ARTS2050

METROPOLITAN TRANSPORTATION PLAN UPDATE ▸ *Future Mobility*

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TECHNICAL REPORT #5: NEEDS ASSESSMENT

Final MTP

September 10, 2020

The Augusta Regional Transportation Study (ARTS) as a federally-designated agency was established as a bi-state Metropolitan Planning Organization (MPO) in 1970. The ARTS MPO working collaboratively with partner agencies is responsible for making policy about local transportation and deciding how to spend Federal funds for carrying out the transportation planning process. The ARTS MPO is also responsible for overseeing multimodal and long range transportation planning within the ARTS planning area to ensure continued accessibility, connectivity, efficiency, mobility, and safety for the movement of people and freight.

The ARTS planning area includes Richmond County, and the Cities of Hephzibah and Blythe in Georgia; the Fort Gordon Military Reservation; parts of Columbia County, including the City of Grovetown; and, parts of Aiken and Edgefield Counties in South Carolina, including the Cities of Aiken, North Augusta, New Ellenton and Burnettown.

ARTS METROPOLITAN TRANSPORTATION PLAN UPDATE

Future Mobility 2050

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The ARTS MPO is also committed to taking positive and realistic affirmative steps to ensure the protection of rights and opportunities for all persons affected by its plans and programs.

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

Prepared in cooperation with the Georgia Department of Transportation, South Carolina Department of Transportation and the Federal Highway Administration.

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1 Introduction

The Metropolitan Transportation Plan (MTP) is the official multimodal transportation plan developed and adopted through the metropolitan transportation planning process for the Augusta Regional Transportation Study (ARTS). The ARTS Metropolitan Planning Organization (MPO) approved its 2040 Long Range Transportation Plan (LRTP) in 2015. While the document title has changed in accordance with federal guidance from LRTP to MTP, the purpose and subject-matter within the document have not changed; the 2040 LRTP will serve as the basis for the 2050 MTP.

The ARTS MTP covers a thirty-year planning horizon and is updated at least once every five years. The MTP can be amended at any time, and the ARTS Policy Committee must approve any update or amendment to the MTP. Interested parties, including the public, have an opportunity to review and comment on the MTP. Projects must be included in the MTP before being placed in the ARTS Transportation Improvement Program (TIP). 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.

1.1 Project Area Overview

The 2050 MTP covers the area within the ARTS boundary. This includes all of Richmond County, the eastern portion of Columbia County, most of Aiken County, and a small portion of Edgefield County. Richmond and Columbia Counties are in Georgia, and Aiken and Edgefield Counties are in South Carolina. This area will be referred to in this document as the "ARTS planning area," as shown in **Figure 1-1**.

1.2 Needs Assessment & Development of Universe of Projects

This Needs Assessment Technical Report builds upon **Technical Report #2: Review Data and Existing Conditions** and summarizes the ARTS planning area's current and future transportation and land use needs through 2050. These needs 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. This report also includes a list of the Universe of Projects also known as fiscally-unconstrained (i.e., not limited by the availability of funding) projects. This project list 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. "**Technical Report #6: Financial Plan, Fiscally Constrained**" follows this report and includes a prioritized project list constrained to available funding.

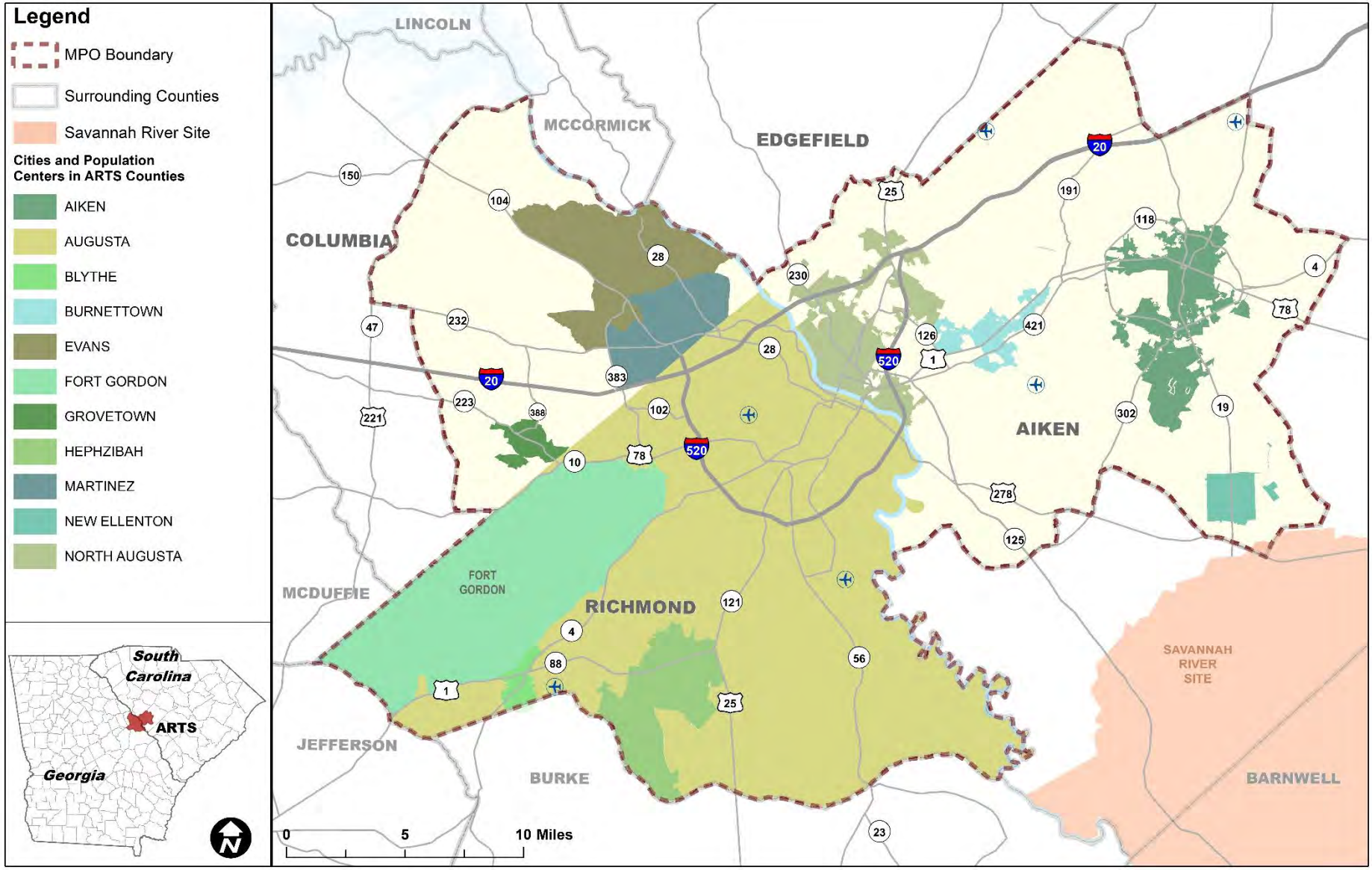


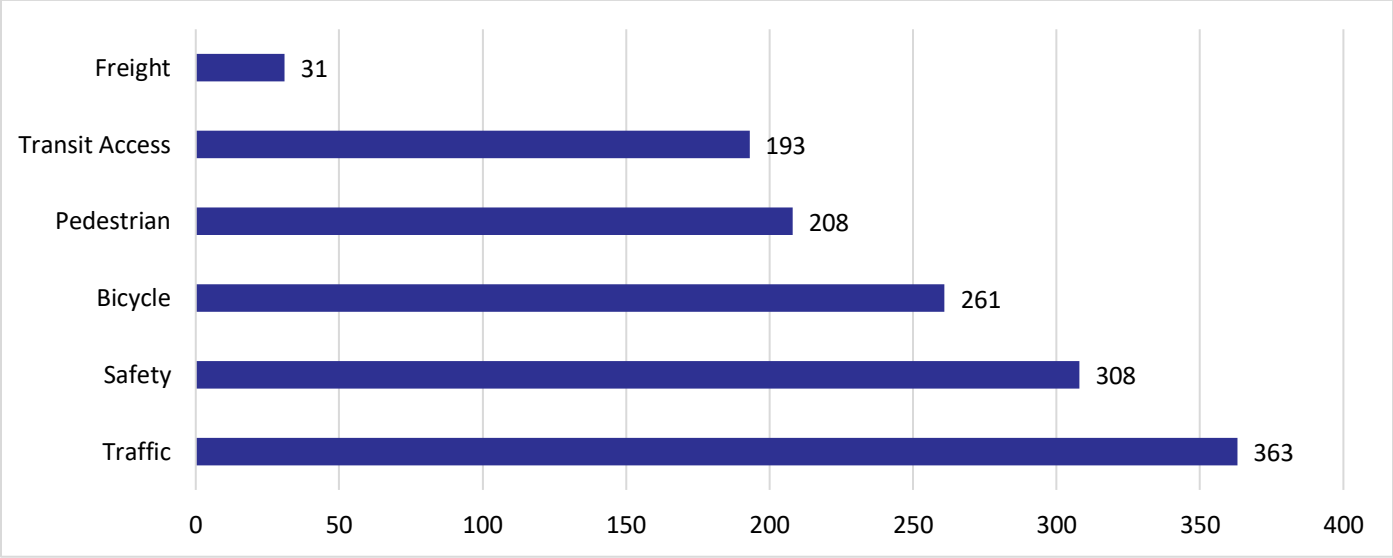
Figure 1-1. ARTS Planning Area

2 Public and Stakeholder Engagement

Four public meetings were conducted in Fall 2019 to get public and stakeholder input on ARTS planning area transportation needs. An online survey was also conducted between September and October of 2019, and participants were asked to add markers in locations that (from their perspective) would need improvements within the ARTS planning area. Participants chose from six types of improvement markers:

- Traffic
- Safety
- Bicycle
- Pedestrian
- Transit Access
- Freight Movement

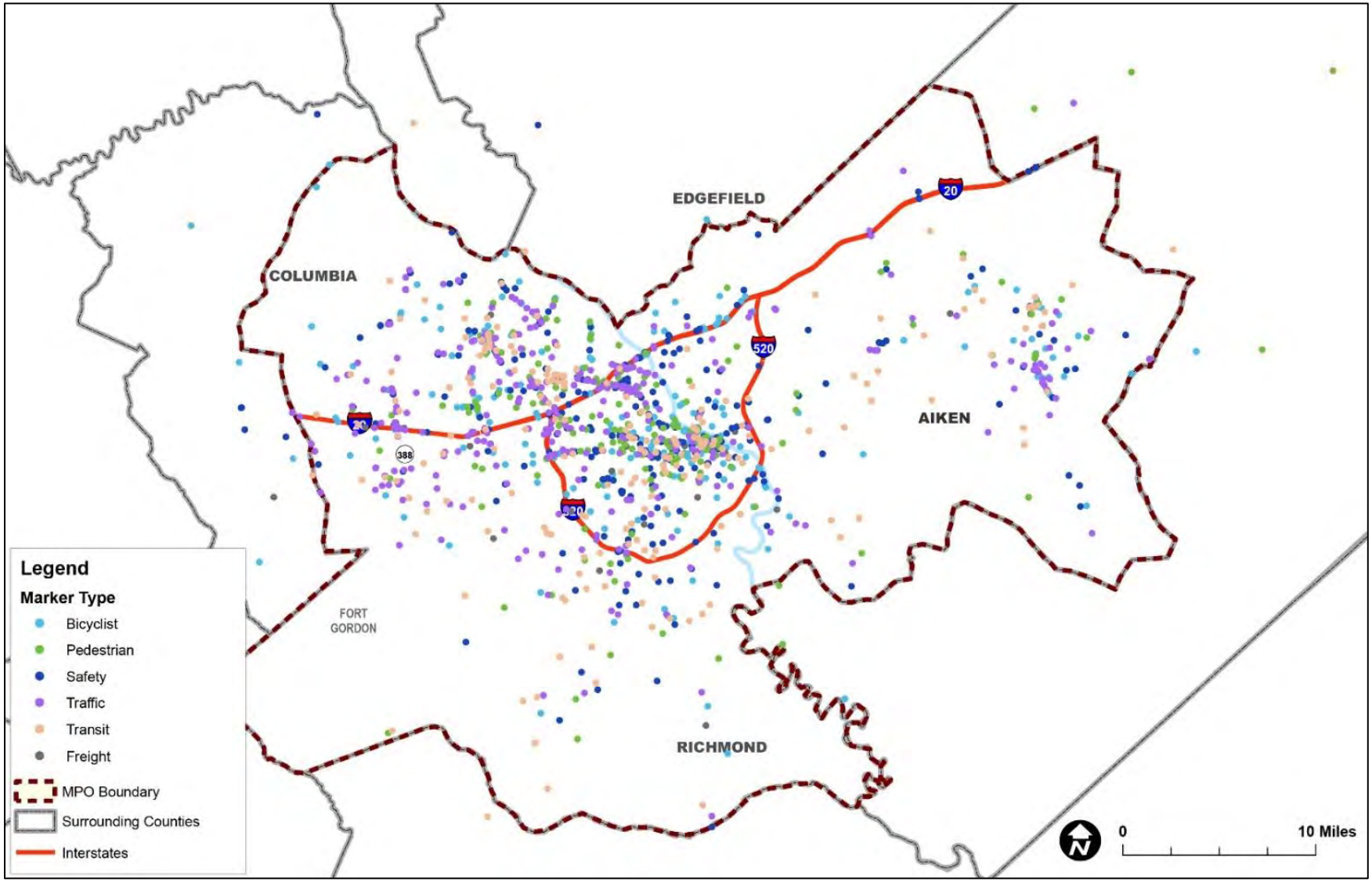
Participants could add comments to each marker if they had a specific concern or need. At the end of the participation process, 1,354 map markers had been contributed, as shown in **Figure 2-1** and **Figure 2-2**. From the number of comments received by category, it can be deduced that the largest concern for respondents among these categories were traffic and safety, which garnered 363 and 307 map markers, respectively.



Source: MetroQuest Survey (October 2019)

Figure 2-1. Summary of Improvements Types Identified Through Public Input (2019)

For a full report of public and stakeholder engagement, see **Technical Report #1.**



Source: MetroQuest Survey (October 2019)

Figure 2-2. Public Input from MetroQuest Survey - Improvement Markers

3 Land Use & Transportation

Linking land use and transportation decisions would allow for effective mobility and efficient movement of persons and goods and promote coordinated land use and development patterns. This chapter summarizes future land uses and expected growth in the ARTS planning area to identify key areas for consideration during the 2050 MTP update process.

3.1 Growth in Population and Employment

Based on population and employment projections discussed in Chapter 2 of **Technical Report #2,** significant population and employment growth is expected in Columbia and Aiken Counties. Columbia County is expected to nearly double its population from the 2015 estimates, adding nearly 125,000 residents to the county by 2050. Similarly, employment growth of nearly 64 percent is expected in Columbia County, and 48 percent in Aiken County. The population in Richmond County, on the other hand, is projected to stay relatively stable with an increase of about 7 percent, but the number of jobs in Richmond County is expected to grow by 18 percent, adding nearly 23,000 jobs. **Figure 3-1** and **Figure 3-2** illustrate growth in population and employment per Traffic Analysis Zones (TAZ) in the ARTS planning area. High growth in population and employment may also suggest that some capacity and operational improvements will be needed to accommodate this growth. With growth patterns spread across the ARTS planning area, it is essential to accommodate inter-county connections, including those for transit and non-motorized modes.

3.2 Future Land Use

Chapter 3 of Technical Report #2 describes the existing and future land use in the ARTS planning area in further detail. A summary of the future land uses is provided below.

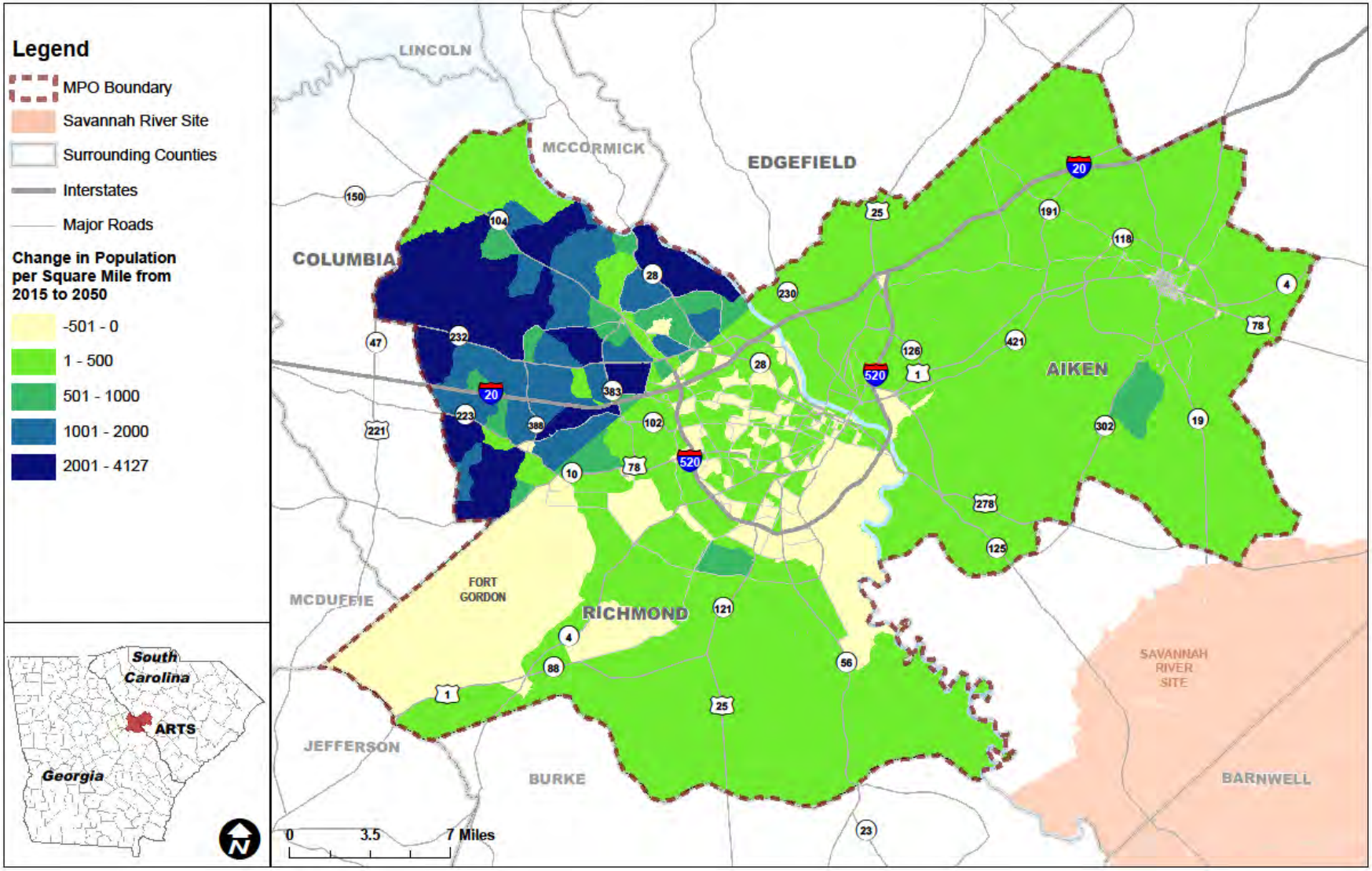
In Columbia County, planned concentrated density in the southeastern portion of Columbia County may indicate a need to support future development and resulting traffic volume increases. The *Vision 2035 Columbia County, Georgia Comprehensive Plan (2015)* identifies concentrated activity centers and town centers that will likely create a need for additional mobility infrastructure for vehicles as well as pedestrians and cyclists. The *City of Grovetown Comprehensive Plan (2016)* aims for open space corridors, land uses that transition from a dense urban character to a suburban residential character, and mixed use in the north of the city. This indicates that transportation demand will likely concentrate in northern Grovetown.

The *Envision Augusta Comprehensive Plan 2035 (2018)* sets forth a future land use plan for Richmond County that calls for commercial, industrial, and office development primarily centered on the interstates, while continuing to strengthen employment centers in the urban center of Augusta. Low density and rural residential land uses are prescribed mostly outside of I-520. These development patterns will determine locations with the greatest need for increased connectivity.

The *Aiken County Comprehensive Plan (2014)* distinguishes between rural unincorporated Aiken County and urbanized areas. Unincorporated Aiken County's land use goals include preservation of rural and agricultural land. Development should be highly context-sensitive and located primarily in existing urban areas. The City of Aiken, on the other hand, has primarily residential land uses with some commercial clusters and corridors. These locations may require additional connectivity and increased transportation infrastructure capacity.

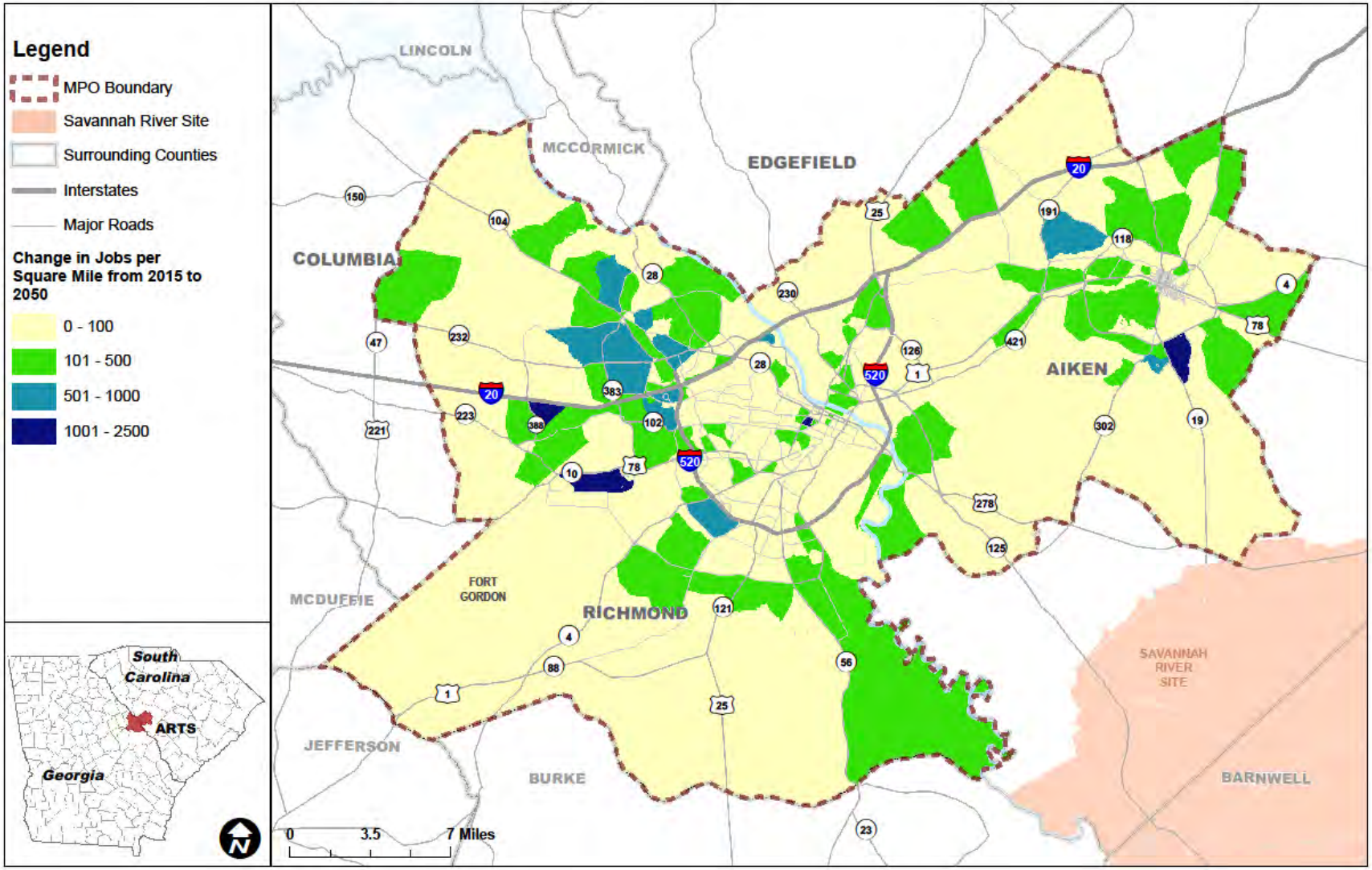
The *City of North Augusta Comprehensive Plan (2016)* sets forth a future land use plan illustrating large areas of mixed-use developments and a primary commercial corridor, indicating that these locations will need additional connectivity and mobility capacity in the future. Abundant residential land use may indicate a large portion of people commuting outside of the area for work and recreation.

The *Edgefield County Comprehensive Plan (2019)* indicates that the portion of Edgefield County within the ARTS planning area is primarily residential with only a small neighborhood commercial corridor. This may indicate a high demand for transportation infrastructure during commuting hours for the people who live in Edgefield and work elsewhere.



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

Figure 3-1. Modeled Population Growth per Square Mile for Traffic Analysis Zones (TAZ) in the ARTS Planning Area, 2015 to 2050



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

Figure 3-2. Modeled Job Growth per Square Mile for TAZs in the ARTS Planning Area, 2015 and 2050

4 Roads and Highways

This section includes a summary of roads and highway-related needs in the ARTS planning area including needs identified for traffic congestion, safety, bridges, and emerging technologies.

4.1 Congestion Management

The ARTS MPO adopted an updated Congestion Management Process (CMP) in 2019. This latest CMP identifies seriously congested corridors and proposes congestion management processes to improve travel conditions. Of the 53 corridors surveyed in the ARTS planning area for the 2018 CMP, 31 corridors were categorized as *Seriously Congested*. The 2018 CMP analysis indicates five (5) *Seriously Congested* corridors in Aiken County, 10 in Columbia County, and 16 in Richmond County. There were no corridors surveyed in Edgefield County. A detailed list of the CMP corridors is provided in **Technical Report #2**.

Recommendations from the CMP were supplemented by the results of the MPO's travel demand model, maintained by GDOT and its consultant, HNTB. The statewide model is mostly run for areas outside of the MPOs and has been applied to the ARTS planning area. GDOT develops this model for ARTS, which is used to assess existing and anticipated future traffic conditions in the ARTS planning area. This model covers the entire four-county area. Outputs of the model also provide details needed to assess capacity of major transportation facilities in the model area. As the regional travel demand model is supposed to provide traffic movements across this multi-county area, it is an appropriate tool for general traffic patterns on major roadways and corridors. Thus, some of the smaller local roadway facilities are not included in the model network. The travel demand model was developed for the base year of 2015, which is expected to mimic existing conditions in the ARTS planning area and the future year 2050, which is a horizon year for this MTP update. Development of socioeconomic forecasts for 2050 is discussed in further detail in Chapter 3 and in **Chapter 2 of Technical Report #2**. Results from the travel demand model were compared against the CMP corridors to validate the recommendations of CMP and to identify any corridors that were not surveyed in CMP but stand a chance of being congested in the future.

Figure 4-1 provides a general visualization for Level of Service (LOS). This metric is used as a proxy to identify potential segments with traffic congestion. The model estimates the LOS by taking a ratio of estimated 'Volume' on a roadway segment with its 'Capacity' (V/C ratio). LOS A through F indicate varying levels of traffic, from free flow conditions in LOS A to heavily congested stop-and-go conditions in LOS F. LOS A through C generally indicate free flow to near-free flow of traffic. Generally, levels A through D are considered acceptable, and LOS E and F are considered unacceptable. In 2015, the model output indicates that over 60 percent of Vehicle Miles Traveled (VMT) enjoyed a LOS of C or better and just under 10 percent of VMT was on roadway segments that exceeded their capacity. On the other hand, by 2050, only about 39 percent of VMT would experience a level of service C or better, a drop of nearly 24 percentage points from 2015. While just under 10 percent of VMT was on roadways with LOS F in 2015, more than a quarter of total VMT in 2050 was estimated to be on roadways with LOS F. Change in total vehicle hours of delay from 2015 to 2050 is even more drastic, with nearly a 300 percent increase in the total delay.

Source: Quality/Level of Service Handbook, Florida Department of Transportation (2013)

Figure 4-1. Level of Service (LOS)

Table 4-1 summarizes travel demand model results for the existing network (2015 base year) and the future network (2050 Existing + Committed Projects). The 2050 Existing + Committed Projects scenario uses the 2050 socioeconomic forecasts and assumes that only the projects for which the construction is expected to start in the near future (i.e. projects with committed funding for construction in the Transportation Improvement Program (TIP)) would be built by 2050. It keeps the rest of the network similar to the existing conditions.

Table 4-1. Summary of Travel Demand Model Results, 2015 and 2050

Network	2015 Base Year		2050 Existing + Committed Projects	
LOS by Vehicle Miles Traveled (VMT)	VMT	%*	VMT	%*
A-C	6,495,490	64%	5,156,130	36%
D	1,977,140	19%	2,185,190	15%
E	891,050	9%	2,282,920	16%
F	767,400	8%	4,626,960	33%
Total Vehicle Miles Traveled	**10,131,070**		**14,251,210**	
Vehicle Hours Traveled	**377,840**		**923,360**	
Vehicle Hours of Delay	**114,700**		**530,010**	

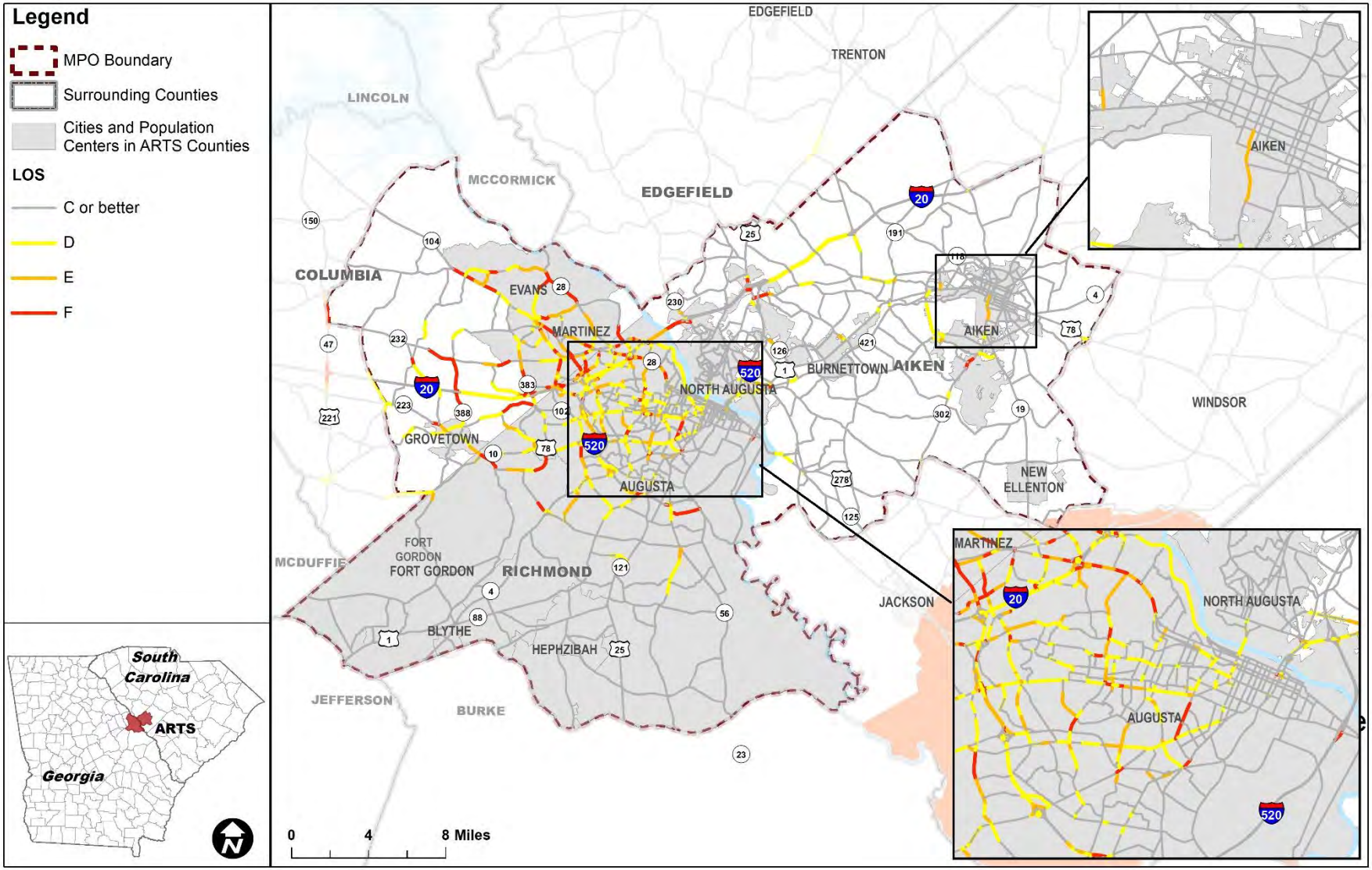
Source: GDOT – ARTS Travel Demand Model Update, First Network Analysis (2019), GDOT – ARTS Travel Demand Model Update, Third Network Analysis (2019)

**Total percentages might not add up to 100 due to rounding*

Figure 4-2 illustrates LOS for roadways in the ARTS planning area. Based on the outputs from the 2015 travel demand model, highest traffic volumes are observed on major facilities such as interstates – I-20 and I-520, US and State highways such as US 1, US 25, US 78, GA 25, and GA 104. Segments with LOS E or F are mostly on major

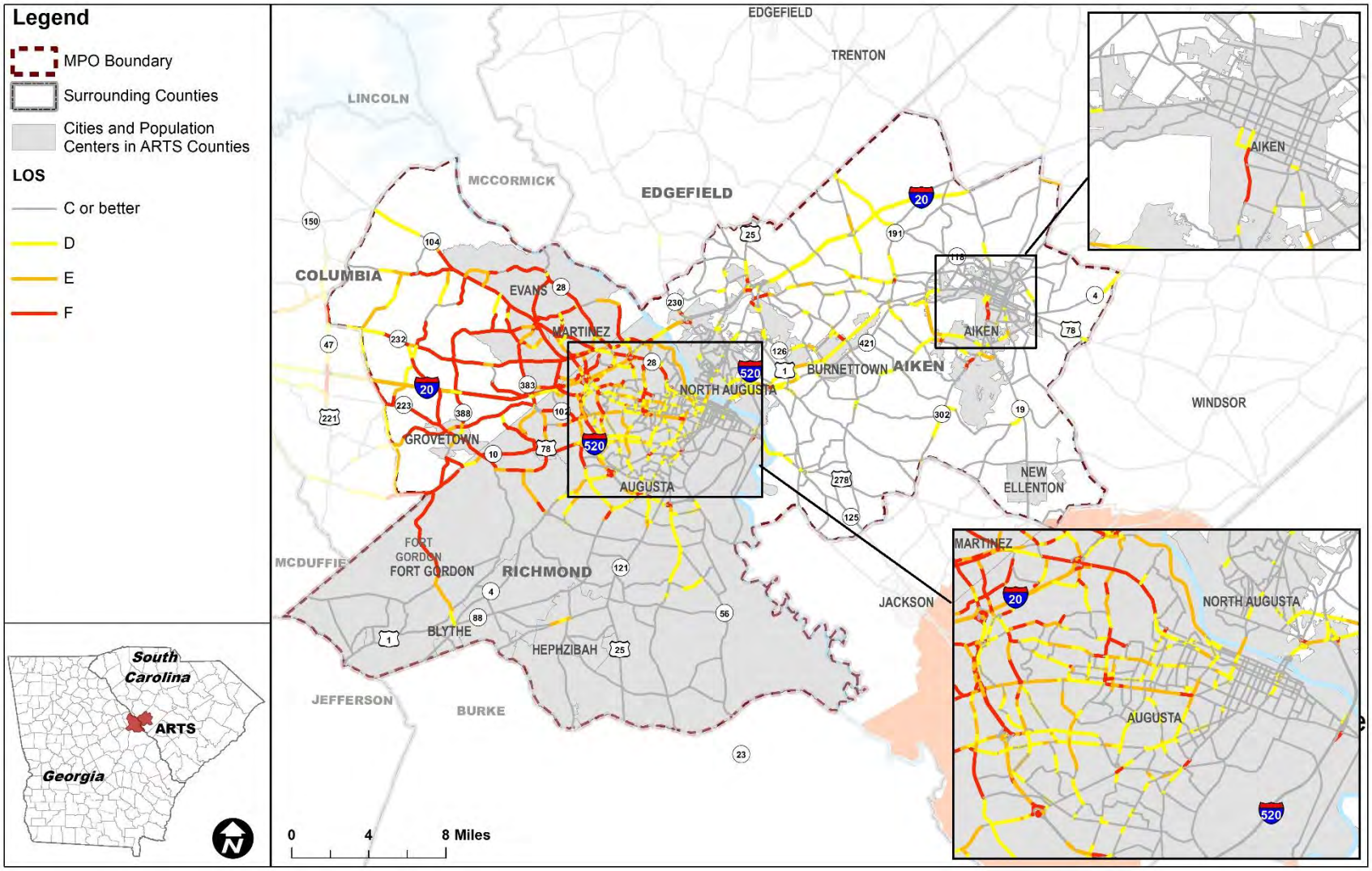
facilities in the northern parts of Richmond County and the eastern parts of Columbia County. **Figure 4-3** shows the anticipated future LOS in 2050 for roads in the ARTS planning area. The traffic volume on roads that connect Richmond County and Columbia County exceed the roadways' design capacity, which is in line with the expected growth in this part of the ARTS planning area. Congested roads from the model results were also compared against the CMP corridors to verify roadway congestion needs for the ARTS planning area.

Figure 4-4 shows roadways with traffic congestion needs identified in the ARTS planning area based on the latest CMP findings and the MPO's 2015 and 2050 travel demand model outputs. These corridors are either identified as congested/at the risk of congestion in the CMP or anticipated to operate at LOS E and F in 2050 from the travel demand model output. Some of the CMP corridors were estimated to have LOS D based on MPO's 2050 model with existing and committed projects (third network). Operational improvements, rather than adding lane capacity, would be recommended for such corridors.



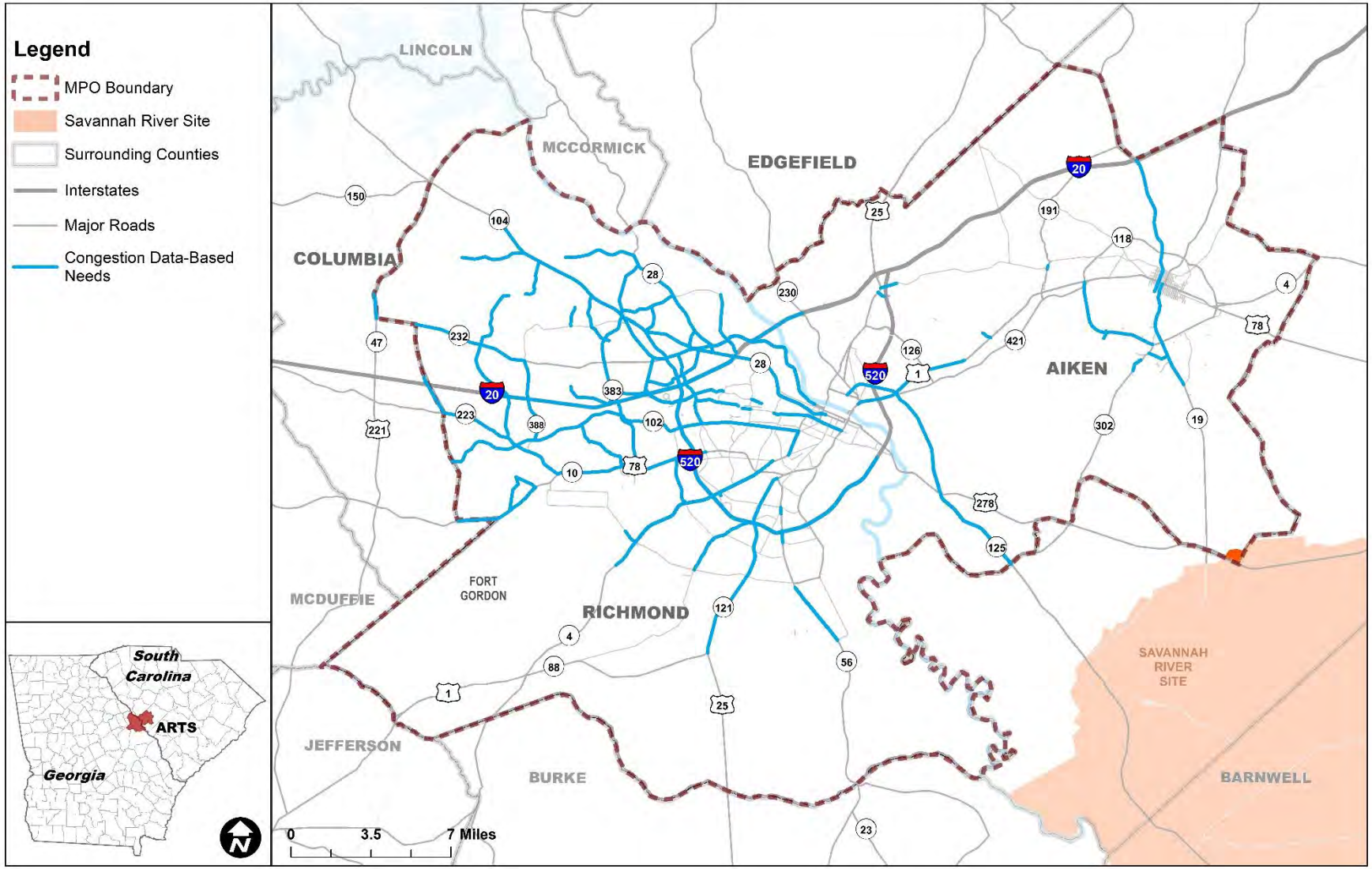
Source: GDOT – ARTS Travel Demand Model Update, First Network Analysis (2019)

Figure 4-2. Level of Service on 2015 Model Network



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

Figure 4-3. Projected Level of Service on 2050 Existing + Committed Projects Model Network



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

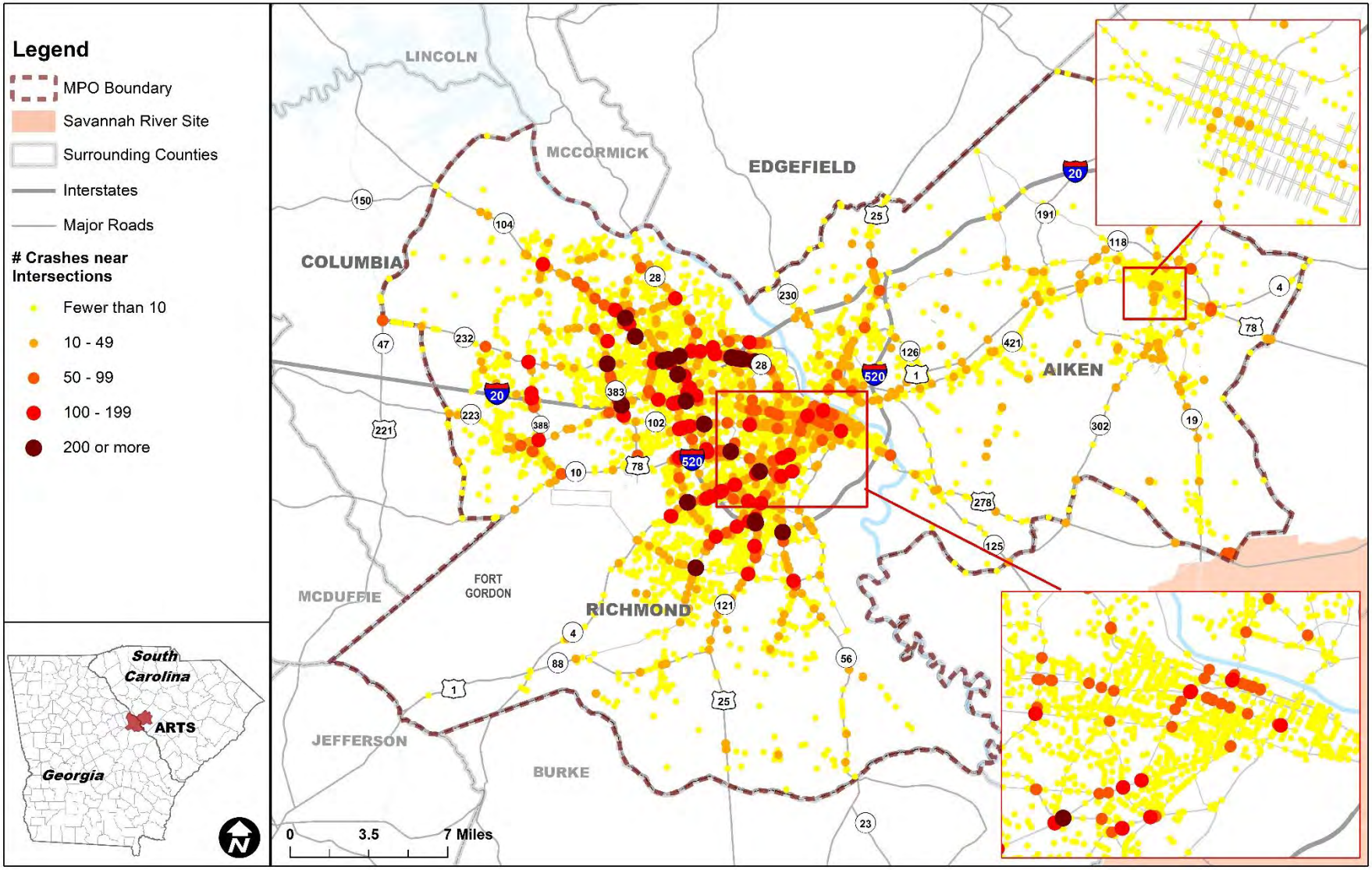
Figure 4-4. Projected Roadway Congestion Related Identified Needs in ARTS Planning Area, 2050

4.2 Traffic Safety

Chapter 5 in Technical Report #2 provides a detailed assessment of safety conditions in the ARTS planning area. This section summarizes such safety needs in the region. Within the ARTS planning area, there were 89,604 crashes, 32,086 injuries, and 321 fatalities reported during the last 6-year period (2012-2017). The project team analyzed this data to identify locations with a higher number of crashes. Such locations in the ARTS planning area include interstates, state routes, and US highways as shown in **Figure 4-5.** These maps identify the following intersections and road segments with a higher number of crashes that may need safety improvements:

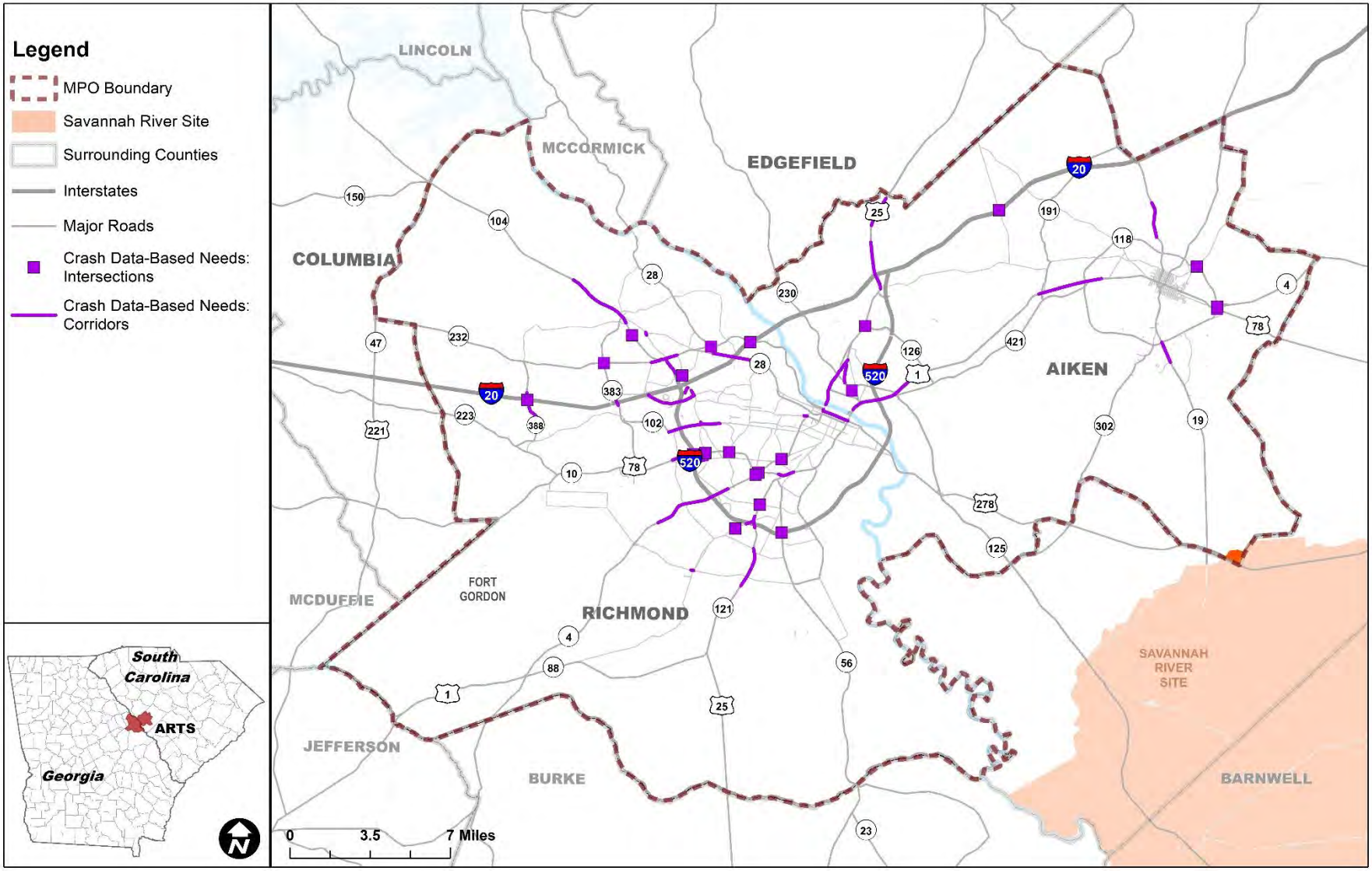
- I-20
- I-520
- GA 232/Columbia Road
- GA 28/GA 101/Washington Road
- Wrightsboro Road
- GA 4
- US 25/GA 121
- GA 56
- Windsor Spring Road

Figure 4-6 illustrates high crash corridors and intersections identified in the ARTS planning area. High numbers of crashes at these locations also correlate with high traffic volumes These locations will need to be studied further, including an assessment of the roadway geometry, pavement, and lighting conditions, to understand potential causes for these crashes and to come up with the most appropriate solutions.



Source: ARTS MPO, SCDOT Crash Data (2012-2017), GDOT Crash Data (2012-2017)

Figure 4-5. Relative Crash Density in the ARTS Planning Area (2012-2017)



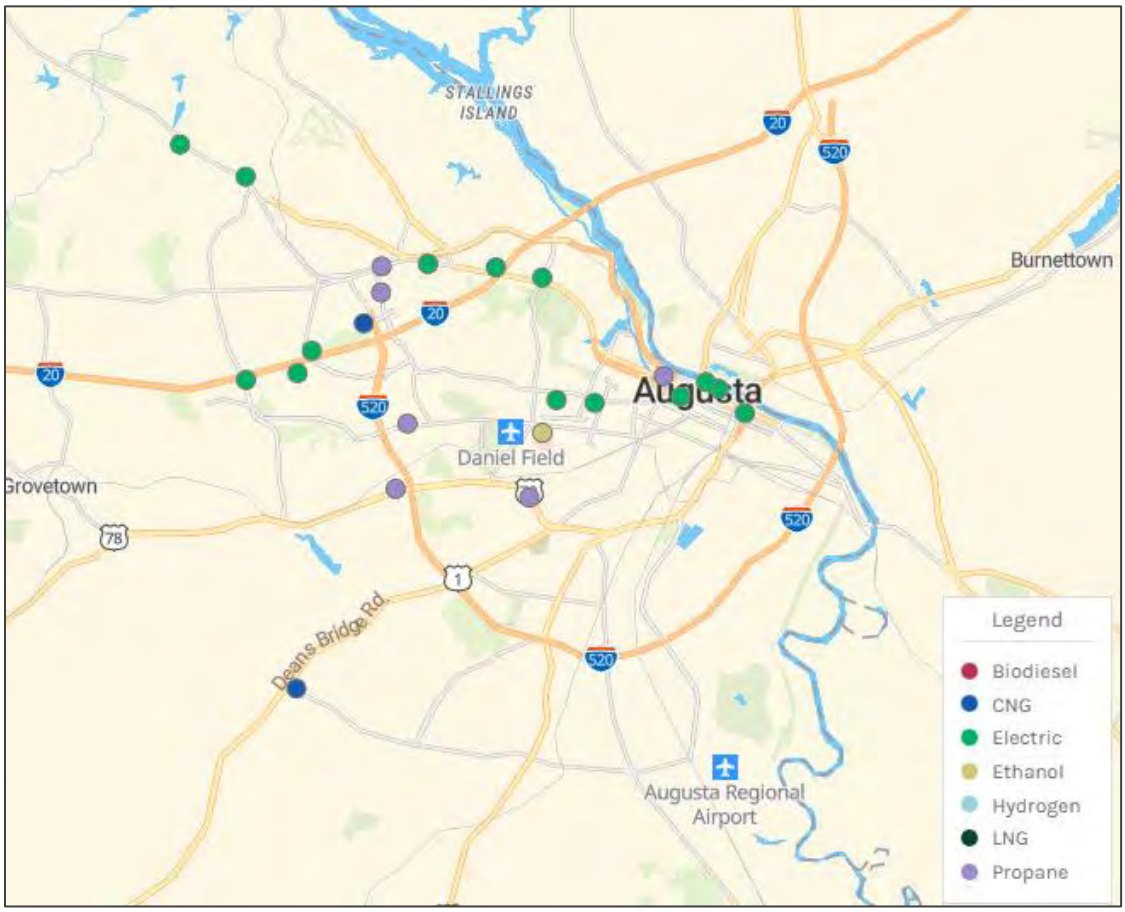
Source: ARTS MPO, SCDOT Crash Data (2012-2017), GDOT Crash Data (2012-2017)

Figure 4-6. Identified Safety Needs in the ARTS Planning Area

4.3 Emerging Technologies

Recent advancements in technologies have made it necessary to assess the potential for shared mobility services, emerging technologies such as electric vehicles, connected and automated vehicles, and upcoming data sources with a vast wealth of information that can inform major decisions. The potential needs regarding emerging issues in transportation are:

- Ridesharing Services: While curbside pick-up and drop-off provides convenience for ridesharing users, it can hold up the traffic flow on some busy streets. It is important to have regional policies to manage pick-up and drop-off locations for ridesharing services.
- Electric Vehicles: A network of charging stations is key to supporting longer distance travel using electric vehicles. While the Alternative Fuels Data Center of US Department of Energy (DOE) shows 14 charging stations in the ARTS planning area, there might be a need to look for ways to expand such facilities in the future (see **Figure 4-7**).



Source: Alternative Fuel Data Center, US Department of Energy (2020)

Figure 4-7. Alternative Fueling Stations in the ARTS Planning Area (2020)

- Connected and Automated Vehicles: ARTS MPO will need to be prepared to take advantage of opportunities to pilot technologies and integrate advancements by having first-hand knowledge of how these technologies can bring benefits to the community and the transportation system.

- Emerging Data Sources: While ARTS is not currently maximizing the use of big data (e.g., Regional Integrated Transportation Information System (RITIS) or National Performance Management Research Data Set (NPMRDS)) as part of its day-to-day activities, these datasets have tremendous potential to better understand the systemwide performance of transportation systems with a capability of pinpointing congested locations and areas based on real-time travel time data.

4.4 Bridge Conditions

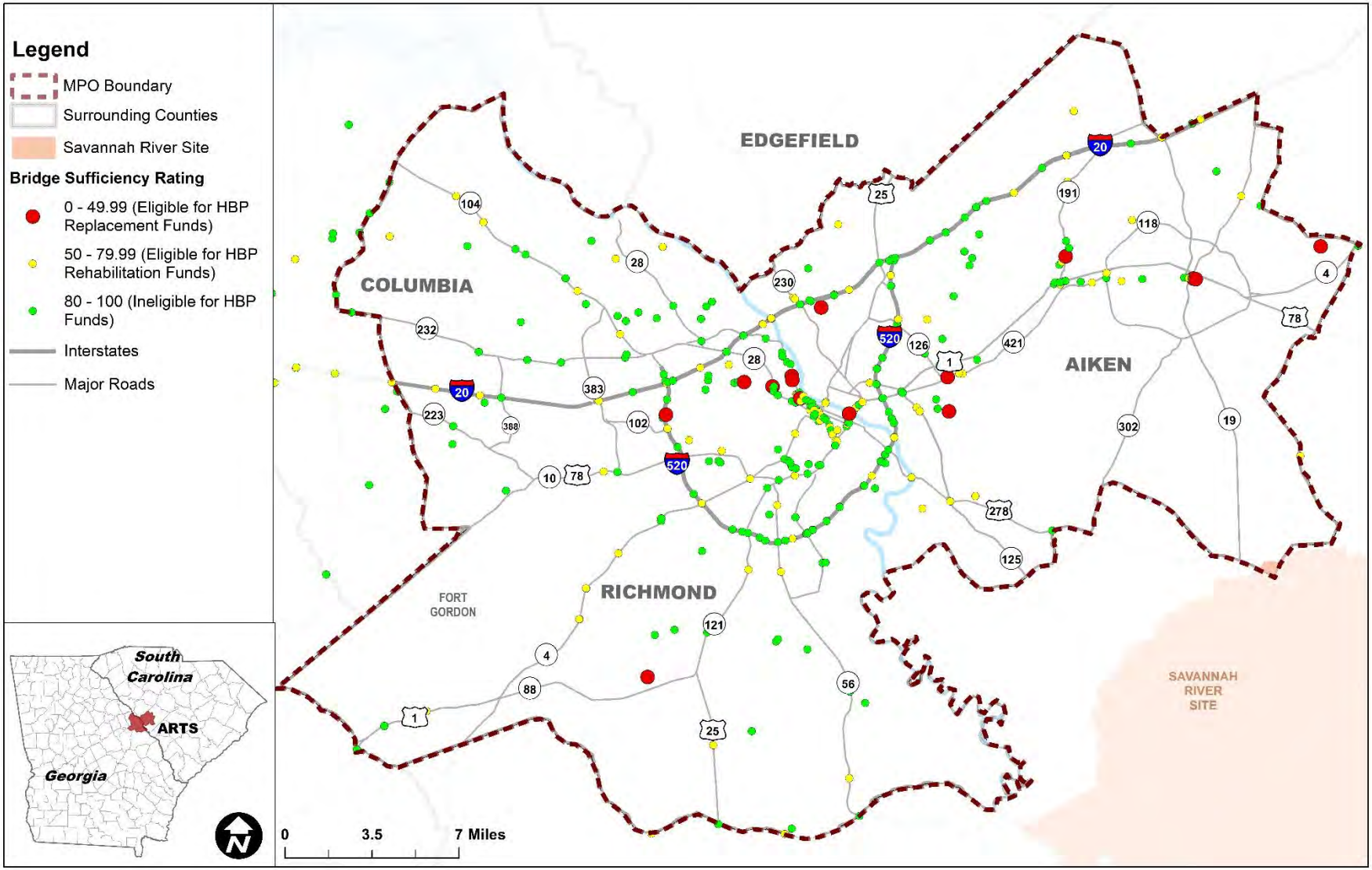
Within the ARTS planning area, there are a total of 389 bridges. 246 of these are in Georgia, and 143 are in South Carolina. Needs for repair or replacement were identified based on bridge sufficiency rating. Sufficiency Ratings are on a scale of 0 (an entirely deficient bridge) to 100 (a completely sufficient bridge). Bridges with sufficiency ratings less than 50 are eligible for Highway Bridge Program (HBP) replacement funds. There are 15 of these bridges within the ARTS planning area, seven (7) in Georgia and eight (8) in South Carolina. Bridges with sufficiency ratings between 50 and 80 are eligible for HBP Rehabilitation funds. There are 102 of these bridges in this category within the ARTS boundary, 61 in Georgia and 41 in South Carolina. **Table 4-2** lists the bridges within the ARTS planning area that are eligible for HBP replacement funds, and **Figure 4-8** shows bridges that are eligible to receive HBP replacement or rehabilitation funds.

Table 4-2. Bridges with Sufficiency Ratings <30 (Eligible for HBP Replacement Funds, 2019)

Description	County	State	NBI Bridge ID	Local Bridge ID	Sufficiency Rating	Project Status
US 1 at Savannah River, at the Georgia/South Carolina state line	Aiken	SC	000000000010098	10098	7.9	
5th Street at Savannah River, at the South Carolina state line	Richmond	GA	000000024500940	245-0094-0	11.4	
Marks Church Road at Rae's Creek, 11 miles north of Hephzibah	Richmond	GA	000000024550050	245-5005-0	12.2	
S-2-180 at abandoned railroad, at Fairfield Street in Aiken	Aiken	SC	000000000008506	8506	20.3	
Goodrich Road at Canal Spillway, 13.7 miles northeast of Hephzibah	Richmond	GA	000000024550190	245-5019-0	27.5	
Windsor Spring Road at NS Railroad, .5 miles north of Hephzibah	Richmond	GA	000000024500710	245-0071-0	31.2	2040 LRTP Tier 2
S-2-166 at NS Railroad, at Union Street in Aiken	Aiken	SC	000000000008317	8317	31.5	
S-2-145 at tributary to Horse Creek, 3 miles north of Beach Island	Aiken	SC	000000000001990	1990	36.6	
Goodrich Road at Canal Spillway, 13.9 miles northeast of Hephzibah	Richmond	GA	000000024550200	245-5020-0	37.2	
C-2025 at Pole Branch, at North Augusta	Aiken	SC	000000000006835	6835	39.9	
Goodrich Road at Canal Spillway, 13.2 miles northeast of Hephzibah	Richmond	GA	000000024550150	245-5015-0	43.6	

Description	County	State	NBI Bridge ID	Local Bridge ID	Sufficiency Rating	Project Status
S-2-33 at Gregg Canal, at Graniteville	Aiken	SC	000000000006211	6211	46.4	
Berckmans Road at Rae's Creek, 12.9 miles northeast of Hephzibah	Richmond	GA	000000024550800	245-0080-0	46.7	
Broad Street at Rae's Creek, 13.1 miles northeast of Hephzibah	Richmond	GA	000000024550270	245-0027-0	47.6	
SC 421 at Little Horse Creek, 1 mile east of Clearwater	Aiken	SC	000000000002447	2447	49.3	2017-2022 TIP

Source: US Federal Highway Administration National Bridge Inventory (2019)



Source: US Federal Highway Administration National Bridge Inventory (2019)

Figure 4-8. Bridges Identified for Repair or Replacement (2019)

5 Aviation and Freight

This section includes a summary of aviation and freight related needs identified in the ARTS planning area.

5.1 Aviation and Air Cargo

Planning for the future and constructing needed airside and landside improvements is important for each of the three airports situated in the ARTS planning area. Ground access to each of these airports will be critical to their continued success. Managing airport ground access improvements are also dependent on the projected growth and subsequent increase in passenger landside traffic. Chapter 6 of **Technical Report #2** includes further details about the airports in the ARTS planning area. Aviation needs will be important when considering future economic growth. When roadway and transit projects are proposed, the benefits of providing improved access to the airports for both passenger flights and freight movement should be considered.

While the ARTS planning area is served by several commercial and general aviation airports, it is Augusta Regional Airport that is the subject of the "Summary Report for Augusta Regional Airport at Bush Field" as a part of the Georgia Statewide Aviation System Plan (2018). The planning document recommends several improvements to its landside as well as airside infrastructure, including improvements to parking facilities and bus shelters. As the primary commercial airport serving the region, it is city-owned and operated and managed by the Augusta Airport Commission. Airlines serving Augusta include Delta, Endeavor, a subsidiary of Delta, Piedmont, a subsidiary of American Airlines and Skywest. Atlanta GA, Charlotte NC, and Dallas TX are the most frequent destinations. As of January 7, 2020, direct flights from Augusta to Washington D.C. were made available at the Augusta Regional Airport via American Airlines. At least one flight is scheduled to D.C. every day.

The Augusta National Golf Tournament, commonly referred to as The Masters, creates the busiest season for the Augusta Regional Airport and Daniel Field Airport. The economic impact of Augusta Regional Airport is significant. As of 2011, the airport supported the region with 1,561 jobs with an annual payroll of $59,016,500 and a total economic output of $269,632,600. A new passenger terminal facility opened in 2011, consisting of 14,000 square feet of flight planning, crew area, and amenities for passengers. The recently created credit card parking lot and taxiway expansion further strengthened Augusta Regional Airport's role in the regional economy. An update to the Georgia Statewide Airport Economic Impact Study, anticipated in 2020, will likely show increased economic contributions due to the improvements and expansions that have taken place in the intervening years.

Each year, the Augusta Airport Commission updates their Capital Improvement Plan (CIP) covering a 5-year period. This represents detailed budgeting of needed infrastructure, structural, safety and security, economic development and other physical improvements to the Airport. The most recent CIP covers Federal Fiscal Years 2019 through 2024, with additional projects identified as mid-range through 2026 and, for planning purposes, long-range projects identified for 2027 through 2036. Among the highlights of the CIP is a major focus on economic development opportunities on and adjacent to the Airport property. For transportation improvements, the Commission staff shared with us during a meeting on March 5, 2020 that their priorities include seeking to improve the direct connectivity between the US Cyber Center of Excellence at Fort Gordon and the Airport, as well as improved access to the Airport via multi-modal and transit alternatives.

5.2 Freight

Freight is a significant component of transportation demand within the ARTS planning area. Trucking and railways are the primary and secondary freight movement modes, respectively. The navigable waterways within the ARTS

planning area are not used for freight transport. I-20 and I-520 are the two routes within the ARTS planning area with the highest volumes of freight by weight and value. I-20 provides primary truck access through the ARTS planning area, while I-520 provides radial access to the City of Augusta. Some of the key freight needs in the ARTS planning area are:

- **Improving Congestion on Freight Facilities: Technical Report #2 (Existing Conditions)** lists I-20, I-520, US 1/GA 4, US 4, US 19, US 25 and US 78 as part of the designated freight corridors in Georgia and South Carolina. Facilities with expected freight movement would need special attention to ensure timely movement of goods in the region.
- **Deliveries and Curb Management:** Curbside freight delivery, especially in downtown areas and core business districts, can affect operations and safety at these locations. While the project team did not receive any specific comments and concerns about any adverse effects of curbside deliveries, a policy regarding curb management could proactively address any concerns that may arise due to expected growth.
- **Truck Parking:** While more truck parking may be necessary to support the level of freight traffic in the region, parking locations will consider careful consideration to maintain residential air quality and noise levels. **Technical Report #2** discusses the existing conditions that may require additional consideration when considering new truck parking locations.
- **Grade Separations at Rail Crossings:** Of the nearly 600 railroad crossings in the four-county area, over 90 percent of railroad crossings are at-grade, meaning they intersect with roadways at street level. At-grade railroad crossings can block vehicular traffic, including that for emergency vehicles, while the train is passing through. At-grade crossings can also pose safety challenges for motorists, pedestrians, and bicyclists. Further study is needed to identify key railroad crossings that should be grade separated to improve vehicle/rail operations as well as traffic safety.

5.2.1 Identifying and Analyzing Goods Movement

The 2050 MTP uses the 2050 Travel Demand Model projections to analyze future freight patterns and demand. Freight volumes are anticipated to continue to increase with increasing total traffic volumes. The map in **Figure 5-1** shows projected freight volumes in the year 2050, according to the Travel Demand Model (2050 No-Build Existing + Committed).

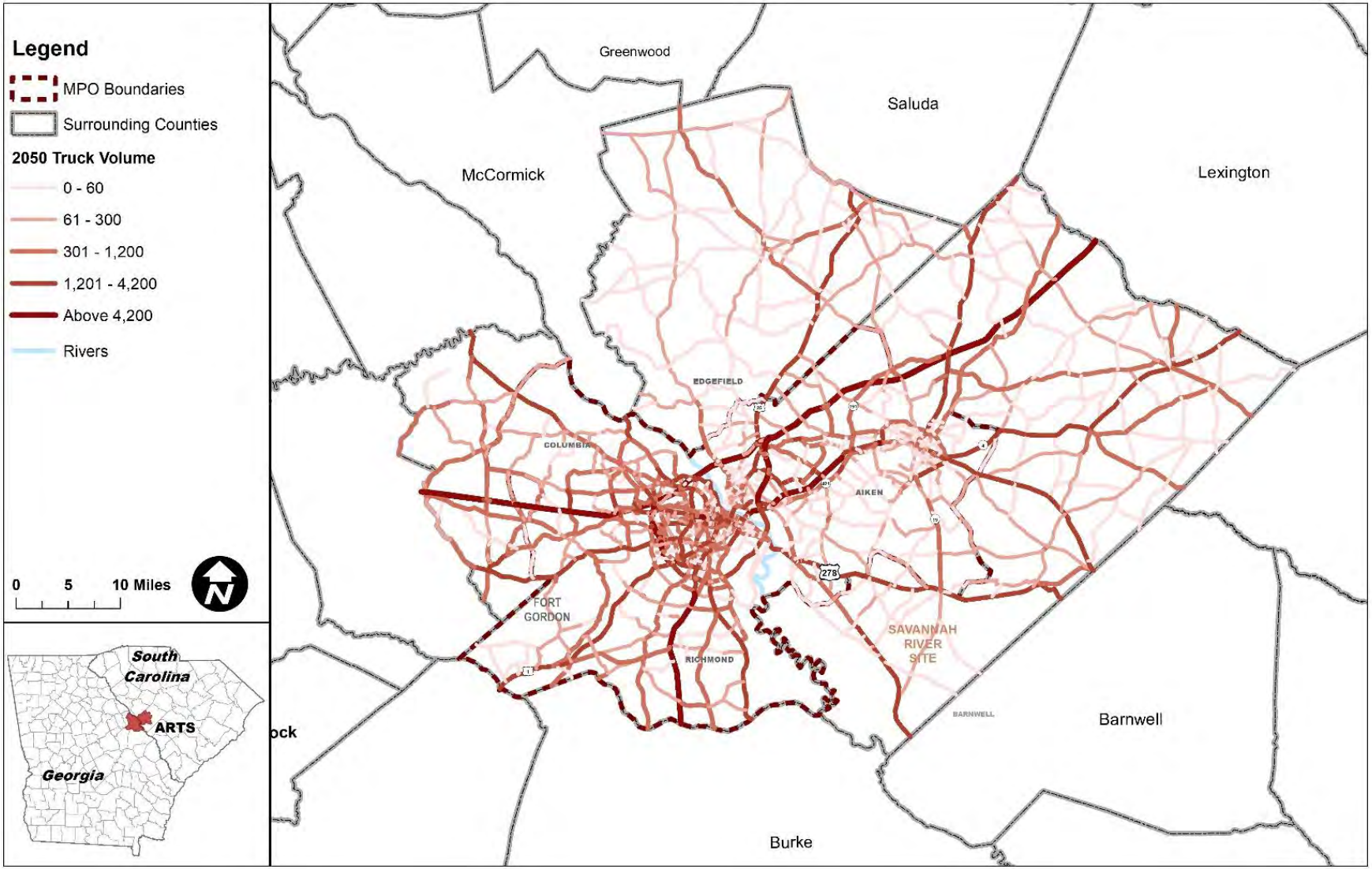
To address the anticipated needs related to freight and freight corridors, the 2050 MTP identifies several project recommendations including:

- I-20: widenings, frontage collector, intersection, bridge, and safety improvements
- I-520: intersection, operational, widening, and safety improvements
- US 1/GA 4: widening, bridge, intersection, operational, and safety improvements
- US 25: widening, extension, operational, bridge, and safety improvements
- US 78: widening, operational, intersection, and freight corridor improvements

It is important to note, however, that this MPO model generates truck trips from the socioeconomic data and is not designed to forecast certain metrics, such as freight demand or peak hour travel demand. A full freight model would generate freight tonnage flows and convert a portion to truck trips that would then be assigned to the roadway network.

5.2.2 Performance-Based Planning, Project Prioritization, and Programming

When identifying project recommendations, roadway conditions related to freight such as traffic volume and level of service (LOS) were evaluated. When scoring and prioritizing projects in the project prioritization process, two metrics were included related to freight: (1) under the Safety & Security goal, projects scored higher if located on the Department of Defense's Strategic Highway Network (STRAHNET); and, (2) under the Economic Vitality goal, projects scored higher if they had higher daily truck volumes. Including these freight-related metrics in the project prioritization process advanced freight-supportive improvements in the project list. The 2050 MTP project recommendations list then feeds into subsequent project programming.



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

Figure 5-1. Projected 2050 Truck Traffic Volumes

6 Transit

The availability of transit is essential to the region's ability to provide mobility options to residents, workers, and visitors, to accommodate future growth, and to expand employment opportunities. In addition to serving as an alternative to the private motor vehicle as a transportation mode, transit is especially important for people without access to a vehicle, people with disabilities, young people, and aging seniors. Many people in these demographic categories rely on transit as a primary form of transportation; transit may not be a choice but is a necessity for access to jobs, errands, and childcare. This chapter summarizes transit related needs identified in the ARTS planning area.

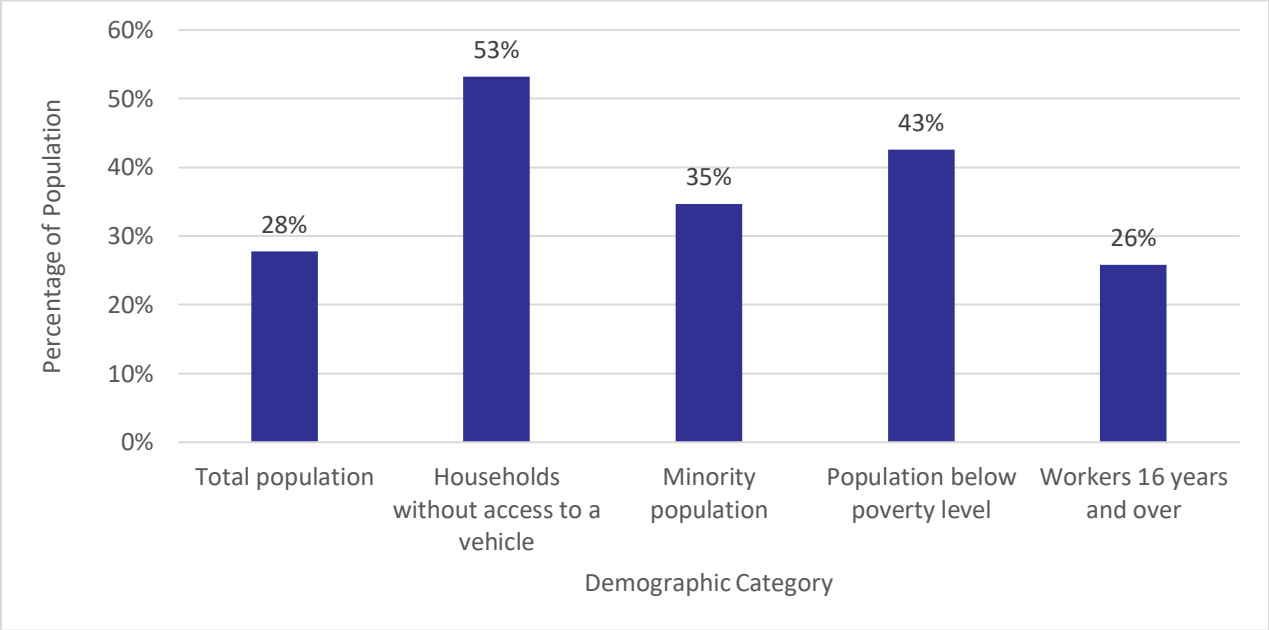
6.1 Access to Fixed Route Transit

Table 6-1 and **Figure 6-1** present the limited reach of fixed transit routes in the ARTS planning area. Areas within one half-mile of fixed route transit services can be assumed to have walkable access to transit, although this assumption over-estimates the true accessibility; not all roadways within the half-mile radius will be easily crossed, such as highways or busy corridors that lack pedestrian facilities, and property boundaries and private ownership prevent pedestrian access in many locations. These assumptions apply to the rest of the Transit chapter. Even with these limitations, and assuming it is an over-estimation, only about 28 percent of the population living in the ARTS planning area, and only 26 percent of the area's nearly 200,000 workers, has access to fixed route transit. Among households without access to a vehicle, one-half are within one-half mile of fixed route transit. **Figure 6-2** illustrates fixed transit routes in the ARTS planning area as well as locations of fixed transit routes in relationship to the ARTS planning area's Environmental Justice populations.

Table 6-1. Demographic Summary of Area Around Fixed Transit Routes (2013-2017)

	Total Population	Households without Access to a Vehicle	Minority Population	Population below Poverty Level	Workers 16 Years and Over
Total for ARTS Planning Area	460,015	11,184	211,252	78,145	195,850
Total for 1/2 mile around Transit Routes	127,785	5,947	73,187	33,266	50,657
Percent of Total ARTS Planning Area within 1/2 miles of Fixed Routes	**28%**	**53%**	**35%**	**43%**	**26%**

Source: 2013-2017 ACS 5-Year Estimate



Source: *2013-2017 ACS 5-Year Estimate*

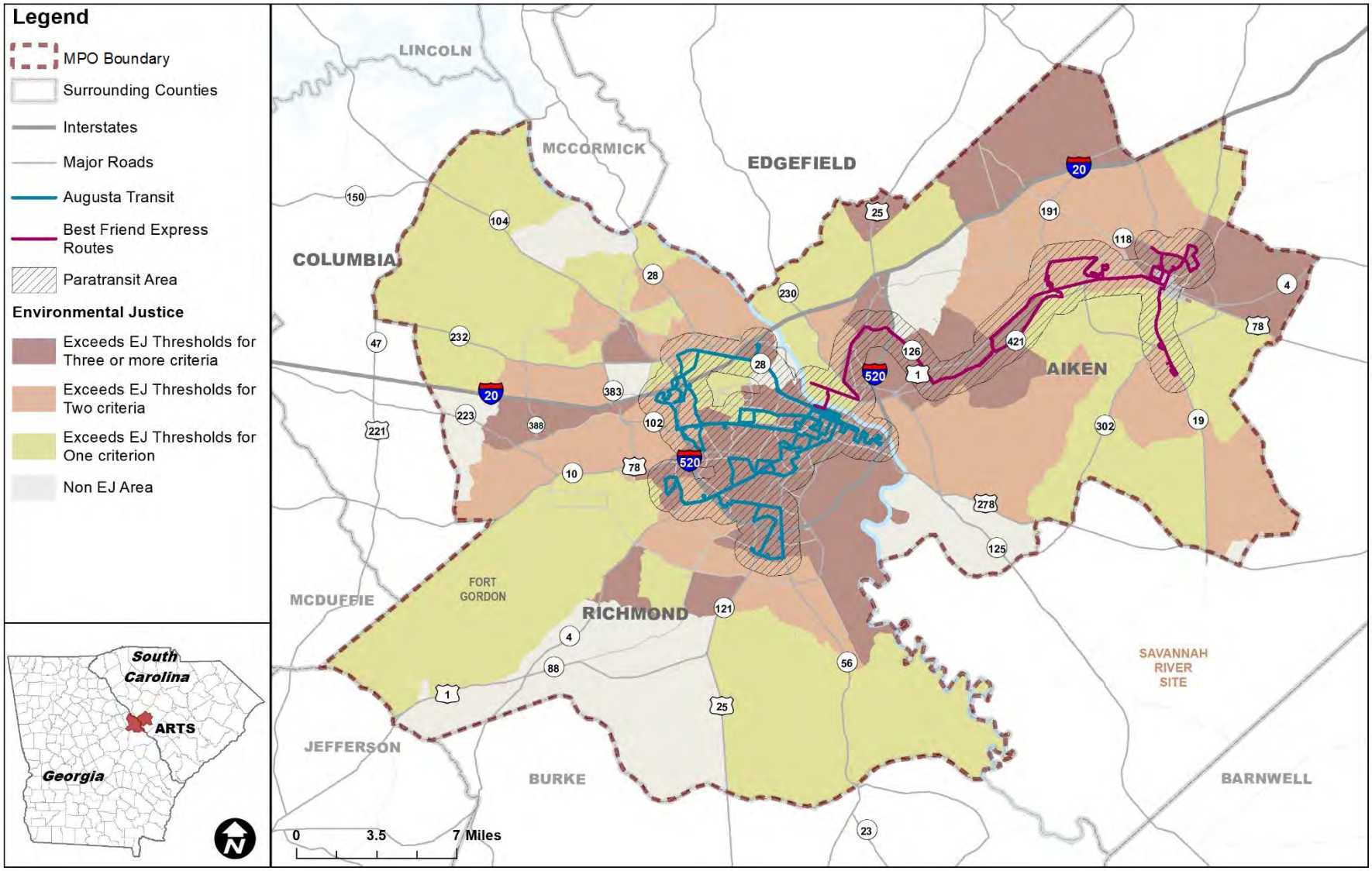
Figure 6-1. Demographic Summary within Half-Mile of Fixed Route Transit in the ARTS Planning Area (2013-2017)

Table 6-2 shows population and employment within one half-mile of a fixed transit route in the ARTS planning area. In 2015, nearly 30 percent of population in the ARTS planning area is within one half-mile of fixed transit routes. This percentage is projected to drop to nearly 26 percent for 2050. Similarly, the proportion of employment in the ARTS planning area within one half-mile of fixed transit routes is expected to drop from 57 percent in 2015 to nearly 54 percent for 2050. This drop in population and employment near existing fixed route transit, coupled with growth patterns indicate faster expected growth in areas without fixed transit. These growth patterns suggest a necessity to expand the current fixed route transit network to even maintain the current level of population and employment coverage by 2050.

Table 6-2. Current and Projected Future Population and Employment around Fixed Transit Routes, 2015 and 2050

	Population 2015	Population 2050	Employment - 2015	Employment - 2050
Total Population and Employment for 1/2 mile around Transit Routes	137,934	153,297	112,629	137,858
Total Population and Employment in ARTS Planning Area	453,377	592,645	197,880	255,011
Percent of Population and Employment in ARTS Planning Area within Half-Mile of Fixed Route Transit	30%	26%	57%	54%

Source: Georgia Statewide Travel Demand Model (GSTDM), OPB, RFAO, ACS, Edgefield County (2019), Woods & Poole, REMI, GSTDM, ARTS MPO (2010)



Source: Augusta Transit, Best Friend Express, ARTS, 2013-2017 ACS 5-Year Estimate

Figure 6-2. Fixed Transit Routes and Environmental Justice Populations in the ARTS Planning Area and Paratransit Service Area (2013-2017)

6.2 On-Demand Transit and Microtransit Needs

Table 6-3 summarizes the senior population and population with disabilities within paratransit service areas (3/4 mile around fixed transit routes as required by the Americans with Disabilities Act (ADA)[i]). Nearly 60 percent of seniors and people with disabilities live outside the service area for paratransit around fixed transit routes. While paratransit/on-demand transit service is available in Columbia County and non-urban areas of Richmond and Aiken Counties where fixed routes are not provided, their operating hours are limited, a factor which limits their potential usability for residents. Paratransit in the area follows the on-demand model, and many of these services require reservations in advance.

Table 6-3. Reach of Paratransit Service (2013-2017)

	With a Disability	Population 65 Years and Over
Total for ARTS Planning Area	63,061	65,245
Total for 3/4 Mile around Transit Routes	25,480	24,656
Percent of Total ARTS Planning area within 3/4 miles of fixed routes (paratransit service area)	40%	38%

Source: 2013-2017 ACS 5-Year Estimate

6.3 Transit Related Themes in Public Input

The project team received input from public and stakeholder outreach regarding transit improvements in the ARTS planning area, primarily from an online survey on the MetroQuest platform. The survey received nearly 200 markers requesting improvement in transit access, of which about 50 percent were in Richmond County, and about 25 percent each were in Aiken County and Columbia County. Some of the themes that emerged from these comments are listed below.

- Inter-county transit services
- More frequent buses
- More transit stops
- Extended schedule to serve workers
- Transit in South Augusta
- Transit in rural areas
- Ride-share
- Reliable transit
- Transit in Columbia County
- Transit connections/circulators near college campuses

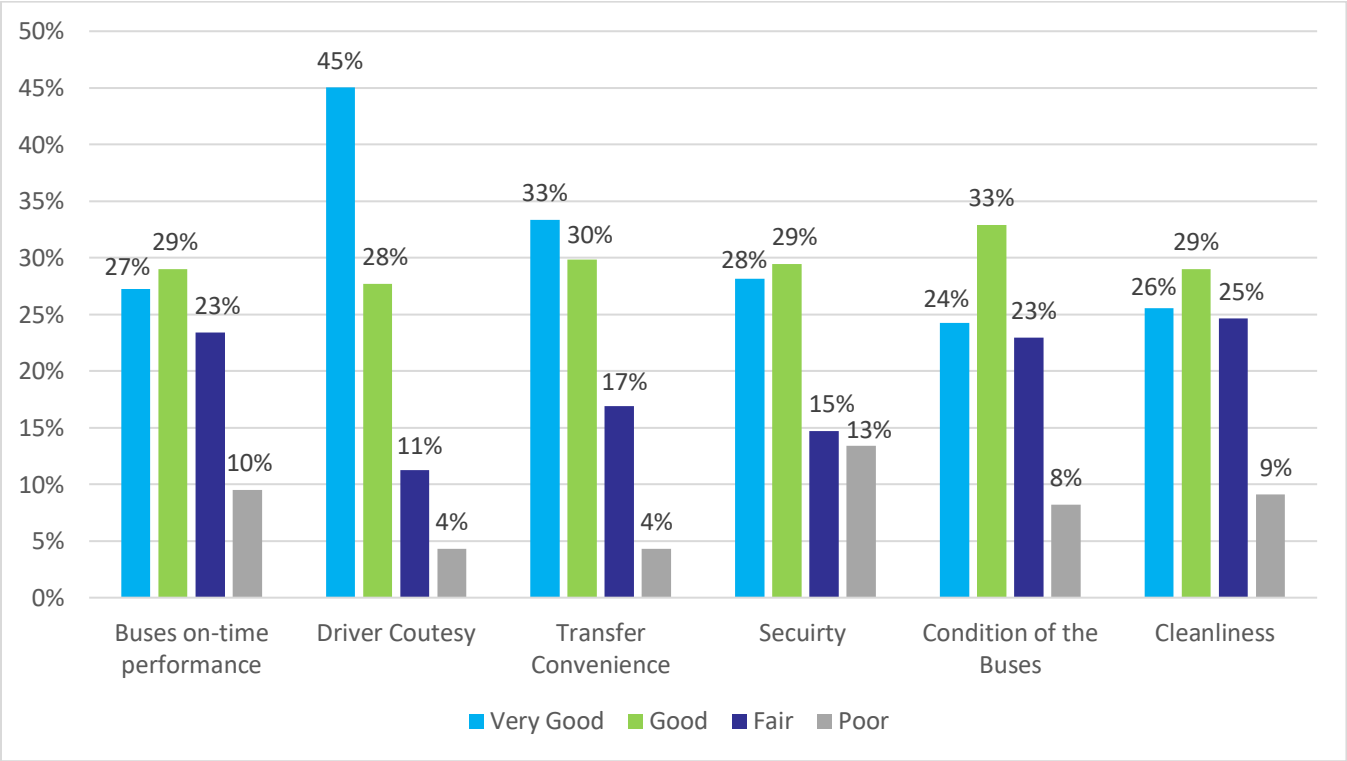
6.4 2018 On-Board Transit Survey and Audit for Augusta Transit

On behalf of Augusta Transit (AT), the ARTS MPO conducted a transit monitoring study in 2018 in order to collect and report data regarding customer demographic and the travel patterns of transit riders boarding the AT fixed route vehicles. The takeaways from the data collected from the on-board passenger surveys helped the AT to

understand the needs of the different socioeconomic groups that use its transit service, and to make better future transportation decisions by addressing the needs of their transit riders.

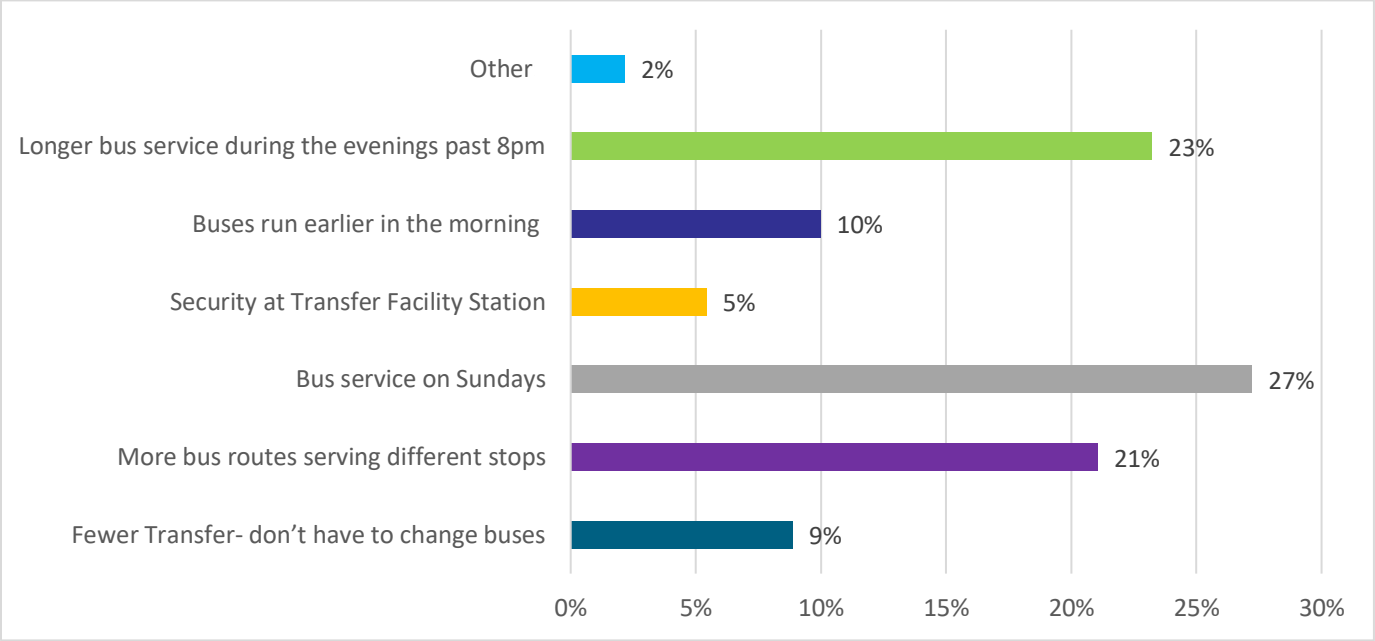
Figure 6-3 and **Figure 6-4**, slightly modified from the ARTS 2018 Transit Ridership Survey Report and Audit, summarize key transit needs identified by AT passengers. Some of the key observations revealed by the survey responses included the following:

- Most of the passengers who participated in the on-board transit surveys reported that the level of transit service was good overall in quality of passenger service. Security was the category where the highest percentage of passengers (13%) thought there was a need for improvements.
- Majority of survey respondents wished to have longer bus service hours, Sunday service, and more bus routes serving different stops as their most desired service or operational improvements.



Source: ARTS 2018 Ridership Transit Survey Report and Audit (Responses of "Don't Know" and "No Response" were omitted)

Figure 6-3. Augusta Transit Passengers Rating (2018)



Source: ARTS 2018 Ridership Transit Survey Report and Audit

Figure 6-4. Transit Survey Response for Desired Transit Operational Improvements (2018)

7 Active Transportation

Well-connected networks of pedestrian and bicycle infrastructure are essential to enable and promote non-motorized transportation across the ARTS planning area by providing pedestrians and bicyclists safe and secure spaces for travel. Bicycle and pedestrian improvements can provide effective mobility throughout the region, enhance the social and environmental fabric of the area, increase safety and security for users, and address congestion and air quality issues. ARTS developed a Regional Bicycle and Pedestrian Plan for the area in 2012, which included a comprehensive assessment of pedestrian and bicycle infrastructure in the ARTS planning area. High priority needs identified in this 2012 plan were integrated into the Universe of Projects list for the 2050 MTP (see **Section 10.2**). Recognizing the time that has passed since the 2012 study has been completed, the 2050 MTP identifies high demand areas for active transportation where the ARTS MPO should focus future study.

7.1 Existing Active Transportation Infrastructure

Figure 7-1 illustrates active transportation infrastructure including sidewalks, trails and greenways, and bike lanes in the ARTS planning area (2012 ARTS Bicycle and Pedestrian Plan). There are concentrations of sidewalk infrastructure in the urban cores of downtown Augusta, GA and Aiken, SC. Sidewalks also occur in small clusters scattered throughout Columbia County. However, many gaps still exist in the current pedestrian mobility network.

The ARTS planning area also has several multi-use recreational trails that link communities, strengthen connectivity and enhance access. Multi-use trails are open for non-motorized uses only and often combine recreational uses shared by pedestrians, bicyclists, and equestrians. The Augusta Canal, North Augusta Greeneway, Columbia County's Euchee Creek Greenway (currently under construction), and Aiken County's Hitchcock Woods are four high-quality and very popular local examples of multi-use trails.

A variety of bicycle infrastructure is available or planned for the ARTS planning area, including greenways, multi-use paths, dedicated bike lanes, sidewalks, and paved shoulders. As shown in **Figure 7-1**, established bicycle infrastructure is predominantly found in Aiken County, which has dedicated bike routes as well as an extensive greenway system located within North Augusta, SC and the City of Aiken, SC. Richmond County features an extended greenway system near the Savannah River and Riverwatch Parkway.

7.2 Safe Routes to School

Safe Routes to School (SRTS) is a national program that provides funding to local communities. Eligible projects include those that encourage walking and biking to school through infrastructure improvements (such as connected sidewalks and bike lanes) and programs (such as "walking buses" for students that live near one another), traffic safety enforcement measures, and bike safety classes. **Figure 7-2** shows a half-mile radius around each school in the ARTS planning area. Program guidelines recommend a one-half mile as a distance that students in all grades can comfortably walk[ii]. These buffered areas reflect reasonable walking distances for children to get to school and therefore are suitable areas to improve pedestrian and bicycle infrastructure.

7.3 High Demand Areas for Active Transportation

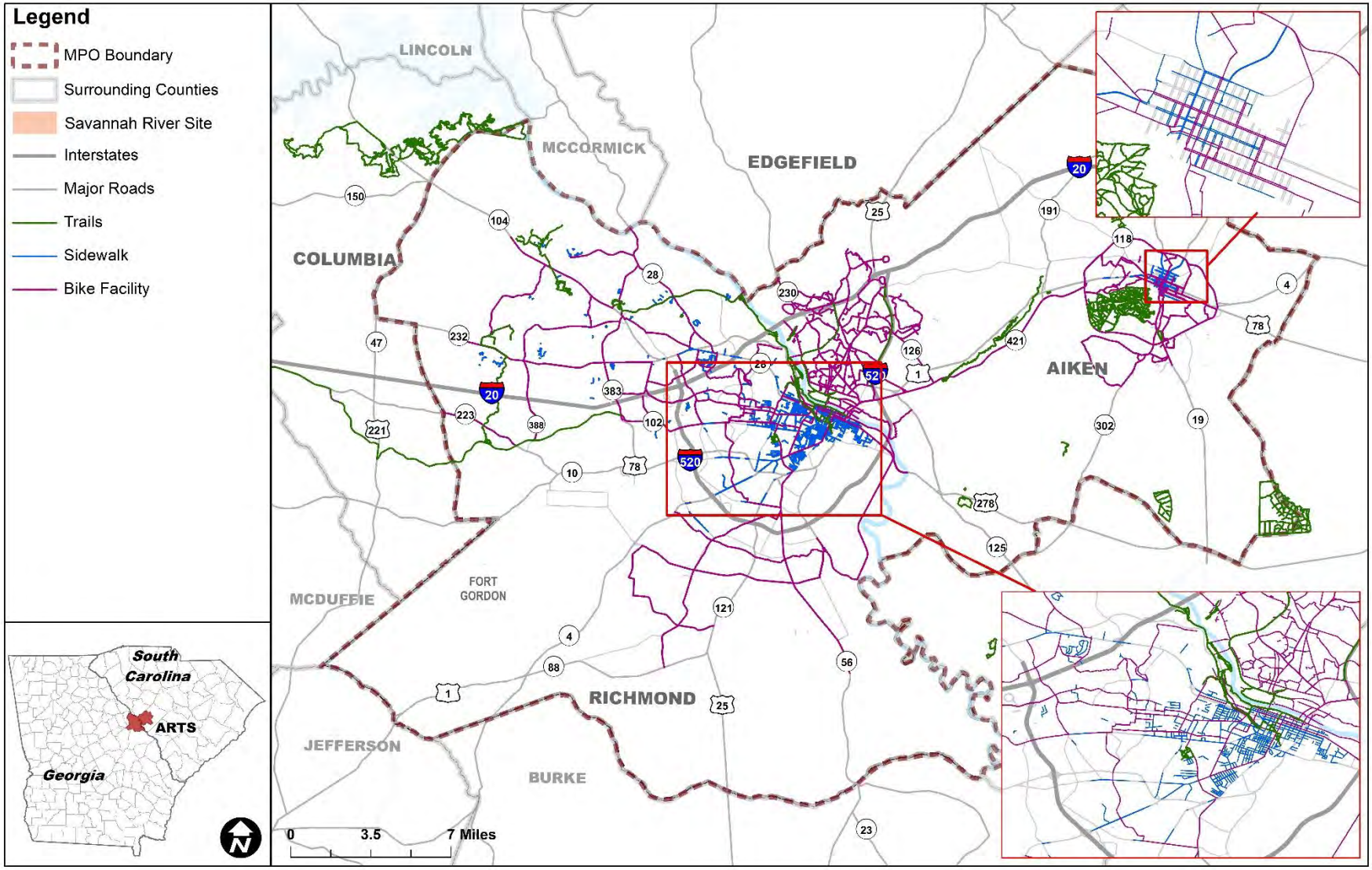
High demand for pedestrian or bicycle activity can be considered near key points of interest such as parks, community centers, schools, grocery stores, libraries, and other municipal buildings. The project team identified high demand areas for pedestrian and bicycles near such points of interest in the ARTS planning area. The color gradients on **Figure 7-3** indicate the density of points of interest within a half-mile radius. Downtowns of Augusta, North Augusta, Aiken, and Grovetown have concentrations of points of interest, as would be expected. These areas

may potentially be where the ARTS MPO should study further to provide more active transportation facilities such as continuous sidewalks, pedestrian walkways, greenways, and bikeway facilities.

7.4 Bicycle and Pedestrian Safety

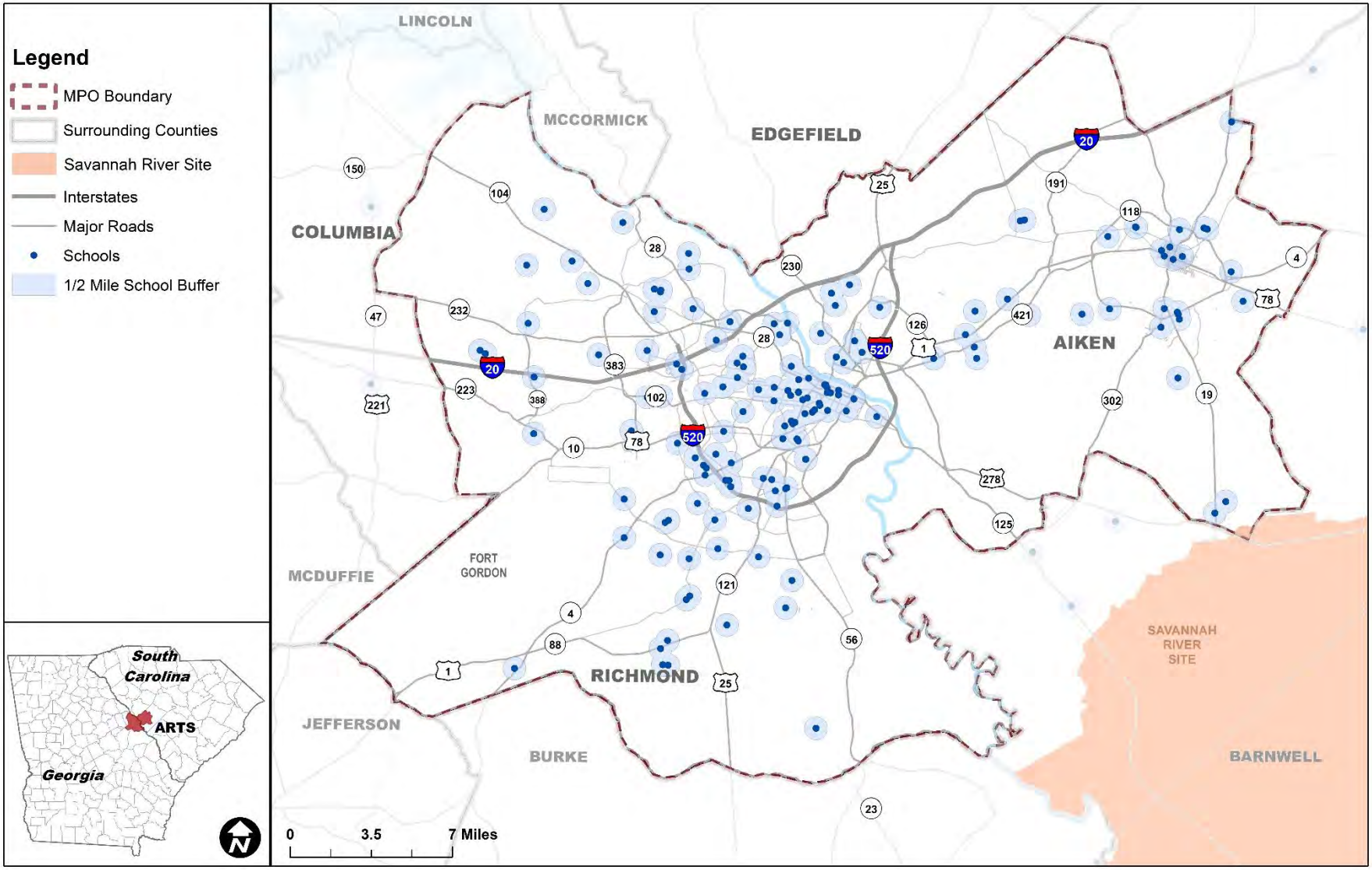
GDOT and SCDOT crash data for 2012 through 2017 enumerates crashes involving pedestrians and bicyclists. **Figure 7-4** shows pedestrian- or bicycle-related high-crash locations in the ARTS planning area, which include:

- Streets in downtown Augusta
- Deans Bridge Road
- Wrightsboro Road
- US 25
- Washington Road



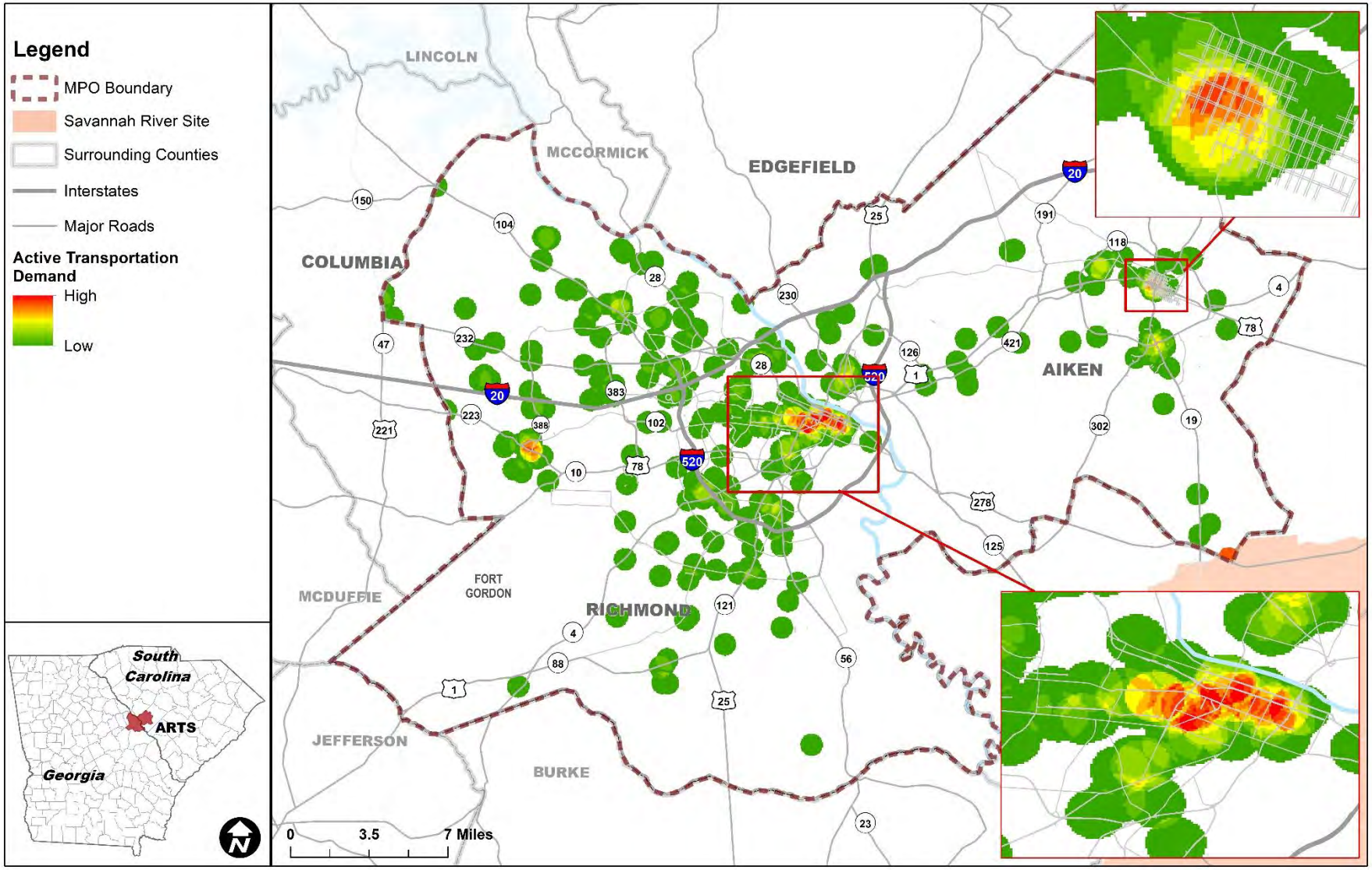
Source: 2040 LRTP (2015), ARTS Bicycle and Pedestrian Plan (2012)

Figure 7-1. Existing Active Transportation Infrastructure (2012)



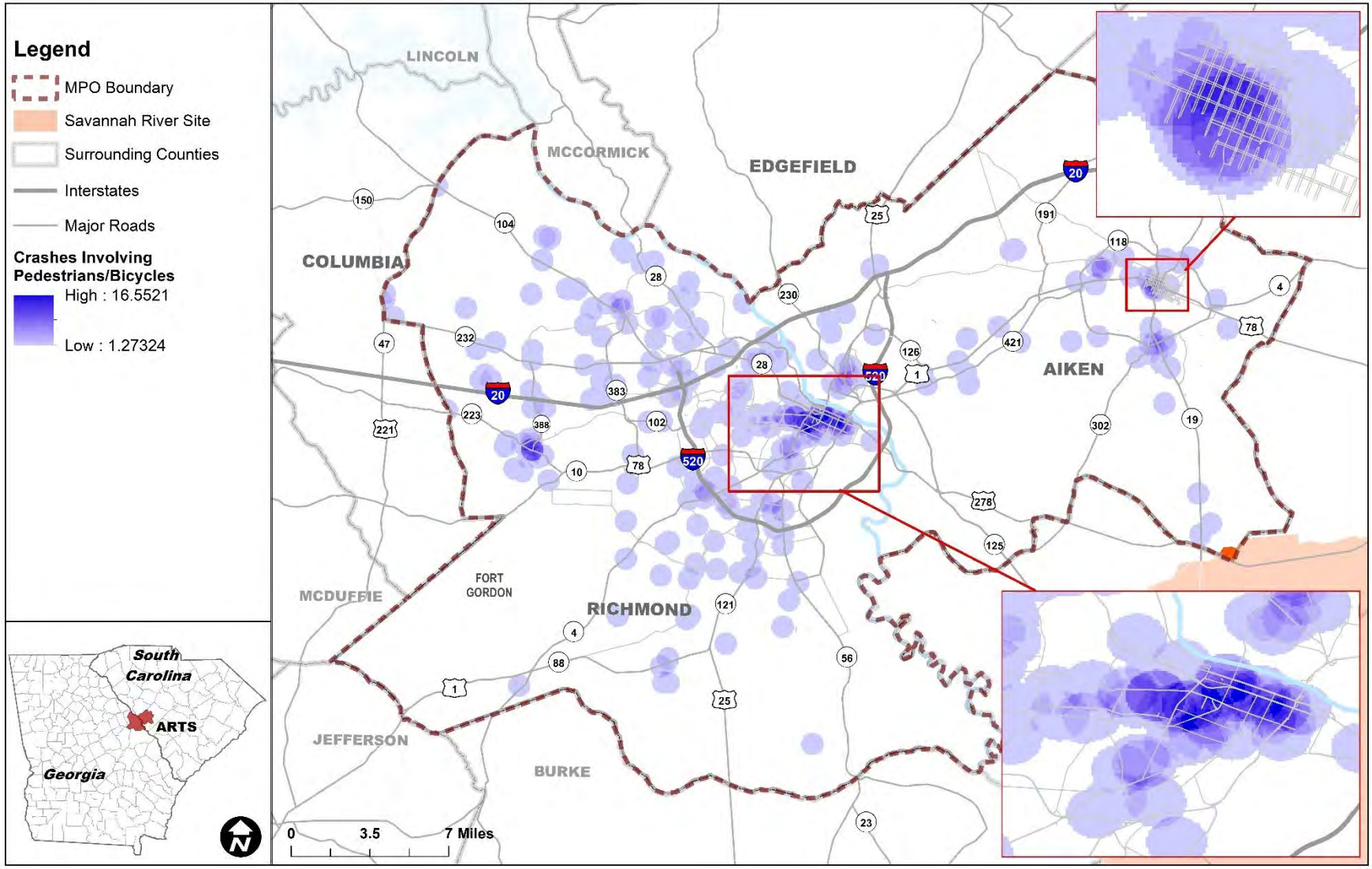
Source: ARTS MPO

Figure 7-2. Half-Mile Areas around Schools in ARTS Planning Area (2019)



Source: ARTS, Columbia County, Aiken County, South Carolina DOT

Figure 7-3. Areas with High Demand of Active Transportation (2019)



Source: ARTS, GDOT Crash Data (2012-2017), SCDOT Crash Data (2012-2017)

Figure 7-4. Areas with Crashes involving Pedestrians or Bicyclists (2012-2017)

8 Transportation System Management and Operations (TSM&O)

This section summarizes Transportation System Management and Operations (TSM&O) needs identified in the ARTS planning area.

Based on the existing conditions related to TSM&O documented **in Technical Report #2**, some opportunities exist to initiate or expand upon TSM&O programs, projects, and initiatives in the ARTS planning area:

- Arterial Management – Opportunities exist to explore programs, projects, and initiatives in Aiken, Edgefield, and Columbia Counties through traffic signal phasing and timing, signal coordination, and intersection improvements.
- Bottleneck Mitigation – Opportunities exist to explore programs, projects, and initiatives in Aiken, Edgefield, and Columbia Counties.
- Congestion Pricing – Not currently used within ARTS planning area but could be an option to consider in the future.
- Integrated Corridor Management – Not currently used within ARTS planning area but could be an option to consider in the future.
- Emergency Transportation Operations – Opportunities exist to explore programs, projects, and initiatives in Aiken and Edgefield counties. An example is coordinated traffic signals with first responder vehicle priority.
- Freeway Management – Opportunities exist to explore programs, projects, and initiatives in Edgefield and Columbia Counties. An example is dynamic lane management.
- Incentives – Not currently used within ARTS planning area but could be an option to consider in the future.
- Managed Lanes – Not currently used within ARTS planning area but could be an option to consider in the future.
- Planned Special Events Traffic Management – Currently utilized in Richmond County during Masters week events, but opportunities exist to further explore broader applications.
- Road Weather Management – Dynamic signs are used in Aiken, Columbia, and Richmond Counties, and opportunity exists in Edgefield County.
- Real Time Traveler Information – Dynamic signs are used in Aiken, Columbia, and Richmond Counties, and opportunity exists in Edgefield County.
- Traffic Incident Management – Not currently used within ARTS planning area but could be an option to consider in the future.
- Transit Operations and Management – Opportunities exist to explore programs, projects, and initiatives in Aiken, Edgefield, and Columbia Counties
- Work Zone Management – Opportunities exist to explore programs, projects, and initiatives in Aiken and Edgefield counties. An example is email notification and media blasts regarding major road works.

The identified project recommendations include numerous intersection and operational improvements that can be considered in the TSM&O category. The project list contains a wide variety of such projects throughout the ARTS planning area. Additionally, in the project prioritization process, two project evaluation metrics were related to TSM&O and measured projects' ability to improve operational efficiency and reliability and to address travel demand management and congestion mitigation.

9 Quality of Life Needs

This section summarizes quality of life needs identified in the ARTS planning area including age-friendly designs, complete streets, and context sensitive solutions.

9.1 Age-Friendly Designs

The popularity of the Augusta-Aiken area as a retirement community, combined with the trend toward increasing life expectancy, creates demand for an urban environment that meets the changing mobility needs of the aging. Seniors are drawn to the ARTS planning area by its many amenities, including world-class health care facilities, resources for military retirees at Fort Gordon, and a vibrant tourism industry building off the annual Masters Tournament, the Augusta Canal National Heritage Area, the Aiken equestrian events and many other attractions.

ARTS can plan for the future by coordinating land use, mobility, access to services, alternatives to driving, and safety in an age-friendly way. There are many groups in the region actively working to achieve this goal, including Age Friendly Augusta, the Senior Citizens Council, and the Area Agency on Aging. The MPO can focus on ensuring ADA-compliance of sidewalks and public spaces, access to mobility through public transit, bicycle and pedestrian facilities and providing zoning regulations and building codes that encourage residents to age in place. More innovative strategies may include rideshare programs, inter-generational events and networking, transportation linkages between residential areas and medical facilities, and lifecycle considerations of proposed future development to strive for age-friendly design and amenities.

9.2 Complete Streets

Complete Streets are designed and operated to enable safe access for all users, including pedestrians, bicyclists, and transit riders, of all ages and abilities. Complete Streets is now a standard transportation planning practice with many state DOTs formally adopting *Complete Streets Policies.* GDOT formally adopted a Complete Streets policy in 2012 and incorporated Complete Streets standards into its Design Manual in 2019[iii]. In 2003, SCDOT passed a resolution in support of incorporating bicycle and pedestrian infrastructure into the department's planning, design, construction, and operation[iv]. In early 2019, the South Carolina House introduced a bill that would direct SCDOT to implement a Complete Streets Policy[v].

The corridors and the areas with a high demand of pedestrian and bicycle activities discussed in **Chapter 7** should be prioritized for the application of the *Complete Streets Policies*. Applying Complete Streets concepts is one of the ways that can enhance the vitality and livability of a community by making it easy to cross the street, walk to shops, bicycle to work, and walk to and from transit stations. Coupled with effective and visually appealing signage for wayfinding, additional lighting for safety and security, and roadway restriping, these improvements not only enhance the safety of all users traveling in the ARTS planning area, they also attract more businesses and visitors and thus making the community economically viable.

9.3 Context Sensitive Solutions

Context Sensitive Design (CSD) or Context Sensitive Solutions (CSS) is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its unique setting. Such an approach leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions. It is part of the design of transportation projects spanning from initial programming, environmental studies, design, and construction, all the way through operation and maintenance, including long range planning. Similar to *Complete Streets Policies*, many state DOTs have been providing *Context Sensitive Design Guidelines and Principles* including GDOT[vi] and SCDOT[vii].

The ARTS planning area includes plenty of uniquely historic and environmentally sensitive areas including the Augusta Canal National Heritage Area, Aiken's history of horse training concentrated near downtown, and the Augusta National Golf Club that holds the annual Masters Tournament. These areas and other areas with a unique community feel and setting should be prioritized for the application of the *Context Sensitive Design Guidelines and Principles*.

10 Summary of Needs & Universe of Projects

This section summarizes the needs identified in the ARTS planning area and introduces a list of the Universe of Projects which are not constrained to match available funding.

10.1 Summary of Needs

Table 10-1 summarizes the needs identified for the 2050 MTP. These needs for each individual category have been described in more detail in the preceding sections in this report. **Figure 10-1** shows the locations of capacity, safety, and bridge needs identified earlier in this report.

Table 10-1. 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.

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.

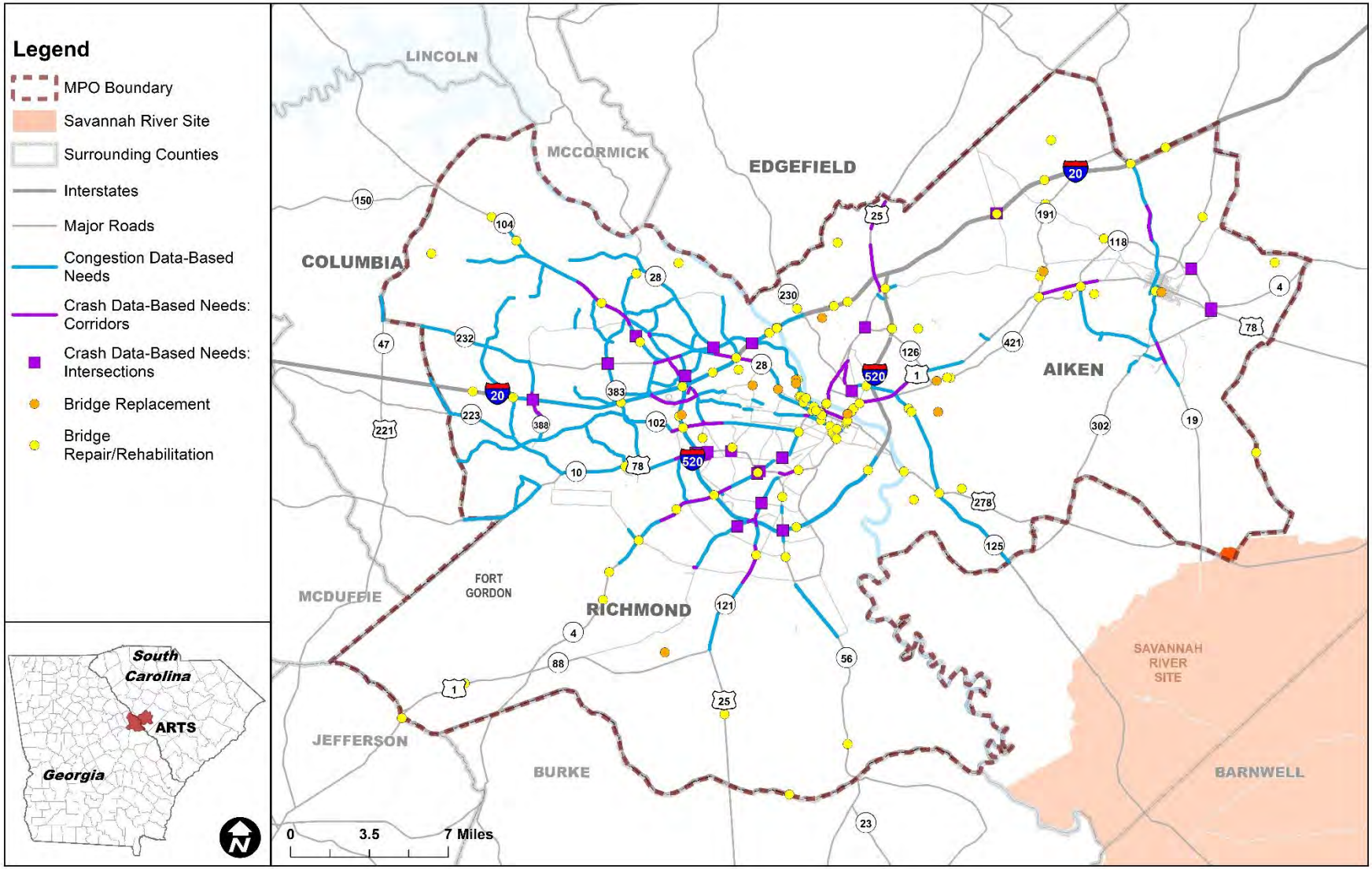
Emerging Issues

- 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.

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.

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.



Source: GDOT's Travel Demand Model (2015 & 2050), ARTS CMP (2018), US FHWA National Bridge Inventory (2019), Crash Analysis using GDOT, ARTS MPO, SCDOT data (2012-2017)

Figure 10-1. Current and Future Transportation Needs in ARTS Planning Area

10.2 Universe of Projects

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 will allow 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. **Figure 10-2** summarizes the process of developing the Universe of Projects. **Table 10-2** includes a fiscally unconstrained list of around 370 projects (see **Figure 10-3** to **Figure 10-6** for reference). The fiscally unconstrained projects will be 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: Financial Plan**.

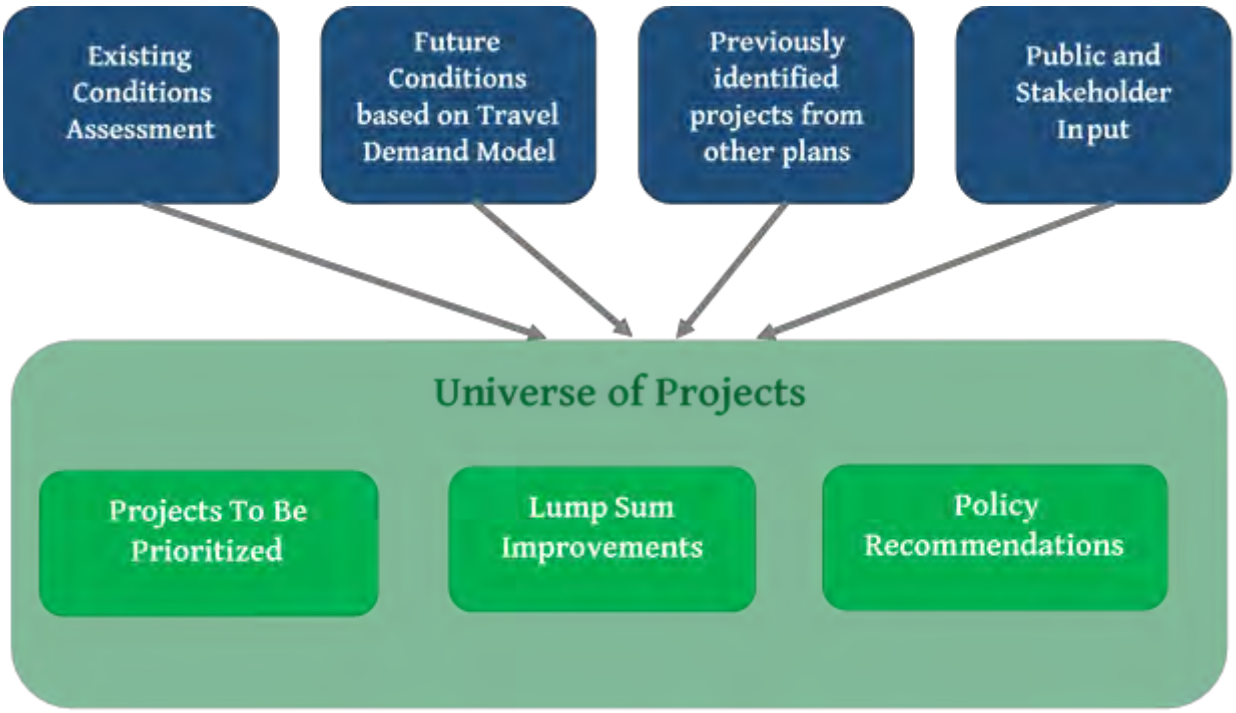


Figure 10-2. Universe of Projects

Table 10-2. Fiscally Unconstrained List of Projects

Project ID	Project	Project Type	Map ID
Project_1	11th Street over the Augusta Canal (Bridge Repair and Restoration)	Bridge	1
Project_2	13th Street (RA Dent to Reynolds Street) from RA Dent to Reynolds Street	Operational	2
Project_3	15th Street improvements (Walton Way to Government Street) Part II from Walton Way to Government Street	Operational	3
Project_4	15th Street over Augusta Canal (Bridge Repair and Restoration)	Bridge	4
Project_5	5th Street (Laney Walker Boulevard to Reynolds Street) from Laney Walker Boulevard to Reynolds Street	Operational	5
Project_6	5th Street at Savannah River, at the South Carolina state line	Bridge	6
Project_7	5th Street Bridge (Bridge Repair and Replacement)	Bridge	7
Project_8	6th Street (Laney Walker Boulevard to Reynolds Street) from Laney Walker Boulevard to Reynolds Street	Operational	8
Project_9	6th Street Rail Corridor Improvements - Quiet Zone from Taylor Street to Savannah River	Railroad	9
Project_10	7th Street Bridge over Augusta Canal (Bridge Replacement)	Bridge	10
Project_11	ACP Rail lead track	Operational	Not mapped
Project_12	Aiken County Recreation Center walking track	Pedestrian/Bicycle	Not mapped
Project_13	Aiken/North Augusta Bicycle Route	Pedestrian/Bicycle	Not mapped
Project_14	Aiken-Augusta Highway from Savannah River to I-520 (Palmetto Parkway)	Operational	14
Project_15	Appling Harlem Road between Scotts Ferry Road & Columbia Road	Widening	15
Project_16	Ascauga Lake Road between US 25/Edgefield Road & Blanchard Road	Widening	16
Project_17	Ascauga Lake Road from US 25 (Edgefield Road) to S 80 (Canal Street)	Extension	17
Project_18	Atomic Road between E Buena Vista Avenue and Jefferson Davis Highway	Operational	18
Project_19	Atomic Road between Jefferson Davis Highway and Silver Bluff Road	Operational	19
Project_20	Augusta Regional Airport apron expansion	Aviation	20
Project_21	Augusta Regional Airport runway rehabilitation	Aviation	21
Project_22	Augusta West Parkway Widening from Wrightsboro Road to Wheeler Road	Widening	22
Project_23	Barton Chapel Road from Barton Chapel Road to Gordon Highway (SR 10/US 78)	Operational	23
Project_24	Barton Chapel Road improvements from Deans Bridge Road to Augusta West Parkway	Operational	24
Project_25	Barton Chapel Road Widening from Milledgeville Road to Deans Bridge Road	Widening	25
Project_26	Baston Road between Fury's Ferry Road and Washington Road	Operational	26
Project_27	Belair Road between Washington Road and Wrightsboro Road	Widening	27
Project_28	Berckmans Road between Washington Road & Walton Way	Widening	28
Project_29	Berckmans Road over Rae's Creek	Bridge	29
Project_30	Berckmans Road Realignment and Widening from Wheeler Road to Washington Road	Widening	30
Project_31	Bergen-Five Notch Collector from Bergen Road to Gregory Lake Road	Extension	31

Project ID	Project	Project Type	Map ID
Project_32	Bettis Academy Road (S-144) from Ascauga Lake Road (S-33) to Aiken/Edgefield county line	Intersection	32
Project_33	Blue Ridge Drive between Riverwatch Parkway & Evans to Locks Road	Widening	33
Project_34	Bobby Jones Expressway between Marsella Avenue and Washington Road	Safety	34
Project_35	Broad Street Improvements from Washington Road to Sand Bar Ferry Road	Operational	35
Project_36	Broad Street over Hawks Gully	Bridge	36
Project_37	Broad Street over Rae's Creek (Bridge repair and restoration)- 1	Bridge	37
Project_38	Broad Street over Rae's Creek (Bridge repair and restoration)- 2	Bridge	38
Project_39	Broad Street over the Augusta Canal	Bridge	39
Project_40	C-2-3114 at Pole Branch, at North Augusta	Bridge	40
Project_41	Calhoun Expressway Repair and Reconstruction	Operational	41
Project_42	Celeste Avenue from US 25 (Edgefield Road) to S-45 (Five Notch Road)	Operational	42
Project_43	Chamblin Road / William Few Parkway between Columbia Road & Wrightsboro Road	Widening	43
Project_44	Charleston Highway from SC 302 (Pine Log Road) to S-507 (Old Dibble Road)	Widening	44
Project_45	Cherokee Drive (S-386) from US 1/78 (Davis Highway) to SC 126 (Belvedere Clearwater)	Safety	45
Project_46	City of Aiken Bike Infrastructure Phase 1	Pedestrian/Bicycle	46
Project_47	Clanton Road improvements from William Few Parkway to Washington Road	Operational	47
Project_48	Clary Cut Road/Old Union Road alignment with Intersection at 221	Intersection	48
Project_49	Columbia Road @ N Belair Road	Safety	49
Project_50	Columbia Road between Davis Road & Flowing Wells Road	Safety	50
Project_51	Columbia Road between Hereford Farm Road & Louisville Road	Widening	51
Project_52	Create a future four lane roadway through rural neighborhood section from south of I-20 to University Parkway on SC 19	Widening	52
Project_53	Crosland Park Sidewalks	Pedestrian/Bicycle	53
Project_54	CSX at 15th Street Rail Crossing Safety Improvements from 15th Street to CSX Railroad	Railroad	54
Project_55	CSX at Broad Street Rail Crossing Safety Improvements from Broad Street to CSX Railroad	Railroad	55
Project_56	CSX at Walton Way/12th Street Rail Crossing Improvements from Walton Way/12th Street to CSX Railroad	Railroad	56
Project_57	Daniel Field Airport airfield improvements	Aviation	57
Project_58	Daniel Field Airport commercial hanger development	Aviation	58
Project_59	Deans Bridge between MLK and Willis Foreman	Operational	59
Project_60	Deans Bridge Road & Richmond Hill Road	Safety	60
Project_61	Deans Bridge Road at Gordon Highway	Safety	61
Project_62	Deans Bridge Road between south of Morgan Road to Lyman St	Safety	62
Project_63	Dennis Road widening and improvements	Widening	63
Project_64	Doug Barnard Parkway widening from Tobacco Road to Mike Padgett Highway	Widening	64
Project_65	Doug Bernard Parkway improvements from Gordon Highway to Highway 56	Operational	65

Project ID	Project	Project Type	Map ID
Project_66	Dougherty Road (Hamilton Drive Extension) from Neilson Street to Owens Street	Extension	66
Project_67	Dougherty Road improvements	Operational	67
Project_68	Doughtery Road from Silver Bluff Road to Whiskey Road	Extension	68
Project_69	Druid Park Improvements (Walton Way to Wrightsboro Road) from Walton Way to Wrightsboro Road	Operational	69
Project_70	E Pine Log Road @ Charleston Highway	Safety	70
Project_71	East Buena Vista Avenue from Barton Road to Martintown Road	Operational	71
Project_72	East Gate Connector from Dougherty Road to East Gate Drive	Extension	72
Project_73	East Gate extension from Whiskey Road to Athol from East Gate Drive to Athol Avenue	Extension	73
Project_74	East Pine Log Road Widening from Silver Bluff Road to Deloach Way	Widening	74
Project_75	Edgefield Road @ Belvedere Clearwater Road	Safety	75
Project_76	Edgefield Road between Ascauga Lake Road & Sweetwater Road	Safety	76
Project_77	Edgefield Road from Ridge Road to Stephens Road	Safety	77
Project_78	Evans to Locks Road Widening and Roundabout from Town Centre Boulevard to Fury's Ferry Road	Widening	78
Project_79	Extend East Gate to Powderhouse Road from Existing East Gate Drive to Powderhouse Road	Extension	79
Project_80	Fifteenth Street (SR 4) from Milledgeville Road to Government Street	Widening	80
Project_81	Five Notch Road and Pisgah Road from Five Notch Road to Pisgah Road	Intersection	81
Project_82	Five Notch Road and Walnut Lane from Five Notch Road to Walnut Lane	Intersection	82
Project_83	Five Notch Road from US 25 Business Road (Georgia Avenue) to Walnut Lane	Widening	83
Project_84	Flowing Wells between Wheeler and Washington Road	Widening	84
Project_85	Freight corridor improvements on U.S. 78	Freight	85
Project_86	Ft Gordon Access near Tobacco Road & Deans Bridge Road	Operational	86
Project_87	Fury's Ferry Road between Savannah River and Washington	Widening	87
Project_88	Georgia Avenue between Savannah River & Knox Avenue	Safety	88
Project_89	Georgia/Knox Avenue and Five Notch/Bradyville Road from Georgia/Knox Avenue to Five Notch/Bradyville Road	Intersection	89
Project_90	Gibbs Road / Cox Road between Washington Road & Bohler Road	Widening	90
Project_91	Goodrich Road at Canal Spillway, 13.2 miles northeast of Hephzibah	Bridge	91
Project_92	Goodrich Road at Canal Spillway, 13.7 miles northeast of Hephzibah	Bridge	92
Project_93	Goodrich Road at Canal Spillway, 13.9 miles northeast of Hephzibah	Bridge	93
Project_94	Gordon between Savannah River and SR 223	Operational	94
Project_95	Gordon Highway from Old Louisville Road to SR 223	Widening	95
Project_96	Gordon Highway improvements	Operational	96
Project_97	Gordon Highway US 78 Median Barrier (US 25 to Walton Way) from Us 25 to Walton Way	Operational	97
Project_98	Gordon Highway & Jimmie Dyess Parkway	Safety	98
Project_99	Gordon Highway & North Leg Road	Safety	99

Project ID	Project	Project Type	Map ID
Project_100	Gordon Highway @ Highland Avenue	Safety	100
Project_101	Gordon Highway and I-520	Safety	101
Project_102	Gordon Highway at I-20	Safety	102
Project_103	Gordon Highway between Barton Chapel Road & Milledgeville Road	Safety	103
Project_104	Gordon Highway between Lionel Street & Old Savannah Road	Safety	104
Project_105	Greene Street Improvements from 13th Street to East Boundary Street from 13th Street to East Boundary Street	Operational	105
Project_106	Halali Farm Road Widening and New Alignment from SR 104 (Washington Road) to Hereford Farm Road	Operational	106
Project_107	Hardy McManus Road from William Few Parkway to Fury's Ferry Road	Operational	107
Project_108	Hardy McManus Road widening	Widening	108
Project_109	Harlem Grovetown Road Sidewalk Construction from Old Berzelia Road to Elementary School Campus	Pedestrian/Bicycle	109
Project_110	Harlem Grovetown Road Widening from Louisville Road to Wrightsboro Road	Widening	110
Project_111	Hereford Farm Road	Pedestrian/Bicycle	111
Project_113	Hereford Farms Road between Wrightsboro Road & Washington Road	Widening	113
Project_114	Highland Avenue Bridge Repair and Restoration Over CSX Railroad	Bridge	114
Project_115	Highway 88 Widening from Keysville Road to Windsor Spring Road	Widening	115
Project_116	Hitchcock Parkway (SC-118) Corridor Improvements	Operational	116
Project_117	Huntsman Drive between Pine Log Road & Hitchcock Parkway	Operational	117
Project_118	I-20 from Savannah River to US 25 (Edgefield Road)	Widening	118
Project_119	I-20 and Martintown Road from I-20 to Martintown Road	Intersection	119
Project_120	I-20 and US 1 (Columbia Highway) Park and Ride in Aiken County (Exit 22) from I-20 to US 1	Transit	120
Project_121	I-20 at Lewiston Road	Safety	121
Project_122	I-20 between County Line and Riverwatch	Widening	122
Project_123	I-20 Bridge @ Savannah River and Widening from Richmond to Aiken	Bridge	123
Project_124	I-20 Bridge over Savannah River from GA to SC	Bridge	124
Project_125	I-20 from US 25 (Edgefield Road) to Bettis Academy Road	Widening	125
Project_126	I-20 Frontage Collector from Five Notch Road to US 25 (Edgefield Road)	Extension	126
Project_127	I-20 HOV Lanes from Louisville Road to Riverwatch Parkway	Other	127
Project_128	I-20 Over Savannah River	Widening	128
Project_129	I-20 Rehabilitation and Maintenance Work from Mile Marker 1 to Mile Marker 5	Operational	129
Project_130	I-20 WB over abandoned railroad bridge replacement	Bridge	130
Project_131	I-20 WB over SC 19 bridge replacement	Bridge	131
Project_132	I-20/SR 47 Bridge Replacement	Bridge	132
Project_133	I-520 and Wrightsboro Road Interchange Improvements from I-520 to Wrightsboro Road	Intersection	133
Project_134	I-520 between Deans Bridge Road and Laney Walker Blvd	Operational	134
Project_135	I-520 between I-20 and Deans Bridge Road	Operational	135

Project ID	Project	Project Type	Map ID
Project_136	I-520 between I-20 and Washington Road	Widening	136
Project_137	I-520 Southbound from Wrightsboro Road to US 78/Gordon Highway	Widening	137
Project_138	Intersection SC 118 and S-1303 Croft Mill Road/Hudson Road	Intersection	138
Project_139	Interstate 20 from SR 47 (Appling Harlem Highway) to SR 383 (Belair Road)	Widening	139
Project_140	Jackson Road north of Wrightsboro Road	Safety	140
Project_141	James Brown Blvd. Streetscape Phase III from Twiggs Street to Laney Walker Boulevard	Pedestrian/Bicycle	141
Project_142	James Brown Reconstruction	Operational	142
Project_143	Jefferson Davis Highway between Chalk Bed Road & Gregg Highway	Safety	143
Project_144	Jefferson Davis Highway between Savannah River & Belvedere Clearwater Road	Safety	144
Project_145	Jimmie Dyess Parkway between Powell Road & Gordon Highway	Operational	145
Project_146	Johnson Highway realignment with SC 19from the Aiken/Edgefield County line to south of Shiloh Heights Road on SC 19	Intersection	146
Project_147	Kissingbower Road sidewalk installation between Marschalk Road and White Road	Pedestrian/Bicycle	147
Project_148	Knox Avenue between Lecompte Avenue and Martintown Road	Safety	148
Project_149	Knox Avenue and Martintown Road from Knox Avenue to Martintown Road	Intersection	149
Project_150	Lake Shore northbound turn lane on SC 19from the Aiken/Edgefield County line to south of Shiloh Heights Road on SC 19	Intersection	150
Project_151	Laney Walker Road/RA Dent Boulevard/Augusta Avenue Intersection	Intersection	151
Project_152	Lewiston Road between Columbia Road and Wrightsboro Road	Widening	152
Project_153	Lewiston Road between William Few Parkway & Wrightsboro Road	Safety	153
Project_154	Louisville Road and I-20 New Interchange from Louisville Road to I-20	Intersection	154
Project_155	Louisville Road Widening 2 from I-20 to Wrightsboro Road	Widening	155
Project_156	Louisville Road Widening 3 from I-20 to Columbia Road	Widening	156
Project_157	Louisville Road Widening 4 from Tubman Road to Columbia Road	Widening	157
Project_158	Louisville Road Widening and Extension from Gordon Highway to Fort Gordon Gate	Widening	158
Project_159	Lumpkin Road & Peach Orchard Road	Safety	159
Project_160	Main Street (SC 19) Pedestrian Walkways Phase II (New Ellenton)	Pedestrian/Bicycle	160
Project_161	Marks Church Road at Rae's Creek, 11 miles north of Hephzibah	Bridge	161
Project_162	Marks Church Road Widening from Wrightsboro Road to Wheeler road from Wrightsboro Road to Wheeler Road	Widening	162
Project_163	Martintown Road from I-20 to Old Martintown Road	Widening	163
Project_164	Mike Padgett Highway at I-520	Safety	164
Project_165	Milledgeville Road & Olive Road	Safety	165
Project_166	Milledgeville Road Bridge Maintenance at Rocky Creek	Bridge	166
Project_167	Milledgeville Road improvements from North Leg to Barton Chapel	Operational	167
Project_168	Monte Sano Avenue improvements from Wrightsboro Road to Walton Way	Operational	168

Project ID	Project	Project Type	Map ID
Project_169	MTP_535 Corridor Safety	Safety	169
Project_170	MTP_552 Corridor Safety	Safety	170
Project_171	New street extension from Commerce Court to Evans to Locks	Extension	171
Project_172	New street from Evans to Locks Road around northeast side of Lowes to North Belair Road	Extension	172
Project_173	New street from North Belair Road to intersection of Evans Town Center Blvd and Evans to Locks Road	Extension	173
Project_174	New street on east side of Evans Towne Center Park through Kroger site to connect Ronald Reagan Drive to Evans to Locks Road	Extension	174
Project_175	New street on south side of Evans Towne Center Park from Evans Town Center Blvd to Washington Road	Extension	175
Project_176	New street on west side of Lowes connecting to Rountree Way	Extension	176
Project_177	New street to connect existing residential neighborhood along Pheasant Run Drive to Hereford Farm Road, bisecting Rachel Drive	Extension	177
Project_178	New Transit Hub at Walmart on Deans Bridge Road	Transit	178
Project_179	New Transit Hub at Walmart on Wrightsboro Road	Transit	Not mapped
Project_180	Newmantown Road between Parham Road & Gordon Highway	Widening	180
Project_181	Norfolk Southern at Doug Barnard Parkway Rail Crossing Safety Improvements from Doug Barnard Parkway to Norfolk Southern Railroad	Railroad	181
Project_182	Norfolk Southern at Park Avenue SE/Williamsburg Lane/ Staubes Lane from Norfolk Southern Railroad to Park Avenue/Williamsburg Lane	Railroad	182
Project_183	North Belair Road at CSX Railroad from North Belair Road to CSX Railroad	Railroad	183
Project_184	North Belair Road Widening from Evans-to-Locks Road (SC 11236) to SR 28 (Fury's Ferry Road)	Widening	184
Project_185	North Leg Road Improvements (Sibley Road to Wrightsboro Road) from Sibley Road to Wrightsboro Road	Operational	185
Project_186	North Leg Road Widening from Lumpkin Road to Sibley Road	Widening	186
Project_187	Old Aiken Road (S-365) from SC 421 (Augusta Road) to Carolina Springs Road (S-68)	Operational	187
Project_188	Old Belair Road from Columbia Road to Belair Road	Operational	188
Project_189	Old Berzalia Road and Harlem Grovetown Road Roundabout from Old Berzelia Road to Harlem Grovetown Road	Intersection	189
Project_190	Old Edgefield Road (S-197) at Lecompte Avenue (S-125)	Intersection	190
Project_191	Old Edgefield Road (S-197) from US 25 (Knox Avenue) to SC 230 (Martintown Road)	Intersection	191
Project_192	Old Evans Road between Bobby Jones and Washington Road	Widening	192
Project_193	Old Evans Road between Riverwatch Parkway & Panacea Ln	Safety	193
Project_194	Old Evans Road Widening from Riverwatch Parkway to SR 104 (Washington Road	Widening	194
Project_195	Old Friar Road northbound left turn lane on SC 19from the Aiken/Edgefield County line to south of Shiloh Heights Road on SC 19	Intersection	195
Project_196	Old Sudlow Lake Road (S-1760) from SC 126 (Belvedere Clearwater) to Blanchard Road (S-1761)	Operational	196
Project_197	Old Waynesboro Road from SR 56 (Mike Padgett Highway) to Hephzibah-McBean Road	Operational	197
Project_198	Old Waynesboro Road over Spirit Creek (Bridge Replacement)	Bridge	198

Project ID	Project	Project Type	Map ID
Project_199	Old Wrightsboro Road to Newmantown Road realignment and improvements at Robinson Avenue	Operational	199
Project_200	Parham Road between Newmantown Road & Gordon Highway	Widening	200
Project_201	Pawnee-Neilson Connector from Tyler Street to Pawnee Street	Extension	Not mapped
Project_202	Peach Orchard Road between Byrd Road & Rosier Road	Safety	202
Project_203	Peach Orchard Road between Silverdale Road & Reedale Avenue	Safety	203
Project_204	Peach Orchard, Windsor Spring, and I-520 Intersection from Peach Orchard, Windsor Spring to I-520	Intersection	204
Project_205	Pine Log Road (S-65) at Storm Branch Road (S-145)	Safety	205
Project_206	Pine Log Road (S-65) from SC 125 (Atomic Road) to S-87 (Piney Heights Road)	Safety	206
Project_207	Pine Log Road and Collier Street from Pine Log Road to Collier Street	Intersection	207
Project_208	Pine Log Road from US 278 (Williston Road) to S-66 (Huber Clay Road)	Widening	208
Project_209	Pine Log Road Widening from Hillman Street to Town Creek Road	Widening	209
Project_210	Piney Heights Road (S-87) at Pine Log Road (S-65)	Safety	210
Project_211	Pleasant Home Road & Davis Road	Safety	211
Project_212	Pleasant Home Road between Flowing Wells Road & Washington Road	Widening	212
Project_213	Pleasant Home Road (Riverwatch Parkway to Walton Way Extension) from Riverwatch Parkway to Walton Way Extension	Operational	213
Project_214	Powderhouse Road Widening from South Boundary Avenue to East Pine Log Road	Widening	214
Project_215	Powderhouse- South Centennial Avenue Connector from Whiskey Road to Powderhouse Road	Extension	Not mapped
Project_216	Project Road (S-285) from Pine Log Road (S-56) to Baker Street (S-1294)	Operational	216
Project_217	Pursue traffic study for Hamilton intersection from University Parkway to Hampton Avenue on SC 19	Operational	217
Project_218	Pursue Williams Lane extension from south of I-20 to University Parkway on SC 19	Extension	218
Project_219	Ramp from I-520 to US 25/Edgefield Road	Operational	219
Project_220	Reconstruct Whiskey Road from Wrightsboro Road project improvements to Guy Drive intersection	Intersection	220
Project_221	Relocate the primary Augusta Transit hub from Broad Street to downtown Augusta	Transit	221
Project_222	Reynolds Farm Road Paving from Old Louisville Road to Old Berzelia Road	Extension	222
Project_223	Richland Avenue West and University Parkway from Richland Avenue West to University Parkway	Operational	223
Project_224	Richmond Hill Road & Windsor Spring Road	Safety	224
Project_225	Richmond Hill Road improvements from Lumpkin to Deans Bridge from Lumpkin to Deans Bridge	Operational	225
Project_226	River Levee Trail Extension 3D from Augusta Levee to Hawk's Gully	Pedestrian/Bicycle	226
Project_227	River Watch Parkway at I-20	Safety	227
Project_228	Riverwatch Parkway (15th Street to County Line) from 15th Street to County Line	Operational	228
Project_229	Riverwatch Parkway Adaptive Signal Project	ATMS/ITS	229

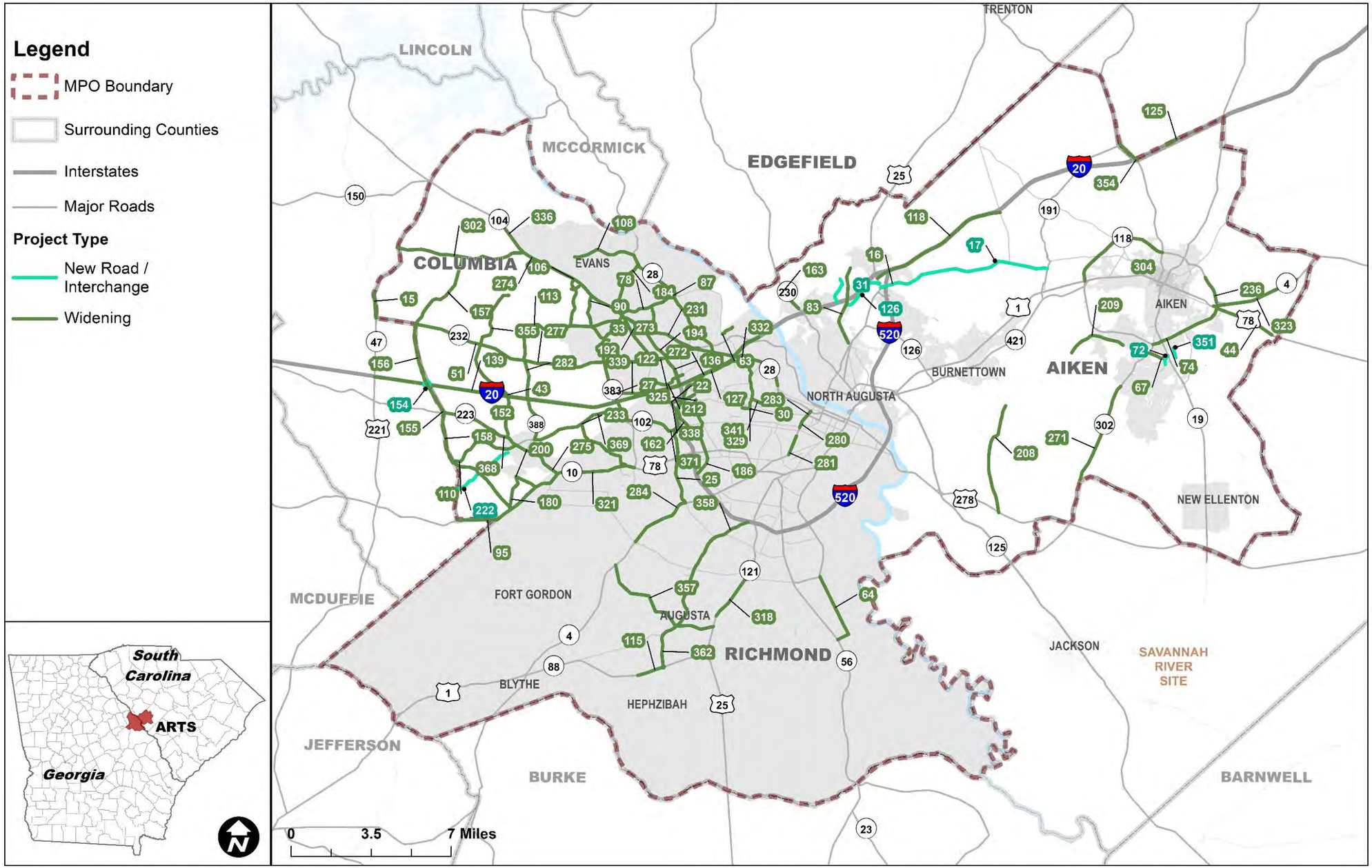
Project ID	Project	Project Type	Map ID
Project_230	Riverwatch Parkway & Fury's Ferry Road	Safety	230
Project_231	Riverwatch Parkway between Pleasant Home Road and Old Evans Road	Widening	231
Project_232	Robert C Daniel Jr Parkway between Agerton Ln and Walton Way Extension	Safety	232
Project_233	Robinson Avenue between Gordon Highway & Wrightsboro Road	Widening	233
Project_234	Roundabout at intersection of Evans Town Center Blvd and Evans to Locks Road	Intersection	234
Project_235	Roundabout at intersection of North Belair Road and Ronald Reagan Drive/Industrial Park	Intersection	235
Project_236	Rudy Mason Parkway from S-912 (North of Willow Run Road) to S-783 (North of Old Wagener Road)	Widening	236
Project_237	Rudy Mason Parkway @ Wagener Road	Safety	237
Project_238	Rudy Mason Parkway @ Wire Road	Safety	238
Project_239	S Belair Road between S Old Belair Road & Belair Frontage Road	Safety	239
Project_240	S-1304 over Shaw's Creek	Bridge	240
Project_241	S-144 Bettis Academy at S-780 Whaley Pond, realign at 90 degrees	Intersection	241
Project_242	S-2-144 Bridge Rehabilitation/ Maintenance from S-2-144 to Bettis Academy	Bridge	242
Project_243	S-2-145 at tributary to Horse Creek, 3 miles north of Beach Island	Bridge	243
Project_244	S-2-166 at NS Railroad, at Union Street in Aiken	Bridge	244
Project_245	S-2-180 at abandoned railroad, at Fairfield Street in Aiken	Bridge	245
Project_246	S-2-33 at Gregg Canal, at Graniteville	Bridge	246
Project_247	SC 118 Bell Parkway at Trolley Line safety improvements	Safety	247
Project_248	SC 19 (Laurens St) at SC 118 (Rutland Drive)	Safety	248
Project_249	SC 19 10 foot shoulder (6 foot paved, 4 foot grass) from the Aiken/Edgefield County line to south of Shiloh Heights Road	Operational	249
Project_250	SC 19 Add raised median with dedicated left turns at Hedge Road, Williams Lane, Allan Avenue, Sassafras Road, Mayfield Road, Reynolds Pond Road, Good Springs Road	Operational	250
Project_251	SC 19 between S Boundary and I-20	Operational	251
Project_252	SC 19 Implement consistent and/or more visible address markers from the Aiken/Edgefield County line to south of Shiloh Heights Road	Safety	252
Project_253	SC 19 Improve intersection turning radii for all ramp termini from south of Shiloh Heights Road to South of I-20	Intersection	253
Project_254	SC 19 Increase frequency of "Deer Crossing" signs from the Aiken/Edgefield County line to south of Shiloh Heights Road	Safety	254
Project_255	SC 19 Install wildlife friendly culvert at Long Branch Stream crossing from south of Shiloh Heights Road to South of I-20	Bridge	255
Project_256	SC 191 (Main) at SC 421 (Augusta)	Safety	256
Project_257	SC 230 (W Martintown Road) operational and signal improvements from I-20 to Edgefield County Line	Operational	257
Project_258	SC 28 Bridge Replacement/Rehabilitation from SC 28 to Savannah River	Bridge	258
Project_259	SC 302 (Silver Bluff Road) at Gray Mare Hollow Road (S-146)	Safety	259
Project_260	SC 421 (Augusta Highway) at Old Cherokee Drive (S-385)	Safety	260
Project_261	SC 421 at Little Horse Creek, 1 mile east of Clearwater	Bridge	261

Project ID	Project	Project Type	Map ID
Project_262	SC 421 Bridge over Little Horse Creek from SC 421 to Little Horse Creek	Bridge	262
Project_263	SC-19 Edgefield Highway Intersection	Intersection	263
Project_264	Scott's Way over Rae's Creek (Bridge Replacement)	Bridge	264
Project_265	Seymore Drive (S-879) from SC 125 (Atomic Road) to Old Edgefield Road (S-197)	Safety	265
Project_266	Shiloh Church/ SC 19 intersection improvement with traffic signal/turn lane and roundabout	Intersection	266
Project_267	Signage and wayfinding	Operational	Not mapped
Project_268	Signal at ramp entrance/exits from south of Shiloh Heights Road to South of I-20 on SC 19	ATMS/ITS	268
Project_269	Signal Modernization Walton Way Phase III (Bransford Road to Milledge Road) from Bransford Road to Milledge Road	ATMS/ITS	269
Project_270	Signal Modernization Walton Way Phase III (Druid Park to Heard Avenue) from Druid Park to Heard Avenue	ATMS/ITS	270
Project_271	Silver Bluff Road Widening from Storm Branch Road to Hitchcock Parkway	Widening	271
Project_272	Skinner Mill Road widening and improvements from Boy Scout Road to Walton Way Extension	Widening	272
Project_273	SR 104 between Hardy McManus and Pleasant Home	Widening	273
Project_274	SR 104 from Old Washington Road to William Few Parkway	Widening	274
Project_275	SR 223 between Wrightsboro and Gordon	Widening	275
Project_276	SR 232 (Columbia Road) from William Few Parkway to Old Belair Road	Widening	276
Project_277	SR 232 between Washington and Hereford	Widening	277
Project_278	SR 28 between 15th Street and Savannah River	Safety	278
Project_279	SR 28 between Evans to Locks and 15th St	Safety	279
Project_280	SR 28 Widening from SC line to CR 1236/Evans to Locks Road from SC line to Evans to Locks Road	Widening	280
Project_281	SR 388 Widening from CR 571/Wrightsboro Road to I-20 from CR 571 Wrightsboro Road to I-20	Widening	281
Project_282	SR 388 Widening from I-20 to SR 232/Columbia Road from I-20 to SR 232 Columbia Road	Widening	282
Project_283	SR 4 and 15th Street Widening (Milledgeville Road to Government Road) from Milledgeville Road to Government Road	Widening	283
Project_284	SR 4/ US 1 (Deans Bridge Road) from Meadowbrook Drive to Tobacco Road	Widening	284
Project_285	SR 4/15th Street Pedestrian Improvements from John C Calhoun Expressway to 15th Street CSX Overpass	Operational	285
Project_286	SR 4/US 1 at North Fork Spirit Creek Bridge Replacement	Bridge	286
Project_287	SR 4/US 1 Bridge Replacement from SR 4/US 1 to South Prong Creek	Bridge	287
Project_288	SR 4/US 25 BU at Savannah River Bridge Replacement	Bridge	288
Project_289	SR 56 at Apple Valley Drive Safety Improvements from SR 56 (Mike Padgett Highway) to Apple Valley Drive	Intersection	289
Project_290	SR 56 at Dixon Airline Road Safety Improvements from SR 56 (Mike Padgett Highway) to Dixon Airline Road	Intersection	290
Project_291	SR 56 at Marvin Griffin Road Safety Improvements from SR 56 (Mike Padgett Highway) to Marvin Griffin Road	Intersection	291
Project_292	SR 56 at Old Waynesboro Road Safety Improvements from SR 56 (Mike Padgett Highway) to Old Waynesboro Road	Intersection	292

Project ID	Project	Project Type	Map ID
Project_293	SR 56 between International Blvd and Tobacco Road	Operational	293
Project_294	SR 56 between Lumpkin Road and Tobacco Road	Operational	294
Project_295	Stevens Creek Road between Evans to Locks Road & I-20	Operational	295
Project_296	Sudlow Lake Road between US 1 / US 78 & Brevard Road / Pride Avenue	Operational	296
Project_297	Telfair Street Improvements (15th Street to East Boundary Street) from 15th Street to East Boundary Street	Operational	297
Project_298	Tobacco Road between Talbot Drive and Windsor Spring Road	Safety	298
Project_299	Tobacco Road improvements from Deans Bridge to Peach Orchard	Operational	299
Project_300	Traffic signal at Kroger site	ATMS/ITS	300
Project_301	Trolley Line Road from Robert M Bell Parkway to Ascauga Lake Road	Operational	301
Project_302	Tubman Road/ Old Washington Road Widening from Scotts Ferry Road to Washington Road	Widening	302
Project_303	Two Notch Road Widening from Barnard Avenue SE to Grave Avenue	Widening	303
Project_304	University Parkway (S-2131) from US 1/US 78 Richland Avenue to SC 118	Widening	304
Project_305	University Parkway Greenway from Robert M Bell Parkway to SC 19 (Edgefield Highway)	Pedestrian/Bicycle	305
Project_306	US 1 (Deans Bridge Road) Southwest Park and Ride at Walmart / Southpointe Plaza	Transit	306
Project_307	US 1 at Highland Avenue, add left-turn lane	Intersection	307
Project_308	US 1 at Savannah River, at the Georgia/South Carolina state line	Bridge	308
Project_309	US 1 over Big Horse Creek bridge replacement	Bridge	309
Project_310	US 1 over Shaw's Creek bridge replacement	Bridge	310
Project_311	US 1/78 between Martintown and S-67	Operational	311
Project_312	US 1@ SC 421	Intersection	312
Project_313	US 25 (Edgefield Highway) at SC 126/S-805	Safety	313
Project_314	US 25 (Martintown Road) at SC 125 (Atomic Road)	Safety	314
Project_315	US 25 between Gordon Highway and I-520	Operational	315
Project_316	US 25 between I-520 and Tobacco Road	Operational	316
Project_317	US 25 Bus (Georgia Avenue) at SC 125 (Buena Vista)	Safety	317
Project_318	US 25/SR 121(Peach Orchard Road) from Tobacco Road to Browns Road	Widening	318
Project_319	US 78 (Charleston Highway) from SC-302 (East Pine Log Road) to Aiken/Barnwell county line	Intersection	319
Project_320	US 78 (Gordon Highway) Park and Ride from US 78 to Jimmie Dyess Parkway	Transit	320
Project_321	US 78 / SR 10 from Robinson Avenue to Fort Gordon Gate 1	Widening	321
Project_322	W Martintown Road @ Atomic Road	Safety	322
Project_323	Wagener Road from US 78 to S-260 (Wright's Mill Road)	Widening	323
Project_324	Walton between Gordon and Milledge	Operational	324
Project_325	Walton between Washington and Wrightsboro	Widening	325
Project_326	Walton Way Accessible Sidewalk Renovation from 7th Street to 11th Street	Pedestrian/Bicycle	326
Project_327	Walton Way between Bransford and Jackson	Operational	327

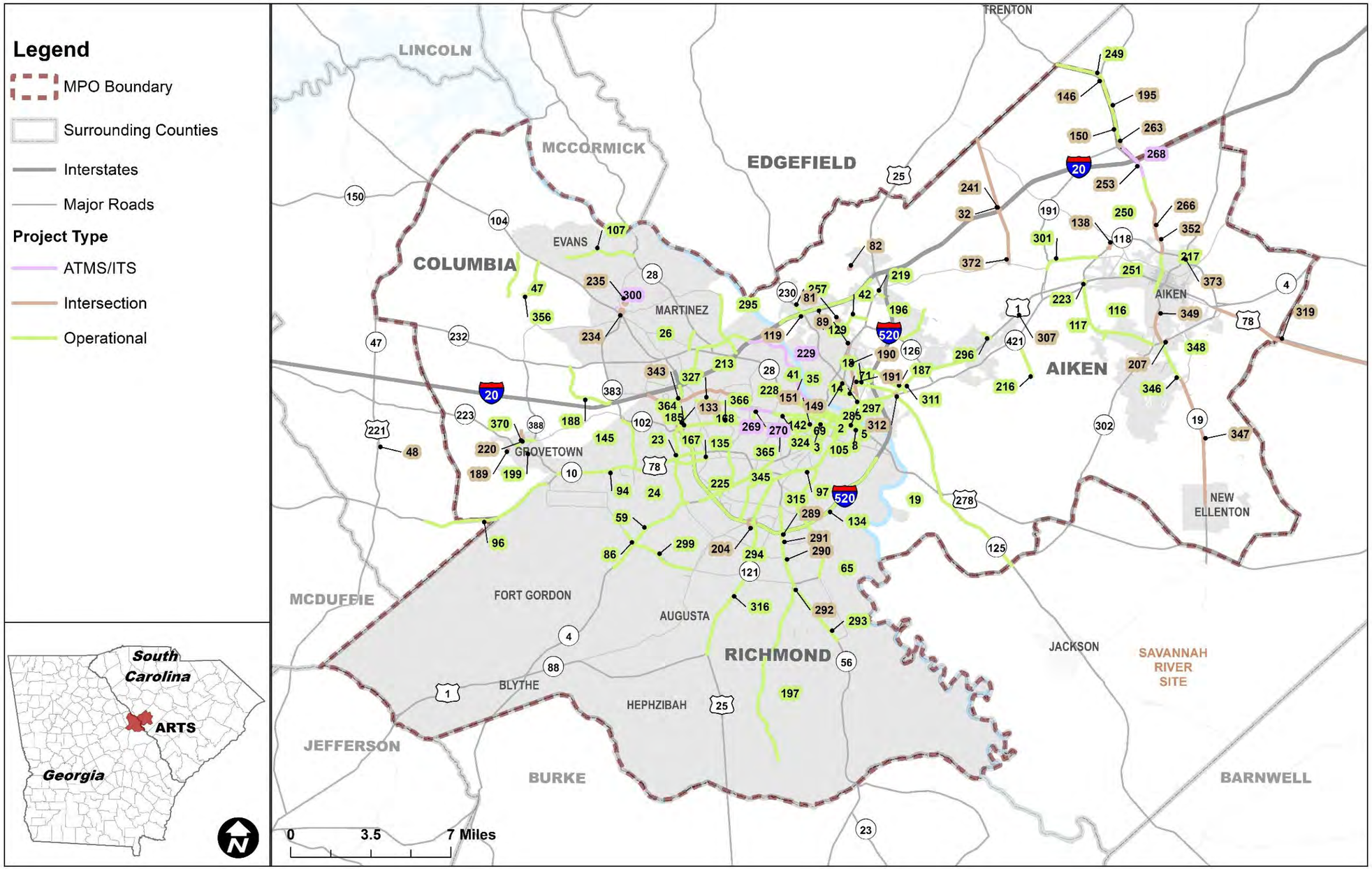
Project ID	Project	Project Type	Map ID
Project_328	Walton Way between Chafee Avenue & 15th St	Safety	328
Project_329	Walton Way between Lake Forest Drive & Highland Avenue	Widening	329
Project_330	Walton Way Extension between Exchange ln and Wheeler Road	Safety	330
Project_331	Walton Way over Hawks Gully (Bridge Repair and Restoration)	Bridge	331
Project_332	Washington between Pleasant and Broad St	Widening	332
Project_333	Washington Road @ Owens Road	Safety	333
Project_334	Washington Road between Fury's Ferry Road & Berckmans Road	Safety	334
Project_335	Washington Road between Halali Farms Road & Ronald Reagan Drive	Safety	335
Project_336	Washington Road between Old Washington Road & N Tubman Road	Widening	336
Project_337	Washington Road between Riverwatch Parkway and Ronald Reagan Drive	Safety	337
Project_338	Wheeler between Walton and Flowing Wells	Widening	338
Project_339	Wheeler Road between Belair Road & Flowing Wells Road	Widening	339
Project_340	Wheeler Road between I-20 & Jackson Road	Safety	340
Project_341	Wheeler Road between Berckmans Road & Monte Sano Avenue	Widening	341
Project_342	Wheeler Road between Pleasant Home Road / Walton Way Extension & Aumond Road	Widening	342
Project_343	Wheeler Road Intersection from Wheeler Road to Robert C Daniel Parkway	Intersection	343
Project_344	Wheeler Road Multimodal corridor improvements from I-20 to CR 804 Augusta West Parkway	Pedestrian/Bicycle	344
Project_345	Wheeless Road improvements from Gordon Highway to Deans Bridge Road	Operational	345
Project_346	Whiskey Road additional curb and gutter, plantable median islands from Pine Log Road to Twin Lakes Drive	Operational	346
Project_347	Whiskey Road Intersection from Twin Lakes Drive to George Avenue	Intersection	347
Project_348	Whiskey Road option 2: convert to two lanes with plantable median and angled parking from Georgia Avenue to US 278	Operational	348
Project_349	Whiskey Road Phase II from Silver Bluff Road to Powderhouse Road	Intersection	349
Project_350	Whiskey Road Widening 1 from South Boundary Avenue to Richland Avenue	Widening	350
Project_351	Whiskey/Centennial Parkway Extension from Centennial Parkway to East Gate Drive	Extension	351
Project_352	White Pond Road at Whiskey Road Intersection	Intersection	352
Project_353	Widen north of Reynolds Pond on SC 19	Widening	353
Project_354	Widen to four lanes from south of Shiloh Heights Road to South of I-20 on SC 19	Widening	354
Project_355	William Few Parkway between Columbia Road & Clanton Road	Widening	355
Project_356	William Few Parkway between Washington Road & Berkley Hills Pass / Whispering Pines Way	Operational	356
Project_357	Willis Foreman Road from SR 4/US 1 to SR 121/US 25 (Peach Orchard Road)	Widening	357
Project_358	Windsor Spring between SR 25 and Tobacco Road	Widening	358
Project_359	Windsor Spring Road @ NS Railroad from Windsor Spring Road to Norfolk Southern Railroad	Bridge	359

Project ID	Project	Project Type	Map ID
Project_360	Windsor Spring Road @Spirit Creek from Windsor Spring Road to Spirit Creek	Bridge	360
Project_361	Windsor Spring Road at NS Railroad, .5 miles north of Hephzibah	Bridge	361
Project_362	Windsor Spring Road Phase IV (Tobacco Road to Willis Foreman Road) from Tobacco Road to US 88	Widening	362
Project_363	Windsor Springs Road between Nottingham Drive & Peach Orchard Road	Safety	363
Project_364	Wrightsboro between Barton and Jackson	Operational	364
Project_365	Wrightsboro between Highland and 15th	Operational	365
Project_366	Wrightsboro between Jackson and Highland	Operational	366
Project_367	Wrightsboro Road between Belair Road & Fox Trace	Safety	367
Project_368	Wrightsboro Road between Chamblin Road & Louisville Road	Widening	368
Project_369	Wrightsboro Road from SR 388 (Horizon South Parkway) to SR 838 (Jimmie Dyess Parkway)	Widening	369
Project_370	Wrightsboro Road Improvements from SR 388/Lewiston Road to SR 223/Robinson Avenue from Lewiston Road to Robinson Avenue	Operational	370
Project_371	Wrightsboro Road Widening (Jimmie Dyess Parkway to I-520) from Jimmie Dyess Parkway to I-520	Widening	371
Project_372	Wrightsboro Road/RA Dent Boulevard intersection improvement	Intersection	372
Project_373	York St./Columbia Highway and Rutland Avenue/Aldrich Street from York Street to Rutland Avenue	Intersection	373
	Various transit improvements	Lump sum	Not mapped
	Various pedestrian/bicycle/trails projects	Lump sum	Not mapped
	Various bridge repair projects	Lump sum	Not mapped
	Various lump sum projects	Lump sum	Not mapped



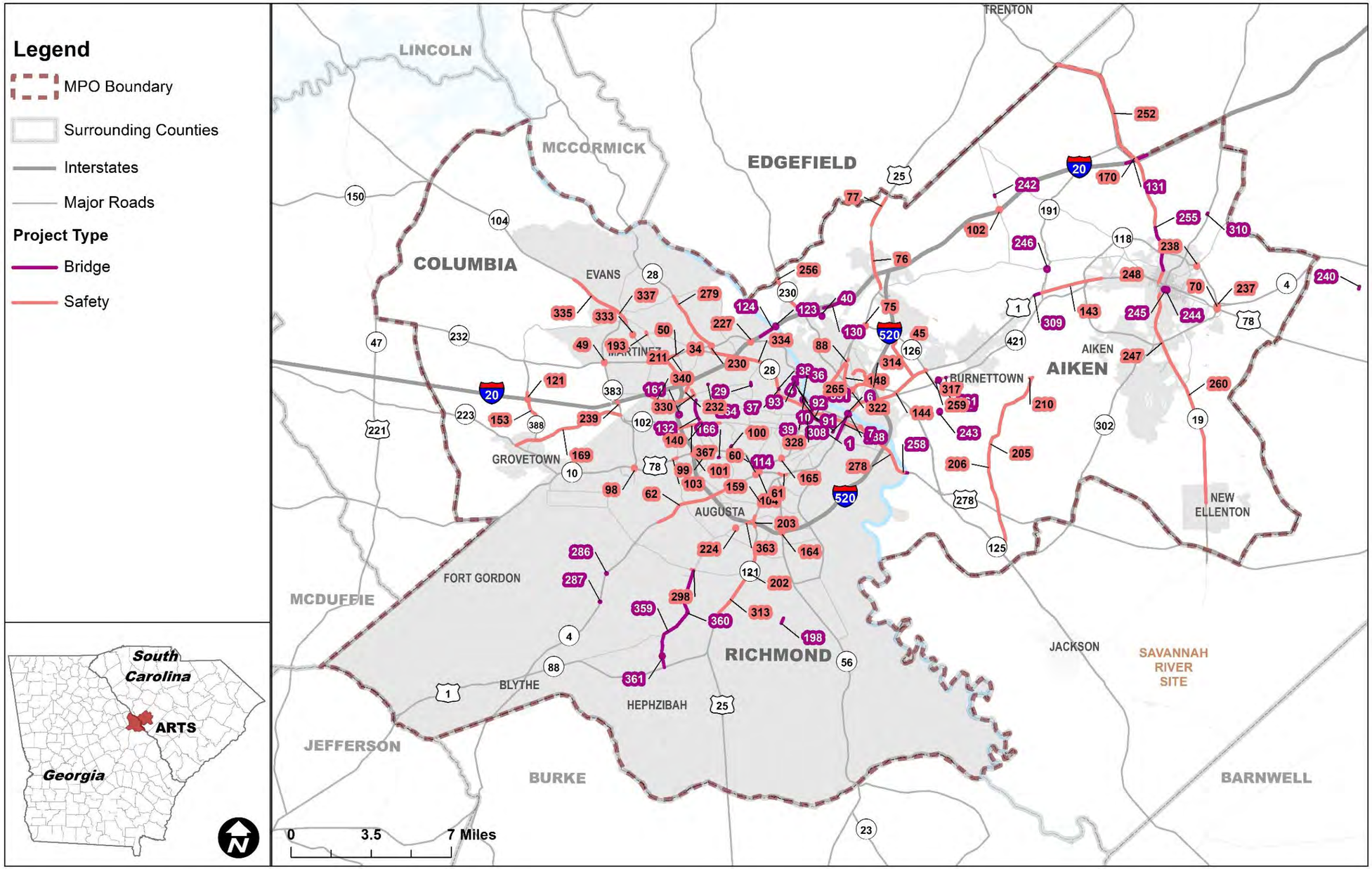
Source: ARTS MPO

Figure 10-3. Proposed Universe of Projects - Widening / Extension Projects



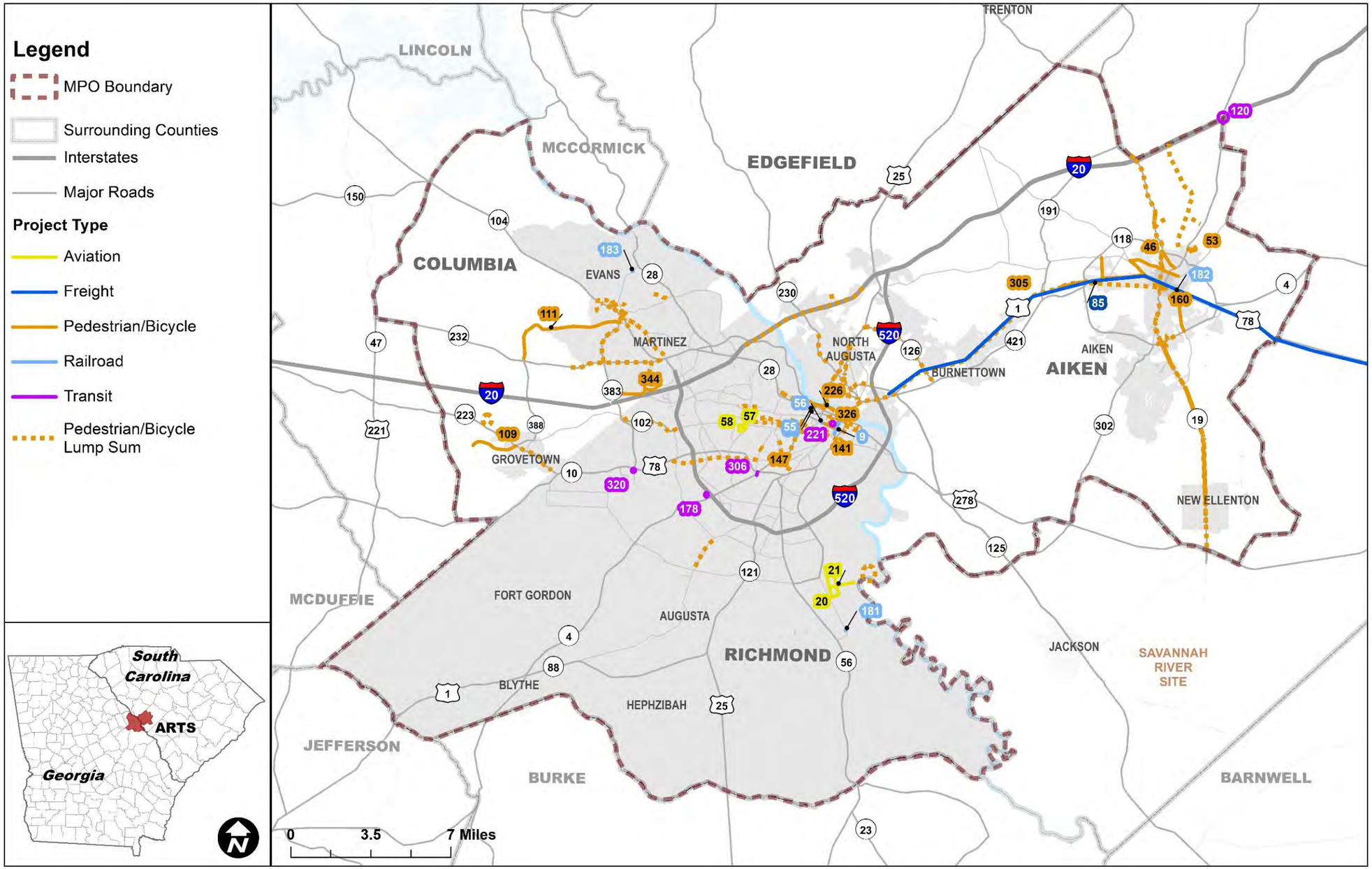
Source: ARTS MPO

Figure 10-4. Proposed Universe of Projects – Operations Improvement Projects



Source: ARTS MPO

Figure 10-5. Proposed Universe of Projects – Safety / Bridge Projects



Source: ARTS MPO

Figure 10-6. Proposed Universe of Projects – Pedestrian / Bicycle / Transit Projects

[i] National Aging and Disability Transportation Center, https://www.nadtc.org/about/transportation-aging-disability/ada-and-paratransit/
[ii] Safe Routes Partnership Research Blog, 2018: https://www.saferoutespartnership.org/blog/too-far-walk
[iii] GDOT Design Policy Manual, 2019: http://www.dot.ga.gov/PartnerSmart/DesignManuals/DesignPolicy/GDOT-DPM.pdf
[iv] SCDOT Bicycle/Pedestrian Resolution, 2003: https://www.scdot.org/projects/pdf/Bike_Ped/bike_resolution.pdf
[v] South Carolina General Assembly, 123rd Session, 2019-2020: https://www.scstatehouse.gov/sess123_2019-2020/bills/3656.htm
[vi] GDOT Context Sensitive Design Online Manual, 2018: http://www.dot.ga.gov/PartnerSmart/DesignManuals/ContextSensitiveDesign/GDOT_CSD_Manual.pdf
[vii] SCDOT Roadway Design Manual, 2017:https://www.scdot.org/business/pdf/roadway/2017_SCDOT_Roadway_Design_Manual.pdf