

# TRANSIT REVIEW COMMITTEE: FINAL RECOMMENDATIONS

JANUARY 2020



# ACKNOWLEDGMENTS

Gwinnett County would like to thank the following people who contributed to the success of the Transit Review Committee (TRC):

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# EXECUTIVE SUMMARY

The 13-member, Gwinnett County Board of Commissioners-appointed Transit Review Committee (TRC) collaborated from October 2019 through January 2020 to develop a series of recommendations for the County's transit future. With technical support from Gwinnett County and a consultant team, the TRC worked to understand the transit needs of Gwinnett County by examining current and future population and employment densities; the location and needs of low income, senior, and minority populations; and discussing the needs for individuals using paratransit services.

Over the course of 11 meetings, including 3 Saturday meetings to maximize opportunities for community input, the TRC collected feedback from the general public, held a stakeholder session to understand the needs of underrepresented populations, and discussed at length the concerns voiced by citizens to individual Committee members to create an inclusive transit plan reflective of greater Gwinnett.

The TRC worked with staff and consultants to understand the strengths and limitations of the Connect Gwinnett: Transit Plan as a starting point. The TRC developed recommendations that provide additional benefits to Gwinnett residents and employees beyond the original Connect Gwinnett Plan. The TRC-Selected Plan includes the following additions and changes from the Connect Gwinnett Plan:

- 9% increase in County area with Paratransit coverage
- An additional BRT route (Infinite Energy to Mall of Georgia) to provide a more seamless trip from Doraville to the Mall of Georgia (upgrade from Connect Gwinnett Arterial Rapid Transit (ART) route)
- 5 additional Local routes, including 2 new regional connections (Alpharetta/North Fulton and Stonecrest/Lithonia [DeKalb])
- 2 additional Express Commuter routes
- Earlier implementation of numerous routes across all timeframes, but particularly in the first ten years (Mid-Range Plan). Mid-Range Plan differences include:
  - 2 BRT routes implemented versus 1 in Connect Gwinnett
  - 3 ART routes implemented versus 0 in Connect Gwinnett
  - 7 Flex zones implemented versus 2 in Connect Gwinnett

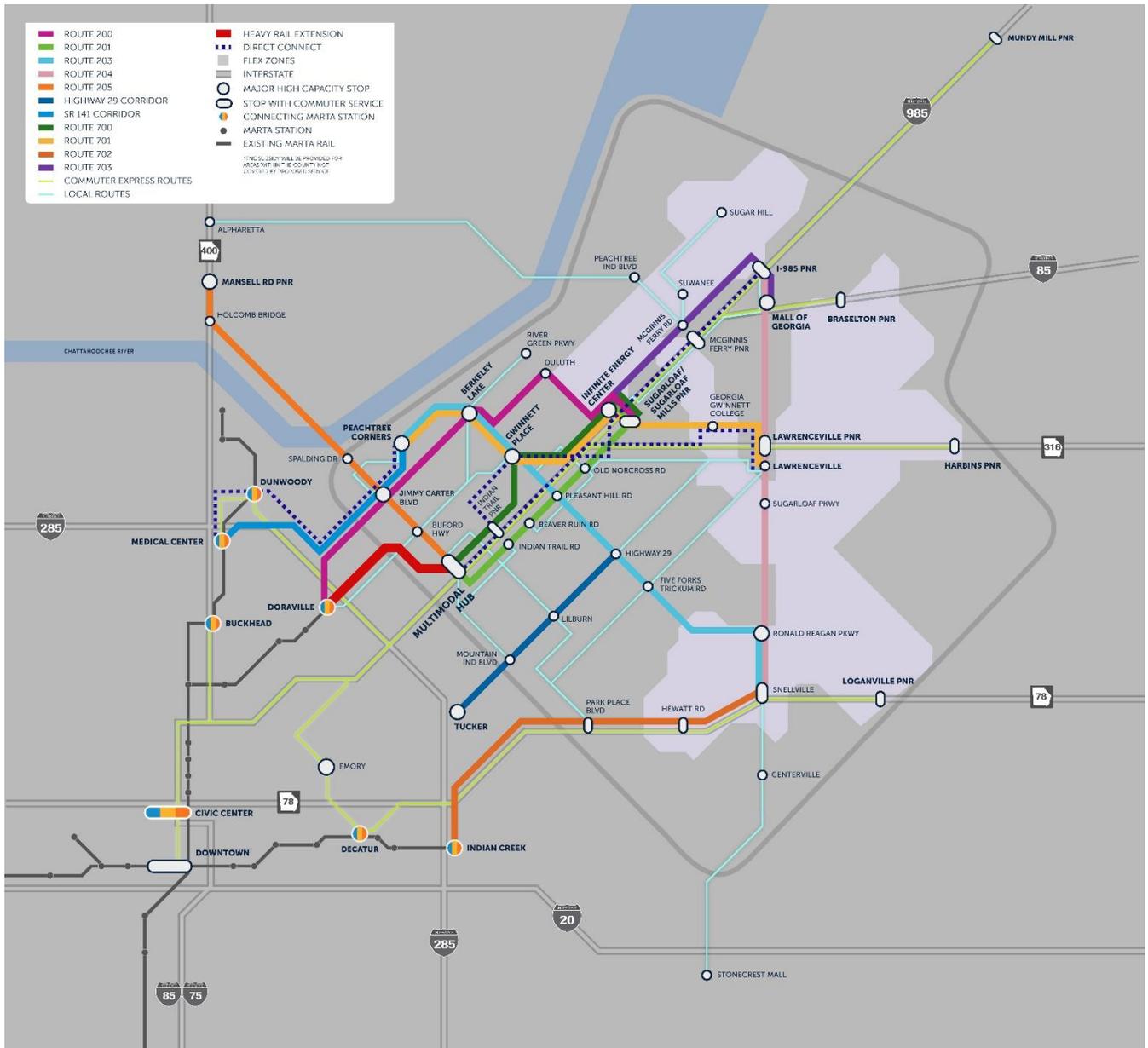
Figure 1 on the following page illustrates the full TRC-Selected Plan developed during this process. Highlights of the TRC-Selected Plan include:

- Extension of the MARTA Gold Line (Heavy Rail) to a new Multimodal Hub at Jimmy Carter Boulevard
- Four Bus Rapid Transit (BRT) routes between the following locations:
  - Doraville and Sugarloaf Mills via the Satellite Boulevard corridor (Route 700)
  - Lawrenceville and Peachtree Corners (Route 701)
  - Snellville and Indian Creek MARTA via US 78 (Route 702)
  - Infinite Energy Center and Mall of Georgia via Satellite Boulevard (Route 703)
- Seven ART routes
  - Doraville and Sugarloaf Mills via SR 141 (Route 200)
  - Multimodal Hub and Sugarloaf Mills via Steve Reynolds Boulevard (Route 201)
  - Snellville and Peachtree Corners (Route 203)
  - Snellville and Mall of Georgia/I-985 (Route 204)
  - Multimodal Hub and Mansell Road Park-and-Ride lot via Jimmy Carter Boulevard/Holcomb Bridge Road and SR 400 (Route 205)
  - Lilburn and Tucker via US 29 (Route 207)
  - Peachtree Corners and Perimeter Center via SR 141 and I-285 (Route 208)
- 11 Express Commuter routes
- 17 Local routes

- Frequency improvements on most Express Commuter and Local routes and Sunday service on all Local routes
- Three Direct Connect routes
- 72% of Gwinnett County has Paratransit service coverage (existing systems provides 20% coverage)

In total, the TRC-Selected Plan proposes an 844% increase in Bus Service Hours over existing service. In addition to service expansion, the TRC-Selected Plan includes:

- A new maintenance facility in the Lawrenceville area
- Gwinnett Place Transit Center upgrades
- New transit centers at Downtown Lawrenceville, Georgia Gwinnett College, Infinite Energy Center
- Five new park-and-ride lots in Dacula, Lawrenceville, Braselton-Gravel Springs, Loganville, and Peachtree Corners
- Funds for two additional Park-and-Ride lots at locations to be determined
- New McGinnis Ferry Road Park-and-Ride lot with in-line stop
- Upgrades to existing Park-and-Ride lots at Sugarloaf, Snellville, and I-985 Park-and-Ride lot
- Funds for initial planning for SR 316 managed lanes
- Subsidies for vanpooling programs
- Subsidies for Transportation Network Companies (TNCs) for individuals outside of the traditional transit service area to access the transit system



**FIGURE 1. TRC-SELECTED PLAN**

# THE TRANSIT REVIEW COMMITTEE

With Gwinnett County expected to continue rapid growth through 2040 and beyond, the need for a robust transit system will become more critical. The Board of Commissioners passed a resolution (included in the Appendix) on September 3, 2019 creating the Gwinnett County Transit Review Committee (TRC), a group of 13 citizens were assembled to advise the Board on how to proceed in expanding transit in Gwinnett County to meet future demand. The TRC was tasked with conducting a thoughtful and thorough review of Gwinnett's transit needs and the options for addressing those needs.

The TRC was formed following a transit contract referendum in March 2019 in which voters did not approve a contract with MARTA to operate Gwinnett's transit system and a 38-year, one-percent sales tax to implement the Connect Gwinnett: Transit Plan. The Connect Gwinnett: Transit Plan detailed significant, short- and long-term expansion of transit, including using various transit modes, adding routes, and identifying funding sources.

Appointments to the TRC were made by each member of the Board of Commissioners and by organizations representing a range of interests and perspectives. Groups represented on the TRC include:

- 5 members representing the Board of Commissioners, with each Commissioner having one appointment
- 1 member representing seniors, to be appointed by the Gwinnett Council for Seniors
- 1 member representing young adults, to be appointed by the Georgia Gwinnett College Student Council
- 1 member representing the paratransit consumer community, to be appointed by the Gwinnett Transit Advisory Board
- 1 member representing the non-profit sector, to be appointed by the Coalition for Health and Human Services
- 1 member representing employers, to be appointed by the Gwinnett Chamber of Commerce
- 1 member representing Gwinnett's young professionals, to be appointed by the Gwinnett Young Professionals organization
- 1 member representing Gwinnett's civic organizations, to be appointed by Leadership Gwinnett Alumni
- 1 member representing Gwinnett's cities, to be appointed by the Gwinnett Municipal Association

From October 2019 through January 2020, the TRC held 11 meetings, which were open to the public and included 3 Saturday meetings to maximize opportunities for public involvement. As part of their review, the Transit Review Committee members analyzed current and future transit needs based on projected population and employment and the feasibility of various types of transit and took a fresh look at the Connect Gwinnett: Transit Plan. The committee also considered feedback from the public given directly during the TRC meetings, feedback given during the referendum process, and feedback provided directly to individual TRC members. Additionally, the Committee held a stakeholder session during one of the Saturday meetings to understand the needs of underrepresented populations.

This final report documents the TRC's work and the basis of its recommendations.

# COMMITTEE PROCESS

The TRC and Gwinnett County were supported by a consultant team throughout the process to provide the technical knowledge and expertise to develop feasible recommendations. For the TRC, Gwinnett County Department of Transportation (DOT) and consultant staff developed the initial schedule of meetings and content to be covered; with input from the TRC during the process, adjustments were made as needed. Some important tenets that directed the development of the TRC schedule and process included:

- **Educate before requesting input:** Meetings 1 through 5 focused on TRC organization and general transit planning education to ensure the TRC had background information from which to work.
- **Facilitate dialogue and collaboration:** Discussions were interwoven throughout the meetings to ensure valuable dialog amongst committee members from the very beginning of the TRC process. As the meetings progressed, discussions became more detailed and more impactful, and the committee worked together to develop plan recommendations.
- **Develop a feasible system:** DOT staff and consultants provided technical support to the committee to ensure that decisions being made were viable/feasible for a sustainable system.

## Education and Context

Providing relevant education and context before decision making was vital to the TRC process. The TRC process began with education on general transit planning principles and transit operating basics. The committee also received education regarding regional context to facilitate transit service beyond the County's boundaries. This regional context included understanding how Gwinnett fits into the rest of the region, projected growth and its impact on transit planning efforts, and how the creation of the ATL will alter transit planning in Metro Atlanta. The TRC also was educated on the Connect Gwinnett: Transit Plan's extensive technical analysis, public engagement, and plan recommendations to provide a context for the TRC.

## Rail Option Evaluation and Selection

Recognizing that a decision about rail investment would have substantial impacts for the rest of the plan recommendations, the TRC explored large-scale investments before proceeding with other decisions. Because the I-85 corridor is the highest transportation demand corridor in the County—and the only one that can support a major rail investment based on general transit planning principles—the TRC focused on this corridor and how far north to take Heavy Rail Transit (HRT) or Light Rail Transit (LRT). The County and consultants provided substantial flexibility for the committee to consider alternatives, with structure around what was technically sound and defensible.

## Long-Range Scenario Evaluation

Once the TRC made decisions about rail investments, DOT and consultants built scenarios based on these investments. For subsequent TRC decisions, it was important to provide constrained and technically sound transit scenarios while also providing room for adaptability and flexibility based on the TRC's discussion of these scenarios.

## Public Comment

The public was able to engage with the TRC as part of this process to ensure that the TRC was able to incorporate their direct input and feedback. For example, a public comment period was provided during each meeting and members of the public in attendance were given the opportunity to speak during this period. There also was an intentional focus on getting stakeholder community input at Meeting 5, which featured key representatives of communities and organizations coordinated by Nicole Hendrickson (Gwinnett County Community Outreach Director) and the TRC. Throughout the process, information was posted to the TRC webpage on the County's website, allowing the general community to access all information presented in a timely manner.

# EDUCATION AND CONTEXT

Over the course of the TRC process, Gwinnett DOT, Gwinnett County Transit, consultants, and other stakeholders and transit organizations provided education and context to the TRC for their planning purposes. By providing this background information, the TRC was well-positioned to make feasible and informed transit planning decisions. Education and context provided included: transit planning basics; county demographics; regional perspective; and an overview of the Connect Gwinnett: Transit Plan.

## Transit Planning Basics

A Transit Planning Workshop was held to provide the TRC a high-level overview of the transit planning process. This presentation also included regional/county context and demographics to better illustrate Gwinnett County's existing and future transit needs.

Transit planning basics covered included:

- Travel Choices and Why People Travel
- Factors of Mode Choice
- Quality of Service and Price and Availability
- The Transit "Toolbox"
- Common Transit Modes in the United States
- General Travel vs. Commuter Travel Modes
- Mode Operating Environments
- Capital Costs Involved in Paying for Transit
- Operations and Maintenance Costs
- State of Good Repair Costs

## County Demographics

The TRC was educated on various demographic details relevant to the transit planning process, including population and employment growth projections, low income and minority population densities, and paratransit considerations.

### *Population and Employment Growth*

Population and employment densities in Gwinnett today and projected for the future were examined by the TRC. Existing densities were based on American Community Survey (ACS) data from 2015 and projected densities were based on growth projections for 2030 and 2040 from the Atlanta Regional Commission (ARC). In 2015, population and employment densities were highly concentrated along the southern portion of the I-85 corridor. Over the course of the next 25 years, population and employment densities are projected to spread east, north and south. Areas with high population density tend to span farther from I-85 than high employment density areas. There are, however, projected pockets of high employment density outside of the I-85 corridor in locations such as Peachtree Corners, Lawrenceville and Snellville. Figure 2 shows the projected population and employment densities in Gwinnett County for 2040.

### *Low Income and Minority Populations*

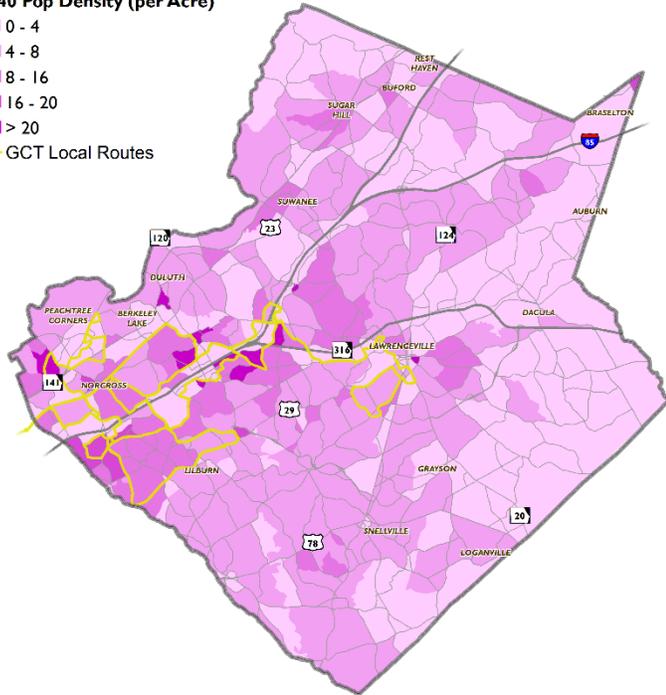
Low income and minority population maps, shown in Figure 3, are based on ACS data from 2015. Like population and employment growth, minority and low-income households tend to concentrate to the west along the I-85 corridor. Additionally, there is a large minority concentration in the southern portion of the County.

### *Paratransit Needs*

To create an inclusive and successful transit system, paratransit considerations are especially important to ensure the system provides for those who are mobility challenged. The Federal Transit Administration (FTA) mandates a ¾-mile buffer of paratransit from any fixed-route transit service; however, it is beneficial for a system to fill in the service gaps outside of these buffers to avoid having islands without service within the County. In addition to providing paratransit service areas, the TRC also was provided with additional details to support paratransit service, such as cost considerations, ease of rider use, and ADA-compliant vehicles.

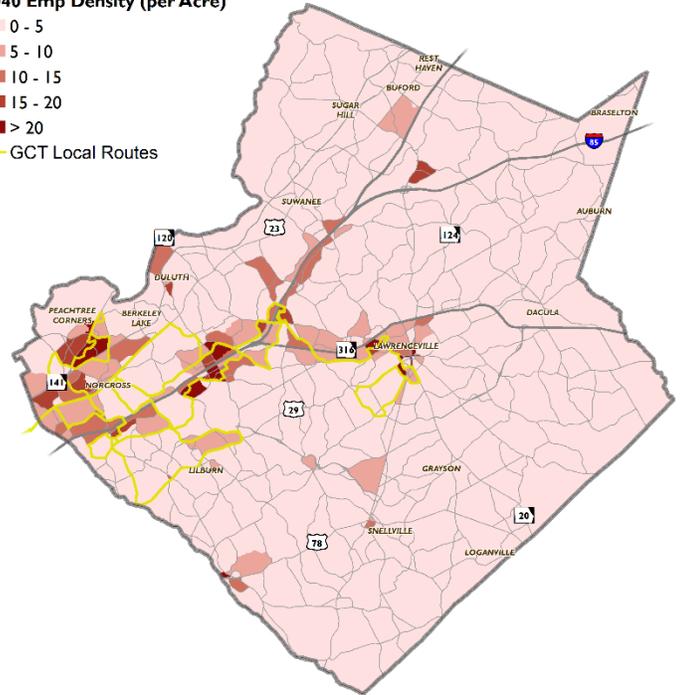
**2040 Pop Density (per Acre)**

- 0 - 4
- 4 - 8
- 8 - 16
- 16 - 20
- > 20
- GCT Local Routes



**2040 Emp Density (per Acre)**

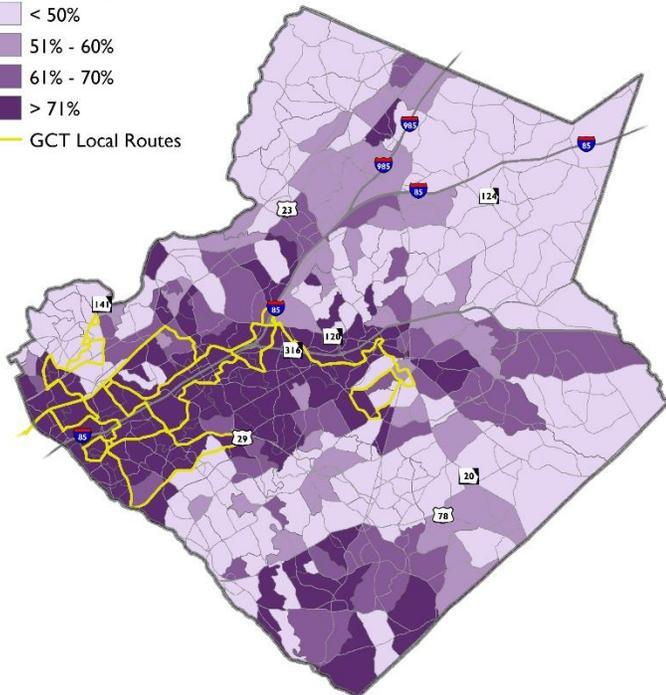
- 0 - 5
- 5 - 10
- 10 - 15
- 15 - 20
- > 20
- GCT Local Routes



**FIGURE 2. PROJECTED 2040 POPULATION AND EMPLOYMENT DENSITIES**

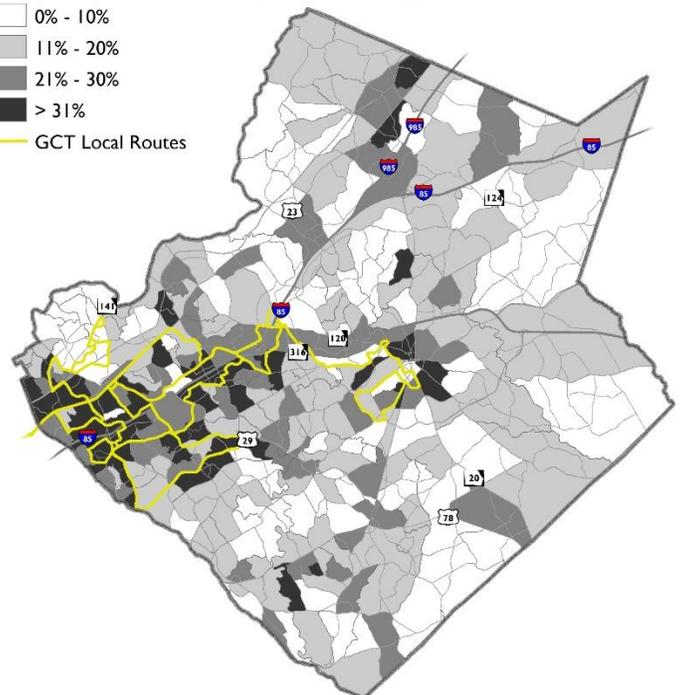
**Percent Minority**

- < 50%
- 51% - 60%
- 61% - 70%
- > 71%
- GCT Local Routes



**Percent Low-Income Households (<\$25,000 Annually)**

- 0% - 10%
- 11% - 20%
- 21% - 30%
- > 31%
- GCT Local Routes



**FIGURE 3. 2015 MINORITY AND LOW-INCOME DENSITIES**

## Regional Perspective

The Atlanta Regional Commission (ARC) is the regional commission (RC) for the 10 core counties of Metro Atlanta and the metropolitan planning organization (MPO) for the larger 20-county Metro Atlanta area. ARC is tasked with developing a long-range transportation plan (The Atlanta Region's Plan) to prioritize the next 25 years of transportation investments. A representative from the ARC briefed the TRC on the growth projected to occur in the region over the next 30 years, the changing demographics anticipated with this growth, and the impact of the growth on Gwinnett County.

The Atlanta Transit Link (The ATL) is the regional organization designated for transit planning in the Metro Atlanta area, ensuring coordinated planning and funding of transit. A representative from The ATL briefed the TRC on the key functions and activities of The ATL. The key functions and activities of The ATL include:

- Regional Coordination
- Regional Transit Plan, Policies, and Standards
- Annual Report/Audit
- Transit Technology and Innovation
- Regional Funding
- Regional Unified Branding
- Transit Planning Services

The full presentations by ARC and The ATL staff are included in the **Meeting Summary Appendix**.

## Connect Gwinnett: Transit Plan

The Connect Gwinnett: Transit Planning team presented an overview of the Connect Gwinnett: Transit Plan, which was adopted by the Board of Commissioners in July 2018. This presentation provided the TRC with a baseline understanding of the planning effort that went into those recommendations.

The presentations included details on both the technical analysis and the robust community engagement process that supported plan development, including the evolution of the plan from early transportation visioning and community input beginning with Destination2040 (Gwinnett County's Comprehensive Transportation Plan). The TRC was educated on various phases of the plan, with a focus on the Long-Range Phase 1 plan, which is the financially constrained recommendation for the County's long-term transit future. The adopted Long-Range Plan from Connect Gwinnett is shown in Figure 4.

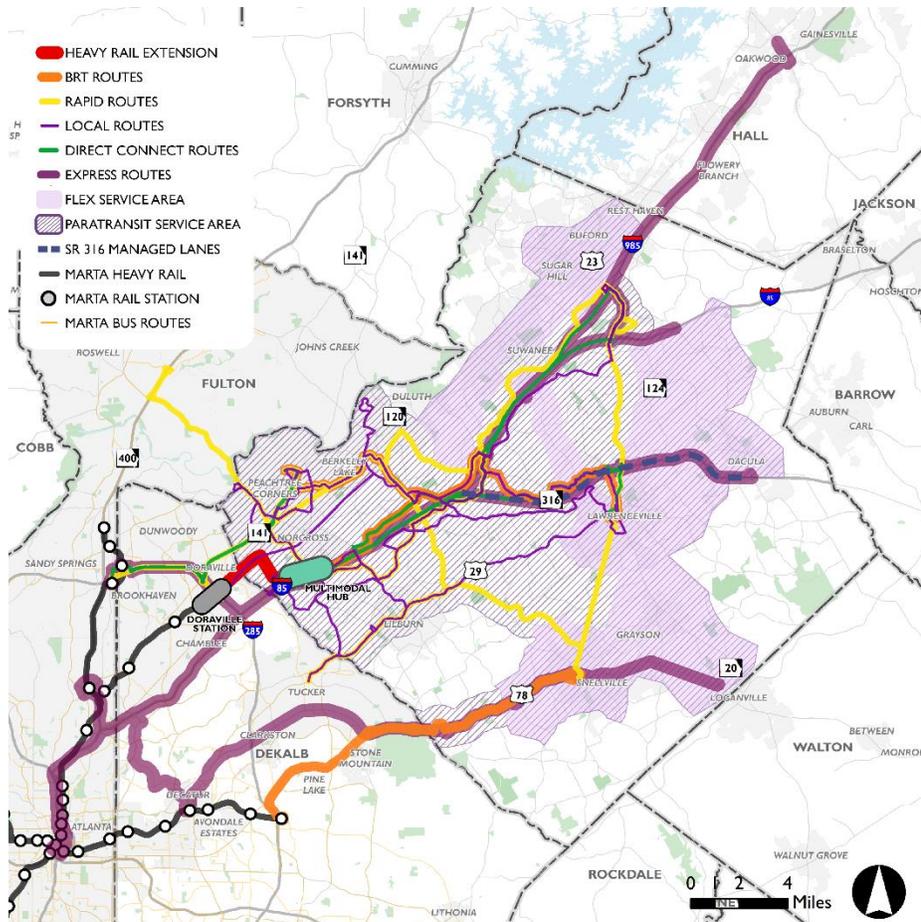


FIGURE 4. CONNECT GWINNETT LONG-RANGE PHASE 1

# RAIL OPTION EVALUATION

Defining the role of rail transit in any countywide transit planning effort is a key decision required early in the development of detailed scenarios. Rail transit has the potential to move a much greater number of people than other modes. It also influences the transit system design around it. However, plans that include more expensive rail transit will in turn have less money available for other transit modes and programs.

## Modal Options

The TRC considered options including Heavy Rail, Light Rail, and no rail in Gwinnett County.

### *Heavy Rail*

Heavy Rail systems operate at high speed in a guideway that is fully grade-separated from other modes due to the requirements of an electrified third rail. The fully separated guideway allows for long, multi-car trains operating at high speed, which in turn provides high levels of capacity that can serve high levels of ridership. The requirement for separated guideway significantly increases costs as either the rail or any crossing roadways must be depressed in a tunnel/trench or raised on an aerial structure. Heavy Rail curves are limited to a larger radius to ensure rider comfort and higher speeds and thus often require greater right-of-way. Heavy Rail is the costliest of all the modal options due to the need for completely separated guideway, additional traction power, signaling systems requirements, and the likelihood of greater right-of-way. The estimated cost per mile for the Heavy Rail alignments presented to the TRC was approximately \$237 million. Examples of Heavy Rail systems include MARTA, the Washington D.C. Area Metro, and the San Francisco Bay Area's BART system.

### *Light Rail*

Light Rail systems are not required to operate in a fully grade-separated guideway because they are powered by an overhead catenary wire system. Light Rail systems typically operate in an exclusive right-of-way, typically in dedicated rail corridors or in dedicated transit lanes on existing roadways but with interaction with general vehicular traffic limited to grade crossings and intersections. Light Rail has a lower capacity than Heavy Rail, as Light Rail train sets are typically shorter than Heavy Rail train sets and operate at lower speeds. Stations are typically more frequent on Light Rail than they are on Heavy Rail due to a smaller footprint and lower operating speeds. Due to the lessened need for vertical structures and reduced right-of-way requirements, Light Rail is less expensive than Heavy Rail. The estimated cost per mile for Light Rail presented to the TRC was approximately \$137 million. Examples of Light Rail systems include the Lynx Blue Line in Charlotte, MBTA Green Line in Boston, and Metro Blue Line in Minneapolis.

### *No Rail*

In the No Rail Scenario, neither Heavy Rail nor Light Rail are included in the plan. The elimination of rail frees up funds to expand Bus Rapid Transit (BRT) service, improve the level and quality of service, and invest in other transit-supportive programs. BRT is sometimes referred to as "Light Rail on wheels." Higher quality implementations of BRT include exclusive guideway and high-quality stations. BRT does not require the placement of track and electric power infrastructure and it can operate in mixed-flow conditions in locations where an exclusive guideway may be prohibitively expensive. The estimated cost per mile for BRT projects in the Connect Gwinnett: Transit Plan ranges from \$15 to \$30 million.

## Location Options

The TRC considered rail systems that extend from the existing Doraville station to four potential locations:

- Jimmy Carter Boulevard and I-85
- Gwinnett Place Mall
- Infinite Energy Center
- Mall of Georgia

For scenarios including Heavy Rail, stations would only be placed at the above-noted locations (e.g., Mall of Georgia scenario includes intermediate stations at Jimmy Carter Blvd., Gwinnett Place Mall, and Infinite Energy Center). Light Rail scenarios would likely include additional stations placed between the above-noted locations.

Under a No Rail Scenario, the above-noted locations would be served by BRT and increased levels of service on non-BRT routes to improve network connections to the Doraville and Chamblee MARTA Stations.

## **Funding Options**

The TRC also considered different sales tax funding options (one cent, 0.75-cent and 0.5-cent). All rail scenarios assume leveraging federal funds and establish a finite amount of funding available to pay for rail options.

## **Factors for Rail Option Evaluation**

The TRC evaluated each option based on the following factors.

### *Cost and Funding Feasibility*

High-level capital cost estimates were developed by the consultant team for Heavy Rail and Light Rail construction from Doraville to each of the four locations in the County. Cost estimates are summarized in **Scenario Evaluations Appendix**.

Cost estimates for all proposed rail modes and alignments were compared to potential funding options to identify rail options that exceed available funding. The cost-prohibitive rail options are:

- Heavy Rail to Mall of Georgia (all funding scenarios): even with a full 1-cent sales tax, all revenues are expended to pay for capital costs, leaving no funds for rail operations and maintenance, or for other transit services.
- Light Rail to Mall of Georgia (0.5-cent sales tax): A 0.5-cent sales tax does not provide funds needed to completely cover capital costs and would not provide funding for operations or maintenance.
- Heavy Rail to Gwinnett Place Mall or Infinite Energy Center (0.5-cent sales tax): A 0.5-cent sales tax does not provide funds needed to completely cover capital and operating costs.

The feasibility of federal funding was also discussed by the TRC. All funding options assume federal funds pay for a portion of capital costs. Federal funds are from a competitive grant program where Gwinnett County would have to compete against other prospective transit projects from around the country. As reflected in traffic volumes on I-85 as well as typical patterns found throughout the existing MARTA system, rail ridership is likely to drop as the line extends further north. As a result, the rail line progressively provides fewer benefits per mile or per dollar as it extends north. Thus, the competitiveness of the rail extension for federal funds becomes more tenuous with each rail extension.

### *Modal Trade-Off's*

Each rail option comes with various trade-offs in terms of the coverage and connectivity. Rail options that extend farther into the County provide a greater level of coverage for high-capacity transit service and increase capacity for the spine of the transit system. Heavy Rail provides the greatest capacity and speeds and best integrates with the existing MARTA network. Light Rail requires a passenger transfer to Heavy Rail at Doraville Station for any continued travel south of Doraville, thus making the service less desirable to potential riders. However, Light Rail has opportunities for additional station stops than Heavy Rail (due to the reduced costs) thus increasing accessibility. Any rail extension (Heavy Rail or Light Rail) results in additional capital and operating costs, thus limiting funds available for improved bus service in other areas of the County.

### *Transit Network Implications*

The transit program must be constrained by funds expected to be available. There is a trade-off between costs and benefits associated with rail extensions and those associated with non-rail modes. Since rail is substantially more expensive than other modes, each mile of rail requires a much larger reduction in the miles of other transit service provided elsewhere in the County.

## Shortlisted Scenarios

After considering the above factors, the TRC elected to eliminate options that included Light Rail. Because operational characteristics of BRT are similar to Light Rail, the committee deemed the significant additional expense required for Light Rail did not justify its limited benefits. Additionally, the committee eliminated options that extend rail beyond Gwinnett Place Mall due to added costs and subsequent impacts to coverage and service in the rest of the County.

The TRC ultimately shortlisted three scenarios to study further. All three scenarios assume a 1-cent sales tax. These included:

- **Scenario 1 – Heavy Rail to Jimmy Carter Boulevard:** This scenario provides Heavy Rail service from Doraville to Jimmy Carter Boulevard and includes a balance of other services across Gwinnett County.
- **Scenario 2 – Heavy Rail to Gwinnett Place:** This scenario provides Heavy Rail service to Gwinnett Place Mall with an intermediate stop at Jimmy Carter Blvd. Compared to Scenario 1, this option reflects reducing other service to accommodate the expanded rail system.
- **Scenario 3 – No Rail:** This scenario provides high-capacity BRT service to Doraville Station. Because of the elimination of rail, this scenario provides expanded frequency and spans of service for local routes, ART and BRT services in additional corridors of the County, and greater capital improvements at park-and-ride lots and to I-85 for Express Commuter service.

# FUNDING ASSUMPTIONS EVALUATION

County consultant staff presented to the TRC a summary of key federal, state, and local funding assumptions that were used in the Connect Gwinnett: Transit Plan. Key assumptions include:

- A 1 percent sales tax was estimated to generate approximately \$5.6 billion over 30 years (2018 dollars)
- The 30-year plan's total expenditures were \$7.1 billion (2018 dollars)
- With exception of the I-85 Corridor BRT project, capital funding assumptions for federally-eligible corridor projects (e.g., rail, BRT) were: 45% federal, 5% state and 50% local
- The I-85 Corridor BRT project was assumed to be funded through the Federal Administration's "Small Starts" Capital Investment Grant program, which limits federal funding at \$100 million; \$100 million equates to 33% of the estimated project cost
- Non-federal projects assume 90% local and 10% other funds
- Bus purchases assume 60% federal and 40% local funds
- Funding for annual Operations and Maintenance (O&M) costs are based on a mix of federal, state, local, farebox and other funds and reflect assumptions that pivot from existing Gwinnett County Transit funding experiences

Recently, ATL staff completed a comprehensive review of average federal funding levels in FTA's Capital Investment Grant (CIG) program. Average funding for all modes was found to be 37.53% for new transit projects (21 projects were reviewed). Heavy Rail projects (3 projects) had an average federal funding share of 39%. However, BRT projects (12 projects) had an average federal funding share of 57%.

Gwinnett County staff recommended that federal funding participation assumptions be modified based on this recent analysis conducted by the ATL. Specific revisions to funding recommendations are:

- 35% federal funding for non-BRT high capacity projects, which aligns with regional policy direction from the ATL
- 50% federal funding for BRT projects, which aligns with recent FTA participation levels per the ATL CIG projects analysis

The TRC approved this recommendation at its November 20<sup>th</sup> meeting for staff to proceed with these revised funding assumptions.

# SCENARIO EVALUATIONS

Following shortlisting of the two rail scenarios and one no rail scenario by the TRC, staff further developed scenarios to include additional service types based on feedback from the TRC.

Scenario 1, Heavy Rail to Jimmy Carter Boulevard, was developed as a modified version of the Connect Gwinnett: Transit Plan that includes additional service elements that the TRC identified as missing from the original plan. Scenario 2, Heavy Rail to Gwinnett Place, was developed with reductions in service across the County compared to the other scenarios to cover costs for the expanded rail. Scenario 3, No Rail, was developed with expanded service coverage and more non-rail high capacity transit options when compared to the other scenarios due to the additional funding available without rail investment.

The shortlisted scenarios were reviewed by the TRC and were evaluated with metrics that centered around the following themes: Coverage, Reliability, and Regional Connectivity. The evaluation process provided the TRC with a means to easily and quickly compare the three scenarios to the Connect Gwinnett: Transit Plan and to each other. The following sections outline the three themes used for evaluation. The details on how each scenario performed for the three themes are found in **Scenario Evaluations Appendix**.

## Coverage

Coverage considers how accessible the transit system would be based on its geographic location—essentially, how much of the County would be along, near, or covered by the various transit services proposed. The TRC considered the following five metrics to measure each plan’s effectiveness in addressing coverage:

*2040 Population Served* – The Atlanta Regional Commission’s (ARC’s) 2040 population forecasts were used to determine population with access to each scenario’s proposed transit network. Access was defined as anywhere within ¼ mile of a proposed Local stop; ½ mile of a proposed Heavy Rail, BRT, or ART stop; or within a Flex service zone. According to research from the Federal Highway Administration, people are more likely to walk a little further to a premium service with high frequencies.

*2015 Minority Population Served* – The 2015 American Community Survey (ACS) was used to measure minority populations served, using the same buffers as described above for the 2040 population analysis.

*2015 Low Income Population Served* – The 2015 American Community Survey (ACS) was used to measure low income populations served, using the same buffers as described above for the 2040 population analysis.

*2015 Age 65+ Population Served* – The 2015 American Community Survey (ACS) was used to measure age 65+ populations served, using the same buffers as described above for the 2040 population analysis.

*Percent of County Area with Paratransit Service* – A ¾ mile buffer was drawn along each proposed Local and premium service route (not including Express Commuter routes). Small “remnant” areas between route buffers were included and assumed to be served with paratransit service. All Flex zones were included. Square mileage was calculated and then divided into the County’s total square mileage to determine the percent of County area with paratransit service coverage.

## Reliability

Reliability is an important factor when individuals decide whether or not to take transit. They want to know if the service will be on schedule and if it will get them to their destination in a timely manner. The transit operating environment has a significant impact on service reliability. Transit services operating in dedicated right-of-way are more likely to operate on-schedule and at speeds that are competitive to the automobile.

The three scenarios include three types of services with various levels of dedicated right-of-way:

- **Heavy Rail Transit:** Rail service in completely dedicated right-of-way, operating at high speeds, and with high passenger capacity.
- **Bus Rapid Transit:** High quality service with branded vehicles that are assumed to operate on streets, but primarily in dedicated lanes (e.g., dedicated curb or center lanes). Buses will have to operate through

signalized intersections, but many of these intersections would be equipped with transit signal priority (TSP) treatments, which reduce the wait times at traffic signals for buses. Stop spacing is also limited to an average of ½ mile to 1 mile, resulting in faster operating speeds. The Connect Gwinnett: Transit Plan includes three proposed BRT routes.

- **Arterial Rapid Transit (ART):** Bus routes that operate on streets, primarily in mixed traffic, but with capital investments that will provide these routes with faster travel times than Local Bus service. ART corridors may include TSP, queue jumpers and dedicated transit lanes at select locations. Stop spacing is also assumed to be less frequent than Local routes. The Connect Gwinnett: Transit Plan includes several proposed ART routes branded as Rapid routes.

Reliability was measured based on each scenario's route miles for HRT, BRT and ART service, and the percent of the scenario costs that are dedicated to these higher reliability services.

## Regional Connectivity

The last set of metrics is associated with regional connectivity. Existing travel pattern analyses presented to the TRC showed a significant amount of Gwinnett County trips crossing the County line on a daily basis, emphasizing the importance of regional connectivity. Metrics used to measure regional connectivity are as follows:

- **Miles of Routes Outside of the County:** the route miles for proposed service that would operate outside of the County (e.g., Express Commuter routes from the County line to downtown Atlanta; Local, ART, and BRT routes connecting outside of the County, such as to Perimeter Center, Doraville MARTA station, and Indian Creek MARTA station).
- **Number of Routes with Service Outside of the County:** This counts the number of Local and Express Commuter routes that cross the County line to destinations outside of the County.
- **% of Scenario Cost of Routes Providing Service Outside of the County:** This metric totals the capital and O&M costs associated with routes that are crossing the County line.

## Committee Discussion

Two TRC meetings were devoted to discussion of the transit service plan scenarios and resulting evaluation metrics. A full summary of discussion is provided in **Meeting Summaries Appendix**. In general, there was consensus that a rail extension to Gwinnett Place Mall that is reflected in Scenario 2 is beneficial, but the bus service reductions required to remain within fiscal constraints result in too much of a reduction in coverage and service reliability in other parts of the County. There was a desire by many on the TRC to include rail to Gwinnett Place Mall as an aspirational service plan objective, but not as part of the fiscally-constrained plan. Some TRC members felt that Scenario 3 (No Rail) includes significant service enhancements that would benefit the County, but the improvements gained over Scenario 1 (Rail to Jimmy Carter) with regards to coverage, service reliability, and regional connectivity were not substantial enough to eliminate rail completely from the plan. Further, many TRC members felt it was vitally important that the plan include the start of rail in the I-85 corridor.

The TRC ultimately voted to select Scenario 1 (Rail to Jimmy Carter) as the scenario to fully develop for recommendation and to include the Heavy Rail extension to Gwinnett Place as an aspirational, non-financially constrained item. 7 members voted in favor, 2 members voted against, and 1 member abstained.

# PUBLIC COMMENT SUMMARY

Public engagement is critical to any successful planning process to ensure the plan reflects the needs and desires of the community. Although a BOC-requested committee, it was still important to ensure opportunities for the public to engage in the TRC process. A public comment period offered during each meeting allowed the TRC to gain input from the greater community they are representing.

## Overview and Comment Summary

A public comment period was provided during each meeting, giving every person in attendance the opportunity to provide feedback and direction to the TRC. Attendees were invited to sign-in to secure a three-minute time slot to share their ideas and opinions with the TRC. Common themes emerged in the public comments received over the TRC process. A brief summation of comments is provided below:

- The public was generally **divided on the most appropriate mode of transit** for Gwinnett County. Some were in favor of HRT and LRT, with a larger majority in favor of BRT due to its cost efficiencies; however, some commenters were concerned that low-density and low-ridership would make transit investments ineffective.
- Many comments reflected the public's **desire for increased connectivity** throughout the County and Metro region. Some commenters stated a need for better connections to Fulton County, DeKalb County, Jimmy Carter Boulevard, Infinite Energy Center, and Mall of Georgia.
- Numerous members of the public were interested in **service improvements** beyond new routes (i.e., a faster way to load Breeze cards, increased transit routes and times, easier route transfers, more flexibility, etc.).
- Some offered **creative solutions to support the system**, including creating bus-only lanes and better promoting/advertising the use of transit.
- There was some **concern over increased property values and gentrification** due to transit as well as concern about the potential for transit to be an ineffective use of tax dollars.

## Stakeholder Communities and Organizations

Meeting #5, held on November 11, 2019, intentionally focused on gathering stakeholder input from underrepresented populations. Through coordination with Nicole Hendrickson (Gwinnett County Community Outreach Director), key representatives from these communities and organizations were identified to speak with the TRC about transit. These stakeholder groups included: Korean American Association/Korean American Coalition, The Exceptional Foundation of Atlanta, Vietnamese American Community of Georgia, Georgia Gwinnett College, and United Ebony Society. The stakeholders provided a wide range of experiences to better inform transit planning for all segments of Gwinnett County. Comments from stakeholders included:

- Some expressed that the off-cycle referendum vote, voting locations, and translation challenges **discouraged voting in the election**; there was also a sentiment that the tax would not benefit them directly
- Many were excited about the **economic potential** that transit expansion may have along the I-85 corridor
- Several noted a lack of transit access disproportionately affecting disadvantaged populations
- The student population was especially interested in **transit as an affordable, accessible option** to travel in the County between school, work, and places for entertainment

## Additional Resources

A TRC-specific webpage on the County's main website acted as an additional resource for the community to engage with the planning process. Information from meetings was posted to the website in a timely manner so the public had access to the materials used at the TRC meetings to stay up-to-date in the event they could not attend in-person.

# FINAL RECOMMENDATIONS

The TRC-Selected Plan reflects numerous changes from the Connect Gwinnett: Transit Plan. It includes additional Local and inter-county bus service, expanded paratransit service and earlier implementation of service expansion projects. It also includes an aspirational plan that extends Heavy Rail to Gwinnett Place Mall and adds additional bus services. Following are descriptions of each proposed phase of the TRC-Selected Plan and comparisons of each phase to the corresponding Connect Gwinnett: Transit Plan.

## Short-Range Plan (By Year 5)

Significant plan elements in the Short-Range Plan are as follows:

- Local route service expansion from 7 existing routes to a total 16 routes providing transit to areas presently without Local service, such as Snellville, Suwanee/Sugar Hill and Buford/Mall of Georgia
- Saturday and later evening Local service expansion
- Two new Direct Connect Routes (limited stop all-day services that provide connectivity between MARTA rail and Gwinnett County park-and-ride lots and transit centers)
- One new Express Commuter route in the SR 316 corridor serving new park-and-ride lots in Dacula and Lawrenceville
- Two new Flex Zones introduced in the Snellville and the Buford/Sugar Hill areas (on-demand service similar to GCT’s recent Microtransit pilot program that operated in the Snellville area that ended in April 2019)
- Paratransit expansion in association with Local and Flex Zone expansion, with gaps between routes filled in to provide continuous paratransit coverage

Table 1 summarizes Short-Range Plan service expansion elements beyond existing service conditions.

**TABLE 1. NEW SHORT-RANGE PLAN SERVICE**

LOCAL	DIRECT CONNECT
<ul style="list-style-type: none"> <li>• Lilburn – Peachtree Corners</li> <li>• Infinite Energy Center – Duluth</li> <li>• Infinite Energy Center – Suwanee/Sugar Hill</li> <li>• Snellville – Lawrenceville</li> <li>• Lawrenceville – DeKalb County (US 29)</li> <li>• Snellville – DeKalb County (US 78)</li> <li>• Peachtree Corners – Gwinnett Place</li> <li>• Lawrenceville – Buford/Mall of GA</li> </ul>	<ul style="list-style-type: none"> <li>• Mall of GA – Chamblee</li> <li>• Lawrenceville – Chamblee</li> </ul>
	<b>EXPRESS COMMUTER</b>
	<ul style="list-style-type: none"> <li>• Dacula-Lawrenceville-Atlanta</li> </ul>
	<b>FLEX ZONES</b>
	<ul style="list-style-type: none"> <li>• Buford/Sugar Hill</li> <li>• Snellville</li> </ul>

Table 2 summarizes the number of routes for each service type following the Short-Range Plan implementation.

**TABLE 2. SHORT-RANGE PLAN SERVICE SUMMARY**

SERVICE TYPE	NUMBER OF ROUTES	
	EXISTING SERVICE	SHORT-RANGE PLAN
<b>Local</b>	7	16 <sup>1</sup>
<b>Flex</b>	0	2
<b>Express Commuter</b>	5	5 <sup>2</sup>
<b>Direct Connect</b>	0	2
<b>Total</b>	<b>12</b>	<b>25</b>

<sup>1</sup> Existing Route 35 (from Doraville to Peachtree Corners) is split into two routes in the Short-Range Plan

<sup>2</sup> Existing Express Commuter Route 103A is discontinued in the Short-Range Plan

In addition to service expansion, new or expanded transit facilities in the Short-Range Plan include:

- A new maintenance facility in the Lawrenceville area
- Two new park-and-ride lots in Dacula and Lawrenceville
- Gwinnett Place Transit Center upgrades
- New transit centers at Downtown Lawrenceville and Georgia Gwinnett College

*Comparison to Original Connect Gwinnett: Transit Plan*

Table 3 presents Short-Range Plan service statistics with a comparison of TRC-Selected Plan service to the original Connect Gwinnett: Transit Plan. As noted in this table, the TRC-Selected Plan expends more funds and provides more transit service hours than the original Connect Gwinnett service plan. Note that the surplus at the end of 5-years is needed for large capital projects programmed in later phases of the plan period.

**TABLE 3. SHORT-RANGE PLAN SERVICE PLAN COMPARISON**

PLAN METRIC	CONNECT GWINNETT SHORT-RANGE PLAN	TRC-SELECTED SHORT-RANGE PLAN
<b>Increase in Bus-Hours<sup>1</sup> from the Existing System<sup>2</sup></b>	136%	162%
<b>Total Operating Cost through Short-Range Plan and % of Total Operating Plan Cost (YOES)</b>	\$149 million (3%)	\$158 million (3%)
<b>Short-Range Plan Sales Tax Surplus Funds (YOES)</b>	<b>\$522 million</b>	<b>\$492 million</b>

<sup>1</sup> Bus-hours are estimates based on planned Local, Flex, Direct Connect, Express Commuter, ART, and BRT services

<sup>2</sup> 2017 GCT service-levels

Table 4 presents the percent change of different population groups served by the Short-Range TRC-Selected Plan compared to the original Connect Gwinnett: Transit Plan. As noted in this table and seen in the maps in Figure 5 and Figure 6, the three additional Local routes implemented in the Short-Range of the TRC-Selected Plan provide increases in population with access to Local service. The population served by Flex Zones does not change from Connect Gwinnett because the same Flex Zones are implemented in the TRC-Selected Plan.

**TABLE 4: SHORT-RANGE PERCENT CHANGE IN COVERAGE FROM CONNECT GWINNETT BY MODE**

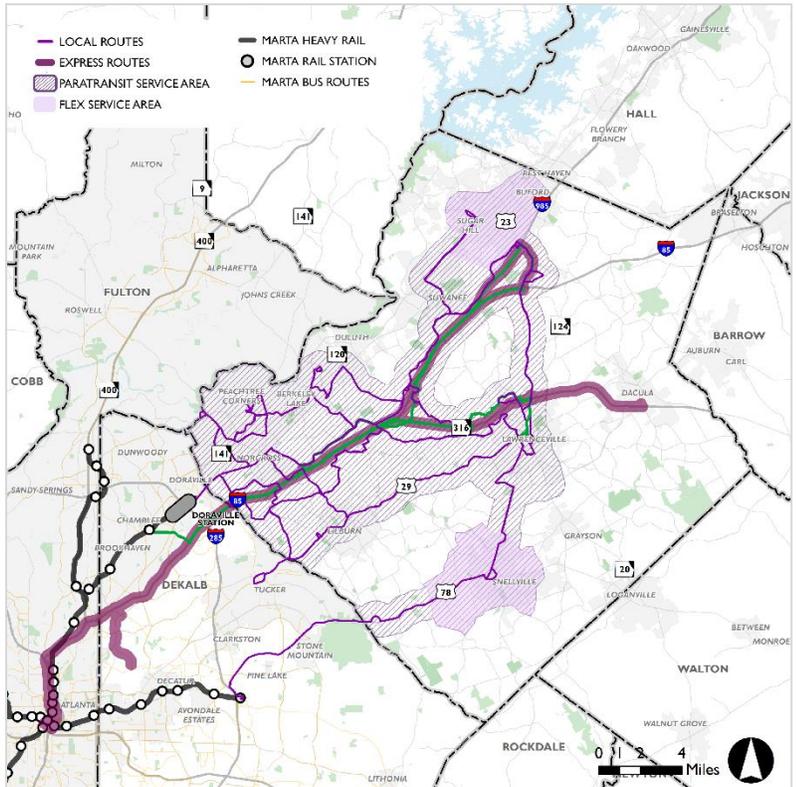
SERVICE TYPE	2040 POPULATION SERVED	2015 MINORITY POPULATION SERVED	2015 LOW INCOME POPULATION SERVED
<b>Local<sup>1</sup></b>	21%	17%	11%
<b>Flex Zones<sup>2</sup></b>	0%	0%	0%

<sup>1</sup> Population within ¼ mile of Local service

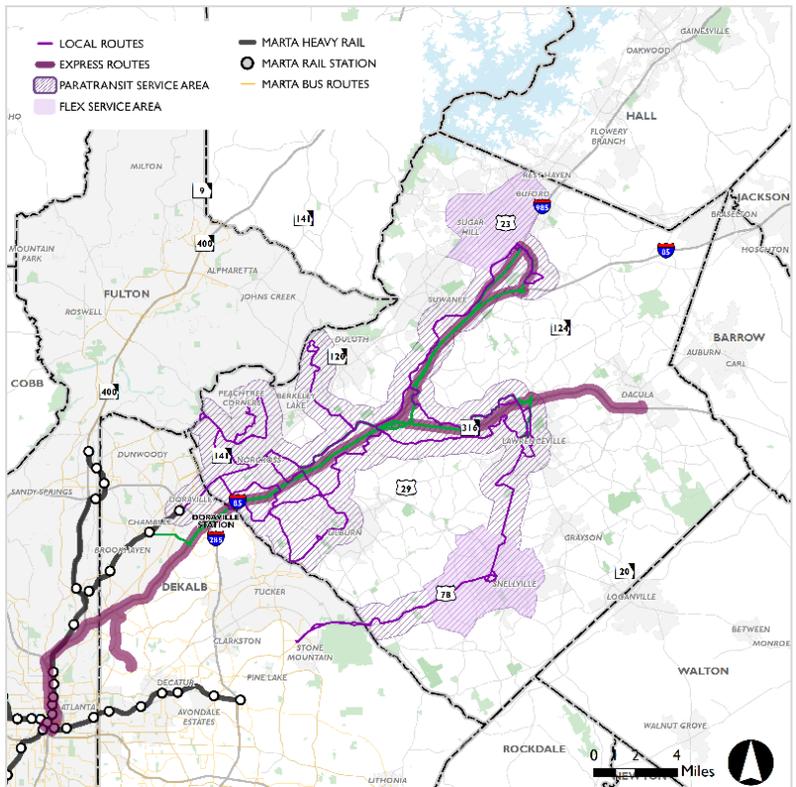
<sup>2</sup> Population within Flex Zones

One of the three additional Local routes implemented in the Short-Range TRC-Selected Plan also provides a regional connection to Tucker in DeKalb County that is not present in the Short-Range of Connect Gwinnett. Additionally, the Local route along Highway 78 in the Short Range TRC-Selected Plan serves Indian Creek MARTA Station, a service that is not provided until the Mid-Range of Connect Gwinnett.

Figure 5 presents the Short-Range Plan of the TRC-Selected Plan, and Figure 6 presents the Short-Range of the original Connect Gwinnett Plan for comparison.



**FIGURE 5. SHORT-RANGE PLAN FOR TRC-SELECTED PLAN**



**FIGURE 6. SHORT-RANGE PLAN FOR CONNECT GWINNETT**

## Mid-Range Plan (By Year 10)

Significant plan elements in the Mid-Range Plan are as follows:

- Introduction of Bus Rapid Transit (BRT) service into the County with two BRT routes that include dedicated lanes, transit signal priority, off-board fare payment, level boarding, and specific branding between the following locations:
  - Doraville and Sugarloaf Mills via the Satellite Blvd corridor
  - Lawrenceville and Peachtree Corners
- Introduction of Arterial Rapid Transit (ART) services into the County with three ART routes that include elements to improve speed and reliability such as queue jumpers, transit signal prioritization and less frequent bus stops, but with significantly less dedicated lanes than BRT service are introduced between the following locations:
  - Snellville and Mall of Georgia/I-985
  - Doraville and Sugarloaf Mills via SR 141
  - Snellville and Peachtree Corners
- Four new Express Commuter routes (nine total including Short-Range expansion)
- Six new Local routes (17 total including Short-Range expansion; 5 Short-Range Local routes are upgraded to either BRT or ART service in the Mid-Range)
- Expanded Sunday service for some Local routes
- Five new Flex Zones (seven total including Short-Range expansion)
- Paratransit expansion in association with Local and Flex Zone expansion, with gaps between routes filled in to provide continuous paratransit coverage

Table 5 summarizes Mid-Range Plan service expansion elements.

**TABLE 5. NEW MID-RANGE PLAN SERVICE**

LOCAL	EXPRESS COMMUTER
<ul style="list-style-type: none"> <li>• Sugarloaf-Mall of GA (Brown Rd/Horizon Dr.)</li> <li>• Jimmy Carter Blvd.–North Fulton</li> <li>• Five Forks Trickum Road</li> <li>• Norcross-Lilburn</li> <li>• Snellville-Centerville-DeKalb County</li> <li>• Gwinnett Place-Duluth</li> </ul>	<ul style="list-style-type: none"> <li>• Peachtree Corners-Perimeter</li> <li>• Loganville/Snellville-CDC</li> <li>• Dacula-Lawrenceville-Perimeter</li> <li>• Braselton-Chamblee</li> </ul>
ART	FLEX ZONES
<ul style="list-style-type: none"> <li>• Snellville-Mall of GA/I-985</li> <li>• Snellville-Peachtree Corners</li> <li>• Doraville-Gwinnett Transit Center (via PIB)</li> </ul>	<ul style="list-style-type: none"> <li>• Lawrenceville</li> <li>• Dacula-Lawrenceville</li> <li>• Lawrenceville-Suwanee</li> <li>• Loganville-Lawrenceville</li> <li>• Hamilton-Lawrenceville</li> </ul>
BRT	
<ul style="list-style-type: none"> <li>• Doraville-Sugarloaf</li> <li>• Lawrenceville-Peachtree Corners</li> </ul>	

Table 6 summarizes the number of routes for each service type following the Mid-Range Plan implementation.

**TABLE 6. MID-RANGE PLAN SERVICE SUMMARY**

SERVICE TYPE	NUMBER OF ROUTES	
	SHORT-RANGE PLAN	MID-RANGE PLAN
<b>BRT</b>	0	2
<b>ART</b>	0	3
<b>Local</b>	16	17
<b>Flex</b>	2	7
<b>Express Commuter</b>	5	9
<b>Direct Connect</b>	2	2
<b>Total</b>	<b>25</b>	<b>40</b>

In addition to service expansion, new or expanded transit facilities in the Mid-Range Plan include:

- New transit center at Infinite Energy
- Three new park-and-ride lots (Braselton-Gravel Springs, Loganville, Peachtree Corners) and
- Upgrades to existing Sugarloaf Park-and-Ride and Snellville Park-and-Ride

*Comparison to Original Connect Gwinnett: Transit Plan*

Table 7 presents Mid-Range Plan service statistics with a comparison of TRC-Selected Plan service to the original Connect Gwinnett: Transit Plan. As noted in this table, the TRC-Selected Plan expends significantly more funds and reflects faster service expansion over the initial 10-year period than the original Connect Gwinnett service plan. Note that the surplus at the end of 10-years is needed for large capital projects programmed in later phases of the plan period.

**TABLE 7. MID-RANGE PLAN SERVICE PLAN COMPARISON**

PLAN METRIC	CONNECT GWINNETT MID-RANGE PLAN	TRC-SELECTED MID-RANGE PLAN
<b>Increase in Bus-Hours<sup>1</sup> from the Existing System<sup>2</sup></b>	242%	608%
<b>Total Operating Cost through Mid-Range Plan and % of Total Operating Plan Cost (YOES)</b>	\$393 million (9%)	\$552 million (9%)
<b>Total Capital Cost through Mid-Range Plan and % of Total Capital Plan Cost (YOES)</b>	\$1.5 billion (24%)	\$2.3 billion (44%)
<b>Mid-Range Plan Sales Tax Surplus Funds (YOES)</b>	\$663 million	\$158 million

<sup>1</sup> Bus-hours are estimates based on planned Local, Flex, Direct Connect, Express Commuter, ART, and BRT services

<sup>2</sup> 2017 GCT service-levels

Table 8 presents the percent change of different population groups served by the Mid-Range of the TRC-Selected Plan compared to the original Connect Gwinnett: Transit Plan. As noted in this table, the TRC-Selected Plan greatly increases the coverage provided in the Mid-Range compared to Connect Gwinnett, particularly in coverage of High-Capacity and Flex Zone Services. The large increases are the result of the implementation of many more services in the Mid-Range of the TRC-Selected Plan. In addition to increasing service coverage, the Mid-Range of the TRC-Selected Plan includes services to Lithonia via Centerville and North Fulton via Holcomb Bridge Road that were not included in the Mid-Range of Connect Gwinnett.

**TABLE 8: MID-RANGE PERCENT CHANGE IN COVERAGE FROM CONNECT GWINNETT BY MODE**

SERVICE TYPE	2040 POPULATION SERVED	2015 MINORITY POPULATION SERVED	2015 LOW INCOME POPULATION SERVED
<b>BRT and ART<sup>1</sup></b>	325%	242%	192%
<b>Local<sup>2</sup></b>	16%	12%	10%
<b>Flex Zones<sup>3</sup></b>	197%	233%	201%

<sup>1</sup> Population within ½ mile of ART and BRT service

<sup>2</sup> Population within ¼ mile of Local service

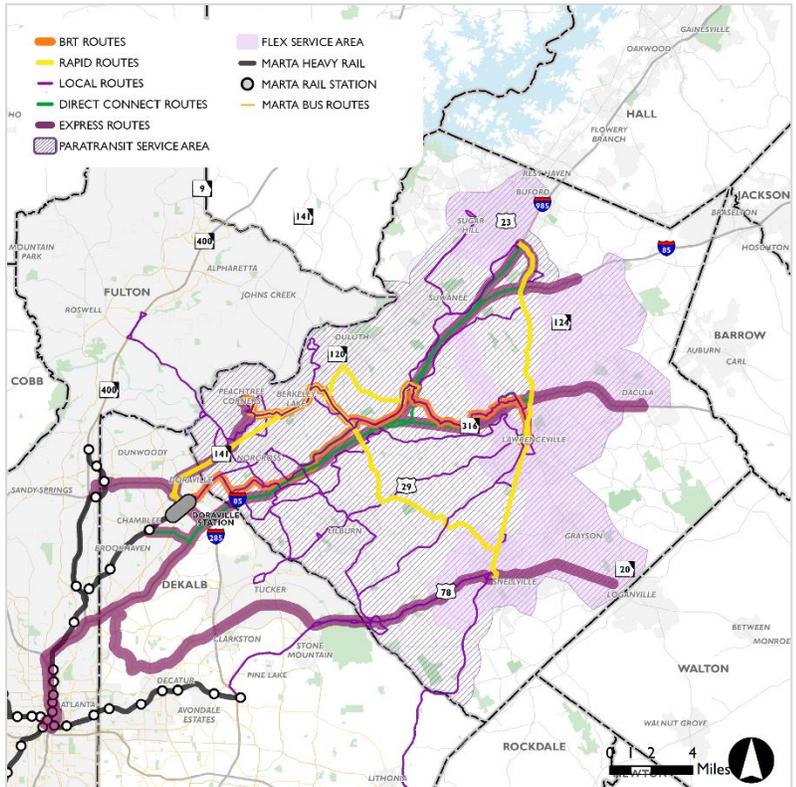
<sup>3</sup> Population within Flex Zones

Table 9 presents the comparison of BRT and ART miles included in the Mid-Range of the TRC-Selected Plan to the original Connect Gwinnett: Transit Plan. As noted in this table and previously noted in Table 8, the TRC-Selected Plan provides a vast increase BRT and ART services in the Mid-Range compared to Connect Gwinnett.

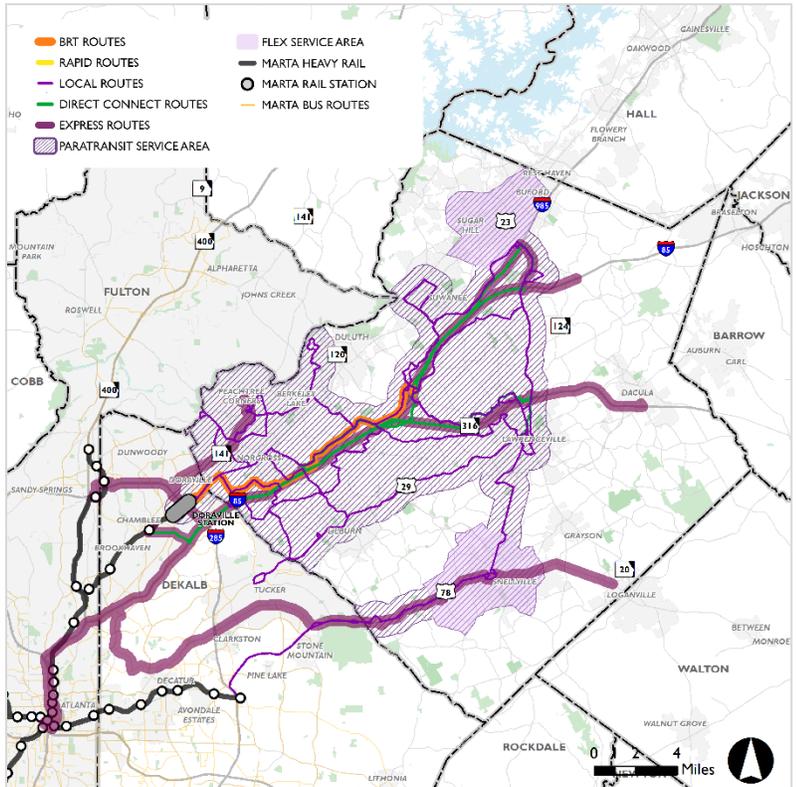
**TABLE 9: MID-RANGE HIGH CAPACITY SERVICE MILES COMPARISON**

METRIC	BRT	ART	TOTAL
<b>Connect Gwinnett</b>	16 miles	0 miles	16 miles
<b>TRC</b>	38 miles	57 miles	78 miles
<b>% Change from Connect Gwinnett</b>	137%	-	496%

Figure 7 presents the Mid-Range Plan of the TRC-Selected Plan and Figure 8 presents the Mid-Range of the original Connect Gwinnett: Transit Plan for comparison.



**FIGURE 7. MID-RANGE PLAN FOR TRC-SELECTED PLAN**



**FIGURE 8. MID-RANGE PLAN FOR CONNECT GWINNETT**

## Long-Range Plan (By Year 30)

Significant plan elements in the Long-Range Plan are as follows:

- Extension of the Gold Line (Heavy Rail) to a new Multimodal Hub at Jimmy Carter Blvd.
- Two new BRT routes (four total including Mid-Range expansion) between the following locations:
  - Snellville and Indian Creek MARTA via US 78
  - Infinite Energy Center and Mall of Georgia via Satellite Blvd.
- Mid-Range BRT route from Doraville to Sugarloaf Mills modified to have a southern terminus at the Multimodal Hub instead of Doraville
- Four new ART routes (seven total including Mid-Range expansion) between the following locations:
  - Multimodal Hub and Mansell Road Park-and-Ride via Jimmy Carter Blvd/Holcomb Bridge Rd and SR400
  - Multimodal Hub and Sugarloaf Mills via Steve Reynolds Blvd.
  - Lilburn and Tucker via US 29
  - Peachtree Corners and Perimeter Center via SR 141 and I-285
- Three new Express Commuter routes (eleven total including previous phase expansions)
  - Prior Express Commuter service from Braselton to Chamblee MARTA modified to terminate at the Multimodal Hub
  - Service frequencies improved on most Express Commuter routes
- Two new Local routes (17 total including previous phase expansions; 2 previous phase Local routes upgraded to either BRT or ART service)
  - Frequency improvements on most Local routes and Sunday service on all Local routes
- One new Flex Zones (eight total including previous phase expansions)
- One new Direct Connect route (three total including previous phase expansions) from Peachtree Corners to Perimeter Center
- Paratransit expansion in association with Local route service expansion, with gaps between routes filled in to provide continuous paratransit coverage

Table 10 summarizes Long-Range Plan service expansion elements.

**TABLE 10. NEW LONG-RANGE PLAN SERVICE**

HRT	EXPRESS COMMUTER
<ul style="list-style-type: none"> <li>• Doraville to Jimmy Carter Blvd. (Multimodal Hub)</li> </ul>	<ul style="list-style-type: none"> <li>• Hall County-Multimodal Hub</li> <li>• Indian Trail-CDC</li> <li>• Indian Trail-Buckhead</li> </ul>
BRT	
<ul style="list-style-type: none"> <li>• Snellville-Indian Creek (US 78)</li> <li>• Infinite Energy-Mall of GA</li> </ul>	
ART	LOCAL
<ul style="list-style-type: none"> <li>• Jimmy Carter/Holcomb Bridge Road</li> <li>• Multimodal Hub-Sugarloaf</li> <li>• Lilburn-Tucker</li> <li>• Peachtree Corners-Perimeter Center</li> </ul>	<ul style="list-style-type: none"> <li>• Steve Reynolds Blvd</li> <li>• McGinnis Ferry-North Fulton</li> </ul>
DIRECT CONNECT	FLEX ZONES
<ul style="list-style-type: none"> <li>• Peachtree Corners-Perimeter Center</li> </ul>	<ul style="list-style-type: none"> <li>• Suwanee-Duluth</li> </ul>

Table 11 summarizes the number of routes for each service type following the Mid-Range Plan implementation.

**TABLE 11. LONG-RANGE PLAN SERVICE SUMMARY**

SERVICE TYPE	NUMBER OF ROUTES	
	MID-RANGE PLAN	LONG-RANGE PLAN
HRT	0	1
BRT	2	4
ART	3	7
Local	17	17
Flex	7	8
Express Commuter	9	11 <sup>1</sup>
Direct Connect	2	3
<b>Total</b>	<b>40</b>	<b>50</b>

<sup>1</sup> Mid-Range Express Commuter route between Peachtree Corners and Perimeter Center is converted to a Direct Connect route

In addition to service expansion, new or expanded transit facilities in the Long-Range Plan include:

- Upgrades to I-985 Park-and-Ride
- New McGinnis Ferry Road Park-and-Ride with in-line stop
- Funds for initial planning for SR 316 managed lanes
- Funds for two additional Park-and-Ride lots at locations to be determined

*Comparison to Original Connect Gwinnett: Transit Plan*

Table 12 presents Long-Range Plan service statistics with a comparison of TRC-Selected Plan service to the original Connect Gwinnett: Transit Plan. The amount of funds expended differs because of inflation and different time periods between the two plans (Connect Gwinnett assumed a 2019 through 2048 time period and the TRC-Selected plan period is from 2021 through 2050).

**TABLE 12. LONG-RANGE PLAN SERVICE PLAN COMPARISON**

PLAN METRIC	CONNECT GWINNETT LONG-RANGE PLAN	TRC-SELECTED LONG-RANGE PLAN
<b>Increase in Bus-Hours<sup>1</sup> from the Existing System<sup>2</sup></b>	805%	859%
<b>% of County with Paratransit Service Coverage</b>	63%	72%
<b>30-Year Costs Expended &amp; % of Total Plan Costs (YOES)</b>	\$12.0 billion (100%)	\$12.3 billion (100%)

<sup>1</sup> Bus-hours are estimates based on planned Local, Flex, Direct Connect, Express Commuter, ART, and BRT services

<sup>2</sup> 2017 GCT service-levels

Table 13 presents the percent change of different population groups served by the Long-Range of the TRC-Selected Plan compared to the original Connect Gwinnett: Transit Plan. As noted in this table, the TRC-Selected Plan provides greater coverage by Local and Flex Zone service than Connect Gwinnett. The TRC-Selected Plan provides the same coverage for HRT, BRT, and ART services but as noted in Table 14, the TRC-Selected Plan upgrades an additional 12 miles of ART service from Connect Gwinnett to BRT service.

**TABLE 13: LONG-RANGE PERCENT CHANGE IN COVERAGE FROM CONNECT GWINNETT BY MODE**

SERVICE TYPE	2040 POPULATION SERVED	2015 MINORITY POPULATION SERVED	2015 LOW INCOME POPULATION SERVED
<b>HRT, BRT, and ART<sup>1</sup></b>	0%	0%	0%
<b>Local<sup>2</sup></b>	31%	18%	13%
<b>Flex Zones<sup>3</sup></b>	1%	1%	1%

<sup>1</sup> Population within ½ mile of HRT, ART, and BRT service

<sup>2</sup> Population within ¼ mile of Local service

<sup>3</sup> Population within Flex Zones

Table 14 presents the comparison of HRT, BRT and, ART miles included in the Long-Range of the TRC-Selected Plan to the original Connect Gwinnett: Transit Plan. As noted in this table, the TRC-Selected Plan upgrades 12 miles of ART service from Connect Gwinnett to BRT service.

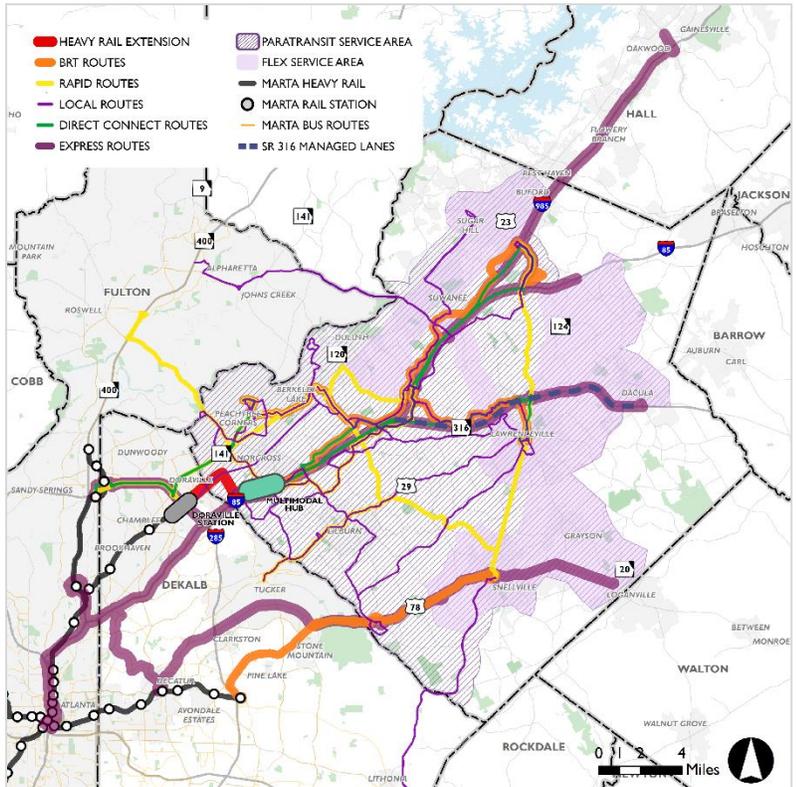
**TABLE 14: LONG-RANGE HIGH CAPACITY SERVICE MILES COMPARISON**

METRIC	HRT	BRT	ART	TOTAL
<b>Connect Gwinnett</b>	5 miles	49 miles	112 miles	166 miles
<b>TRC</b>	5 miles	61 miles	100 miles	166 miles
<b>% Change from Connect Gwinnett</b>	0%	25%	-11%	0%

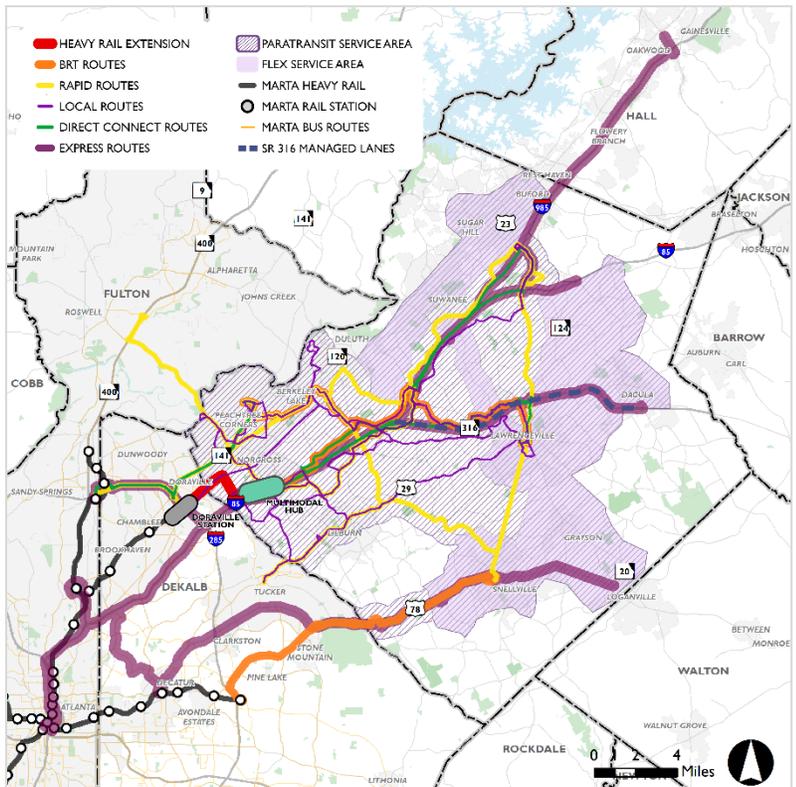
In addition to implementing more service in the earlier phases of the plan, the Long-Range of the TRC-Selected Plan includes the following services that are not included in the Long-Range of the original Connect Gwinnett Plan:

- BRT service between Sugarloaf Mills and the Mall of Georgia via the Satellite Boulevard corridor (Upgrade from ART)
- Local service between Snellville and Stonecrest Mall in DeKalb County
- Local service between Lawrenceville and the Stone Mountain Park-and-Ride via Five Forks Trickum Rd
- Local service between the Multi-Modal Hub and Stone Mountain Park-and-Ride via Lilburn
- Local service between Infinite Energy Center and Sugar Hill
- Local service between McGinnis Ferry Park-and-Ride and Alpharetta

Figure 9 presents the Long-Range Plan of the TRC-Selected Plan, and Figure 10 presents the Long-Range Plan of the original Connect Gwinnett: Transit Plan for comparison.



**FIGURE 9. LONG-RANGE PLAN FOR TRC-SELECTED PLAN**



**FIGURE 10. LONG-RANGE PLAN FOR CONNECT GWINNETT**

## Long-Range Plan Evaluation Metrics

As previously noted, scenarios considered by the TRC were evaluated with metrics related to coverage, reliability, and regional connectivity. Table 15 presents coverage characteristics for the TRC-Selected Long-Range Plan. As shown in this table, there is significant expansion of coverage from the existing for all metrics considered under this category.

**TABLE 15. LONG-RANGE PLAN COVERAGE CHARACTERISTICS**

SERVICE	2040 POPULATION SERVED <sup>1</sup>	2015 MINORITY POPULATION SERVED <sup>1</sup>	2015 IMPOVERISHED POPULATION SERVED <sup>1</sup>	2015 OVER 65 POPULATION SERVED <sup>1</sup>	% OF COUNTY AREA WITH PARATRANSIT SERVICE COVERAGE
<b>Existing</b>	183,695 (14%)	98,335 (19%)	30,186 (26%)	7,032 (10%)	20%
<b>TRC-Selected Plan</b>	779,773 (58%)	312,760 (62%)	77,593 (66%)	40,719 (58%)	72%
<b>County Totals</b>	1,340,951	504,953	117,553	70,121	--

<sup>1</sup> Population within ¼ mile of Local service and ½ mile of HRT, BRT and ART service. TNC and vanpool subsidies are included for areas outside of transitional service for both plans.

Table 16 presents reliability characteristics for the TRC-Selected Long-Range Plan. Premium services with dedicated right-of-way, dedicated lanes and/or preferential treatments were considered as transit services that provide higher levels of service reliability than traditional Local route service in mixed traffic. As noted in this table, more than one half of the TRC-Selected Plan's costs goes towards transit projects that will improve service reliability.

**TABLE 16. LONG-RANGE PLAN RELIABILITY CHARACTERISTICS**

MODE	METRIC	TRC-SELECTED PLAN
<b>HRT</b>	<b>Total Miles</b>	5 miles
	<b>% of Plan Cost</b>	19%
<b>BRT</b>	<b>Total Miles</b>	61 miles
	<b>% of Plan Cost</b>	18%
<b>ART</b>	<b>Total Miles</b>	100 miles
	<b>% of Plan Cost</b>	11%
<b>Total</b>	<b>Total Miles</b>	166 miles
	<b>% of Plan Cost</b>	48%

The last evaluation metric was regional connectivity. Current Gwinnett Transit regional connections are at Doraville Station with Local route service, and in Downtown Atlanta, Midtown Atlanta, and Emory University/CDC with Express Commuter route service. The TRC-Selected Plan maintains these regional connections and adds regional connections to the following locations:

- Perimeter Center
- Roswell (North Fulton)
- Alpharetta (North Fulton) – not included in original Connect Gwinnett: Transit Plan
- Lithonia (DeKalb) – not included in original Connect Gwinnett: Transit Plan
- Indian Springs MARTA (DeKalb)
- Hall County
- Buckhead

## Non-Service Plan Components

In addition to the service and service-related facility improvements described above, the plan includes the following important components with funds committed to these components throughout the 30-year time period:

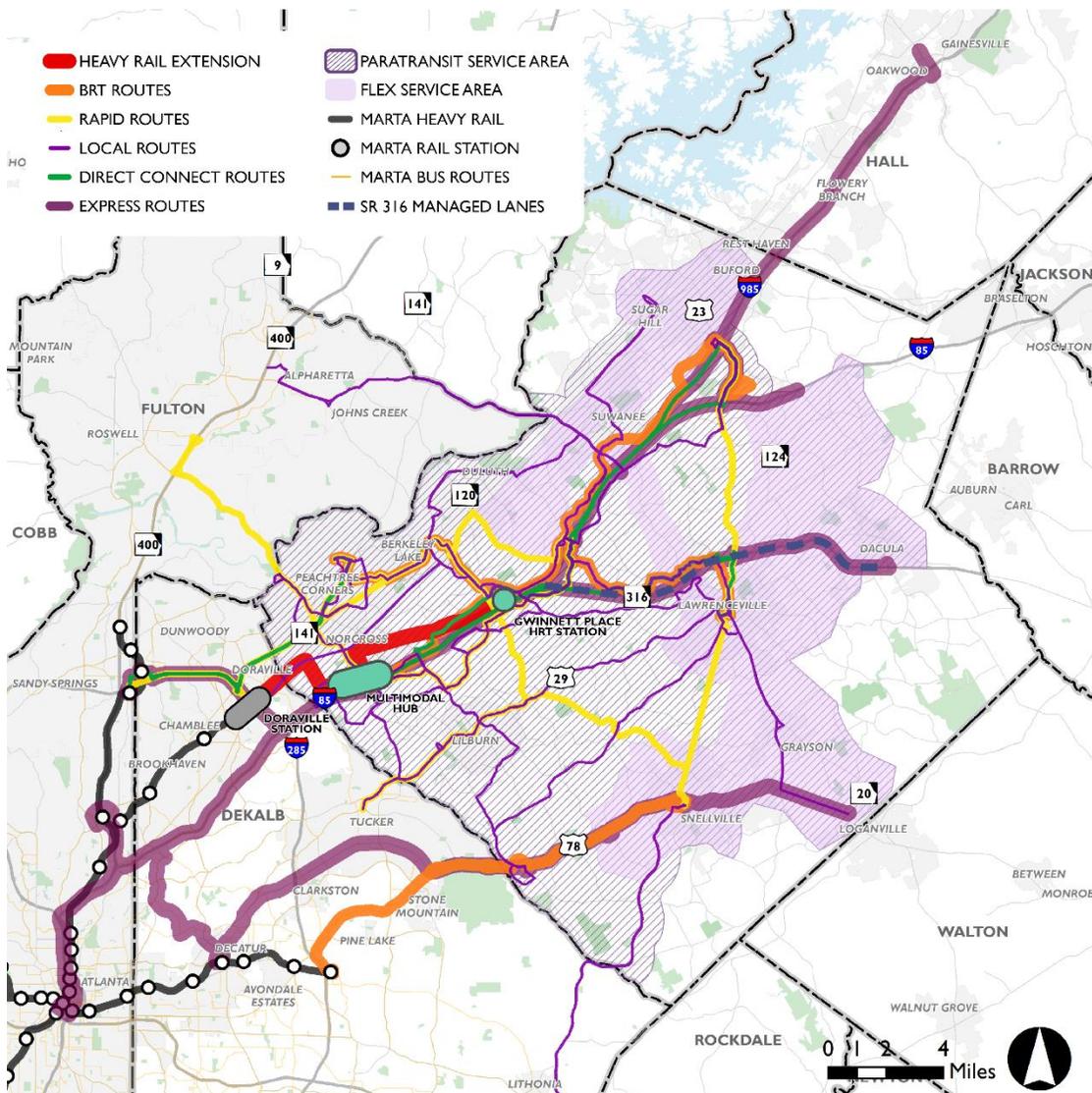
- **Local Bus Stop Upgrades:** Bus service expansion will result in additional bus stop placement throughout the County. Gwinnett County Transit has bus stop standards in place that identify elements that should be addressed when identifying bus stops, such as sidewalks, lighting, benches and shelters at higher volume bus stops.
- **Pedestrian and Bicycle Access:** First and last mile connectivity is critical to the success of the transit service expansion program. In addition to sidewalks, transit service connectivity should be integrated with Gwinnett County's Trails Masterplan.
- **Technology Upgrades:** Funds also are identified for incorporating new technologies, such as advancements with smartphone fare payment, real-time bus information apps, and outfitting the entire fleet to support transit signal priority (TSP).
- **Transportation Network Company (TNC) and Vanpool Subsidies:** Subsidies of private vanpool services to supplement public transit service are included to support minor infrastructure needs and operational costs for implementation. Subsidies for TNCs for individuals outside of the traditional transit service area to access the transit system are included as well.
- **Park-and-Ride Lot Investments:** In conjunction with the proposed expansion of Express Commuter bus, additional park-and-ride lots have been identified for future placement beyond the initial lots that are associated with specific routes.

## Aspirational Plan

The Aspirational Plan includes service expansion the TRC felt important to include in the plan but could not be accommodated within constrained funds. These service expansion projects should be considered should additional funds be available (e.g., if the one cent sales tax brings in additional revenues beyond those assumed in this effort). Service expansion projects in the Aspirational Plan are:

- Heavy Rail Extension from the Jimmy Carter Multimodal Hub to Gwinnett Place Mall
- Extending Local service along Peachtree Industrial Boulevard and Buford Highway between Suwanee and Duluth
- Extending Flex Zone to include Suwanee Town Center area
- Lawrenceville-Loganville Local service in addition to the Flex service currently included in the cost-constrained plan

Figure 11 presents the TRC-Selected Aspirational Plan.



**FIGURE 11. TRC-SELECTED ASPIRATIONAL PLAN**

## **Additional TRC Recommendations**

In addition to the recommended plan for transit service, the TRC established additional policy recommendations for the Board of Commissioners to consider.

### *Establishing High Standards for Transit Service and Transit Facilities*

The TRC recognizes that Gwinnett County has a proud history of providing excellent services and facilities for its citizens, and the TRC feels that transit should not be any different. The TRC recommends ensuring that the citizens of Gwinnett County are afforded the same standard of quality that they have come to expect from the County for other programs and facilities.

In October of 2018, Gwinnett County Transit established bus stop standards and guidelines. These standards should be followed to upgrade existing stops and for the implementation of any new bus service in Gwinnett County. The standards should be reviewed and updated periodically to ensure they continue to match the expectations of Gwinnett citizens. Additionally, as new transit modes, such as BRT and ART, are introduced into the County, standards for these modes and their relevant facilities should be established that are in-line with the high quality of other Gwinnett services.

### *Leveraging Partnerships*

The TRC-Selected Plan includes many services that connect the cities and Community Improvement Districts (CIDs) in Gwinnett as well as major business and employment destinations not included within the CIDs. The TRC recommends that as transit service is expanded in the County, partnerships with Gwinnett cities, CIDs, community organizations, and other businesses be leveraged to further enhance transit investments. Examples of partnership opportunities include: improving or upgrading transit stops and stations, implementing private shuttles to connect major employers and activity centers with transit, and communicating with partners about transit improvements to increase awareness of transit options.

### *Examine Fare Policy Options*

The TRC recognizes that fares play a role in generating revenues to assist in covering the costs associated with operating a transit system, but they also recognize the barrier that fares can create to accessing reliable transportation. For that reason, the TRC recommends the County build on the fare analysis done for the Connect Gwinnett: Transit Plan and examine the feasibility of different fare policies, including but not limited to free fares and fare capping.

### *Communicate Existing and Planned Service*

The TRC believes that the success of transit within Gwinnett County is not just a matter of improving infrastructure and service, it also is dependent on properly communicating with citizens about existing and future service. The TRC recommends Gwinnett establish a transit communication plan that defines how citizens will be educated about the transit service in Gwinnett.

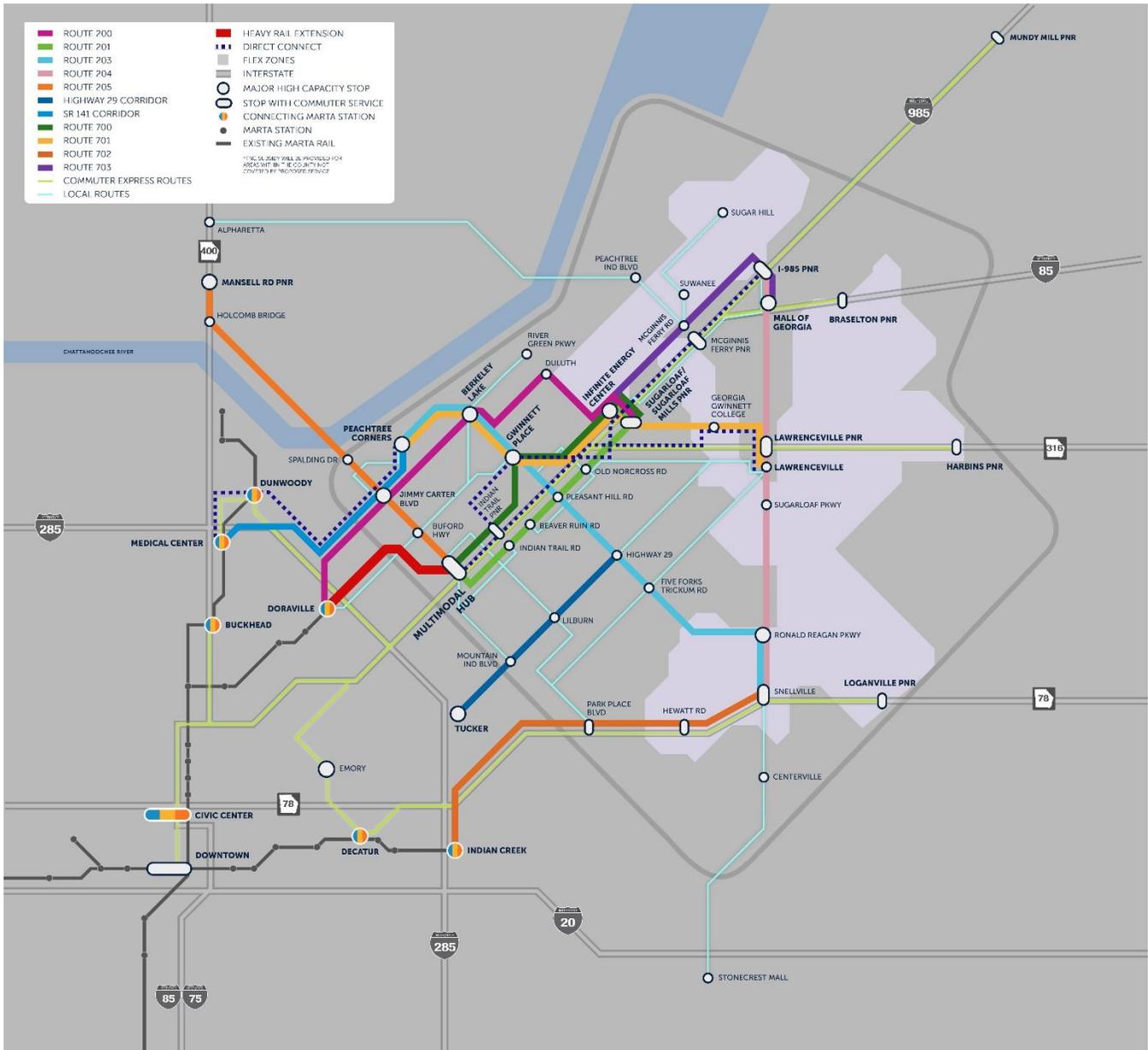
### *Ensuring Adaptability*

As noted in the "Education and Context" section, the TRC reviewed information about the changes that are projected for Gwinnett in the next 20 years. After reviewing this information and going through the process to develop the TRC-Selected Plan, the TRC recognizes the need to be flexible and adaptable as the County changes. The investments that make the most sense today may not be the correct choice for the County in 5, 10, or 20 years. Therefore, the TRC recommends that a process is established to re-evaluate the plan for transit in Gwinnett following standard transportation planning practices, such as minor updates every 5 years and major updates every 10.

## Simplification of Plan Recommendations

After discussing the feedback from the community following the adoption of the Connect Gwinnett: Transit Plan, the TRC recognizes the challenge associated with presenting complex plan recommendations to the general public. The TRC therefore recommends that stylistically simplified versions of the TRC-Selected Plan be used to communicate the impacts that the plan can have for the County. Drafts of stylistically simplified versions of the TRC-Selected Plan are included in Figure 12.

The TRC recommended considering a simplified name, to be determined by the Board of Commissioners, to call the TRC-Selected Plan if it is used for a future transit referendum for ease of communication and comprehension.



**FIGURE 12. SIMPLIFIED GRAPHIC OF LONG-RANGE TRC-SELECTED PLAN**

# APPENDIX