ARTS2050

METROPOLITAN TRANSPORTATION PLAN UPDATE ▸ *Future Mobility*

futuremobility2050.com

EXECUTIVE SUMMARY

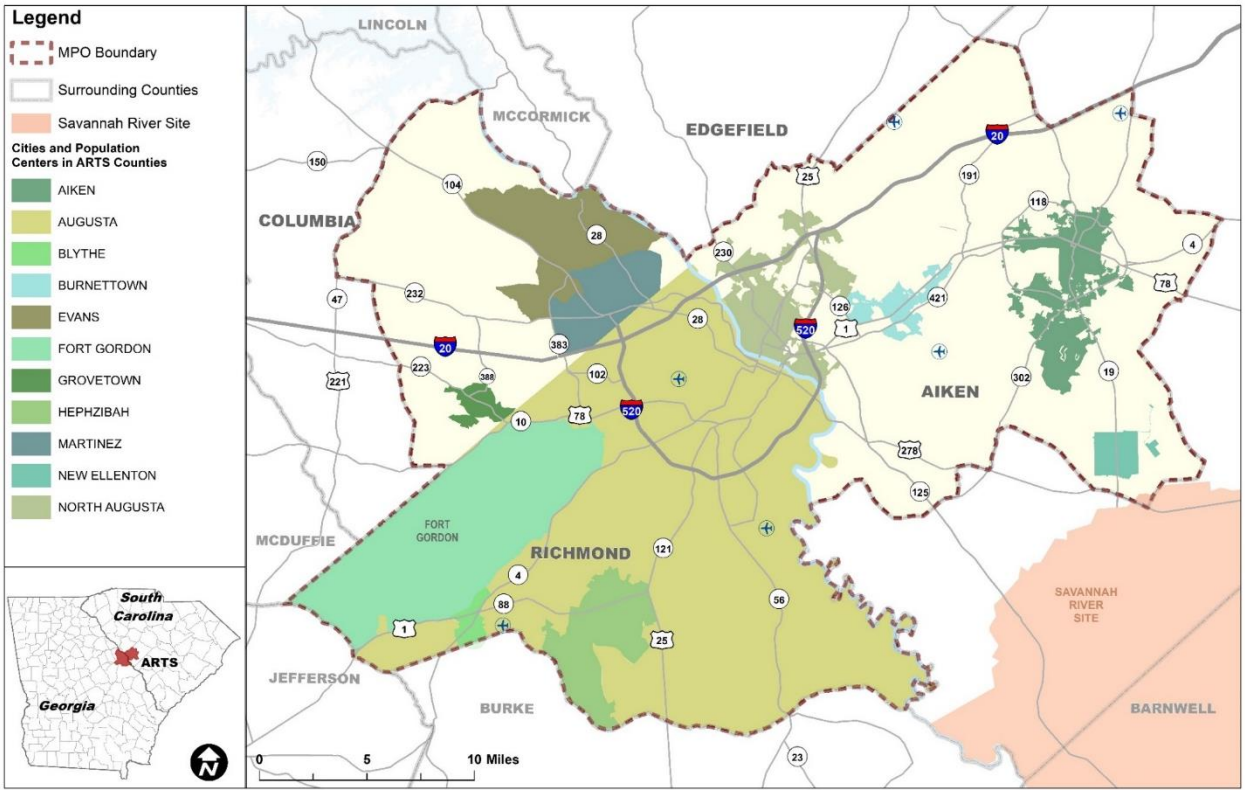
September 17, 2020

1. Augusta Regional Transportation Study (ARTS)

The Augusta Regional Transportation Study (ARTS) Metropolitan Planning Organization (MPO) is the designated bi-state regional planning entity responsible for long-range transportation planning and project selection for programming federal-aid funds in the Augusta GA – Aiken SC Metropolitan Area. ARTS is comprised of elected and appointed officials from four (4) counties; Richmond and Columbia Counties in Georgia (GA); and Aiken and Edgefield Counties in South Carolina (SC). **Figure 1** depicts the boundaries of the ARTS MPO, also referred to as the "ARTS planning area," which includes all of Richmond County, the eastern portion of Columbia County, most of Aiken County, and a small portion of Edgefield County.

Other key partners in ARTS include representatives from local, state, and federal agencies who are jointly responsible for long-range transportation planning in the region. ARTS is the forum for regional cooperation and coordination in the discussion and decision-making process for programming federal aid funds for transportation investments in the ARTS planning area over the next 30 years.

The ARTS MPO functions through a four-committee structure that includes the Policy Committee (PC); South Carolina Policy Subcommittee; Technical Coordinating Committee (TCC), which includes the Test Network Subcommittee (TNSC); and Citizens Advisory Committee (CAC). Each of these four committees convenes independently or jointly several times per year.



Source: ESRI

Figure 1. ARTS Planning Area (2019)

2. 2050 Metropolitan Transportation Plan (MTP)

The ARTS MPO has prepared the Metropolitan Transportation Plan (MTP) for 2050. This MTP document is the official multimodal transportation plan developed and adopted through the metropolitan transportation planning process for the ARTS MPO. Updated every 5 years, the MTP envisions and evaluates what the ARTS planning area would look like in the next 10, 20, or 30 years. The MTP recommends transportation projects to improve, maintain, and operate roadways and bridges, public transit, aviation, freight, multi-use trails, and sidewalks. To be eligible for federal funding, projects must be in the MTP first then in the Transportation Improvement Program (TIP).

MTP and Long Range Transportation Plan (LRTP) are interchangeable terms, and the ARTS MPO prefers to use MTP from this update onwards. The ARTS MPO approved its 2040 LRTP in 2015 which served as the basis for this MTP update. While some priorities from the 2040 LRTP have changed or been met since 2015, many of the original priorities remain. The MTP goals and priorities are presented in Section 4 of this Executive Summary and discussed in **Chapter 3 of the MTP** document and in **Technical Report #3: Development of Goals, Objectives, and Measures of Effectiveness**.

The MTP planning process and policy document are federally mandated and serve as a prerequisite for receiving federal transportation funding. The MTP is a long range planning document, but it also contributes to the annual Unified Planning Work Program (UPWP) and the 4-Year Transportation Improvement Program (TIP). The UPWP is an annual work program that documents the planning priorities for the ARTS planning area and describes all planning activities to be performed with transportation and transit planning funds. The TIP is a multi-year intermodal program including planning for transportation system infrastructure needs, financing and capital improvement programming and project implementation.

The ARTS 2050 MTP includes long-range and short-range strategies and actions that lead to the development of an integrated multimodal transportation system in the ARTS planning area. In addition, the 2050 MTP:

- Identifies near-term demand for passenger and goods movement;
- Identifies Congestion Management System strategies;
- Identifies pedestrian, walkway, and bicycle facilities;
- Assesses capital investment and other measures to preserve the existing transportation system;
- Reflects a multimodal evaluation of the transportation, socioeconomic, environmental, and financial impact of the transportation plan;
- Reflects consideration of local plans, goals, and objectives;
- Outlines, as appropriate, transportation enhancement activities; and,
- Includes a financial plan demonstrating that the identified projects can be implemented using current and proposed revenue sources.

A key outcome of this plan update is identifying or confirming local community visions and priorities, reflecting input from all transportation users through a continuing, cooperative, and comprehensive public engagement process. The MTP Update engaged the public continually during the plan development process, and;

1. **Recorded** existing transportation conditions in the ARTS planning area
2. **Assessed** existing and future transportation needs
3. **Recommended** projects to address identified needs
4. **Prioritized** projects using study goals, needs and public input
5. **Drafted** short-, medium-, and long-term project programs based on available and potential funding.

This 2050 MTP document is a summarized compilation of the six (6) Technical Reports that were developed during the plan development process. The individual Technical Reports, stand-alone documents with more in-depth analyses on each topic, are attached as appendices to the 2050 MTP. The 2050 MTP document is organized into the chapters described below along with references to the associated Technical Reports.

- **Chapter 1 Introduction and Overview** describes key land use and demographics for both existing and future conditions. These are important foundations to the 2050 MTP (from ***Technical Report #2***).
- **Chapter 2 Public Involvement** summarizes the public involvement process and outcomes from the two (2) rounds of public engagement plus the final public review period of draft MTP document before the adoption 2050 MTP (from ***Technical Report #1***).
- **Chapter 3 2050 MTP Goals, Objectives, and Performance Measures** defines Goals, Objectives, and Measures of Effectiveness (GOMs) based on the 2040 LRTP, latest federal requirements and statewide guidelines, and public and stakeholder input (from ***Technical Report #3***).
- **Chapter 4 Regional Transportation Network** identifies current and future multimodal transportation needs of the ARTS planning area based on regional travel patterns, system inventory, multifaceted analyses, and public input (from ***Technical Report #2*** and ***Technical Report #5***).
- **Chapter 5 Project Development, Evaluation, and Ranking** summarizes how a list of the Universe of Projects (unconstrained "wish list" projects) was developed based on the identified needs (from ***Technical Report #5***), the project prioritization process (from ***Technical Report #4***), and the evaluation of the Universe of Projects list.
- **Chapter 6 Financial Plan and Project Recommendations** summarizes funding forecasts and identifies a list of financially constrained projects prioritized for short-, mid-, and long-terms throughout the horizon of the MTP 2050 (from ***Technical Report #6***).

3. Public Outreach

Public participation is a critical component of the continuing, cooperative and comprehensive MTP process as well as community ownership of the 2050 MTP. The MTP Update reached out to stakeholders and the public throughout the course of the planning process and remained visible and accessible to the public through the project webpage, community-based outreach, and updates on social media.

Summary of Results of Public Involvement

Planned public outreach activities followed the recommendations in the ARTS Public Participation Plan Update, adopted December 2017. The ARTS Public Participation Plan includes five components, which formed the basis for the MTP outreach efforts.

Public engagement took place throughout the MTP process, and concentrated public coordination occurred during two education and outreach phases and a final comment and review period. The primary goals of the public involvement for this project are:

- To inform and involve the public throughout the MTP update process.
- To consult with local officials and staff to gather their ideas for transportation solutions.
- To consult with community stakeholders and gather their ideas for issue identification and the creation of solutions.

In delivering a robust public involvement process, several strategies were employed to generate interest and active participation, including:

- Branding strategy with project logo and slogan "Future Mobility 2050"
- A series of public workshop meetings held in convenient locations throughout the ARTS planning area
- MetroQuest Surveys, interactive, visual, and online
- Project website with the domain name FutureMobility2050.com
- Social media including Facebook and Twitter

Please see **Technical Report #1 - Appendix 1. Public Engagement Materials** for specific descriptions and samples of each of these participation strategies.

Environmental Justice Considerations

Historically, minority and low income populations have been underrepresented in the transportation decision-making process. The ARTS 2050 MTP outreach process went beyond the federal definition of Environmental Justice (EJ) populations for minority and low income to include other groups such as senior population, population with limited English proficiency (LEP) and households without access to a vehicle. Areas that exceed the threshold for low-income or minority EJ status were areas of focus for EJ outreach during the 2050 MTP Update. EJ outreach included coordination with organizations that represent the interests of EJ populations of concern, including churches, neighborhood, and advocacy

groups. Preliminary inquiry into the ARTS planning area's population indicates the presence of minority communities consisting of Black/African American, Asian, and Hispanic persons.

For more detailed information, please see **Chapter 2 of the MTP** and **Technical Report #1**.

Summary of Public Involvement during ARTS 2050 MTP

- **First Round of Public Outreach, September through November 2019**
  - 4 public meetings, special interest meetings, local events
  - 2019 Arts in the Heart of Augusta Festival
  - MetroQuest online survey #1, paper survey, and social media
  - The first round of engagement designed to educate people about the MTP document and why it is important to the region's transportation future.
- **Stakeholder Roundtable on February 12, 2020**
  - A stakeholder meeting provided the study team with insight into stakeholder transportation needs, environmental and cultural concerns, and other issues relevant to the study.
- **Second Round of Public Outreach, March 2020**
  - 7 public meetings
  - MetroQuest online survey #2, media, and social media outreach
  - The second round of public meetings was conducted as a workshop setting to allow attendees the opportunity to interact with, identify, and discuss project-related issues with staff and other participants.
- **Public Review Period, July 15, 2020 to August 4, 2020**
  - A three week (21 days) public review period of draft MTP document was provided to invite public feedback before the adoption of the final MTP.

4. Goals, Objectives, and Measures of Effectiveness

The 2050 MTP Goals, Objectives, and Measures of Effectiveness were selected to align with the Community Vision based on the previous 2040 Long Range Transportation Plan (LRTP), latest federal requirements and statewide guidelines, and public and stakeholder input.

The 2050 MTP update is one of the important steps in the ARTS MPO's performance-based planning process, defined as the application of performance management principles within the planning processes to achieve desired performance outcomes for the region's multimodal transportation system.

The nine goals of the 2050 MTP, as shown in **Figure 2**, are:

1. Reduce Traffic Congestion and Delay;
2. Mobility, Accessibility, and Connectivity;
3. Safety and Security;
4. Maintenance and System Preservation;
5. Economic Vitality;
6. Environmental Stewardship;
7. Land Use and Transportation Integration;
8. Financial Feasibility; and,
9. Effective Engagement and Coordination.

Once the Goals and Objectives were defined, the project evaluation criteria were identified to measure individual projects' ability to work towards achieving the Goals and Objectives as well as the statewide performance measure targets. Goal 9, Effective Engagement and Coordination, and some of the objectives are established for the policy level and do not have associated project evaluation criteria.

For more detailed information, please see **Technical Report #3: Development of Goals, Objectives and Measures of Effectiveness**.

Figure 2. ARTS 2050 MTP Goals

Performance-based planning refers to the application of performance management principles within the planning processes to achieve desired performance outcomes for the region's multimodal transportation system. In addition to the MAP-21 requirements, Federal Highway Administration (FHWA)'s Performance-Based Planning and Programming (PBPP) Guidebook (2013) developed a framework for a PBPP process in order to help practitioner's advance performance-based approaches in their own planning and programming activities. **Figure 3** illustrates the elements involved in ARTS MPO's performance-based planning process, and how they relate to some of the MPO's existing plans and activities. The cyclical PBPP process includes three phases:

- **Plan and Strategize**: Set the vision, goals, objectives, and performance measures, and identify and acquire necessary data. Then identify trends and targets that will guide ARTS MPO's decision making.
- **Program:** Identify strategies and analyze alternatives to develop investment priorities and allocate ARTS MPO discretionary funds, specifically in the MTP, TIP, and UPWP.
- **Monitor and Evaluate:** Review and report on the outcomes of ARTS investment decisions with respect to performance measures and targets and determine what framework or strategy adjustments are needed.

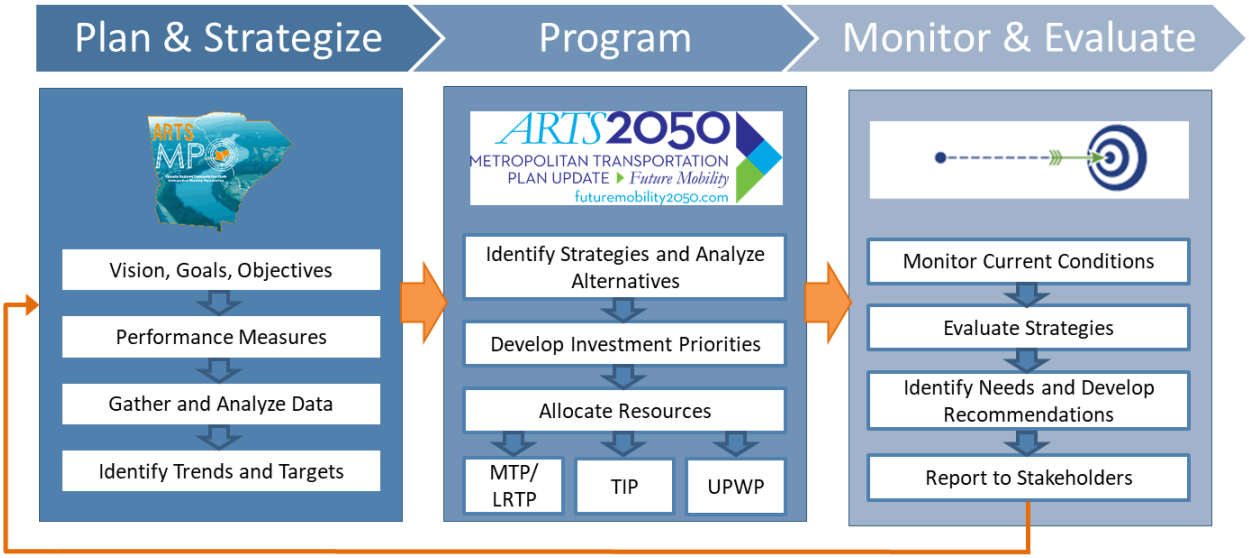


Figure 3. ARTS Performance Based Planning Framework

For more detailed information please see **Chapter 3 of the MTP** document and in **Technical Report #3: Development of Goals, Objectives and Measures of Effectiveness**.

5. Identification of Trends and Needs

As of 2017, the ARTS planning area remains the second-most populous MPO in Georgia behind Atlanta and the fourth-most populous MPO in South Carolina behind Columbia, Charleston, and Greenville. Areas in northern Richmond County near Downtown Augusta and those in the eastern part of Columbia County are more densely populated than the rest of the ARTS planning area.

As shown in **Table 1**, significant population and employment growth is expected in Columbia and Aiken Counties. Columbia County is expected to nearly double its population with employment growth of nearly 64 percent by 2050. Aiken is expected to have nearly 48 percent growth in the number of jobs. Meanwhile, growth in Richmond County is projected to stay relatively stable with an increase of about 7 percent in population and 18 percent in employment.

Table 1. 2050 Population and Employment Projections

County	2050 Total Population	2050 Total Households	2050 Total Employment	Population Growth (2015 – 2050)	Households Growth (2015 – 2050)	Employment Growth (2015 – 2050)
Columbia	263,005	96,975	50,357	125,223 (91%)	46,868 (94%)	19,733 (64%)
Richmond	205,836	77,248	150,359	12,958 (7%)	5,440 (8%)	23,049 (18%)
Aiken	197,142	89,062	64,556	33,715 (21%)	15,491 (21%)	20,850 (48%)
Edgefield	34,669	13,556	10,469	10,859 (46%)	4,457 (49%)	1,170 (13%)
Total	**700,652**	**276,841**	**275,741**	182,755 (35%)	72,256 (35%)	64,802 (31%)

Source: OPB, RFAO, ACS, Edgefield County (2019), Woods & Poole, REMI, GSTDM, ARTS MPO (2010)

High growth in population and employment may also suggest some capacity and operational improvements to accommodate this growth. With growth patterns spread across the planning area, it is essential to accommodate inter-county connections, including those for transit and non-motorized modes.

After an inventory of existing transportation systems in the ARTS planning area, current and future transportation and land use needs through 2050 were identified based on spatial and technical analyses, such as travel demand modeling and crash analysis, as well as input from the community and stakeholders.

The current and future needs in the ARTS planning area were identified in the categories of roads and highways; aviation and freight; transit; active transportation; transportation system management and operations; emerging technologies and shared mobility; and environment and quality of life, as shown in **Table 2**.

Table 2. Summary of Needs

Traffic Safety Needs
• Perform safety assessment of high crash areas. • Implement safety improvements for high crash intersections and corridors.
Capacity, Level of Service and Congestion Needs
• Carryover projects from the 2040 LRTP. • Consider implementing alternate solutions to improve the efficiency of existing infrastructure through operational improvements before widening to add capacity. • Continue implementing the 2002 Advanced Transportation Management System (ATMS) Master Plan to address safety and congestion. • Continue implementing mitigation strategies on seriously congested roadways identified in the annual congestion management process surveys. • Monitor congestion levels near southeast Columbia County, southern parts of Augusta, Aiken, and other areas with anticipated growth in population and employment. • Perform access management studies and implement appropriate solutions for major corridors with high numbers of driveways.
Transit
• Improve vehicle frequency, add bus stops, and extend hours of service for fixed route as well as on-demand transit. • Carry forward identified projects with park and ride facilities. • Develop a regional transit development plan to explore potential improvements to transit, including but not limited to improvements to bus stops/bus amenities, inter-county transit services, expansion of fixed route services, transit in south Augusta, transit in rural areas, improved transit reliability, expansion of transit in Columbia County, integration of ride-share services with transit service, and transit connections or circulators near college campuses. • Implement educational outreach and travel training programs. • Consider transit expansion in areas expected to grow in the future.
Active Transportation
• Carry forward projects in the 2040 LRTP's short term project list. • Focus on areas with high demand for active transportation and provide trails with regional connectivity. • Include pedestrian and bicycle safety improvements in other roadway projects. • Assess corridors with high numbers of crashes involving bicycles or pedestrians to identify specific safety improvements. • Continue implementation of previously identified projects, including those in the 2040 LRTP, 2012 ARTS Bike and Pedestrian Plan, and the 2016 ADA Transition Plan. Continue maintenance of existing facilities.

Table 2. Summary of Needs, Continued

Transportation System Maintenance & Operations
• Explore future opportunities to implement or expand upon TSM&O strategies, especially arterial management, bottleneck mitigation, congestion pricing, integrated corridor management, emergency transportation operations, freeway management, incentives, managed lanes, planned special events traffic management, road weather management, real time traveler information, traffic incident management, transit operations and management, and work zone management.
Emerging Technologies and Shared Mobility
• Establish regional policies to manage pick-up and drop-off locations for ridesharing services. • Look for ways to expand electric vehicle charging facilities in the future. • Take advantage of opportunities to pilot the integration of Connected and Automated Vehicle technologies.
Freight and Intermodal
• Reduce congestion on major freight facilities to ensure timely movement of goods in the region. • Study truck parking conditions in the ARTS planning area and identify suitable locations. • Consider grade separation at rail crossings, especially for crossings with major roads. • Manage airport leakage and improve ground access at airports for general vehicles as well as transit. • Improve intermodal linkage and accessibility among different transportation modes
Quality of Life
• Adopt age-friendly designs for infrastructure to enable seniors to age in place. • Adopt a Complete Streets policy. • Adopt a Context Sensitive Solutions approach to design. • Improve the Land Use and Transportation Connection by focusing transportation improvements around population and activity centers and providing mobility connections to community attractions using multiple transportation modes.
Maintenance
• Carry forward bridge projects from the 2040 LRTP and include identified bridge replacement projects. • Create a lump sum program for bridge repair/rehabilitation projects. • Continue to maintain existing multimodal infrastructure.

For more detailed information please see **Chapter 4 of the MTP** and **Technical Report #5 Needs Assessment**.

6. Evaluation of Projects

The Evaluation of Projects is the culmination of all of the analyses and engagement activities described in the aforementioned sections of the 2050 MTP update. Project evaluation and prioritization was conducted using the following steps to evaluate the relative benefits of each project in order to develop a fiscally constrained plan that includes the highest performing projects at the top of the list. This four (4) step process is summarized in **Figure 4**.

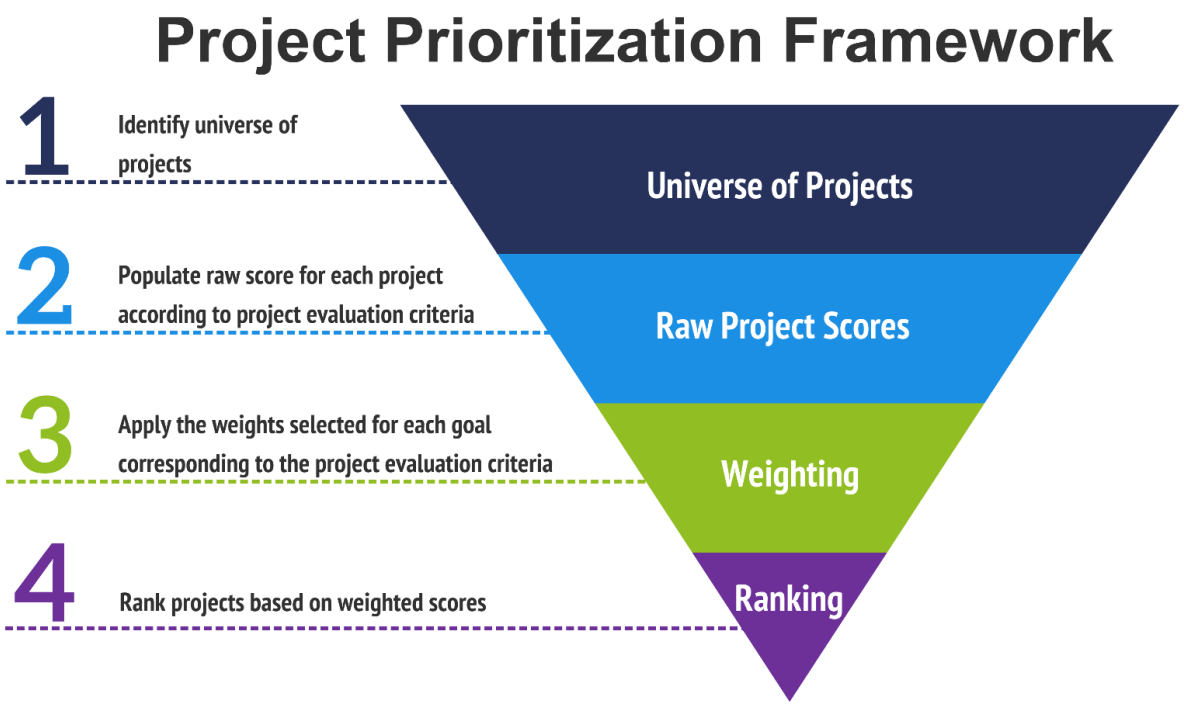


Figure 4. Project Prioritization Framework Summary

Step 1: Identify Universe of Projects

Figure 5 summarizes the process of developing the Universe of Projects. The Universe of Projects, also known as fiscally-unconstrained projects (i.e., not limited by the availability of funding), was developed based on the assessment of existing needs, analysis of travel demand models to assess existing and future travel patterns, public and stakeholder input, and improvements recommended in previous plans or studies. Based on the current and future needs assessment conducted as part of this MTP update, represented in the first two boxes at the top of **Figure 5**), new needs-based projects were identified and added to the previously identified projects. Individual projects were then carefully evaluated relative to the 2050 MTP goals and objectives using a project prioritization tool developed during the 2050 MTP process. The result of this process was a prioritized project list constrained to available funding, discussed in detail in **Chapters 5 and 6 of the 2050 MTP** and **Technical Report #5** and **Technical Report #6**.

The project team compiled projects from state, regional, and locally published plans. These projects were compared against the needs identified based on public and stakeholder input and current as well as expected future conditions. Projects were then added to address unmet, identified needs to create a Universe of Projects of nearly 700 projects.

From the Universe of Projects, some of the smaller projects, projects that require further study or projects for which delivery is dependent on future information, were separated from the list and grouped into project packages to be addressed by lump sum. This approach allows the 2050 MTP to adapt to the changing demand and proactively deliver projects in upcoming amendments to the plan. The remaining projects (the Universe of Projects minus the projects addressed by lump sum programs) make up the fiscally unconstrained project list.

Technical Report #5 includes a fiscally unconstrained list of around 370 projects and their locations by project category. The fiscally unconstrained projects were prioritized based on criteria informed by the public and stakeholder input received during public outreach and matched to available funds to create a fiscally-constrained program of projects. Further methodology is discussed in **Technical Report #6**.

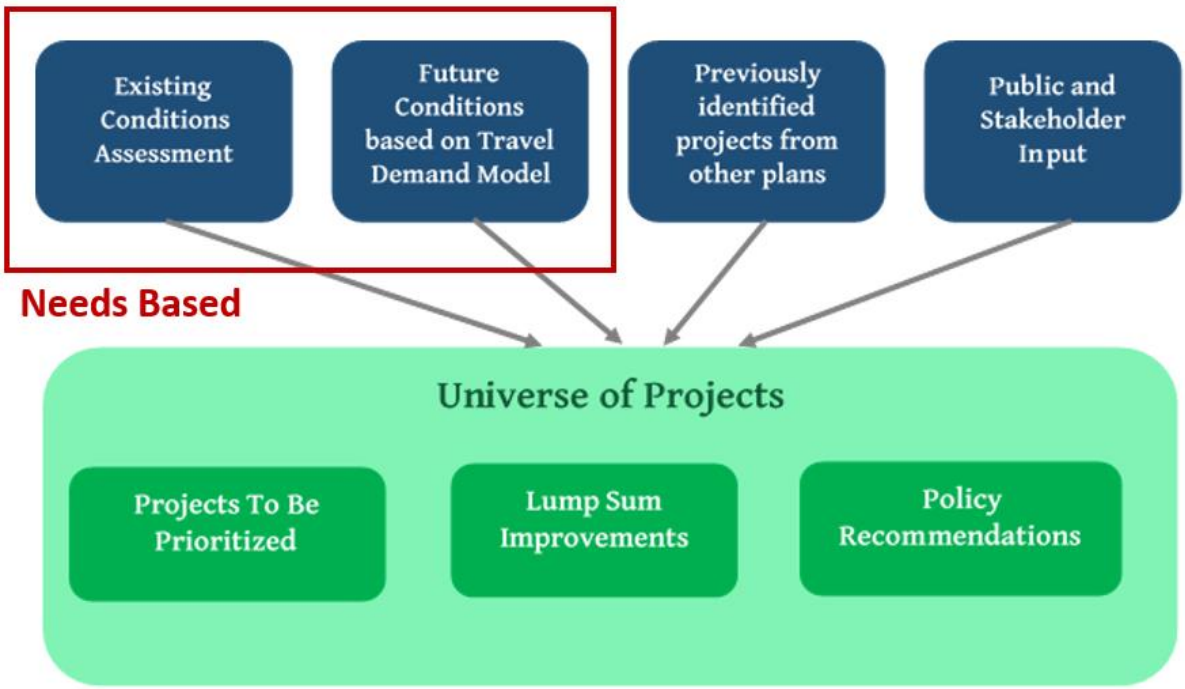


Figure 5. Development of the Universe of Projects

Project evaluation criteria were developed that allow for measurement of each project's ability to address established MTP goals and objectives. A total of 23 project evaluation criteria were identified. The specific scoring thresholds were established by looking at the raw data for the projects and setting tiers based on the range of the data. Details for each of the 23 evaluation criteria are described in **Technical Report #3: Development of Goals, Objectives and Measures of Effectiveness**, which lists the specific scoring and data thresholds for each metric.

Step 2: Populate Raw Scores for Each Project According to Project Evaluation Criteria

Each project received a raw score determined by the project evaluation criteria described in this report. The project evaluation criteria have numerical values related to each objective, and projects gain points according to how well they meet each objective. The ARTS 2050 MTP project prioritization criteria incorporate key elements from FHWA's INVEST and South Carolina's Aiken County Project Prioritization Tool.

Step 3: Apply Weights Selected for Each Goal Corresponding to the Project Evaluation Criteria

Once these raw scores are populated, the value for each project evaluation criterion is weighed by the Goals and Objectives detailed in **Technical Report #3: Goals, Objectives and Measures**. Stakeholder and public input in the planning process helped to determine these weights. Input methods include the MetroQuest survey, input received in public meetings, and stakeholder recommendations (See **Technical Report #1: Public Outlook Towards MTP Process, Potential Goals, and Transportation in the ARTS Planning Area**). The priorities indicated by these various sources were generally consistent and resulted in the selected category weightings. Each project received an overall score, which is the sum of the weighed scores for each project evaluation metric.

Step 4: Rank the Projects in Order by Score

The final step in the project prioritization process is to rank each project according to its weighted score, resulting in a prioritized project list.

7. Recommended Projects

Potential federal, state, and local funding sources for the 2050 MTP were identified based on the previous 2040 Long Range Transportation Plan (LRTP), latest federal and state legislation, and current funding available to finance projects in the 2050 MTP update. Federal planning regulations require that the financial plan presented in MTPs be financially constrained (i.e., a balanced budget). **Table 3** summarizes federal, state, and local revenues identified for the ARTS planning area. In **Table 3**, the following acronyms are used: Special Purpose Local Option Sales Tax (SPLOST), Transportation Investment Act (TIA), Year of Expenditure (YOE), and Local Maintenance & Improvement Grant (LMIG).

Planning level cost estimates for each project were developed based on the Atlanta Regional Commission (ARC)'s Cost Estimation Tool, which is in turn founded on GDOT's statewide Right-of-Way and Utility Relocation Cost Estimate Tool (RUCEST).

The fiscally constrained short-, medium-, and long-range programs of projects (Tier 1, Tier 2, and Tier 3 projects) for the ARTS MPO through 2050 were then recommended. Project prioritization was determined by their inclusion in the 2040 LTRP, needs assessment analysis, the potential costs within the constrained budget, a mix of short-term and long-term improvements, and a variety of improvement types. Projects were also reviewed by local engineers to ensure particular needs are being met and that the implementation of a project is consistent with surrounding transportation improvements. Additional policy considerations were also recommended along with the project recommendations. **Table 4** summarizes funding allocation by project types by location.

Table 3. Summary of Federal, State and Local Year-of-Expenditure Revenues for ARTS Planning Area (2021-2050)

Revenue source (MTP 2050)	Georgia	Richmond	Columbia	South Carolina	Total Funding
Federal and State	$1,201,144,185	$680,339,516	$520,804,669	$178,119,600	$1,379,263,786
Local Match and SPLOST for projects	$337,928,000	$138,101,959	$199,826,041	$93,121,913	$431,049,913
Transit - Federal, State, Local	$160,180,912	$143,979,463	$16,201,449	$46,173,355	$206,354,267
TIA - Local Discretionary Funds	$86,852,548	$49,966,164	$36,886,384	$0	$86,852,548
Total YOE dollars for non-maintenance projects	**$1,699,253,097**	**$962,420,938**	**$736,832,159**	**$317,414,868**	**$2,016,667,966**
Federal and State - Maintenance, including LMIG	$243,459,658	$137,897,871	$105,561,787	$265,072,930	$508,532,587
SPLOST - Maintenance and Resurfacing	$462,218,800	$462,218,800	$0	$17,062,793	$479,281,593
Total YOE dollars	**$2,491,784,103**	**$1,612,503,773**	**$879,280,330**	**$599,550,591**	**$3,091,334,695**

Source: Coordination with ARTS, GDOT, Aiken County, Best Friend Express, Columbia County

Table 4. Summary of Funding Allocation by Project Types and Lump Sum Buckets by Location

Project type	Georgia	Richmond County	Columbia County	South Carolina	Total Allocated Funding
Widening / Capacity Projects	$1,025,565,280	$524,519,411	$501,045,868	$133,314,245	$1,158,879,524
Operations Budget (67% of Safety / Operations)	$206,441,368	$122,516,185	$83,925,183	$59,547,029	$265,988,398
Bridges	$26,616,740	$19,248,419	$7,368,322	$15,870,743	$42,487,484
Safety studies / defined projects	$3,466,641	$2,584,627	$882,014	$2,614,151	$6,080,791
Safety Lump Sum (33% of Safety / Operations – safety studies)	$98,213,436	$57,759,166	$40,454,270	$26,714,983	$124,928,420
Ped/Bike Lump Sum	$118,947,717	$67,369,466	$51,578,251	$19,044,892	$137,992,609
Transit Lump Sum (funding from FTA and State/Local match)	$160,180,912	$143,979,463	$16,201,449	$46,173,355	$206,354,267
Other transit improvements	$59,821,003	$24,444,201	$35,376,802	$14,135,470	$73,956,473
Maintenance Lump Sum	$792,531,006	$650,082,835	$142,448,171	$282,135,723	$1,074,666,729
Total Funding	**$2,491,784,103**	**$1,612,503,773**	**$879,280,330**	**$599,550,591**	**$3,091,334,695**

Source: Coordination with ARTS, GDOT, SCDOT, Aiken County, Columbia County

The multimodal transportation investments presented in the 2050 MTP are meant to provide a well-rounded transportation system heading into the future. Limited funding is available moving into the coming years, and the constrained tiers are meant to strike a balance of various multimodal projects. The financially constrained plan provides financial and project phasing detail. Planning level cost estimates, year of expenditure (YOE) dollars, and anticipated revenues are also presented. Anticipated

costs and revenues are based on the best available information, which was provided by GDOT, SCDOT, and local jurisdictions. The following sections provide the project lists for the ARTS 2050 MTP Update. Some of the assumptions for the funding allocation include:

- Any projects in ongoing TIP and TIA 2012 were included in the 2050 MTP.
- Projects in the approved list for TIA 2022 were also included in the MTP.
- Funding sources for any projects in the ongoing TIP were considered to be separate from the funding duration and levels summarized in the previous section.
- Funding allocation for each project type for each of Tiers 1, 2, and 3 was done separately for three geographical areas: Columbia County, Richmond County, and the ARTS planning area in South Carolina.
- Ranking from the project prioritization tool along with the cost of each project and available budget for that project category formed the basis for creating a constrained list of projects.
- The same project could be broken down to several project elements (Preliminary Engineering (PE), Right-of-way (ROW) and construction) and listed in multiple tiers depending on the cost of project by elements and available budget for that project category in each tier in that geographical area.
- Projects which could not be funded within the projected revenues are included as priority unfunded projects.

Tier 1 projects are programmed to commence preliminary engineering, ROW acquisition, or construction during the 2021 - 2024 planning period. **Table 5** and **Table 6** show Tier 1 projects in Georgia and South Carolina, respectively, sorted by their project ranking in each state. The color codes used in these tables match the color designations of project types in **Figure 6** that show the locations of all Tier 1 projects by types of improvements in the ARTS planning area.

Tier 2 projects are programmed to commence in the medium-range planning horizon (2025 - 2034). **Table 7** and **Table 8** show Tier 2 projects in Georgia and South Carolina, respectively, sorted by their project ranking in each state. **Figure 7** shows the locations of all Tier 2 projects by types of improvements in the ARTS planning area.

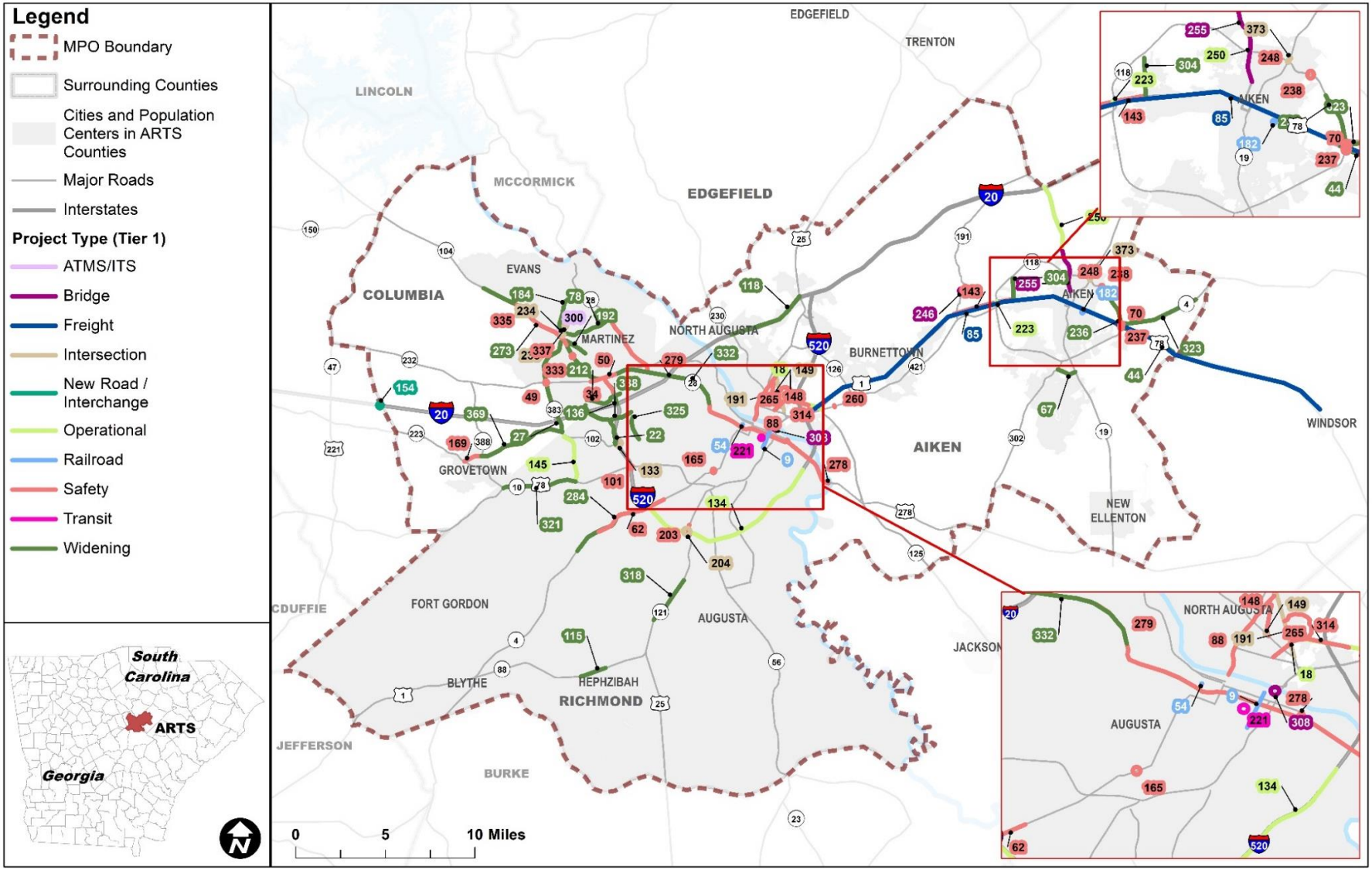
For more detailed information please see **Chapter 6 of the MTP** and **Technical Report #6**.

Table 5. Recommended Tier 1 (2021-2024) – Top 10 Georgia Projects

GA Project Ranking	MTP Project ID	Project Description	County	Funding category	Project Type	Elements in Tier 1	Project Costs in Tier 1 (2019$)
1	279	SR 28 between Evans to Locks and 15th St	Richmond	Safety	Safety	PE	$427,400
2	221	Relocate the primary Augusta Transit hub from Broad Street to downtown Augusta	Richmond	Transit	Transit	PE	$990,000
3	165	Milledgeville Rd and Olive Rd	Richmond	Safety	Safety	PE	$50,000
4	335	Washington Rd between Halali Farm Rd & Ronald Reagan Dr	Columbia	Safety	Safety	PE	$105,700
5	337	Washington Rd between Riverwatch Pkwy and Ronald Reagan Dr	Columbia	Safety	Safety	PE	$50,000
6	333	Washington Rd at Owens Rd	Columbia	Safety	Safety	PE	$50,000
7	278	SR 28 between 15th St and Savannah River	Richmond	Safety	Safety	PE	$264,600
8	234	Roundabout at intersection of Evans Town Center Blvd and Evans to Locks Rd	Columbia	Operational	Intersection	PE	$139,707
9	169	Wrightsboro Road between Jimmie Dyess Pkwy and Harlem Grovetown Road / Robinson Ave	Columbia	Safety	Safety	PE	$247,000
10	27	Belair Rd between Washington Rd and Wrightsboro Rd, widen from 5 to 6 lanes	Columbia	Capacity	Widening	PE, ROW	$8,397,597

Table 6. Recommended Tier 1 (2021-2024) – Top 10 South Carolina Projects

SC Project Ranking	MTP Project ID	Project Description	County	Funding category	Project Type	Elements in Tier 1	Project Costs in Tier 1 (2019$)
1	148	Knox Ave between Lecompte Ave and Martintown Rd	Aiken	Safety	Safety	PE	$50,000
2	143	Jefferson Davis Hwy between Chalk Bed Rd & Gregg Hwy	Aiken	Safety	Safety	PE	$140,700
3	18	Atomic Road between Old Edgefield Road (S-197) to Jefferson Davis Highway (US 1)	Aiken	Operational	Operational	PE	$864,479
4	248	SC 19 (Laurens St) at SC 118 (Rutland Dr)	Aiken	Safety	Safety	PE	$50,000
5	85	Freight corridor improvements on U.S. 78	Aiken	Operational	Freight	PE	$951,183
6	191	Old Edgefield Road (S-197) from US 25 (Knox Ave) to SC 230 (Martintown Rd)	Aiken	Operational	Intersection	PE	$205,155
7	88	Georgia Ave between Savannah River & Knox Ave	Aiken	Safety	Safety	PE	$111,900
8	70	E Pine Log Rd at Charleston Hwy	Aiken	Safety	Safety	PE	$50,000
9	260	SC 421 (Augusta Hwy) at Old Cherokee Dr (S-385)	Aiken	Safety	Safety	PE	$50,000
10	223	Richland Avenue West and University Parkway Intersection	Aiken	Operational	Operational	All	$917,400



Source: GDOT – ARTS Travel Demand Model Update, First Network Analysis (2019)

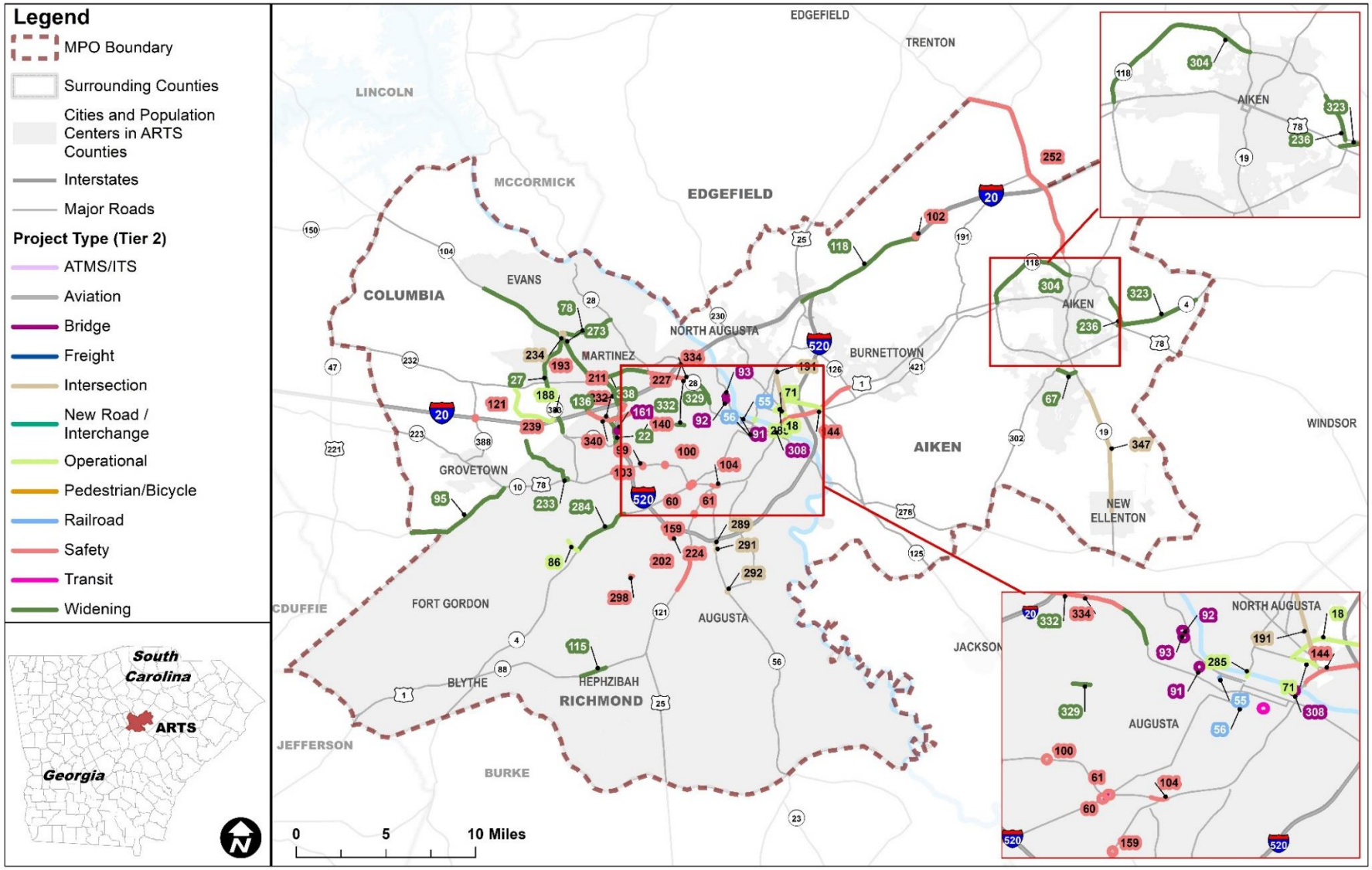
Figure 6. Recommended Tier 1 Projects (2021-2024)

Table 7. Recommended Tier 2 (2025 – 2034) – Top 10 Georgia Projects

GA Project Ranking	MTP Project ID	PI	Project Description	County	Funding category	Project Type	Elements in Tier 2	Project Costs in Tier 2 (2019$)	Project Costs in Tier 2 (YOE$)
42	221		Relocate the primary Augusta Transit hub from Broad Street to downtown Augusta	Richmond	Transit	Transit	ROW	$2,200,000	$2,597,715
43	234		Roundabout at intersection of Evans Town Center Blvd and Evans to Locks Rd	Columbia	Operational	Intersection	Construction	$1,412,593	$1,667,961
44	27		Belair Rd between Washington Rd and Wrightsboro Rd, widen from 5 to 6 lanes	Columbia	Capacity	Widening	Construction	$29,659,151	$35,020,919
45	273		SR 104 between Hardy McManus and Pleasant Home, widen from 5 to 6 lanes	Columbia	Capacity	Widening	Construction	$46,378,048	$54,762,252
46	78	ARTS_C_114	Evans to Locks Road Widening and Roundabout from Town Centre Boulevard to Fury's Ferry Road, widen from 2 to 4 lanes	Columbia	Capacity	Widening	ROW, Construction	$49,358,764	$58,281,820
47	140		Jackson Rd north of Wrightsboro Rd	Richmond	Safety	Safety	PE	$50,000	$59,039
48	56	LR-90	CSX Railroad at Walton Way/12th Street Rail Crossing Improvements	Richmond	Safety	Railroad	All	$20,000	$23,616
49	202		Peach Orchard Rd between Byrd Rd & Rosier Rd	Richmond	Safety	Safety	PE	$89,000	$105,089
50	306		US 1 (Deans Bridge Rd) Southwest Park and Ride at Walmart / Southpointe Plaza	Richmond	Transit	Transit	All	$2,938,000	$3,469,130
51	121		I-20 at Lewiston Rd	Columbia	Safety	Safety	PE	$50,000	$59,039

Table 8. Recommended Tier 2 (2025 – 2034) – Top 10 South Carolina Projects

SC Project Ranking	MTP Project ID	PI	Project Description	County	Funding category	Project Type	Elements in Tier 2	Project Costs in Tier 2 (2019$)	Project Costs in Tier 2 (YOE$)
28	18		Atomic Rd between E Buena Vista Ave and Jefferson Davis Hwy	Aiken	Operational	Operational	Construction	$9,456,221	$10,561,384
29	191		Old Edgefield Road (S-197) from US 25 (Knox Ave) to SC 230 (Martintown Rd)	Aiken	Operational	Intersection	Construction	$2,074,345	$2,316,777
30	71	34298/ SC-12	East Buena Vista Ave from Barton Road to Martintown Road	Aiken	Operational	Operational	All	$1,961,300	$2,190,520
31	120		I-20 and US 1 (Columbia Highway) Park and Ride in Aiken County (Exit 22) from I-20 to US 1	Aiken	Transit	Transit	All	$1,401,000	$1,564,737
32	308		US 1 at Savannah River at the Georgia/South Carolina state line	Aiken, Richmond	Bridge	Bridge	Construction	$3,222,631	$3,702,240
33	144		Jefferson Davis Hwy between Savannah River & Belvedere Clearwater Rd	Aiken	Safety	Safety	PE	$186,000	$207,738
34	304		University Parkway (S-2131) from US 1/US 78 Richland Avenue to SC 118, widen from 3 to 5 lanes	Aiken	Capacity	Widening	Construction	$14,312,119	$15,984,798
35	323		Wagener Road from US 78 to S-260 (Wright's Mill Road), widen from 2 to 4 lanes	Aiken	Capacity	Widening	Construction	$8,854,110	$9,888,903
36	102		Bettis Academy Rd at I-20	Aiken	Safety	Safety	PE	$50,000	$55,844
37	347		Whiskey Road Intersection from Twin Lakes Drive to George Avenue	Aiken	Operational	Intersection	PE	$177,822	$198,604



Source: GDOT – ARTS Travel Demand Model Update, Third Network Analysis (2019)

Figure 7. Recommended Tier 2 Projects (2025-2034)

8. Summary and Conclusions

ARTS Future Mobility 2050 MTP, as a regional blueprint and policy guide for future transportation infrastructure, recommends multi-modal transportation capital improvements over the next thirty (30) years. A key outcome of this plan update is identifying or confirming local community visions and priorities, reflecting input from all transportation users through a continuing, cooperative, and comprehensive public engagement process. The recommended transportation improvements include highways/roads, traffic safety and maintenance, traffic signal operations, bridge, freight and railroad, public transit, pedestrian and bike paths.

This Executive Summary provides only a brief synopsis of the transportation planning process. We encourage you to take the time to become familiar with the full 2050 MTP document for a complete description of the transportation planning topics summarized here. For an even deeper dive, we refer you to the six (6) individual Technical Reports, which are stand-alone documents with more in-depth analyses on each topic.

Throughout this series of documents, it is demonstrated that the 2050 MTP is a collaborative effort which aims to ensure that our regional transportation system provides safe, accessible, and efficient mobility for all travelers; supports regional economic growth; and enhances the quality of life.

Highlights of the ARTS 2050 MTP

- Continued growth is anticipated in the four-county ARTS region through 2050.
- There is a high demand for transportation improvements with capacity, safety and maintenance as priorities.
- Also, a need has been identified to focus on alternative forms of transportation and new technologies.
- Robust public and stakeholder involvement were important throughout process of developing the MTP.
- Over $3 billion of resources is predicted to be available for transportation over the next 30 years.
- The MTP identifies a fiscally-constrained list of projects to implement to performance measures and goals established in the MTP.

Augusta Regional Transportation Study

FUTURE MOBILITY 2050

Augusta Regional Transportation Study (ARTS)
535 Telfair St, Suite 300, Augusta GA 30901
(706) 821-1796
www.augustaga.gov/arts
www.futuremobility2050.com