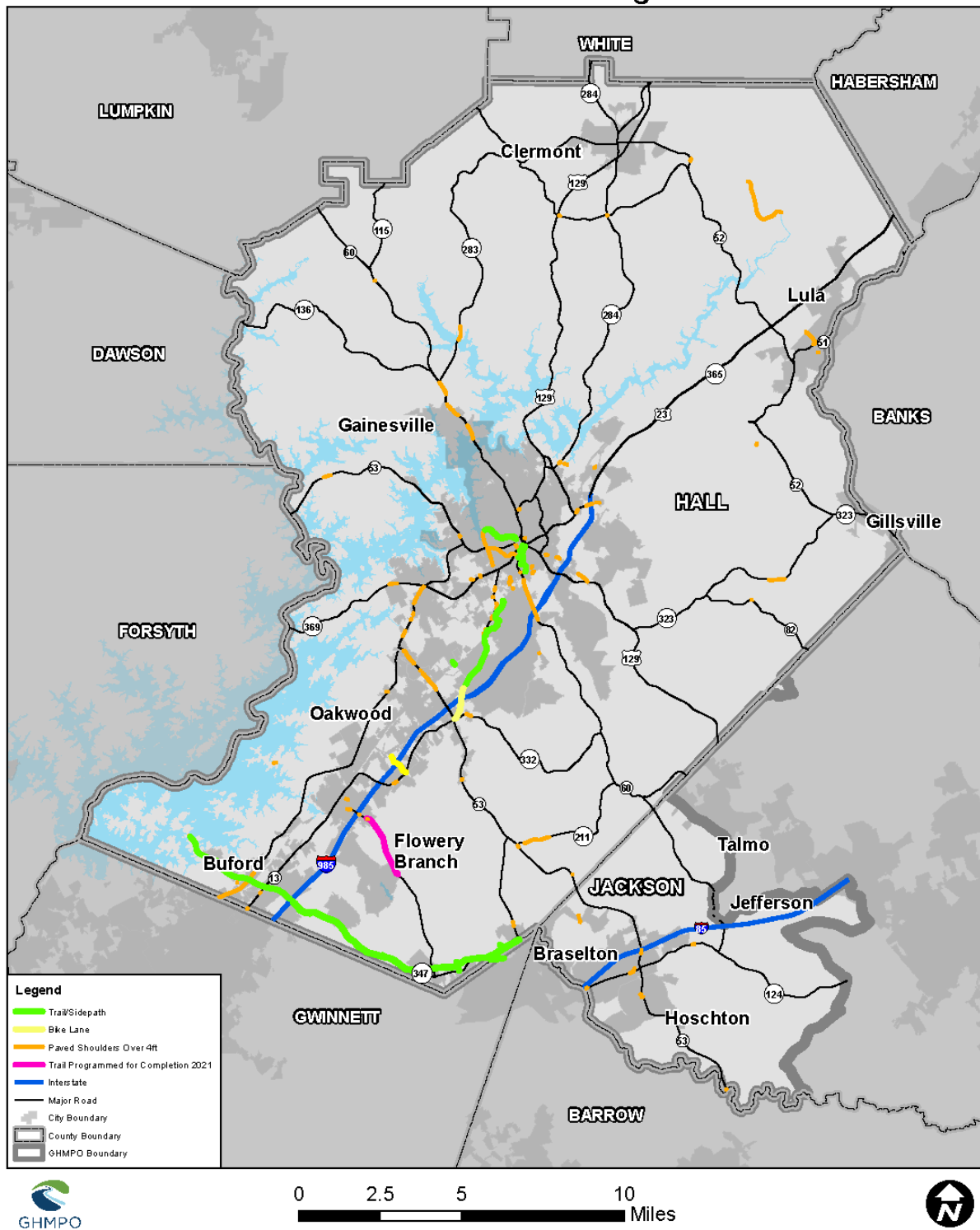
TABLE 19: BICYCLE AND PEDESTRIAN FACILITY LENGTHS

Existing Facility	Approximate Length (Miles)
Sidewalks	465*
Trails/Sidepaths	23*
Bike Lanes	3
Paved Shoulders (4ft or larger)	18
Nearly Completed Trail/Sidepaths	2

*Numbers do not include the City of Gainesville

FIGURE 26: EXISTING BICYCLE AND PEDESTRIAN FACILITIES

Gainesville-Hall MPO 2020 RTP: Existing Bike/Ped Facilities



Rail

GHMPO is home to two (2) major rail lines, Norfolk Southern and CSX. Norfolk Southern bisects GHMPO by traveling primarily north/south, with an additional extension heading through Gillsville. CSX travels primarily east/west entering GHMPO from Jackson County near Talmo. Both of these railways meet near the center of Gainesville. **Figure 27** depicts the existing railroad network within GHMPO.

Freight

Freight volumes are continuing to increase within the GHMPO area. In 2018, GHMPO completed the Regional Freight Study which analyzed existing conditions and developed a framework to monitor and improve upon the freight network. This study assessed existing and forecasted top trading partners of Hall County as shown in **Table 20**.

In addition to the planning efforts of GHMPO, both Hall and Jackson County have prioritized the development of industrial sites alongside major roadways to encourage additional growth in this area. The Freight Plan identified the existing freight land uses over 10 acres within GHMPO and found that over 90% of the applicable areas were listed within Hall County. Outside of GHMPO, Jackson County is also focusing on the development of industrial lands nearby I-85 to encourage growth. The Freight Plan identified the following freight land use acres:

- Hall County: 8,134.26 acres (94.8%)
- Jackson County (within GHMPO): 449.79 acres (5.2%)

TABLE 20: PROJECTS CHANGE IN GROWTH FROM TOP HALL COUNTY TRADING PARTNERS

County	Total Annual Tonnage Change for Outbound between 2010 – 2040	Total Annual Tonnage Change for Inbound between 2010 – 2040	Percent Change between 2010 – 2040
Fulton	1,212,936	927,906	103%
Gwinnett	1,164,773	924,379	141%
DeKalb	691,342	603,112	122%
Cobb	721,343	530,021	125%
Forsyth	207,144	172,693	89%
Hall	540,995	540,995	450%
Elbert	78,640	179,779	37%
Pickens	34,583	211,124	33%
Clayton	153,615	160,398	114%
Chatham	86,732	116,685	41%
Cherokee	221,841	188,796	191%
Clarke	104,902	91,705	57%
Jackson	93,947	115,192	74%
Richmond	95,391	101,868	67%
Her			

Source: GHMPO Regional Freight Plan

The Regional Freight Study resulted in a three-tier freight network to classify freight routes within the area. These routes and are listed below and shown within **Figure 28**.

- Tier 1 – Interstate System within GHMPO comprised of I-985 and I-85
- Tier 2 –National Highway System (NHS) Roadways that have been identified as beneficial to freight movement
- Tier 3 –Non-NHS roadways identified by their connection to freight based land uses of 10 acres or larger

Though freight will use much of GHMPO's road network, these three tiers help designate areas for future improvement and to encourage freight to use these designated roadways.

Since completion of the GHMPO Regional Freight Plan, the State of Georgia and Georgia Ports Authority announced the development of a new inland port in northern Hall County. Planning for the new inland port that will be located off SR 365 has been incorporated into the development of this RTP update, including within the GDOT travel demand model.

Airports

Currently, GHMPO is home to only one (1) public use airport, Lee Gilmer Memorial Airport (KGVL). KGVL is a non-towered airport that is owned and operated by the City of Gainesville. The airport maintains two (2) paved runways and offers 81 T-Hangers and 12 corporate hangars for private use. Alternatively, GHMPO residents have the option to take commercial passenger flights from Ben Epps Airport in Athens or Hartsfield-Jackson Atlanta International Airport.

FIGURE 27: EXISTING RAILROADS AND CROSSINGS

Gainesville-Hall MPO 2020 RTP: Railroads

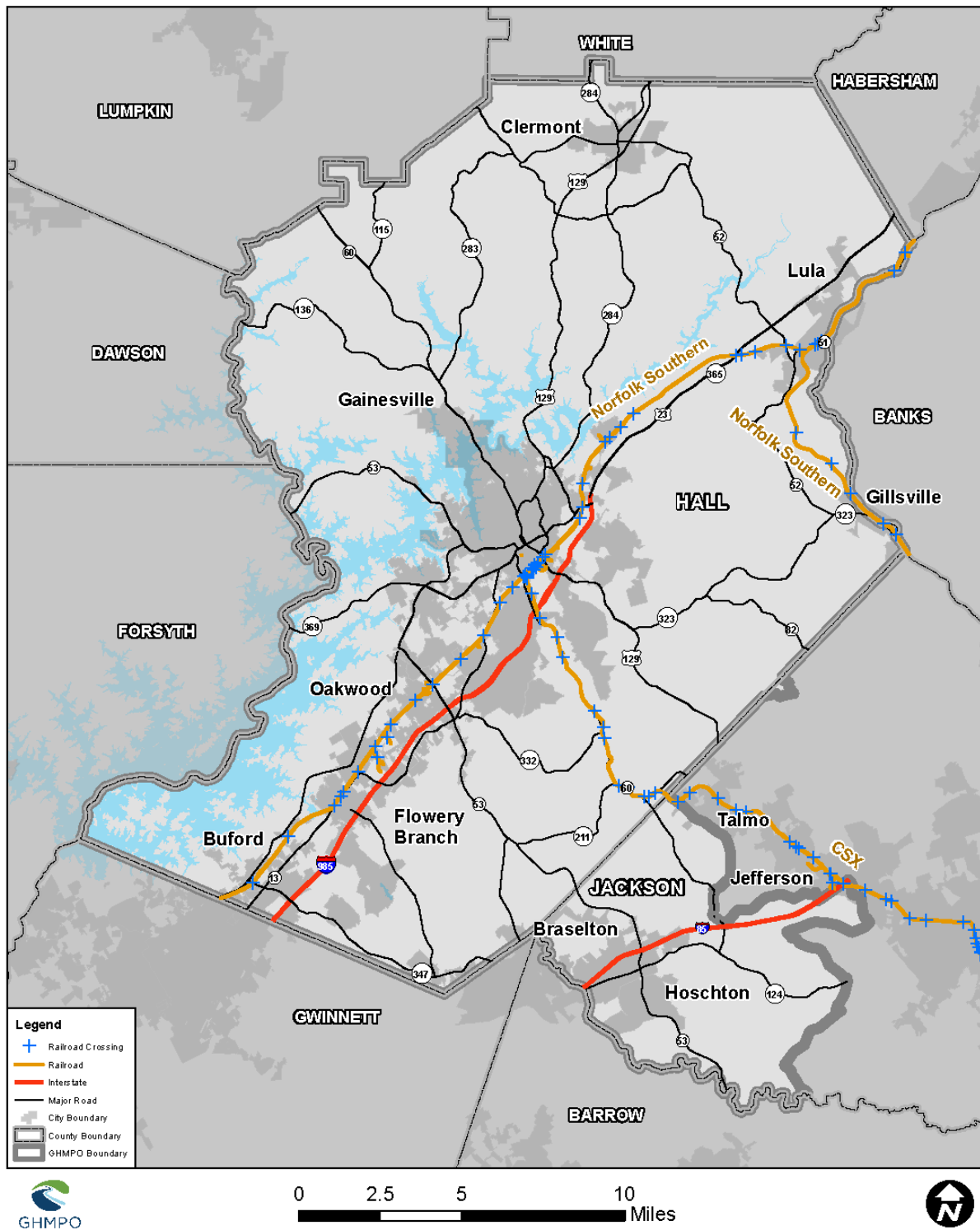
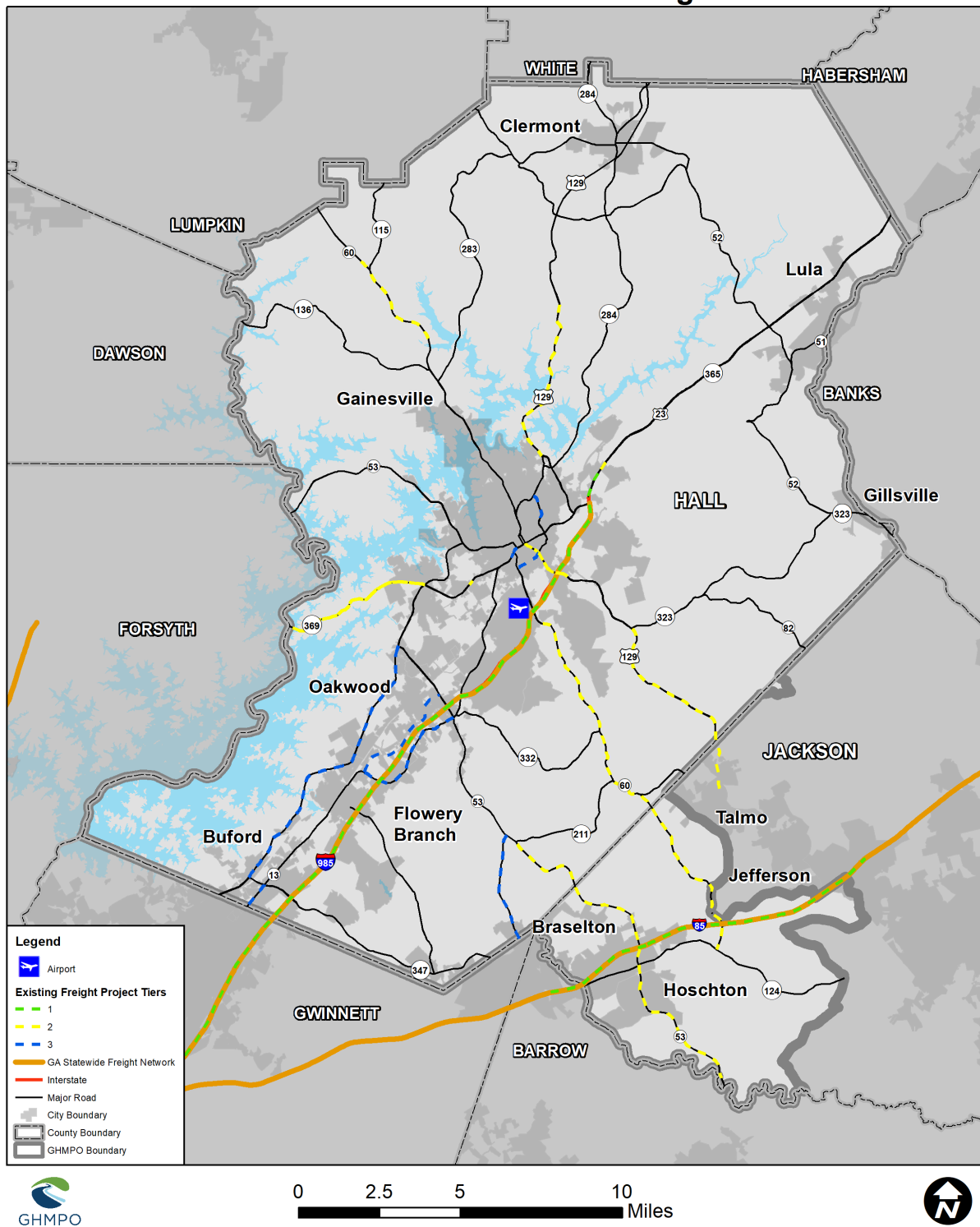


FIGURE 28: EXISTING AND PROPOSED FREIGHT ROUTES

Gainesville-Hall MPO 2020 RTP: Freight Routes



CHAPTER 4: PLAN DEVELOPMENT

FUTURE ROADWAY CONDITIONS

Using the information gathered from stakeholders and the TDM process, an estimate of the future roadway conditions has been developed. Beginning with the 2015 “Do Nothing” network, a series of predictions based on planned growth are used to predict “Do Nothing” future roadway conditions in 2050. The following maps show the model comparison between the base year (2015) and the future year (2050) if no roadway improvements are implemented. These predictions can aid in the prioritization of roadway improvements but should not be used without supporting information; local knowledge, environmental features, and potential changes to the transportation network will alter future conditions. **Figure 29** depicts the 2015 base year congestion conditions and **Figure 30** depicts the 2050 future year congestion conditions. In each figure, green is representing roadways that are operating normally, while orange and red indicate roadways that are anticipated to have higher levels of service.

FIGURE 29: 2015 TDM LEVEL OF SERVICE

Gainesville-Hall MPO 2020 RTP: 2015 GDOT Model

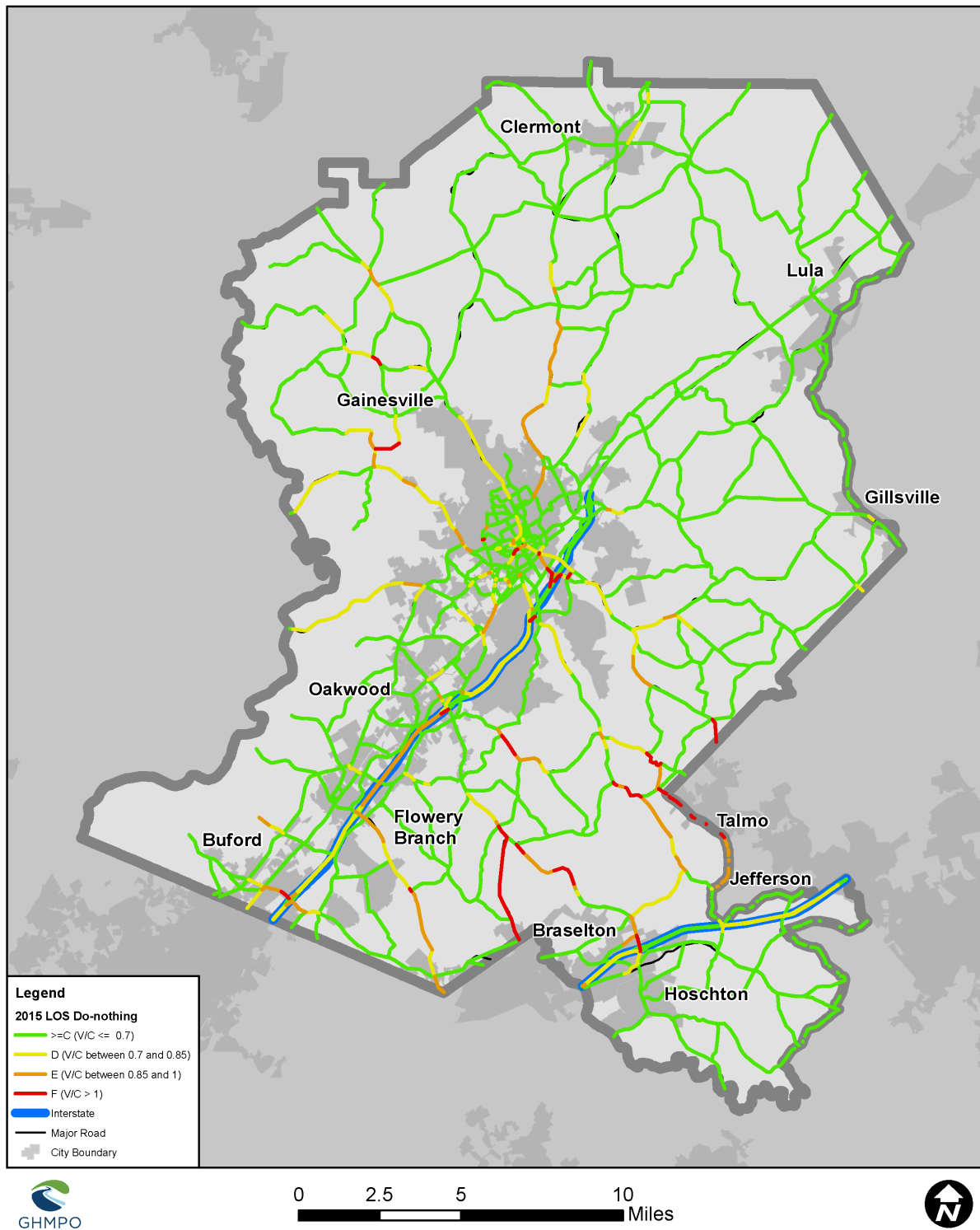
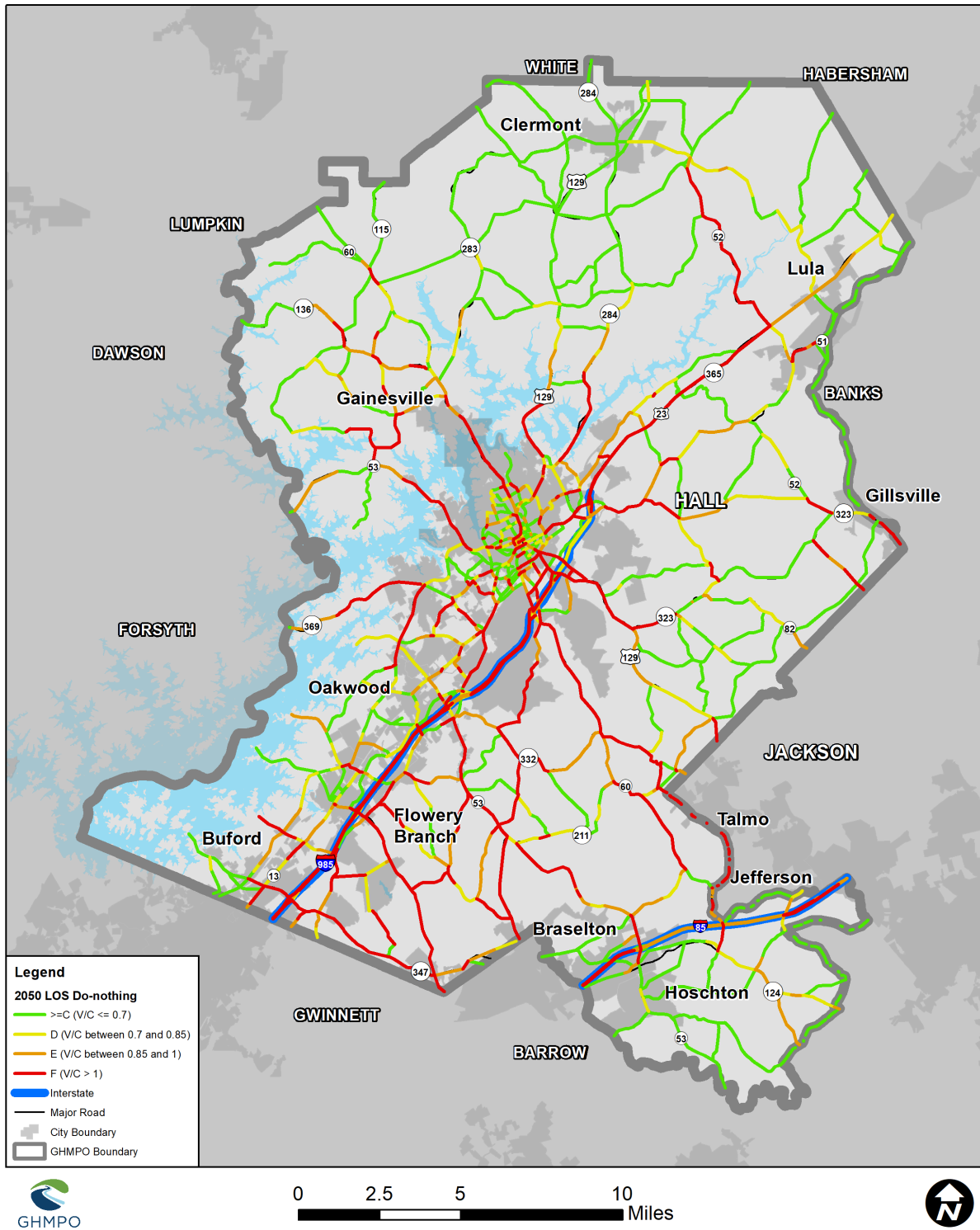


FIGURE 30: TDM 2050 LEVEL OF SERVICE

Gainesville-Hall MPO 2020 RTP: 2050 GDOT Model



TRAVEL DEMAND MODEL AND THE NATIONAL PERFORMANCE MANAGEMENT RESEARCH DATA SET (NPMRDS)

By using the TDM model information, extra analysis and attention can be directed to specific roadways within the planning area. However, as discussed above, this provides only one data point to determine the location of potential issues as they relate to GHMPO. Another data point, the National Performance Management Research Data Set (NPMRDS), has also been analyzed to determine other potential areas where congestion/efficiency may be of concern.

As discussed within the existing conditions section, the GDOT TDM and the NPMRDS were used to identify existing congestion and capacity issue areas within GHMPO. These data sets provided a valuable look into the existing conditions of the road network while showing areas for potential improvement through planned projects. Adding upon the 2015 base year model, the 2050 model predicts future roadway conditions and makes assumptions based on the current conditions and applies the population/employment rates to the region in order to estimate roadway usage. By estimating this roadway usage, LOS calculations can be projected, thereby identifying assumed issue areas in the future.

Top 10 Corridors Operating at LOS F in 2015 (GDOT 2015 Base Year Model)

Based on the information provided by the GDOT TDM, several roadways are currently performing at LOS F. Though this regional analysis has identified these roadways, it should be noted that more individualized studies would be necessary to determine specific conditions or potential improvements to these roadways as necessary. The following ten corridors have a LOS F when looking at the 2015 base year conditions:

- Lanier Islands Parkway between I-985 and Whispering Pines
- Old Winder Highway between Winder Highway and Daylily Drive
- Northbound I-985 off ramp onto EE Butler Parkway East
- Deshaun Watson Way between Pearl Nix Parkway and Century Place NW
- Old Winder Highway between Friendship Road and Howington Road
- Monroe Drive between EE Butler Parkway and Athens Street SE
- Ed Cobb Road between Talmo Road and Maybery Road
- Talmo Road between Roy Parks Road and Ed Cobb Road
- Athens Parkway between Blackstock Road and Jackson County
- SR 53 at the I-85 Interchange

Top Ten Corridors Operating AT LOS F in 2050 (GDOT 2050 Do Nothing Model)

- Old Winder Highway between Howington Road and the Gwinnett County Line
- Deshaun Watson Way between Pearl Nix Parkway and Century Place NW
- Old Cornelia Highway between Oconee Circle and Joe Chandler Road
- Spout Springs Road between Williams Road and the Gwinnett County Line
- Old Winder Highway between Winder Highway and Daylily Drive
- Lanier Islands Parkway between I-985 and Whispering Pines
- Martin Road Between Falcon Parkway and Quailwood Drive
- County Line Road (SR 52) between Woodland Drive and Diamond Hill Road
- Northbound I-985 off ramp onto Chandler Road (SR 53)
- Poplar Springs Road between Poplar Springs Church Road and Sherman Allen Road

NPMRDS Travel Time Index

The NPMRDS includes a repository of “Big Data” roadway probe analytics collected along National Highway System (NHS) via Global Positioning System (GPS) units from automobiles and mobile devices. This information is generally limited to the NHS and major roadways within the GHMPO planning area. With this information, the recurring congestion delays may be identified and further analyzed by time of day. This data will provide GHMPO the ability to help track performance on local roadways, specifically the FHWA Performance Management (PM) Group 3 Items. Specific metrics provided within the NPMRDS include:

- Reliable person miles traveled on interstates and the NHS
- Truck Travel Time Reliability (TTTR)
- Annual hours of Peak Hour Excessive Delay (PHED)

Travel Time Index (TTI) is a method of quantifying the difference in time between free flow and peak traffic conditions. The Bureau of Transportation Statistics describes TTI as “the ratio of travel time in the peak period to the travel time at free-conditions.” Free-flow conditions are represented by a value of 1.0, where anything greater than 1.0 represents a slower travel time than that experienced in free-flow (or without traffic). For example, a TTI of 2.0 would indicate travel along the segment would take twice as long during the identified period as it would during a time without congestion with traffic at free flow conditions. **Appendix A** presents the TTI values for the AM and PM peak hours within the GHMPO for calendar year 2018.

The AM and PM peak periods are defined to include the following time periods:

- Morning TTI – 6AM to 10AM
- Afternoon TTI – 3PM to 7PM

SAFETY AND CRASH DATA

Safety and Crash data over the period from January 2014 through December 2018 were assessed to identify potential areas of concern and to identify general trends within the GHMPO. In addition to supporting the FHWA performance measures, a comprehensive analysis was conducted to determine the crash rates throughout the region. Using the Georgia Electronic Accident Reporting System (GEARS), safety and crash data over the period from January 2014 through December 2018 were gathered to highlight areas of concern and identify general trends within the GHMPO planning boundary.

In order to better understand the crash conditions within GHMPO, the crash locations and crash rates for all known vehicular accidents have been identified. When performing this analysis, intersection crashes (within 300 ft of an intersection) were calculated separately to show the number of crashes along roadway segments separately. This analysis was conducted to determine the roadway segments with the most significant crash rates to identify potential areas requiring further assessment.

At the time this project was undertaken, crash data for the entire 2019 year was unavailable. As additional information is gathered, the continued updating and understanding of the safety conditions within GHMPO will need to be monitored. According to the Gainesville Times, the total number of crashes in Hall

County reduced by 860 fewer crashes and eight (19 total) fewer fatalities when comparing 2019 to 2018. Authorities believe that the “Hands-Free Law” (In effect July 2018), in coordination with increased enforcement with schools and safety zones has led to the decrease in accidents between 2018 and 2019.

This crash information is provided at a high level of analysis and should only be used in conjunction with other information to identify issues or possible solutions. Crash data can provide valuable insight into the locations and intensities of the crashes; however, it does not necessarily indicate facility problems. For example; Roadways with higher traffic volumes or larger numbers of student drivers are inherently more likely to experience higher numbers of crashes. This higher number of crashes does not necessarily indicate a need for roadway improvement, but they do warrant further investigation into their cause.

Tables 21 – 23 and **Figures 31-33** describe the roadway segments with the highest overall crash rates, highest injury rates, and highest fatality rates respectively.

TABLE 21: HIGHEST FATALITY CRASH RATE SEGMENTS

Highest Fatality Crash Rates	Location		Findings
	1.	Mountain View Road	10 Crashes, 5 injury, and 1 fatal
	2.	Pea Ridge Rd	5 Crashes, 1 injury, 1 fatal
	3.	Gaines Ferry Rd	5 crashes, 1 injury and 1 fatal
	4.	Bryant Quarter Road	10 crashes, 3 injury, 1 fatal
	5.	Mangum Mill Road	33 Crashes, 11 injury, 1 fatal

TABLE 22: HIGHEST INJURY CRASH RATE SEGMENTS

Highest Injury Crash Rates	Location		Findings
	1.	Century Pl NW/Rainey St (Gainesville High School)	Over 38 nearby crashes 5 Injury crashes
	2.	SE Myrtle Street – Small roadway	1 Nearby crash 1 Injury crash
	3.	E Reed Road – See 3 Above	9 Nearby crashes 3 Injury crashes Connecting SR 332 and Strickland Road
	4.	Baker Road	35 Nearby crashes 10 Injury crashes
	5.	Gilstrap Mil Road	2 Nearby crashes 1 injury crash

TABLE 23: HIGHEST OVERALL CRASH RATE SEGMENTS

Overall Crash Rate Top Five	Location	Findings
	1. Century Pl NW/Rainey St (Gainesville High School)	Over 38 nearby Crashes
	2. Broad St SE (Gainesville)	24 nearby crashes
	3. E Reed Rd (South Hall)	9 Crashes (Connecting SR 332 and Strickland Road)
	4. Baker Road	35 Crashes
	5. George Barnes Road	7 Crashes

An intersection analyses were conducted proposed intersection improvement projects to show areas with increased crash rates. As such, the top five (5) intersection crash rates have been identified for overall crashes, and injury crashes. Currently, none of the proposed project intersections have fatality crash rates. **Tables 24 -25** show the project intersections with the highest overall and injury crash rates.

TABLE 24: HIGHEST INJURY CRASH RATE PROJECT INTERSECTIONS

Highest Injury Crash Rates	Location	Findings
	1. Dawsonville Hwy at McEver Rd	Over 449 nearby crashes 70 Injury crashes
	2. Dawsonville Hwy at Washington Street	173 Nearby crashes 38 Injury crashes
	3. EE Butler Pkwy at Martin Luther King Jr Blvd	174 Nearby crashes 39 injury crashes
	4. I-85 at SR 60	31 Nearby crashes 8 Injury crashes
	5. EE Butler Pkwy at Chestnut St SE	2 crashes and 1 injury crash

TABLE 25: HIGHEST OVERALL CRASH RATE PROJECT INTERSECTIONS

Highest Overall Crash Rates	Location	Findings
	1. Dawsonville Hwy at McEver Rd	Over 449 nearby crashes 70 Injury crashes
	2. Dawsonville Hwy at Washington Street	173 Nearby crashes 38 Injury crashes
	3. EE Butler Pkwy at Martin Luther King Jr Blvd	174 Nearby crashes 39 injury crashes
	4. I-85 at SR 60	31 Nearby crashes 8 Injury crashes
	5. John W Morrow Jr Pkwy at Jesse Jewell Pkwy	188 Nearby crashes 33 Injury crashes

As mentioned above, crash information was a useful tool in the identification of issue areas within GHMPO. The issue areas identified within the crash analysis helped lead to the recommendation of possible study projects to further understand the issues being experienced.

Gainesville-Hall MPO 2020 RTP: Segment Crash Rates

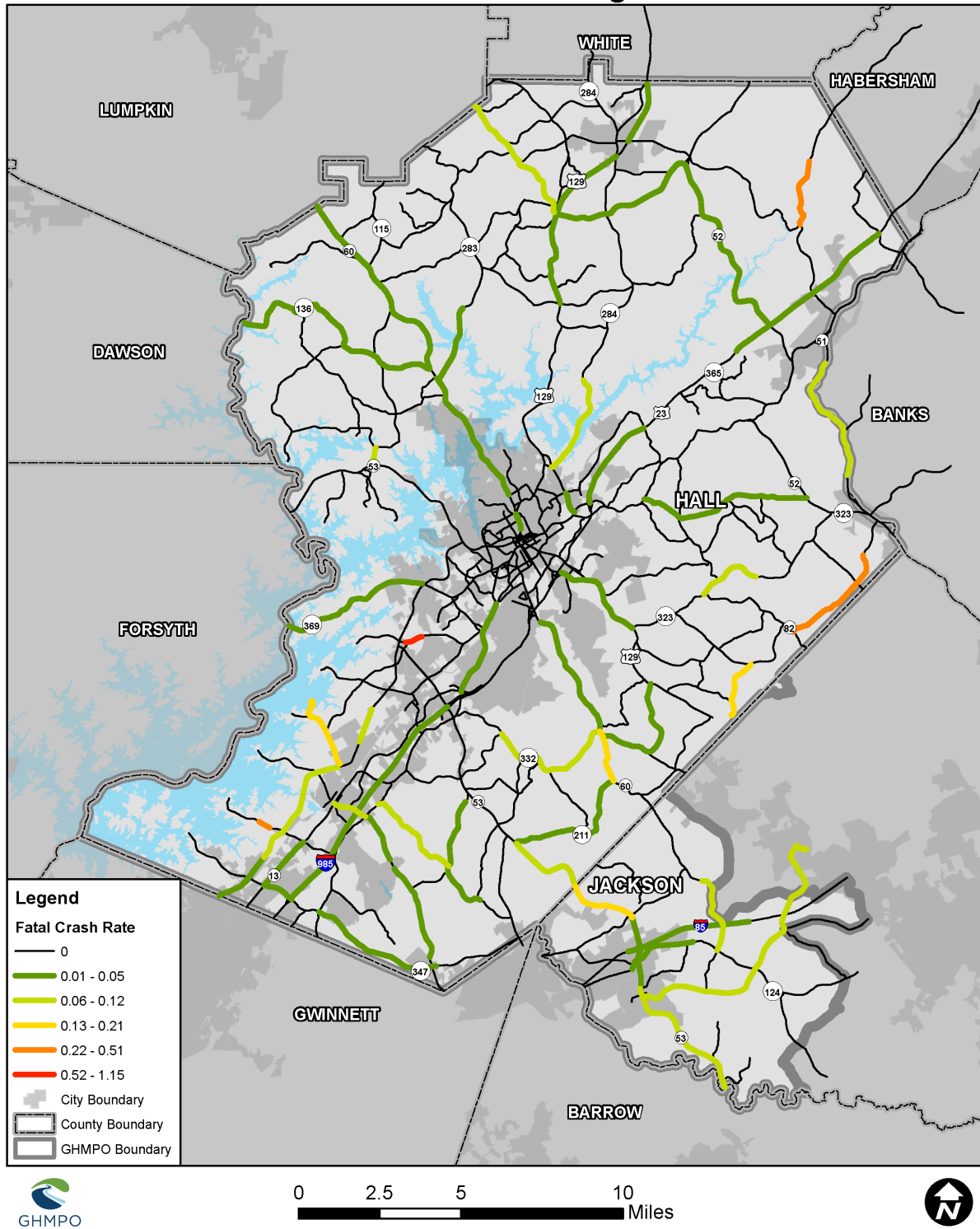


Gainesville-Hall MPO 2020 RTP: Segment Crash Rates



FIGURE 33: ROADWAY SEGMENT FATAL CRASH RATES

Gainesville-Hall MPO 2020 RTP: Segment Crash Rates



BRIDGE CONDITIONS

There are 187 bridges within the GHMPO planning boundary according to the National Bridge Inventory (NBI). These bridges are primarily used for vehicular traffic, but several also include railroad and pedestrian bridges. The GDOT bridge inventory dataset was obtained to complement the NBI bridge data as it contains bridge sufficiency information within GHMPO. The bridge sufficiency rating scale ranges from zero (0) to one hundred (100), with the lower the number representing the greater need for bridge improvement. In Georgia, a bridge with a sufficiency rating below 50 is considered structurally deficient (although not necessarily a threat to drivers). The sufficiency ratings are not intended to describe the safety of the bridges; therefore, the bridges should not be considered dangerous solely based on the sufficiency ratings. Six (6) of the bridges have a sufficiency rating at or under 50 while the others are all higher. **Figure 34** shows the locations of the bridges throughout GHMPO. The six (6) with a sufficiency rating less than 50 are shaded in red. **Table 26** depicts their location and current sufficiency rating.

TABLE 26: BRIDGE DESCRIPTIONS AND SUFFICIENCY RATINGS

Bridge Location	Sufficiency Rating	Facility Type	Map ID Number (Figure 34)
Old Cornelia Highway at North Oconee River	50	Local	1
McEver Road at Flowery Branch	49.9	Local	2
Mangram Mill Rd at Pond Fork Creek Tributary	47.3	Local	3
US 129 at East Fork Little River	40	State/Fed	4
Green Circle at East Fork Little River	30.9	Local	5
Cobb Street at NS Railroad*	17.3	Local	6

*Bridge is timber construction over a railroad

PAVEMENT CONDITION MEASURES

Pavement condition measures are intended to quantify the percentage of lane-miles on the interstate or National Highway System that are in good or poor condition. Pavement in good condition indicate that no major investment should be needed while pavement in poor condition will likely need major investment or rehabilitation. The five (5) metrics established by FHWA to measure pavement condition are as follows:

- International Roughness Index (IRI)
- Cracking Percent
- Rutting
- Faulting
- Present Serviceability Rating (PSR)

Pavement meeting three (3) or more of these metrics is considered in good condition while pavement reaching only two (2) or less are considered in poor condition. The ten lowest pavement ratings within Hall and Jackson County are identified below in **Tables 27** and **28**

TABLE 27: HALL COUNTY: TEN LOWEST PAVEMENT RATINGS

State Route	Pavement Rating Limits	Rating
SR 60	SR 11 Business to SR 60	50
SR 51	Main Street (Lula) to SR 164	50
SR 11	SR 60 to SR 11	53
SR 369	Forsyth County Line to SR 53	57
SR 347	Lake Lanier Islands to Mile 2	61
SR 60	Fraser Drive to Lodge Drive	67
SR 11	SR 11 Business to Bells Mill Bridge	69
SR 11	SR 323 to Monroe Drive	69
SR 323	SR 11 to SR 52	71
SR 211	SR 403 Bridge to SR 60	71

TABLE 28: JACKSON COUNTY TEN LOWEST PAVEMENT RATINGS

State Route	Pavement Rating Limits	Rating
SR 332	SR 11 to SR60	58
SR 11	Divided Highway to SR 11 Business	62
SR 60	SR 124 to Hall County	67
SR 11	SR 11 to SR 11	68
SR 15	Clarke County to SR 82	69
SR 11	SR 11 Business to End of Divided Highway Section	75
SR 334	SR 15 to SR 98	75
SR 124	SR 53 to SR 11	77
SR15	Clarke County to Banks County	79
SR 15	Banks County to Clarke County	80

TRAFFIC VOLUMES

Traffic volumes represent the number of vehicles traveling on a road within a given timeframe. Traffic volumes are typically expressed as the Average Annual Daily Traffic (AADT). Though entities within GHMPO may conduct tube or manual counts for specific roadways, travel demand models provide a means to graphically represent traffic volumes across a large regional area based upon socio-economic data input and roadway network assumptions. **Figure 35** illustrates GHMPO's roadway 2016 AADT as reported by the Georgia Department of Transportation. (GDOT)

Roadway miles with a high AADT: (Approximately 75 miles of roadway over 20,000 AADT and 95 miles over 15,000 AADT)

- Roadways with an AADT over 20,000 vehicles per day (vpd)
 - Interstates I-985 and I-85
 - US 23 and US 129,
 - SR 53, SR 60, SR 347, and SR 365
- Roadways with an AADT between 15,000 and 20,000 vpd
 - SR 11, SR 13, and SR 369

FIGURE 34: BRIDGE SUFFICIENCY RATING AND LOCATION

Gainesville-Hall MPO 2020 RTP: Bridges

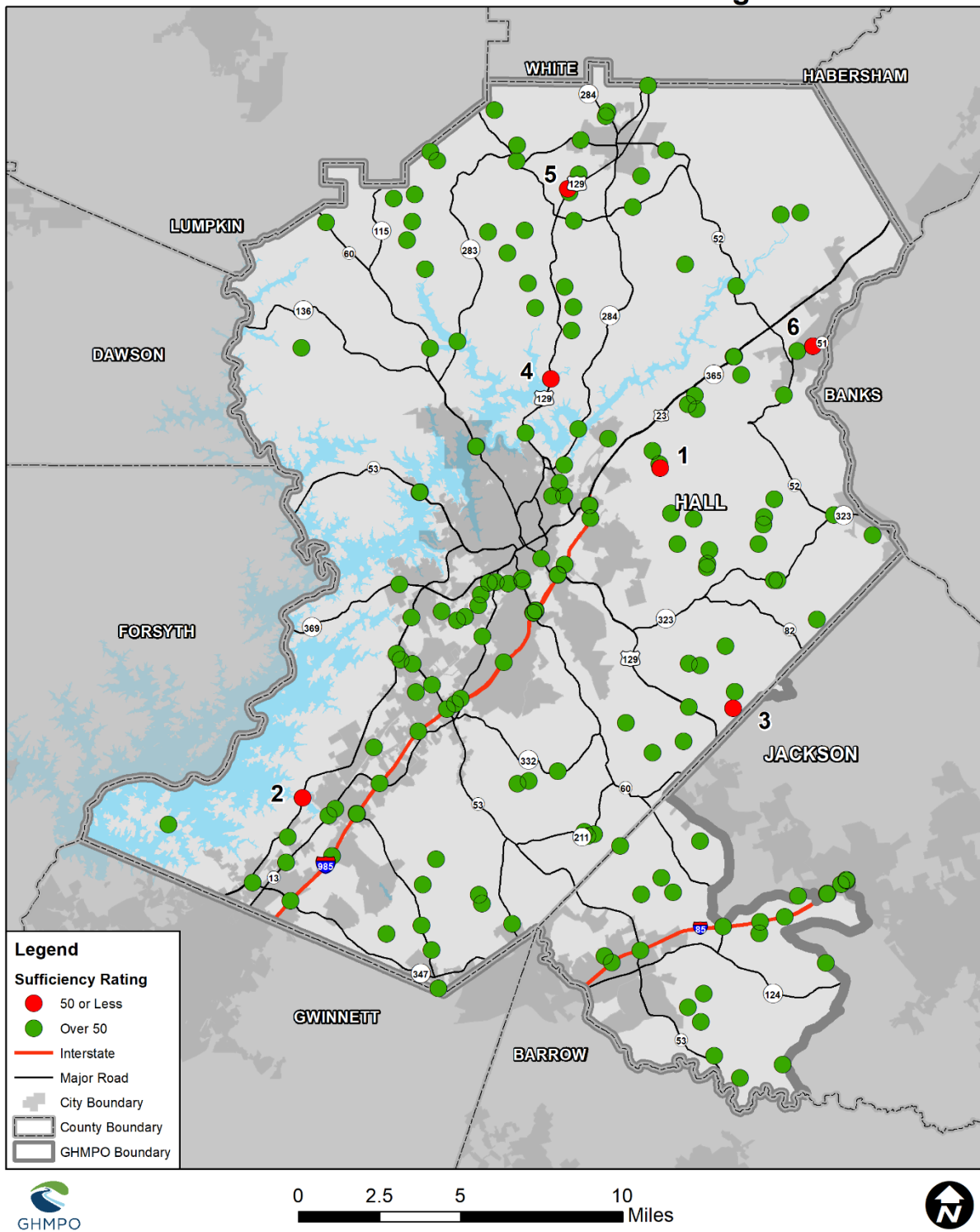
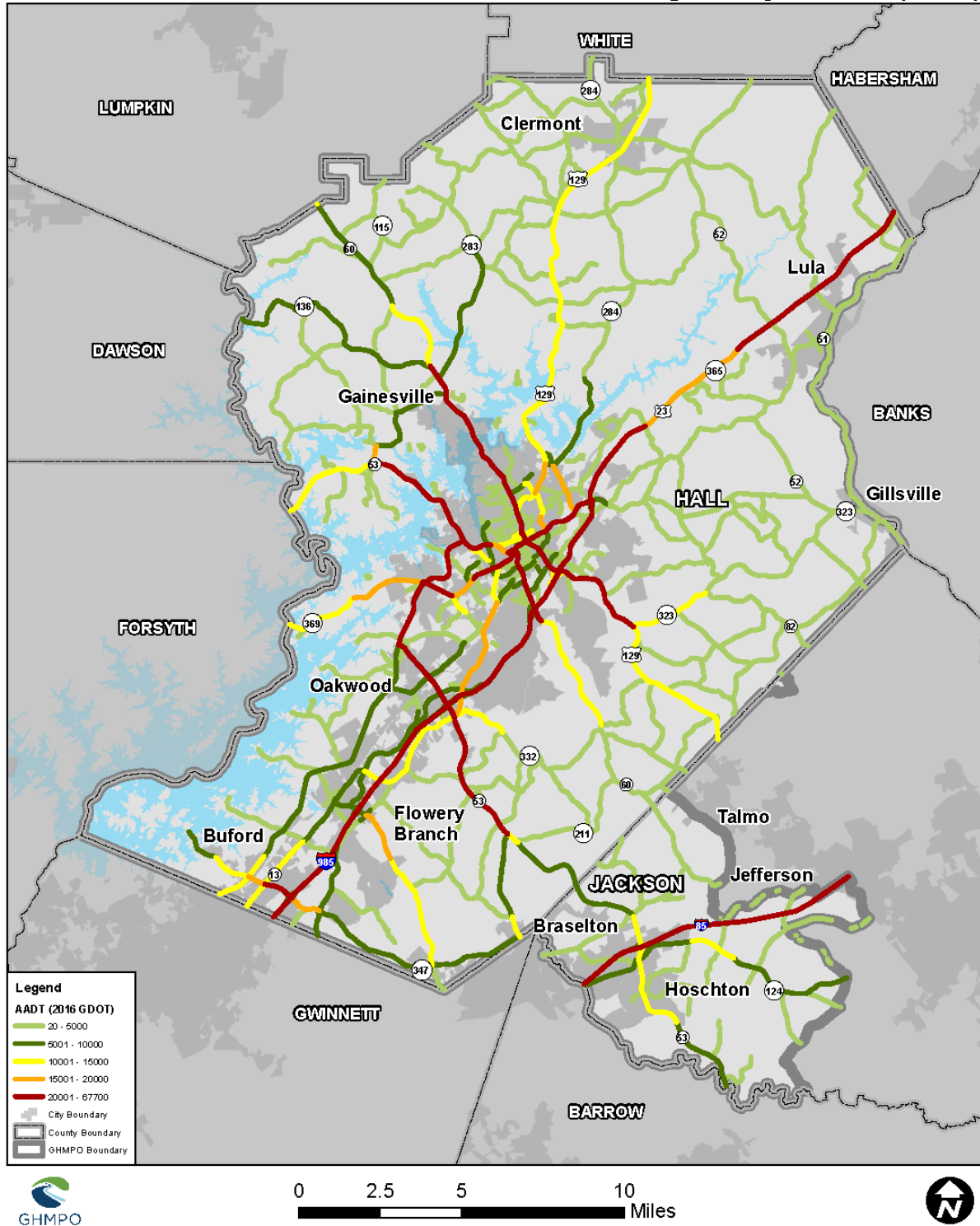


FIGURE 35: AVERAGE ANNUAL DAILY TAFFIC

Gainesville-Hall MPO 2020 RTP: Annual Average Daily Traffic (2016)



PUBLIC AND STAKEHOLDER INVOLVEMENT

The Public Involvement and Outreach Plan (PIOP), included as **Appendix B**, detailed the means and methods used to convey information as well as encourage and gather input for the 2020 RTP update. The PIOP was used as a road map for citizen engagement throughout the life of the plan update.

Technical Team

The RTP development process was guided by the Technical Team, comprised of GHMPO staff and the consulting team, who were responsible for making the day-to-day decisions about the project's direction throughout the life of the project. The Technical Team held regularly scheduled meetings and conference calls, with frequency increasing as needed, approximately once per month and included representatives from the participating jurisdictions. A complete list of the Technical Team members and all meeting notes can be found in **Appendix C**.

THE GHMPO RTP TECHNICAL SUBCOMMITTEE

To effectively support and meet the needs of the region, a technical subcommittee was formed to provide feedback and serve as a sounding board for the plan update. The Technical Subcommittee (TSC) included representatives from the following jurisdictions:

- GHMPO
- Hall County
- Jackson County
- Town of Braselton
- City of Gainesville
- City of Hoschton
- City of Flowery Branch
- City of Oakwood
- GDOT

The RTP Technical Subcommittee (TSC) met several times throughout the plan development process to offer instrumental guidance and information to ensure that the plan would meet the needs of the community.

PUBLIC INVOLVEMENT

Public involvement is essential to capture residents' vision for their communities, and the future implementation of the projects identified through the planning process by empowering the voices of citizens to identify challenges and discover solutions together. Special efforts were made to engage GHMPO's transportation disadvantaged communities including low income, minority, and non-English speaking populations. The project team utilized GIS, social media, PublicInput.com, in-person "pop-up" events, and public meetings to engage citizens.

Outreach Activities

Outreach efforts, consisting of both online and in person engagement, included:

- Creation of project branding*
- Creation and maintenance of a PublicInput hub page and social media accounts;*
- An online survey and mapping exercise;*
- Two pop-up community events;*
- One targeted community meeting;*
- Two public meetings*

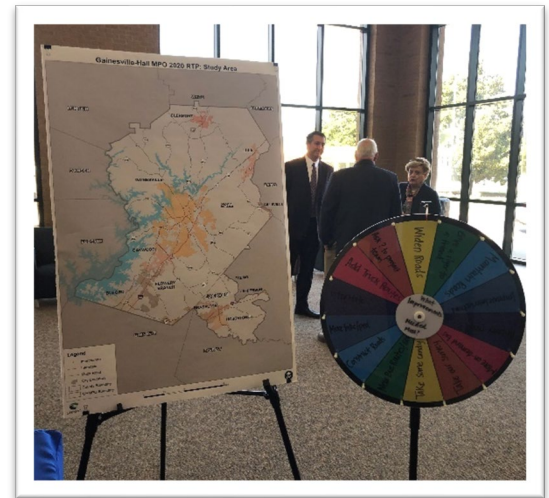
Project Branding and Outreach Materials

The project team created a branding strategy for the project which included the GHMPO's new logo, color scheme, and font selections which were used on all materials created for the project. This ensured cohesive and recognizable materials that were easy to understand. The project team also put together a 30-second "elevator speech" that explained the project and a project tagline. All branding components were compiled into a branding document, found in **Appendix D**, that was distributed to the technical team and all project proponents. Outreach materials using the project branding were created and included a project flyer, in both English and Spanish, a stand-up banner, used at the project events and branded project giveaways which included GHMPO pens and lollipops.

ONLINE ENGAGEMENT

Online Engagement targeted the constituents of Hall County, western Jackson County, Cities of Buford, Flowery Branch, Oakwood, Gainesville, Gillsville, Lula, Clermont, Hoschton, Braselton, and Jefferson. Jackson County recently finished a Transportation Plan, which was adopted in 2019. The public input and findings from that Transportation Plan have been used to inform the GHMPO RTP for that portion of the planning area.

FIGURE 36: GAINESVILLE-HALL TRANSPORTATION FORUM



Online engagement consisted of a PublicInput project hub page, project webpage on the GHMPO.org website, social media account (Twitter, Facebook, and Instagram) creation and maintenance, an online survey, and a social media ad campaign.

1.3.2.1 Project PublicInput Hub, Webpage, and Social Media Accounts Creation and Maintenance

A project landing page was created utilizing the GHMPO's PublicInput account (<https://publicinput.com/3774>). The hub page contained the following elements: project overview, schedule, online survey, public events and meeting announcements, an interested party sign up, links to project webpage and social media accounts; and project team contact information. The hub page was updated with current project status throughout the life of the project as well as the results of the project survey.

A project webpage was also created and hosted on the GHMPO's website (<https://www.ghmpo.org/>). The webpage contained the same real-time project information and links as the PublicInput hub, with the exception of the survey which was only available on the hub. Social media accounts including Facebook®, Twitter®, and Instagram®, were created and maintained for information sharing and project updates as well as used to create a social media campaign.

Online Survey

The project team created and conducted an online survey to gather feedback from the people who live, work, and play in the GHMPO area. The survey was created and distributed through the project's hub page. The survey consisted of 12 multiple choice and one (1) rank-based questions as well as six (6) interactive map questions the survey ran for three (3) months, March to June 2019 and garnered **474 participants**. The survey results can be found in **Appendix E**.

Survey Respondent Quick Facts:

- **94%** use a personal vehicle as their primary mode of transportation
- **96%** do not use the existing transit systems
- The top three (3) overall desired transportation improvements consisted of:
 - Maintain existing roads (**21%**), improve intersection operations (**19%**), widen roads (**17%**)
- The top three (3) desired non-motorized improvements consisted of:
 - More sidewalks (**27%**), extended greenways/trails (**23%**), and more bicycle lanes (**13%**)

Social Media Campaign

A social media campaign was used to raise project awareness and to gather survey feedback. The campaign included 14 Facebook posts, three (3) of which were in Spanish, three (3) were Instagram posts. Four (4) Facebook® "local awareness ads" (two (2) in English and two (2) in Spanish) ran for one week each targeting residents within the GHMPO area. Geofencing was used to push the ads to any phone that traveled through the geofenced area during the campaign. A matrix of the social media campaign posts and adds can be found in **Appendix F**.

IN-PERSON ENGAGEMENT

In-person engagement was conducted to raise awareness of the project with members of the community, and to gather information from constituents.

Community Events

The project team participated in two (2) community events, timed to allow the project team to gather information regarding community-observed needs as the draft Needs Assessment and draft Recommendations Report documents were being put together. By participating in these events, the team was able to interact with people who do not typically attend public meetings. The project team set up an event booth which included project information, project flyers, and iPads on which to take the survey. Photos from all the outreach events can be found in **Appendix G**. The team participated in the following events:

Community Event 1 – Annual Transportation Forum – March 7, 2019 – University of North Georgia

The Annual Transportation Forum is organized by the Greater Hall Chamber of Commerce. (www.ghcc.com)

FIGURE 38: GAINESVILLE HALL TRANSPORTATION FORUM



FIGURE 37: SPRING CHICKEN EVENT



Community Event 2 - Gainesville Spring Chicken Festival – April 27, 2019 – Longwood Park, Gainesville

The Gainesville Spring Chicken Festival is hosted annually by the City of Gainesville. Event proceeds benefit the “Gainesville Spring Chicken Scholarship” for students pursuing a career in the poultry industry, and the “You’re the Reason Scholarship” for City of Gainesville employees’ college-bound children (www.gainesville.org/spring-chicken-festival).

Meeting with Adjacent Jurisdictions

An in-person meeting was held on March 20th, 2019 with neighboring jurisdictions to gather input and discuss current and future projects that could impact the transportation network within the GHMPO planning boundary benefiting citizens in multiple jurisdictions. The jurisdictions whose representatives participated in the meeting are as follows:

- City of Buford
- Dawson County
- Gwinnett County
- Forsyth County
- Jackson County
- White County

This meeting resulted in the identification of additional project locations and additional information regarding the condition of certain projects or areas for consideration. This information was analyzed and necessary inclusions were made into the 2050 RTP project lists.

Facilitated Interaction with Community Leaders from Underserved Populations

The project team distributed project flyers and information to many locations throughout the GHMPO area. The team targeted information distribution to traditionally underserved populations to promote their involvement with the plan. These interactions resulted in two (2) events that were organized to meet directly with constituents. The first was a meeting with the constituents of Council Ward 3 in the City of Gainesville. This meeting was organized by Council Member Barbara Brooks, and was held on April 13, 2019 from 10 to 11:30 AM at the Gainesville Civic Center. The second event scheduled was the annual Hispanic Alliance Georgia Health Fair to be held June 8th, 2019 from 10 to 2:00 PM at Lakeshore mall. Due to inclement weather the fair was cancelled. Vanesa Sarazua, Executive Director, shared the project and the survey link with the hispanic community her organization serves by word of mouth and social media posts.

FIGURE 39: PUBLIC MEETING (8/20/19)



The project team reached out to the Gainesville City Board, Hall County Schools, West Jackson Elementary, West Jackson Middle School, and Gum Springs Elementary School requesting they send project information and survey link to parents via email or newsletter. The Gainesville City Board shared project information with all Gainesville City parents via their system wide newsletter and West Jackson Elementary sent project information to all parents via an e-mail.

FIGURE 40: PUBLIC MEETING (8/19/19)



Public Meetings

Two (2) meetings were held for the public to provide input on the prioritization of the projects and policies contained within this plan. These meetings were held subsequent to completion of the assessment of needs and initial release of draft recommendations. These open-house meetings included large-scale maps, opportunities for feedback and face to face communication with the project team. The two (2) meetings took place at:

- Blackshear Library: August 19, 2019 from 5 to 7 PM
- North Hall Community Center: August 20, 2019 from 5 to 7 PM

The content presented at these two (2) meetings has been compiled into **Appendix H**.

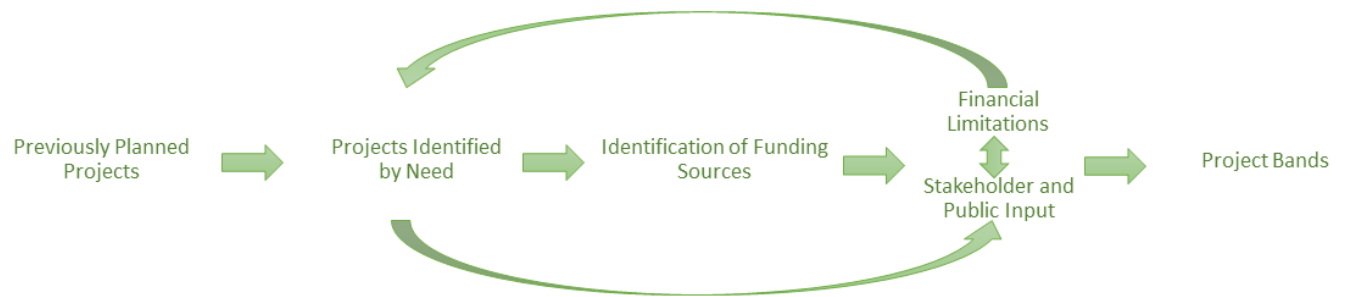
PERFORMANCE BASED PROJECT ASSESSMENT AND PRIORITIZATION

The project assessment and prioritization process was used to develop the final list of financially constrained projects and the list of projects with other funding sources. The projects we identified from preexisting plans (2045 RTP) local agency coordination, GDOT planned/programed lists, and through the identification of needs. The project list creation and development can be summarized by the following process:

- **Previously Planned Projects** – Projects that were a part of previous plans or currently being considered by stakeholder agencies.
- **Projects identified through transportation needs or issue areas** – Projects intended to address known issues within GHMPO such as high crash rates, congestion, public/stakeholder input or by 2050 model conditions.
 - Projects are then prioritized based on these needs
- **Identification of funding sources**- Determining the funding sources of the projects to determine whether they will be funded using federal funds.

- **Identification of financial limitations** – Using the expected yearly funding levels to identify how many projects can be implemented in a given time frame.
- **Development of project time bands** – Prioritizing the projects into time bands based on all of the above information. More favorable projects will have an earlier implementation timeframe.

This begins as a linear process, but often times projects are reassessed, and/or additional projects are added that restart the process or begin at a different stage.



Project prioritization

After the identification of projects, a performance assessment was conducted to aid in the prioritization of the projects. The project assessment began with the development of an assessment tool which accounted for qualitative and quantitative data. Using the available information, the projects were given a score of Yes, No, or Somewhat indicating the level of applicability of the assigned metric. From this stage, each of the ranking criteria could be assigned a scoring weight, which would allow for certain features such as crash rates to receive a higher priority. Using this weighting system, the qualitative criteria is able to be quantified for the purpose of listing project priority. The following features were used to rank the projects associated within this plan:

- Supporting airport access
- Supporting existing/planned transit routes
- Including bicycle and pedestrian improvements
- Corridor level of service
- Supporting freight movement
- Freight percentage using the roadway
- Supporting a freight generator or attractor
- Public support – stakeholder and public input
- High crash rate –overall, injury, and fatality

- Supporting a tourism or economic driver
- Historic resources nearby
- Environmental features nearby (managed lands, wetlands, waterbodies, etc.)

Though this prioritization was an important feature of project identification, it serves as merely one data point for the prioritization of projects. Project features such as funding, anticipated need, and public support also weigh in on the importance of an individual project.

Each of the identified projects were considered using the above bullets to validate their applicability to GHMPO and their inclusion within the plan. As the projects were identified, they were brought before the technical subcommittee for their review and comment. Through this review, the importance of the projects and prioritization was developed. The TSC helped separate the projects into three (3) separate lists: Other Funding Sources, Financially Constrained, and Unfunded Projects.

- 56 projects with other/local funding sources; one project is partially funded within the financially constrained list
- 30 financially constrained projects (2020-2050); two (2) projects have unfunded phases, and one project is partially funded with other/local funding sources
- Unfunded (likely funded beyond 2050), these two (2) projects have phases within the financially constrained list, however, portions are currently unfunded

Each of the project lists represent a combination of project types that will modify the transportation network. Generally, the projects have been grouped into the following categories depicted within **Table 29** and explained in the bullets below:

- **Bridges** – Maintenance on existing structures
- **Corridor Improvements** – General description for roadways that are planned for local improvements
- **Corridor Study** – Roadway segment that requires additional study prior to improvement recommendations
- **Interchange** – New interchange on the interstate
- **Intersection** – Modification to existing intersections
- **Rail Crossing** – Railroad crossing improvement or maintenance
- **Roundabout** – Modifying existing intersections with roundabout(s)
- **Roadway Operations** – Modification to roadway conditions (signage, lighting, signals, lane width, etc.)
- **Roadway Realignment** – Change in the current path of the roadway or width without capacity improvements
- **Widening** – Adding travel lanes to existing roadways

TABLE 29: PROJECT LISTS AND IMPROVEMENT TYPES

Improvement Type	Number of Projects
Bridges	5
Interchange	1
Intersection	17
Roadway Operations	8
Roundabout	4
Widening	31
Corridor Improvement	12
Corridor Study	4
New Roadway	3
Rail Crossing	1
Roadway Realignment	1

FINANCIAL ASSESSMENT

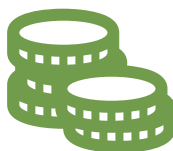
The Regional Transportation Plan is required to develop a financially constrained projects list using the anticipated revenues through the planning horizon. As part of the development of this RTP, previous transportation funding from state, federal and local sources was assessed in concert with future funding projections received from GDOT. The development of these funding figures is necessary for the creation of a reasonable financially constrained project list in which the projects are dispersed over the 30-year planning horizon. The funding predictions are developed for the base year of 2020 and are then extrapolated to 2050. Each year after 2020 was increased by GDOT using Year-of-Expenditure (YOE) inflation rate of 1%. The YOE allows for a more accurate measure of the funding levels for any year over the planning horizon.

**Anticipated
Transportation Project
Revenue 2020-2050
\$1,966,593,914**

The transportation project revenue analysis included funding predictions for the GHMPO as the baseline information for federal / state funding. Local funding estimates from other sources including Special Local Option Sales Tax (SPLOST) were also considered. Both Hall and Jackson County have a history of supporting SPLOSTs over several decades; because of this, these funding sources have been included in the future year forecasts.

Similar to the funding predictions, project costs by phase were also inflated using the same YOE growth rates for four (4) specific project time bands:

- Band 1: 2020-2025
- Band 2: 2026-2030
- Band 3: 2031-2040
- Band 4: 2041-2050



Midpoint years were used for each project band to calculate specific YOE growth factors to apply to project costs for each respective project phase. For example, the midpoint YOE for project band 3 (covering years 2031 to 2040) is 2035. These midpoints were used per guidance included in federal regulations to simplify the project programming requirements for financially constrained RTPs.

Another potential funding source would be the implementation of a transportation special purpose local option sales tax (TSPLOST). Though similar to the existing SPLOST programs that have been historically funded within the planning area, TSPLOSTs are intended to directly fund transportation projects. Currently, public opinion does not appear to be in favor of implementing a TSPLOST in addition to the existing taxes. As such, this plan does not recommend a TSPLOST be presented for public vote at this time. If a TSPLOST was currently in place, GHMPO could expect approximately \$204,289,163* in additional revenue for transportation projects between 2020 and 2050.

*Note: TSPLOST Projections for 2020 through 2024 are from Dr. Meeks at Georgia Tech; subsequent projections for 2025 use the former with 1% annual escalation rate. **Table 30** depicts the anticipated transportation funding over the planning horizon.

TABLE 30: YEARLY TRANSPORTATION FUNDING PREDICTIONS FROM 2020 TO 2050

Year	Federal / State Project (Capital) Projections		Local Capital Transportation Funding (SPLOST) Projections			
	By Year	Total for Cost Band	Hall County By Year	Hall County by Cost Band	Jackson County By Year	Jackson County by Cost Band
2020	\$15,791,488	\$97,149,473	\$3,009,142	\$18,512,287	\$1,100,000	\$6,767,217
2021	\$15,949,403		\$3,039,233		\$1,111,000	
2022	\$16,108,897		\$3,069,626		\$1,122,110	
2023	\$16,269,986		\$3,100,322		\$1,133,331	
2024	\$16,432,686		\$3,131,325		\$1,144,664	
2025	\$16,597,013		\$3,162,638		\$1,156,111	
2026	\$16,762,983	\$85,508,060	\$3,194,265	\$16,293,961	\$1,167,672	\$5,956,302
2027	\$16,930,613		\$3,226,208		\$1,179,349	
2028	\$17,099,919		\$3,258,470		\$1,191,142	
2029	\$17,270,918		\$3,291,054		\$1,203,054	
2030	\$17,443,627		\$3,323,965		\$1,215,084	
2031	\$17,618,063	\$184,323,921	\$3,357,204	\$35,123,787	\$1,227,235	\$12,839,595
2032	\$17,794,244		\$3,390,777		\$1,239,508	
2033	\$17,972,186		\$3,424,684		\$1,251,903	
2034	\$18,151,908		\$3,458,931		\$1,264,422	
2035	\$18,333,427		\$3,493,520		\$1,277,066	
2036	\$18,516,762		\$3,528,456		\$1,289,837	
2037	\$18,701,929		\$3,563,740		\$1,302,735	
2038	\$18,888,948		\$3,599,378		\$1,315,762	
2039	\$19,077,838		\$3,635,371		\$1,328,920	
2040	\$19,268,616		\$3,671,725		\$1,342,209	
2041	\$19,461,302	\$203,608,283	\$3,708,442	\$38,798,512	\$1,355,631	\$14,182,901
2042	\$19,655,916		\$3,745,527		\$1,369,187	
2043	\$19,852,475		\$3,782,982		\$1,382,879	
2044	\$20,050,999		\$3,820,812		\$1,396,708	
2045	\$20,251,509		\$3,859,020		\$1,410,675	
2046	\$20,454,025		\$3,897,610		\$1,424,782	
2047	\$20,658,565		\$3,936,586		\$1,439,030	
2048	\$20,865,150		\$3,975,952		\$1,453,420	
2049	\$21,073,802		\$4,015,712		\$1,467,954	
2050	\$21,284,540		\$4,055,869		\$1,482,634	
	\$570,589,737	\$570,589,737	\$108,728,547	\$108,728,547	\$39,746,014	\$39,746,014

Transit Costs

GHMPO's two (2) transit providers are currently pursuing optional updates to their operations and systems. As of plan creation, Hall Area Transit operates fixed route and an on-demand service while Jackson County Transit operates an on-demand service solely. Each of these transit operators received funding primarily from local and federal sources, with limited funding from state sources as described in **Table 31** and **32** below.

FIGURE 41: GAINESVILLE CONNECTION (HALL AREA TRANSIT)



Population increases in both Hall and Jackson Counties will likely have significant impacts to both transit systems once results from the 2020 US Census are known in several years. Specifically, HAT will likely go from a Small-Urbanized Area (less than 200,000 people) to a Large-Urbanized Area (greater than 200,000 people) to receive FTA formula-based funding distributed through Sections 5307, 5310, 5337 and 5339, encompassing both bus- and rail-based formula funds. Hall County recently completed a microtransit feasibility study which identified an opportunity for less dependence on several fixed routes and a migration from traditional on-demand service to a microtransit system. When implemented, the recommendations within the microtransit study are anticipated to improve system efficiency and effectiveness. As a result of these pending and previous studies, future changes to the revenues and costs of the transit systems are likely. Historic HAT system funding is presented in **Table 31**.

TABLE 31: HALL AREA TRANSIT FUNDING

	2013	2014	2015	2016	2017
Locally Generated Funds					
Fare Revenues	\$132,953	\$109,457	\$106,010	\$119,641	\$110,704
Government Funding Expended					
Local	\$447,844	\$455,093	\$435,812	\$453,162	\$545,262
State	\$10,665	\$15,417	\$10,200	\$0	\$11,799
Federal	\$676,959	\$1,484,919	\$860,364	\$547,848	\$686,605
Use of Funds					
Operations	\$1,386,887	\$1,326,120	\$1,331,322	\$1,369,481	\$1,412,163
Capital	\$112,391	\$969,787	\$344,731	\$0	\$117,988

Source: National Transit Database, NTD Data Reports

Similarly, Jackson County will likely go from a Non-Urbanized Area to Small-Urbanized Area (population between 50,000 and 200,000) to receive FTA formula-based transit funding including Section 5307 and the small-urban portions of Sections 5310 and 5339. Historic Jackson County Transit system funding is presented in **Table 32**.

TABLE 32: JACKSON COUNTY TRANSIT FUNDING

	2013	2014	2015	2016	2017
Locally Generated Funds					
Fare Revenues	-	\$14,176	\$29,296	\$34,396	\$27,433
Government Funding Expended					
Local	-	\$21,326	\$40,789	\$104,660	\$106,145
State	-	\$0	\$7,920	\$7,920	\$4,500
Federal	-	\$66,472	\$129,089	\$136,580	\$128,389
Use of Funds					
Operations	-	\$160,825	\$219,219	\$218,533	\$221,465
Capital	-	\$0	\$79,203	\$79,203	\$45,002

Source: National Transit Database, NTD Data Reports

ENVIRONMENTAL CONSIDERATIONS

As part of the existing conditions analysis, various environmental considerations have been identified that may impact the implementation or changing of the transportation network. Three (3) main considerations have been identified below and displayed in **FIGURE 42**:

- Historic Structures: Georgia Department of Natural Resources Historic Preservation Division
 - Georgia's Natural, Archeological, and Historic Resources GIS (GNAHRGIS)
- Wetlands: National Wetlands Inventory (NWI)
- Federally Endangered/Threatened Species: US Fish and Wildlife Service (FWS)
 - Environmental Conservation Online System (ECOS)

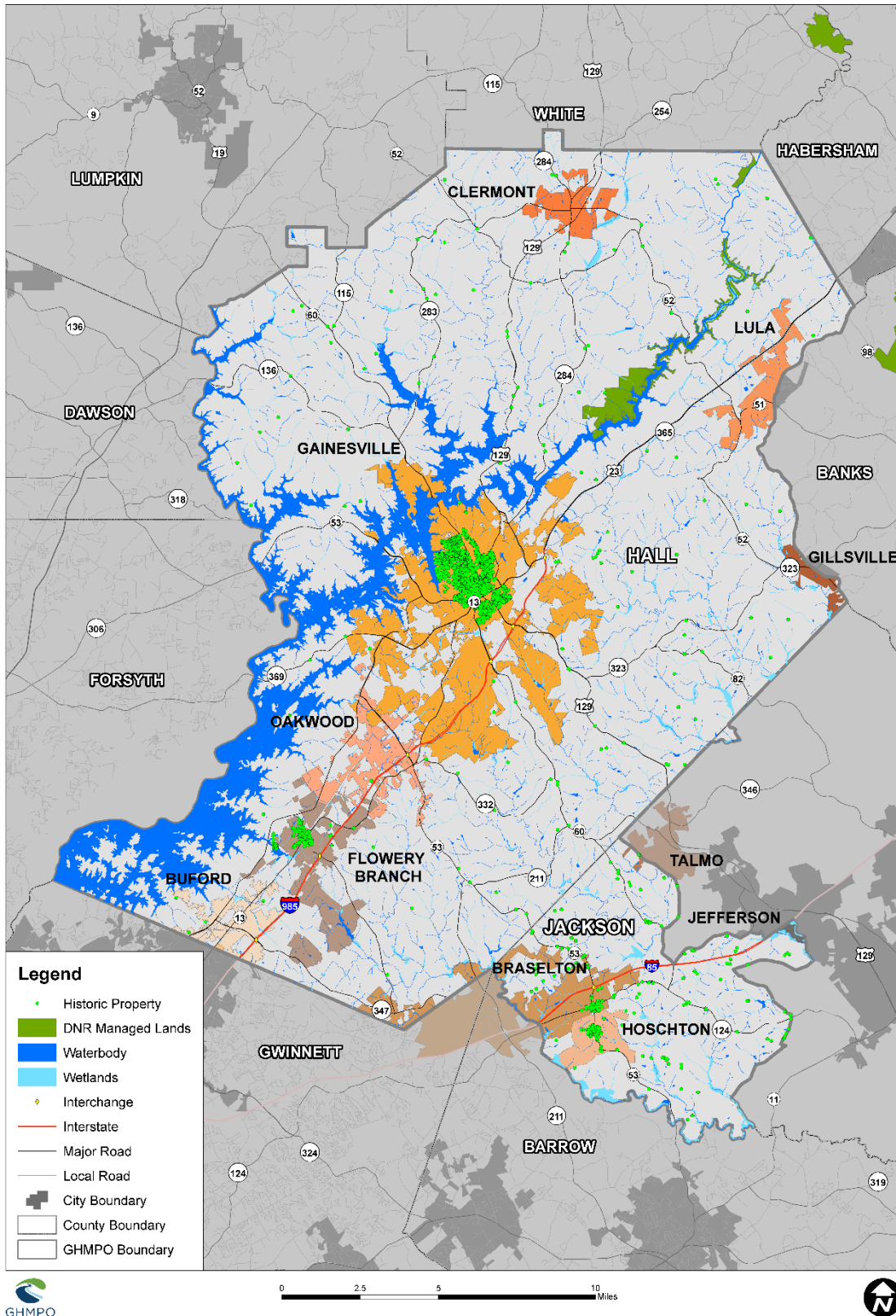
The Georgia Natural, Archeological, and Historic Resources Information System provides the approximate location for known structures that have been identified as having historic properties. Within the GHMPO, most of the historic structures are positioned within the municipal boundaries. The City of Gainesville has the highest concentration of historic structures with over 4,500 identified within its border.

Wetlands and waterbodies are a major consideration when planning modification to the roadway network due to the physical barriers they present and the various laws/regulations established for their protection and management. GHMPO is unique in that a large portion of Hall County is bordered by Lake Lanier and its associated river and bays. The presence of these waterbodies may require the implementation of bridges to support transportation west away from the county. In addition to the known waterbodies, wetlands are prevalent throughout GHMPO and should also be considered as projects are identified.

Together these environmental considerations represent a series of items typically found that may impact the development of projects throughout GHMPO. This list should not be considered all-inclusive and the actual environmental impacts will need to be established on a project by project basis. Typically, individualized site surveys will be necessary to correctly identify and mitigate parcel-level potential impacts to environmental and historical resources once projects advance into the scoping / pre-design concept development phase.

FIGURE 42: ENVIRONMENTAL CONSIDERATIONS

Gainesville-Hall MPO 2020 RTP: Environmental Considerations



CHAPTER 5: INVESTMENT AND STRATEGIES

2050 REGIONAL TRANSPORTATION PLAN PROJECT LISTS

Financially Constrained Project List

The financially constrained project list for GHMPO includes **30** projects spread over four (4) cost bands between 2020 and 2050. One (1) additional unfunded band also includes phases of two (2). Each of the cost bands correlates to a timeframe anticipated available funding. The cost bands are as follows:



Technical analysis, adherence to performance goals, stakeholder, and public feedback were used to prioritize the projects into the bands 1-4 with two (2) projects partially within the unfunded band. Using the cost projection methodology previously discussed, estimated costs were developed or provided by GDOT or a TSC member and prioritized into a specific project band. **Table 33** depicts the estimated total band costs as well as the expected deficit of \$3,662,149 in 2050. This table is designed to show that the financially constrained project list has anticipated costs that are slightly less than the anticipated funding revenue over the 30-year period.

TABLE 33: FINANCIAL BALANCING

Funding Band	Estimated Sum of Project Costs
Cost Band 1	\$391,972,649
Cost Band 2	\$74,476,474
Cost Band 3	\$199,199,234
Cost Band 4	\$189,625,368
Total Project Costs (Band 1-4)	\$855,273,724*
Total Projected Funding	\$853,489,736
Unfunded Band	\$113,450,223
Balance	-\$1,783,988

*Value does not include the Unfunded Band

The financially constrained projects are grouped into six (6) main categories as described below:

- **Bridges** – Maintenance on existing structures
- **Interchange** – New interchange on I-85
- **Intersection** – Modification to existing intersections
- **Roundabout** – Modifying existing intersections with roundabout(s)
- **Roadway Operations** – Modification to roadway conditions (Signage, lighting, signals, lane width, etc.)
- **Widening** – Adding travel lanes to existing roadways

Though each project is unique, these categories help classify the type of work to be expected and present a general idea of the outcome. **Figure 43** depicts the six (6) project types and their representation of the total projects within the financially constrained list, while **Figure 44** depicts the total costs of the projects by project type.

FIGURE 43: PROJECT TYPE AND PERCENT OF TOTAL PROJECTS

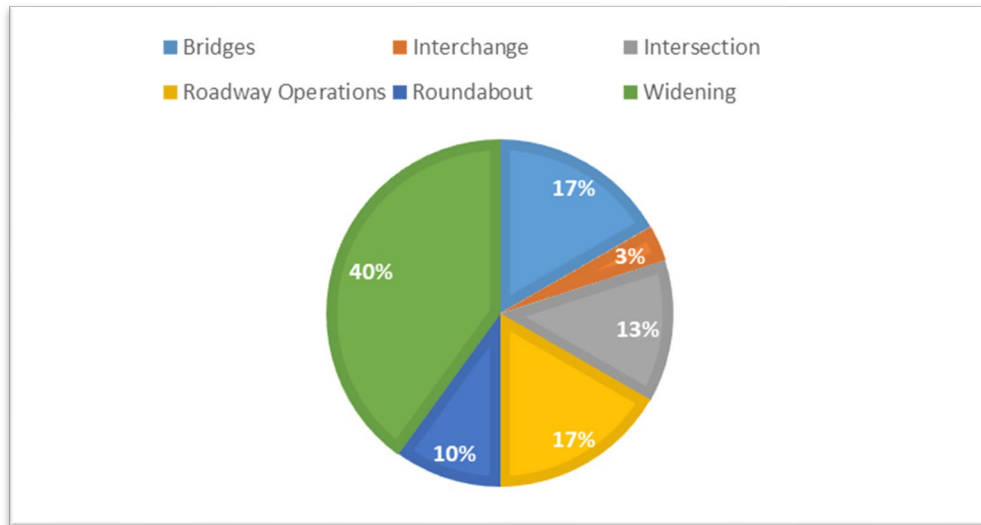
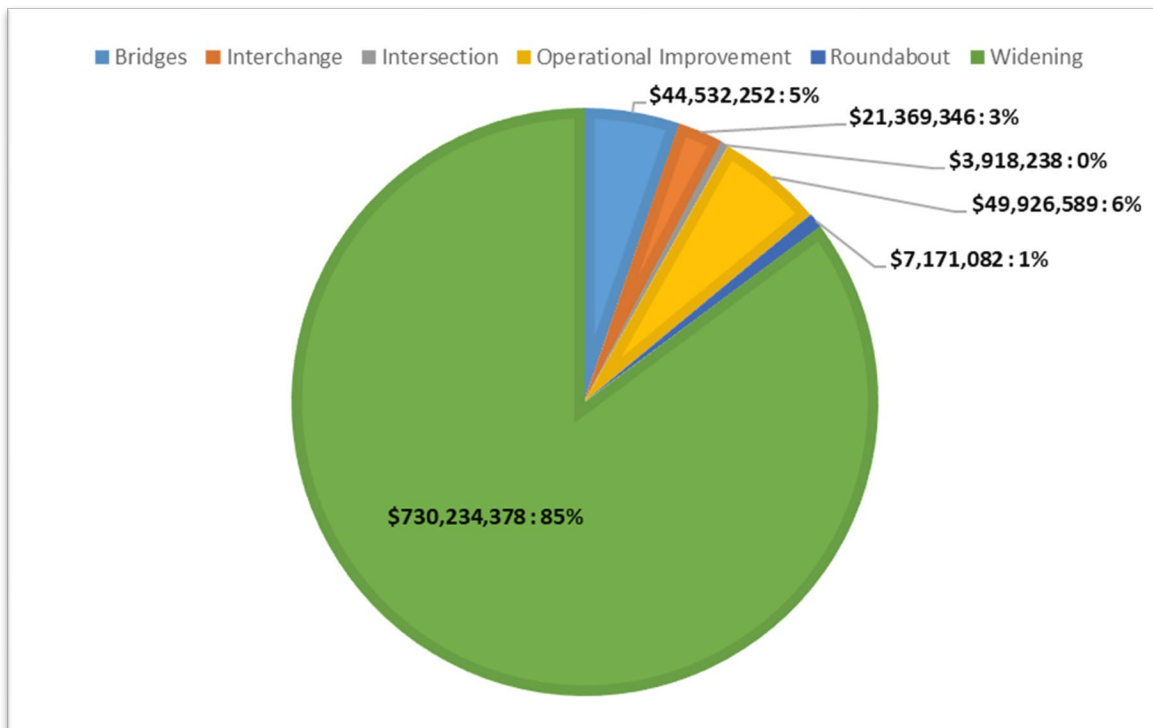


FIGURE 44: TOTAL COST BY PROJECT TYPE AND PERCENT OF TOTAL EXPECTED COSTS



Constrained Project List Tables

As previously described, each of the projects have been organized into one (1) of the four (4) project cost bands, the unfunded bands or within the other funding sources categories. The projects included within the constrained project list were each given a GH number as an identifier for the future. Some of the GH numbers were previously identified in other planning efforts while several others have been added. The GH numbers will serve as the regional project identifier and will later be used in the transportation improvement plan update (TIP) as applicable. Each of the four (4) project costs bands are shown in **Table 34 – 37** and **Figures 45 and 46**. In addition to the table below, each of the projects have been compiled into a project sheet showing increased detail in **Appendix I**.

TABLE 34: BAND 1 PROJECT LIST (2020-2025)

GDOT PI#	GHMPO #	Project Name	Project Type
0013609	GH-028	SR 332/Poplar Springs Road At Walnut Creek & Overflow 1.5 Mi S Of Pendergrass	Bridges
0007170	GH-056	SR 136/Price Road At Chestatee River 8.3 Mi Southeast Of Dawsonville	Bridges
0010212	GH-085	SR 53/Dawsonville Highway Westbound At Chattahoochee River	Bridges
0015702	GH-104	Dawsonville Hwy/SR 53 At McEver Road Operations	Intersection
0013545	GH-109	I-85 From N Of SR 53 To N Of SR 11 / US 129	Widening
0015752	GH-113	Oak Tree Drive - Operations: SR 60 Connector From SR 60/Thompson Bridge Road To SR 11 Business/Riverside Drive	Roadway Operations
0013922	GH-116	I-985 At CS 991/Elachee Road In Gainesville	Bridges
0015551	GH-119	SR 60/Thompson Bridge Road At Chattahoochee River In Gainesville	Bridges
-	GH-121	Green Street - Maintain Four Travel Lanes. Install A Center Raised Median Between Two Intersection Improvements At Academy Street And Glenwood Drive	Roadway Operations
0110610	GH-123	I-85 From I-985 To N Of SR 53	Widening
0015702	GH-124	SR 53/Dawsonville Highway From CS 921/Ahaluna Drive To CS 966/Shallowford Road	Operational Improvement
0015917	GH-125	SR 60/Green Street At SR 11 Business/NE Riverside Drive	Roundabout
0015918	GH-126	SR 60/Greet Street At CS 898/Academy Street	Roundabout
0016166	GH-127	SR 124 At SR 60 & CR 17/Sam Freeman Road	Roundabout

TABLE 35: BAND 2 PROJECT LIST (2026-2030)

GDOT PI#	GHMPO #	Project Name	Project Type
-	GH-103	Athens Highway At Chestnut Street Operations	Intersection
-	GH-105	EE Butler Parkway/Athens Street At MLK Jr. Boulevard Intersection Improvements	Intersection
-	GH-111	SR 60/Candler Road From South Of I-985 To SR 124	Widening
-	GH-112	Jesse Jewell Parkway - Widen To 6 Lanes From John Morrow Jr Parkway To Academy Street	Widening
-	GH-128	SR 60/Candler Road At Fullenwider Road Intersection Improvement	Intersection Improvement

TABLE 36: BAND 3 PROJECT LIST (2031-2040)

GDOT PI#	GHMPO #	Project Name	Project Type
0013310	GH-040*	SR 53/Winder Highway From I-85/Jackson County to SR 211/Tanners Mill Road/Hall County	Widening
0013574	GH-046**	SR 323/Gillsville Highway From SR 11/US 129/Athens Highway To SR 82/Holly Springs Road	Widening
0001821	GH-084	McEver Road From SR 347/Lanier Islands Parkway To CS 537/Gainesville Street	Widening
-	GH-100	SR 369/Browns Bridge Road - Operations	Roadway Operations
0013086	GH-102*	I-85 at SR 60 - New Interchange	Interchange
-	GH-114	EE Butler Parkway/Athens Highway/US 129 Capacity - Widen To 6 Lanes	Widening
0016616	GH-129	SR 13/Atlanta Highway/Falcon Parkway at I-985 & At CR 527/Thurmon Tanner Parkway	Operational Improvement
0013762	GH-130	SR 60/Thompson Bridge Road From SR 400/Lumpkin To Yellow Creek Road/Hall	Widening
-	GH-131*	I-985 From SR 53/Winder Highway To Howard Road	Widening

*Construction phase is funded within Band 4

**Right-of way and construction phases within Band 4

The two (2) projects in Band 4 are partially constrained, with the remainder being sent into the Unfunded Band. These projects (GH-033 and GH-115) have their construction phases within the Unfunded Band while the other phases are anticipated to receive funding within Band 4.

TABLE 37: BAND 4 PROJECT LIST (2041-2050)

GDOT PI#	GHMPO #	Project Name	Project Type
0001822	GH-033*	SR 13/Atlanta Highway/Falcon Parkway From Radford Road To South Of SR 53/Winder Highway	Widening
0008434	GH-115*	SR 53 From I-85 To Tapp Wood Road	Widening

*Construction phase is within the Unfunded Band

FIGURE 45: BAND 1-2 PROJECTS

Gainesville-Hall MPO 2020 RTP: Band 1-2

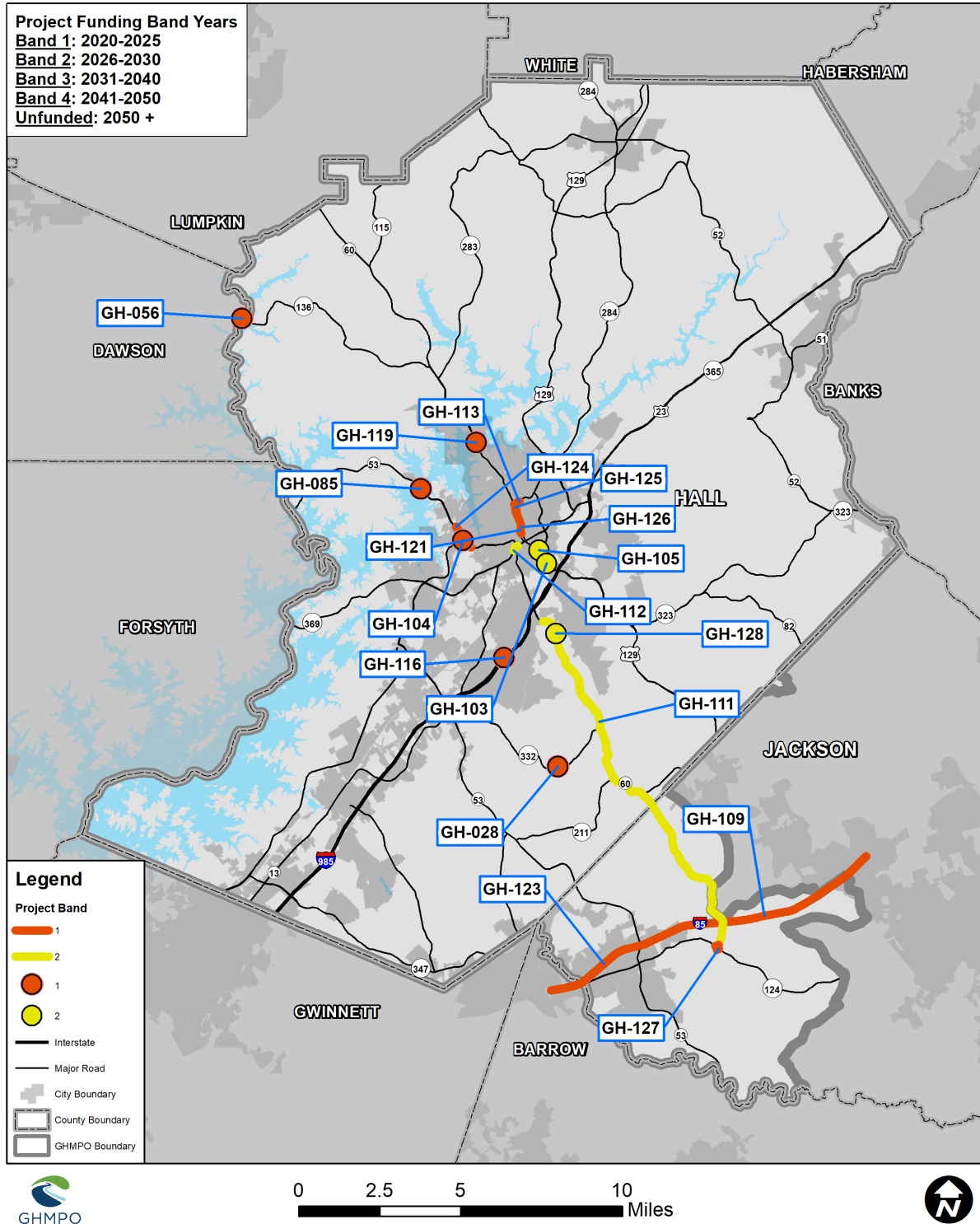
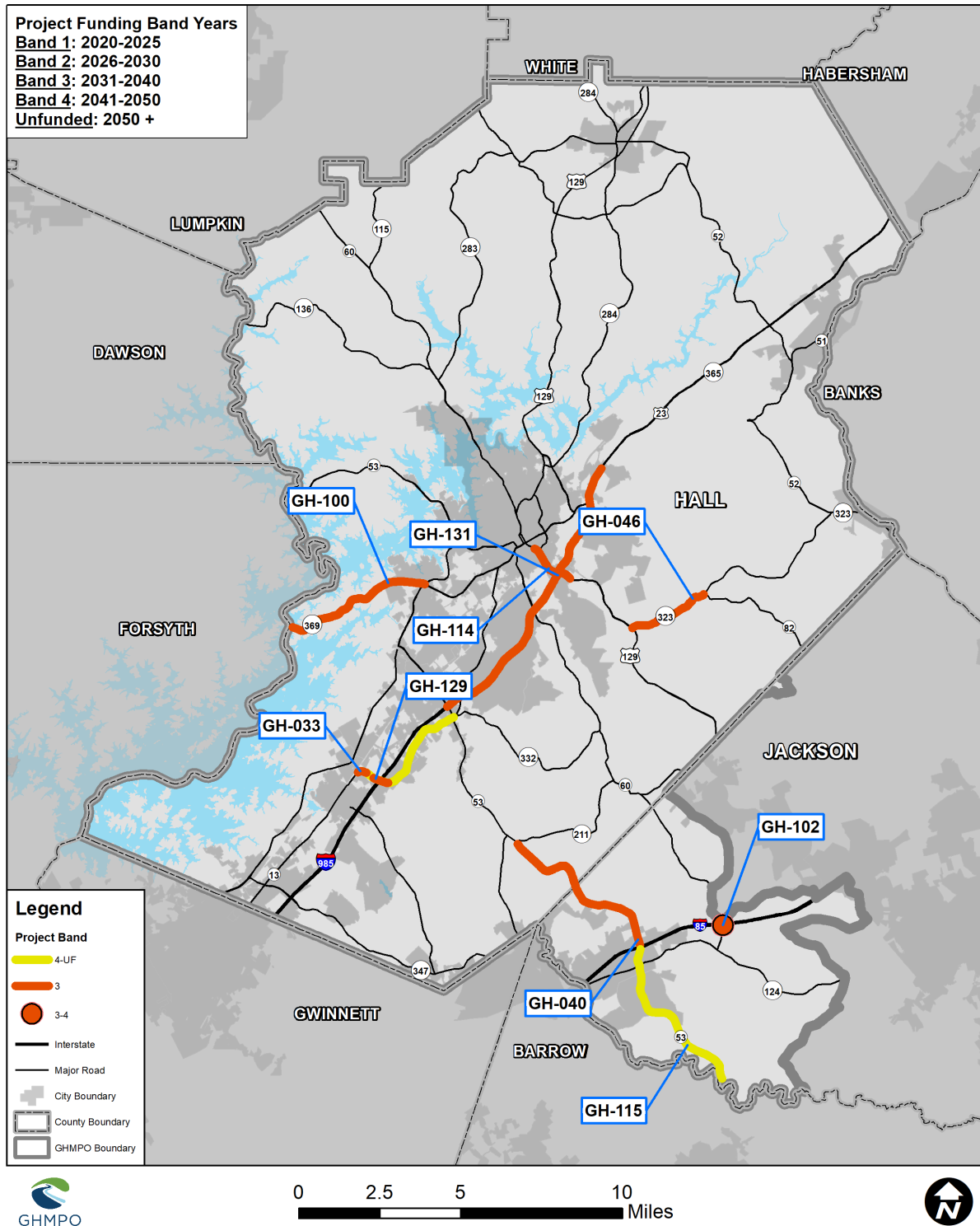


FIGURE 46: BAND 3-4 PROJECTS

Gainesville-Hall MPO 2020 RTP: Band 3-4



Projects with Other Funding Sources:

External to the projects within the financially constrained project list, 56 additional projects were identified within GHMPO. These projects vary from locally funded improvements to large scale highway projects being funded outside of the state/funding methods typically recorded within the financially constrained project list. **Table 38** describes the projects with local or other funding sources.

TABLE 38: PROJECTS WITH OTHER OR LOCAL FUNDING

GDOT PI#	GHMPO #	Project Name	Project Type	Funding Source	Band
0003626	GH-016	Sardis Road Connector From SR 60/Thompson Bridge Road To Sardis Road Near Chestatee Road	Widening	Local & HB 170	1
0013626	GH-018	SR 369/Browns Bridge Road From SR 53/McEver Road To Forsyth County Line	Widening	HB 170	2-3
122060-	GH-020A	US 129/Cleveland Highway – Lakeview Street to S of Nopone Road, Phase I	Widening	HB 170	1
0016862	GH-020B	US 129/Cleveland Highway – Brittany Court to S of Lakeview Street, Phase II	Widening	HB 170	1
0016863	GH-020C	US 129/Cleveland Hwy – Limestone Parkway to N of Brittany Court, Phase III	Widening	HB 170	1
0015280	GH-023B	Spout Springs Road Phase II From Union Circle to South of Thompson Mill Road	Widening	Local	1
0007233	GH-025	SR 211/Old Winder Highway From SR 53/Winder Highway To SR 347/Friendship Road	Widening	HB 170	1-2
0014129	GH-035	SR 11/US 129/Cleveland Highway From North Of CR 65/Nopone To SR 284/Clarks Bridge Road	Widening	HB 170	3
0132610	GH-038	SR 60/Thompson Bridge Road From SR 136/Price Road To CR 158/Yellow Creek Road In Murrayville	Widening	HB 170	2
-	GH-039	South Enota Drive Widening - Park Hill Drive To Downey Boulevard	Widening	Local	4
122030	GH-079	McEver Road Widening - Jim Crow Road To SR 53/ Mundy Mill Road	Widening	Local	4
0001821	GH-084	McEver Road From SR 347/Lanier Islands Parkway To CS 537/Gainesville Street	Widening	Local	3
-	GH-101	Enota Drive - Operations	Roadway Operations	Local	3
-	GH-106	John Morrow Parkway At Washington Street Operations - Realign Southbound Right Lane	Intersection	Local	1-2
-	GH-107	Park Hill Drive At Lakeview Drive Operations - Reduce Slope On Lakeview Drive Approach	Intersection	Local	1-2

GDOT PI#	GHMPO #	Project Name	Project Type	Funding Source	Band
-	GH-108	MLK Jr Blvd Corridor - Widen To 4 Lanes With Streetscape From Queen City Pkwy To EE Butler Parkway	Widening	Local	1-2
0015752	GH-113	Oak Tree Drive - Operations: SR 60 Connector From SR 60/Green Street To SR 11 Business/NE Morningside Drive	Roadway Operations	HB 170	1
0013988	GH-118	Widening of SR 211/Old Winder Highway From SR 124/Braselton Highway/Barrow County Line To SR 347/Friendship Road/Hall County Line. Project costs reflect only the GHMPO's portion (1%) of the total cost that lies within the MPO boundary	Widening	HB 170	1-2
0014130	GH-120	I-985 From I-85/Gwinnett To SR 53/Mundy Mill Road	Widening	HB 170	1
0013762	GH-130	SR 60/Thompson Bridge Road From SR 400/Lumpkin To Yellow Creek Road/Hall	Widening		
0016074	GH-133	SR 365/Cornelia Highway At Howard Road - New Interchange	Roadway Project	HB 170 & Federal	3
-	GH-134	McClure Drive Extension - Connects McClure Drive And Township Drive To Chamblee Road	New Road	HB 170	1
-	GH-135	Jesse Jewell Parkway East - Widen Jesse Jewell Parkway to a 6-Lane roadway, including 3 through lanes in each direction and a landscaped median. From Community Way /Industrial Boulevard Extension to Oconee Circle/Miller Drive	Widening	Local	3
-	GH-136	Skelton Road Widening	Widening	Local	3
-	GH-137	Memorial Park Drive Extension	New Road	Local	3
-	GH-138	Widening Jesse Jewell Parkway between West Academy Street to Community Way	Widening	Local	3
-	-	Chamblee Road - From McEver Road To Thurmon Tanner Parkway	Corridor Improvement	Local	4
-	-	EE Butler Parkway From Jesse Jewell Parkway To Monroe Drive (Corridor Safety Audit)	Potential Corridor Safety Audit	Local	4
-	-	Flat Creek Road - From McEver Road To Main Street	Corridor Improvement	Local	2

GDOT PI#	GHMPO #	Project Name	Project Type	Funding Source	Band
-	-	Flat Creek Road - From McEver Road To Main Street	Intersection Improvement	Local	3
-	-	Hog Mountain/Blackjack Road Intersection Improvement	Intersection Improvement	Local	1
-	-	Hog Mountain/Cash Road Intersection Improvement	Intersection Improvement	Local	1
-	-	Intersection Safety Audit - HF Reed Industrial Parkway And Aloha Way	Potential Safety Audit	Local	4
-	-	Intersection Safety Audit - Thurmon Tanner Road And Cross Streets	Potential Corridor Safety Audit	Local	4
-	-	John W. Morrow Jr. Parkway/SR 53 At Pearl Nix Parkway	Intersection Study	Local	2
-	-	Main Street - From Academy Street To Flat Creek Road	Corridor Improvement	Local	3
-	-	McBrayer Road - From M Stringer Road To Chamblee Road	Corridor Improvement	Local	4
-	-	McClure Drive - From Main Street To Dead-End	Corridor Improvement	Local	4
-	-	McEver Road and Flat Creek Road Intersection	Intersection Improvement	Local	3
-	-	McEver Road and Gaines Ferry Intersection	Intersection Improvement	Local	TBD
-	-	McEver Road and Lights Ferry Intersection	Intersection Improvement	Local	TBD
-	-	McEver Road and Stephens Road Intersection	Intersection Improvement	Local	TBD
-	-	Oakwood Road - From Nellie Drive To Mundy Mill Drive	Corridor Improvement	Local	4
-	-	Old Flowery Branch Road - From McEver Road To SR 53/Mundy Mill Road	Corridor Improvement	Local	4
-	-	Old Oakwood Road From 1200' North Of SR 53/Mundy Mill Road To Tumbling Creek Road	Corridor Improvement	Local	3
-	-	Old Oakwood Road From Main Street To SR 53/Mundy Mill Road	Corridor Improvement	Local	3
-	-	Plainview Road/Allen Street - From Thurmon Tanner Parkway To Railroad Street	Corridor Improvement	Local	3
-	-	Railroad Crossing At West Ridge Road Near Short Street	Rail Crossing Improvements	Local	3
-	-	Railroad Street - From Chamblee Road To Allen Street	Corridor Improvement	Local	3
-	-	Renovate/Repair various intersections in the County at \$1,000,000 per year average	Intersection Improvement	Local	1-4

GDOT PI#	GHMPO #	Project Name	Project Type	Funding Source	Band
-	-	Sloan Mill Road/Schubert Road Roundabout	Intersection Improvement	Local	1
0016065	-	SR 53 at New Cut Road / Ednaville Road	Roundabout	HSIP**	1
-	-	US 23/SR 365/Cornelia Highway From Howard Road To Ramsey-Fraser Lake (Corridor Safety Audit)	Potential Corridor Safety Audit	Local	2
-	-	W. White Road - From H.F. Reed Industrial Parkway To Chamblee Road	Corridor Improvement	Local	4
-	-	White Sulphur Road Realignment (New Roadway)	Road Realignment	Local	1
-	-	White Sulphur Road/Lotheridge Road Intersection Improvement	Intersection Improvement	Local	1

HB 170: GA House Bill 170

HSIP: FHWA – Highway Safety Improvement Program

POLICY RECOMMENDATIONS

In order to support the development of physical improvements and the overall betterment of the community, a series of policy recommendations have been developed. These policy recommendations specifically will improve GHMPO's ability to improve the transportation network. The policy recommendations are organized into the following categories:

- Multimodal Transportation
 - Continue to implement the standards and principles of the GHMPO Complete Streets Policy and specific local policies (where applicable).
 - Promote and encourage the development of multimodal transportation options alongside existing and planned transportation projects that may not currently have these amenities planned.
 - Develop a Bicycle and Pedestrian working group to discuss issues and opportunities in the community
 - This working group should be given the opportunity to overview upcoming transportation projects
 - The working group should be able to make suggestions to project managers to voice concerns over bicycle/pedestrian safety and access into the future.
- Improve Freight Coordination
 - Improve Freight Movement Coordination and create a working group to discuss issues and opportunities in the community
 - This working group should be given the opportunity to overview upcoming transportation projects including the Inland Port under construction.
 - The working group may be a means to discuss ongoing issues such as conflicts with increasing truck traffic on specific facilities.
- Enhanced Coordination and Maintenance of the Transportation System

- Improve Coordination at all Levels: FHWA > GDOT > GHMPO > Counties > Municipalities > sub committees/working groups
- Coordination between all levels should begin early in the development of projects to ensure that the community's interests are actively being met.

NON-MOTORIZED RECOMMENDATIONS

The GHMPO area has begun to prioritize the implementation of non-motorized facilities in addition to roadway modifications. Non-motorized transportation facilities consist of bike lanes, paved trails and sidewalks that offer additional transportation opportunities to the community. As part of these efforts to offer more transportation alternatives, GHMPO has adopted a Complete Streets Policy with the following vision:

Every public right-of-way shall be planned, designed, constructed, and maintained such that all residents within the Gainesville-Hall Metropolitan Planning Organization (GHMPO) planning area have multi-modal transportation options to safely and conveniently travel to and from their destinations.

With this commitment to the implementation of complete streets, GHMPO will continue to promote and implement non-motorized facilities into the future. GHMPO will recommend the implementation of sidewalks, bike lanes and paved trails where feasible and beneficial to the community.

Multi-modal connectivity was ranked as the 3rd most important goal from the public project survey showing that implementation of bicycle and pedestrian amenities is also important to the public. In response to the types of non-motorized transportation that the survey respondents would like to see, they indicated the following:

- 27% wanted more sidewalks
- 23% wanted extended greenways/trails
- 13% wanted additional bicycle lanes

Existing Non-Motorized Facilities

Currently GHMPO has over 450 miles of non-motorized facilities that provide alternatives for the community. The approximate lengths in miles of these facilities are as follows in **Table 39**.

TABLE 39: BICYCLE AND PEDESTRIAN FACILITY LENGTHS

Existing Facility	Approximate Length (Miles)
Sidewalks	464.6*
Trails/Sidepaths	23.19*
Bike Lanes	2.67
Paved Shoulders (4ft or larger)	18.26
Nearly Completed Trail/Sidepaths	2.03

*Not including the City of Gainesville

The number of bicycle lanes are currently low within the GHMPO planning boundary, but there are two major greenways/trails designed to provide for both cyclists and pedestrians. Located primarily within the City of Gainesville, the Highlands to Islands Trail system is being constructed to create a connection between downtown Gainesville and the University of North Georgia in Oakwood. In addition to the Highlands to Islands system, new sidepaths have also been developed alongside the Friendship Rd/SR 347 improvements. These new sidepaths connect multiple large neighborhoods with several commercial and retail developments in southern Hall County.

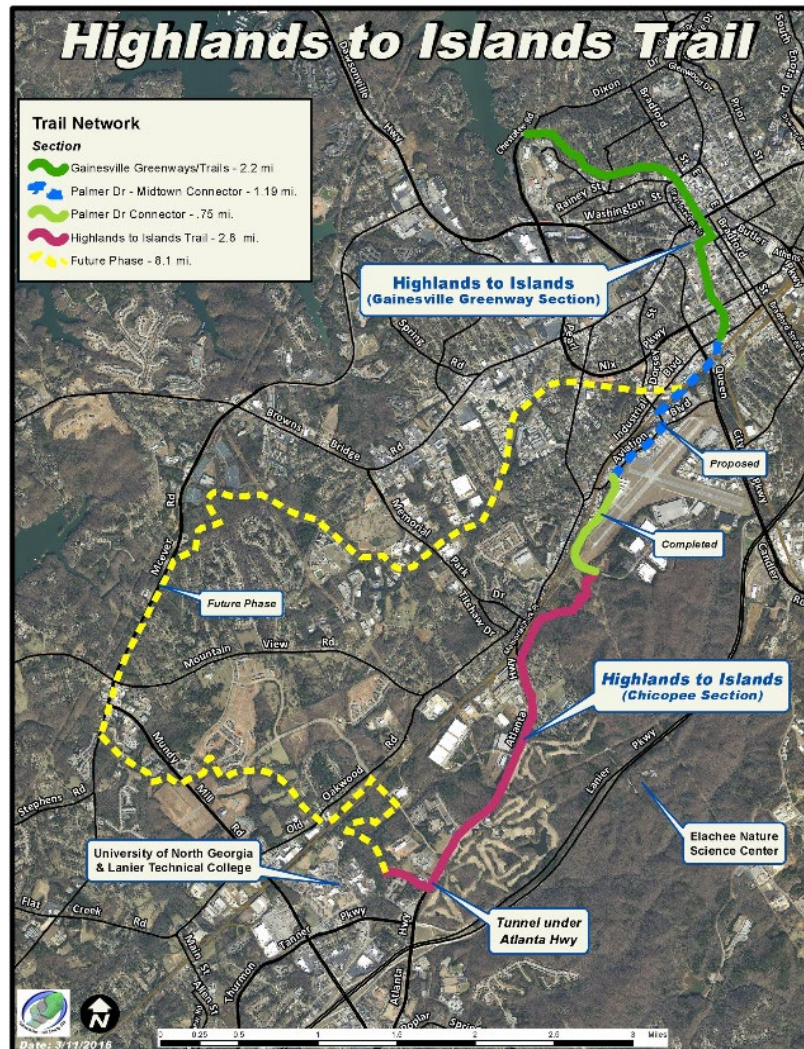
Non-motorized Recommendations:

GHMPO and the jurisdictions within its planning boundary should show continuing support for the development of additional non-motorized facilities. The first priority should be continued implementation of the Complete Streets Policy to provide additional non-motorized options for GHMPO. This will be achieved by recommending non-motorized elements accompany roadway improvement projects. In addition to the continued development of this policy, several major trail/sidepath projects have been identified in the area that would significantly benefit GHMPO. A significant portion of the Highlands to Islands trail system in Gainesville has not yet been developed along with a planned connection to the Friendship Road trail in south Hall County. **Figure 47** shows the planned outcome of the Highlands to Islands trail system, while **Figure 48** depicts the proposed implementation of the Airport Connector Trail as part of the Highlands to Islands trail system.

In addition to the recommendation for the completion of the trail networks above, many other facilities may be considered for improvement through the identification of commonly used routes. Several companies allow runners and cyclists to track their routes and frequency of use through GPS. These user created routes can help identify high use areas and may be used for the determination of future projects. Though this is a useful visual tool, these programs typically show only the users that have signed up for the services or have select GPS items, thereby, showing only the routes specific individuals use or their typical distances. This information shows data from a relatively small subset of the total population within GHMPO which reduces its applicability at the regional scale. **Appendix J** shows a series of maps pulled from a program called STRAVA that depict cyclist and runner routes in the area.

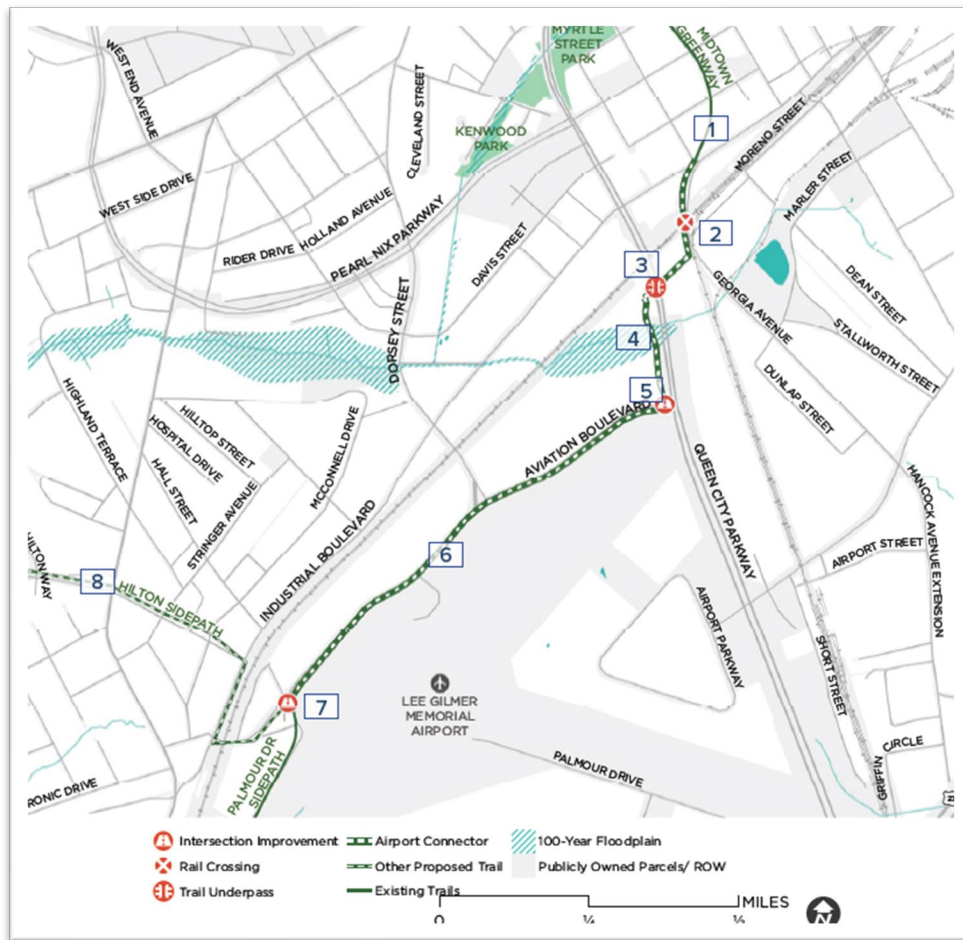
As described above, the connection between the Highlands to Islands trail and the Friendship Rd sidepaths should be a priority for GHMPO. The South Hall Trail Study was completed in 2019 which proposes several additional trail systems to connect the urbanized areas within GHMPO to southern Hall County.

FIGURE 47: HIGHLANDS TO ISLANDS TRAIL SYSTEM



Source: Hallcounty.org

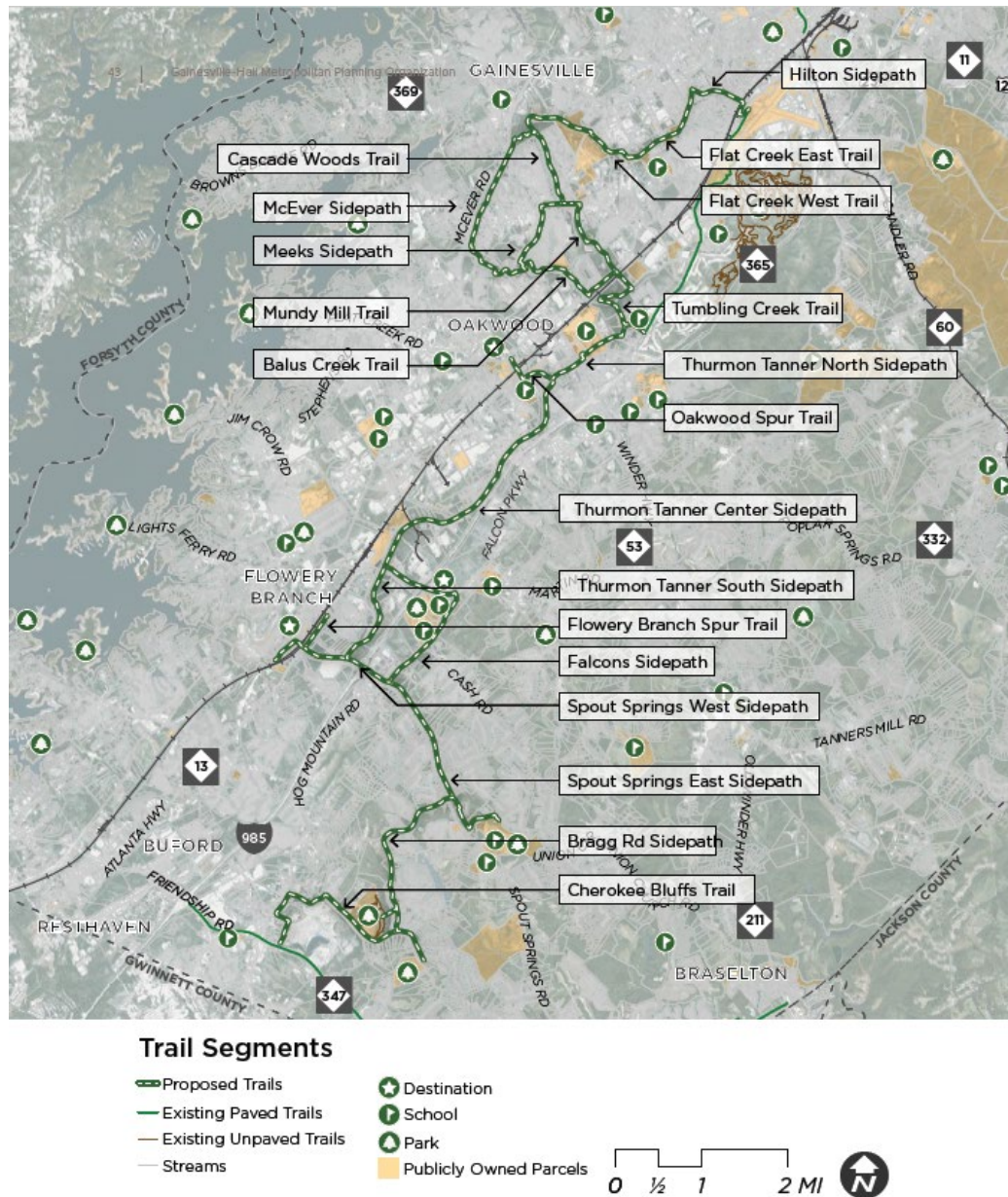
FIGURE 48: AIRPORT CONNECTOR TRAIL



Source: Gainesville Trail Study, 2019

The *South Hall Trail Study* proposed several trail alternatives that would connect Friendship Rd to the Gainesville and all of the municipalities in between. **Figure 49** Depicts the proposed trail network within the *South Hall Trail Study*.

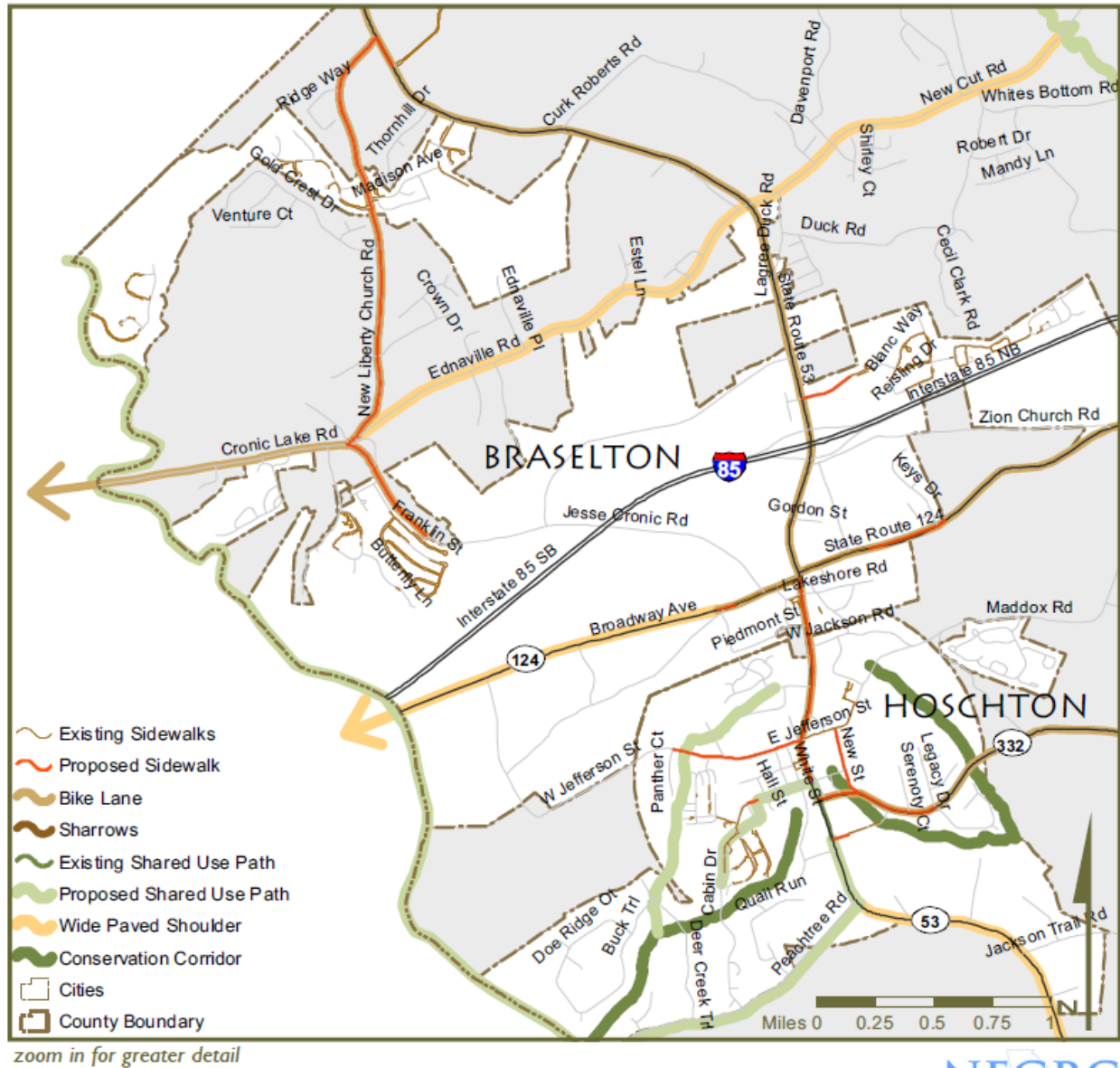
FIGURE 49: SOUTH HALL TRAIL STUDY PROPOSED TRAILS



Source: *South Hall Trail Study*, 2019

In addition to the trails within Hall County, *Connect Jackson* (2011) was developed to identify existing and potential nonmotorized transportation alternatives within Jackson County. To the extent feasible, efforts should be made to connect Hall and Jackson Counties via paved trails/sidepaths. A major opportunity is presented by the Friendship Road sidepath which can provide a direct connection with Jackson County and Braselton. **Figure 50** shows the Braselton area maps from the *Connect Jackson* plan.

FIGURE 50: BRASELTON AREA NON-MOTORIZED CONDITIONS



Source: *Connect Jackson*, 2011

The development of an improved pedestrian and cyclist transportation network will provide recreation, transportation and economic benefits to the community. Using these amenities will improve the health of the communities, and the implementation of paved trail systems have proven to be an economic driver. While the completion of already planned facilities will be an important step, long term plans should be

established for the development of a more connected paved trail system by reducing the number of gaps and increasing coverage within of the GHMPO area. Creating connections between existing/planned facilities will increase their use and promote economic development from increased accessibility. If the trail system is completed within GHMPO it is likely that increased use of the trail system will benefit many aspects of the community.

Atlanta to Charlotte Passenger Rail Corridor

In addition to the more localized recommendations above, it is worth noting that studies are currently being conducted that may lead to the implementation of a highspeed rail system traveling through GHMPO. The Federal Railroad Administration and GDOT are developing the Draft Environmental Impact Statement (DEIS) for high-speed rail between Charlotte and Atlanta. This project would serve as an extension of the Southeast High-Speed Rail (SEHSR) corridor which may provide access to other major cities along the eastern coast. The project is reviewing three (3) potential alignments with several potential stations.:

- Crescent – The northernmost route passing through Gainesville, Clemson, and Spartanburg
- Interstate 85 – Traveling primarily alongside I-85, passing through Commerce, Greenville, and Spartanburg
- Greenfield – The southernmost option passing through Athens, Greenville-Spartanburg International Airport and South Gastonia

The proposed stop in Gainesville will likely be the most beneficial for GHMPO as this high-speed rail could improve transportation into the center of Atlanta. If successfully implemented, economic growth is likely to accompany the development of these rail stations, thereby improving the community through transportation alternatives and increased economic activity.

IMPLEMENTATION AND MONITORING

Throughout the planning process, each of the projects listed within this RTP update were subject to performance-based planning scrutiny. Prior to the development of the project lists and prioritization each project was evaluated for its concurrence with the GHMPO, statewide, and federal goals, objectives and performance measures of the projects were identified through various sources and brought before the GHMPO committees for consideration. After their consideration, each of the projects were ranked and placed into the cost bands. **Table 40** below depicts how the projects are likely to adhere to the federal performance measures.

Continued evaluation and monitoring will be an important factor of maintaining an effective transportation network. After the implementation of projects, data should be collected to determine if the projects are meeting their stated goals and to determine the overall impact on the transportation network. Each of the financially constrained projects should be reassessed using the federal performance metrics and the project assessment criteria. Continued project data gathering will be used to inform subsequent updates to this planning document.

TABLE 40: ASSUMED PROJECT CONTRIBUTION TO PERFORMANCE TARGETS

GHMPO #	Project Name	Project Type	PM 1 Safety	PM 2 Pavement and Bridge	PM 3 Travel, Freight Reliability, Delay
GH-123	I-85 From I-985 To N Of SR 53	Widening	X	X	X
GH-113	Oak Tree Drive - Operations: SR 60 Connector From SR 60/Thompson Bridge Road To SR 11 Business/Riverside Drive	Roadway Operations	X	-	X
GH-104	Dawsonville Hwy/SR 53 At McEver Road Operations	Intersection	X	-	X
GH-056	SR 136/Price Road At Chestatee River 8.3 Mi Southeast Of Dawsonville	Bridges	X	-	-
GH-116	I-985 At CS 991/Elachee Road In Gainesville	Bridges	X	X	-
GH-028	SR 332/Poplar Springs Road At Walnut Creek & Overflow 1.5 Mi S Of Pendergrass	Bridges	X	-	-
GH-085	SR 53/Dawsonville Highway Westbound At Chattahoochee River	Bridges	X	-	-
GH-121	Green Street - Maintain Four Travel Lanes. Install A Center Raised Median Between Two Intersection Improvements At Academy Street And Glenwood Drive	Roadway Operations	X	-	X
GH-124	SR 53/Dawsonville Highway From CS 921/Ahaluna Drive To CS 966/Shallowford Road	Operational Improvement	X	-	X
GH-125	SR 60/Green Street At SR 11 Business/NE Riverside Drive	Roundabout	X	-	X
GH-126	SR 60/Greet Street At CS 898/Academy Street	Roundabout	X	-	X
GH-119	SR 60/Thompson Bridge Road At Chattahoochee River In Gainesville	Bridges	X	-	
GH-127	SR 124 At SR 60 & CR 17/Sam Freeman Road	Roundabout	X	-	X
GH-109	I-85 From N Of SR 53 To N Of SR 11 / US 129	Widening	X	X	X

GHMPO #	Project Name	Project Type	PM 1 Safety	PM 2 Pavement and Bridge	PM 3 Travel, Freight Reliability, Delay
GH-128	SR 60/Candler Road At Fullenwider Road Intersection Improvement	Intersection Improvement	X	-	-
GH-111	SR 60/Candler Road From South Of I-985 To SR 124	Widening	X	-	X
GH-103	Athens Highway At Chestnut Street Operations	Intersection	X	-	X
GH-105	EE Butler Parkway/Athens Street At MLK Jr. Boulevard Intersection Improvements	Intersection	X	-	X
GH-112	Jesse Jewell Parkway - Widen To 6 Lanes From John Morrow Jr Parkway To Academy Street	Widening	X	X	X
GH-084	McEver Road From SR 347/Lanier Islands Parkway To CS 537/Gainesville Street	Widening	X	-	X
GH-129	SR 13/Atlanta Highway/Falcon Parkway at I-985 & At CR 527/Thurmon Tanner Parkway	Operational Improvement	X	-	X
GH-102	I-85 at SR 60 - New Interchange	Interchange	X	-	-
GH-114	EE Butler Parkway/Athens Highway/US 129 Capacity - Widen To 6 Lanes	Widening	X	X	X
GH-130	SR 60/Thompson Bridge Road From SR 400/Lumpkin To Yellow Creek Road/Hall	Widening	X	-	X
GH-100	SR 369/Browns Bridge Road - Operations	Roadway Operations	X	-	X
GH-046	SR 323/Gillsville Highway From SR 11/US 129/Athens Highway To SR 82/Holly Springs Road	Widening	X	X	X
GH-040	SR 53/Winder Highway From I-85/Jackson County to SR 211/Tanners Mill Road/Hall County	Widening	X	-	X
GH-115	SR 53 From I-85 To Tapp Wood Road	Widening	X	-	X
GH-131	I-985 From SR 53/Winder Highway To Howard Road	Widening	X	X	X
GH-033	SR 13/Atlanta Highway/Falcon Parkway From Radford Road To South Of SR 53/Winder Highway	Widening	X	-	X