SUATS

Sumter Area Transportation Study

Metropolitan Planning Organization

2050

Long Range Transportation Plan

Adopted TBD

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Acknowledgements

Development of the SUATS Long-Range Transportation Plan involved numerous stakeholders, including the SUATS Technical Committee, Policy Committee, City and County staff, and the South Carolina Department of Transportation (SCDOT).

The general public also provided input for this plan through several online surveys, pop-up events, and meetings held both specifically for this LRTP itself as well as for recent Walk+Bike planning, transit planning, and comprehensive planning. All of their efforts are greatly appreciated.

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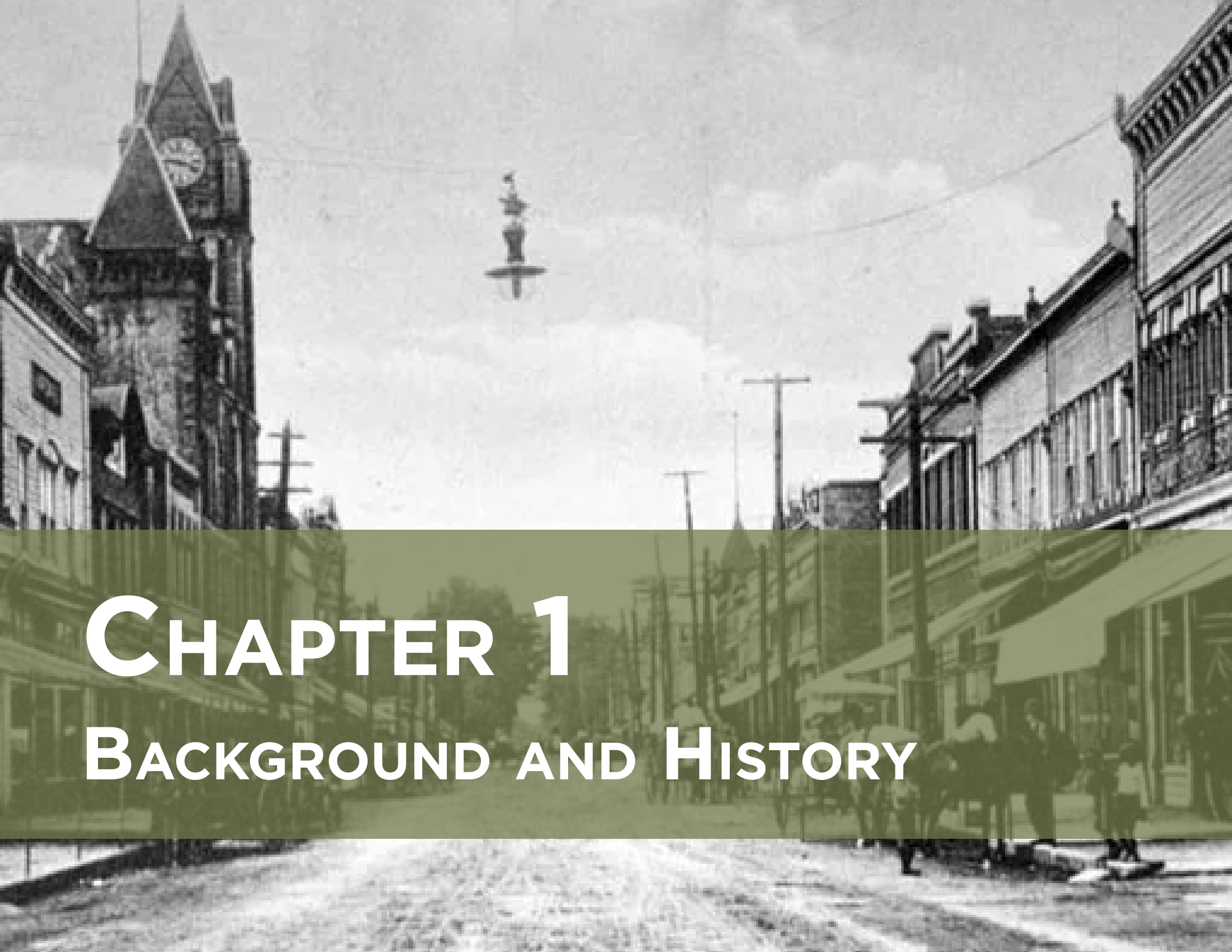
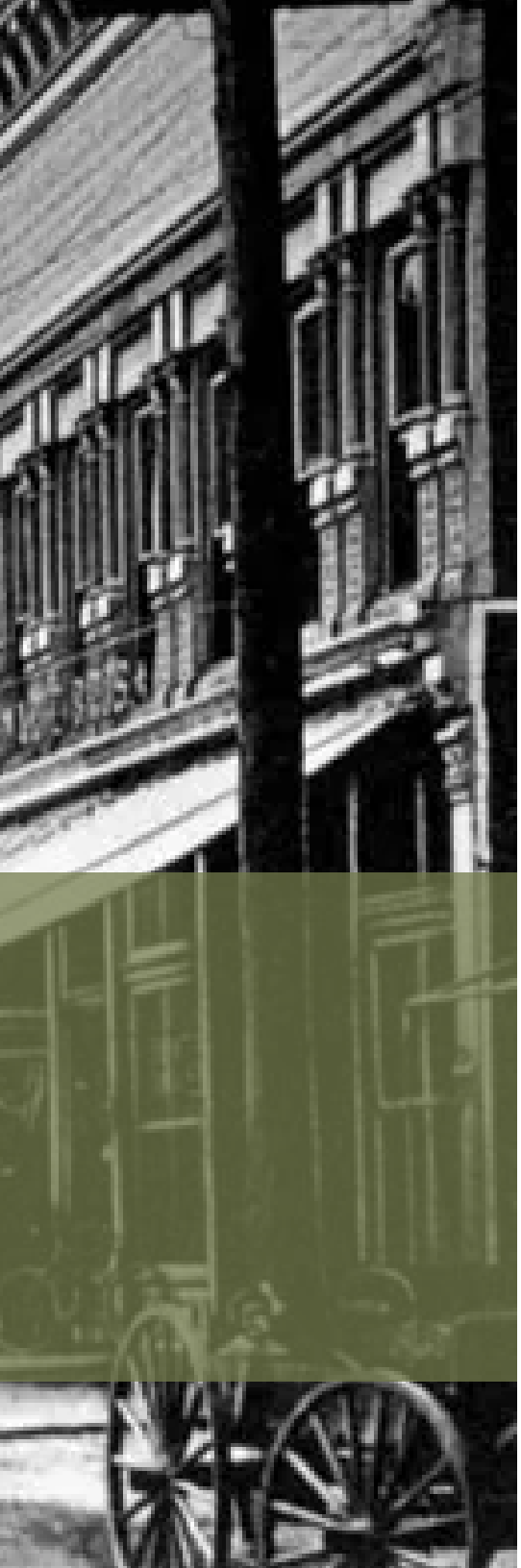


Chapter 1
Background and History



Chapter 1

Background and History

Located near the geographic center of South Carolina, Sumter is situated in the "High Hills of the Santee". A rich history of native communities, local conflict, and economic growth has provided the environment which has allowed Sumter to become the community it is today.

Native and Colonist Populations

Long before European settlers moved to the banks of the Wateree River, Native Americans populated the surrounding countryside. The present day Wateree and Santee Rivers are named for the local tribes that lived on the land. English speaking explorers first encountered the tribes in 1567, but it would be a century before their lives would be documented by European immigrants. A war in 1715 between the native tribes and foreign settlers signaled the end of Native American control in the area that would become Sumter.

Only a few decades passed before townships developed inland to protect the burgeoning coastal settlement at Charleston. One of the earliest public roads, designated in 1753, started as a path through the wilderness connecting these isolated townships. For the early settlers, traveling by river was easiest though far from ideal. The lack of access to the area hindered settlement efforts, and in 1758, thirty-eight pioneers signed a petition requesting new roads.

In addition to a lack of transportation infrastructure, other difficulties faced the area's early inhabitants. Settlers cleared the land of large trees, built shelter, hunted, fished, and prepared the soil for growing corn, wheat, tobacco, and indigo. Life in the midlands remained simple but hard through the years leading up to the fight for independence.

The War for Independence

The City and County of Sumter were named in honor of General Thomas Sumter, the "Fighting Gamecock" or "Gamecock General" of the American Revolution who took an interest in local issues. While few events in the War of Independence took place in the area, the region contributed to and was affected by the struggle. Many local men participated in the war, and present-day Highway 261 was an important route between Camden and Charleston for troops and supplies. The war had a damaging effect on the economic and social structure of the area as armies on both sides of the conflict seized supplies and larger towns throughout the region were destroyed. Like other areas in the new country, disorder and lawlessness marked the years after the war. In response to post-war chaos, the Sumter District was established at the turn of the 19th century. The original area included 1,672 square miles before being reduced to its current size of 681 square miles when Clarendon and Lee Counties formed in 1855 and 1902, respectively. By purchasing land in the High Hills and planning the Village of Statesburg's design, General Sumter maintained an active interest in the district that would eventually bear his name. A few miles to the east of Statesburg, the community of Sumterville incorporated in 1845. Originally a plantation settlement, Sumterville was recognized as early as 1801 when it was identified by the postmaster general of the United States.

Transportation and Culture

Following the American Revolution, effective transportation in the Sumter area remained elusive. General Sumter formed a company in 1787 to open the Catawba and Wateree Rivers and connect Statesburg with Charleston, but the attempt proved too costly and was eventually abandoned.

A key road to the Sumter area, King's Highway (SC-261) originally connected the larger cities of Camden and Charleston and served as a trade route for settlers and Native Americans. As a result of the settlers' petition in 1758, another road was constructed along the Black River.

Area that would become Sumter County and the City of Sumter, from Carey's 1795 Map of South Carolina

Prior to the arrival of railroad, all local commerce went through Charleston and traveled these two primitive roads. Ferries provided necessary links to a variety of locations, including the new capital at Columbia. Commerce accompanied the transportation links as a collection of general stores, taverns, and inns developed as roads were constructed and ferries were launched.

A cotton mill near Statesburg began operating in 1790. When it was discovered that cotton could be produced profitably in the midlands and uplands of South Carolina, the crop replaced rice and indigo as the region's principal harvest. Fluctuations in price, however, challenged cotton farmers throughout the 1800s. Manufacturing didn't fare much better, and growth in the area's population and economy stagnated. Similar to areas throughout the United States, the arrival of the railroad changed Sumterville. Residents clamored for rail service in the early 1830s, but high costs, political wrangling, poor weather, and an inconsistent economy conspired to delay its arrival for nearly 20 years. When the railroad was eventually established in the region, it was accompanied by the construction of new buildings and homes, a new jail, freight depot, and bank. With this growth came the need for additional services, such as fire protection and improved infrastructure. Streets in own were improved, and by 1855 the town known as Sumter had grown considerably.

The Civil War and Reconstruction

Sumter's role in the Civil War began early: the first shot in the war was fired from Fort Sumter in Charleston by a Sumter soldier. As men of all ages marched off to war, women and children of Sumter assumed responsibilities left behind by the absence of men. Tending to farms and supporting the war effort by making uniforms and supplies became everyday chores. As the wounded returned home, women tended to their injuries in makeshift hospitals and private homes throughout the region. Near the end of the Civil War, Sumter residents thought they had been spared the destruction during General William Sherman's March to the Sea.

The hopes of local residents and business owners were soon shattered when General Edward Potter marched inland from Georgetown and in the process destroyed mills, gins, farms, plantations, railroads, engines, and lumber. When he arrived in Sumter on April 9, 1865, General Potter met some resistance by an overmatched local militia. This was the same day General Robert E. Lee surrendered, but it would take nearly two weeks for word of the events in Appomattox to reach General Potter. On April 10, he directed his men to go house to house to search for contraband and take food, clothing, and other valuables. As a result, Sumter's shops and printing press were destroyed.

Similar to the Revolutionary War, Sumter emerged from the Civil War in disarray. While many were initially left homeless, life began to return to normal as public buildings, bridges, and railroads appeared from the ruins of war. By the early 1870s, Sumter once again began to grow.

Post-Civil War decades proved challenging for the region. The South's economy had to be restructured following the abolishment of slavery, and freed slaves and whites clashed in a number of racial conflicts. In addition, labor disputes and poor crop yields made life difficult for mill workers and farmers.

Main Street Sumter as seen circa 1900

On the upside, more railroads began operating at the close of the century. A direct line from Sumter to Camden opened in 1888, followed by a branch linking Sumter to the Southern Railroad in 1899. In 1880, a short line connected Sumter with the logging interests in Bishopville. New communities developed along these railroads, including Pinewood, Oswego, and Hagood. Commerce also was supported by the railroad. In 1884, Sumter boasted a cotton factory, 73 flour and grist mills, 31 lumber mills, and 10 turpentine establishments. Good access by rail and ample cotton and lumber resources gave particular strength to these industries.

Community Advancement, Transportation Improvements, and Economic Development

Sumter proved to be an innovative community, recognized as the first city in the United States to incorporate the basic principles of the council/manager form of government. Sumter

adopted this style in 1912, ahead of the more than 3,400 cities and 371 counties that now use the council/manager or council-administrator form. For Sumter, the new government was better equipped to keep up with the growing city's water, sewer, and electricity needs. A program inaugurated in 1915 expanded the few paved roads and sidewalks along Sumter's Main Street.

Not to be left behind by the City of Sumter, Sumter County led the state with a commitment to improve the roadway network. The county held a referendum in 1920 that approved $2.5

A city worker repaints crossing lines in front of the Washington School on Washington St, 1940s

million in bonds for construction of paved roads. By 1924, the total had been increased to $4 million. Within the next few years, hundreds of miles of new highways radiated from city to the county limits, including a highway across the Wateree Swamp that connected Sumter with the state capital in Columbia. Only after the state began constructing highways in 1925 did portions of the Sumter County paved roads become part of the state system and fall under the state's maintenance program. The bonds also funded improvements to a sidewalk network that included 10 miles of elevated sidewalks made of compacted clay held in shape by wooden curbs.

Like others throughout the country, the people of Sumter had to endure the good and bad times brought on by the World Wars and Great Depression during the first half of the 20th century. Through the 1950s, the economy of Sumter County relied on agriculture. More than 3,000 farms covered the landscape, although manufacturing began establishing a niche market during this time. Eventually, Sumter benefited from a resurgent economy following World War II.

Shaw Air Force Base and the Growth of the Military Economy

Modern Sumter is forever tied to the events of August 30, 1941, the day Shaw Field was activated to train cadets to fly before sending them off to the European and Pacific campaigns of World War II. The military facility's name honored Ervin D. Shaw, the first Sumter County pilot to die in combat during World War I.

The training field not only served as the site of pilot instruction throughout the war, but also housed German prisoners-of-war in 1945 and early 1946. Activity at Shaw doubled in 1951 with the addition of the 363rd Tactical Reconnaissance Wing from Langley Air Force Base in Virginia. The facility received another boost in 1954 when the 9th Air Force headquarters was assigned to Shaw from Pope Air Force Base in North Carolina.

By the 1990s, Shaw Air Force Base was serving

Shaw Air Force Base aerial view, 1940s

as an essential component of Sumter's economy and a key contributor to U.S. defense operations worldwide. During the early stages of the Gulf War, F-16 Fighting Falcons flew missions to stop Iraqi ground forces from invading Saudi Arabia. Throughout the war, troops and equipment from Shaw supported the military effort.

As a result of the 2005 Defense Base Realignment and Closure (BRAC) Commission recommendations, Shaw grew to an approximate total of 1,500 military and civilian employees with the relocation of US Army Central. The growth of the base had an impact on business in the Sumter area as well as the services offered to military and civilian personnel. Growth continues to come to Shaw Air Force Base.

In 2017, Shaw was selected to be the home for an additional MQ-9 Reaper remotely piloted aircraft unit, with an anticipated growth of 430 personnel.

Looking Back and Moving Forward

The 2000s have seen a great deal of growth and investment in the Sumter area.

After the difficult years of the 1990s in which several industries shuttered their doors, thanks in large part to a team effort between the City, County, and local stakeholders such as Central Carolina Technical College, and the Sumter School District, the area has seen a resurgence of commerce, particularly in the manufacturing sector. What can be considered a catalyst for this effort is Sumter's successful "Penny for Progress" local sales tax initiative, which saw 1 cent of sales tax levied locally to fund capital projects across the community. Projects funded via the first Penny for Progress referendum included a new judicial center, the Patriot Park Sportsplex, renovations to the County Civic Center, industrial infrastructure projects, and

Sumter's Patriot Park Sportsplex, funded via the 2007 Penny for Progress Referendum

a major highway interseciton project at US-15 North and the US-378 Bypass known as the "Lafayette Diamond".

The work started by "Team Sumter" in the 2000s paid dividends after the Great Recession of 2009

Aerial Image of Continental Tire's $500 million manufacturing facility under construction, 2013

when Continental Tire selected Sumter to host a 1,600 job and $500 million tire manufacturing facility located south of the City on US-521. The Continental Tire announcement, combined with Shaw AFB's expansions, mobilized the community to re-authorize the Penny for Progress sales tax which funded additional park improvements, industrial infrastructure, Sumter's first Greenway, new police and fire headquarters, and several roadway projects including revitalizations of the North Main Street and Manning Avenue corridors.

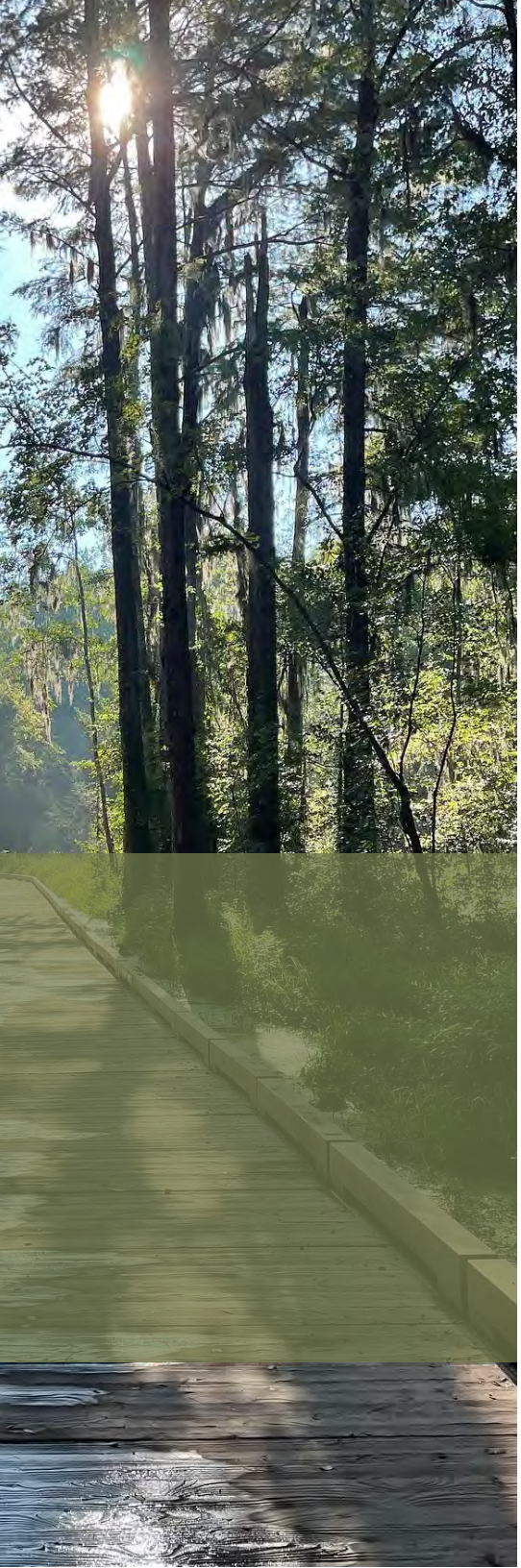
Looking Back and Moving Forward

The transportation options available to Sumter residents are constantly evolving. The National Interstate and Highway Defense Act of 1956 brought increased access to the area. As a result, the region is now encircled by three Interstate Highways: I-95, I-20, and I-26. In 1973, the state legislature passed a series of laws in response to a need for public transportation throughout South Carolina which led to the formation of the Santee Wateree Regional Transportation Authority (SWRTA) in 1978. SWRTA has expanded to reach into five counties, including Sumter County, with fixed route, paratransit, and Medicaid transportation services.

Local industry continues to take advantage of new opportunities brought by improved access. Today, a good transportation network and growing economic base positions the City of Sumter and Sumter County for a healthy future. By undertaking the development of a long-range transportation plan, Sumter is committing to preserving the region's unique historical, cultural, and natural resources while expanding services to meet the needs of the area's changing population.

Chapter 2

Introduction and Vision



Chapter 2

What is an LRTP?

Growth and Changing Transportatiion Trends

MPO Area Map

Review of Existing Plans and Studies

Vision Statement

Goals

Elements of an LRTP

Federal and State Enabling Legislation

What is an LRTP?

To plan for the future of the SUATS MPO area, we must understand a series of fundamental relationships — how the past influences the present, how land use interacts with transportation, and how collective vision becomes a real, desirable future. This financially constrained transportation plan recognizes the need to embrace our history as we build for our future. The 2050 SUATS Long Range Transportation Plan is the result a multi-level partnership that brought local, state, and federal policy-makers to the table with local residents, business owners, and stakeholders.

What is an LRTP and Why Update?

At its core, a long-range transportation plan (LRTP) identifies ways a region expects to invest resources to enhance its transportation system. The underlying principles and recommended actions of an LRTP reflect choices made by the public and private sectors regarding transportation investments, land use decisions, and infrastructure improvements.

A typical LRTP consists of 2 parts—a description of the vision for the region and a detailed list of policies, operational strategies, and projects to achieve the vision. The LRTP must include a variety of actions that lead to "the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods".[1] These tasks are accomplished within the context of policy review and public involvement to produce an intermodal transportation system that respects an area's history and heritage while providing true choice to all users. Federal regulations require the region's LRTP be updated every 5 years to reflect changing needs and priorities. This plan updates the existing SUATS LRTP last updated November 2018.

The federal government requires a comprehensive, cooperative, and continuing process for initiatives to be eligible for federal transportation funding. To that end, several stakeholders had a hand in this updated plan, including:

- City of Sumter
- Sumter County
- Santee-Wateree Regional Transportation Authority (SWRTA)
- South Carolina Department of Transportation (SCDOT)
- Shaw Air Force Base
- Federal Transit Authority (FTA)
- Federal Highway Administration (FHWA)

1 23 CFR 450c, Sec. 450.322

Growth and Changing Transportation Trends

The SUATS MPO area's changing needs and priorities are the result of continued growth and changing transportation trends. The South Carolina Revenue and Fiscal Affairs Office estimates Sumter County lose population by 2035, though the state population is expected to grow significantly within the same timeframe.

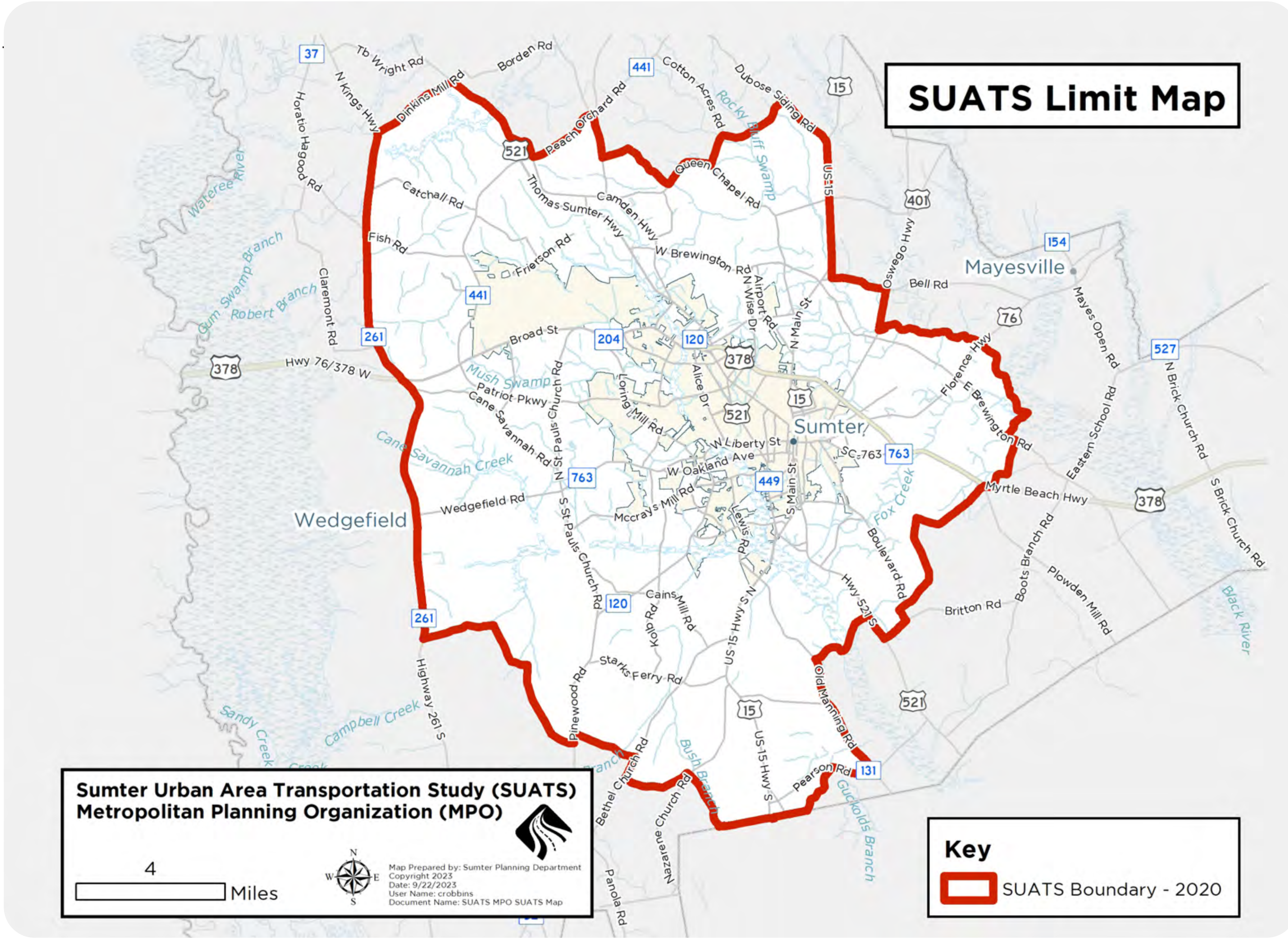
However, the forecast does not fully account for increased mission and personnel transferring to Shaw Air Force Base and new commercian and industrial development in the community. Several thousand new residents are expected including servicemembers' families. Furthermore, while Sumter County has experienced and is anticipated to continue to see population reduction, the City of Sumter has grown at the same time, as evidenced in the results of the 2020 Census. This shift suggests that while the County, which is often used as the geographic basis for population projections, is shrinking, the urbanized part of Sumter is growing, and this growth must be accounted for in transportation planning.

Additional growth provides residents with new cultural, recreational, and economic opportunities but creates renewed challenges for preserving the area's high quality of life. These challenges include increased traffic congestion and pollution as well as loss of open space and evolving commuting patterns.

Presently, a significant percentage of Sumter County residents stay within the county for work. Based on U.S. Census data, approximately 46% of workers who live in Sumter County work within 10 miles of their home. However, over 42% of workers living in the County commute 25 miles or more to their jobs. More information can be found in Table 2.1. This bifurcation of employment locations places pressure on local officials to establish a transportation system that balances the economic needs of the region, with equal parts of the workforce needing very different facilities and approaches.

Review of Existing Plans and Studies

Existing plans and studies were thoroughly reviewed with a focus on identifying recommendations for infrastructure, programs, and policies that may influence transportation within the community. Local regulations related to design and construction of streets, walk + bike facilities, and new development were also reviewed and analyzed with an eye for identifying conflicts that may potentially impede future projects.


SUATS Limit Map
Sumter Urban Area Transportation Study (SUATS)
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SUATS Boundary - 2020
Sumter
Mayesville
Wedgefield
Tb Wright Rd
Borden Rd
Dinkins Mill Rd
N Kings Hwy
Horatio Hagood Rd
Cotton Acres Rd
Dubose Siding Rd
Peach Orchard Rd
Queen Chapel Rd
Rocky Bluff Swamp
US-15
Catchall Rd
Thomas Sumter Hwy
Camden Hwy
W Brewington Rd
Fish Rd
Frierson Rd
Wateree River
Gum Swamp Branch
Robert Branch
Claremont Rd
Oswego Hwy
Bell Rd
Airport Rd
N Wise Dr
N Main St
Broad St
Hwy 76/378 W
Mush Swamp
Patriot Pkwy
Cane Savannah Rd
N St Pauls Church Rd
Loring Mill Rd
Alice Dr
Florence Hwy
E Brewington Rd
Mayes Open Rd
N Brick Church Rd
Eastern School Rd
Cane Savannah Creek
W Liberty St
W Oakland Ave
SC-763
Wedgefield Rd
S St Pauls Church Rd
Mccrays Mill Rd
S Main St
Lewis Rd
Fox Creek
Myrtle Beach Hwy
S Brick Church Rd
Boulevard Rd
Boots Branch Rd
Plowden Mill Rd
Black River
Britton Rd
Hwy 521 S
Cains Mill Rd
Kolb Rd
US-15 Hwy S N
Starks Ferry Rd
Highway 261 S
Pinewood Rd
Old Manning Rd
Sandy Creek
Campbell Creek
Bethel Church Rd
Nazarene Church Rd
Bush Branch
US-15 Hwy S
Pearson Rd
Cuckolds Branch
Panola Rd
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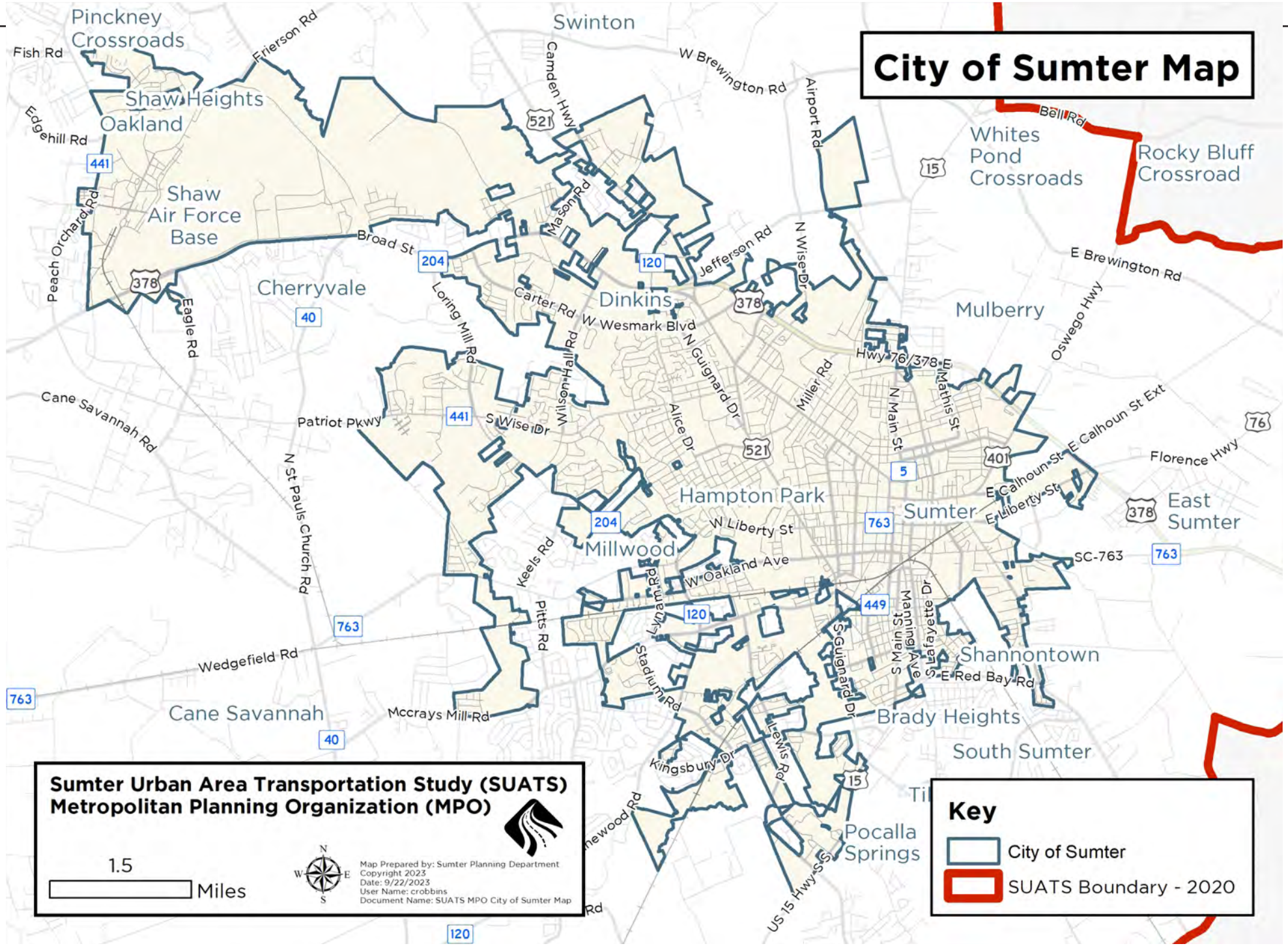
City of Sumter Map
Pinckney Crossroads
Fish Rd
Frierson Rd
Swinton
Camden Hwy
W Brewington Rd
Airport Rd
Bell Rd
Whites Pond Crossroads
Rocky Bluff Crossroad
Shaw Heights
Oakland
Edgehill Rd
441
Shaw Air Force Base
Peach Orchard Rd
Broad St
204
Mason Rd
120
Jefferson Rd
N Wise Dr
E Brewington Rd
Oswego Hwy
Mulberry
Cherryvale
40
Eagle Rd
Loring Mill Rd
Carter Rd
Dinkins
W Wesmark Blvd
N Guignard Dr
Wilson Hall Rd
Miller Rd
Hwy 76/378 E
E Mathis St
N Main St
Cane Savannah Rd
Patriot Pkwy
S Wise Dr
Alice Dr
521
Florence Hwy
E Calhoun St
E Calhoun St Ext
E Liberty St
Hampton Park
Sumter
763
East Sumter
N St Pauls Church Rd
Keels Rd
Millwood
W Liberty St
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Pitts Rd
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S Main St
Manning Ave
S Lafayette Dr
S Guignard Dr
E Red Bay Rd
Shannontown
Wedgefield Rd
Cane Savannah
Mccrays Mill Rd
Brady Heights
South Sumter
Kingsbury Dr
Lewis Rd
Pocalla Springs
US 15 Hwy S
Sumter Urban Area Transportation Study (SUATS)
Metropolitan Planning Organization (MPO)
1.5
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Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 9/22/2023
User Name: crobbins
Document Name: SUATS MPO City of Sumter Map
Key
City of Sumter
SUATS Boundary - 2020

Vision Statement

The vision for the SUATS Long-Range Transportation Plan was developed based on the input received from the SUATS Technical Advisory Committee and the public. The vision statement is as follows:

Goals

The goals that follow balance the vision with the results of the public involvement process. When the SUATS 2040 Long Range Transportation Plan was developed, 6 goals were identified for the plan. In 2045, these goals were carried forward as part of the plan update process. For this 2050 Plan, these goals were validated as remaining relevant and consistent with the MPO's vision and the community's desires, with only minor grammatical adjustments incorporated.

Minimize environmental impacts created by transportation systems by utilizing planning tools to preserve and promote natural assets.

Provide and promote a safe transportation system for all users by implementing be st practices in Complete Street design.

Create a system of interconnected streets and paths by developing a plan that supports existing and future development.

Ensure the quality of the current network is upheld to provide robust service to residential, commercial, industrial, and military uses.

Support the local economy by making it easier to move people and freight in the area while maximizing benefits and minimizing costs.

Provide a balanced transportation system that makes it easier to walk, ride a bike, and take transit by conducting traffic calming and developing safe corridors.

Elements of an LRTP

Elements of a Long Range Transportation Plan

This plan serves as a tool and guide for decision-makers in the implementation of the SUATS MPO area's transportation system. The plan represents the collective vision of a safe, multimodal, and interconnected transportation system that supports continued economic development without comprising the natural, historic, and social resources vital to the SUATS MPO area's sustainability.

The SUATS 2050 Long Range Transportation Plan concludes with two critical chapters. The Financial Plan investigates potential funding sources and revenues and identifies probable costs for the recommendations in order to produce a fiscally-constrained plan program. The Implementation Plan provides a roadmap for design and construction of proposed projects.

Elements of the LRTP include:

State of the Region

Existing and Future Roadways

Walk + Bike

Public Transit

Freight, Rail, and Aviation

Scenario Planning

Federal Enabling Legislation

Fixing America's Surface Transportation Act (FAST Act)

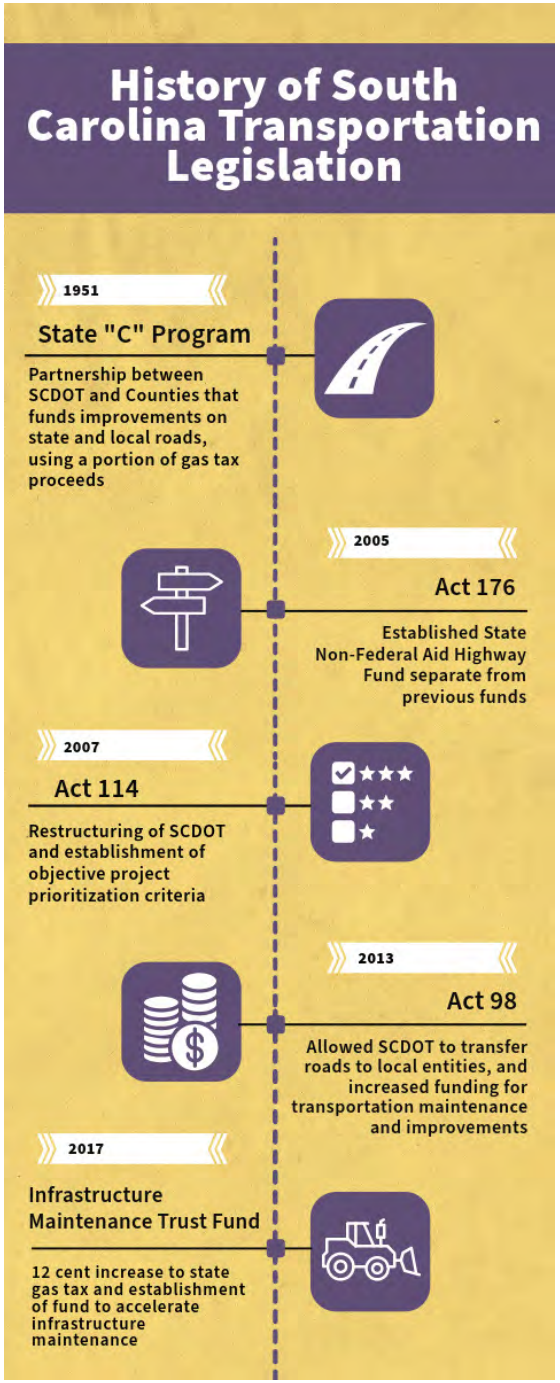
The national transportation goals first established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) were retained and advanced through the next major federal transportation law, the FAST Act, which was signed into law on December 4, 2015, and directed and funded transportation programs through September 2020.

Under the FAST Act, 2 additional Planning Factors were added to the original set of 8 Federal Planning Factors. The full list of Federal Planning Factors, which are given special focus within the MPO's LRTP planning program, are listed below:

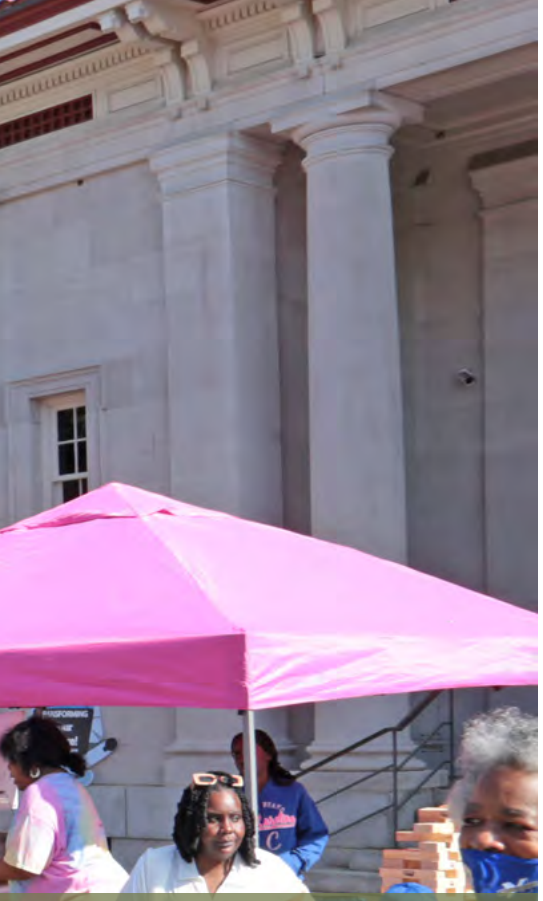
1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for motorized and non-motorized users;
3. Increase the security of the transportation system for motorized and non-motorized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

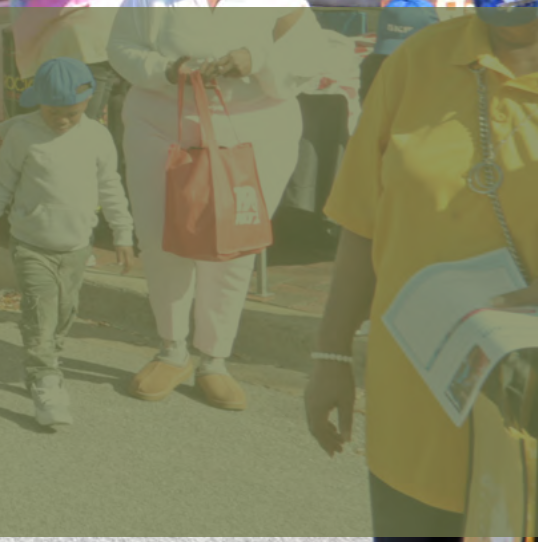
Infrastructure Investment and Jobs Act (IIJA)

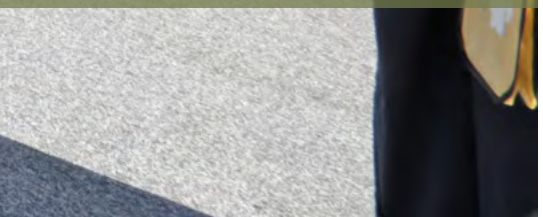
The IIJA was signed into law on November 15, 2021. This legislation will provide federal transportation funding through 2026. IIJA is the largest long-term investment in infrastructure and economy in U.S. history. It provides $350 billion over a 5-year period in new Federal investment in roads, bridges, and mass transit. The IIJA continues the planning factors and goals already established via MAP-21 and the FAST Act, creates over 12 new federal highway programs, and more opportunities for local governments and MPOs to obtain funding directly.



Chapter 3
Outreach and Engagement







Chapter 3

Outreach and Engagement

Needs Assessment Survey

Word Cloud

Interactive Mapping

Additional Walk + Bike Specific Engagement

Additional Transit-Specific Engagement

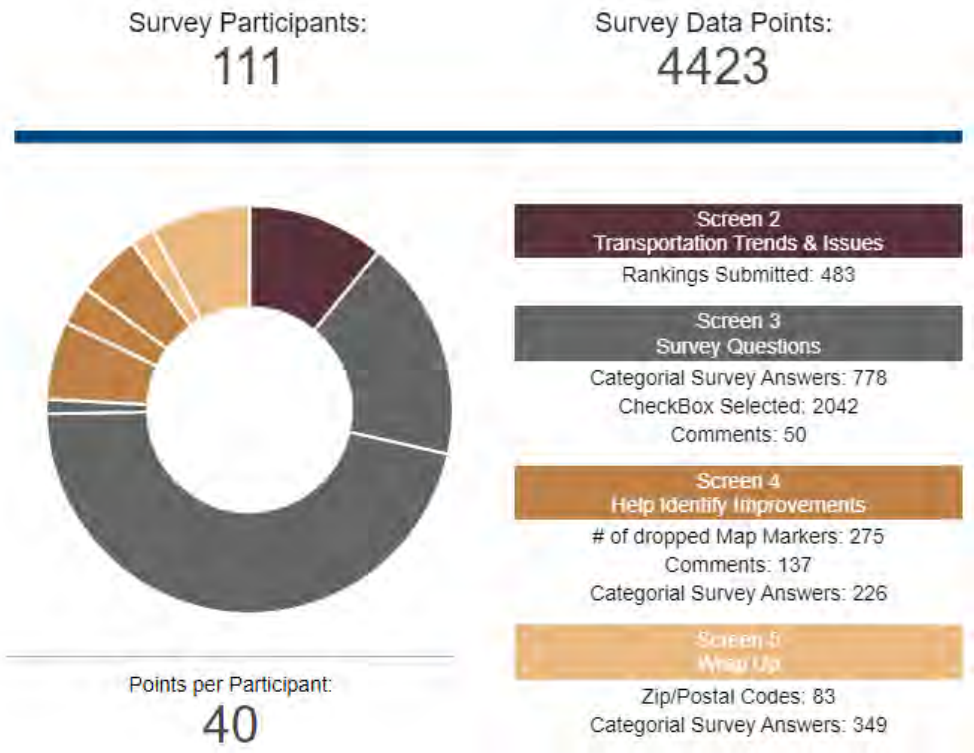
Outreach and Engagement

Outreach Overview

Engagement for Sumter 2050 included a standalone online survey as well as leveraging of multiple inter-related planning initiatives that involve intensive public outreach and engagement, including the Sumter Walk+Bike Master Plan, Santee-Lynches Regional Transportation Needs Assessment + Framework, Turkey Creek Greenway Feasibility Study, and Connect 378 Feasibility Study.

In total, the public meetings, workshops, and stakeholder engagement sessions included:

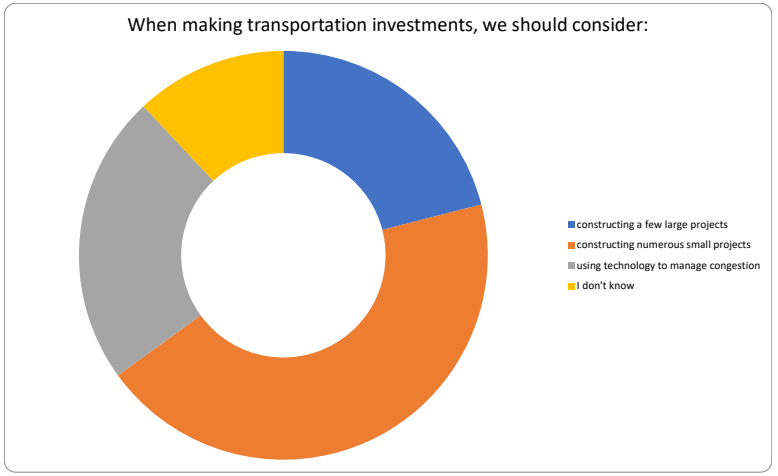
- **4** Public Information Sessions and Workshops
- **8** Small Group and Individual Interviews
- **5** Public Surveys
- **4** meetings of the SUATS Technical Committee

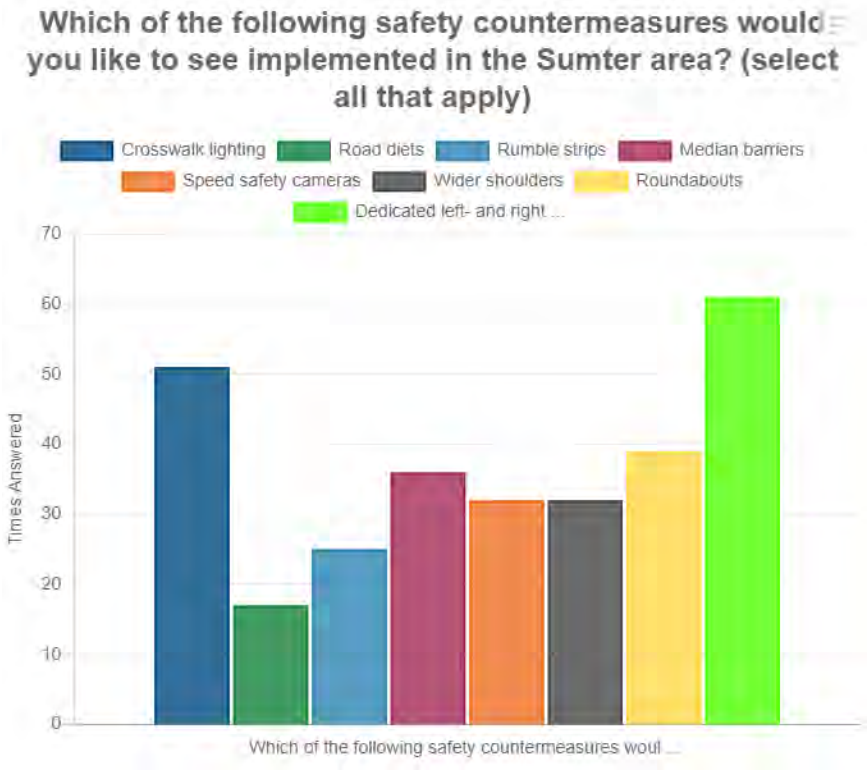


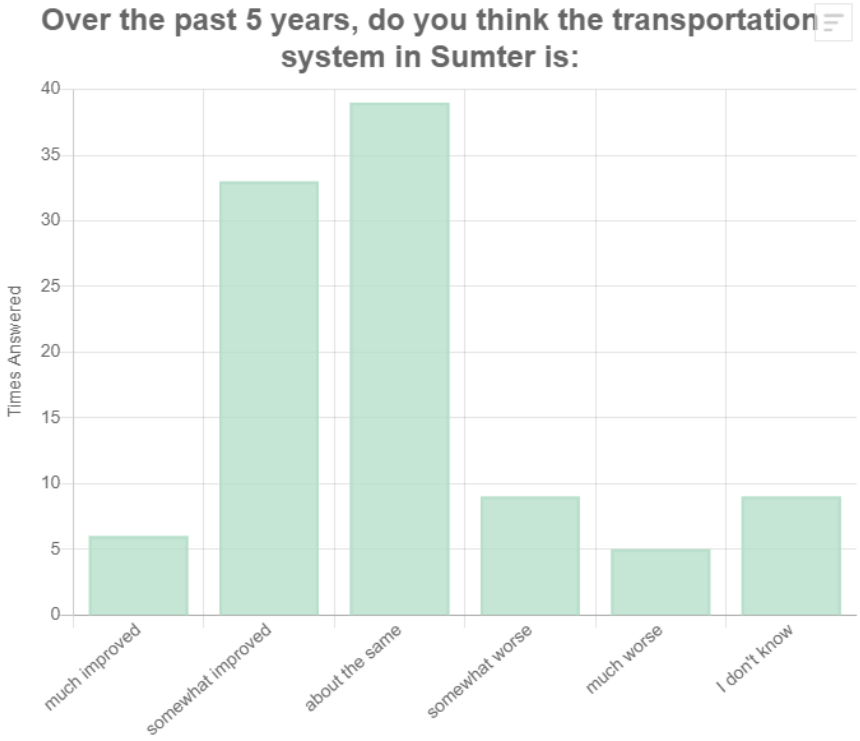
2050 Long Range Transportation Plan Needs Assessment Survey

The primary public outreach and engagement vehicle specific to the entirety of the 2050 LRTP was a MetroQuest survey that was available from May 2, 2023 - July 31, 2023. The survey was fully completed by 111 individuals, though over twice that number visited the site but did not fully complete the survey.

Over 4,400 data points were recorded via the 2050 LRTP Survey using MetroQuest, including attitudes on priorities, specific survey questions on themes within the LRTP, and identification of needs on an interactive map.







Word Cloud

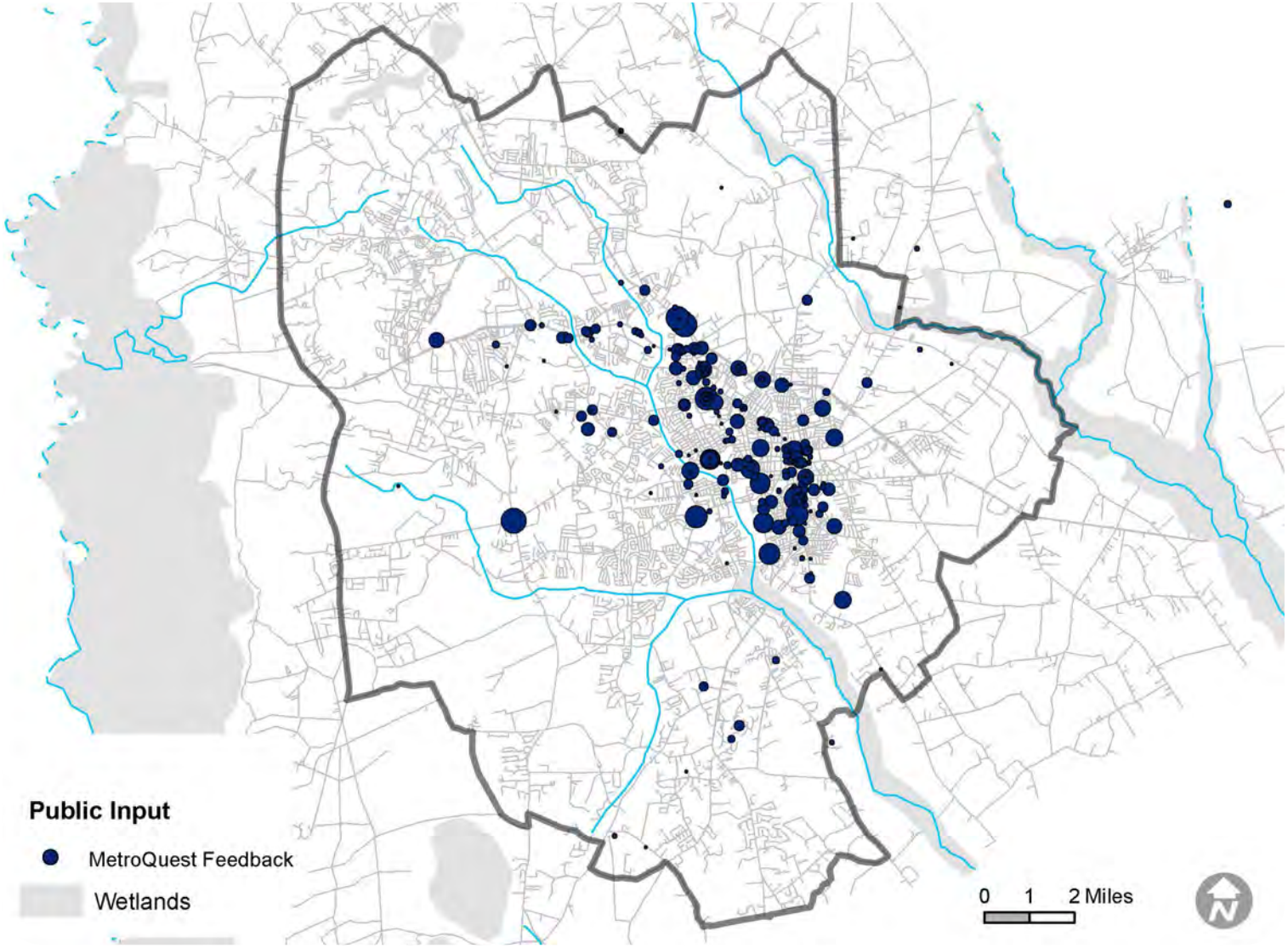
Survey Question: In your own words, how would you define a high-quality transportation system? Please describe 2 or 3 key elements you would expect.

Interactive Mapping

An important part of the MetroQuest survey was an embedded interactive mapping component that allowed participants to specify where, in their opinion, improvements are needed to the SUATS MPO's transportation infrastructure.

Over 275 markers were placed on the map via survey, identifying specific points of desire for drivers, pedestrians, cyclists, and public transit riders.

The map below outlines the general areas where each point was marked by participants. Each entry was reviewed and analyzed as part of the development of the LRTP, particularly to inform development of priority corridors and intersections for improvement.



Additional Walk+Bike-Specific Engagement

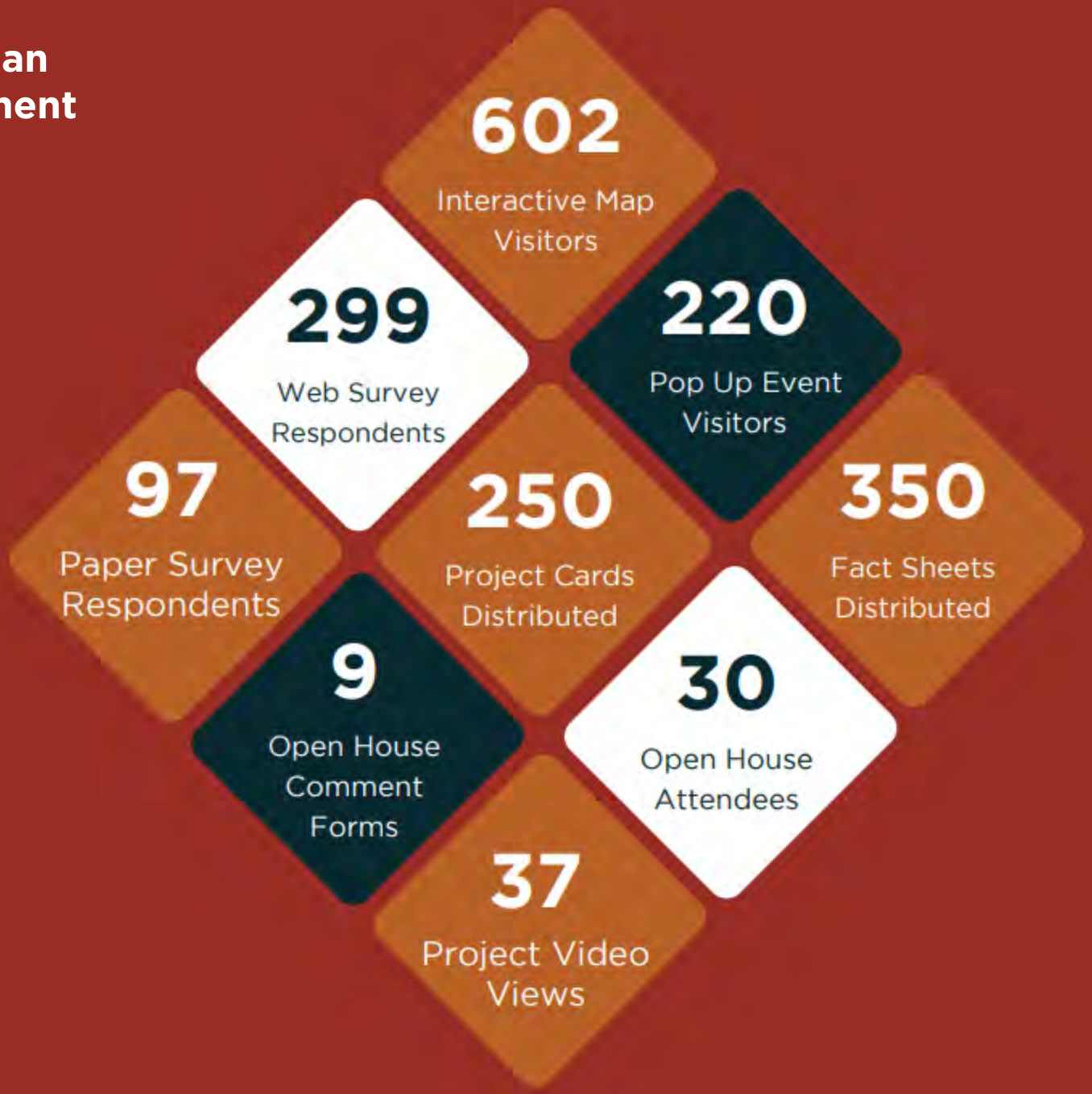
Walk + Bike Master Plan Outreach and Engagement

As part of the development of the Sumter area's first Walk and Bike Master Plan, an intensive public outreach and engagement effort was undertaken in 2022. The engagement effort began with convening a citizen steering committee of 16 residents representing a broad cross-section of community characteristics.

Close to 1,900 public interactions were achieved between all outreach activities during the 12-month study period.

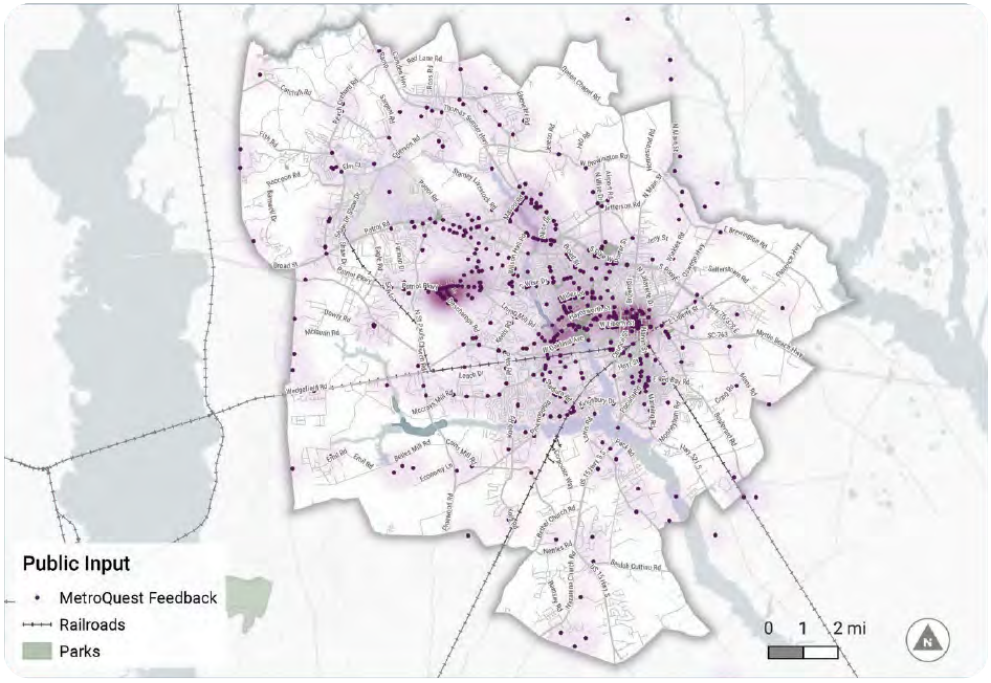
During the year, SUATS staff and consultant team members participated in local events around the Sumter area to conduct in-person outreach.

Finally, a public open house was conducted to introduce the draft Master Plan recommendations and receive input.



Additional Walk+Bike-Specific Engagement

Rank Your Top 5 Priorities					
	Iris Festival	Global Conference	Art in the Park	Festival on the Avenue	Total
Recreational Opportunities	1	5	7	3	**16**
Accessibility	9	3	7	2	**21**
Equity	17	0	5	10	**32**
Safety	10	4	13	8	**35**
Better Connections	2	1	6	0	**9**
Access to Parks and Greenspace	9	1	10	5	**25**
Short Trips via Walking	3	1	9	2	**15**
Amenities	4	1	8	0	**13**



Walking and bicycling facilities (Source: Toole Design Group)

Additional Transit-Specific Engagement

During 2019, a comprehensive public outreach effort was undertaken by staff of the Santee-Lynches Regional Council of Governments on behalf of Santee-Wateree Regional Transportation Authority (SWRTA) to obtain perspectives from transit users and potential transit users as part of a region-wide needs assessment and action plan.

The primary vehicle for input was a community attitudes survey made available electronically and via hard copies placed strategically around the region. A secondary survey sought input from current riders of the system. Both surveys revealed several key perspectives and attitudes, none more significant than the overall perspective that public transportation is an important community asset.

In addition to surveying the general public and current transit riders, open house sessions were conducted in each of the region's four counties.

General Public Survey

690 Survey Respondents

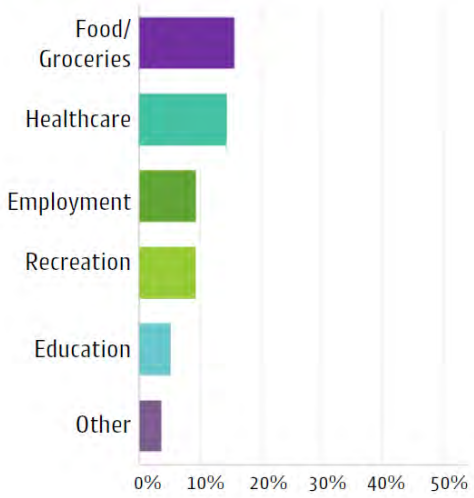
4 Open House Sessions

7,675 Total "Reach" via Facebook, Instagram

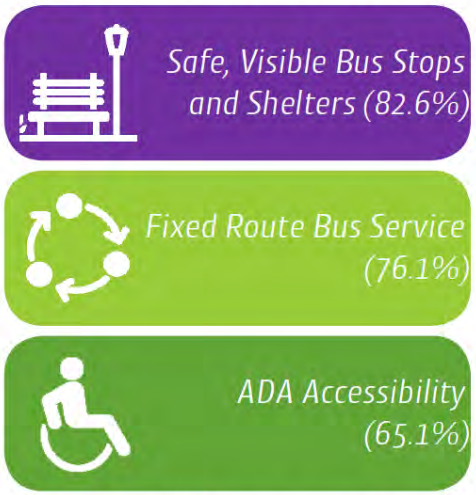
2,414 "Impressions via Facebook, Instagram

95 Likes, Comments, and Shares

Difficulty Traveling to Destination Types:

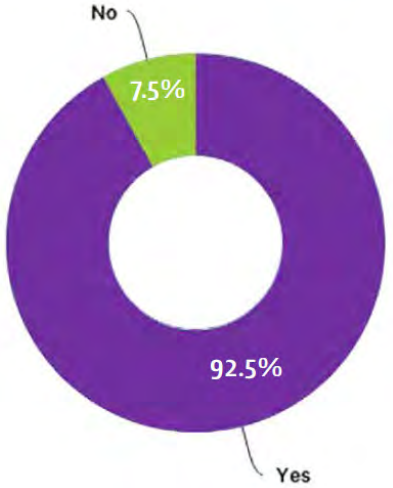


Top 3 Potential Rider Desires



% Respondants marking items as "important" or "very important" to their decision to use transit

Is Public Transportation an Important Community Asset?

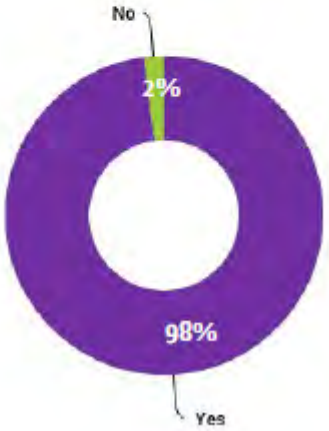


Additional Transit-Specific Engagement

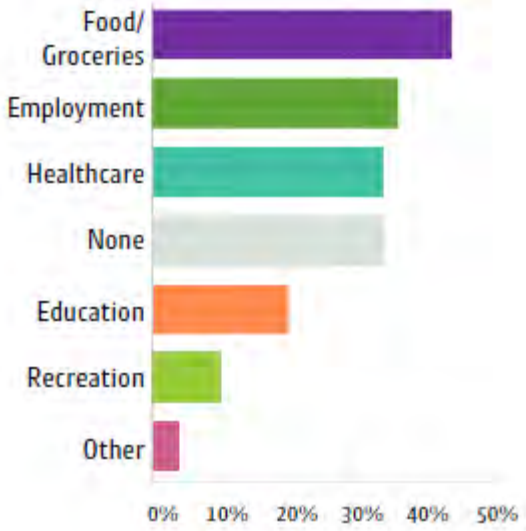
Current Ridership Survey

52 Survey Respondents

Is Public Transportation an Important Community Asset?



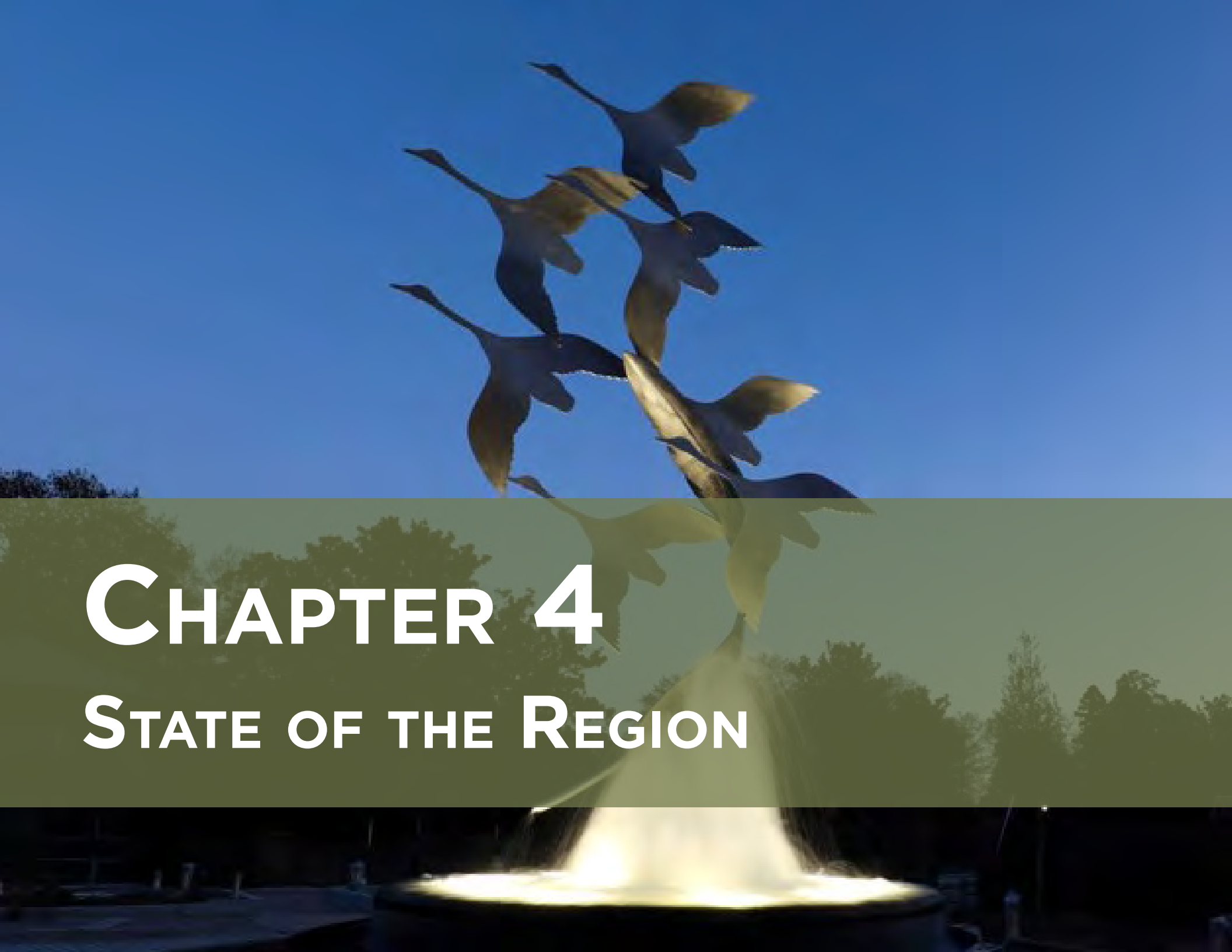
Difficulty Traveling to Destination Types:



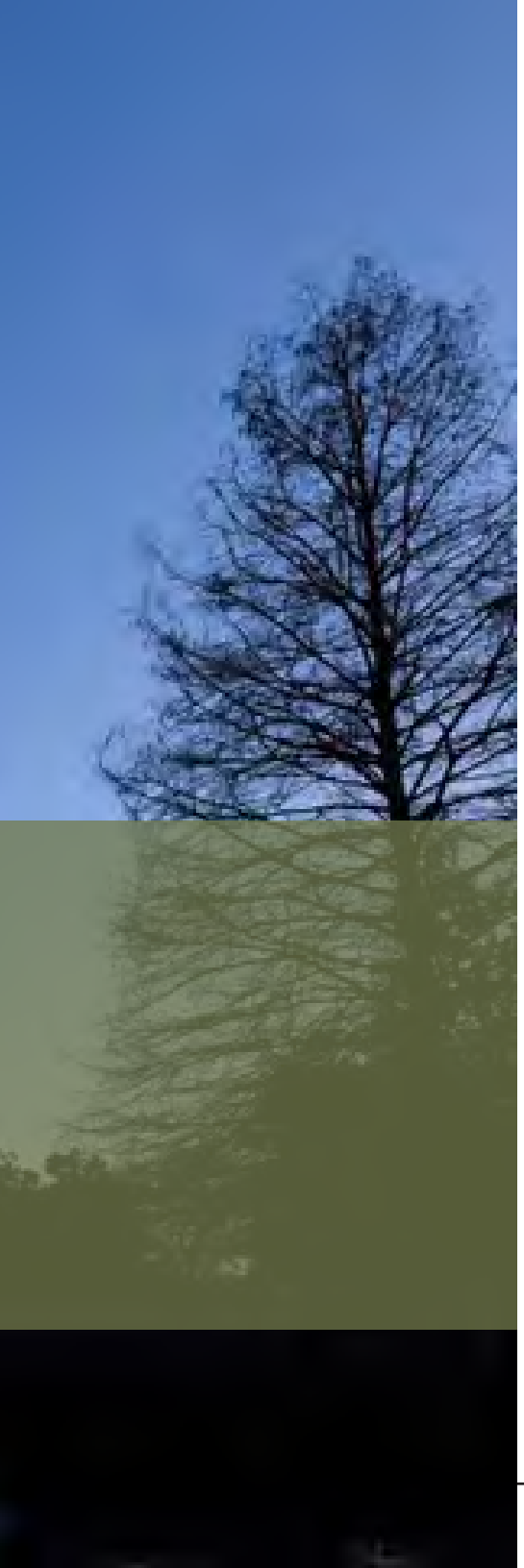
Top 3 Current Rider Desires:

- *Fixed Route Bus Service (88.2%)*
- *Safe, Visible Bus Stops and Shelters (87.9%)*
- *Weekend Service (86.7%)*

% Respondants marking items as "important" or "very important" to their decision to use transit



Chapter 4
State of the Region



Chapter 4

Overview

Population Trends

Population Map

Percent Minority Map

Commuting Patterns

Economic Drivers

Average Median Income Map

Historically Transportation Disadvantaged Communities

Percent of Population with no Vehicle Map

New/Active Subdivisions Map

Environmental Justice Areas Map

Additional Thematic Maps (Natural Resources, etc.)

Sumter 2040 Future Land Use Map

Generalized Land Use Contexts

Overview

101,500
2020 Population

100,000
2035 Population (Projection)

2.3%
of the State of South Carolina's Population

37.9
Median Age

$47,133
Median Household Income

2.44
Average Household Size

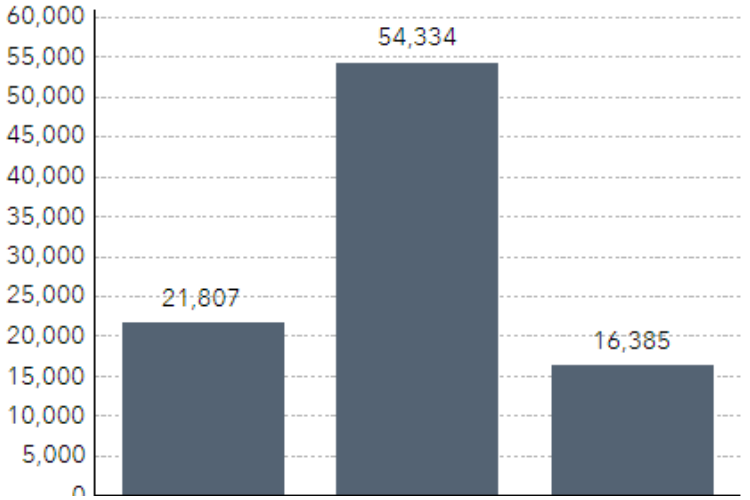
A crucial step in transportation planning is to understand the forces that will drive regional change over the coming years. This chapter highlights demographic and economic trends related to the future growth and transportation of the Sumter Community. The existing conditions highlighted in this chapter informed the creation of the regional transportation strategy throughout the planning process.

Transportation represents a crucial part of a region's social fabric and man-made infrastructure. Residents rely on transportation to access education, health care, and jobs, while cities and industries rely on a functioning system to keep the region moving.

Sumter County, the City of Sumter, and the Sumter Area Transportation Study (SUATS) Metropolitan Planning Organization (MPO) are located in the eastern portion of the geographic area commonly referred to as the "Midlands of South Carolina". The County has a population of 106,700, of which 101,500 reside within the SUATS MPO boundary. The City of Sumter, the only municipality located within the SUATS MPO, has a population of 43,463. In some cases, statistical data is available only at the County level, and because SUATS comprises the vast majority of the County's population, those figures are used to inform an understanding of the MPO.

While overall population growth in the City and County has remained flat in recent decades, a notable trend can be discerned when looking at where growth and loss are occurring within the City and County. Census tract level population data from the last two decades clearly shows that population growth is occurring to the west, away from downtown and toward Shaw Air Force Base and Columbia. Population loss in the MPO is occurring in eastern area of the historic city core

Table 4.1 - SUATS MPO Population by Age



known as Crosswell, and in the area south of the CSX railroad depot known as the South Side.

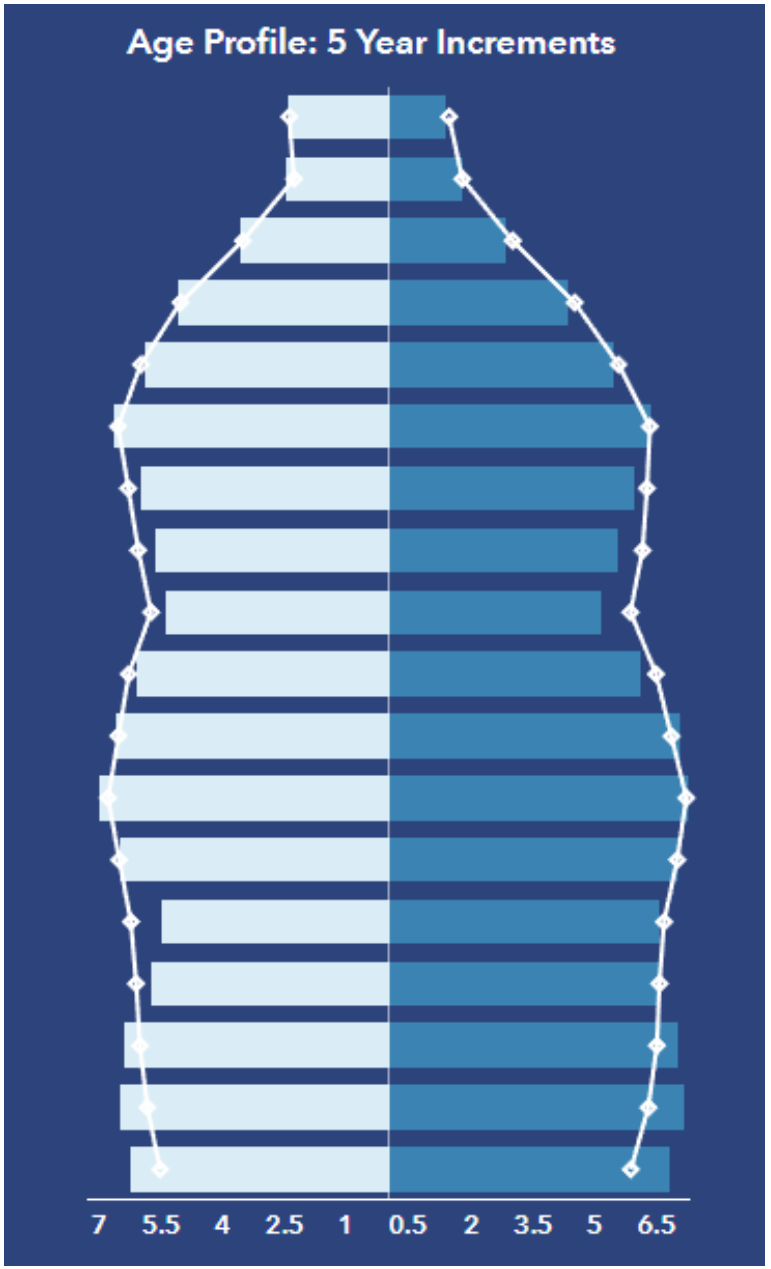
An additional demographic impact on the SUATS area is felt from Shaw Air Force Base. Built in 1941, it is one of the oldest regional Unified Combat Commands in the US Air Force. Shaw AFB is home to the 20th Fighter Wing, and headquarters, Ninth Air Force, US Air Forces Central, US Army Central. The 20th Fighter Wing is the largest F-16 combat wing in the Air Force. The base hosts over 8,200 active-duty military members, 1,200 civilian employees and roughly 12,000 family members. In 2021, Shaw AFB was estimated to generate over $1.5 billion in regional economic activity, and over $2 billion on the state economy.

However, the Census provides only a partial picture of the population dynamic in SUATS. Data provided by the Sumter City-County Planning Department indicates that some growth is occuring, particularly in the urbanized area, likely offset by contraction in the rural parts of Sumter County.

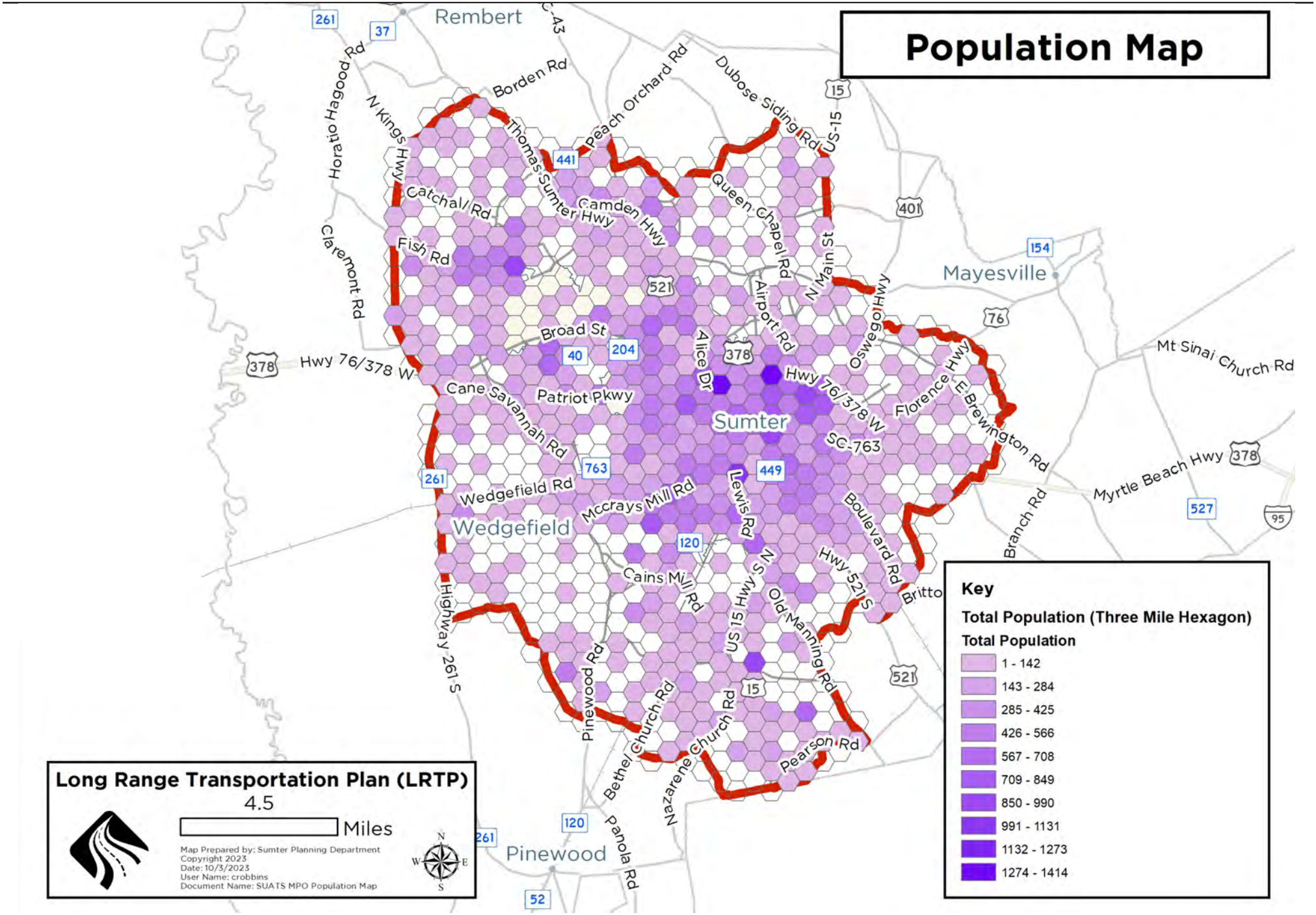
Table 4.2 - Active Major Subdivision Development Activity in SUATS MPO

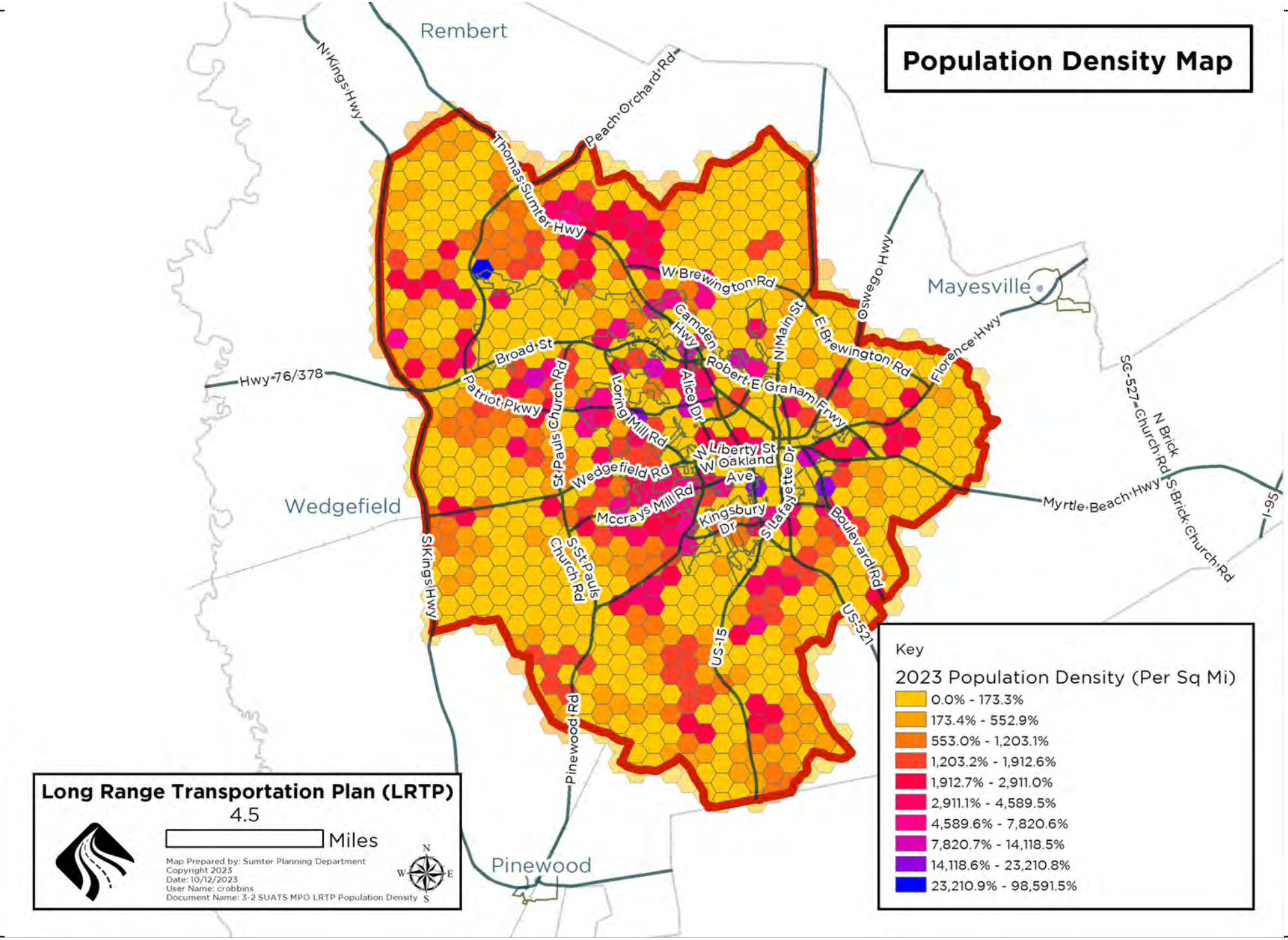
	Total Housing Units Approved	Housing Units Built	Housing Units Remaining	% Units Remaining to Build
City of Sumter	3,726	2,100	1,626	44%
Sumter County	1,352	793	559	41%
Data accessed Sumter City-County Planning Department 2022 End of Year Report				

Table 4.3 - SUATS MPO Age Profile



Dots show comparison to National Average


Population Map
Rembert
Mayesville
Sumter
Wedgefield
Pinewood
Horatio Hagood Rd
N Kings Hwy
Borden Rd
Peach Orchard Rd
Dubose Siding Rd
US-15
Thomas Sumter Hwy
Camden Hwy
Queen Chapel Rd
Catchall Rd
Fish Rd
Claremont Rd
Broad St
Airport Rd
N Main St
Oswego Hwy
Alice Dr
Hwy 76/378 W
Cane Savannah Rd
Patriot Pkwy
Florence Hwy
E Brewington Rd
SC-763
Mt Sinai Church Rd
Myrtle Beach Hwy
Branch Rd
Wedgefield Rd
Mccrays Mill Rd
Lewis Rd
Boulevard Rd
Hwy 521 S
Britto
Cains Mill Rd
US 15 S
Old Manning Rd
Highway 261 S
Pinewood Rd
Bethel Church Rd
Nazarene Church Rd
Pearson Rd
Panola Rd
261
37
441
15
401
154
76
378
40
204
521
763
449
120
527
95
52
Key
Total Population (Three Mile Hexagon)
Total Population
1 - 142
143 - 284
285 - 425
426 - 566
567 - 708
709 - 849
850 - 990
991 - 1131
1132 - 1273
1274 - 1414
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/3/2023
User Name: crobbins
Document Name: SUATS MPO Population Map
N
W
E
S


Population Density Map
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Peach Orchard Rd
Thomas Sumter Hwy
W Brewington Rd
Oswego Hwy
Florence Hwy
E Brewington Rd
Camden Hwy
N Main St
Robert E Graham Frwy
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
W Liberty St
W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
US-521
US-15
S Kings Hwy
S St Pauls Church Rd
Pinewood Rd
SC-527 Church Rd
N Brick
S Brick Church Rd
Myrtle Beach Hwy
I-95
Key
2023 Population Density (Per Sq Mi)
0.0% - 173.3%
173.4% - 552.9%
553.0% - 1,203.1%
1,203.2% - 1,912.6%
1,912.7% - 2,911.0%
2,911.1% - 4,589.5%
4,589.6% - 7,820.6%
7,820.7% - 14,118.5%
14,118.6% - 23,210.8%
23,210.9% - 98,591.5%
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 3-2 SUATS MPO LRTP Population Density
N
W
E
S

Commuting Patterns

40,802
Workers ages 16 and older

85.4%
Percent of workers driving alone to work

14.6%
Spent 7+ hours commuting per week

0.3%
Residents commute via public transit

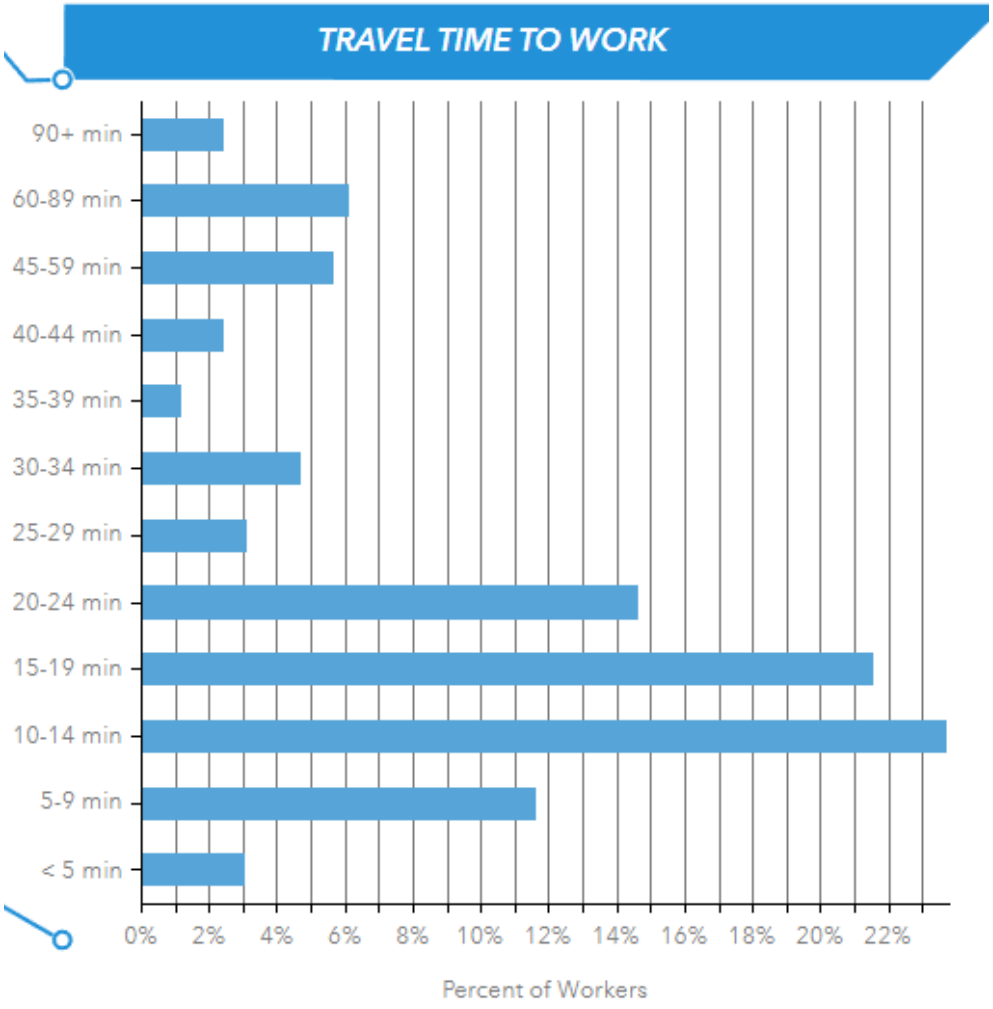
1.7%
Residents walk to work

8.5%
Residents carpool to work

0.3%
Residents bike to work

Presently, a significant percentage of Sumter County residents stay within the county for work. Approximately 60% of workers who live in Sumter County travel less than 20 minutes to work. However, over 13% of workers living in the County commute travel more than 1 hour to their jobs. The average travel time to work for Sumter County workers (22.7 minutes) remains slightly below South Carolina (25.3 minutes) and national (25.6 minutes) averages.

Table 4.4 - SUATS MPO Travel Time to Work



Economic Drivers

There are nearly 3,000 business employing over 40,000 employees in the SUATS region. The median household income for the region is $47,133, and per capita income is $26,963.

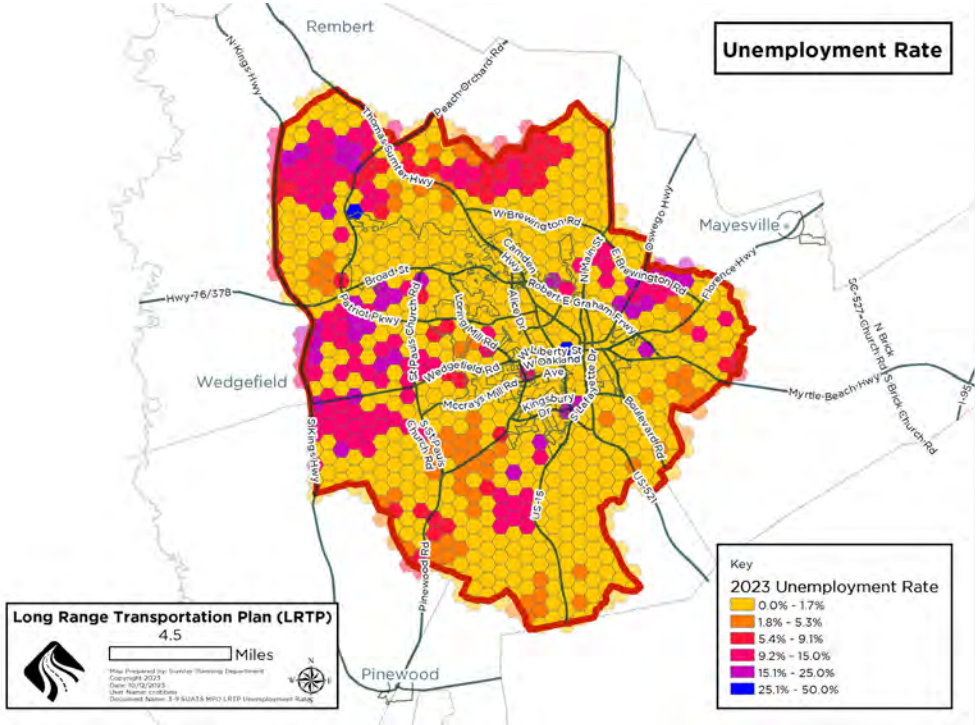
Manufacturing is the largest industry sector in Sumter, employing roughly 6,700. The next-largest sectors in the region are Health Care and Social Assistance (~5,800 workers) and Retail Trade (~4,800). Of particular note, Sumter's manufacturing employment is concentrated at nearly twice the national average.

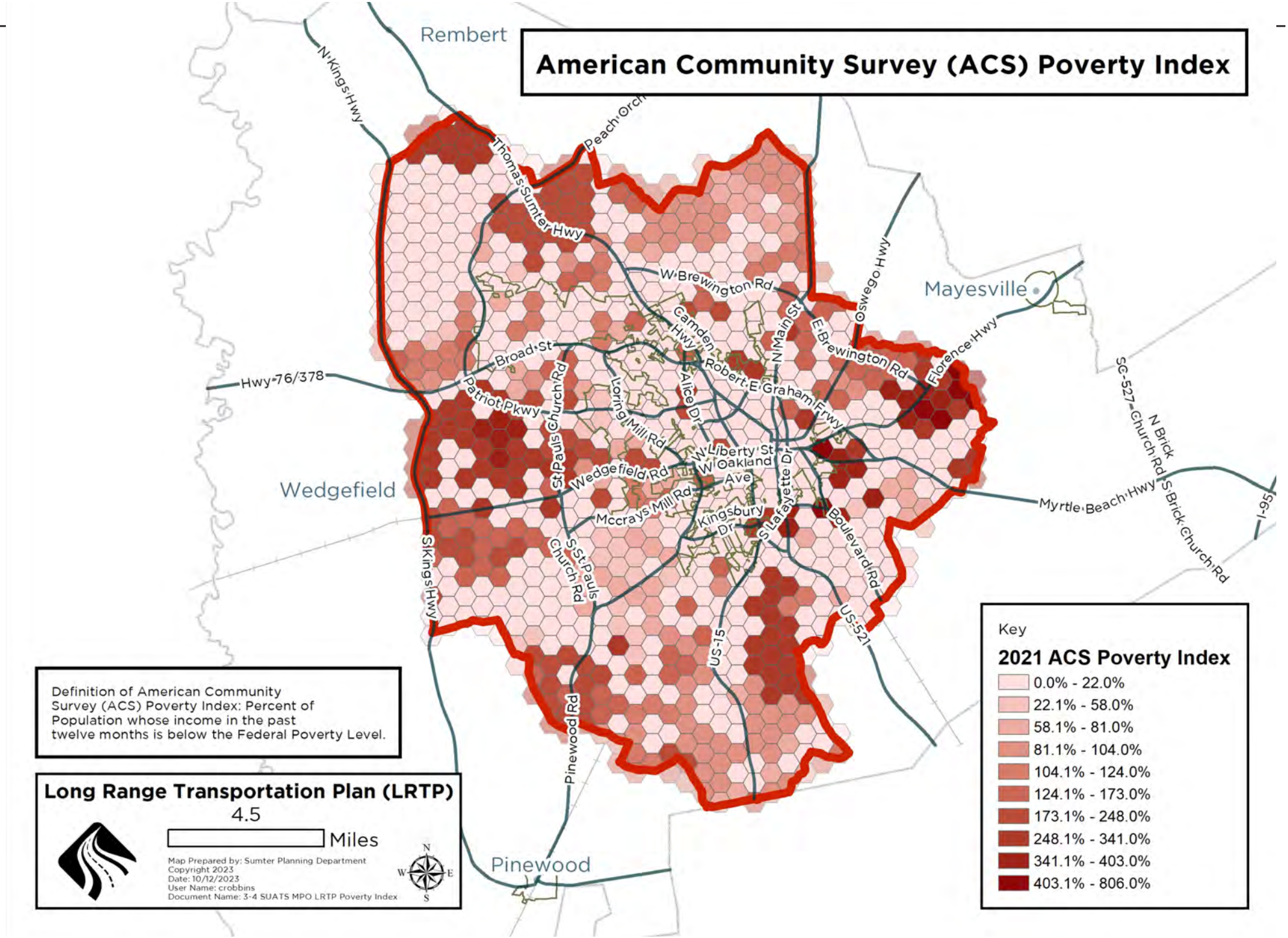
In 2021, nominal Gross Domestic Product (GDP) in Sumter County expanded 9.9%. This follows growth of 0.4% in 2020. As of 2021, total GDP in Sumter County was $4.44 billion.

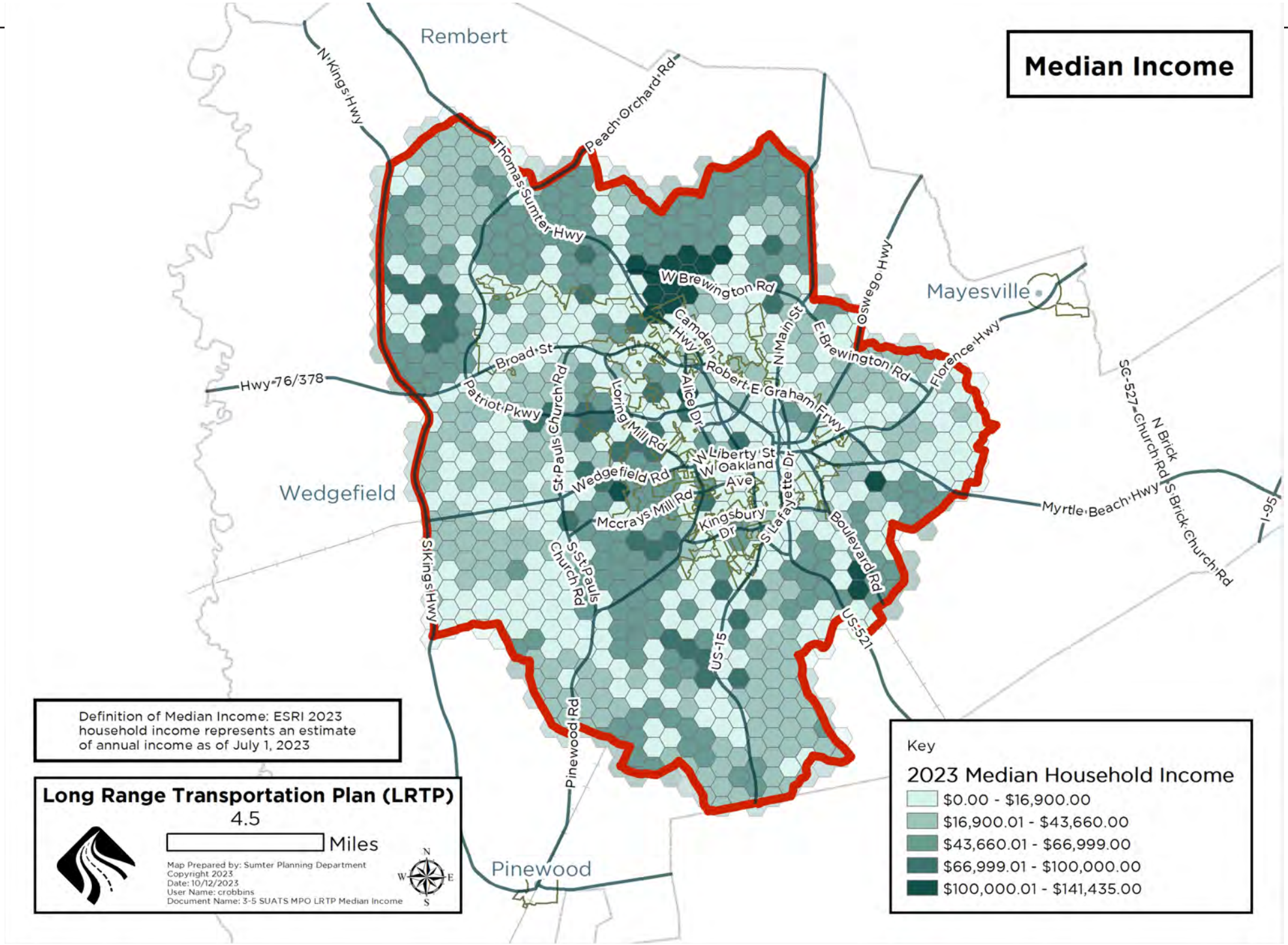
Cost of Living is a measure of relative purchasing power. The cost of living is 4.4% lower in Sumter than the U.S. average.

Table 4.5 - Top 10 Industrial Employers in SUATS

Company Name	Product(s)
Continental Tire the Americas	Passenger and Light Truck Tires
Pilgrims Pride	Fresh and Frozen Poultry
BD Diagnostics	Disposable Blood Collection Devices (medical)
Thompson Industrial	Industrial Cleaning Services
Eaton Electrical	Electrical Distribution Equipment
Sylvamo	Office Paper
Caterpillar Hydraulics	Hydraulic Cylinders for Heavy Equipment
SKF	Precision Bearings
EMS Chemie	Polymers, Nylon Resins & Plastics
American Materials Company	Sand, Gravel, Ready-Mix Concrete




American Community Survey (ACS) Poverty Index
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Thomas Sumter Hwy
Peach Orch
W Brewington Rd
Oswego Hwy
Camden Hwy
N Main St
E Brewington Rd
Florence Hwy
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
Robert E Graham Frwy
W Liberty St
W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
US-521
US-15
S Kings Hwy
S St Pauls Church Rd
Pinewood Rd
Myrtle Beach Hwy
SC-527
N Brick Church Rd
S Brick Church Rd
I-95
Definition of American Community Survey (ACS) Poverty Index: Percent of Population whose income in the past twelve months is below the Federal Poverty Level.
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 3-4 SUATS MPO LRTP Poverty Index
N
W
E
S
Key
2021 ACS Poverty Index
0.0% - 22.0%
22.1% - 58.0%
58.1% - 81.0%
81.1% - 104.0%
104.1% - 124.0%
124.1% - 173.0%
173.1% - 248.0%
248.1% - 341.0%
341.1% - 403.0%
403.1% - 806.0%

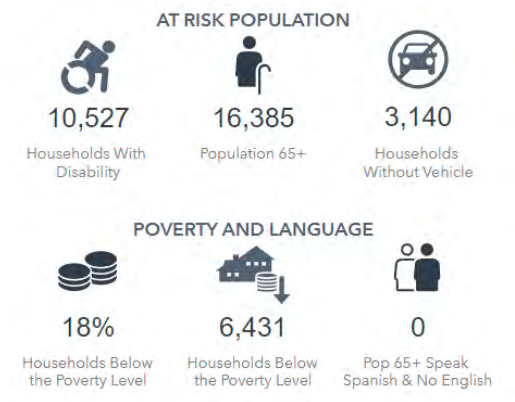

Median Income
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Thomas Sumter Hwy
Peach Orchard Rd
Oswego Hwy
W Brewington Rd
E Brewington Rd
Florence Hwy
Camden Hwy
N Main St
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
Robert E Graham Frwy
W Liberty St
W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
S Kings Hwy
S St Pauls Church Rd
US-15
US-521
Pinewood Rd
Myrtle Beach Hwy
SC-527 Church Rd
N Brick
S Brick Church Rd
I-95
Definition of Median Income: ESRI 2023 household income represents an estimate of annual income as of July 1, 2023
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 3-5 SUATS MPO LRTP Median Income
N
W
E
S
Key
2023 Median Household Income
$0.00 - $16,900.00
$16,900.01 - $43,660.00
$43,660.01 - $66,999.00
$66,999.01 - $100,000.00
$100,000.01 - $141,435.00

Historically Transportation Disadvantaged Communities

101,500
2035 SUATS Population

41,200
Population in SUATS MPO living in a Disadvantaged Census Tract

46%
Percent of SUATS population living in a Disadvantaged Census Tract



USDOT utilises a data-driven methodology to identify Historically Transportation Disadvantaged Communities via Census Tract in order to confront and address decades of federal underinvestment in specific areas. When decision makers at all levels have the tools to understand how a community is experiencing disadvantage and can identify projects that create benefits that will reverse or mitigate those causes, the result is a higher quality of life and greater economic prosperity.

In exploring the cumulative burden communities experience, as a result of underinvestment in transportation, components tracked and assessed by the USDOT, include:

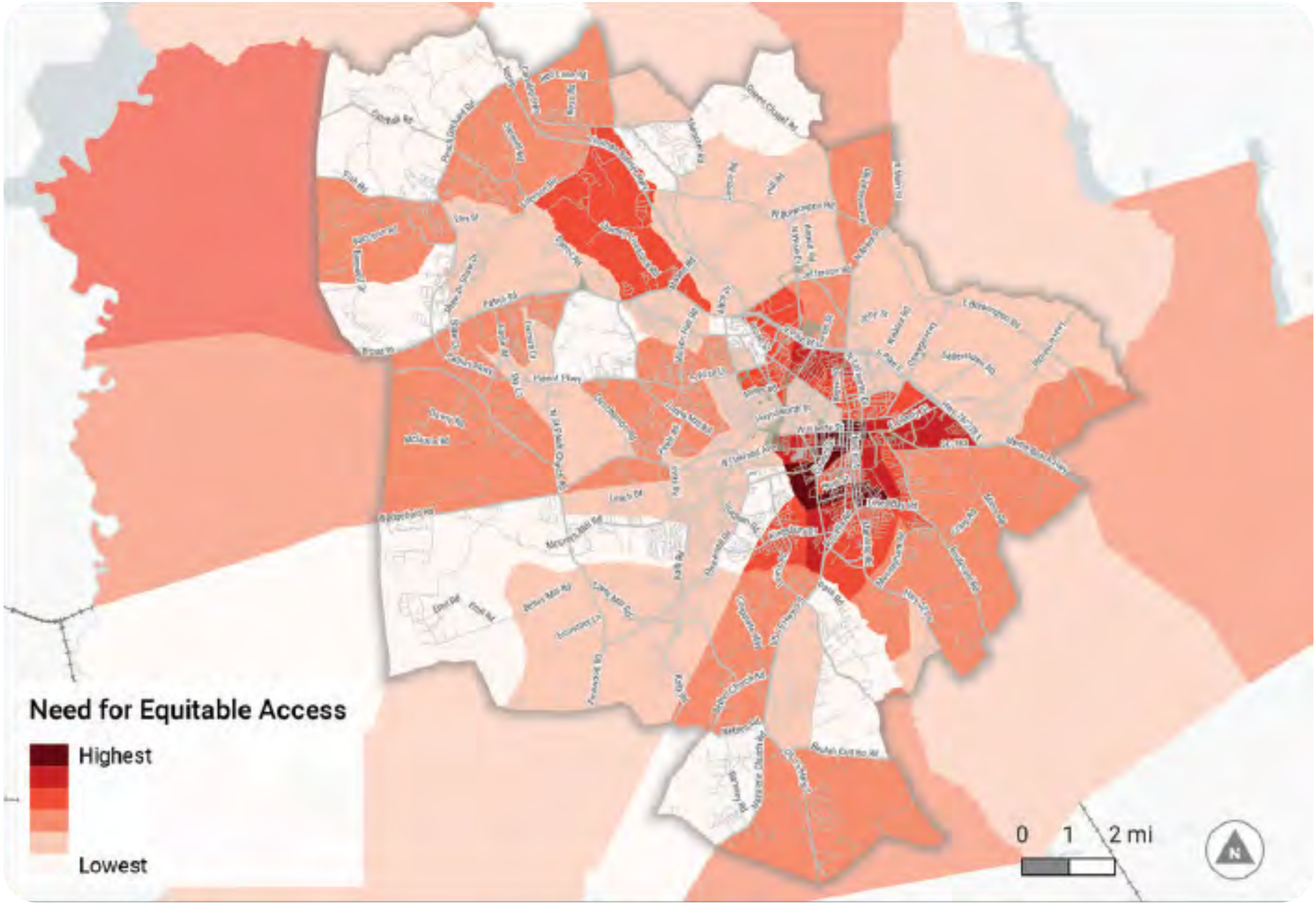
- **Transportation access disadvantage** identifies communities and places that spend more, and take longer, to get where they need to go.
- **Health disadvantage** identifies communities based on variables associated with adverse health outcomes, disability, as well as environmental exposures.
- **Environmental disadvantage** identifies communities with disproportionately high levels of certain air pollutants and high potential presence of lead-based paint in housing units.
- **Economic disadvantage** identifies areas and populations with high poverty, low wealth, lack of local jobs, low homeownership, low educational attainment, and high inequality.
- **Resilience disadvantage** identifies communities vulnerable to hazards caused by climate change. identifies communities with a with a high percentile of persons (age 5+) who speak English "less than well."

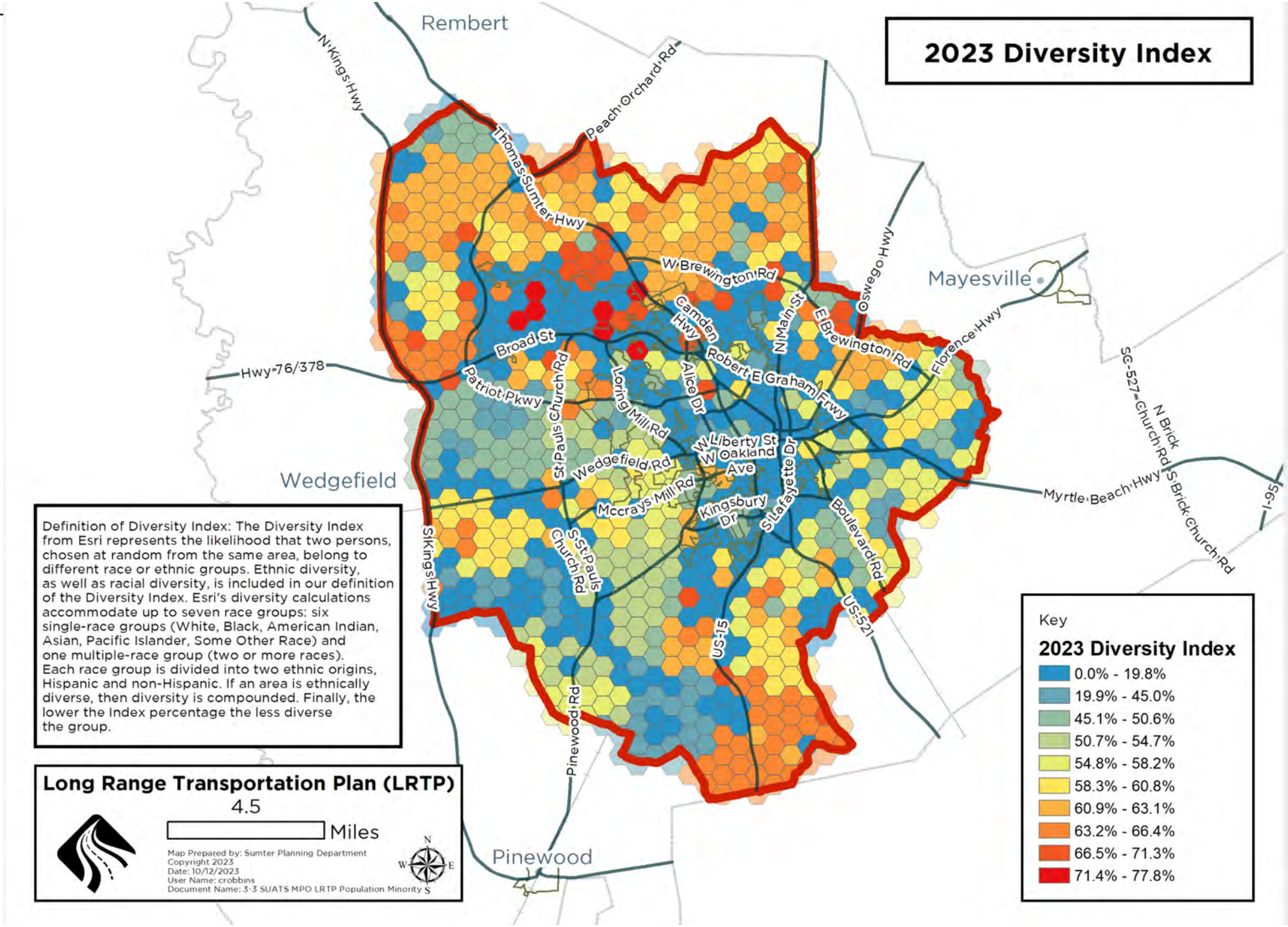
Race as an indicator of Disadvantage

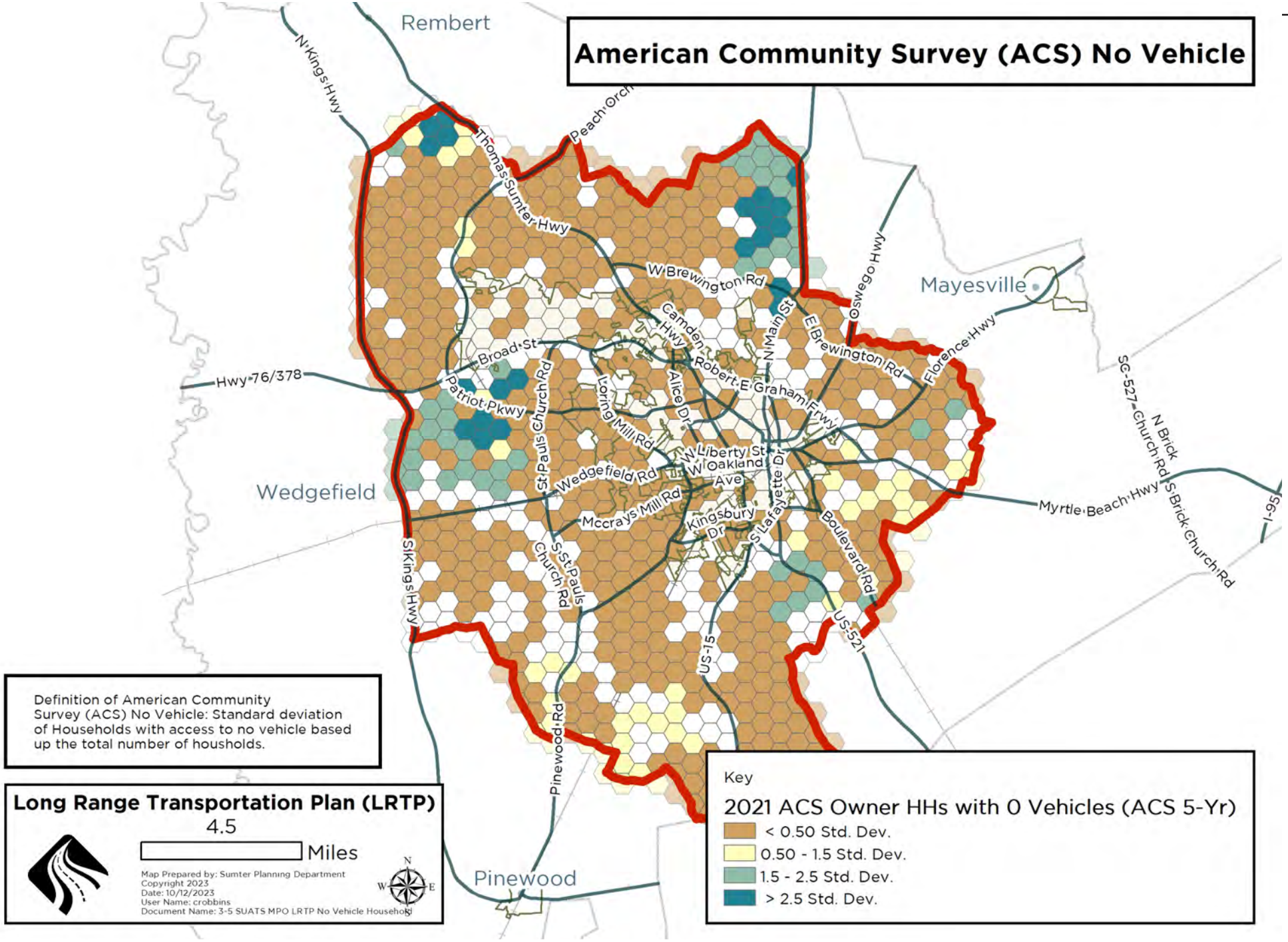
The overall racial composition of the MPO can be characterized as balanced, with fairly even proportions of Black and White residents. These two groups are the predominant racial groups in the Sumter community at large. The percentage for American Indian, Asian, Pacific Islander, and individuals identifying as some other race are each under 2.0%. These groups are slightly underrepresented when compared to the state as a whole, and well underrepresented when compared to the nation as a whole.

Despite the overall numerical balance between Black and White residents, the geographic areas where each racial group tends to live generates concentrations of Black residents in certain areas, particularly around Morris College and South Sumter, and concentrations of White residents in areas including Second Mill and the Loring Mill Rd areas.

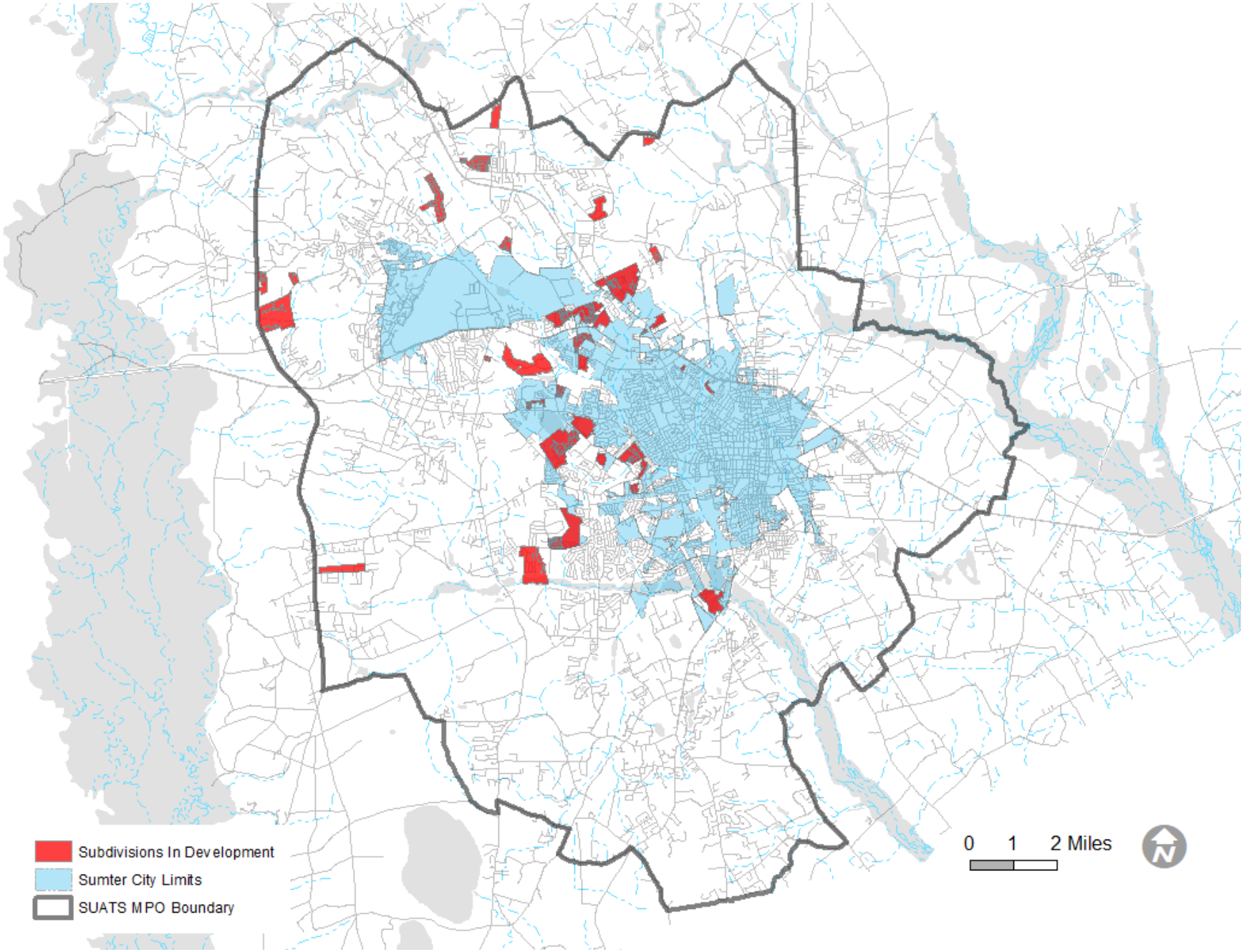
Transportation Disadvantaged Census Tracts




2023 Diversity Index
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Peach Orchard Rd
Thomas Sumter Hwy
W Brewington Rd
Oswego Hwy
Camden Hwy
N Main St
E Brewington Rd
Florence Hwy
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
Robert E Graham Frwy
SC-527
N Brick Church Rd
S Brick Church Rd
W Liberty St
W Oakland Ave
Wedgefield Rd
Myrtle Beach Hwy
I-95
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
S Kings Hwy
S St Pauls Church Rd
US-15
US-521
Pinewood Rd
Definition of Diversity Index: The Diversity Index from Esri represents the likelihood that two persons, chosen at random from the same area, belong to different race or ethnic groups. Ethnic diversity, as well as racial diversity, is included in our definition of the Diversity Index. Esri's diversity calculations accommodate up to seven race groups: six single-race groups (White, Black, American Indian, Asian, Pacific Islander, Some Other Race) and one multiple-race group (two or more races). Each race group is divided into two ethnic origins, Hispanic and non-Hispanic. If an area is ethnically diverse, then diversity is compounded. Finally, the lower the Index percentage the less diverse the group.
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 3-3 SUATS MPO LRTP Population Minority
N
W
E
S
Key
2023 Diversity Index
0.0% - 19.8%
19.9% - 45.0%
45.1% - 50.6%
50.7% - 54.7%
54.8% - 58.2%
58.3% - 60.8%
60.9% - 63.1%
63.2% - 66.4%
66.5% - 71.3%
71.4% - 77.8%


American Community Survey (ACS) No Vehicle
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Thomas Sumter Hwy
Peach Orch
W Brewington Rd
Oswego Hwy
E Brewington Rd
Florence Hwy
Camden Hwy
N Main St
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
Robert E Graham Frwy
W Liberty St
W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
S Kings Hwy
S St Pauls Church Rd
Pinewood Rd
US-15
US-521
SC-527
N Brick Church Rd
S Brick Church Rd
Myrtle Beach Hwy
I-95
Definition of American Community Survey (ACS) No Vehicle: Standard deviation of Households with access to no vehicle based up the total number of housholds.
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 3-5 SUATS MPO LRTP No Vehicle Household
N
W
E
S
Key
2021 ACS Owner HHs with 0 Vehicles (ACS 5-Yr)
< 0.50 Std. Dev.
0.50 - 1.5 Std. Dev.
1.5 - 2.5 Std. Dev.
> 2.5 Std. Dev.

Active Residential Subdivisions under Development

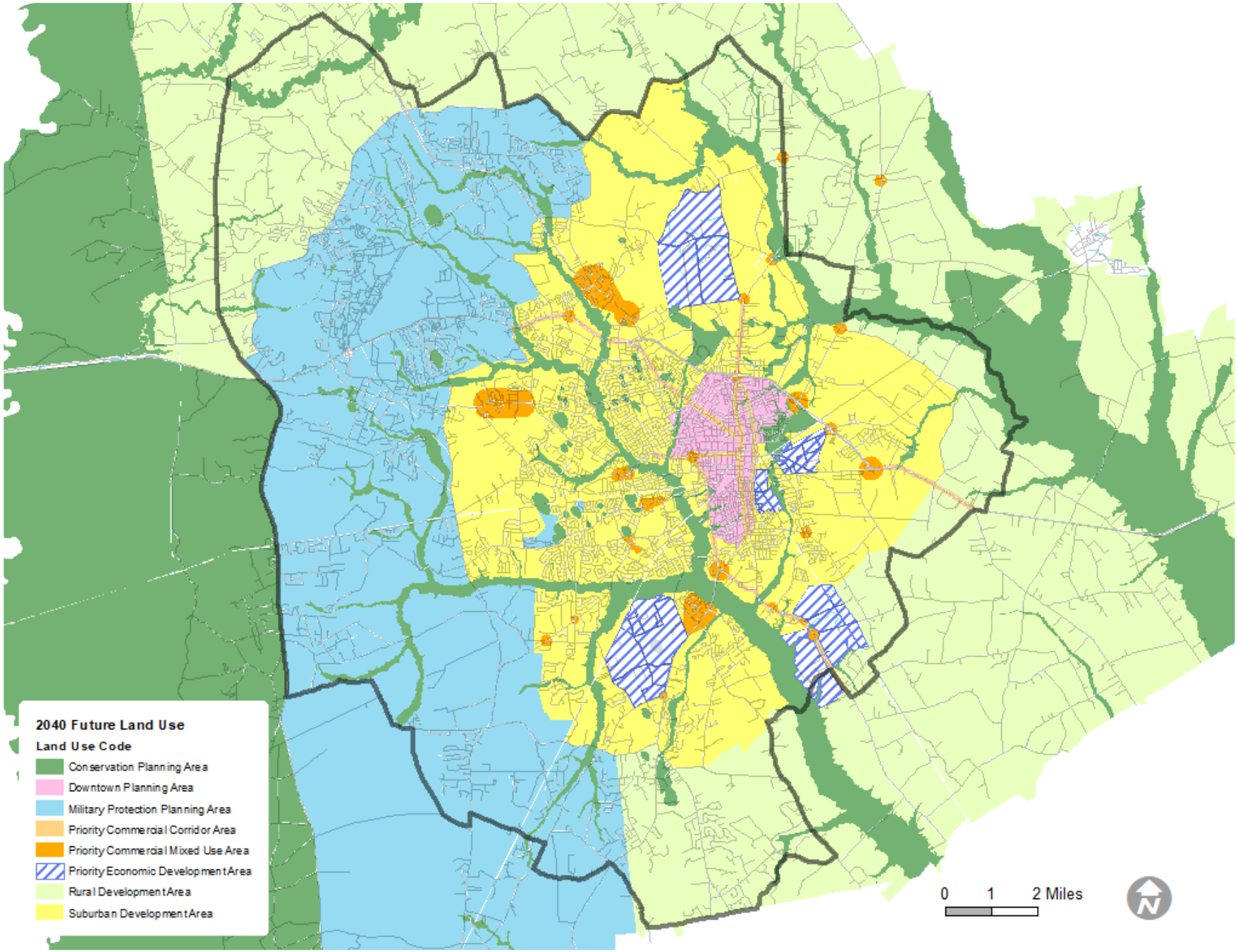


ENVIRONMENTAL JUSTICE AREAS MAP

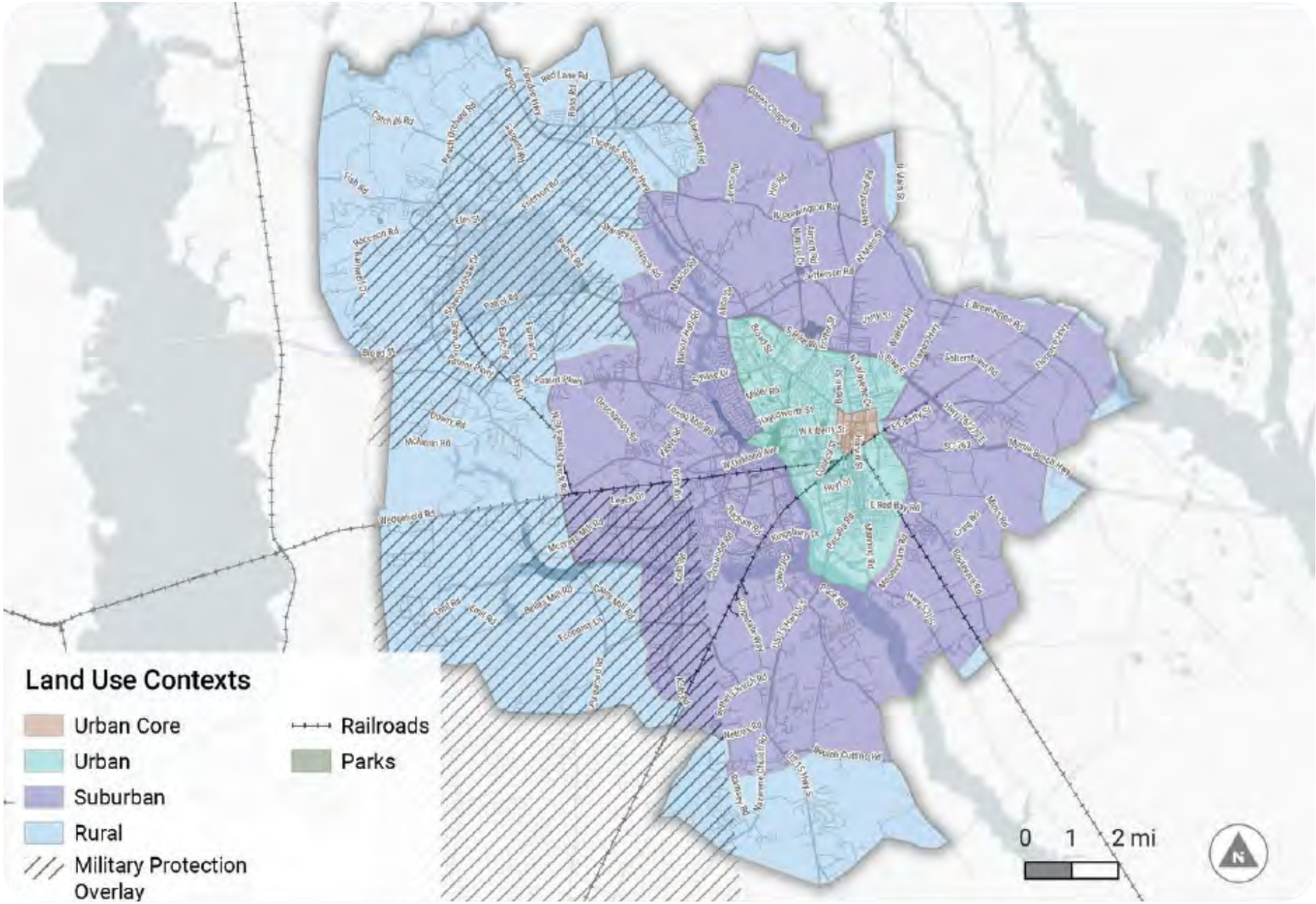
NATURAL RESOURCES MAP (FLOODPLAIN, PARKS, WATER, GI

COMMUNITY POINTS OF INTEREST MAP (POLICE/ FIRE, SHOPPING CENTERS, HOPSITALS, CHURCHES

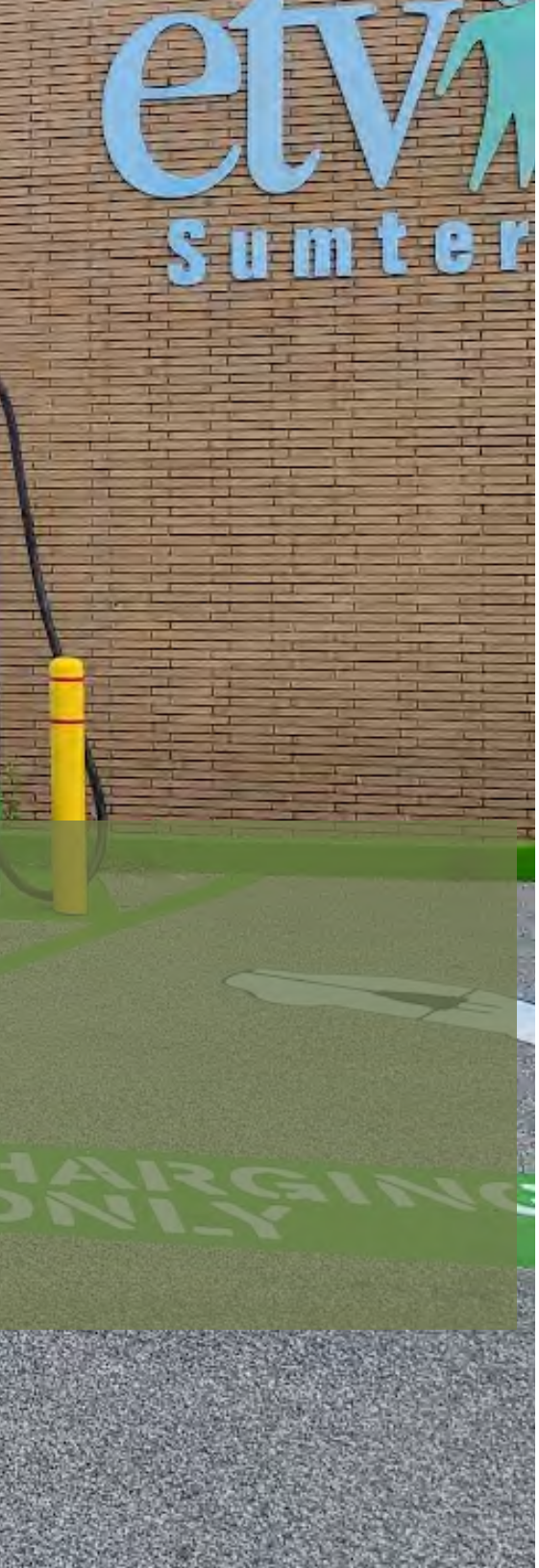
Sumter 2040 Comprehensive Plan Future Land Use Map



Generalized Land Use Contexts



Chapter 5
Transportation Demand and Emerging Technologies



Chapter 5

Electric Vehicles (EVs)

E-Commerce

Autonomous Vehicles

Mobility as a Service (MaaS)

New technologies and emerging trends offer unprecedented opportunities to build a transportation system that works better for our environment and our health. Electric vehicles, ride-sharing services, autonomous car, and advances in information technology, as well as improved bicycling and pedestrian infrastructure, offer new ways to reduce greenhouse gas emissions, make land use more efficient and improve air quality.

Electric Vehicles (EV)

Electric Vehicles (EVs) offer increased fuel efficiency for personal vehicle owners. Public transit vehicle fleets are also adopting electric vehicles and other alternative fuels to cut fuel use and costs.

Compared to traditional vehicles, which work by burning gasoline or diesel fuel, EVs are powered by electricity stored in a rechargeable battery. This means fewer moving parts and fluids than gas-powered vehicles. The trade-off for this limited maintenance need is the requirement that a large amount of new vehicle charging infrastructure be established.

The market for EVs has grown rapidly in recent years and is expected to continue to grow over the coming decade. Electric car sales in the United States increased from a mere 0.2% of total car sales in 2011 to 4.6% in 2021.[1]

Although forecasts for the rate of EV adoption over the next decade vary widely given rapid changes in both government policies and the auto manufacturing industry in recent years, many forecasts expect a strong acceleration in EV adoption. S&P Global Mobility forecasts electric vehicle sales in the United States could reach 40% of total passenger car sales by 2030, and more optimistic projections foresee electric vehicle sales surpassing 50% by 2030.[2]

As an impact on the SUATS transportation system, EVs are similar to traditional gas powered vehicles in many ways, save for two notable exceptions:

First, EVs use of electricity means that gasoline taxes - one of the largest components of traditional roadway improvement and maintenance funding - will be directly impacted, requiring identification of alternate funding mechanisms for roadway work.

Second, need for various ways to recharge EVs requires a fundamentally different approach to electrical infrastructure, both due to the availability of technology to charge these vehicles at various rates based on available voltage, as well as the physical locations of these charging stations.

The demand of EVs on the power grid is also still being evaluated by both transportation agencies as well as public and private utilities.

One thing worth noting is that as with any disruptive technological force, it is often important to cast assumptions aside. This is especially true with EVs, in which typical patterns of travel and re-filling of gas tanks may not hold true in terms of how EV users will charge their vehicles between uses.

Table 5.1 - Electric Vehicle Charging Types

Charging Type	Quick Facts
Level 1 - Standard 120-Volt outlet	Up to 5 miles of range per hour No installation required – every EV will come with a standard Level 1 charger that you can drive home and plug into the wall Best used for overnight charging and low-mileage daily driving – a good option for plug-in hybrid vehicles because of their smaller batteries
Level 2 - 240-Volt Outlet	Average of 25 miles of range per hour Often found in public areas (rest areas, shopping centers, restaurants, etc.) Can be either hardwired or plugged into an existing 240-volt outlet (dryer plug) Best for quick charging – can get a full charge from empty overnight (8-10 hours)
Level 3 - DC Fast Charging	Fastest electric car charging option – provides up to 250 miles of range per hour Can charge up to 80% typically in about 20 to 30 minutes Used to facilitate longer distance driving or road trips or for a quick recharge

1 Data includes plug-in hybrids. For more information, see "Global EV data explorer," International Energy Agency (IEA), https://www.iea.org/data-and-statistics/data-tools/global-ev-data-explorer.

2 Stephanie Brinley, "EV chargers: How many do we need?" S&P Global Mobility, January 9, 2023, https://www.spglobal.com/mobility/en/research-analysis/ev-chargers-how-many-do-we-need.html

E-Commerce

Electronic commerce (e-commerce) represents the use of electronic devices and technologies to buy and sell goods or services, primarily over the Internet. E-commerce has grown substantially over the past 2 decades with widespread use of online retailers such as eBay and Amazon. The increase of e-commerce decentralizes traditional distribution methods and delivery of goods, increases the labor intensity of logistics operations, and is heavily influenced by automation and technological advances.

According to the U.S. Census Bureau, online sales as a share of total retail sales have been growing, from 5% of the total retail sales in 2011 to almost 14% in 2020. E-commerce sales totaled $792 billion in 2020, an increase of 32% since 2019. Moreover, in 2020, the South Carolina Commerce Department noted that Cyber Monday sales were over 15 percent higher than the year prior, totaling $10.8 billion. In 2022, e-commerce sales accounted for 15% of total retail sales in the second quarter of 2022, a seven percent increase from the second quarter of 2021. The COVID-19 pandemic accelerated this trend. One estimate based on Adobe Digital Insights data found that COVID-19 accelerated e-commerce growth by 4 to 6 years in a matter of months as lockdowns forced consumers to purchase more goods online.

More delivery vehicles entering residential neighborhoods and more frequent deliveries is expected to cause increased congestion and wear and tear to the local road network.

As homes replace retail locations as freight destinations, the distribution and delivery of good becomes decentralized and regional distribution needs increased. As a result, repurposing land uses for regional distribution warehouses is likely.

E-commerce relies heavily on the trucking industry, with long-haul transport, regional and urban transfers, followed by last-mile trips, usually completed through the U.S. Postal Service, private fleet delivery vehicles or app-based delivery services. In addition, increased road freight carrier needs exacerbate the driver and workforce shortages, of all skill levels, in the trucking industry.

As e-commerce has grown, consumer demand for faster home delivery has also grown. The growth in home deliveries, has increased the need for last-mile direct to consumer truck trip solutions and research into delivery technologies. Last-mile delivery is becoming a critical differentiator and a strategic priority. More recently, e-retailers have implemented centralized customer pick-up lockers, private fleets of delivery vehicles, and new delivery technologies (e.g., robots and drones) to supplement other last-mile services.

Rapid advances in digital technology and automation are expected to continue to influence e-commerce logistics, while also increasing the demand on communication infrastructure and utilities that support automation. In South Carolina, the logistics industry's reliance on technology tripled between 2010 and 2020. Retailers are expected to continue to look for opportunities to increase same-day delivery options and force a growing need for shortening the last-mile delivery distance.

Autonomous Vehicles

Autonomous vehicles have the potential to revolutionize the way people and goods move. While autonomous vehicle technology is still being developed and tested, there is growing speculation regarding the impact the technology will have on American society. One vision of the future of suggests that autonomous vehicles will reduce car ownership as people share cars and request them when needed, thereby changing commercial landscape through reduced parking, maintenance, and volume needs. In this future, autonomous vehicles would dramatically decrease vehicle crashes by removing human error from the equation. Moreover, those unable to drive, including the elderly or disabled, would benefit from increased mobility. Shared autonomous vehicles could also dramatically reduce vehicle costs by spreading the cost burden across multiple individuals or households.

An alternative vision contends that if autonomous vehicles are not electrified or shared, it will increase congestion and greenhouse gas emissions. In this future, autonomous vehicles could promote further urban sprawl because commute times would be less of a concern for people, allowing them to live further from the workplace. Additionally, in this future, widespread use of autonomous vehicles would require a paradigm shift in the way people view their cars and driving, a challenge in a car-centric society. These skeptics argue that unless policy solutions are developed, such as congestion pricing, reduced parking, and strengthened environmental regulations, the negative impacts of autonomous vehicles could outweigh the positive.

CARMA Autonomous Vehicle Research and Testing Platform (Source: FHWA)

Impact on SUATS

The impacts of autonomous vehicles in the SUATS MPO would be akin to other regions, though it is expected that the transition to autonomous vehicles may be somewhat slower in the Sumter area as the car-sharing culture currently in place in more populated areas via services like Uber, Lyft, and Zipcar does not yet exist, and is not expected to be in wide use in the near term.

Additionally, the policy changes necessary to strongly encourage people to use shared autonomous vehicles are unlikely to be popular in the region absent major external forces, such as federal policy and major financial investment.


Illustration: Connected vehicles can help to prevent crashes at busy intersections. (Source: USDOT)

Mobility as a Service (MaaS)

Mobility as a service (MaaS) is a type of service that enables users to plan, book, and pay for multiple types of mobility services. The concept describes a shift away from personally-owned modes of transportation and towards mobility provided as a service instead. This is enabled by combining transportation services from public and private transportation providers through a unified gateway that creates and manages the trip. Users can pay per trip or a monthly fee for a limited distance.

Together with other emerging vehicular technologies such as automated driving, connected cars and electric vehicles, MaaS is contributing to a new type of future mobility, which is autonomous, connected, electric and shared vehicles.

Trend towards Mobility as a Service

Booming demand for more personalised transport services has created a market space and momentum for MaaS. The movement towards MaaS is fueled by a myriad of innovative new mobility service providers such as carpool and ridesharing companies, bicycle-sharing systems programs, scooter-sharing systems, and carsharing services. On the other hand, the trend is motivated by the anticipation of self-driving cars, which puts into question the economic benefit of owning a personal car over using on-demand car services, which are widely expected to become significantly more affordable when cars can drive autonomously.

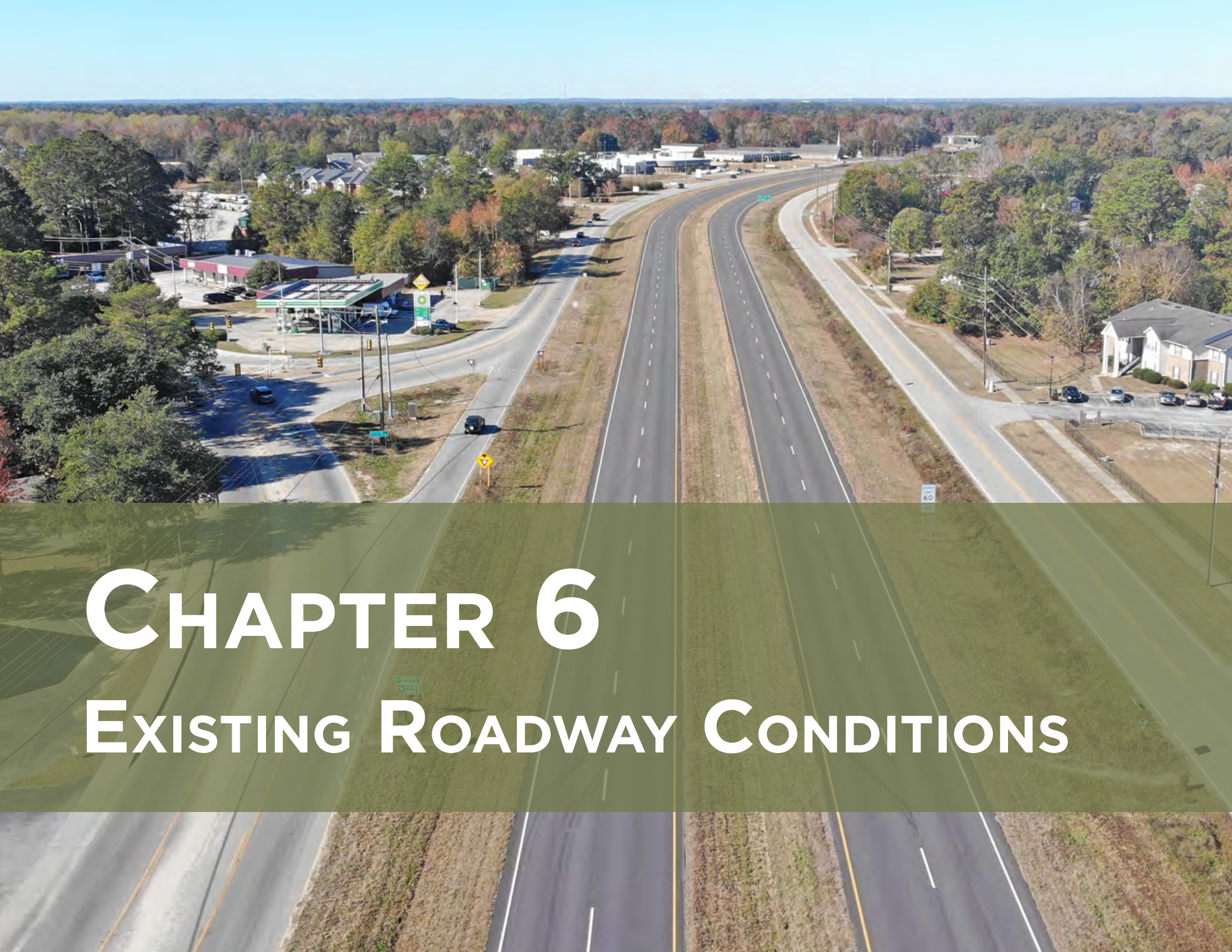
This shift is further enabled by improvements in the integration of multiple modes of transport into seamless trip chains, with bookings and payments managed collectively for all legs of the trip. Between multiple modes, trips, and payments, data is gathered and used to help people's journeys become more efficient. In the government space, the same data allows for informed decision-making when considering improvements in regional transit systems.

Potential impacts

MaaS may lead to a decline in personal car ownership over the long term. MaaS could also significantly increase the efficiency and utilization of transit providers that contribute to the overall transit network in a region. Ultimately, a more efficient network coupled with new technology such as autonomous vehicles could significantly reduce the cost of public transit.

MaaS could also improve ridership habits, transit network efficiency, decrease costs to the user, improve utilization of MaaS transit providers, reduce city congestion as more users adopt MaaS as a main source of transit, and reduce emissions as more users rely on public transit component, autonomous vehicles in a MaaS network.

Excerpt from Mobility-as-a-Service (MaaS) presentation by Pete Costello, Associate Vice President, Iteris (https://www.arcweb.com/blog/mobility-service-arc-smart-city-forum)



Chapter 6
Existing Roadway Conditions

Chapter 6

Existing Roadway Conditions

Corridors and Activity Center

Street Networks

Functional Classification

Corridor Operations

Current AADT Map

Volume to Capacity (V/C) Map

Safety and Crash History

High Crash Locations Map

Intersection Crashes

Corridor Crashes

Existing Roadway Conditions

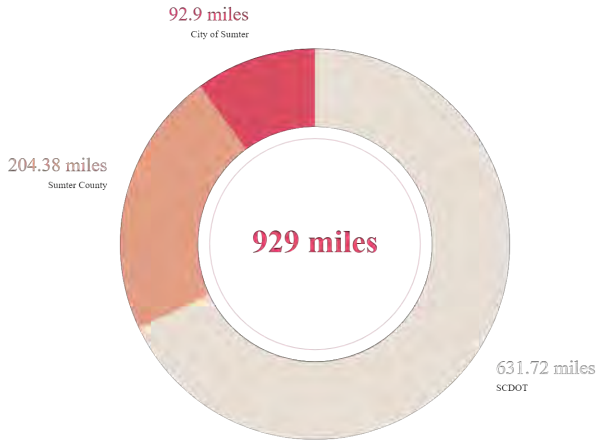
Sumter is approximately 15 miles west of I-95 and 18 miles south of I-20. Established by colonial settlers in the 1740s, the city has grown into the 10th largest metropolitan area in South Carolina. Within the MPO, Shaw Air Force Base, Sumter School District, Pilgrims Pride Poultry Processing, Continental Tire, and Prisma Health are the largest employment centers and attract numerous peak hour trips each day.

The majority of significant commercial development in the county is located along primary transportation corridors such as US-378, US-521, and US-15. In the future, planned development will result in increased traffic volumes, similar to that currently generated by major employers and commercial developments in the area.

Roadway Ownership

There are more than 929 miles of roads within the SUATS MPO of which the County owns 22%, the City owns 10%, and the South Carolina Department of Transportation (SCDOT) owns 68%.

Figure 6.1 - Roadway Ownership in SUATS



As commercial development continues and population increases, traffic volumes can be expected to climb. This increase in traffic volumes will create new deficiencies on the existing transportation network. Traffic bottlenecks may become evident in places that currently function adequately and existing deficiencies will be magnified.

Evaluating the existing transportation system helps to better identify needs and priorities for the purposes of planning. The discussion of existing highway conditions is organized into the following sections:

- Corridors and Activity Corridors
- Functional Classifications
- Corridor Operations (V/C, LOS)
- Safety and Crash History

Transportation Corridors and Activity Centers

An inherent relationship exists between land use and transportation. As development occurs and more vehicles take to the road, roadway improvements are needed to reduce traffic congestion. These roadway improvements often enhance access, thus raising land values and attracting more development. The figure to the right illustrates this continuing cycle of influence between land use and transportation.

The interaction between activity centers and the transportation corridors that link them to other centers and destinations is important, as are the mobility choices that are provided within the center. Often neighborhoods and activity centers rely on a small number of transportation corridors to provide essential links between home, school, employment, shopping, social, and recreation destinations.

The extent to which these origins and destinations blend into multi-purpose activity centers has a dramatic effect on a person's ability to choose between modes for their trip. In many cases, the range of trip alternatives (walk, bike drive, or transit) also can influence the overall perception of a community. Table 6.1 on the following page summarizes three types of activity centers – regional, community, and neighborhood – and provides local examples.

The level of success for corridors within and between activity centers depends in large part on the intended function of the street. A unique challenge for the future will be to balance the area's mobility needs with other priorities. Often traffic mobility has been given priority without regard for other considerations such as the function of the street, corridor relationship to land use, urban design, and the promotion of alternate modes.

Table 6.2 - Activity Centers		
Center Type		**Characteristics**
Regional Activity Center		
Local Example • Central Business District Transportation Corridor • Main Street		• Large-scale, transit supportive center of employee-intensive land uses • Core areas contain large-scale and high intensity urban land uses supported by and serving communities • Accessed by freeways, major arterials, and public transportation • Higher residential densities
Community Activity Center		
Local Example • Second Mill Transportation Corridor • Pinewood Road/Wedgefield Road		• Include a combination of retail, personal services, civic, educational, and social uses • Core areas contain medium-scale development that serves the day-to-day needs and activities of residents • Accessed by major areterials and public transportation • Medium density residential areas
Neighborhood Activity Center		
Local Example • Wilson Hall Neighborhood Transportation Corridor • South Wise Drive		• Mostly residential with a mixed-use core that serves as the focal point for the neighborhood and provides retail and service needs. • Accessed by major and minor arterials with integrated collector street access • Mixture of low and medium density residential areas

Street Networks

Why are Street Networks Important?

Street Networks are the backbone upon which we build communities. Good street network designs reduce land consumption, provide greater accessibility through more direct routes, and increase overall network efficiency and reliability through added redundancy. They also affect several factors that relate to building more sustainable communities such as travel patterns, road safety, and public health.

While policies such as those related to Complete Streets are important, focusing on street-level solutions without considering the overall street network results in an incomplete city. Great street design, in isolation, is not enough. The expected benefits can only be realized in concert with great network design

One of the challenges in creating a successful transportation system for the SUATS region is blending connectivity and access functions with preservation of natural features and the unique character of the area. Neighborhoods and smaller communities within the region may have different needs and priorities.

While recognizing these differences, it is important not to lose focus of the practical concept of overall connectivity. This concept is particularly relevant as it relates to people's desires to make safe and efficient trips not only by driving, but also by walking, bicycling, or using public transportation.

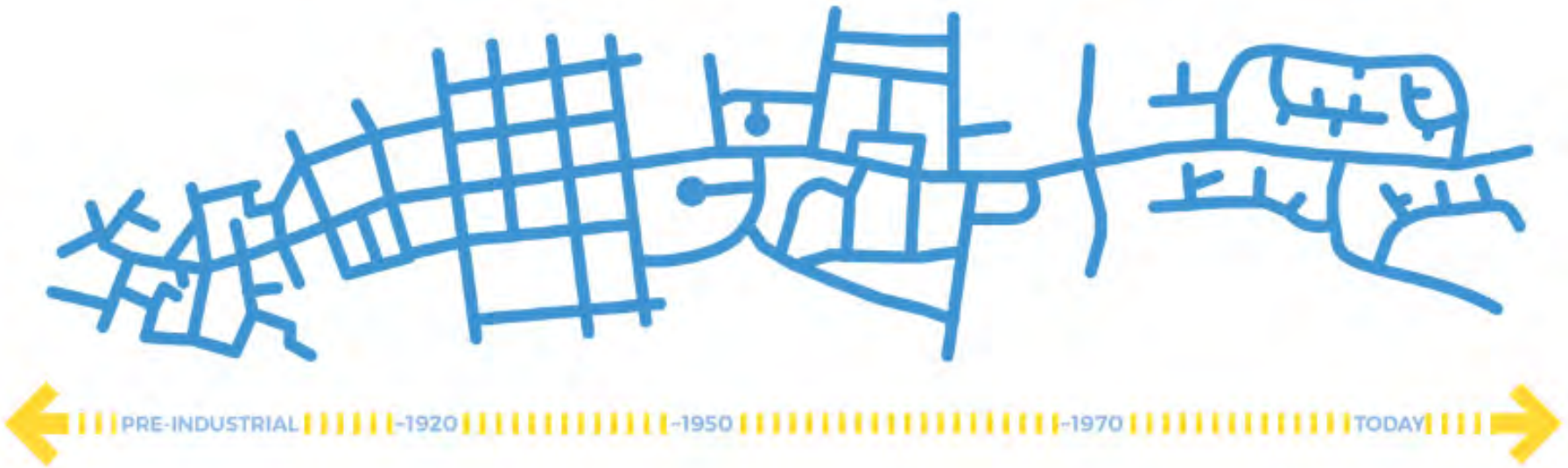
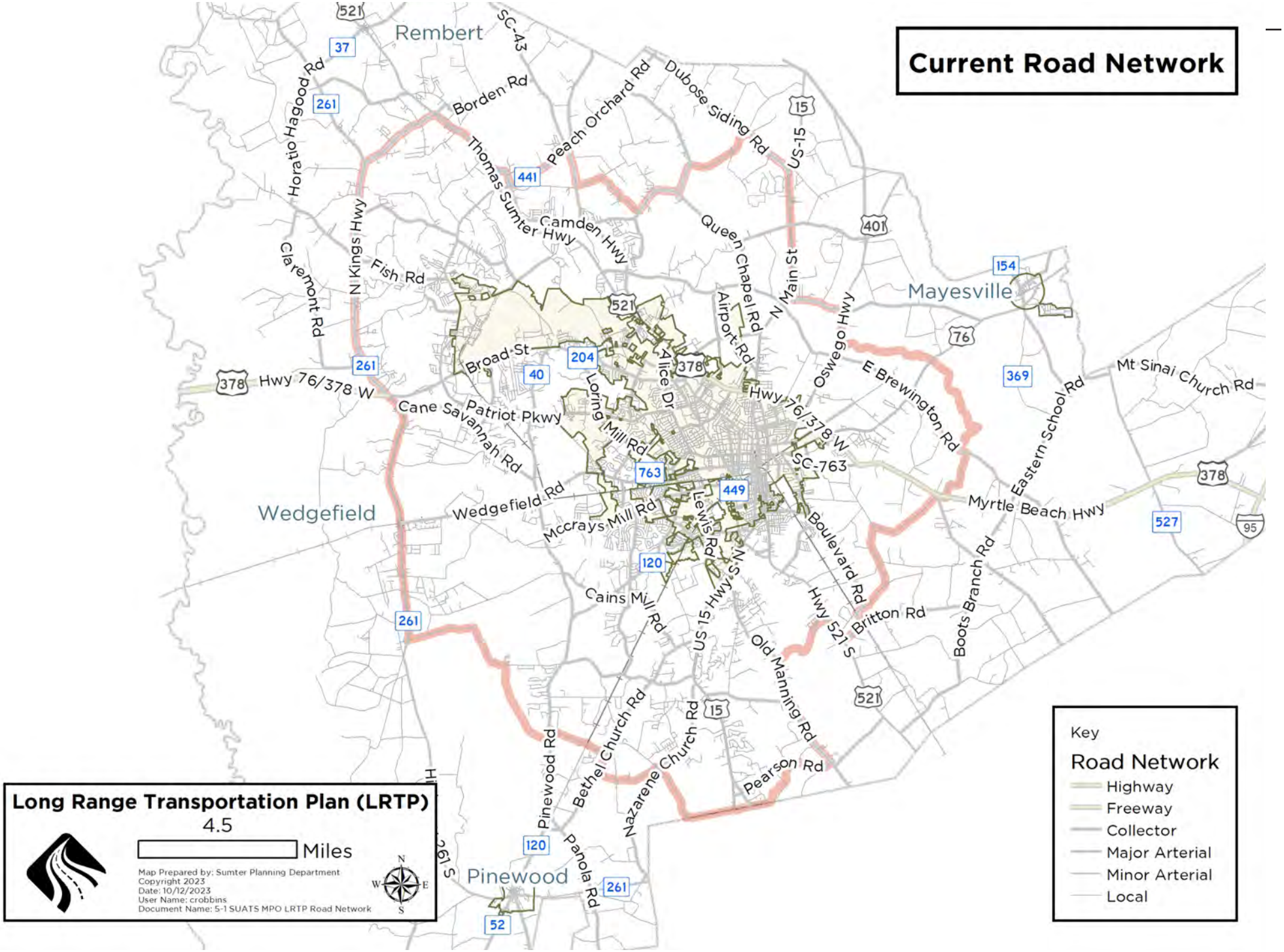


Figure 6.3 - Evolution of Street Networks in America
Adapted from "Street Networks 101", by Congress on New Urbanism, as adapted from "Street Networks" in the International Handbook on Transport and Development


Current Road Network
Rembert
Mayesville
Wedgefield
Pinewood
Hwy 76/378 W
Broad St
Patriot Pkwy
Cane Savannah Rd
Wedgefield Rd
Mccrays Mill Rd
Loring Mill Rd
Alice Dr
Airport Rd
Queen Chapel Rd
N Main St
Oswego Hwy
E Brewington Rd
Eastern School Rd
Mt Sinai Church Rd
Myrtle Beach Hwy
Boots Branch Rd
Britton Rd
Hwy 521 S
Old Manning Rd
Pearson Rd
Nazarene Church Rd
Bethel Church Rd
Pinewood Rd
Panola Rd
Cains Mill Rd
Lewis Rd
US 15 Hwy
Boulevard Rd
SC-763
Peach Orchard Rd
Dubose Siding Rd
US-15
Borden Rd
Thomas Sumter Hwy
Camden Hwy
Horatio Hagood Rd
N Kings Hwy
Fish Rd
Claremont Rd
SC-43
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 5-1 SUATS MPO LRTP Road Network
Key
Road Network
Highway
Freeway
Collector
Major Arterial
Minor Arterial
Local

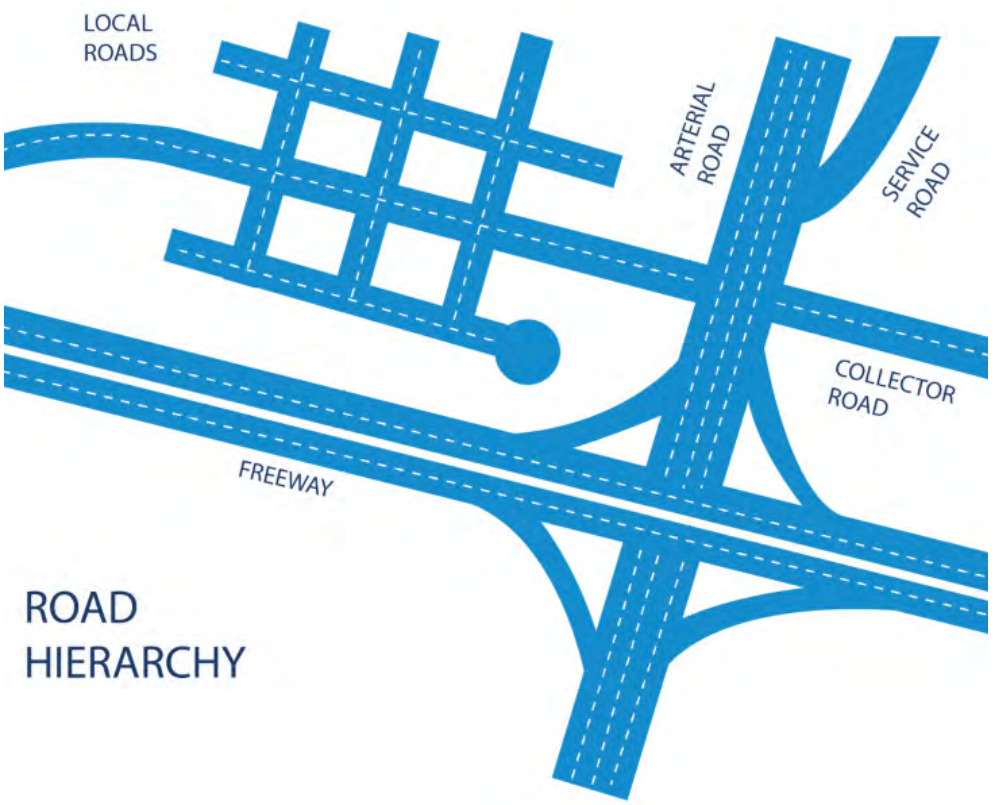
FUNCTIONAL CLASSIFICATION

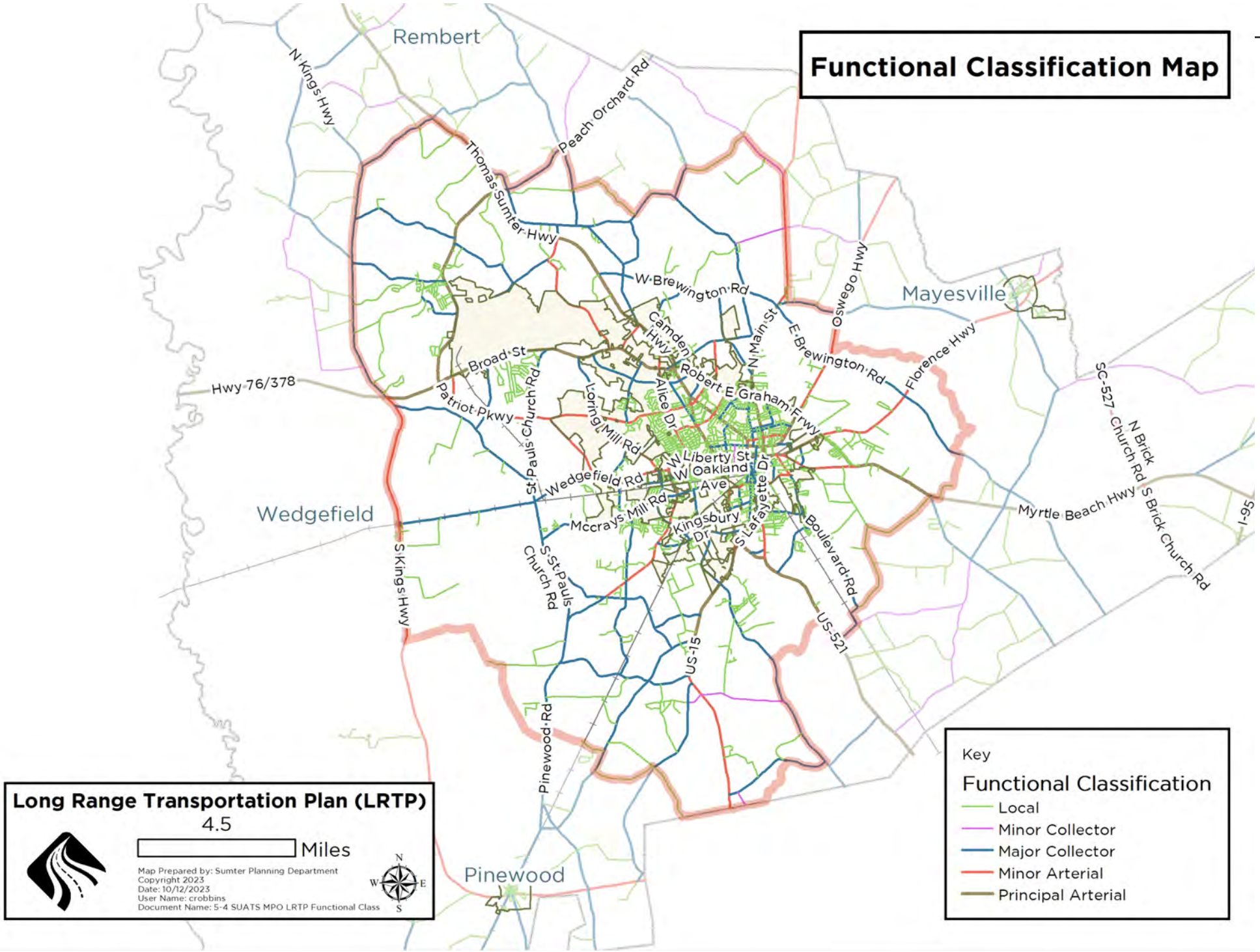
The classification of streets into several "functional" categories aids in communication among policy makers, planners, engineers, and citizens for expanding the transportation system. The functional classification system groups streets according to the land use served (or to be served) and provides a general designation of the type of traffic each street is intended to serve. The functional classification system primarily defines the street in terms of roadway design and character, as well as operational features for the movement of vehicles.

Two major considerations for classifying arterials from neighborhood streets are access and mobility. The primary function of local or neighborhood streets is to provide access. These streets are intended to serve localized areas or neighborhoods, including local commercial and mix-use land uses (i.e. low speeds, low volumes, short distances). Local streets are not intended for use by through traffic. The primary function of arterials is mobility. Limiting access points (intersections and driveways) on arterials enhances mobility. Too much mobility at high speeds limits access by pedestrians and bicyclists. The arterial is designed with the intent to carry more traffic than is generated within its corridor (i.e. higher speeds, higher volumes, and longer distances).

Classifying the SUATS street system required close examination of roles that each street performs in the overall transportation system. The Sumter City-County Planning Department worked with SCDOT in 2012 to update the MPO's functional classification network, and within the last 2 years, several targeted functional classification adjustments have been made to reflect actual patterns of use. As a result of these exercise, the existing public street network in Sumter is divided into several functional classifications, including freeways, major arterials, and collector streets.

Figure 6.4 - Road Hierarchy Diagram




Functional Classification Map
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Thomas Sumter Hwy
Peach Orchard Rd
W Brewington Rd
E Brewington Rd
Oswego Hwy
Florence Hwy
Camden Hwy
N Main St
Robert E Graham Frwy
Alice Dr
Broad St
Patriot Pkwy
Hwy 76/378
St Pauls Church Rd
Loring Mill Rd
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W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
S Lafayette Dr
Kingsbury Dr
Boulevard Rd
US-521
US-15
S Kings Hwy
S St Pauls Church Rd
Pinewood Rd
Myrtle Beach Hwy
SC-527
N Brick Church Rd
S Brick Church Rd
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 5-4 SUATS MPO LRTP Functional Class
N
W
E
S
Key
Functional Classification
Local
Minor Collector
Major Collector
Minor Arterial
Principal Arterial

Functional Classification

	Functional Classification	Description
Arterial	Expressways and Freeways	Expressways and freeways provide the most mobility and least access (since access is only available at interchanges). Freeway/ expressway facilities typically serve longer distance travel and support regional mobility. The state funds roadway improvement and maintenance on these facilities. The US 76-378 Bypass (Robert Graham Freeway) is classified as an expressway/freeway.
	Major Arterials	Major arterials typically have tightly controlled access and few, if any, individual site driveways. These facilities serve medium to longer distance travel and typically connect minor arterials and collector streets to freeways and other higher type roadway facilities. Major arterials within the SUATS area include Broad Street (US 76 Business), US 15, US 521, SC 441, US 76 west of the US 76-378 Bypass, and US 401 north of the US 76-378 Bypass.
	Minor Arterials	Minor arterials primarily serve a mobility function but often have more closely spaced intersections, some individual site driveways, and generally lower design and posted speeds compared to other arterials. The minor arterial network is primarily intended to serve travel demand within the local area. These roadways connect to other minor arterials, to major arterials, and to collector streets. Minor arterials provide a higher level of access to adjacent land uses than major arterials and typically have lower traffic volumes. For the most part, minor arterials are maintained by the state, but the cost of improvement may be the responsibility of local governments. In general, minor arterials in Sumter have two-lane undivided crosssections with little or no paved shoulders and an occasional left-turn lane at intersections and major driveways. Posted speed limits on minor arterials range from 35 mph to 45 mph. other characteristics may include sidewalks, signalized intersections, and on-street parking (in residential areas and the centralized business district). Minor arterials in Sumter include Alice Drive, Patriot Parkway, Pinewood Road, North Main Street, Wedgefield Road, and Loring Mill Drive.
Collector	Major Collectors	Collectors typically provide less overall mobility, operate at lower speeds (less than 35 mph), have more frequent and greater access flexibility with adjacent land uses, and serve shorter distance travel than arterials. Collectors provide critical connections in the roadway network by bridging the gap between arterials and locals. Thus, the majority of collector streets connect with one another, with local streets, and with non-freeway/expressway arterials. The primary purpose of the collector street system is to collect traffic from neighborhoods and distribute it to the system of major and minor arterials throughout an area. In general, collector streets have two lanes and often have exclusive left-turn lanes at intersections with major and minor arterials and less frequently at intersections with other collector streets. Within Sumter, collector streets have a wide range of physical characteristics, some of which are attributable to the neighborhoods in which they exist. Though different, the one commonality is that of providing good connectivity. Examples of collector streets in the SUATS area include Carter Road, East Calhoun Street extended, Kingbury Drive, Lewis Road, South Main Street, and Stadium Road.
	Minor Collectors	
Local	Local Access	Local facilities provide greater access and the least amount of mobility. These facilities typically connect to one another or to collector streets and provide a high level of access to adjacent land uses/development (i.e. frequent driveways). Locals serve short distance travel and have low posted speeds limits (25 mph to 35 mph). Most roadways within the SUATS area are classified as locals.

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Corridor Operations

There are more than 929 miles of roads within the SUATS MPO of which the County owns 22%, the City owns 10%, and the South Carolina Department of Transportation (SCDOT) owns 68%.

Inter-Regional Access

Inter-regional access in the SUATS area is provided by three major US routes: US-15, US-521, and US-378. While US-15 and US-521 are not freeways today, these corridors connect to the region's freeways (including US-378) and provide for the relatively efficient movement of high volumes of traffic and increased mobility (except during peak traffic periods). The primary north-south route is US 15, which connects Sumter to I-20 to the north and I-95 to the south. US 521 provides an alternate connection to I-95 and points south. Movements east and west rely on the network of roads near downtown as well as the US 76-378 Bypass (Robert Graham Freeway). US 76-378 connects Sumter with Columbia to the west. To the east, US 378 connects Sumter to I-95 before continuing to Conway and Myrtle Beach.

Congested Corridors

Congestion in corridors is related to a number of factors, but is often the result of bottlenecks – primarily at intersections – along the corridor. Aside from individual bottleneck locations in corridors, congestion frequently results from too many people trying to use a route that is already at or over-capacity.

Traffic volumes signify the total number of vehicles traveling along a roadway segment on an average day. The region's ten highest traffic segments are noted on the table below:

Table 6.5 - Top 10 SUATS Roadway Segments by AADT Volume

AADT	Route Name	Extents
29,600	Broad St.	Alice Dr. to Market St.
29,300	Broad St.	Carter Rd. to Alice Dr.
25,500	Broad St.	Eagle Dr. to Carter Rd.
24,300	N. Guignard Dr.	Miller Rd. to W. Calhoun St.
24,200	W. Liberty St.	Phelps St. to Millwood Rd.
22,400	Pinewood Rd.	Millwood Rd. to McCrays Mill Rd.
21,400	Thomas Sumter Hwy.	Broad St. to Beckwood Rd.
20,700	S. Guignard Dr.	W. Liberty St. to Oakwood Ave.
20,600	S. Guignard Dr.	McCray's Mill Rd. to Neal St.
20,400	US-15 South	S. Guignard Pkwy to Lewis Rd.

However, traffic volumes alone should not be used to determine congested corridors because this measurement does not take into account different functional classifications and roadway capacity. A better measurement for this comparison is volume-to-capacity (V/C) ratios. V/C ratios are calculated by dividing the traffic volume of a roadway segment by the theoretical capacity of the roadway.

Although V/C can be tied to level of service (LOS), V/C allows for a more specific analysis. The result is a universal quantitative measurement. V/C ratios fall into one of the following categories:

- **Approaching Capacity (V/C = 0.9 to 1.09)** – A roadway with a V/C less than 0.8 typically operates with efficiency. As the V/C nears 1.0, the roadway becomes more congested. A roadway approaching capacity may operate effectively during non-peak hours but be congested during peak travel periods.

- **At Capacity (V/C = 1.10 to 1.29)** – Roadways operating at capacity or slightly above capacity are heavily congested during peak periods and moderately congested during non-peak periods. A change in capacity due to incidents greatly impacts the travel flow on corridors operating within this V/C range.

- **Over Capacity (V/C > 1.30)** – The roadways in this category represent the most congested corridors in the SUATS area. These roadways are congested during non-peak hours and most likely operate in stop-and-go gridlock conditions during the morning and evening peak travel periods.

Limited financial resources to increase capacity has resulted in peak hour traffic congestion on many major area roadways. During the morning and afternoon peak travel periods, sections of commuter travel corridors are frequently congested.

However, despite periods of peak hour congestion, there are very few roadways in the SUATS MPO that have an overall capacity issue, as measured over the course of an average day. Those corridors that are "Approaching Capacity" (V/C between 0.9 and 1.09) are:

- Alice Drive between Wise Dr. and W. Liberty St.
- N. Guignard Drive between Wise Dr. and Thomas Dr.
- Wise Dr. between N. Guignard Dr. and Bultman Dr.
- Lynam Rd. between Wedgefield Rd. and W. Oakland Ave.

Only 1 corridor is "At Capacity" (V/C between 1.10 and 1.29) in the SUATS MPO:

- Wedgefield Rd. between Loring Mill Rd. and W. Liberty St.

Finally, there are no corridors identified from the base year model (2019) that are "Over Capacity" (V/C above 1.3).

The recommendations that follow in Chapter 7 as well as the multimodal solutions presented aim to alleviate system-wide congestion in a cost-effective and time efficient manner.

A Cautionary Note

While peak hour volume-to-capacity ratios and anecdotal experience suggest that congestion is a significant concern and challenge for the region, it is important to note that the economic capacity to address these targeted periods of congestion may be beyond SUATS ability based on current resources.

Diagram 6.6 illustrates the risks of addressing a deficiency that may occur at one or two short periods of time within the 24 hour day, when during the remainder of time the road may operate normally. With limited resources, SUATS must be judicious in project selection and spending to avoid solving a problem that results in excessive capacity for much of the day.

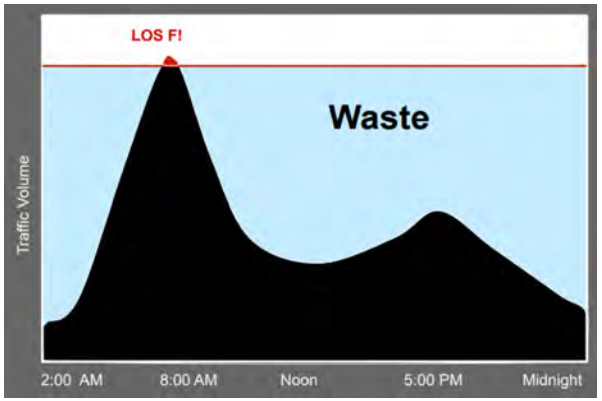
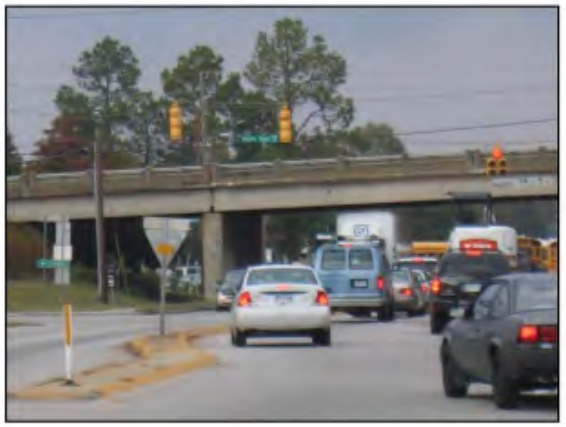


Diagram 6.6 - Generalized Illustration of Peak Hour Delay as viewed within a 24-hour Window

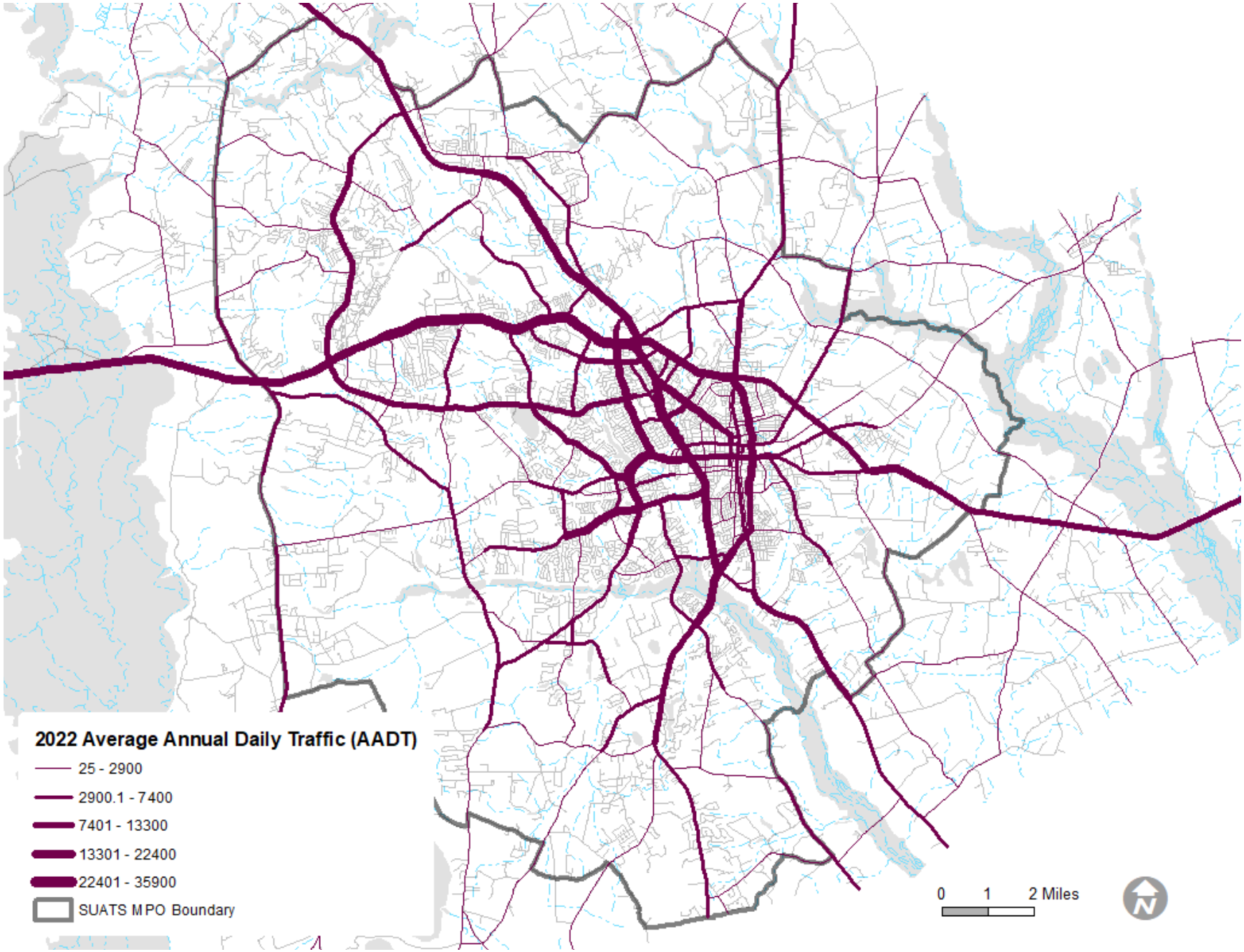
Level of Service A

Level of Service B

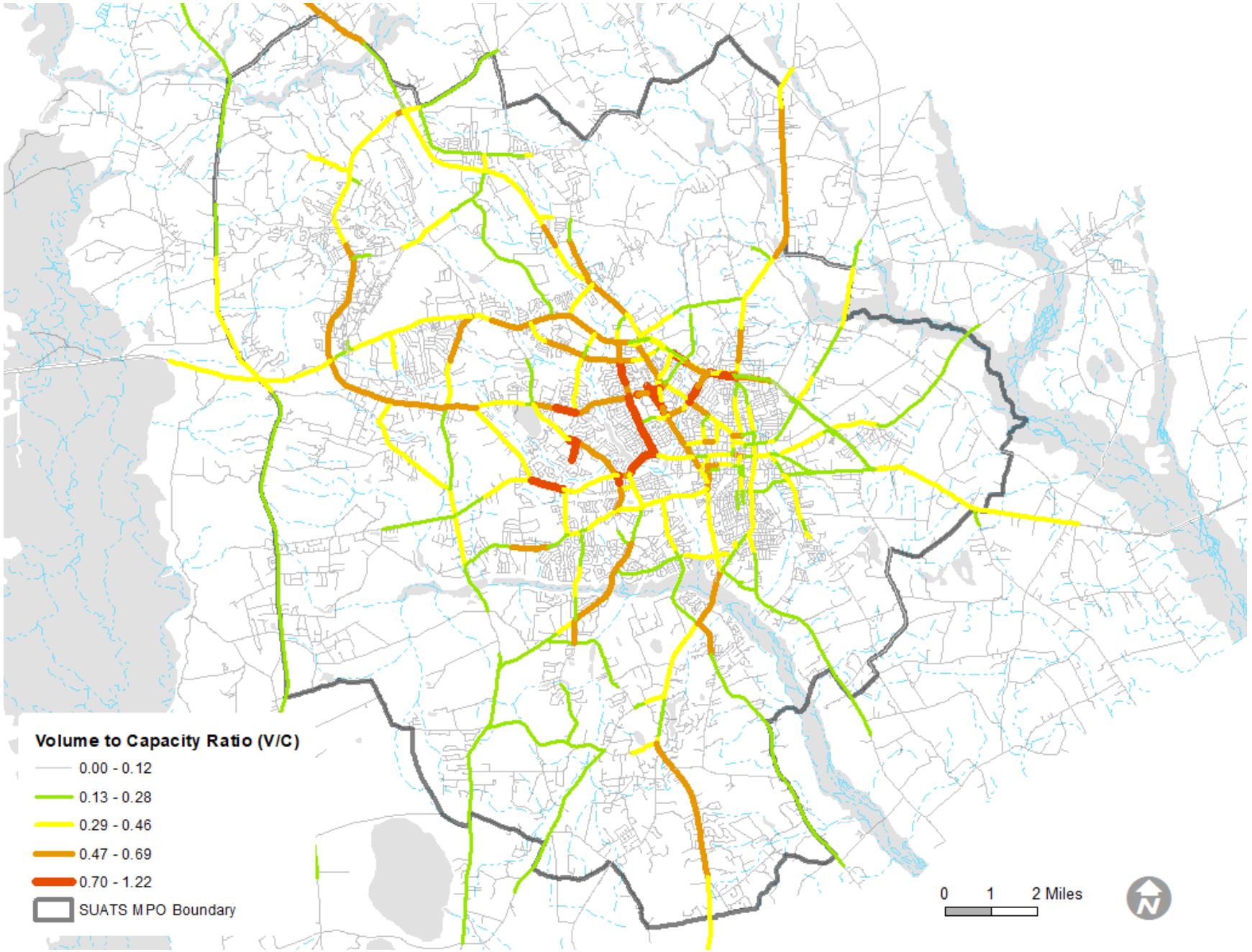


Level of Service E or F

2022 Average Annual Daily Traffic (AADT)



2019 Volume to Capacity (V/C) Ratios



Safety

Every year, thousands of people lose loved ones in transportation-related collisions in the U.S. This is an important public health issue because traffic fatalities and serious injuries threaten the safety and health of our communities. In 2022 alone, an estimated 42,795 people were killed in crashes.[1] While the number of fatalities nationwide has decreased since 1966, the first year for which these numbers were recorded by the National Highway Traffic Safety Administration (NHTSA), even one traffic-related death is too many.

The goal of SUATS, the SC Department of Public Safety, and the SC Department of Transportation is to reduce fatalities and serious injuries on all public roadways in the short term, with the vision of eliminating both in the long term. This goal and vision can be realized if all citizens would adopt a "target zero" mindset for themselves, as well as their families and friends.

1 National Highway Traffic Safety Administration press release, October 22, 2019 https://www.nhtsa.gov/press-releases/roadway-fatalities-2018-fars.

Table 6.7 - Type of Intersection Crash, Total Number, and % of Total

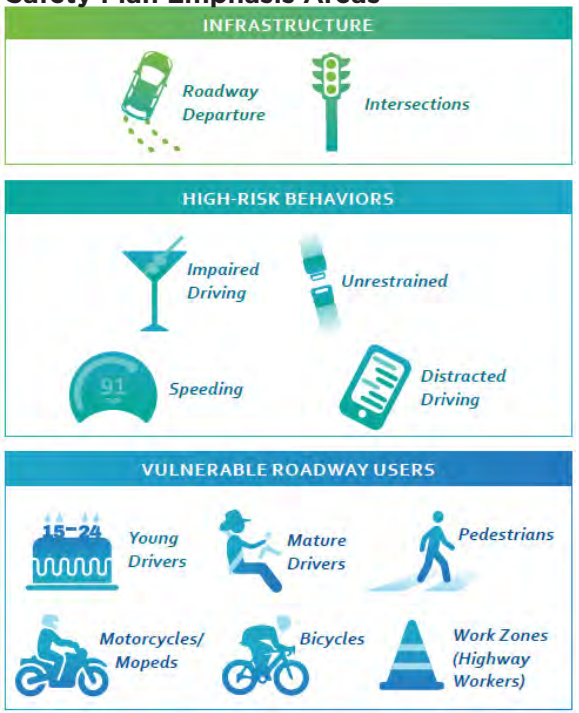
Type of Crash	Total Number	Percent of Total Crashes
Angle	4,036	41.9%
Rear End	2,751	28.5%
Sideswipe	909	9.4%
Head On	178	1.8%
Run off Road	1,361	14.1%
Hit Pedestrian	66	0.7%
Hit Bicycle	24	0.2%
Hit Animal	88	0.9%
Other Crashes	229	2.4%
Total	**9,642**	**100%**

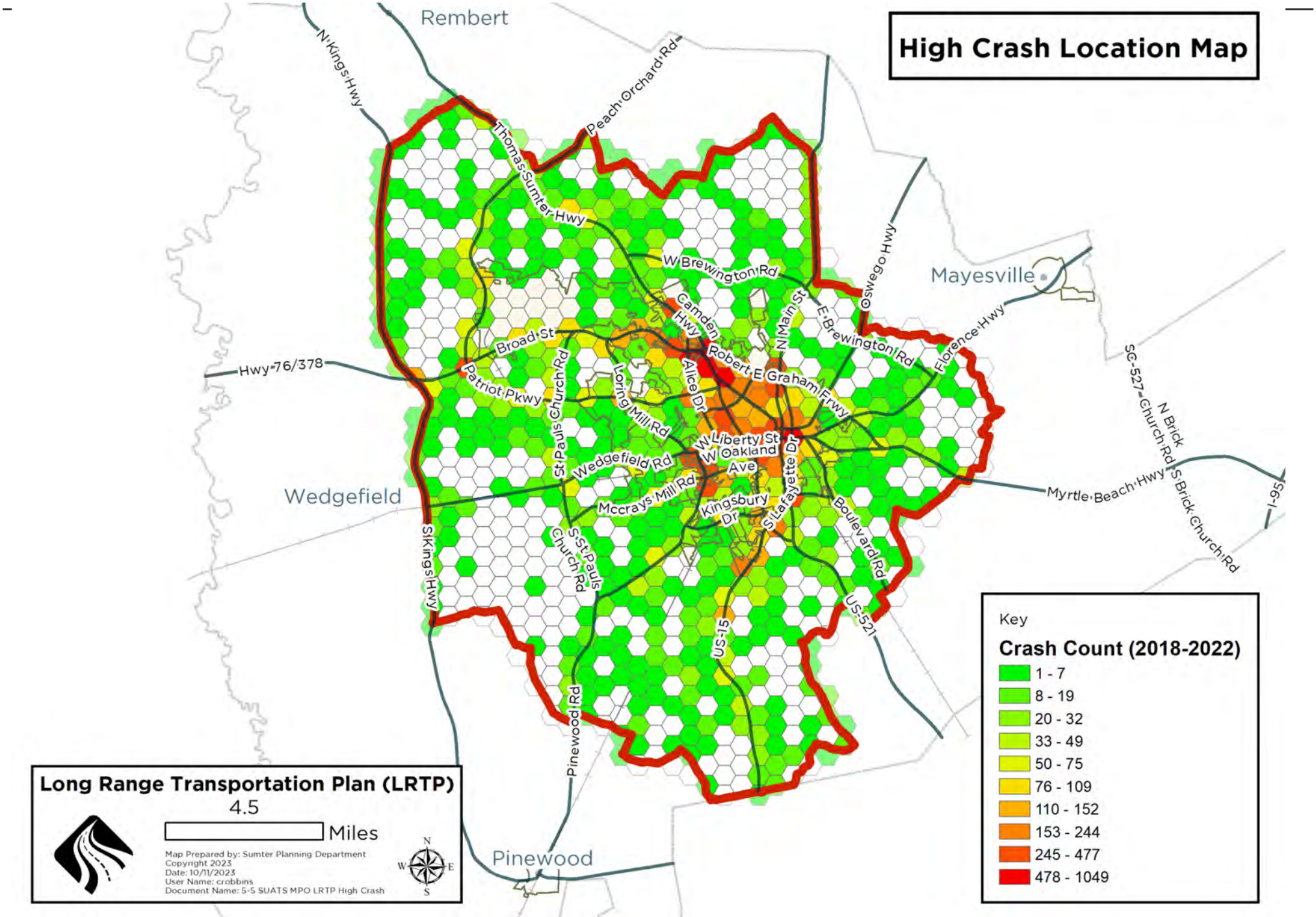
Based on the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS), between 2017 and 2021, there were 107 traffic fatalities in Sumter County, of which 76 were located in the SUATS MPO. This resulted in a fatality rate of 21.08, normalized to per 100,000 persons.

In 2021, the most recent year for which full data is available from the SC Department of Public Safety, Sumter County ranks #14 out of 46 counties in the state for total collisions and serious injury collisons, and #13 of 46 for fatal collisions. This sobering position is on top of the fact that the state of South Carolina has exceeded the national average for deaths per 100 million VMT in each of the last 25 years.

Furthermore, the South Carolina Department of Public Safety estimates that economic loss that year associated with serious injuries and fatalities in Sumter County was $126.1 million.

Exhibit 6.8 - 2020-2024 State Highway Safety Plan Emphasis Areas




High Crash Location Map
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Peach Orchard Rd
Thomas Sumter Hwy
W Brewington Rd
Oswego Hwy
Camden Hwy
N Main St
E Brewington Rd
Florence Hwy
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
Robert E Graham Frwy
SC-527
N Brick Church Rd
S Brick Church Rd
W Liberty St
W Oakland Ave
S Lafayette Dr
Wedgefield Rd
Myrtle Beach Hwy
I-95
Mccrays Mill Rd
Kingsbury Dr
Boulevard Rd
S Kings Hwy
S St Pauls Church Rd
US-521
US-15
Pinewood Rd
Key
Crash Count (2018-2022)
1 - 7
8 - 19
20 - 32
33 - 49
50 - 75
76 - 109
110 - 152
153 - 244
245 - 477
478 - 1049
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/11/2023
User Name: crobbins
Document Name: 5-5 SUATS MPO LRTP High Crash
N
W
E
S

Intersection Crashes

Data provided by the SCDOT Safety Office for 2018-2022 shows that there were 9,642 total crashes and 56 total fatalities at the 1,676 intersections in the MPO.

It is important to note that, of the 56 fatal crashes that occured in the SUATS MPO between 2018 and 2022, only one intersection (McCrays Mill Rd. at Foxcroft Dr.) saw more than a single fatal crash during that time, and at this intersection, there were only 5 total crashes reported. This speaks to the challenge of addressing the issue of roadway safety through a fatal and severe injury crash focus at a local level such as with SUATS MPO. Because there are many factors involved in a crash, including roadway condition, weather conditions, and driver impairment, forecasting the potential locations of crashes in SUATS is not feasible. Rather, focusing on high-crash locations as likely places where a fatality or serious injury may occur is a better methodology.

Of the 9,642 total intersection crashes, nearly 20%, (1,900), occured at 1% (20) of intersections. These 20 intersections are noted in Table 6.9.

There were 66 crashes involving pedestrians at intersections in the MPO, and another 24 involving bicycles. 29% (2,809) of crashes occured at night, and 16% (1,523) of crashes occured in wet conditions.

Table 6.9 - 20 Highest Crash Intersections in SUATS MPO, by volume, 2018-2022

Route 1	Route 1 Name	Route 2	Route 2 Name	Total Crashes	Crash Rate	Fatal Crashes	Injury Crashes	Combined AADT	Hit Bike/ Ped
US-76	Broad St.	SC-120	Alice Dr.	196	2.73	0	56	39350	1
US-76	Broad St.	S-1074	Wesmark Blvd.	188	4.58	1	44	22500	1
SC-120	Pinewood Rd.	S-33	McCray's Mill Rd.	161	3.17	0	37	27850	0
US-521	N/S Guignard Dr.	SC-763	W. Liberty St.	110	1.81	1	32	33250	2
US-15	N/S Lafayette Dr.	US-76	E. Liberty St.	103	2.28	0	25	24750	1
US-521	N. Guignard Dr.	S-55	Miller Rd.	101	1.70	0	26	32450	2
SC-120	Alice Dr.	S-380	Wise Dr.	87	1.86	0	17	25650	0
SC-120	Alice Dr.	S-1074	Wesmark Blvd.	84	1.65	0	18	27950	0
US-521				83	4.25	1	20	10700	1
US-15	N Lafayette Dr.	US-401	E. Calhoun St.	81	2.08	0	29	21300	0
US-15	Pocalla Rd.	US-521	S. Guignard Dr.	79	1.71	0	39	25300	0
SC-120	Pinewood Rd.	SC-763	Wedgefield Rd.	77	1.79	0	16	23500	0
US-76	Broad St.	S-467	Carter Rd.	75	1.28	0	20	32000	0
US-76	Broad St.	S-1073	Market St.	74	2.55	0	10	15875	1
US-15	N. Main St.	S-1429	S. Pike E/W	73	2.06	0	24	19450	1
US-76	E. Liberty St.	SC-763	Myrtle Beach Hwy.	71	2.92	0	17	13300	0
US-76	Broad St	SC-441	Peach Orchard Rd.	71	1.38	0	22	28150	0
US-76	Broad St.	S-673	Mason Rd.	63	1.08	0	18	32000	1
US-521	Thomas Sumter Hwy.	S-53	Jefferson Rd.	62	1.37	0	16	24700	0
US-76	Broad St.	S-55	Miller Rd.	61	1.44	0	22	23250	1

Corridor Crashes

Data provided by the SCDOT Safety Office for 2018-2022 shows that there were 12,824 total crashes and 87 total fatalities when analyzed as 1 mile corridors in the MPO.

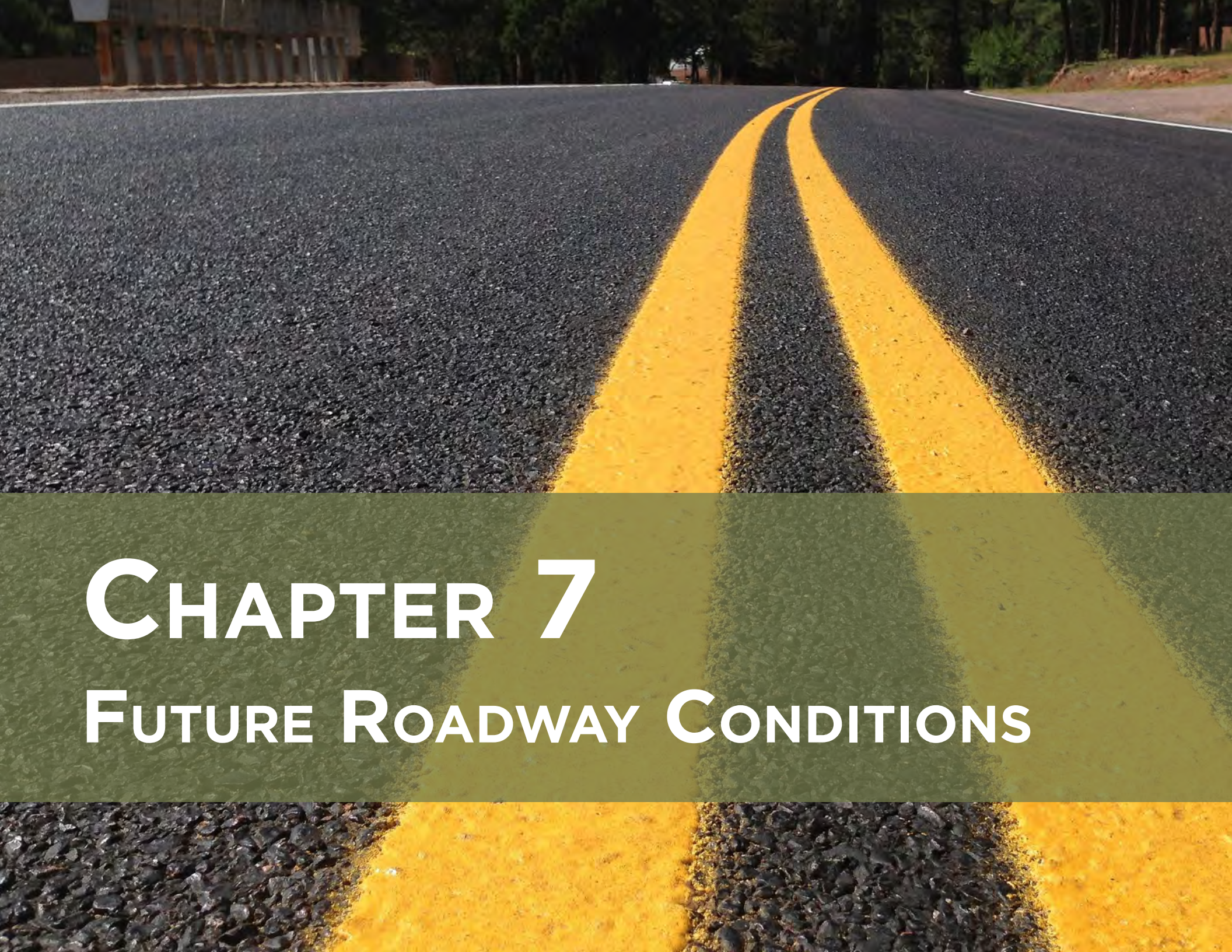
It is important to note that, of the 87 fatal crashes that occured on the SUATS MPO corridors between 2018 and 2022, only eleven 1-mile segments saw more than a single fatal crash during that time. This speaks to the challenge of addressing the issue of roadway safety through a fatal and severe injury crash focus at a local level such as with SUATS MPO. Because there are many factors involved in a crash, including roadway condition, weather conditions, and driver impairment, forecasting the potential locations of crashes in SUATS is not feasible. Rather, focusing on high-crash locations as likely places where a fatality or serious injury may occur is a better methodology.

Of the 12,824 total corridor crashes, nearly 34%, (4,317), occured at 2% (20) of intersections. These 20 corridor segments are noted in Table 6.10.

There were 93 crashes involving pedestrians at intersections in the MPO, and another 37 involving bicycles. 31% (3.926) of crashes occured at night, and 16% (2.095) of crashes occured in wet conditions.

Table 6.10 - 20 Highest Crash Corridors in SUATS MPO, by volume, 2018-2022 (1 mile segments)

Route	Route Name	Beginning Mile Point	Ending Mile Point	Total Crashes	Crash Rate	Fatal Crashes	Injury Crashes	AADT	Hit Bike/ Ped
US-76	Broad St.	0.0	1.0	520	16.45	0	114	17,310	3
US-76	Broad St.	14.0	15.0	458	8.52	1	127	29,435	4
SC-120	Pinewood Rd.	13.0	14.0	271	7.86	0	68	19,580	0
US-76	Broad St.	1.0	2.0	245	8.77	0	81	15,300	3
US-15	N. Lafayette Dr.	11.0	12.0	242	9.4	1	93	14,100	4
US-521	Bultman Dr.	11.0	12.0	220	5.21	1	53	23,130	2
US-521	N. Guignard Dr.	10.0	11.0	203	5.54	2	57	20,065	4
US-15	N. Lafayette Dr./N. Main St.	12.0	13.0	199	8.62	0	58	12,640	1
US-76	Broad St.	3.0	4.0	190	11.74	0	42	8,860	0
S-33	McCray's Mill Rd.	1.0	2.0	179	8.56	0	43	11,450	1
US-76	Broad St.	13.0	14.0	176	3.29	0	50	29,300	0
S-1074	Wesmark Blvd.	0.0	1.0	175	12.33	1	34	7,770	2
US-521	Bultman Dr./Broad St.	12.0	13.0	175	5.16	0	42	18,590	0
US-76	Broad St.	12.0	13.0	162	3.19	2	54	27,780	1
SC-120	Pinewood Rd./Alice Dr.	14.0	15.0	161	4.17	0	31	21,160	0
SC-120	Alice Dr.	16.0	17.0	158	5.14	1	32	16,840	0
US-76	Broad St.	4.0	5.0	155	11.46	0	39	7,410	1
US-401	E./W. Calhoun St.	0.0	1.0	145	11.77	1	48	6,745	2
US-521	Thomas Sumter Hwy.	13.0	14.0	139	4.03	0	37	18,900	0
S-1429	S. Pike West	0.0	1.0	134	10.97	0	55	6,690	0



Chapter 7
Future Roadway Conditions

Chapter 7

Introduction

The challenges facing the future of the transportation network in Sumter are the collective result of sustained low-density suburban growth, continued reliance on the automobile for even short trips, and competing agendas for scarce transportation funds. State forecasters expect Sumter County's population to remain relatively flat through 2035. However, these projections are unreliable when compared to the rate of new housing growth, AADT change over time, and development of commercial and industrial projects in the MPO Study Area. If this observed growth continues, the few area projects with committed funding will do little to address existing and projected deficiencies in the transportation network.

The Future Roadway Element considers these dynamics as it examines the future transportation network under a variety of conditions. A travel demand model was utilized to assess existing and future travel conditions. This model tested the operation of the future highway network under various scenarios. Two scenarios for 2050 travel conditions developed using the model included the travel conditions given (1) the construction of existing and committed projects and (2) the construction of all recommended projects.

This chapter begins with an overview of the existing plus committed scenario, which considers the impact committed projects will have on future travel conditions. The recommendation section explores how financially constrained projects can improve future travel conditions.

Unfunded recommendations in the form of a Vision Plan are proposed to address the remaining deficiencies. The chapter concludes with access management strategies, an overview of complete streets, and a collection of project sheets that describe the proposed recommendations.

Characterizing the Street Network

Many variations in street networks exist today, and subtle differences can have significant impacts. Despite the complexity of network types, street networks can generally be characterized through a combination of:

- Shape and configuration
- The scale of the network
- The connectivity of the streets

In terms of shape and configuration, the two main network typologies tend to be either gridded or "tree-like". However, there are an infinite number of possibilities. Some common examples are:

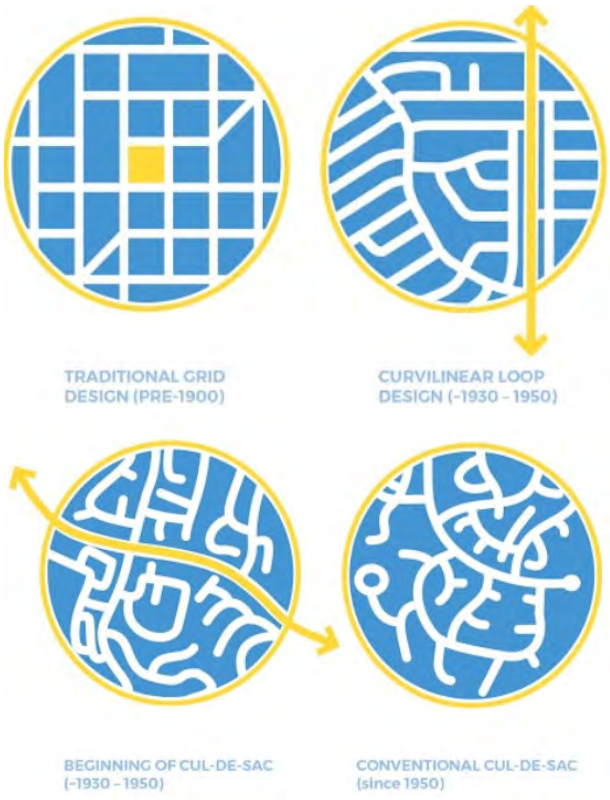


Figure 7.1 - Common Examples of Street Network Characteristics

Network Framework

The most important function of a good street network is that it forms an effective and flexible framework for building a community. The network provides places for commerce, as well as places for quiet living, and a host of variations in the middle.

The streets in the SUATS network should be designed to accommodate this range of desired outcomes. Some streets should be designed to attract all modes of travel, including vehicles and people walking or biking, while others should be designed to be quiet, with only see the occasional vehicle or person walking. This range of performance is achieved by having variations both in design of the network and design of the streets themselves.

The amount and types of connections in the network are key factors in determining both how the community functions and the character of the individual streets themselves. As a general rule, streets should connect at both ends. A high level of connectivity provides an efficient template for dispersing traffic, facilitating route choice, and creating a more comfortable condition for people who travel by foot, bike, or transit.

Building a Network with People in Mind

The future SUATS street network needs to be attractive and convenient to pedestrians and serve as good templates for development. This is achieved by ensuring that there is a fine grain of pathways and connections in the network. Smaller blocks (or more intersections per square mile) are typically more comfortable for pedestrians, providing more direct paths to destinations and generally creating the template for a more people-scale environment.

This idea of a more people-scale environment also relates to the idea that we should be trying to build places where people enjoy spending time. Everyone should have safe places to walk, safe places to ride bikes, and safe places to drive.

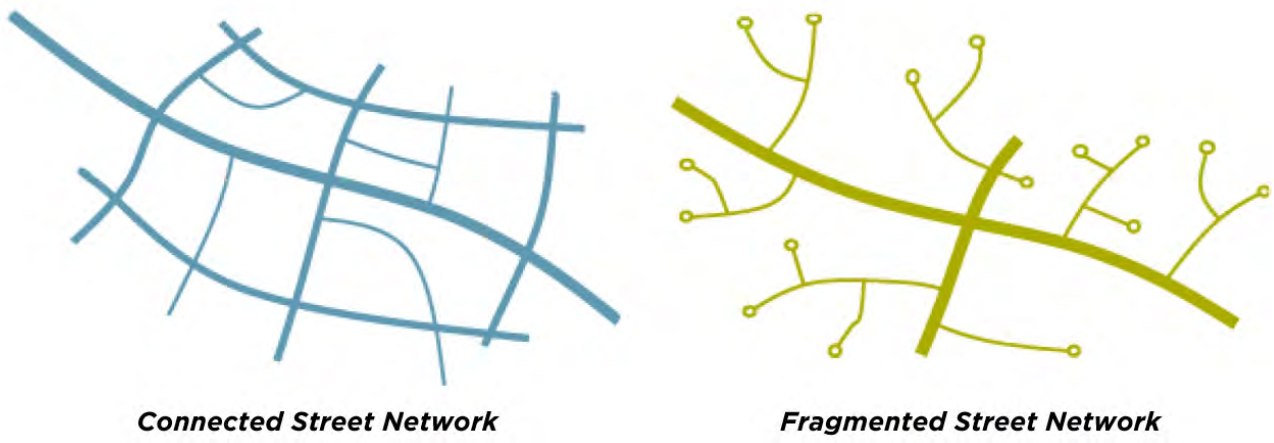


Figure 7.2 - What does a Connected Street Network Look Like?

Existing + Committed Conditions

The initial step in identifying projects for the SUATS Long-Range Transportation Plan is to analyze how the existing transportation netw ork combined with committed projects will perform in 2050 given current growth patterns. The 2021-2027 TIP provides a record of projects within the SUATS boundary that will receive state or federal funding.

There are 6 TIP-programmed capital roadway projects in varying stages of feasibility study and/or development, including:

- Manning Avenue Revitalization Project
- North Main Street Revitalization Project
- West Liberty Street Road Diet
- West Calhoun Street Traffic Calming
- Lafayette Drive Corridor Improvements
- “Connect 378” US-378 Corridor Improvements

There are also 6 TIP-programmed capital intersection projects invarying stages of design and/or development

- Broad Street @ Robert Dinkins Road
- Broad Street @ Loring MIll Road
- Broad Street @ North Saint Paul’s Church Road
- North Washington Street @ West Calhoun Street
- North Washington Street @ West Hampton Avenue
- North Washington Street @ West Liberty Street

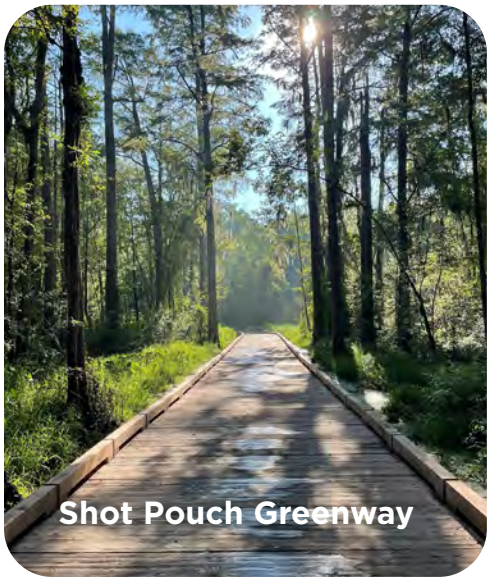
These projects are detailed further in Chapter 9. The Existing + Committed (E+C) conditions shown in Figure 7.x include these projects in addition to current projects under construction and existing facilities (determined using SCDOT’s regional travel demand model for the SUATS area). Compared to Figure 7.x, which shows the current (2019 model) congested corridors in Sumter, the E+C projects address but do not solve all of the congestion problems throughout the SUATS region.

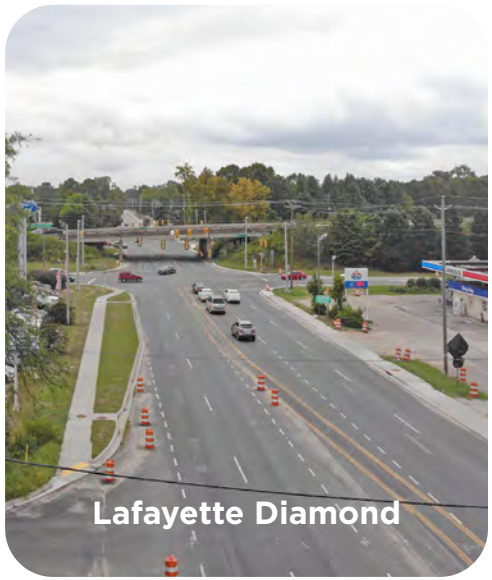
Penny for Progress

"Penny for Progress" is a term first coined for the Sumter County Capital Projects Sales Tax referendum of 2008. That term has been adopted in Sumter because it is widely recognized by Sumter County residents in association with the referendum.

The most recent Penny for Progress was approved by Sumter County voters in the general elections of November of 2014 to continue a 1 cent county sales tax from 2008. Passage of that referendum authorized Sumter County Council to levy a temporary sales tax to fund 28 capital projects. The 7-year sales tax was implemented in May of 2016 and includes $75.6 million in projects.

9 capital roadway projects were part of the overall sales tax effort, with 5 of those projects remaining to be completed as of the adoption of this LRTP.


Shot Pouch Greenway


Lafayette Diamond

Remaining Projects to Complete via 2016 Penny for Progress Referendum

Manning Avenue Bridge
Renovation of the Manning Avenue bridge.

Manning Avenue Corridor
Pedestrian, streetscape, intersection, traffic calming, lighting, access, and landscaping improvements to the Manning Avenue Corridor and connections to the Southern Gateway project.

North Main Street Corridor
Pedestrian, streetscape, intersection, traffic calming, lighting, access, and landscaping improvements to the Main Street Corridor and connections to the Lafayette intersection projects.

Downtown Sumter Intersections and Infrastructure
Infrastructure and building improvements in the historic central business district will include as a minimum pedestrian crosswalks, utilities, streets and sidewalks, lighting, landscaping to address safety, quality of life and investment in the central business district for economic development.

County Paving and Resurfacing
Sumter County has identified 18 miles of new paving projects for existing dirt roads and 198 miles of pavement resurfacing projects. Both pavement and resurfacing project goals are to ease public travel and emergency vehicle accessibility and to improve maintenance service on other Sumter County roads.

PROJECTED V/C RATIOS MAP

PROJECTED AADT MAP

Recommendations

As we evaluate the transportation network in to the future, it is clear that increasing demands will be placed on the existing network, and it will be important to protect the integrity of the existing system. This document provides a list of proposed improvements specific to key corridors throughout the region. The list includes projects that emerged during discussions with area stakeholders, local officials, Technical Committee, and the general public as well as those previously recommended in the 2018 update that remain relevant.

Recommendations are divided first between linear and point-based projects (corridors vs. intersections), and then into sub-categories for each project type, as noted on the table below:

Corridors	Intersections
Capacity	Capacity
New Location	New Location
Safety	Safety
	Operational Improvement
	Road Diet

Wherever possible, the recommendations emphasize the protection of existing roadways through the inclusion of better access management design. That is, if a corridor warrants widening or other capacity improvements, a median may be proposed to improve safety, control access, and to enhance the corridor aesthetics.

The following lists detail the recommended capital roadway improvements for corridors and intersections in the SUATS region. These lists represents all of the recommended roadway projects proposed for improvement. All of these recommendations are part of the region's financially unconstrained Vision Plan. Chapters 11 and 12 identify the subset of projects included as part of the financially constrained plan.

Roadway Project Prioritization

In order to best understand how to allocate the region's limited financial resources, it is crucial to evaluate the recommendations quantitatively through a robust methodology. In order to create a balanced set of priorities, project evaluations need to go beyond traffic impacts to consider cultural, environmental, economic, multimodal, and land use considerations.

Recognizing the need to create a balanced prioritization to establish project rankings, the State of South Carolina passed Act 114 in 2007. Act 114 added Sections 57-1-370 and 57-1-460 to the South Carolina Code of Laws. These sections provide details of the ranking process to be used by SCDOT, as well as its affiliated MPOs.

In 2016, the General Assembly enacted Act 275, which updated the prioritization requirements that MPOs must follow. The prioritization process, detailed in Planning Directive 15, is unique based on the project improvement classification: corridor improvements or widening projects, new location roadways, and intersection projects.

By demonstrating that the projects outlined in this process address the goals of the state, SUATS can more successfully position itself to acquire state and federal funding. Table x.x outlines the prioritization criteria, definition, and percentage of the score. Tables 7.x, 7.x, and 7.x show the projects by the rank received during prioritization.

As noted throughout this chapter, there are a variety of corridor and intersection improvement projects recommended for the SUATS region. This page contains a detailed description of the ranking criteria established by SCDOT for the purposes of prioritizing roadway widening projects. Using the standard Act 114 methodology allows SUATS to best understand how the region's projects will compete for state and federal funding.

The purpose of the ranking process is not to determine the explicit impact of a project, but rather simply to identify resources or communities in proximity to recommendations. A more detailed analysis, including a field survey, is necessary to determine specific impacts on a project-by-project basis when individual project studies are begun.

Act 114

Statewide MPO Priority Ranking (source: South Carolina Department of Transportation)

In cooperation with the state's metropolitan planning organizations (MPOs), SCDOT has developed processes for ranking road widening, new location, and intersection improvements. SCDOT will maintain a statewide list of ranked widening projects using criteria consistent with Act 114. The statewide list provides a uniform process for evaluating project priorities within each MPO, as well as a statewide basis. MPOs and COGs have the discretion of using the statewide list to establish local priorities or they may use criteria consistent with Act 114, in addition to other criteria that address local desires and/or concerns related to transportation improvements.

The statewide list considers criteria in Act 114 in the following manner:

- Financial Viability – considered as a quantifiable criterion based on estimated project cost and estimated 20-year maintenance cost in relation to the current vehicle miles of travel. The criterion is weighted at 10% of the total project score.
- Public Safety – considered as a quantifiable criterion based on accident data. The criterion is weighted at 15% of the total project score.
- Potential for Economic Development – considered as a quantifiable criterion based on an assessment of short-term, intermediate, and longterm development potential as a result of the proposed improvement. The criterion is weighted at 10% of the total project score.
- Traffic Volume and Congestion – considered as a quantifiable criterion based on current traffic volumes and the associated level-of-service condition. The criterion is weighted at 35% of the total project score.
- Truck Traffic – considered as a quantifiable criterion based on current volume and average daily truck traffic estimates. The criterion is weighted at 10% of the total project score.
- Pavement Quality Index – considered as a quantifiable criterion based on pavement condition assessments. The criterion is weighted at 10% of the total project score.
- Environmental Impact – considered as a quantifiable criterion based on an assessment of potential impacts to natural, social, and cultural resources. The criterion is weighted at 10% of the total project score.
- Alternative Transportation Solutions – considered independently of ranking process. Transit propensity is evaluated based on surrounding population and employment characteristics to support transit service as a potential alternative or in addition to a proposed improvement.
- Consistency with Local Land Use Plans – considered independently of ranking process. A determination of consistency will be made during the long-range plan development process.

Fiscally Unconstrained Roadway Project Rankings (Corridor)

Project Evaluation Matrix - Proposed Capacity Corridor Projects

Sort Number	Project ID	Route	Route Name	Extents	Length (mi)	Projected Cost	Current FC	Current Lanes	Future Lanes	New FC	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Score	Rank within Category
10	**C-10**	SC-441	Patriot Parkway	Broad St to General Dr	4.47	$ 43,359,000	Minor Arterial/Major Collector	2	4	Major Arterial	7	12	12	17	3	11	68.1	**1**
4	**C-4**	S-911	Alice Drive	Wise Dr to W Liberty St	1.36	$ 13,192,000	Minor Arterial	3	3	Minor Arterial	7	12	8	20	7	4	64.1	**2**
11	**C-11**	US-521	Camden Highway	Peach Orchard Rd to Dinkins Mill Rd	2.87	$ 27,839,000	Principal Arterial	2	5	Principal Arterial	3	9	15	12	7	11	63.1	**3**
1	**C-1**	S-673	Mason Rd	Broad St to Camden Hwy	0.86	$ 8,342,000	Minor Arterial	2	3	Minor Arterial	3	14	10	15	5	10	62.75	**4**
9	**C-9**	S-692	Wilson Hall Rd	Carter Rd to Broad St	0.54	$ 5,238,000	Major Collector	2	3	Major Collector	10	10	10	15	5	6	61.5	**5**
8	**C-8**	S-467	Carter Rd	Wilson Hall Rd to Broad St	1.41	$ 13,677,000	Major Collector	2	3	Minor Arterial	7	10	8	17	5	8	60.25	**6**
2	**C-2**	S-91	Stamey Livestock Rd	Broad St to Four Bridges Rd	1.53	$ 14,841,000	Minor Arterial	2	3	Minor Arterial	10	10	8	8	3	8	51.35	**7**
7	**C-7**	S-4302	W Wesmark Blvd	N Guignard Dr to Wilson Hall Rd	1.09	$ 10,573,000	Major Collector	2	3	Minor Arterial	3	5	8	17	9	4	50.95	**8**
6	**C-6**	S-204	Loring Mill Rd	Broad St to Patriot Parkway	1.81	$ 17,557,000	Major Collector	2	3	Minor Arterial	1	10	8	8	3	13	47.15	**9**
5	**C-5**	S-983	Deschamps Rd	Patriot Parkway to Wedgefield Rd	2.03	$ 19,691,000	Minor Arterial	2	3	Minor Arterial	10	3	4	10	3	13	46.6	**10**
3	**C-3**	S-1322	Four Bridges Rd	Stamey Livestock Rd to Old Camden Hwy	1.43	$ 13,871,000	Local	0	2	Major Collector	3	10	6	6	3	13	44.55	**11**
12	**C-12**	L	Race Track Rd	US-521 South to Mims Rd	2.09	$ 20,273,000	Local	2	3	Major Collector	7	11	6	2	5	3	37.35	**12**

Fiscally Unconstrained Roadway Project Rankings (Corridor)

Project Evaluation Matrix - Proposed New Location Corridor Projects

Sort Number	Project ID	Route	Route Name	Extents	Length (mi)	Projected Cost	Current FC	Current Lanes	Future Lanes	New FC	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Score	Rank within Category
16	**N-4**	L	Terry Rd	Broad St to Weldon Dr	0.31	$ 6,014,000	N/A	0	2	Minor Arterial	10	14	6	11	7	5	53.05	**1**
20	**N-9**	S-118	W Bartlette St	Charles St to S Artillery Dr	0.16	$ 3,104,000	N/A	0	2	Local	7	14	6	11	7	7	51.25	**2**
18	**N-6**	L	Quandry Rd	Carter Rd to Stamey Livestock Rd	0.61	$ 11,834,000	N/A	0	2	Minor Collector	10	14	6	11	7	3	50.65	**3**
26	**N-15**	L	Global Drive	US-521 South to US-521 South	0.5	$ 9,700,000	N/A	0	3	Major Collector	10	15	6	6	7	5	49	**4**
13	**N-1**	S-1074	E Wesmark Extension	S Pike West to Electric Dr	0.27	$ 5,238,000	N/A	0	5	Minor Arterial	7	12	6	11	7	5	46.45	**5**
15	**N-3**	S-911	Alice Drive Extension	Camden Hwy to N Wise Dr	1.55	$ 30,070,000	N/A	0	3	Minor Arterial	3	18	6	11	7	1	43.25	**6**
17	**N-5**	L	Weldon Dr	Terry Rd to Wilson Hall Rd	0.52	$ 10,088,000	N/A	0	2	Minor Collector	10	11	2	11	7	3	42.45	**7**
14	**N-2**	L	Diebold Drive Extension	Electric Dr to E Wesmark Extension	0.09	$ 1,746,000	N/A	0	3	Minor Collector	7	6	2	11	7	10	40.65	**8**
27	**N-16**	S-67	E Charlotte Ave	Oswego Hwy to E Calhoun St Ext	0.55	$ 10,670,000	N/A	0	2	Major Collector	3	11	6	11	7	3	37.25	**9**
23	**N-12**	S-445	W Moore St	Susie Rembert St to Albert Dr	0.16	$ 3,104,000	N/A	0	2	Local	10	7	2	6	7	7	37.2	**10**
24	**N-13**	S-495	Dew St	Porter St to Dew St	0.21	$ 4,074,000	N/A	0	2	Local	10	7	2	6	7	7	37.2	**11**
19	**N-8**	L	Industrial Rd	High St to E Red Bay Rd	0.16	$ 3,104,000	N/A	0	2	Minor Collector	10	8	2	2	7	7	34.2	**12**
28	**N-17**	L	E Red Bay Rd	Boulevard Rd to Toole St	2.58	$ 50,052,000	N/A	0	3	Minor Arterial	3	18	6	2	7	0	32.6	**13**
21	**N-10**	S-1270	Dugan St	Council St to S Washington St	1	$ 19,400,000	N/A	0	2	Local	10	7	2	6	7	3	32.4	**14**
22	**N-11**	L	Grier St	Johnson Alley to Loring Dr	0.14	$ 2,716,000	N/A	0	2	Local	3	7	2	6	7	7	27.4	**15**
25	**N-14**	S-1098	Marshall Cemetery Rd	Saint Edmunds Dr to US-521 South	1.62	$ 31,428,000	N/A	0	2	Minor Arterial	3	11	6	2	7	1	25.4	**16**
29	**N-18**	L	Tivoli Rd	Tivoli Rd to Bar Zee Dr	0.39	$ 7,566,000	N/A	0	2	Local	3	4	2	2	7	5	17.2	**17**

Fiscally Unconstrained Roadway Project Rankings (Corridor)

Project Evaluation Matrix - Proposed Operational Improvement Corridor Projects

Sort Number	Project ID	Route	Route Name	Extents	Length (mi)	Projected Cost	Current FC	Current Lanes	Future Lanes	New FC	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Score	Rank within Category
31	**O-2**	US-521	Bultman Dr/N Guignard Dr	Broad St to Miller Rd	0.87	$ 6,751,200	Principal Arterial	5	5	Principal Arterial	10	11	20	15	11	15	90.45	**1**
36	**O-7**	S-911	Alice Dr	Broad St to Wise Dr	1.23	$ 9,544,800	Minor Arterial	5	5	Major Arterial	7	12	12	20	11	6	75.35	**2**
37	**O-8**	US-15	Pocalla Rd	Cockerill Rd to S Guignard Dr	1.65	$ 12,804,000	Principal Arterial	5	5	Principal Arterial	3	13	15	12	11	4	64.95	**3**
35	**O-6**	SC-120/S-763	Pinewood Rd	Columbia Cir to Alice Dr	1.73	$ 13,424,800	Principal Arterial/Minor Arterial	5	5	Principal Arterial	3	9	11	20	11	4	64.65	**4**
30	**O-1**	SC-441	Loring Mill Rd	Wise Dr to Wedgefield Rd	2.46	$ 19,089,600	Minor Arterial	3	3	Minor Arterial	3	9	8	20	7	8	60.85	**5**
38	**O-9**	S-82	Boulevard Rd	E Liberty St to E Red Bay Rd	1.91	$ 14,821,600	Minor Arterial/Major Collector	3	3	Minor Arterial	3	7	8	15	9	13	60.15	**6**
32	**O-3**	S-40	N/S Saint Pauls Church Rd	Cane Savannah Rd to Cains Mill Rd	2.84	$ 22,038,400	Major Collector	2	3	Minor Arterial	1	4	6	6	7	13	40.9	**7**
33	**O-4**	S-539	Cane Savannah Rd	S Kings Hwy to N Saint Pauls Church Rd	4.74	$ 36,782,400	Major/Minor Collector	2	3	Minor Arterial	1	8	4	6	7	11	40.7	**8**
34	**O-5**	S-458	Cains Mill Rd	Clipper Rd to S Saint Pauls Church Rd	3.61	$ 28,013,600	Major/Minor Collector	2	3	Minor Arterial	1	8	4	4	7	11	38.4	**9**

Fiscally Unconstrained Roadway Project Rankings (Corridor)

Project Evaluation Matrix - Proposed Safety Corridor Projects

Sort Number	Project ID	Route	Route Name	Extents	Length (mi)	Projected Cost	Current FC	Current Lanes	Future Lanes	New FC	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Score	Rank within Category
49	**S-5**	US-76	Broad St	Miller Rd. to Warren St	1.22	$ 4,733,600	Principal Arterial	5	5	Principal Arterial	10	12	17	17	16	17	97.95	**1**
50	**S-6**	US-521	Camden Hwy	Broad St to Mason Rd	1.91	$ 7,410,800	Principal Arterial	5	5	Principal Arterial	7	12	20	17	16	15	96	**2**
52	**S-8**	US-521	N/S Guignard Drive	Miller Rd to McCray's Mill Rd	1.8	$ 6,984,000	Principal Arterial	0	0	Principal Arterial	3	15	20	17	16	15	94.95	**3**
48	**S-4**	US-76	Broad St	Alice Dr to Miller Rd	2.11	$ 8,186,800	Principal Arterial	5	5	Principal Arterial	7	15	20	17	16	10	93.9	**4**
56	**S-12**	US-15	N/S Lafayette Dr	Loring Dr to Divine St	0.82	$ 3,181,600	Principal Arterial	5	5	Principal Arterial	10	15	17	15	16	12	93.75	**5**
46	**S-2**	US-378	Broad St	N Saint Pauls Church Rd to Stamey Livestock Rd	1.85	$ 7,178,000	Principal Arterial	5	5	Principal Arterial	3	9	20	12	16	15	83.4	**6**
47	**S-3**	US-378	Broad St	Stamey Livestock Rd to Alice Dr	1.57	$ 6,091,600	Principal Arterial	5	5	Principal Arterial	3	9	20	12	16	15	83.4	**7**
57	**S-13**	S-5	Manning Ave	US-15 to Divine St	1.19	$ 4,617,200	Minor Arterial	2	2	Major Collector	7	10	10	15	12	17	77.65	**8**
51	**S-7**	US-15	N Main St	N Pike Rd to E Brewington Rd	2.74	$ 10,631,200	Principal Arterial	2	3	Principal Arterial	7	17	10	12	16	8	76.6	**9**
53	**S-9**	US-378	Robert E Graham Freeway	Broad St to N. Main St	2.58	$ 10,010,400	Principal Arterial - Freeway)	5	5	Principal Arterial	3	15	17	10	18	4	74.55	**10**
54	**S-10**	SC-401	W Calhoun St	N Washington St to N Guignard Dr	1.06	$ 4,112,800	Major Collector	2	2	Major Collector	7	10	8	12	14	17	74.5	**11**
55	**S-11**	S-14	N Main St	US-15 to W Calhoun St	1.34	$ 5,199,200	Minor Arterial	2	2	Major Collector	7	7	10	15	14	15	74.5	**12**
45	**S-1**	US-378	Broad St	SC-441 to N. Saint Pauls Church Rd	3.26	$ 12,648,800	Principal Arterial	5	5	Principal Arterial	7	5	20	10	16	8	73.65	**13**

Fiscally Unconstrained Roadway Project Rankings (Intersection)

Project Evaluation Matrix - Proposed Capacity Intersection Projects

Sort Num	Project ID	Route 1	Route 1 Name	Route 2	Route 2 Name	Project Name	Project Purpose	Projected Cost	Functional Classification (of Major Route)	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Scor	Rank Within Catego
8	**IC-8**	US-521	Thomas Sumter Highway	S-673	Mason Road	US-521 at Mason Rd	Capacity	$ 6,790,000	Major Arterial	10	12	12	17	11	15	84.25	**1**
4	**IC-4**	US-378	Broad Street	S-673	Mason Road	Broad Street at Mason Road	Capacity	$ 9,700,000	Major Arterial	10	11	15	17	9	10	79.3	**2**
7	**IC-7**	US-521	Thomas Sumter Highway	S-347	Beckwood Road	US-521 at Beckwood Rd	Capacity	$ 6,790,000	Major Arterial	10	8	15	17	7	15	79.05	**3**
6	**IC-6**	S-911	Alice Drive	SC-763	West Liberty Street	Alice Dr at W. Liberty St	Capacity	$ 6,790,000	Major Arterial	10	8	8	20	11	10	73.45	**4**
3	**IC-3**	US-378	Broad Street	S-91	Stamey Livestock Road	Broad Street at Stamey Livestock Rd	Capacity	$ 9,700,000	Major Arterial	10	10	15	12	9	10	72.95	**5**
5	**IC-5**	S-644	N Guignard Drive	S-380	Wise Drive	N Guignard Dr at Wise Dr	Capacity	$ 6,790,000	Major Collector	3	10	6	20	9	15	68.95	**6**
1	**IC-1**	SC-441	Patriot Parkway	S-383	Deschamps Road	Patriot Parkway at Deschamps Rd	Capacity	$ 6,790,000	Minor Arterial	10	5	8	17	7	15	67.55	**7**
9	**IC-9**	US-521	US-521 South	L-	Race Track Road	US-521 at Race Track Rd	Capacity	$ 6,790,000	Major Arterial	10	13	12	13	7	6	66.9	**8**
10	**IC-10**	SC-763	Wedgefield Road	S-383	Deschamps Road	Wedgefield Rd at Deschamps Rd	Capacity	$ 6,790,000	Minor Arterial	10	3	4	20	9	15	66.2	**9**
2	**IC-2**	US-378	Broad Street	S-467	Carter Road	Broad Street at Carter Road	Capacity	$ 9,700,000	Major Arterial	10	5	15	12	5	10	63.25	**10**

Project Evaluation Matrix - Proposed New Location Intersection Projects

Sort Num	Project ID	Route 1	Route 1 Name	Route 2	Route 2 Name	Project Name	Project Purpose	Projected Cost	Functional Classification (of Major Route)	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Scor	Rank Within Catego
11	**IN-1**	S-1074	W. Wesmark Boulevard	US-378	Robert E. Graham Freeway	W. Wesmark Blvd at Robert Graham Freeway	New Intersection	$ 9,700,000	Major Arterial	10	23	12	15	9	6	63.85	**1**
12	**IN-2**	S-55	Miller Road	US-378	Robert Graham Freeway	Miller Rd at Robert Graham Freeway	New Intersection	$ 9,700,000	Major Arterial	10	21	12	20	14	6	61.45	**2**

Fiscally Unconstrained Roadway Project Rankings (Intersection)

Project Evaluation Matrix - Proposed Safety Intersection Projects

Sort Number	Project ID	Route 1	Route 1 Name	Route 2	Route 2 Name	Project Name	Project Purpose	Projected Cost	Functional Classification (of Major Route)	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Weighted Score	Rank Within Category
16	**IS-4**	US-521	N Guignard Drive	SC-763	West Liberty Street	N. Guignard Dr at W Liberty St	Safety	$ 6,790,000	Major Arterial	10	13	20	17	18	15	102.75	**1**
31	**IS-19**	US-378	Robert E Graham Freeway	US-521	Thomas Sumter Hwy	US-378 at US-521	Safety	$ 4,850,000	Major Arterial	7	10	20	17	16	17	96.1	**2**
15	**IS-3**	S-55	Miller Road	US-521	N. Guignard Drive	Miller Rd at N Guignard Dr	Safety	$ 4,850,000	Major Arterial	10	10	15	20	18	12	93.8	**3**
14	**IS-2**	US-378	Broad Street	S-311	Alice Drive	Broad Street at Alice Drive	Safety	$ 6,790,000	Major Arterial	10	10	15	17	18	15	93.7	**4**
22	**IS-10**	SC-763	East Liberty Street	US-15	S Lafayette Drive	E. Liberty St at S Lafayette Dr	Safety	$ 4,850,000	Major Arterial	10	11	17	15	18	12	91.8	**5**
23	**IS-11**	US-378	Broad Street	S-692	Wilson Hall Road	Broad St at Wilson Hall Rd	Safety	$ 4,850,000	Major Arterial	10	7	15	12	16	17	84.95	**6**
18	**IS-6**	US-378	Broad Street	S-55	Miller Road	Broad St at Miller Rd	Safety	$ 4,850,000	Major Arterial	10	7	12	20	16	12	84.5	**7**
34	**IS-22**	US-378	Broad Street	S-380	N Wise Drive	Broad St at Wise Drive	Safety	$ 4,850,000	Major Arterial	10	8	12	17	14	12	80.05	**8**
17	**IS-5**	US-378	Broad St	S-68	N Purdy St	Broad St. at N. Purdy St	Safety	$ 4,850,000	Major Arterial	10	5	12	17	12	17	79.6	**9**
35	**IS-23**	SC-911	Alice Drive	S-55	Miller Road	Alice Drive @ Miller Rd	Safety	$ 4,850,000	Minor Arterial	10	8	8	20	16	8	76.8	**10**
25	**IS-13**	SC-763	Wedgefield Road	SC-441	Loring Mill Road	Wedgefield Rd at Loring Mill Rd	Safety	$ 4,850,000	Minor Arterial	10	3	8	20	12	17	75.95	**11**
20	**IS-8**	US-15	US-15 South	US-521	S. Guignard Drive	US-15 South at S. Guignard Dr.	Safety	$ 9,700,000	Major Arterial	10	7	17	12	16	6	75.45	**12**
21	**IS-9**	US-15	Pocalla Rd	S-25	Lewis Rd	Pocalla Rd. at Lewis Rd	Safety	$ 4,850,000	Major Arterial	10	9	11	12	14	12	74.9	**13**
33	**IS-21**	US-15	N Main Street	S-271	Airport Road	N Main St. at Airport Rd	Safety	$ 4,850,000	Major Arterial	10	11	6	12	12	12	68.7	**14**
26	**IS-14**	US-378	Broad Street		Shaw Drive	Broad St at Shaw Dr	Safety	$ 4,850,000	Major Arterial	10	5	12	15	12	8	68.05	**15**
32	**IS-20**	SC-763	E Liberty Street	S-82	Boulevard Road	E Liberty St at Boulevard Rd	Safety	$ 4,850,000	Major Arterial	3	7	10	10	14	17	67.1	**16**
19	**IS-7**	US-521	S Guignard Drive		Manning Road	S. Guignard Dr at Manning Rd	Safety	$ 4,850,000	Major Arterial	10	9	12	8	12	8	65.1	**17**
24	**IS-12**	US-378	Myrtle Beach Highway	S-723	Plowden Mill Road	US-378 at Plowden Mill Rd	Safety	$ 4,850,000	Major Arterial	10	7	12	6	12	12	65	**18**
30	**IS-18**	US-521	Thomas Sumter Hwy	S-1342	Old Camden Hwy	US-521 at Old Camden Hwy	Safety	$ 14,550,000	Major Arterial	10	7	12	12	12	4	62.7	**19**
27	**IS-15**	US-521	Camden Highway	S-1342	Spencer Road	US-521 at Spencer Rd	Safety	$ 4,850,000	Major Arterial	10	5	10	8	12	12	62.5	**20**
13	**IS-1**	US-378	Broad Street	SC-261	N. Kings Highway	Broad St. at N Kings Hwy	Safety	$ 4,850,000	Major Arterial	7	7	12	10	12	8	61.85	**21**
29	**IS-17**	SC-763	Wedgefield Rd	S-40	N Saint Paul's Church Road	Wedgefield Rd at N Saint Pauls Church Rd	Safety	$ 4,850,000	Major Collector	10	2	6	6	14	17	60.15	**22**
28	**IS-16**	US-521	Camden Highway	S-76	Dinkins Mill Road	US-521 at Dinkins Mill Rd	Safety	$ 4,850,000	Major Arterial	10	5	10	8	12	8	58.3	**23**

Project Scoring Methodology

Goal	Definition	Scoring Weight	Max Points
Culture and Environment	**Environmental Impacts**: The environmental impacts score is based on an assessment of potential impacts to natural, social, and cultural resources. Environmental features are defined as wetlands, historic properties, and bodies of water.	10 - Project not expected to have any negative cultural/environmental impacts	10 pts
		7 - Project may have 1 or more any negative cultural/environmental impacts	
		5 - Project may have 2 or more any negative cultural/environmental impacts	
		3 - Project likely to have 1 or more negative cultural/environmental impacts	
		1 - Project likely to have 2 or more negative cultural/environmental impacts	
Economic Development	**Economic Development**: The Economic Development score is determined using a 10-factor methodology. The methodology assesses the economic development impact of transportation infrastructure projects.	10 - Score over 20	10 pts
		5 - Score between 10 and 20	
		1 - Score below 10	
Growth and Development	**Priority network**: (National Highway System (NHS), freight, and strategic corridors): The priority network score is based on a project's location in relationship to defined priority networks.	10 - Located on a priority network route	20 pts
		5 - Intersects with a priority network route	
		1 - Not located on or intersecting with a priority network route	
	Traffic Volume: The traffic volume is based on the 2022 Average Annual Daily Traffic (AADT) as collected by SCDOT. (For multi-segment projects, the highest volume segment will be used as basis for score).	1 - AADT below 500 or unknown	
		3 - AADT 1,000 - 4,999	
		5 - AADT 5,000 - 9,999	
		7 - AADT 10,000 - 19,999	
		10 - AADT above 20,000	

Project Scoring Methodology

Goal	Definition	Scoring Weight	Max Points
Mobility and Accessibility	**Volume to Capacity**: The traffic volume and congestion score is based on Travel Demand Model assessed traffic volumes and associated level of service condition. (Highest volume segment will be used as basis for score).	10 - V/C above 0.7	20 pts
		7 - V/C between 0.47 and 0.69	
		5 - V/C between 0.29 and 0.46	
		3 - V/C between 0.13 and 0.28	
		1 - V/C below 0.12	
	Complete Streets: Based on feasibility of including additional bicycle/pedestrian facilities.	10 - Project can support public transit, pedestrian, and bike facilities	
		5 - Project can support public transit, pedestrian, or bike facilities	
		1 - Project cannot support public transit, pedestrian, or bike facilities	
Safety and Security	**Safety**: the safety score is a composite that includes crash rate per mile and the total number of crashes over a 5-year period.	10 - Safety score of 10	20 pts
		9 - Safety score of 9	
		8 - Safety score of 8	
		7 - Safety score of 7	
		6 - Safety score of 6	
		5 - Safety score of 5	
		4 - Safety score of 4	
		3 - Safety score of 3	
		2 - Safety score of 2	
		1 - Safety score of 1	
	Geometric Alignment Status: The geometric/alignment status is based on an assessment of the project area's functionality and operational characteristics.	10 - Projects with safety as the primary purpose	
		5 - Projects with operational improvement as the primary purpose	
		1 - Projects with congestion reduction as the primary purpose	
Network Preservation	**Financial Viability**: the financial viability score is based on estimated project cost in comparison to the 2024-2033 TIP window. (*Additional consideration will be given to projects supplemented with local project funding and/or other federal or state funding.)	10 - Estimated cost is equal to or less than 50% of the annual RMP budget	20 pts
		7 - Estimated cost is equal to or less than 100% of the annual RMP budget	
		5 - Estimated cost is equal to or less than 200% of the annual RMP budget	
		3 - Estimated cost is greater than 200% of the annual RMP budget but less than 5 times the annual RMP budget	
		1 - Estimated cost is greater than 5 times the annual RMP budget but less than 9 times the annual RMP budget	
		0 - Estimated cost is more than 9 times the annual RMP budget	
	Pavement Quality Index: the PQI Score is based on pavement condition assessments. For the purpose of ranking, the lowest PQI score in the project area will be used.	10 - PQI score "poor"	
		5 - PQI score "fair"	
		1 - PQI score "good"	

Scoring Weight by Project Type

		Percentage of Score Based on Project Type							
		Intersection			Corridor				
Evaluation Criteria	Definition	Capacity	New Location	Safety	Capacity	New Location	Operational Improvement	Road Diet	Safety
Environmental Impacts	Potential impacts to natural, social, and cultural resources. Features are defined as wetlands, historic properties, and bodies of water.	5%	40%	5%	5%	40%	5%	5%	5%
Economic Development	10-factor methodology assessing the economic development impact of transportation infrastructure projects.	10%	20%	10%	10%	20%	10%	5%	5%
Priority Network	Project's location in relationship to defined priority networks.	15%	15%	15%	15%	15%	15%	10%	15%
Traffic Volume	2022 Average Annual Daily Traffic (AADT) as collected by SCDOT.	20%	-	20%	20%	-	20%	5%	20%
Volume to Capacity Ratio	Travel Demand Model assessed traffic volumes as compared to roadway capacity.	15%	-	5%	15%	-	15%	5%	5%
Complete Streets	Feasibility of including additional bicycle/pedestrian facilities.	5%	5%	5%	5%	5%	5%	15%	5%
Crashes	Composite that includes crash rate per mile and the total number of crashes over a 5-year period.	10%	-	20%	10%	-	10%	20%	20%
Geometric Alignment	Assessment of the project area's functionality and operational characteristics.	5%	-	10%	5%	-	10%	10%	10%
Financial Viability	Estimated project cost in comparison to the 2024-2033 TIP window.	10%	20%	10%	10%	20%	10%	20%	10%
Pavement Quality	Pavement condition assessments contained in SCDOT Pavement Quality Index (PQI).	5%	-	5%	5%	-	5%	5%	5%

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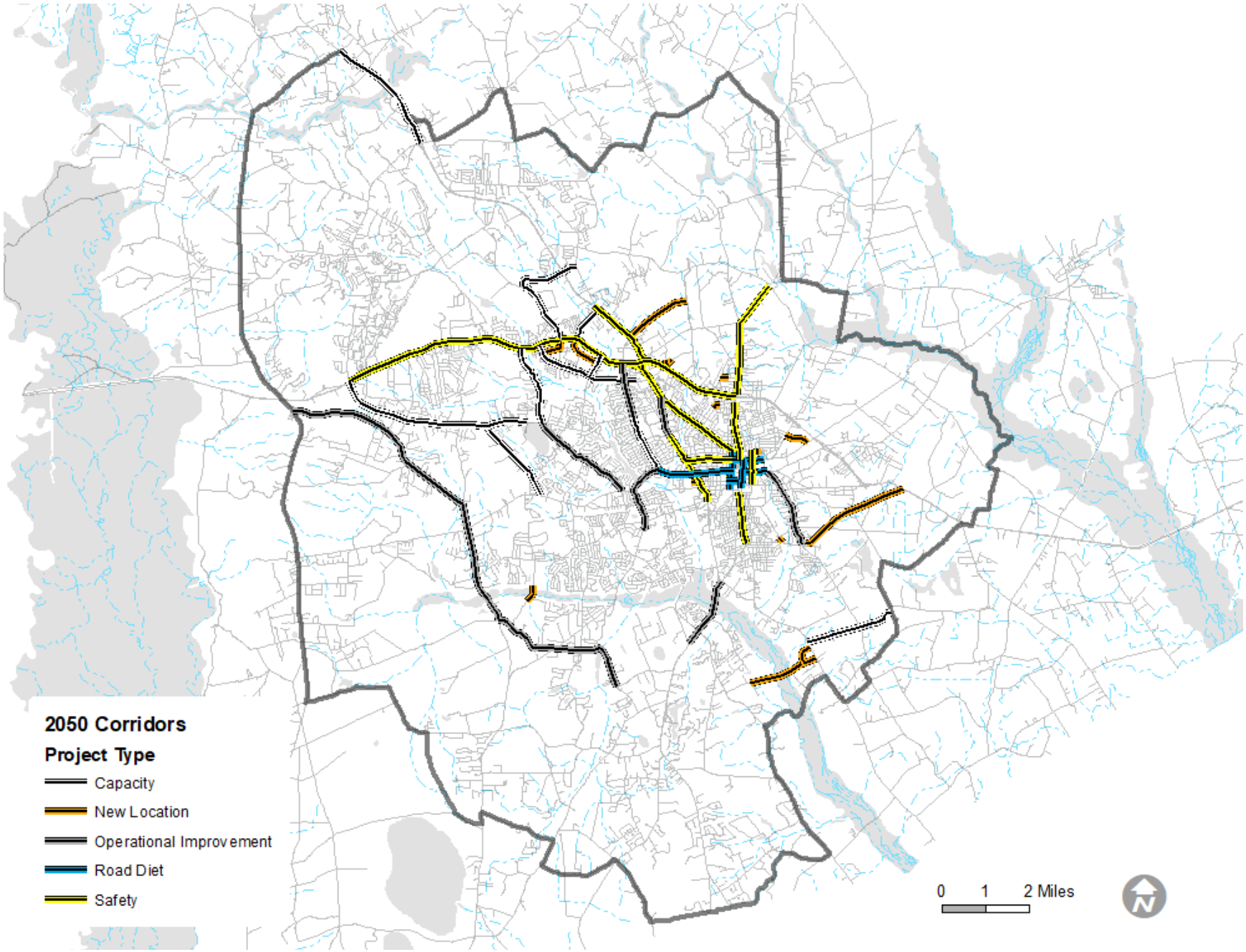
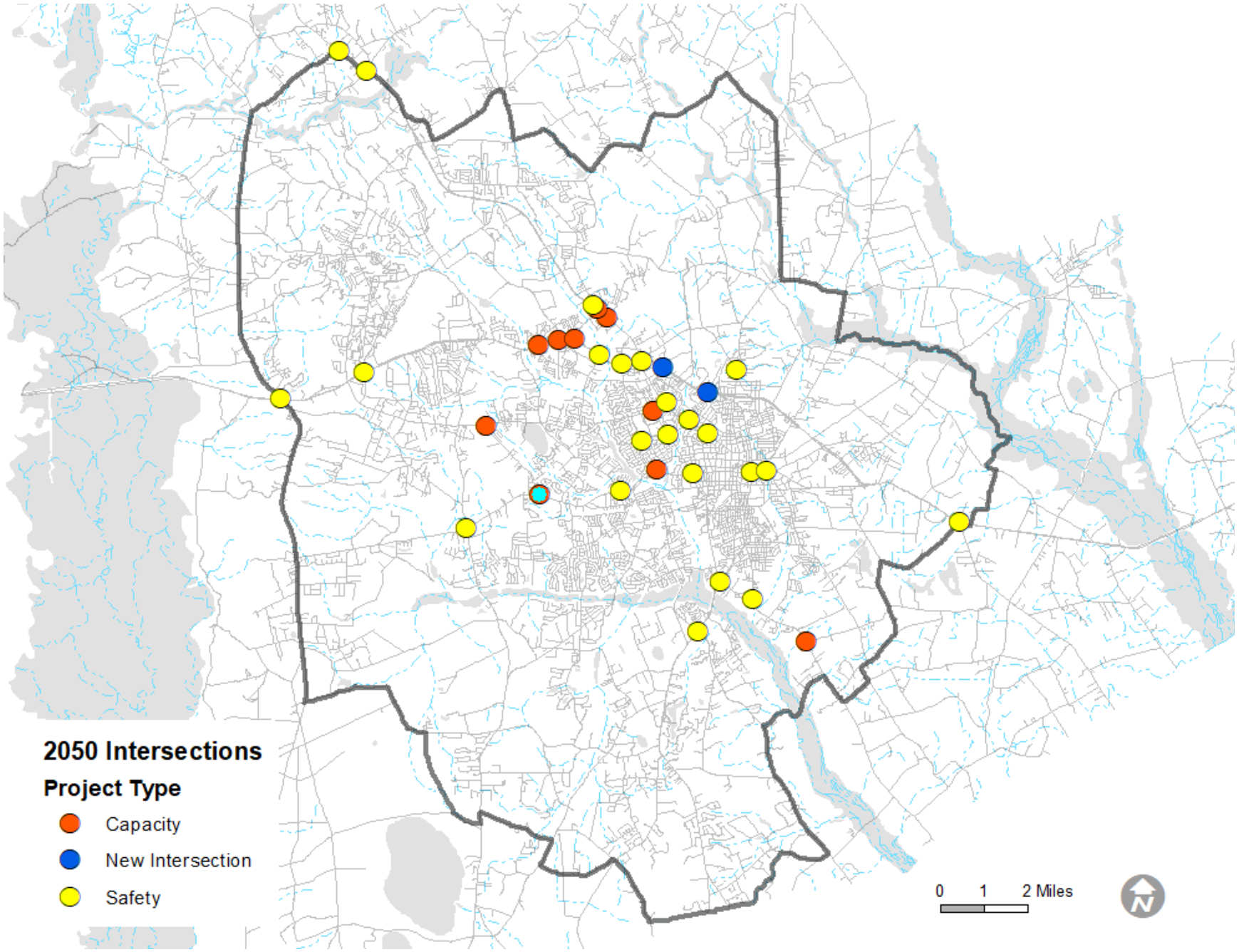
Identified Corridors for Improvement (Fiscally Unconstrained)



Identified Intersections for Improvement (Fiscally Unconstrained)



Access Management

In an environment of revenue-constrained transportation planning, access management is not just good policy but is essential to the integrity of the entire transportation network. Access management balances the needs of motorists using a roadway with the needs of adjacent property owners dependent upon access to the roadway.

A corridor with poor access management includes endless driveways and several traffic signals. Poor access management has a direct impact on the livability and economic vitality of commercial corridors, ultimately discouraging potential customers.

Signs of a corridor with poor access management include:

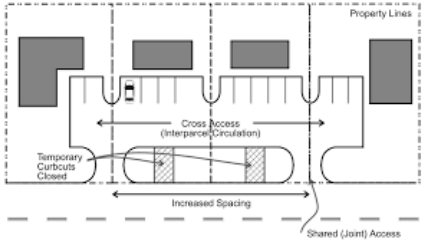
- More crashes
- Increasingly poor efficiency of the road
- Congestion outpacing increase in traffic
- Spillover cut-through traffic on adjacent residential streets
- Limited sustainability of commercial development

As development continues to concentrate around heavily traveled corridors, protecting through capacity is important for the economic vitality of the region. Without access management, the function and character of major roadway corridors can deteriorate rapidly and adjacent properties can suffer from declining property values and high turnover.

Driveways

Driveway Consolidation

Shared access driveways minimize curb cuts and reduce traffic conflicts. They are particularly effective near intersections.



Driveway Placement

Driveways located close to intersections create and contribute to operational and safety issues. These issues include intersections and driveway blockages, increased points of conflict, frequent/unexpected stops in the through travel lanes, and driver confusion as to where vehicles are turning.

Improved On-Site Circulation

On-site traffic circulation can be improved by managing the driveway throat length, defined as the distance from the edge of the public street to the first internal site intersection. Adequate separation should be provided to prevent internal site operations from affecting an adjacent public street.

Driveway Curb Radii

Locations with inadequate curb radii can cause turning vehicles to use opposing travel lanes to complete their turns. Inadequate curb radii may cause vehicles to "mount the curb" as they turn a corner and cause damage to the curb and gutter, sidewalk, and any fixed objects located on the corner.

Figure 54: Safety Guideline
Source: Federal Highways Administration

SAFETY

The region has expressed a growing concern for key corridors experiencing congestion, travel delay, and safety issues. To preserve mobility and protect the overall efficiency of the network, the project team developed a toolbox of "best practices" so the region can respond to changing developmental pressures.

Rather than specific project recommendations, this toolbox allows the region to remain flexible when calling upon evidence-based procedures to make the best planning decisions for the region's future. On the following pages, a set of tools and guidelines for intersection safety improvements, access management, and connectivity provide guidance to and demonstrate examples of how SUATS can apply these strategies moving forward.

Dedicated Turn Lanes

Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn.

Left-Turn Lane

28-48%

reduction in total crashes[1]

Right-Turn Lanes

14-26%

reduction in total crashes[2]

1 Harwood et al. Safety Effectiveness of Intersection Left- and Right-Turn Lanes. FHWA-HRD-02-089, (2002).
2 Persaud et al. Safety Evaluation of Offset Improvements for Left-Turn Lanes. FHWA-HRT-09-035, (2009).

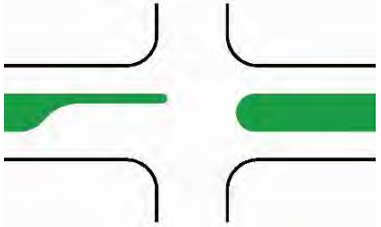
Intersections

Median Treatments

Non-Traversable Median These features are raised or depressed cross section elements that physically separate opposing traffic flows. Inclusion in a new cross section or retrofit of an existing cross section should be considered for some multi-lane arterials (general) and for multilane roadways with high pedestrian volumes, high collision rates, or in locations where aesthetics are a priority. As these treatments are considered, sufficient spacing and locations for U- and left-turn bays must be identified. Approximate construction cost varies.

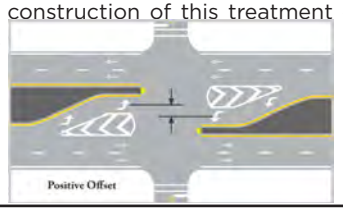
Left Turn Storage Bays

Where possible, exclusive left-turn lanes/bays should be constructed to provide adequate storage space for turning vehicles, exclusive of through traffic. The provision of these bays reduces vehicle delay related to waiting turning vehicles and may also decrease the frequency of rear-end and other collisions attributable to lane blockages. In some cases turn bays/lanes can be constructed within an existing median, in other cases, additional right-of-way is required and construction may be more costly.



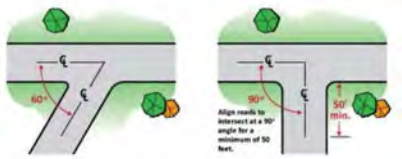
Offset Left Turn Treatment

Exclusive left turn lanes at intersections are generally configured in such a way as to cause opposing left turning vehicles to block one another's forward visibility. An offset left turn treatment involves shifting the left turn lanes to the left, adjacent to the innermost lane of oncoming through traffic. In cases where permissive left turn phasing is used, this treatment can improve efficiency by reducing crossing and exposure time and distance for left-turning vehicles. In addition, the positive off-set improves sight distance and may improve gap recognition. Where there is sufficient median width, this treatment can be easily retrofitted. Where there is not sufficient right-of-way width, the construction of this treatment can be difficult and costly.



Realignment

Roadways are realigned to meet at as close to a 90-degree angle as possible. This improves visibility and turning radius



INTERSECTIONS

DIRECTIONAL CROSSOVER

A leftover is a type of directional crossover that prohibits drivers on the cross road (side street) from proceeding straight through the intersection with the main road. The treatment is especially helpful in locations where traffic needs to make left turns from the main line onto the minor street. A properly implemented left-over crossing reduces delay for through-traffic and diverts some left-turn maneuvers from intersections.

SKIP MARKS (DOTTED LINE MARKINGS)

These pavement markings can reduce driver confusion and increase safety by guiding drivers through complex intersections. Intersections that benefit from these lane markings include offset, skewed or multi-legged intersections. Skip marks are also useful at intersections with multiple turn lanes. The dotted line markings extend through the intersection the line markings of approaching roadways. The markings should be designed not to confuse drivers in adjacent or opposing lanes.

ROUNDABOUTS

Replacing a traditional signalized intersection with a roundabout reduces the number of serious crashes while improving traffic flow.

SIGNALIZATION

Sometimes the volume of traffic attracted to some side streets or site driveways is more than can be accommodated acceptably under an unsignalized condition. Delays for minor street movements as well as leftturn movements on the main street may create or contribute to undue delays on the major roadway and numerous safety issues. The installation of a traffic signal at appropriate locations can mitigate these types of issues without adversely affecting the operation of the major roadway.

This technology involves continuously collecting automated intersection traffic volumes and using the volumes to alter signal timing and phasing to best accommodate actual—real time—traffic volumes. Adaptive signal control can increase isolated intersection capacity as well as improve overall corridor mobility by up to twenty percent during off-peak periods and 10% during peak periods.

ROUNDABOUTS

The modern roundabout is an intersection with a circular configuration that safely and efficiently moves traffic. The net result of lower speeds and reduced conflicts at roundabouts is an environment where crashes that cause injury or fatality are substantially reduced.

Two-way Stop-Controlled Intersection to Roundabout

82%

reduction in fatal and injury crashes[1]

Signalized Intersection to Roundabout

78%

reduction in fatal and injury crashes[1]

1 AASHTO. The Highway Safety Manual, American Association of State Highway Transportation Professionals, Washington, D.C., (2010).

CROSSWALKS

A marked crosswalk or pedestrian warning sign can improve safety for pedestrians crossing the road, but at times may not be sufficient for drivers to visibly locate crossing locations and yield to pedestrians.

A pedestrian refuge island (or crossing area) is a median with a refuge area that is intended to help protect pedestrians who are crossing a road.

Pedestrian Refuge Island

56%

reduction in Pedestrian crashes[1]

RRFBs can reduce crashes up to

47%

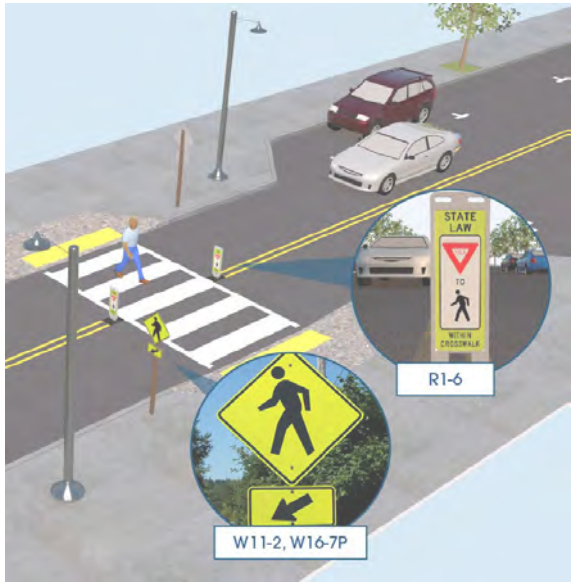
for Pedestrian crashes[2]

1 Desktop Reference for Crash Reduction Factors, FHWA-SA-08-011, September 2008, Table 11.
2 NCHRP Research Report 841 Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments, (2017).

Crosswalk visibility and pedestrian refuge enhancements help make crosswalks and the people using them safer. These include high-visibility crosswalks, lighting, and signing, pavement markings, and pedestrian islands, medians, and bulb-outs. These enhancements can also assist users in deciding where to cross. Agencies can implement these features as standalone or combination enhancements to indicate the preferred location for users to cross.

High-visibility crosswalks - use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks.

Improved Lighting - The goal of crosswalk lighting should be to illuminate with positive contrast to make it easier for a driver to visually identify the pedestrian.



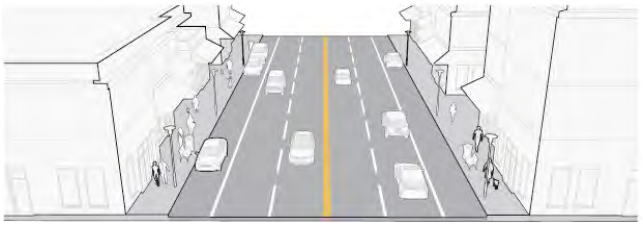
Crosswalk Visibility Examples
(Source: FHWA)

Crosswalk with Pedestrian Refuge Island
(source: NACTO Urban Street Design Guide)

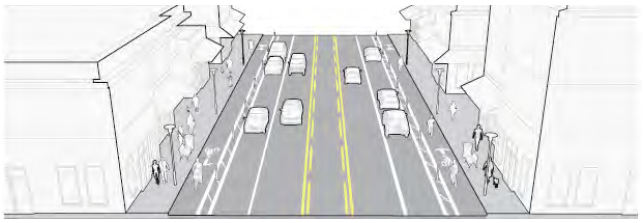
Benefits of Road Diet installations may include:

- Reduction of rear-end and left-turn crashes due to the dedicated left-turn lane.
- Reduced right-angle crashes as side street motorists cross three versus four travel lanes.
- Fewer lanes for pedestrians to cross.
- Opportunity to install pedestrian refuge islands, bicycle lanes, on-street parking, or transit stops.
- Traffic calming and more consistent speeds.
- A more community-focused, Complete Streets environment that better accommodates the needs of all road users.

A Road Diet can be a low-cost safety solution when planned in conjunction with a simple pavement overlay, and the reconfiguration can be accomplished at no additional cost. Typically, a Road Diet is implemented on a roadway with a current and future average daily traffic of 25,000 or less.

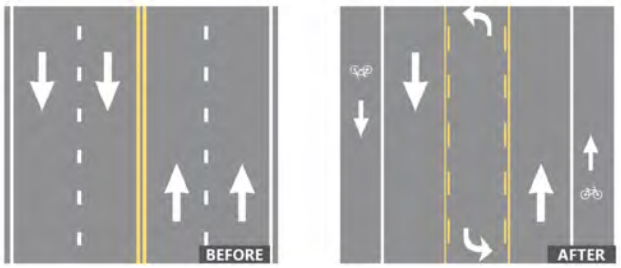


Typical 4-lane Road with on-street parking



3-lane Road Diet (with center two-way left-turn lane), with on-street parking and separated bicycle lane)

(Source: NACTO Urban Street Design Guide)



Before and after diagram of a 4-lane to 3-lane Road Diet
(Source: FHWA)

ROAD DIETS

A Road Diet, or roadway reconfiguration, can improve safety, calm traffic, provide better mobility and access for all road users, and enhance overall quality of life. A Road Diet typically involves converting an existing four-lane undivided roadway to a three-lane roadway consisting of two through lanes and a center two-way left-turn lane (TWLTL)

4-lane to 3-lane Road Diet Conversions

19-47%

reduction in total crashes[1]

1 (CMF ID: 5554, 2841) Evaluation of Lane Reduction "Road Diet" Measures on Crashes, FHWA-HRT-10-053, (2010).

Complete Streets

Complete Streets are community-oriented streets that safely and conveniently accomodate multiple modes of travel. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time.

Creating Complete Streets means we must change our approach to street design. By adopting Complete Streets policies, communities direct planners and engineers to routinely design and operate the entire right-of-way to enable safe access for al users, regardless of characteristics. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicylists - making places more liveable.

What does a Complete Street Look Like?

There is no singular design prescription for a Complete Street; each is unique and responds to its own community context. A Complete Street may include: sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible public transit stops, frequent and safe crossing opportunities, median islands, accessible pedestrian signals, curb extensions, narrower travel lanes, roundabouts, and more.

SUATS, through this LRTP, seeks to balance regional mobility and multimodal accessibility in order to provide effective transportation infrastructure for all users by identifying first the corridors where improvements are needed, followed by design of improvements for each mode of travel.

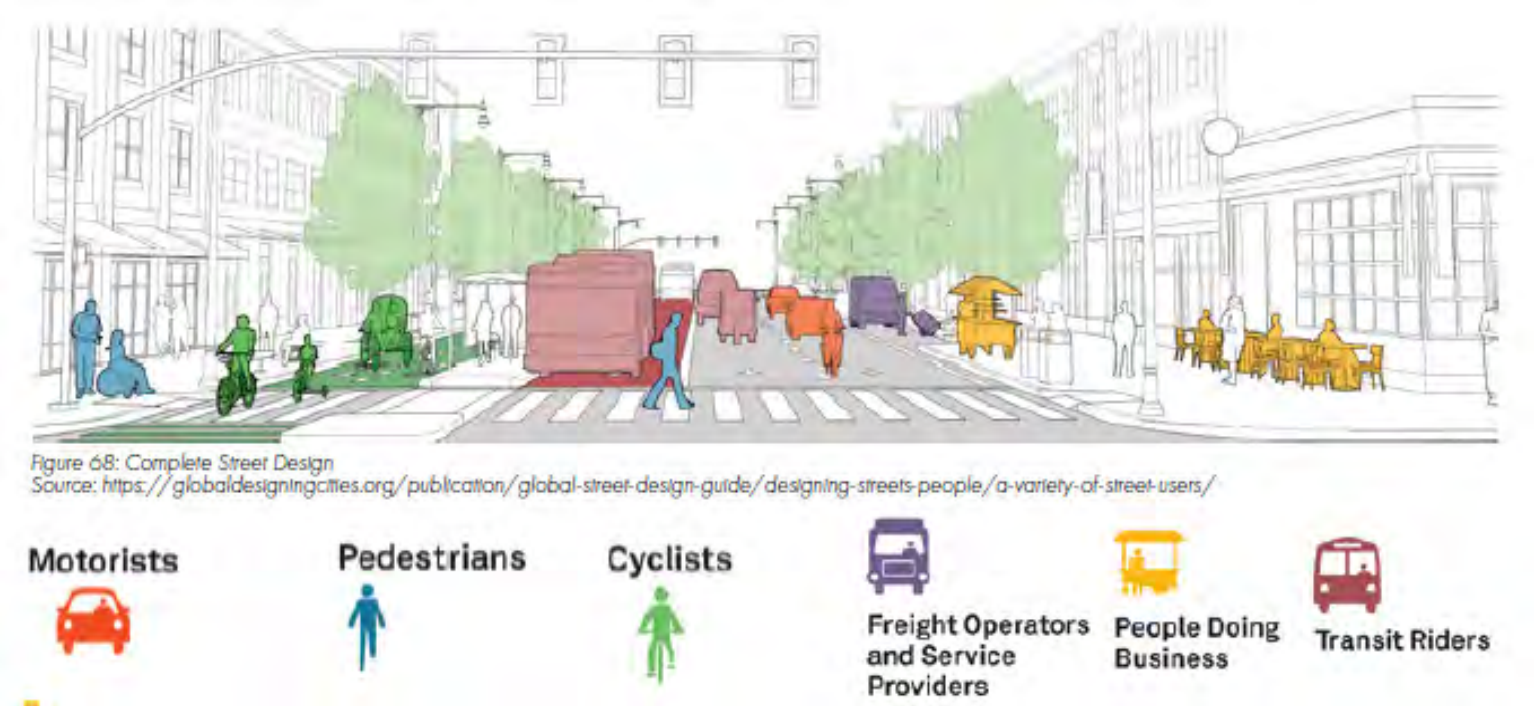


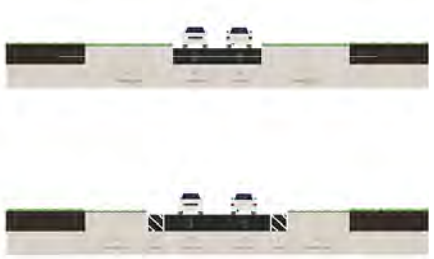
Figure 68: Complete Street Design
Source: https://globaldesigningcities.org/publication/global-street-design-guide/designing-streets-people/a-variety-of-street-users/

Corridor Recommendations

The roadway improvement projects recommended in this plan take several forms. The diagrams below explain some of the most common project types.

Roadway Design Improvement

Widen travel lanes, add paved shoulders and adjust roadway dimensions to current standards.



Widening

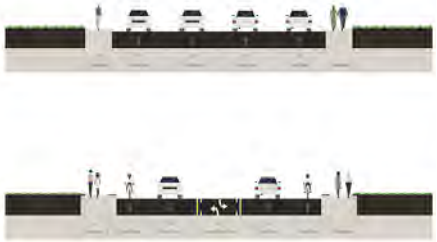
Add travel lanes to increase capacity

Corridor Improvements

Repave, add pedestrian and bicycle infrastructure, improve intersections, and streetscape

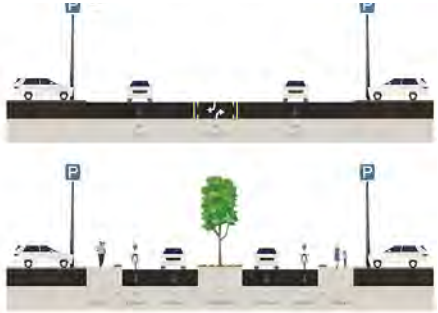
Road Diet

Reduce travel lanes, improve safety, and add bicycle and pedestrian infrastructure



Access Management

Restrict turns, improve lane markings, and consolidate driveways to improve safety and flow



New Roadway

Construct new roadways to improve the region's overall connectivity

Chapter 8
Walk + Bike

Chapter 8

Planning for Walking and Biking

Prioritizing planning, funding, and implementation of walk and bike infrastructure is an important objective for SUATS towards becoming a safer walkable and bikeable community. While pedestrian and bicycle crashes make up less than 1% of the total crashes reported for the Sumter area between 2016 and 2020, these crashes comprise nearly 14% of all crashes that are considered serious or fatal injuries. This accounts for 33 of 238 crashes that resulted in a fatality or incapacitating injury involving a pedestrian or bicyclist, making it important to place emphasis on improving the pedestrian and bicycle network.

Pedestrian and bicycle crashes represent nearly 14% of all fatal and serious crashes in SUATS MPO

Existing Bicycle and Pedestrian Infrastructure

There are currently 157 miles of existing sidewalk in SUATS, based on field data collection in 2022. Most is in the City of Sumter, specifically in the downtown area. Most streets with sidewalk have it on both sides of the street, which provides pedestrians greater access and fewer potential conflicts with cars. The lack of sidewalk outside the downtown core limits pedestrian access across the study area and induces more motor vehicle trips, even for trips to nearby destinations.

Connected bicycle networks have emerged as one of the most important ways to encourage, support, and expand bicycling for people of all ages and abilities. For people to choose to ride a bicycle, they must feel comfortable at each step of their trip. There are four existing on-street bicycle facilities within the study area, bike lanes on McCrays Mill Road and Alice Drive and a side path on Loring Mill Road/Patriot Parkway.

There are currently 157 miles of sidewalk in the SUATS area

Several greenways and trails have also been built, including the Cypress Trail, Shot Pouch Greenway, and a large portion of the Enduro Trail in the Manchester State Forest.

Comfort Typology of Bicyclists

Design User Profile	Non-Bicylist	Interested but Concerned	Somewhat Confident	Highly Confident
Bicycling Preferences	Uncomfortable biking in any condition. No interest in biking, or physically unable to bike.	Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided. Prefer off-street or separated facilities.	Generally prefer more separated facilities, but are comfortable riding in bike lanes or on paved shounders if necessary.	Comfortable riding with traffic. Will use roads without bike lanes.
% of General Public	31-37%	51-56%	5-9%	4-7%

Facility Selection Priorities

1st

SAFETY

2nd

ACCESSIBLE FOR ALL USERS

3rd

ABILITY FOR SHORT TRIPS

Walking and bicycling facilities (Source: Toole Design Group)

GREENWAYS & TRAILS RANKING:

- Greenways: 96% approval
- Rail Trail: 93% approval
- Unpaved Trail: 65% approval

PEDESTRIAN FACILITIES RANKING:

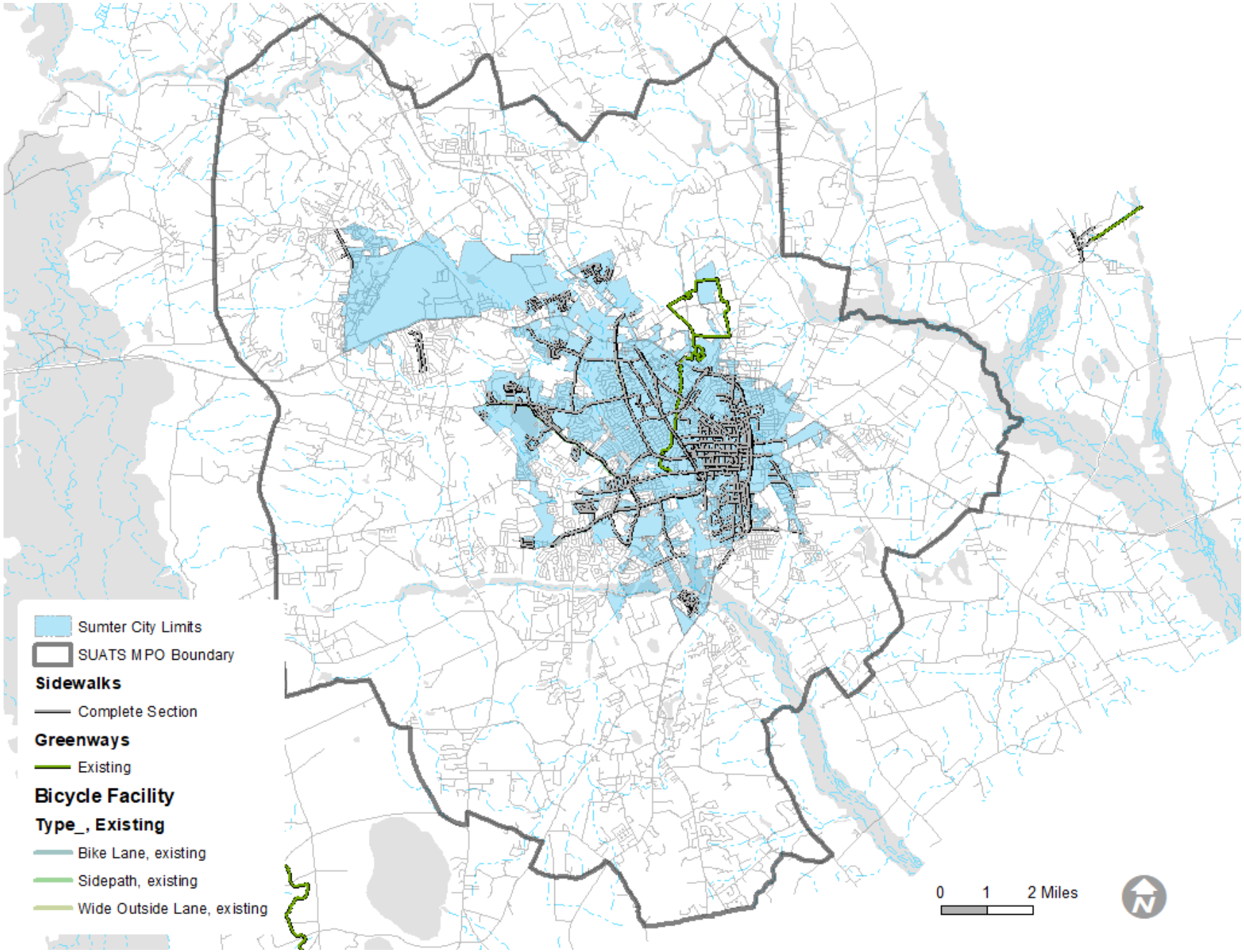
- Sidewalk with Wide Buffer: 91% approval
- Shared Use Path: 89% approval
- Sidewalk with narrow buffer: 63% approval
- Unbuffered Sidewalk: 36% approval

BICYCLE FACILITIES RANKING:

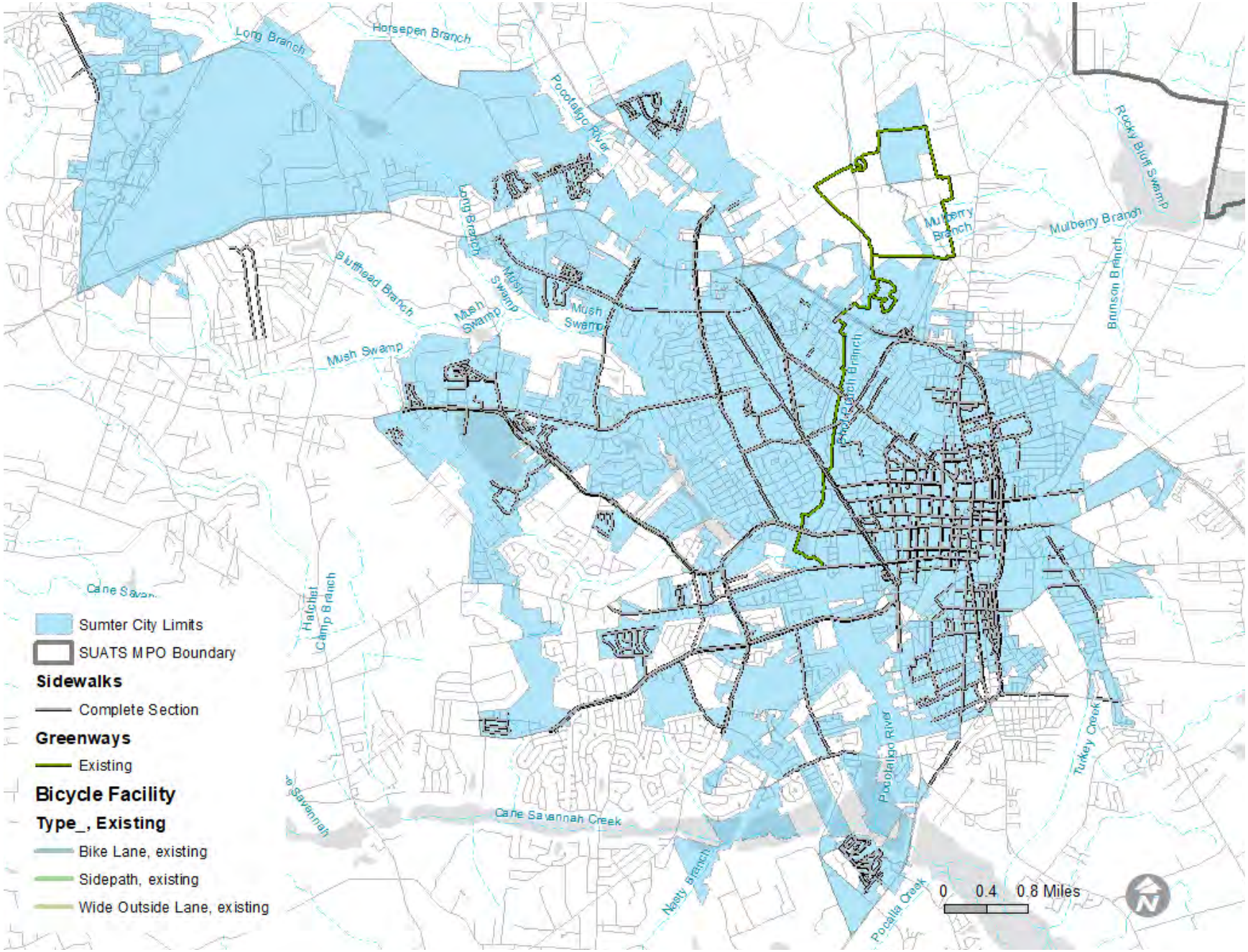
- Separated Bike Lane: 84% approval
- Buffered Bike Lane: 83% approval
- Standard Bike Lane: 79% approval
- Signed Bicycle Route: 44% approval
- Shared Lane/Neighborhood Bikeway: 32% approval

Walking and bicycling facilities (Source: Toole Design Group)

Existing Walk + Bike Facilities (Full Region)



Existing Walk + Bike Facilities (City Limits)



Walk + Bike Network Development

Bicycle and pedestrian facilities provide safe, comfortable spaces for people to walk, roll, and ride. Each facility is only as valuable as the connection it makes to a destination or another facility. Without a connected network, new projects will miss the opportunity to create real transportation options for people walking and biking.

To make the most of future investments, this plan recommends a connected, continuous network of walking and biking facilities which together will be more powerful than the sum of its parts. The Walk + Bike Network represents streets and trails where investment in safe, comfortable facilities for walking and biking will have the greatest impact. The plan builds on existing infrastructure and previously planned projects and adds new connections to destinations across the growing Sumter region.

It is important to note that the Walk + Bike Network intentionally does not include every street. When implemented together though, these streets and trails have the potential to make a transformative impact on how people move for recreation, commuting, and everyday trips. A data-driven approach ensures that the network will most effectively serve the people in Sumter, and especially those who will most benefit from it.

Destinations

At its core, a good network connects people to places. The destinations map highlights key community points of interest by including:

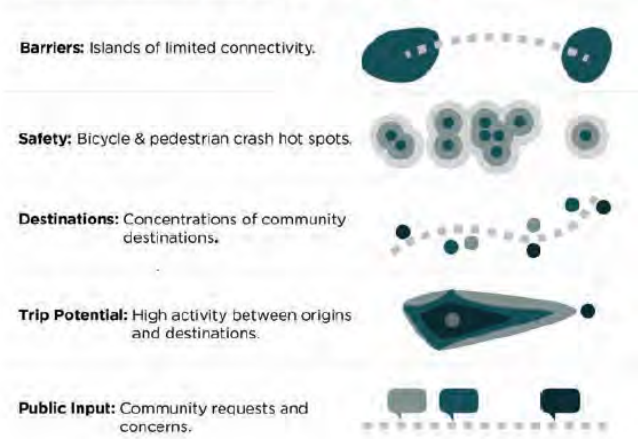
- Commercial areas,
- Healthcare facilities,
- Multi-family housing developments,
- Mobile home parks,
- Parks, and
- Schools.

Barriers

The Barriers Analysis highlights islands of limited connectivity within Sumter. The barriers are identified by "breaking up" the Sumter area everywhere there is an existing potential connection. These included existing trails and local, service, and collector streets. Areas with lots of road connections were broken into many small pieces. The larger areas left over indicate islands where future network connections are most needed.

Layers of Analysis

The Walk + Bike Network was developed using five overlapping layers of analyses:



Safety

Crash hot spots identify areas where people have been struck by a vehicle while walking or biking. Because of the dispersed population in this area though, historical crash data only tells one part of the roadway safety story. Crash data does not capture near misses or places where there may be limited bicycle and pedestrian activity because people already perceive the area as unsafe.

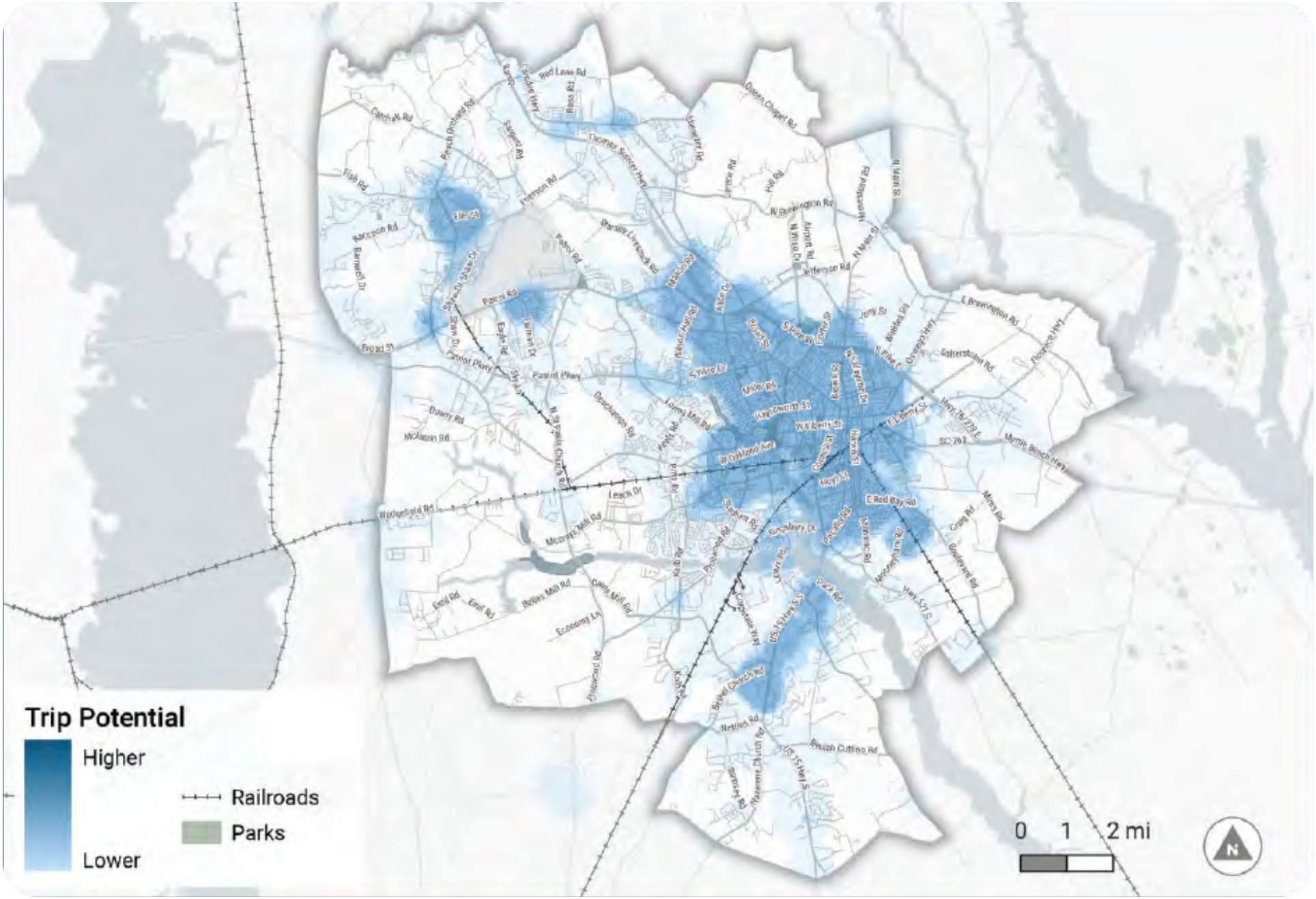
Trip Potential

The Trip Potential Analysis measures factors that are likely to lead to higher levels of walking and bicycling activity between two areas. It begins by identifying origin and destination points, including schools, parks, retail, employment centers and census blocks for population. Next, straight lines are drawn between all possible origin and destination pairs.

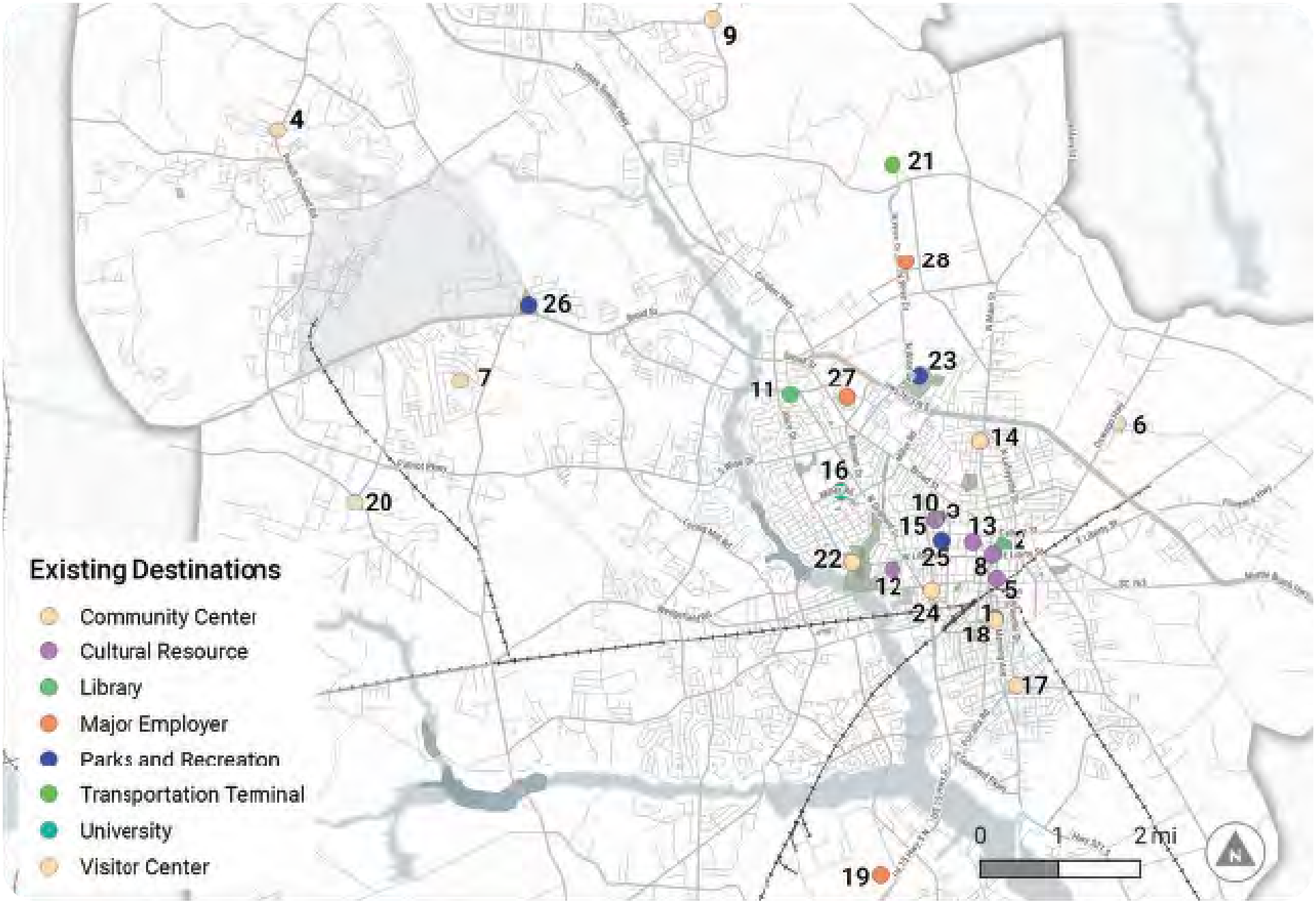
Public Input

The public voice was a key layer in shaping the Walk + Bike Network. Over 600 MetroQuest responses were receiived during targeted surveying on this topic where residents identified places they feel unsafe and where they would like to see bicycle or pedestrian improvements in the future. Paper surveys from in-person engagement events were also used to identify important community connections.

Walk + Bike Trip Potential



Walk + Bike Trip Potential (Existing Destinations)



Walk + Bike Trip Potential (Existing Destinations)

Table 8.1 - Existing Destinations

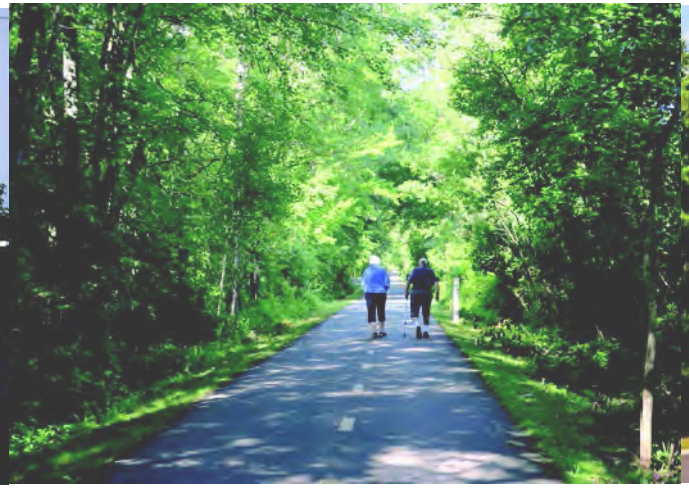
1	South Sumter Resource Center	11	Sumter County Library-Wesmark Branch	21	Sumter Municipal Airport
2	Sumter County Library-Main Branch	12	Sumter County Civic Center	22	Sumter Convention & Visitors Bureau
3	Sumter Little Theatre	13	Sumter County Museum	23	Dillon Park
4	Catchall-Shaw Community Center	14	North HOPE Center	24	Birnie HOPE Center
5	Sumter Military Museum	15	Patriot Hall	25	Memorial Park
6	Salterstown Community Center	16	University of South Carolina-Sumter	26	Veterans Park
7	Cherryvale Community Center	17	South HOPE Center	27	Sumter Mall
8	Sumter Opera House	18	Sumter County Library-South Sumter Branch	28	Black River Industrial Park
9	Ebenezer Community Center	19	Live Oak Industrial Park		
10	Sumter County Gallery of Art	20	DeLaine Community Center		

Walk + Bike Facility Selection

Table 8.x illustrates the options for walk and bike facilities according to a street's typology and context. Facility types include sidewalks, sidepaths, traffic calming, and separated bike lanes. It is important to recognize that even streets taht fall within the same general typology may vary greatly in character, capacity, and context. By providing a menu of options, this LRTP, as well as the more detailed Sumter Walk+Bike Master Plan, provides flexibility to encourage implementation.

Pedestrian Facilities

Shared-Use Facilities



Bicycle Facilities

Image Source: Sumter Walk+Bike Master Plan (Toole Design Group)

Context-Typology-Facility Matrix

Table 8.2 - Context-Typology-Facility Matrix

	Arterial	Collector	Local Street
Downtown Core	wide sidewalk (8' min) with buffer (both sides of EVERY street)	wide sidewalk (8' min) with buffer (both sides of EVERY street)	sidewalk (both sides of EVERY street)
	separated bike lanes	separated bike lanes	traffic calming/shared lane
Urban	wide sidewalk (8' min) with buffer (both sides of the street)	wide sidewalk (8' min) with buffer (both sides of the street)	sidewalk (both sides of the street)
	separated bike lanes	separated bike lanes	traffic calming/shared lane
Suburban	wide sidewalk (8' min) with buffer (both sides near transit, parks, and schools)	wide sidewalk (8' min) with buffer (both sides near transit, parks, and schools)	traffic calming/sidewalk
	separated bike lanes or sidepath	separated bike lanes or sidepath	traffic calming/shared lane
Rural	sidepath	sidepath	traffic calming
			traffic calming/shared lane

Walk + Bike Network Recommendations

Network Recommendations

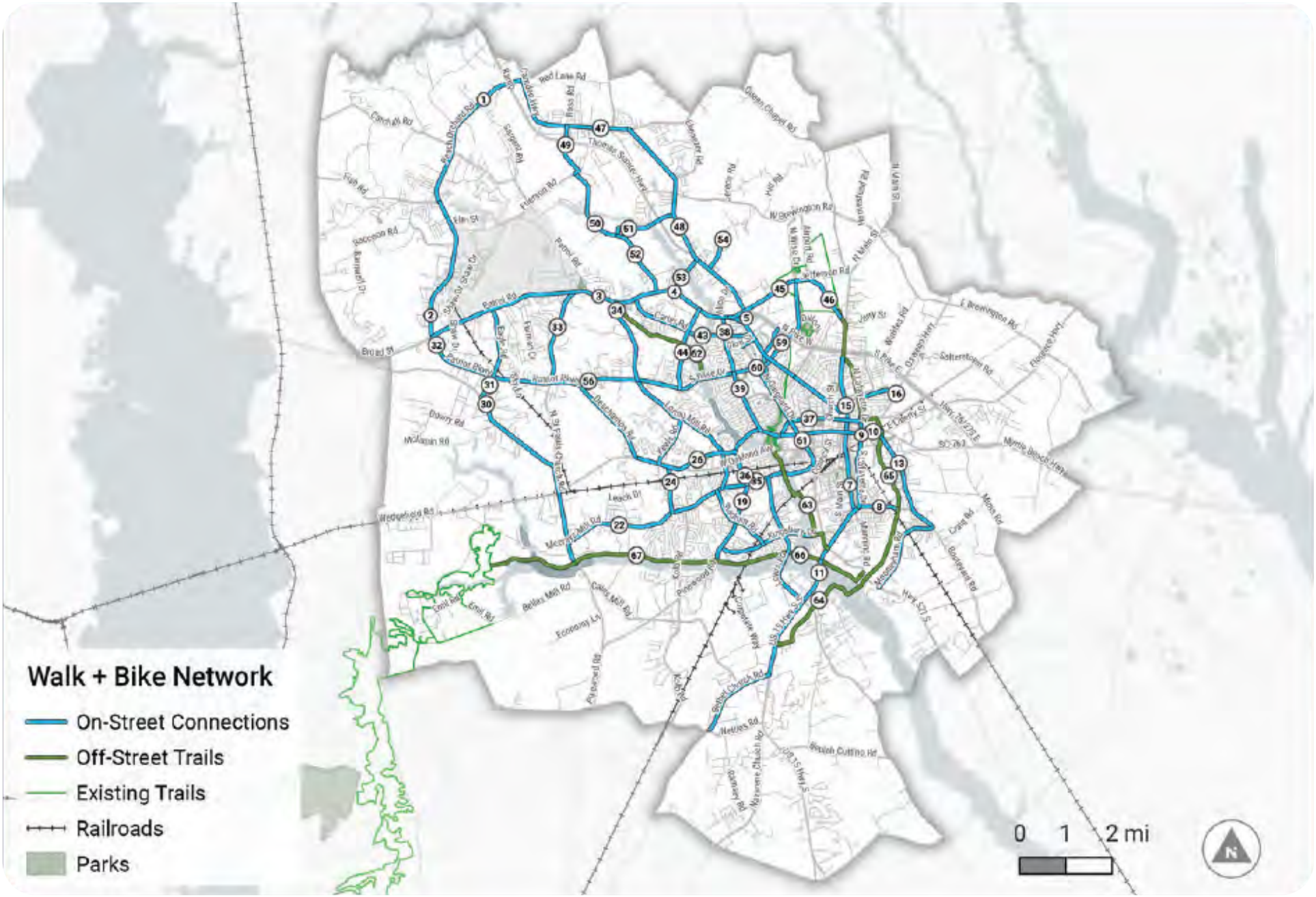
The map on the facing page shows the proposed Walk + Bike Network. The lines on the map represent streets and trails where investment in safe, comfortable facilities for walking and biking will have the greatest positive impact.

This map does not specifically identify any one type of pedestrian or bicycle facility to be implemented. Instead, the network is categorized more generally into:

- Off-street trails: These lines represent existing and proposed greenways and shared use paths that provide shared space for walking and biking. Off-street trails typically follow natural corridors and easements along waterways, old rail lines, or utility rights-of-way.

- On-street connections: These lines represent roadway corridors that should provide safe, comfortable infrastructure for people walking and biking. The specific pedestrian and bicycle facilities for each corridor will vary based on the roadway functional class and surrounding land use context.

Proposed Walk + Bike Facilities (from Walk+Bike Master Plan)



Fiscally Unconstrained Walk+Bike Project Rankings (Corridor)

Project Evaluation Matrix - Proposed Greenway and Sidepath Projects

Project ID	Route	Project Name	Extents	Length (mi	2050 Cost Estimate	Implementation Year	Facility Type	Environment Score	Economic Score	Growth Score	Mobility Sco	Safety Scor	Network Scor	Overall Rank
G-1		Sumter to Mayesville Rail-Trail	Downtown Sumter to Downtown Mayesville	9.15	$ 17,745,121		Hybrid Paved/Unpaved							
G-2		Turkey Creek Greenway	Crosswell Drive Park to Manhattan Ave	3.85	$ 18,689,953		Asphalt Paved							
G-3		Lafayette Drive Greenway	Crosswell Drive Park to James St.	1.78	$ 2,071,611		Asphalt Paved							
G-4		Red Bay Road Cycle Track	Lafayette Dr to Boulevard Rd	1.15	$ 5,567,396		Cycle Track							
G-5		Green Swamp Greenway	Swan Lake-Iris Gardens to South HOPE Center	4.35	$ 21,083,722		Asphalt Paved							
G-6		Wall Street Connector	S Pike West to Shot Pouch Greenway	0.34	$ 1,653,409		Asphalt Paved							
G-7		Palmetto Park Connector	Sumter Tennis Center to Shot Pouch Greenway	1.02	$ 4,963,902		Asphalt Paved							
G-8		Second Mill Greenway	Oakwood Ave to Loring Mill Rd	1.21	$ 5,886,136		Hybrid Paved/Unpaved							
G-9		Sumter Veterans Greenway	Veterans Park to Stamey Livestock Rd	2.06	$ 9,988,428		Hybrid Paved/Unpaved							
G-10		Long Branch to Second Mill Greenway	Stamey Livestock Rd to Wise Drive	4.36	$ 21,128,731		Asphalt Paved							
G-11		West Liberty Street Cycle Track	S Sumter St to Alice Dr	1.89	$ 9,163,561		Cycle Track							
G-12		Keels Road Sidepath	Patriot Parkway to Wedgefield Rd	1.12	$ 1,305,752		Asphalt Paved							
G-13		Wedgefield Road Sidepath	Loring Mill Rd to Deschamps Rd	1.99	$ 2,315,214		Asphalt Paved							
G-14		Deschamps Road Sidepath	Patriot Parkway to Wedgefield Rd	2.04	$ 2,373,414		Asphalt Paved							
G-15		Patriot Parkway Sidepath	Lisbon Dr to Shaw AFB Main Gate	4.24	$ 4,940,386		Asphalt Paved							
G-16		Terry/Mason Road Sidepath	Carter Rd to Camden Hwy	1.77	$ 2,058,164		Asphalt Paved							
G-17		Camden Highway Sidepath	Market St to Mason Rd	1.87	$ 2,181,618		Asphalt Paved							
G-18		Manning Road/US-521 Sidepath	Aull St to Pocalla Rd	3.23	$ 3,763,600		Asphalt Paved							
G-19		Pocalla Road Sidepath	Cockerill Rd to Kingsbury Dr	2.00	$ 2,325,575		Asphalt Paved							
G-20		Old Manning Road Sidepath	Pocalla Rd to Lakewood HS	1.01	$ 1,179,652		Asphalt Paved							
G-21		North Lafayette Drive Sidepath	Sumter PD to Crosswell Dr	0.37	$ 428,123		Asphalt Paved							

Project Evaluation Matrix - Proposed Sidewalk Projects

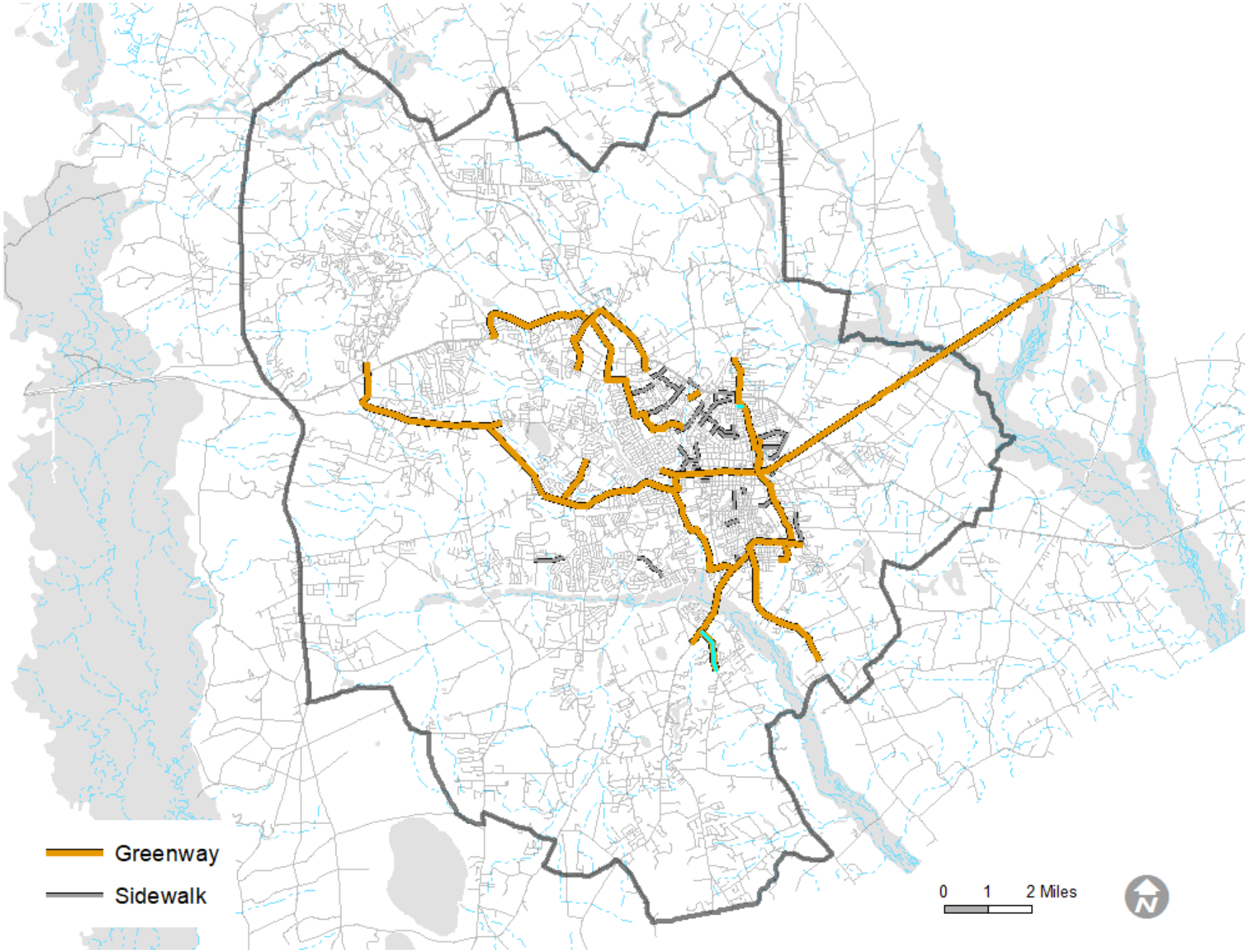
Project ID	Route	Project Name	Extents	Length (mi	2050 Cost Estimate	Implementation Year	Facility Type	Environment Score	Economic Score	Growth Score	Mobility Sco	Safety Scor	Network Scor	Overall Rank
SW-1		Winn St Sidewalk	Maplewood Dr to W Calhoun St	0.41	$ 375,581		Concrete Sidewalk							
SW-2		N Guignard Drive Sidewalk Widening	Community St to W Calhoun St	0.41	$ 381,515		Concrete Sidewalk							
SW-3		Miller Rd Sidewalk (north side)	Broad St. to Oxford St	0.48	$ 438,236		Concrete Sidewalk							
SW-4		Miller Rd Sidewalk (west side)	Broad St to Andrena Dr	0.49	$ 454,118		Concrete Sidewalk							
SW-5		N Pike West Sidewalk	Porter St to N Main St	0.45	$ 418,340		Concrete Sidewalk							
SW-6		N Pike West Sidewalk	Clara Louise Kellogg Dr to N Wise Dr	0.37	$ 342,421		Concrete Sidewalk							
SW-7		N Wise Drive	Broad St to N Pike West	0.51	$ 471,222		Concrete Sidewalk							
SW-8		Wise Drive	Broad St to Bultman Dr	0.15	$ 136,654		Concrete Sidewalk							
SW-9		Wise Drive Sidewalk	Bultman Dr to Theatre Dr	0.46	$ 424,798		Concrete Sidewalk							
SW-10		S Harvin St Sidewalk	E Oakland Ave to Watkins St	0.20	$ 181,508		Concrete Sidewalk							
SW-11		S Sumter St Sidewalk	CSX Railroad to W Williams St	0.43	$ 394,604		Concrete Sidewalk							
SW-12		E Fulton St Sidewalk	Missouri St to Silver St	0.42	$ 386,751		Concrete Sidewalk							
SW-13		Boulevard Rd Sidewalk	Center St to E Liberty St	0.13	$ 123,565		Concrete Sidewalk							
SW-14		Boulevard Rd Sidewalk	E Red Bay Rd to Fleming St	0.78	$ 715,733		Concrete Sidewalk							
SW-15		S Main St Sidewalk	Maxwell Ave to Pocalla Rd	0.17	$ 155,852		Concrete Sidewalk							
SW-16		Hoyt Street Sidewalk	Bailey St to S Main St	0.33	$ 300,884		Concrete Sidewalk							
SW-17		W Bartlette Street Sidewalk	S Purdy St to S Guignard Dr	0.20	$ 188,314		Concrete Sidewalk							
SW-18		W Hampton Ave Sidewalk	Winn St to N Guignard Dr	0.16	$ 149,744		Concrete Sidewalk							
SW-19		W Calhoun Street Sidewalk	Winn St to N Guignard Dr	0.23	$ 207,687		Concrete Sidewalk							
SW-20		Calhoun Drive Sidewalk	W Liberty St to N Guignard Dr	0.36	$ 330,379		Concrete Sidewalk							
SW-21		Stadium Rd Sidewalk	Pinewood Rd to Kingsbury Dr	0.77	$ 705,262		Concrete Sidewalk							
SW-22		Pine St Sidewalk	Pear St to N Main St	0.49	$ 446,962		Concrete Sidewalk							
SW-23		Brown St Sidewalk	Pear S to Dubose St	0.27	$ 249,224		Concrete Sidewalk							
SW-24		Gion Street Sidewalk	Alice Dr to Broad St	0.62	$ 573,843		Concrete Sidewalk							
SW-25		E Wesmark Blvd Sidewalk	Broad St to S Pike West	0.41	$ 381,166		Concrete Sidewalk							
SW-26		Rast Street Sidewalk	E Wesmark Blvd to N Wise Dr	0.63	$ 577,508		Concrete Sidewalk							
SW-27		McCray's Mill Rd Sidewalk	Meadowcroft Dr to Santa Fe Trail	0.68	$ 627,423		Concrete Sidewalk							
SW-28		E Charlotte Ave Sidewalk	Oswego Hwy to N Lafayette Dr	0.84	$ 778,563		Concrete Sidewalk							
SW-29		Loring Drive Siewalk	Oswego Hwy to N Lafayette Dr	0.60	$ 554,820		Concrete Sidewalk							
SW-30		Oswego Hwy Sidewalk	E Charlotte Ave to E Calhoun St	0.72	$ 666,866		Concrete Sidewalk							
SW-31		Jackson Street Sidewalk	Miller Rd to Woodlawn Ave	0.55	$ 505,952		Concrete Sidewalk							
SW-32		Carolina Ave Sidewalk	Broad St to S Pike West	0.84	$ 776,643		Concrete Sidewalk							
SW-33		Poulas Street Sidewalk	S Pike West to Carolina Ave	0.34	$ 317,813		Concrete Sidewalk							
SW-34		Pear Street Sidewalk	N Main St to Woodlawn Ave	0.60	$ 550,631		Concrete Sidewalk							
SW-35		Woodlawn Street Sidewalk	Jackson St to Broad St	0.25	$ 228,281		Concrete Sidewalk							
SW-36		Mitchell Street Sidewalk	N Lafayette Dr to N Main St	0.12	$ 107,334		Concrete Sidewalk							

Fiscally Unconstrained Walk+Bike Project Rankings (Intersection)

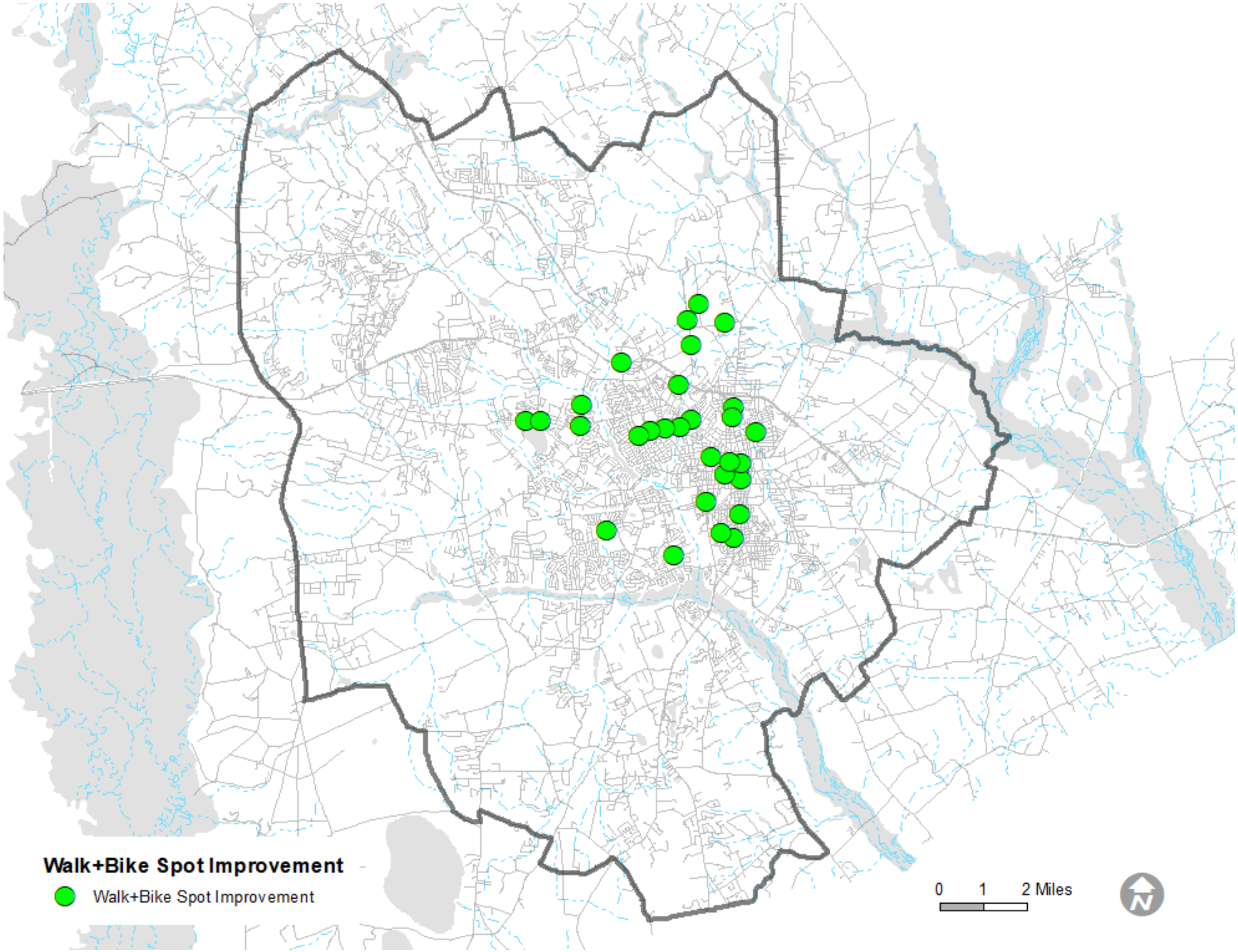
Project Evaluation Matrix - Proposed New Walk+Bike Intersection Projects

Project ID	Route	Route Name	Project Name	Project Purpose	2050 Cost	Implementation Year	Functional Classification (of Major Route)	Environment Score	Economic Score	Growth Score	Mobility Score	Safety Score	Network Score	Overall Rank
P-1	US-76	Broad Street	Willow Drive Elementary	School Zone Safety	$ 194,000									0
P-2	S-911	Alice Drive	Alice Drive Elementary	School Zone Safety	$ 194,000									0
P-3			Wilson Hall School	School Zone Safety	$ 145,500									0
P-4			Wilder Elementary	School Zone Safety	$ 97,000									0
P-5			Bates Middle	School Zone Safety	$ 97,000									0
P-6			Kingsbury Elementary	School Zone Safety	$ 97,000									0
P-7			Memorial Park	Pedestrian Safety	$ 97,000									0
P-8			Downtown Library	Pedestrian Safety	$ 97,000									0
P-9			Crosswell Drive Elementary	School Zone Safety	$ 97,000									0
P-10	US-521	S. Guignard Drive	McCray's Mill Rd at S. Guignard Drive	Pedestrian and Bicyclist Safety	$ 291,000									0
P-11			Alice Drive at Broad Street	Pedestrian and Bicyclist Safety	$ 291,000									0
P-12			Loring Mill Rd at Wise Drive	Pedestrian and Bicyclist Safety	$ 291,000									0
P-13	S-55	Miller Road	Shot Pouch Greenway at Miller Rd Pedestrian Improvements	Pedestrian and Bicyclist Safety	$ 145,500									0
P-14			Sumter Economic Development HQ	Pedestrian Safety	$ 145,500									0
P-15			Liberty Center	Pedestrian Safety	$ 145,500									0
P-16			Wilson Hall Rd	Pedestrian Safety	$ 97,000									0
P-17			Patriot Park	Pedestrian and Bicyclist Safety	$ 194,000									0
P-18			North HOPE Center	Pedestrian Safety	$ 145,500									0
P-19			Morris College	Pedestrian Safety	$ 194,000									0
P-20			JMBC Church	Pedestrian Safety	$ 145,500									0
P-21			N Washington St	Pedestrian Safety	$ 194,000									0
P-22			N Wise Drive	Pedestrian and Bicyclist Safety	$ 194,000									0
P-23			Clyburn Intermodal Transit Center	Pedestrian Safety	$ 97,000									0
P-24			CCTC	Pedestrian and Bicyclist Safety	$ 194,000									0
P-25			Alice Drive Middle/USC-Sumter	School Zone Safety	$ 194,000									0
P-26			Sumter High	School Zone Safety	$ 194,000									0
P-27			Lincoln Center	Pedestrian Safety	$ 194,000									0
P-28			Cypress Trail @ N Wise Drive	Pedestrian and Bicyclist Safety	$ 97,000									0
P-29			Cypress Trail @ Jefferson Rd	Pedestrian and Bicyclist Safety	$ 97,000									0
P-30			Cypress Trail @ N Wise Drive	Pedestrian and Bicyclist Safety	$ 97,000									0
P-31			Cypress Trail @ Airport Drive	Pedestrian and Bicyclist Safety	$ 97,000									0

Identified Walk+Bike Corridor Improvements (Fiscally Unconstrained)



Identified Walk+Bike Intersection Improvements (Fiscally Unconstrained)



Sumter Greenway Loop

A key walk + bike recommendation contained in several previous iterations of the SUATS Long Range Transportation Plan has been to establish a greenway loop around the core of Sumter utilizing existing undeveloped space, easements, and floodplain areas along Shot Pouch Creek, Green Swamp, and Turkey Creek. This continuous loop would provide shared use paths connecting Sumter.

In 2014, Sumter voters allocated $4.0 million to construct the Shot Pouch Greenway between Dillon Park and Swan Lake-Iris Gardens via referendum to make a major phase of this vision a reality. The project was completed in January of 2023, making Shot Pouch Greenway effectively the nortwest quadrant of an eventual 13 mile greenway loop.

A Feasibility Study was commissioned and completed by SUATS for a future Turkey Creen Greenway that would serve as the Southeastern quadrant of the Loop.

Shot Pouch Greenway Boardwalk at Swan Lake

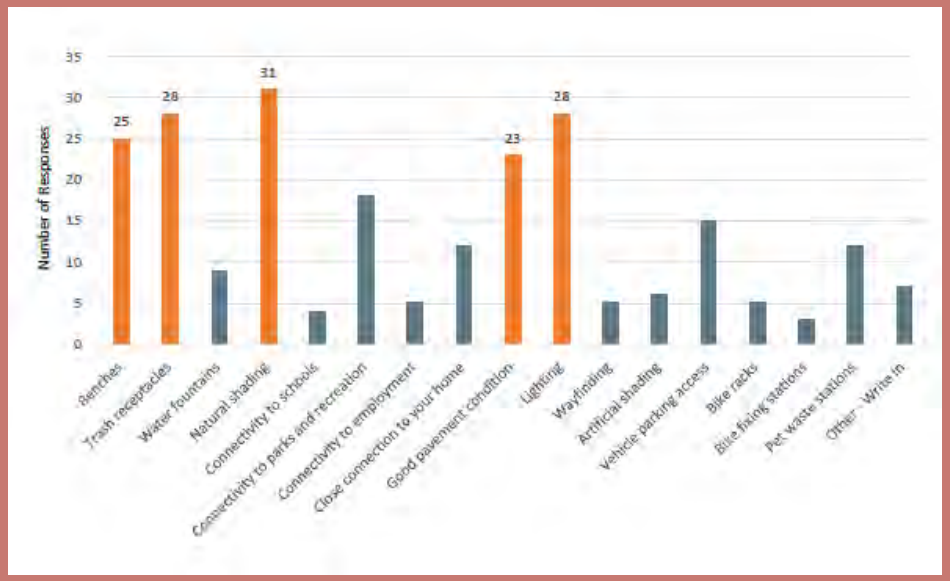
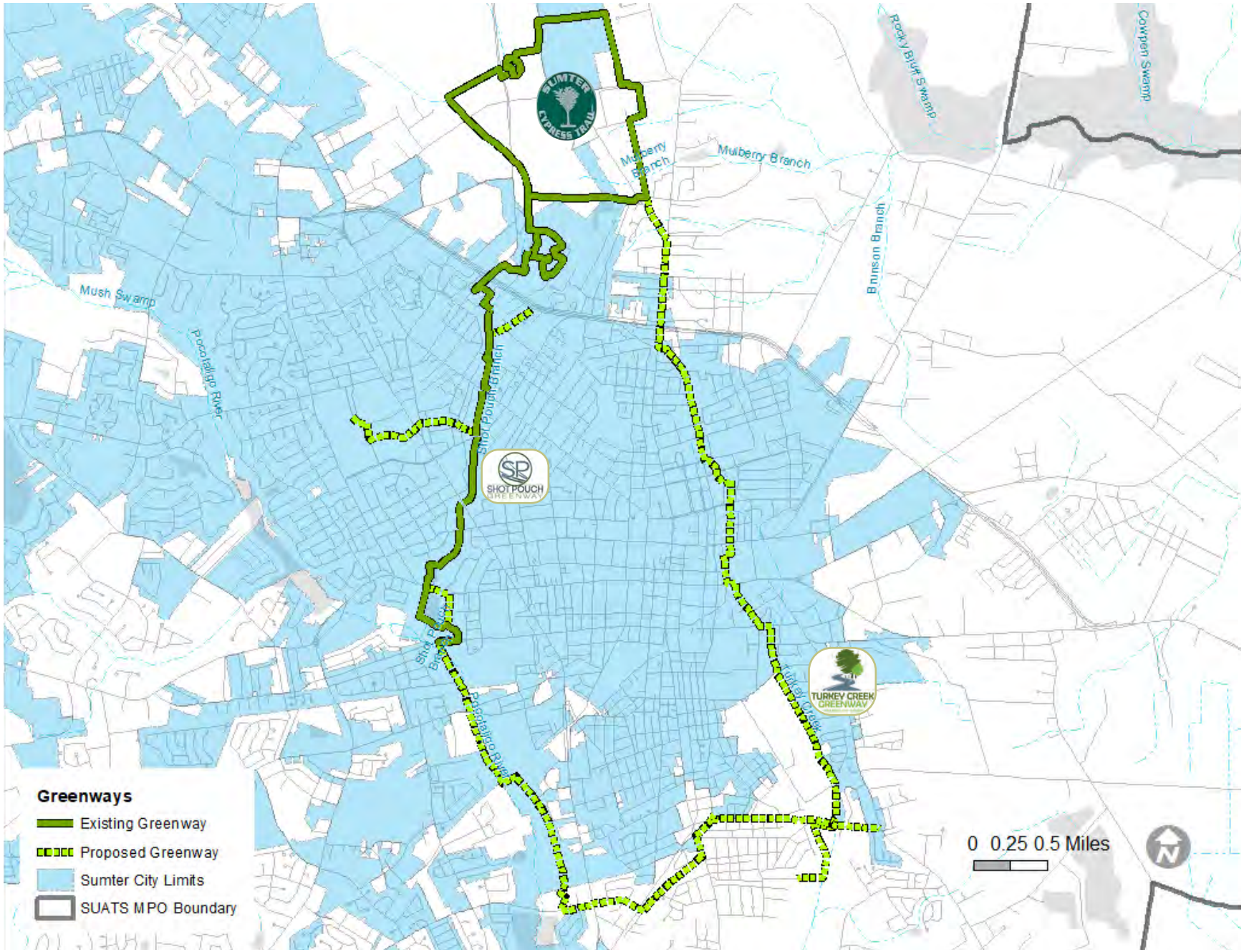


Figure 8.x - Top Priorities for Sumter Area Greenways (from Turkey Creek Greenway Feasibility Study)

Sumter Greenway Loop



Micromobility (Bikeshare & Scootershare)

What is Micromobility?

Micromobility is a transportation option that allows users to access a network of bicycles or scooters that can be checked out and returned on-demand. Riders pay for use of the bikes or scooters on a per-trip basis or with a monthly or annual membership, often at accessible prices that are comparable to or lower than other public transit. Common trip types include connecting to transit, commuting, social/entertainment trips, and exercise/recreation.

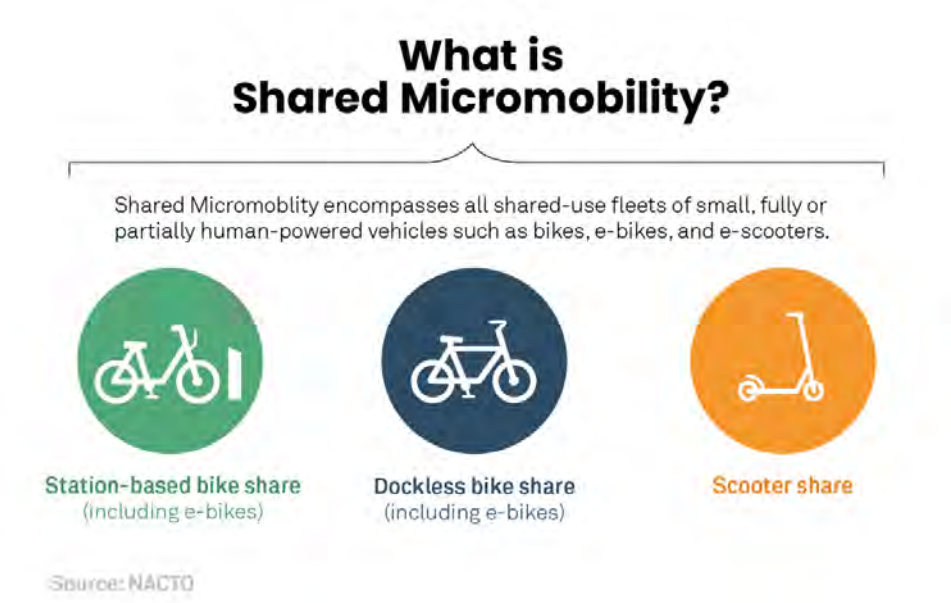
Since 2017, entrants to the market have introduced new and popular fleet types into the industry – such as dockless electric bikes ("e-bikes") and electric scooters ("e-scooters") – as well as new business models that have lowered the barrier to entry for many cities to have their own shared micromobility system.

Companies such as Bird, Lime, Spin, and others can set up shared e-bike or e-scooter systems quickly and at much less cost to the municipality, which has seen them proliferate in areas of all sizes across the country. However, it is up to municipalities to establish rules and policies to effectively manage these companies and the public right-of-way to reduce potential negative externalities, such as inappropriately parked vehicles.

What Micromobility options are available to Sumter?

During the community outreach phase of the Sumter Walk+Bike Master Plan, survey respondents had a clear preference for docked bikeshare (61% liked or strongly liked) while interest in dockless bikes or scooters was more mixed and about the same between them. However, the higher costs of buying docked bikeshare equipment – while still having to make it an affordable mobility option – means that docked bikeshare systems are generally not profitable and require public subsidy or alternative revenue streams (e.g., advertising and sponsorships) to cover costs. This is similar to other forms of public transit. Docked bikeshare systems have tended to be most feasible in large cities with more resources and larger advertising and sponsorship markets, or in limited rollouts in small communities often focused around connecting a few key destinations or points along a greenway/trail or campus area.

Although the upfront cost and effort to establish these programs is much



Blue Bike SC Docked Bikeshare System in Columbia, SC (Source: Blue Bike SC)

Bird Dockless Electric Scooters (Source: Thomas Cizauskas)

lower for cities under these models, they should be aware and have the capacity to manage the relationship with
the private companies providing service, ensure that the program is operated in compliance with the terms of the permit or contract, and be ready to respond to public comments and feedback on the program.

What's Feasible?

Based on the moderate potential for ridership in Sumter and the available options based on the state of the micromobility industry at the time of writing, two options for micromobility systems are possible in the Sumter area:

1. A small (up to 30 bike and 5 station) locally owned and operated docked bikeshare system focused on the trail system and primarily recreational riders, or

2. A larger (starting with a 100-device fleet) privately-owned dockless e-scooter or e-bike system.

Option 1 offers docked bikes or e-bikes, which are the community's preferred vehicle type and provide the most organized parking option. However, it would be a smaller system with less coverage and likely require greater public involvement in the management and oversight of the program and a higher capital outlay and fundraising effort to subsidize operations.

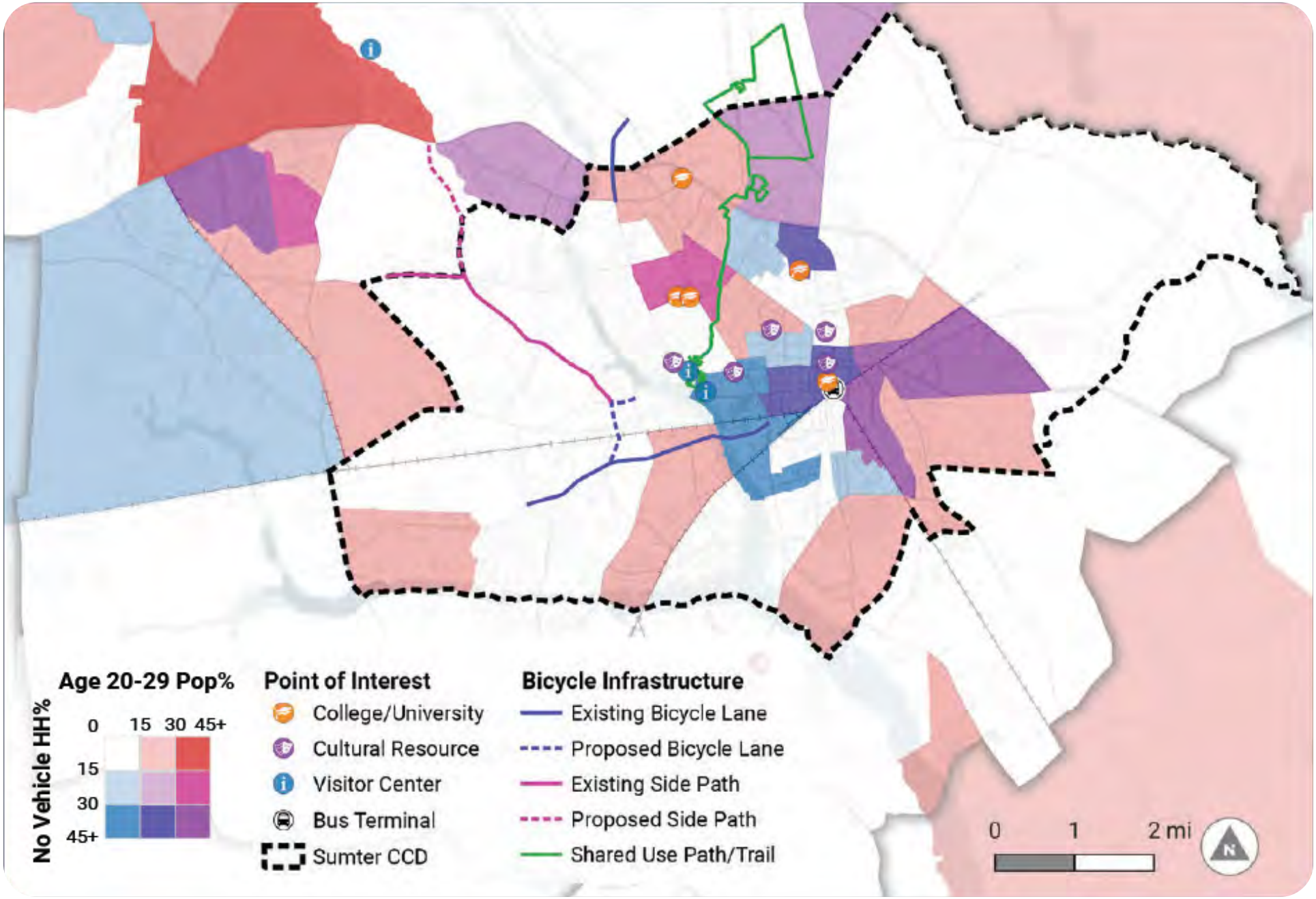
Option 2 offers more coverage to the community and almost all of the financial risk borne by the private operator. However, it relies on a private operator being interested in providing service in the Sumter market and what mix of vehicle types they feel is needed to make the system sustainable. These systems are typically dockless and will require some management and oversight to ensure that they are operated effectively and address parking and other operational service issues.
To move forward with micromobility in Sumter, a local stakeholder should reach out to potential operators under Option 2 to understand the full range of options available to Sumter in this fully private model. Consider whether the fleet types, size, fares, service areas, and other characteristics proposed by different vendors meets Sumter's transportation and mobility needs. If not, then Option 1 is the remaining option for Sumter and effort should be directed to find fundraising partners and a bikeshare system vendor.

While the two options are not necessarily mutually exclusive, pursuing either option will make the other less feasible due to competition in the limited Sumter market.

Table 8.3 - Micromobility System Options for Sumter Area by Feasibility Criteria

	Option 1 - Docked Bikeshare System	Option 2 - Dockless E-Scooter or E-Bike System Pilot
Possible Ridership	4,380 to 8,800 trips annually (based on 0.4 to 0.8 trips/bike/day)	22,000 to 36,500 trips annually (based on 0.6 to 1.0 trips/vehicle/day)
Size and Coverage	• Up to 5 stations and 30 pedal bikes or e-bikes • Possible locations could include 2 downtown stations and 3 stations along the Shot Pouch Greenway (e.g., at Swan Lake, YMCA, Dillon Park) = ~1.75 square miles of system coverage	• Pilot 100 e-bikes and/or e-scooters with performance measures to increase the fleet over time • City of Sumter boundary = 32.8 square miles of system coverage
Operating Model	• City, County, another public agency, or non-profit owns and manages the program • Operations provided by system owner or contracted to a third-party operator	• Service provided by one private sector vendor • City or County provides regulation and oversight of the program
Cost	• Capital: approximately $320,000 • Operations: approximately $90,000 annually	• Private sector bears cost of capital and operations • Local government staff costs include staff time and resources to oversee the program
Funding Options	• Capital: state and federal grants with local match and/or private sector contributions • Operations: ridership revenue, sponsorship/ advertising, and/or public subsidy	• Some public funding is required to cover local government staffing costs • Revenues generated by the City charging fees for operations in the right-of-way are available
Effort for Local Entity	• Could range from staff time for oversight and management to significant resources and full responsibility for the program	• Staff time to establish, oversee, and evaluate the pilot program

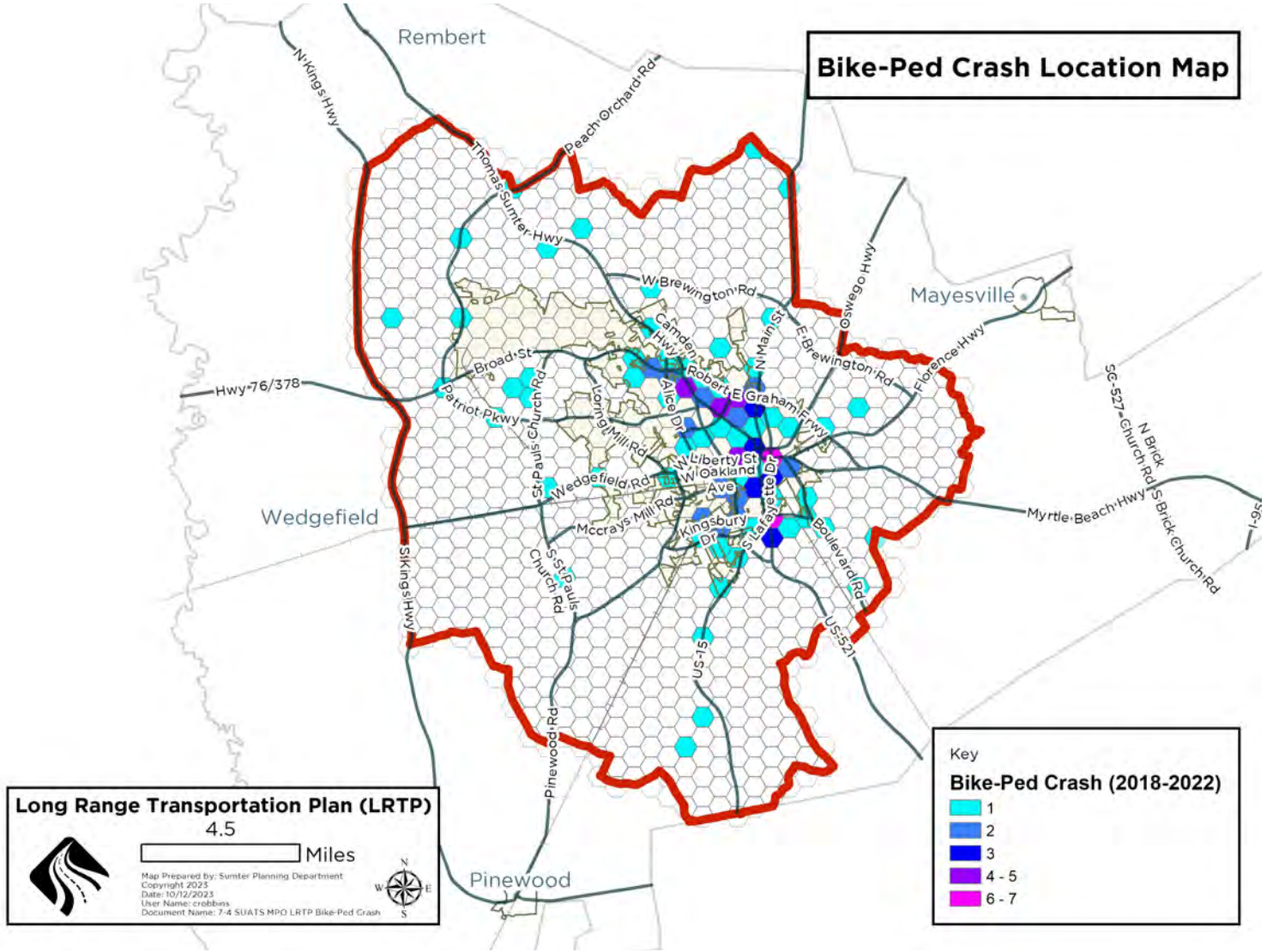
Bike Share Feasibility Map



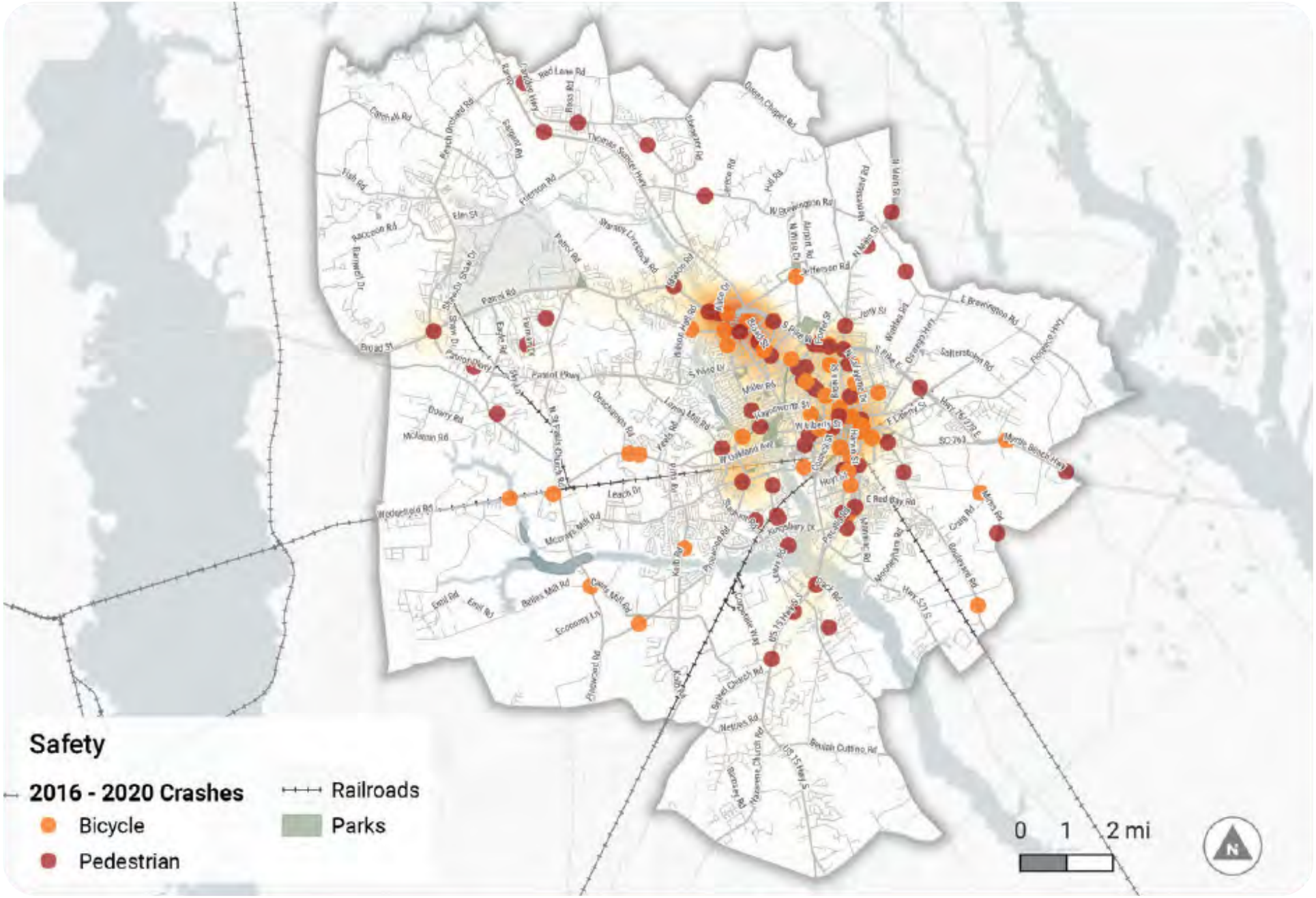
Walk + Bike Crashes

Crash Analysis

Bicycle and pedestrian crashes represent 13.8% of serious crashes but 1% of total crashes. Pedestrian, bicycle, and vehicle crash data was reviewed from 2016 to 2020. There were 11,191 crashes during that timeframe, 116 of which involved bicycles or pedestrians. These crashes make up a small portion of the overall crashes but make up a disproportionate amount of serious injury and fatal crashes, with 33 out of 238 crashes that resulted in a fatality or incapacitating injury involving bicycles or pedestrians.



Walk + Bike Crash Map



Barriers to Biking and Walking

Barriers Related to Rail

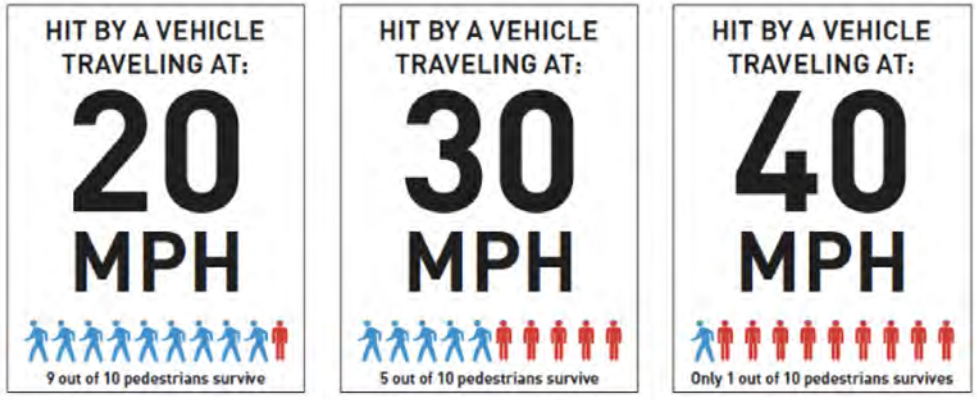
Four railroad lines cross the study area and create divides between downtown, parks, neighborhoods, and employment centers. Three are owned by the CSX and one by the US Air Force. Railroads present a major barrier to establishing a comfortable multimodal network as railroads pose unique challenges for bicyclists and people who use other wheeled devices. While none of the existing bicycle facilities currently cross a railroad, an envisioned Turkey Creek Greenway alignment crosses the railroad twice and the proposed bicycle network laid out in the LRTP would include a significant number of rail crossings.

Barriers Related to High Speed Roads

The ability of pedestrians and bicyclists to travel between their origin and destination can be constrained by high-speed roads (over 35 mph) just as much as by rail lines. Crossing these roads or riding along them is a highly hazardous prospect as increased speed also increases the chance that a crash will result in a fatal or serious injury crash. The National Highway Traffic Safety Administration (NHTSA) states that a crash involving a vehicle going 30mph has a 50% likelihood of resulting in a serious or fatal injury for a pedestrian, with that likelihood increasing dramatically as the speed increases.

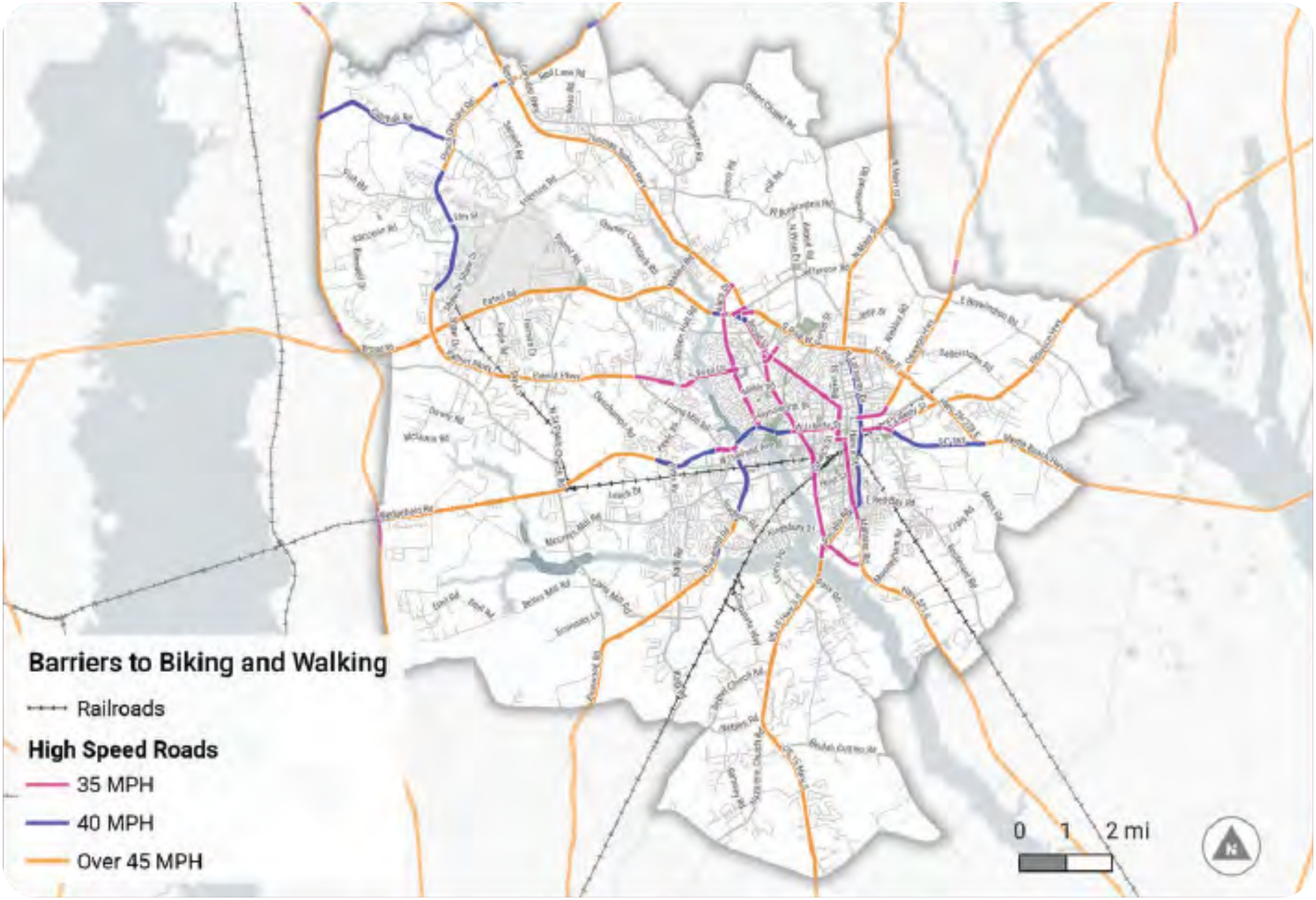
Pedestrians and bicyclists are intuitively aware of this speed concern and are unlikely to walk or bike somewhere if they need to cross/use a high-speed road, so these roads serve as barriers to active transportation.

Rail Crossing at East Red Bay Rd.



In 2017—the year in which pedestrian and cyclist fatalities first reached the highest level since 1990—the NTSB issued a landmark study about how speed is the #1 culprit in traffic fatalities, finding that scores of crashes would not have been fatal at lower speeds.

Barriers to Biking and Walking



Chapter 9
Public Transit

Chapter 9

Why Transit?

Mobility, or the ability of a person to move from one location to another, is a fundamental part of daily life. It plays a critical role in shaping a region's physical and social infrastructure. Mobility infrastructure does more than simply allow people to move from place to place, it is a building block for the places in which we live, and it affects our way of life. Reliable access to effective and safe transportation goes a long way toward improving economic equity, environmental footprint, and overall quality of life.

Why Transit?

Available public transportation is vital to the success and well-being of a community. Many residents rely on public transportation to access work, school, healthcare, the grocery store, and social assistance provider offices.

Riders provide the basis for any public transportation system. There will never be a world without people in need of public transportation. Riders can be separated into two common types.

The first is what are known as **Captive Riders**. These individuals use public transportation not by choice, but because there is a limiting factor to their mobility, such as: age, disability, or economic condition that prevents them from owning a personal vehicle. These are the most common users of public transportation options and make up a large population that needs attention when addressing public transportation planning.

Available Public Transportation is vital to the success and well-being of a community.

The other common type of public transportation user is what is typically known as a **Choice Rider**. These people make a conscious decision to use public transportation for a variety of reasons including convenience, cost saving, and/or environmental consciousness.

Conventional rider classifications suggest that to improve public transportation, more choice riders must be attracted. However, choice riders make up a small portion of public transportation users, especially in areas like SUATS. They also tend to demand a higher degree of reliability and convenience as a prerequisite to making the move to public transportation, such as more frequent service and more infrastruture at transit stops. This means that allocation of resources and funds to attract these riders can ultimately detract from the core user base of a public transportation system.

Public transportation requires balancing service provision to the most people possible, broad geographic reach, and system sustainability. To balance these factors, decisions (and sometimes sacrifices) must be made. In order to maintain profitability and maximize ridership, public transportation systems may exclude more rural, lower density areas.

Serving a few people may not be cost effective compared to serving more populated areas when captive and choice riders reside in greater numbers. The balance that must be found for the region is how to provide service to a large area with widespread geographic distribution of at-risk individuals, while maintaining a system that is reliable and user-friendly to all who want to use it.

The methodology for future transit route recommendations and projected capital and operating costs in this LRTP are drawn from the Santee-Lynches Region Transit Needs Assessment + Framework. The analysis in that document has been updated to reflect impacts of inflation.

The recommendations identify opportunities to re-align and increase frequency for existing fixed routes and establish new fixed routes for the Sumter urbanized area. Additionally, intermittent fixed routes to provide access to the SUATS area for residents in Mayesville and Pinewood are included.

Current Transit Facilites and Status

In 1973, the South Carolina General Assembly established Regional Transportation Authorities (RTA) as an avenue to improve public transportation. In 1976, the Santee-Wateree Regional Transportation Authority (SWRTA) was created for Clarendon, Kershaw, Lee and Sumter Counties with operations officially beginning in July of 1978 under a pilot project designed to have the RTA perform as the sole transportation provider for all human service transportation

SWRTA services began with fixed route, commuter, subscription and demand-response. Initially, SWRTA served 33% of the region's human service transportation needs; by 1981, SWRTA provided 75% of these trips. During this same period, 5 human service agencies and 7 taxi companies provided additional transportation within the region. By 1987, SWRTA provided 71% of human service trips; with human service agencies doubling from 5 to 10 and taxi companies increasing from 7 to 10. By 1997, Human service agencies had decreased from 10 to 8 and taxi companies remained consistent.

Between 1997 and 2007, SWRTA's service model relied in part on contract services, primarily through Medicaid, to transport riders. After 2007, Medicaid service revenues fell from nearly $1.5 million to zero, severely curtailing the entire agency's ability to provide transit services.

Current Transit Service Provided in SUATS MPO

Within the SUATS MPO, SWRTA currently provides Fixed Route service, Commuter service, ADA Paratransit Services, and Contractual Services for Sumter Senior Services.

Fixed-Route Bus

Buses make regular stops and operate alongside daily personal vehicle traffic. General route types of bus transportation include: standard, circulator, and express.

Transit buses, used on public transport bus services, have utilitarian fittings designed for efficient movement of large numbers of people, and often have multiple doors. Coaches are used for longer-distance routes. Larger buses typically operate to a predetermined published timetable defining the route and the timing, but smaller vehicles may be used on some routes to provide flexible demand response services.

Paratransit

Paratransit is the term used for special transportation services for people with disabilities as a supplement to fixed-route bus. At the simplest these services consist of a small bus that runs along a more or less defined route and stops to pick up or discharge passengers on request. At the other end of the spectrum— fully demand responsive transport—the most flexible paratransit systems offer on-demand call-up door-to-door service from any origin to any destination in a service area.

Typically, minibuses are used to provide paratransit service. Paratransit vehicles are equipped with wheelchair lifts or ramps to facilitate access.

Vanpool

Vanpools allow groups of people to share the ride similar to a carpool, but on a larger scale with concurrent savings in fuel and vehicle operating costs. Vanpools have a lower operating and capital cost than most transit vehicles, but due to their relatively low capacity, vanpools often require subsidies comparable to conventional bus service. Vehicles are provided through a program operated by SWRTA. The key concept is that people share the ride from home or one or more common meeting locations and travel together to a common destination or work center.

Current Transit Facilites and Status

Ridership

SWRTA's monthly fixed route ridership for the SUATS area averages roughly 4,000 passenger trips. The agency's paratransit ridership for SUATS averages roughly 900 passenger trips.

It is important to note that these figures do not reflect unique users of the transit system, but rather each time a passenger takes a trip on a SWRTA-operated transit vehicle.

- An individual using SWRTA transit as a means of commuting to work full-time might register as many as 40 monthly passenger trips.
- A student taking classes may register 20-40 monthly passenger trips subject to their class schedule.
- An individual needing to access regular medical appointments might register 2-20 monthly passenger trips.

Fleet

As of October 2023, SWRTA's agency-wide fleet consisted of:

- x Buses with capacities between 20-40 passengers
- x Paratransit vehicles with capacities between 5-14 passengers, and
- x Non-revenue producing maintenance and office vehicles (trucks, cars, and vans)

Of this fleet, x 14-passenger cutaway buses and x 42-passenger bus are immediately available for programming to new routes.

Budget

SWRTA's annual agency-wide budget (FY2023-2024) for the 5 counties in which it provides services included:

- $ 2,024,558 for Operational Expenses
- $ 592,415 for Maintenance Expenses
- $ 949,809 for Administrative Expenses
- $ 162,500 for Other Expenses (primarily Capital)

The revenue components of this budget includes:

- $ 1,180,736 in federal and state operating grants
- $ 995,260 in capital grants
- $ 60,000 in anticipated passenger fares
- $ 930,632 in local contract-provided services
- $ 381,978 in local funding assistance

Fares

City Fixed Rates:

- $1.00 - Fare for riders age 7+
- $0.50 - Reduced rate for for riders 65+, riders with disability, enrolled in Medicare, and/or Veterans
- Free - Morris College and CCTC students. (USC students are free with a valid bus pass for the current semester.)

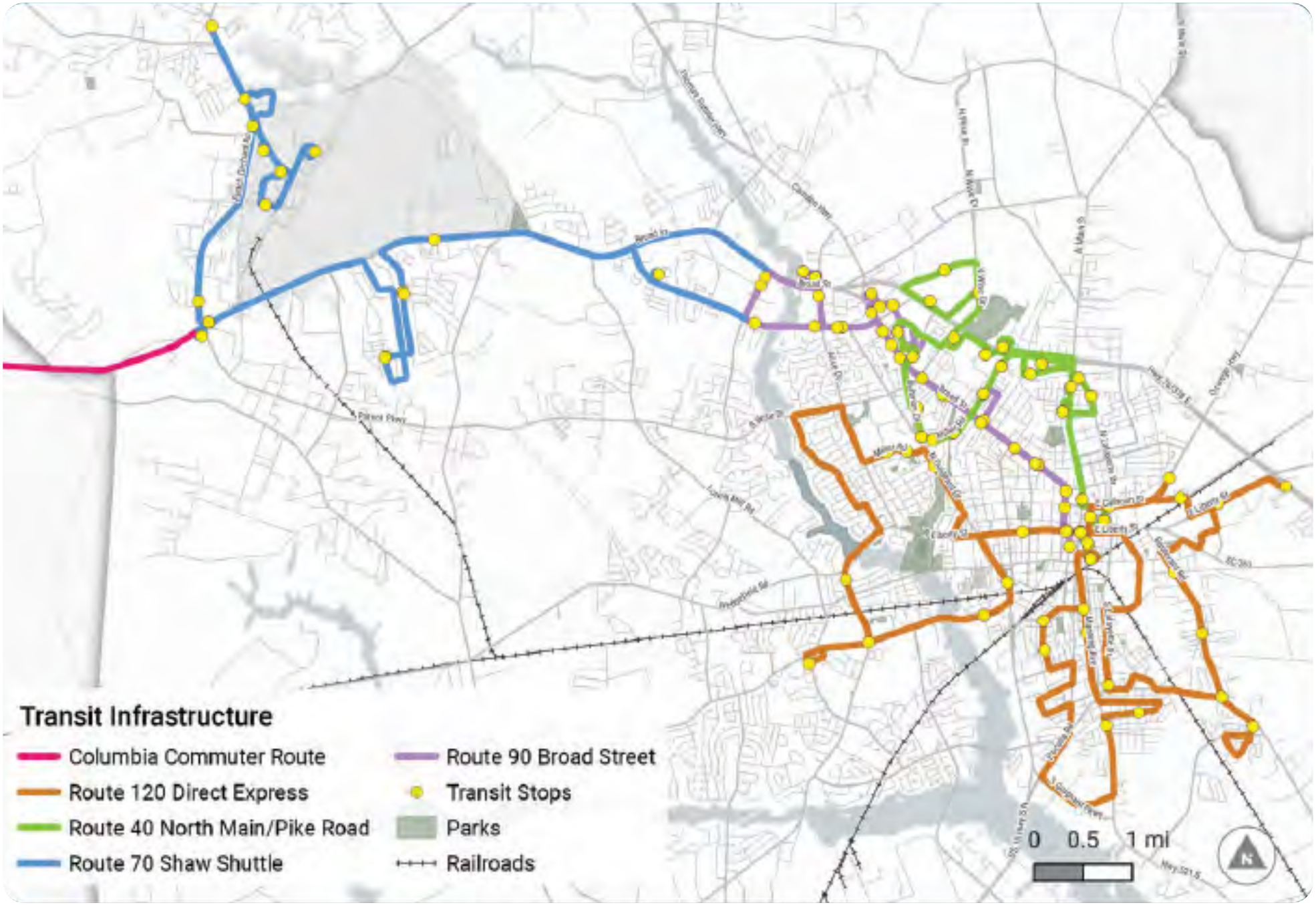
SmartRide Fixed Rates:

- $2.50 - Sumter to Columbia
- $1.00 - Sumter to Camden
- $2.00 - Camden to Columbia

Paratransit /ADA Rates:

- $2.00 - ADA passengers living within 0.75 mi of a Fixed Route each way.

Current Transit Routes



Transit Propensity Index

Transit providers have long considered the demographic makeup of an area when determining locations that should have transit service. A Transit Propensity Index identifies locations where demographics indicate higher likelihood of transit use as compared to other areas.

There are 8 demographic categories for which data is available at the Census Block Group level that can be used effectively to measure transit propensity.

Because many independent variables influence each demographic cohort in terms of that group's tendency to utilize public transportation, each factor carries the same weight in the index.

The factors used in the Transit Propensity Index (TPI) are:

- Households with no vehicle - a significant factor for transit need, for obvious reasons.
- Disability Status - combines six types of disability measured by the Census (hearing, vision, cognitive, ambulatory, self-care, or independent living difficulty) which can prevent individuals from driving.
- Persons over age 65 - more likely to either choose not to drive or be forced not to drive based on age-induced health considerations.
- Minority Population - more likely to depend on public transportation due to challenges obtaining driving licenses or due to relative income disparities.
- Individuals Age 18 to 24 - Based on a national trend since 1983, young adults are showing less desire in obtaining a driving license, making them more likely to use public transportaton as a mobility option.
- Low to Moderate Income - Purchasing and maintaining a personal vehicle is difficult for individuals below the median income for a given area.
- Employment in same county as residence - Individuals who live and work in the same area tend to be more likely to utilize transit offerings in that community.
- Population Density - influences transit propensity, as individuals who choose to live in more urbanized and metropolitan areas also tend to be more interested in transit as a preferred mobility option.

These factors were identified as most likely to influence an individual's need or desire to utilize public transportation. A range for each factor was developed, and a scoring matrix created based on the resulting figures. This score is then aggregated out of 100 potential points.

The index supports several common assumptions regarding mobility needs and tendencies while also highlighting several places where transit propensity is high in spite of smaller and less dense populations.

TRANSIT PROPENSITY INDEX MAP

Analyzing Potential Transit Need

Step 1: Map Transit Propensity Data by Census Block Group

Transit Propensity offers a good understanding of general areas of transit need based on Census Block Groups, particularly when viewed at a region or county scale. Using the map above of TPI Block Groups, it is clear there is a significant propensity for transit particularly in the North Main Street Corridor and the South Liberty Street Area. However, because the TPI relies on Block Group level geography, it does not specifically show where people actually live within the identified block groups. This level of understanding is needed to efficiently place transit routes and estimate how many individuals are be likely to utilize the service.

Step 2: Analyze Transit Propensity Block Groups using Building Footprints

The next step in determining areas of need is to more accurately identify where people are living within each block group. To do this, building footprints for all proposed service areas were added, using GIS data created and maintained by the Sumter City-County Planning Department based on annual aerial imagery. This data overlay shows more accurately where individual structures are located within an area. The map above shows how this data informed areas of need in more detail.

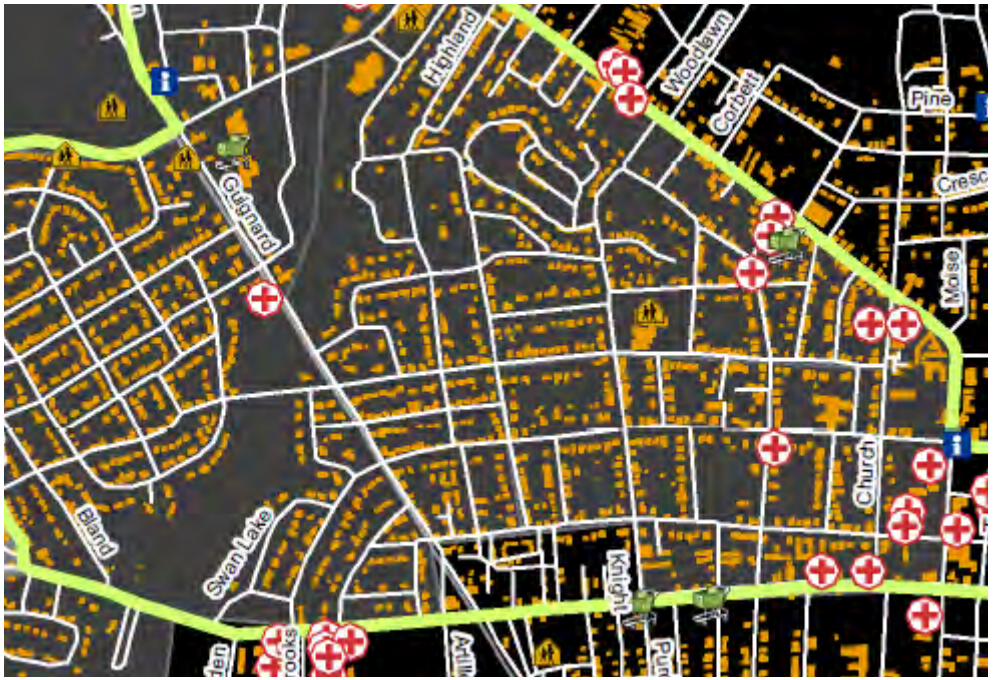
Step 3: Identify Residential Structures and Map as overlay to Transit Propensity Block Group Data

To gain a more specific understanding of where potential riders are located, GIS analysis combining existing zoning regulations with building footprints was conducted to produce a layer of residentially zoned buildings. This selection was then manually validated for accuracy to confirm that the buildings included were, in fact, residences. As shown on the map above, this analysis eliminated non-residential buildings, allowing the project team to gain a specific understanding of the origin points for potential transit users so that routing alignments to serve those areas could be developed.

Step 4: Map Key Transit Trip Generators

With trip origin points (residences) identified, it is then necessary to determine where major destinations for these trips are located. This required geocoded address data on all businesses indicated in the three major trip generator categories described earlier in this document: 1) Healthcare and Social Assistance, 2) Grocery/Food Stores, and 3) Education and Workforce Training Locations. This data was then overlaid with residential building footprints map to show exactly where individuals could be anticipated to want to go. This completed analysis identified the areas of greatest need for both trip origins and destinations.

STEP 1: MAP POSSIBLE TRANSIT ROUTES



With origin and destinations identified and mapped, the next step is to re-align existing routes and identify potential new routes using the analysis results. The map above shows an illustration of this result. The goal of the routing is to reach as many residences as possible while linking those riders to key destinations or transfer points that would allow them to reach destinations. The example route above was identified to connect many of the higher education facilities in the Downtown Sumter area while also accessing neighborhoods of significant population that could further increase ridership.

STEP 2: IDENTIFY BUS STOPS ALONG ROUTES AND REASONABLE WALKING DISTANCE BUFFERS

The next step is to place stops along routes that maximizes both ridership and access to key destinations. Based on USDOT guidelines, individuals can be expected to be willing to walk, on average, 0.25 miles (roughly 5-10 minutes) to reach a bus stop. This 0.25 mile walk buffer was created around each proposed stop. Locations for stops were selected to include origin points and destinations, as well as create potential transfer points where multiple routes cross, allowing passengers to reach a variety of destinations from their home without having to go through the central bus terminal at the James E. Clyburn Center on South Harvin St.

STEP 3: SELECT RESIDENTIAL BUILDINGS LOCATED WITHIN WALKING DISTANCE BUFFER

The total number of residential buildings within the 0.25 mile walk distance was then collected for each stop on the route. This establishes the number of housing units within each stop service area, though not the potential number of riders, as not all residents can be expected to be regular riders of the transit system. The estimated total number of people within walking distance of all stops along each route was then determined by multiplying the number of housing units by the average household size for the block groups where each proposed route is located.

STEP 4: CALCULATE POPULATION IN WALKING DISTANCE AND ESTIMATE POTENTIAL RIDERSHIP BASED ON DEMOGRAPHICS

Total Number of Residences
Within Walk Distance Buffer

X

Average Household Size
(per affected Block Group)

X

Zero Vehicle Households
(per affected Block Group)

=

Estimate of Projected Ridership for Route

While the prior steps provide an estimated total number of individuals that could access transit in a given area, it does not provide a reliable projection of actual anticipated ridership. To establish this final - and most important - figure, the total number of potential riders was then multiplied by the average percentage of zero-vehicle households in the block groups along the route. This produces a figure that best approximates the population most likely to be users of transit services for each geographic area.

Proposed Fixed Route Service Costs

The recommendations in this Plan are drawn from the Santee-Lynches Region Transit Needs Assessment + Framework and identify opportunities to re-align and increase frequency for existing fixed routes and establish new fixed routes for the Sumter urbanized area. Additionally, intermittent fixed routes to provide access to the SUATS area for residents in Mayesville and Pinewood are included.

5 New Routes
7 Existing Routes

119
Bus Stops

$963,500
Capital Cost*

$1,532,500
Annual Cost*

Route Name	Initial Capital Cost (vehicles, signage)	Annual Operating Cost	Total First Year Implementation Cost (Capital + Operations)
Broad Street Circulator*	$ 134,810	$ 225,700	$ 360,510
Shaw Shuttle*	$ 49,410	$ 207,400	$ 256,810
North Main Street Circulator*	$ 147,620	$ 189,100	$ 336,720
Manning Ave Circulator	$ 143,960	$ 201,300	$ 345,260
East Sumter Circulator	$ 31,110	$ 149,450	$ 180,560
West Liberty Circulator	$ 36,600	$ 131,150	$ 167,750
Sumter SmartRide*	$ 7,320	$ 222,650	$ 229,970
Heart of Sumter Circulator	$ 136,640	$ 143,350	$ 279,990
North Pike Circulator	$ 142,130	$ 186,050	$ 328,180
Mayesville Connector	$ 111,020	$ 36,600	$ 147,620
Pinewood Connector	$ 111,020	$ 73,200	$ 184,220
West Sumter Circulator	$ 123,830	$ 103,700	$ 227,530

* Denotes Existing Route

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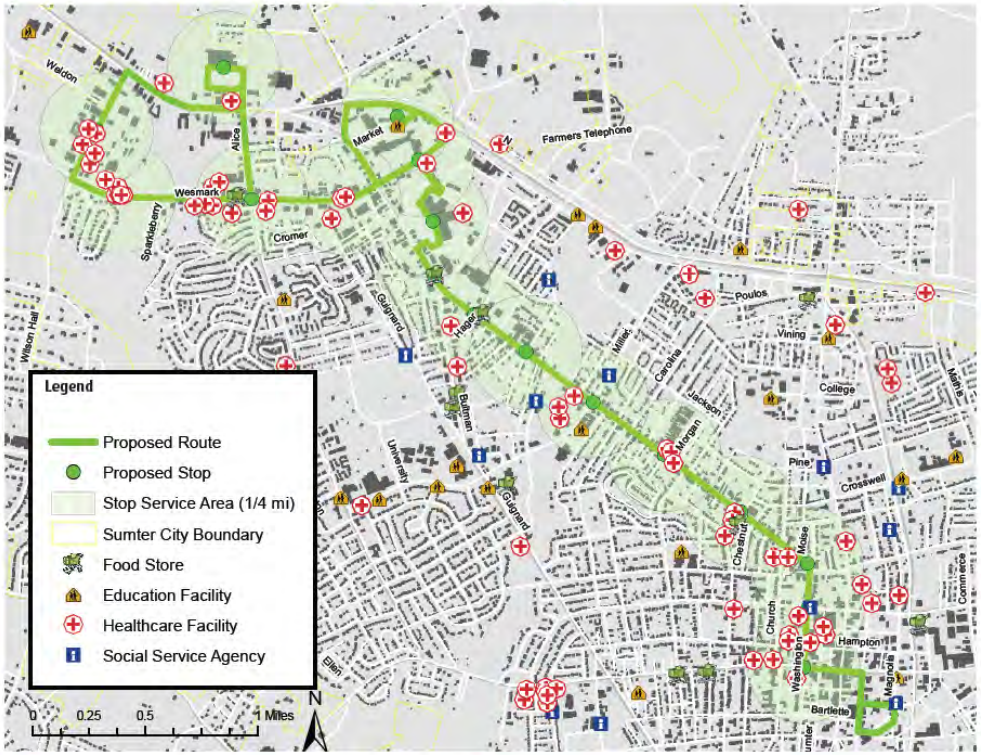
Proposed New and Updated Sumter Fixed-Routes

Broad Street Circulator (Green Route)



Length (mi) 13.1

Travel Time 46 min

Stops 17

Frequency 12 per day

Capital Investment Needed $25,500

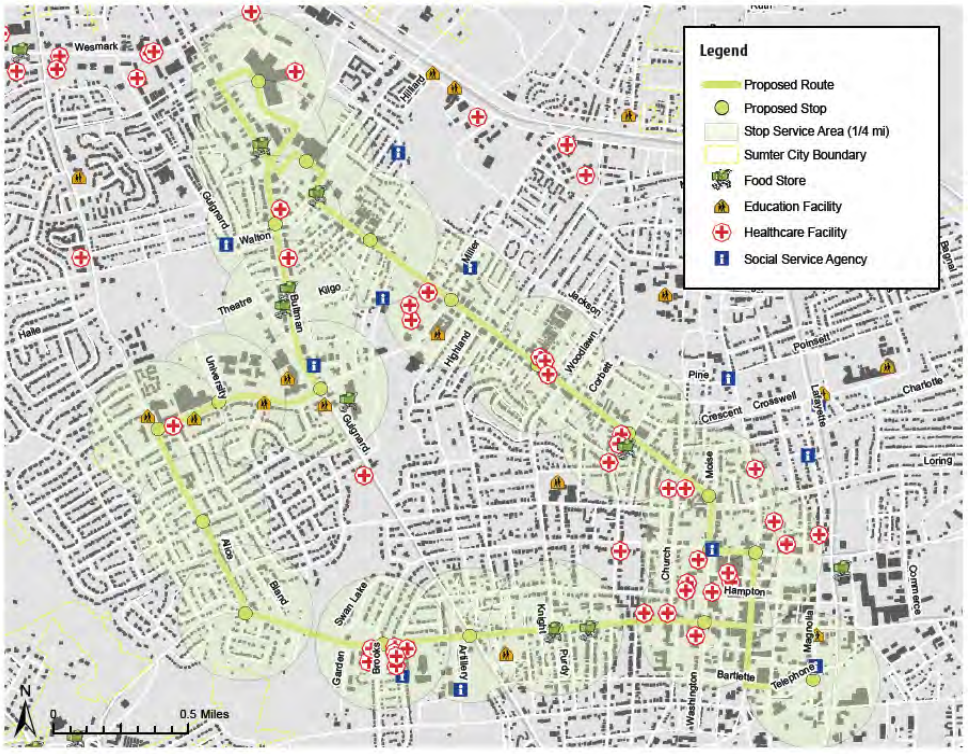
Annual Operating Cost (est.) $185,000

Expected Ridership (unique users) 499

Pop. within walking distance (est.) 2,820

Connecting Stops to other Routes 13

Heart of Sumter Circulator (Light Green)



Length (mi) 7.4

Travel Time 32 min

Stops 18

Frequency 12 per day

Capital Investment Needed $107,000

Annual Operating Cost (est.) $117,500

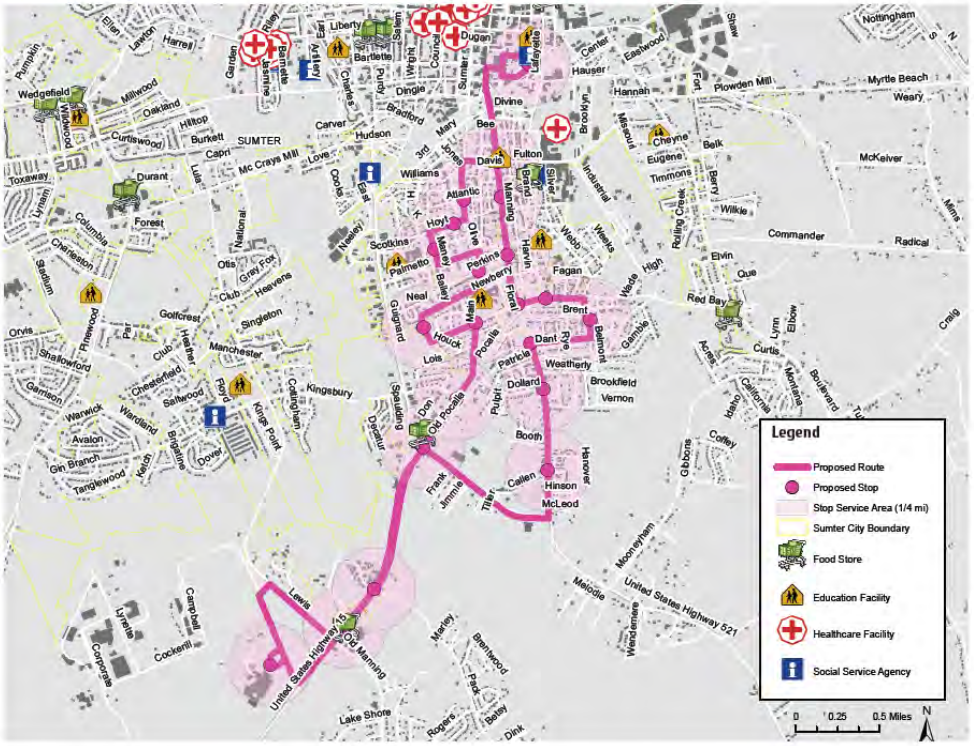
Expected Ridership (unique users) 610

Pop. within walking distance (est.) 3,295

Connecting Stops to other Routes 18

Proposed New and Updated Sumter Fixed-Routes

Manning Avenue Circulator (Magenta Route)



Length (mi)
13.6

Travel Time
50 min

Stops
22

Frequency
10 per day

Capital Investment Needed
$33,000

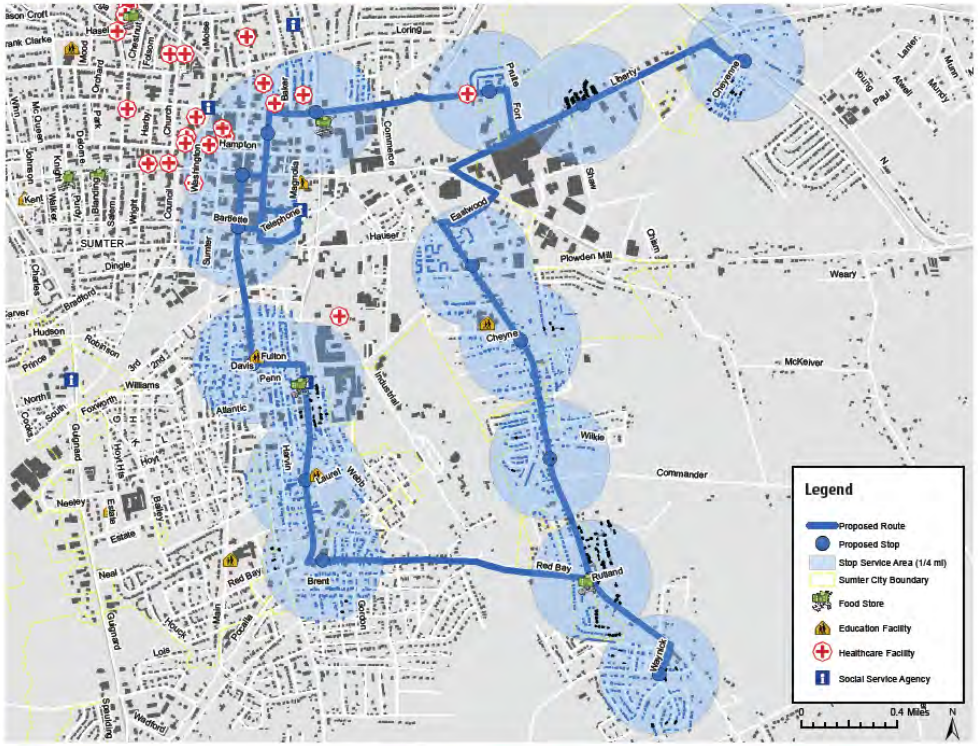
Annual Operating Cost (est.)
$165,000

Expected Ridership (unique users)
848

Pop. within walking distance (est.)
4,933

Connecting Stops to other Routes
3

East Sumter Circulator (Blue Route)



Length (mi)
12.6

Travel Time
46 min

Stops
17

Frequency
8 per day

Capital Investment Needed
$25,500

Annual Operating Cost (est.)
$122,500

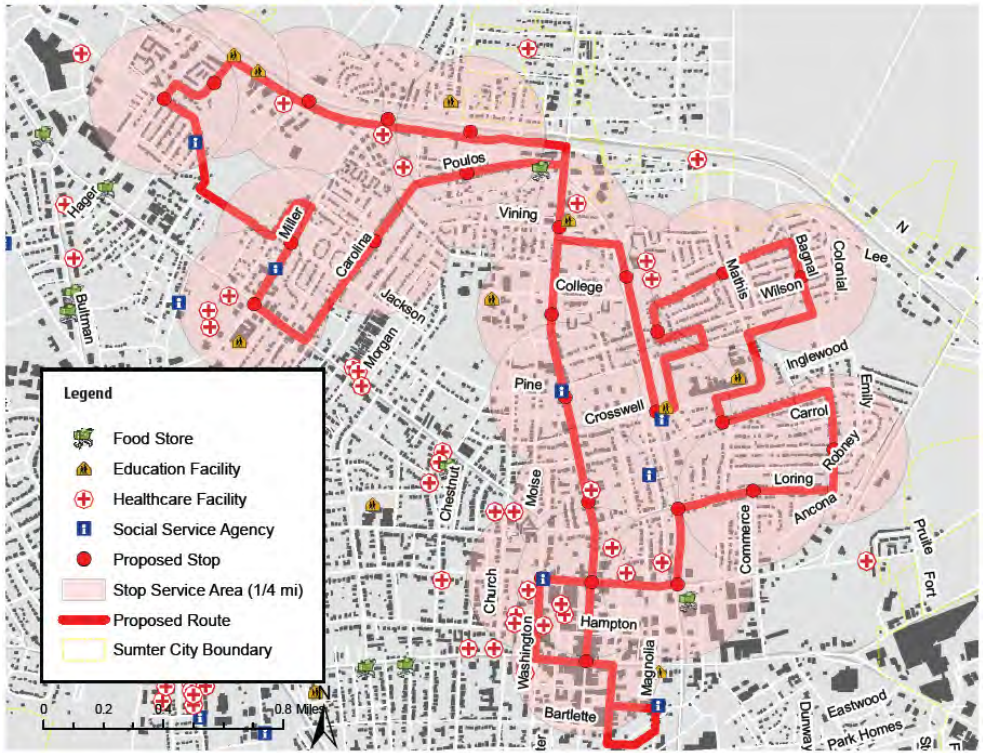
Expected Ridership (unique users)
667

Pop. within walking distance (est.)
4,116

Connecting Stops to other Routes
5

Proposed New and Updated Sumter Fixed-Routes

North Main Circulator (Red Route)



Length (mi)
11.1

Travel Time
52 min

Stops
24

Frequency
10 per day

Capital Investment Needed
$36,000

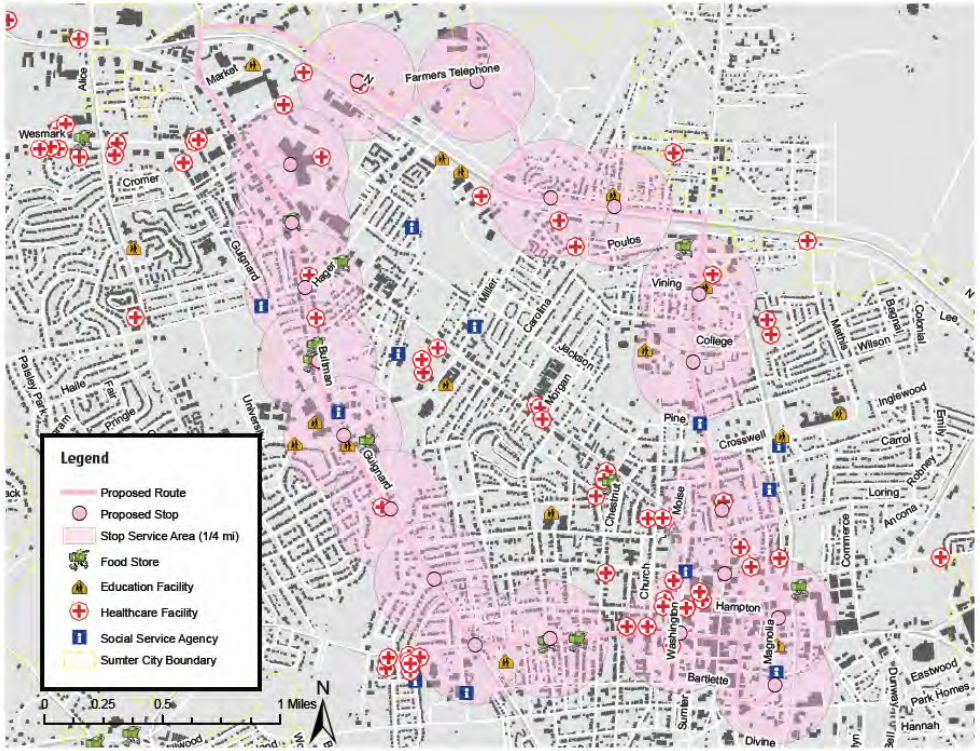
Annual Operating Cost (est.)
$155,000

Expected Ridership (unique users)
1,170

Pop. within walking distance (est.)
5,546

Connecting Stops to other Routes
9

North Pike Circulator (Pink Route)



Length (mi)
11.4

Travel Time
50 min

Stops
21

Frequency
10 per day

Capital Investment Needed
$111,500

Annual Operating Cost (est.)
$152,500

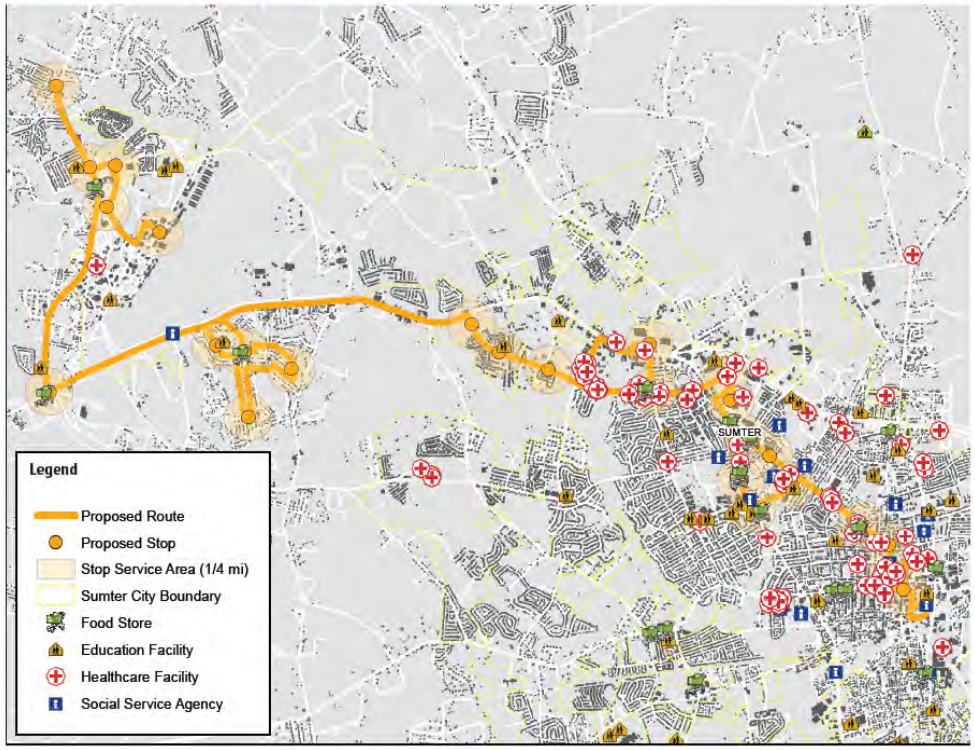
Expected Ridership (unique users)
639

Pop. within walking distance (est.)
3,443

Connecting Stops to other Routes
15

Proposed New and Updated Sumter Fixed-Routes

Shaw Shuttle (Orange Route)



Length (mi)
38.6

Travel Time
74 min

Stops
27

Frequency
5 per day

Capital Investment Needed
$40,500

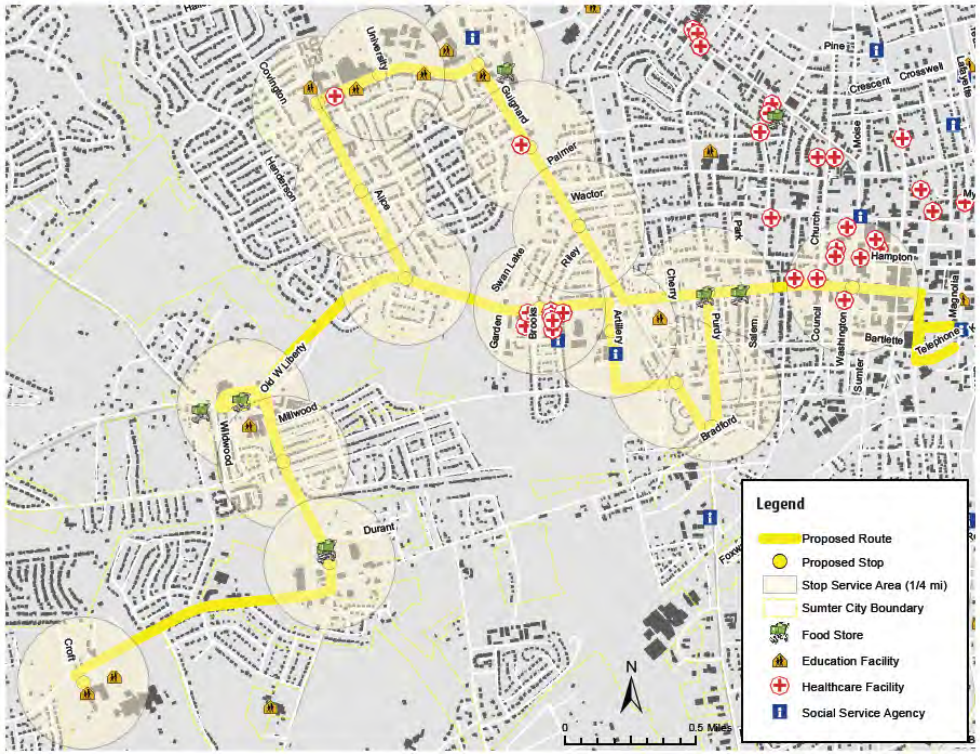
Annual Operating Cost (est.)
$170,000

Expected Ridership (unique users)
578

Pop. within walking distance (est.)
3,958

Connecting Stops to other Routes
13

West Liberty Circulator (Yellow Route)



Length (mi)
11.5

Travel Time
40 min

Stops
20

Frequency
8 per day

Capital Investment Needed
$30,000

Annual Operating Cost (est.)
$107,500

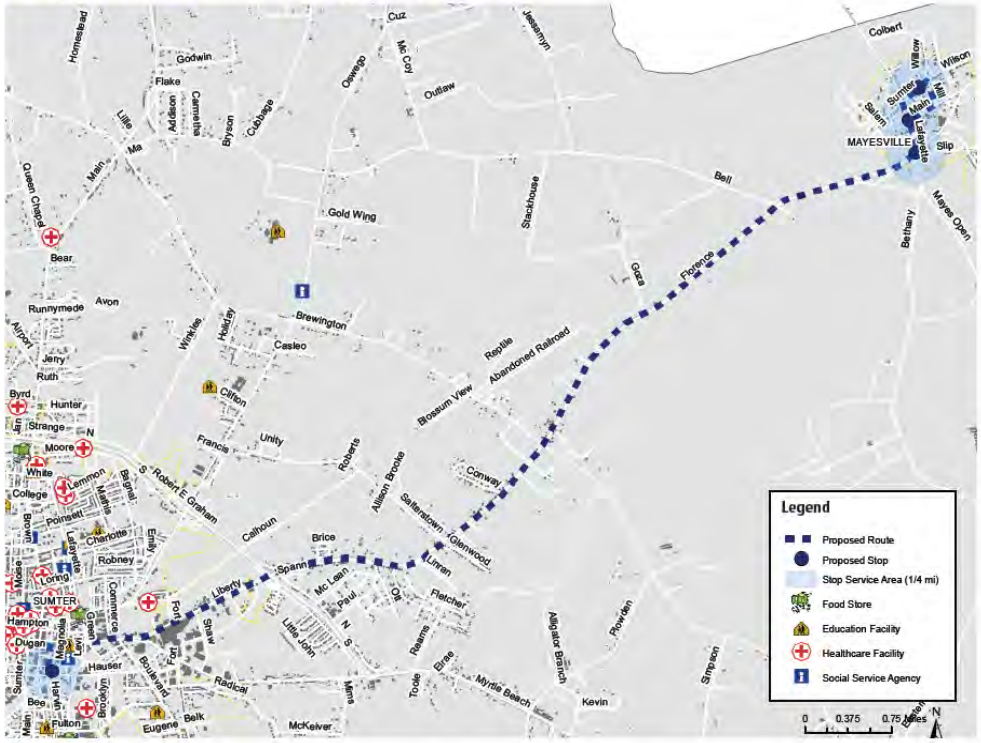
Expected Ridership (unique users)
582

Pop. within walking distance (est.)
4,372

Connecting Stops to other Routes
7

Proposed New and Updated Sumter Fixed-Routes

Mayesville Connector (Navy Route)



Length (mi)
18.0

Travel Time
30 min

Stops
3

Frequency
4 per day
(2 days/week)

Capital Investment Needed
$84,500

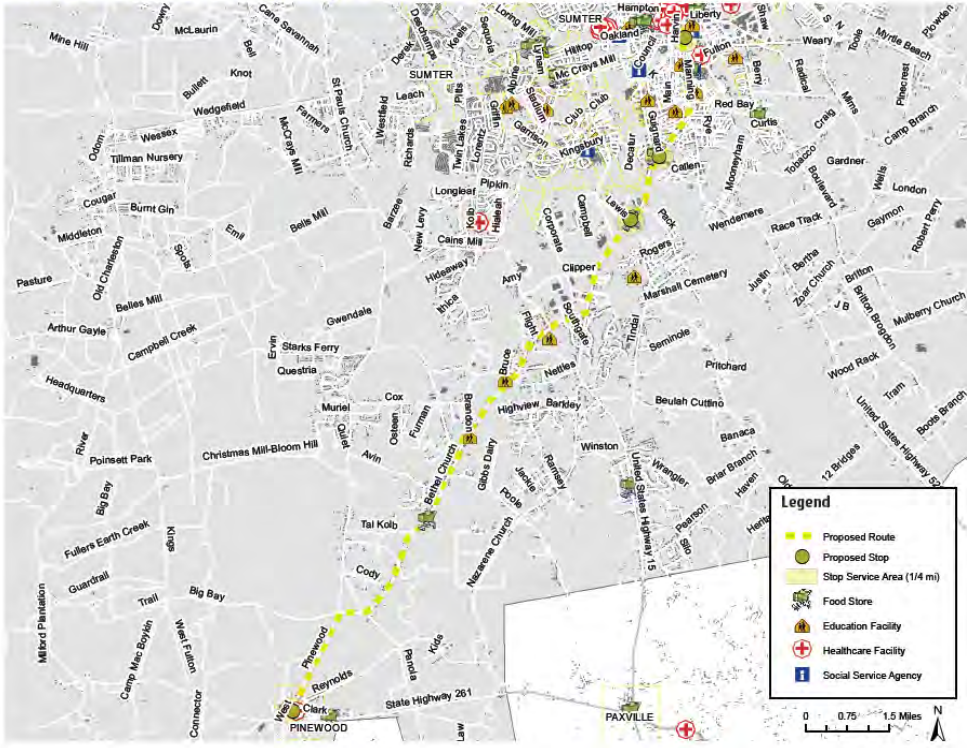
Annual Operating Cost (est.)
$30,000

Expected Ridership (unique users)
109

Pop. within walking distance (est.)
460

Connecting Stops to other Routes
x

Pinewood Connector (Marigold Route)



Length (mi)
36.0

Travel Time
60 min

Stops
x

Frequency
5 per day
(2 days/week)

Capital Investment Needed
$80,000

Annual Operating Cost (est.)
$60,000

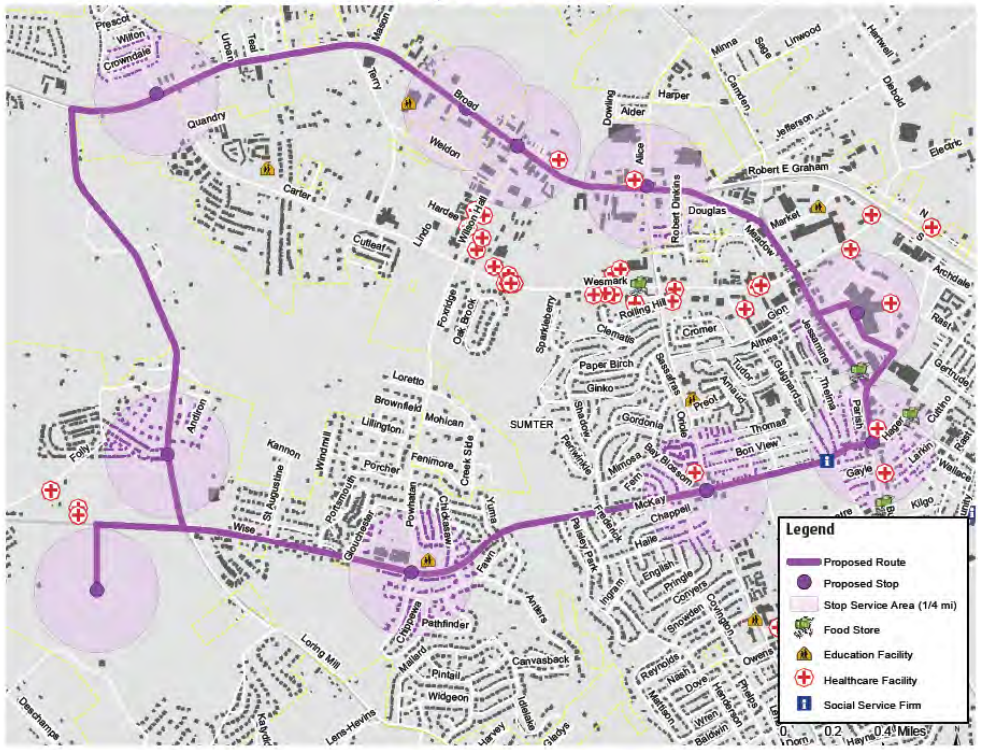
Expected Ridership (unique users)
54

Pop. within walking distance (est.)
397

Connecting Stops to other Routes
x

Proposed New and Updated Sumter Fixed-Routes

West Sumter Circulator (Purple Route)



Length (mi)
10.6

Travel Time
28 min

Stops
11

Frequency
8 per day

Capital Investment Needed
$96,500

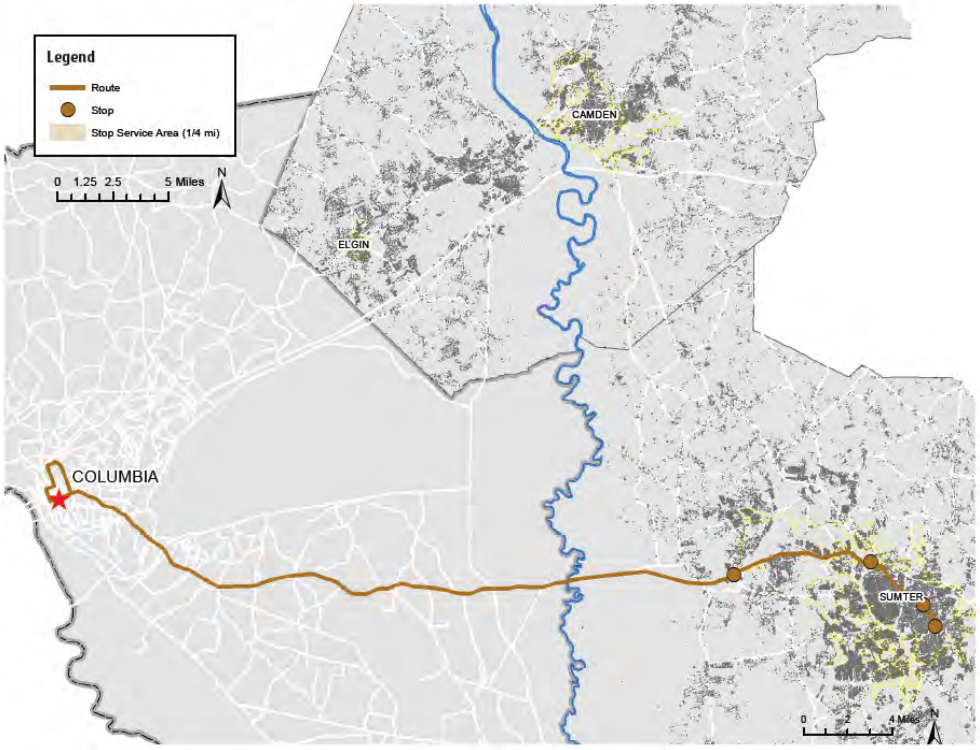
Annual Operating Cost (est.)
$85,000

Expected Ridership (unique users)
137

Pop. within walking distance (est.)
1,415

Connecting Stops to other Routes
4

Sumter SmartRide (Gold Route)



Length (mi)
44.4

Travel Time
90 min

Stops
4

Frequency
5 per day

Capital Investment Needed
$x

Annual Operating Cost (est.)
$182,500

Expected Ridership (unique users)
46

Pop. commuting outside county (est.)
15,492

Connecting Stops to other Routes
3

Chapter 10
Freight, Rail, and Aviation

Chapter 10

Freight (Truck)

Truck Route Recommendations

Rail

Aviation

Freight Routes, Rail Lines, and Airports Map

Sumter Municipal Airport Report Card

Freight (Truck)

The movement of goods through and between communities is often overlooked, but these freight activities play a vital role in our economy. A safe and efficient system that accommodates the needs of freight is an important element to consider during Sumter's LRTP planning process.

Freight has been an important part of life in Sumter since the original King's Highway (SC-261) connected the larger cities of Camden and Charleston. Freight between Sumter and Charleston traveled by road and ferry until the railroad arrived in the mid-19th century. The growth of the railroad improved freight mobility and contributed significantly to the local and regional economy. Today, freight continues to move through the area by rail, but the expansion of the interstate highway system in the region has shifted much of the dependence from rail to trucks.

An effective transportation network combines all modes of freight movement to achieve a level of efficiency that ensures the marketplace can operate without interruption. The economy of the SUATS MPO area depends on the movement of goods through the MPO.

Highway and Rail Freight Trends

According to the Bureau of Transportation Statistics Freight Analysis Framework, the volume by weight of domestic shipments in 2017 was 17.478 million tons. This total volume was expected to increase to 17.786 million tons by 2023, and to 24.911 million tons by 2050. Trucks comprise the lions share of this freight movement, accounting for 68% in 2017, and expected to grow to 70% by 2050. The balance of freight is carried by a combination of pipelines, waterways, air, and multiple modes.

For decades, the nation's freight railroads have lost market share to highway freight (trucks). This trend has led to increased levels of traffic congestion on our nation's freeways and highways. In recent years, particularly in South Carolina, development of "Inland Port" facilities in Greer and Dillon has helped move goods from the Port of Charleston inland via rail without burdening the I-26 and I-95 corridors with freight trucks. Sumter's proximity to the coast, and the economic realities associated with ability to commit return cargo via rail from those inland port facilities, precludes development of an "Inland Port" style facility in SUATS. As a result, SUATS will continue to rely on existing freight corridors, and will need to manage these corridors as efficiently as possible.

Figure 10.1 - Modal Service Attributes and Cost

Freight (Truck)

Existing Conditions

Highways

Freight movements originating in Sumter travel via the region's US routes and major arterials to interstate highways located outside the MPO. SUATS is located in a triangle formed by three interstates: I-95, I-20, and I-26, though none of these hgihways actually crosses the MPO boundary.

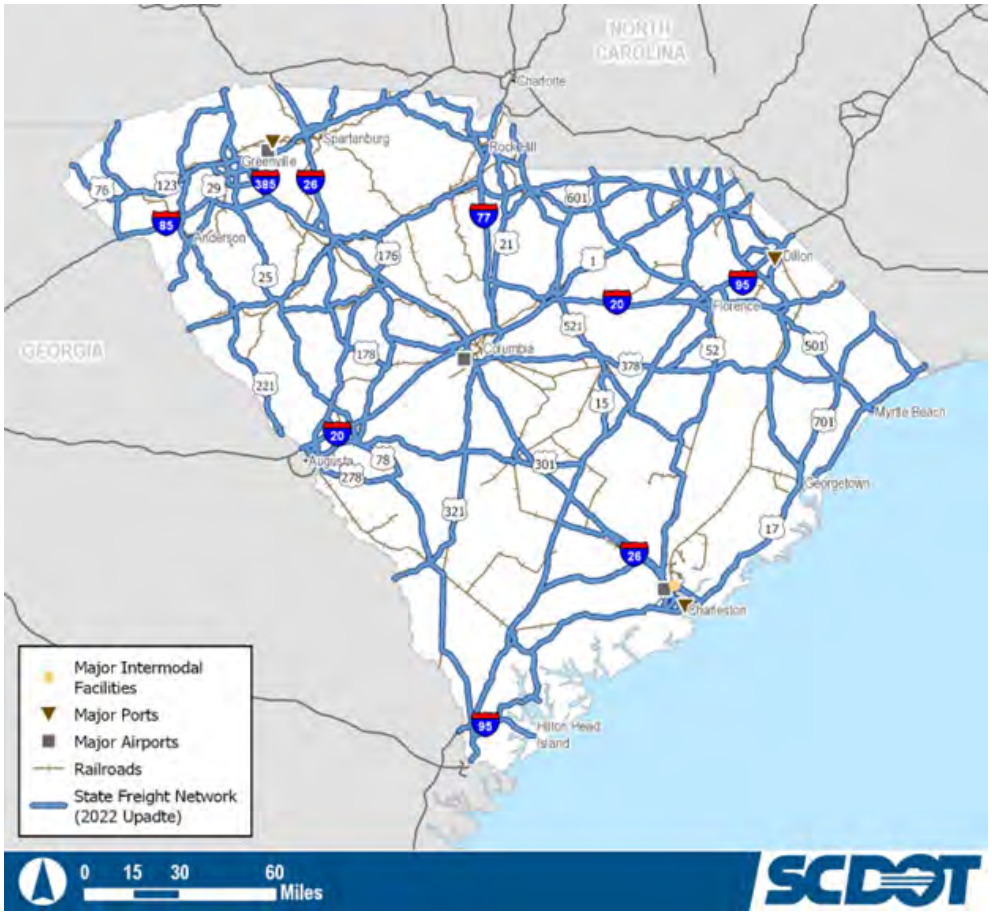
The primary north-south route is US-15, which connects Sumter to I-20 to the north and I-95 and I-26 to the south. **Live Oak Industrial Park**, the region's largest industrial park, is directly adjacent to US-15 south of the City of Sumter. In addition, **Black River Industrial Park**, the region's second largest industrial park, is located close to US-15 north of the City of Sumter.

US-521 provides an alternate connection to I-20 to the north and I-95 and I-26 to the south. Continental Tire Americas has established a large manufacturing facility adjacent to US-521 south of the City of Sumter within the last 10 years, and Sumter's economic development agency is actively working to establish a third major industrial park for the region, known as **Pocotaligo Industrial Park**.

Movements east and west rely primarily on US-378/76, which connects Sumter to Columbia to the west and I-95 to the east, before continuing to Myrtle Beach to the east. Sumter's oldest industrial zone, located immediately to the east of the Central Business District, is accessible to US-378/76.

Engagement with Sumter's economic development agency and industries in the area have re-emphasized the critical regional connections to interstate highways provided by these major non-interstate highways. As expected, condition of infrastructure, particularly the condition and load capacity of major bridges is of paramount concern to industries that rely on freight trucks to transfer raw materials and finished products around and through the region. Though replacment of obsolete and deficnient bridges and resurfacing of roads has been specifically discouraged by SCDOT as a use of funding under the MPO's Regional Mobility Program, SUATS can and should continue to advocate strongly for inclusion of key roads and bridges on the state's capital plan.

South Carolina Statewide Freight Network (2022)



Freight (Truck)

Truck Route Recommendations

Trucks are defined as vehicles with a manufacturer's gross vehicle weight of 33,000 pounds or more. This definition excludes most straight, panel, and delivery trucks, but includes large trucks with more than two axles, such as tractor-trailers and tandem axle dump trucks. This definition also excludes public service vehicles, such as trash collection trucks.

The Federal Highway Administration's (FHWA) Freight Analysis Framework was analyzed to determine route designation and recommendations. When comparing the 2017 framework to the 2050 framework, freight routes change very little. Each of the major routes carry less than 20,000 kilotons per year in both models.

With this framework in mind and upon designation of routes, signs should continue to be posted at the city limits, highway exits, and other appropriate locations directing truck drivers to those streets on which their movements are permitted. Restrictions may include limiting their travel to US and SC routes or designated/ signed routes through the city. Truck enforcement strategies within city limits should be revisited to ensure that trucks are prohibited on local streets.

Truck designations for major routes and industrial streets could prove beneficial. Those streets critical to the freight community and intended to serve truck traffic are logical selections for truck route designation. These streets include US-76, US-378, US-15, and US-521. Utilization of these routes provides better defined east-west and north-south freight corridors. Likewise, truck traffic should be discouraged on roadways that do not meet the design criteria necessary to facilitate heavy truck traffic.

The Lafayette Drive Corridor Study, an action item of a previous update of the SUATS Long-Range Transportation Plan, created a community-based plan to reinvigorate one of the area's critical north-south corridors. Currently, heavy vehicles are using several facilities throughout Sumter to travel between US-378/76 and the various industrial parks. These roads include routes through the central business district that were not intended to facilitate major truck traffic.

Recommendations from that study for wayfinding, signage, and truck route designation include consolidating the current designations into a continuous truck route through the city that utilizes the capacity and geometrics of Lafayette Drive (designated as US 15). From the north, the consolidated truck route would utilize the proposed interchange at US 76/378 before proceeding down Lafayette Drive.

Increased industrial development will require efficient truck access and circulation to the arterial system, ultimately improving freight mobility while limiting cut-through truck traffic in neighboring subdivisions.

Additional tasks associated with establishing truck routes through the urban area include:

- Work with SCDOT to prioritize resurfacing of designated routes in an effort to reduce noise and vibration from trucks.
- Adjust signal timing along high priority routes to allow uninterrupted through movements based on posted speed limits. The result will be improved travel times and reduced noise and air pollution.
- Publish and distribute educational materials to businesses and industries concerning proposed designated truck routes.
- Work with SCDOT to make improvements to critical intersections on truck routes to facilitate and encourage their use by truck operators. Improved turning radii, lane width, and the provision of dedicated turn lanes will greatly improve the efficiency and safety of these corridors.
- Identify streets in industrial areas that function as industrial collectors and work with stakeholders to evaluate and implement the appropriate cross-section presented in Chapter 5.

Truck Route Designations Map

Rail

The existing rail network in the SUATS MPO area includes track owned and operated by two major railroad companies (CSX Corporation and Norfolk-Southern Railway Company) as well as the U.S. government.

CSX Corporation provides freight rail service to the heart of Sumter with three railroad lines approaching downtown from the south, southwest, and west. These lines are part of the company's 1,300 miles of railroad in South Carolina that links Sumter with the state's major cities. The more than 22,000 miles of CSX track that blanket the eastern United States connect Sumter to major cities from Canada to southern Florida and as far west as St. Louis.

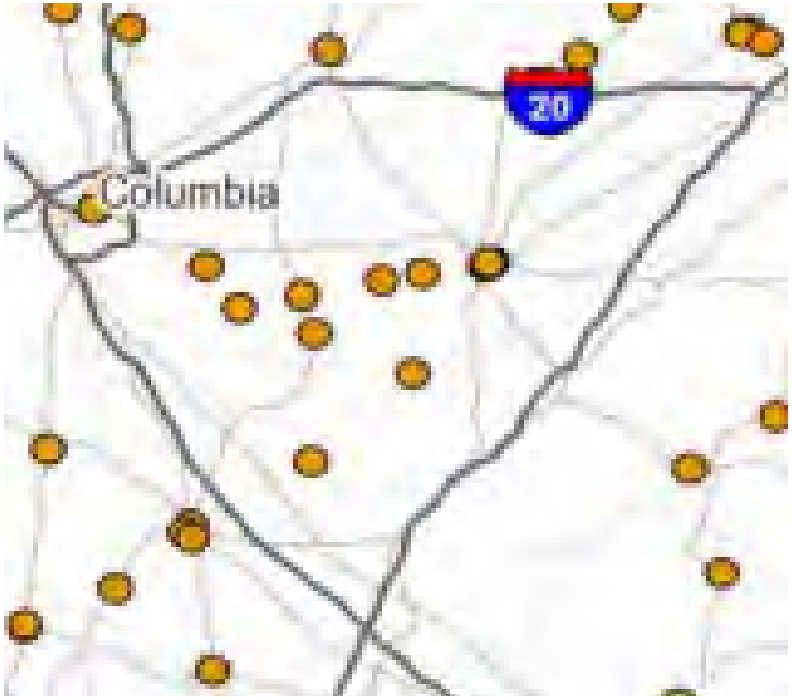
The Norfolk-Southern Railway Company has a single line just west of the study area that runs north to Columbia and south to Charleston. Like CSX, the Norfolk-Southern line is part of an extensive network of more than 21,000 miles of railroad that connects Sumter with points across the eastern U.S.

The final link in the SUATS area railroad network is owned and operated by the U.S. Air Force. The line owned and operated by the Air Force includes a 5-mile railroad spur that connects Shaw AFB with the east-west CSX line at Cane Savannah just west of the city limits. The line's sole purpose is to transport jet fuel to Shaw Air Force Base.

Several local companies depend on private rail for importing materials and exporting products. Rail access can be a major selling point to businesses looking to relocate to area. In addition to strengthening the local economy, the use of rail for moving freight has a significant impact on the area's roadways, particularly given the large ports on the South Carolina coast.

According to the CSX Corporation, every railcar trip provided by the company removes approximately three truck trips from the state's highways.

Map - Railroad Crossings




CSX


Amtrak service and high-speed rail proposals
Existing Amtrak service
Expanded Amtrak service
New Amtrak service
High-speed proposals
Brightline Florida
Montreal
Rockland
Green Bay
Toronto
Boston
Grand Rapids
Scranton
Rockford
Reading
New York
Chicago
Columbus
D.C.
Cincinnati
St. Louis
Newport News
Louisville
Roanoke
Norfolk
Asheville
Nashville
Wilmington
Birmingham
Atlanta
Savannah
Montgomery
Jacksonville
Baton Rouge
Mobile
New Orleans
Orlando
Tampa
Miami

Aviation

Airports serve the needs of the flying public, whether as passengers on an airline or piloting private passenger or freight aircraft.

Existing Conditions

Sumter Municipal Airport (SMS) is a general aviation facility without scheduled passenger service. The County owns the Airport, which is located in north central Sumter County. The existing conditions and recommendations for this section are derived from the Sumter Airport Layout Plan (ALP) and South Carolina Aviation System Plan Update (2018).

Sumter Municipal Airport (SMS)

Characteristics of the runways, taxiway, and facilities at the airport are outlined both in Table 10.2 and the following details in this section.

Aircraft Storage

The following aircraft storage options are available at Sumter Airport:

- Conventional Hangars — 3 hangars totaling 22,800 square feet; the 100' x 120' facilities operated by Pride Aviation serve as maintenance hangars
- T-Hangars — 3 hangars (30' x 330' and 52' x 230') totaling 30 units

Terminal and Services

The 6,800-square foot Sumter Municipal Airport terminal provides a lobby, restrooms, flight planning, vending machines, and management offices. Fixed Based Operator (FBO) services include fuel provided by On Eagles Wings and aircraft maintenance provided by Pride Aviation.

Sumter Municipal Airport (SMS) - Layout Diagram

Table 10.2 - Airport Facilities (Runways, Taxiways)

	Designation	Surface	Length	Width	Load Bearing	Notes
Primary Runway	5/23	Asphalt	5,500 ft.	100 ft.	26,000 lbs. (single gear) 55,000 lbs. (dual gear)	
Secondary Runway	14/32	Turf	3,200 ft.	120 ft		Accomodates VFR operations only
Taxiway		Asphalt				3 stub connectors and 2 high-speed exits

Aviation

Aircraft Activities

The general aviation operations at Sumter Municipal Airport include charter, corporate, and non-scheduled air taxi service. As of 2023, xx aircraft were based at the airport, including xx single engine and xx multi-engine aircraft. Additionally, Med Trans, an air medical transport company, has established a base of helicopter operations at the Sumter Airport.

Table 10.3 - Aircraft Based at Sumter Municipal Airport

Year	Single Engine	Multi-Engine	Rotor	Other (Experimental)	Total
1990	27	3	0	0	30
1995	30	4	0	0	34
2000	35	2	0	2	39
2013	52	10	0	0	62
2018	36	10	0	1	47
2026 (projected)					

Improvements Since 2017

Several improvements have been made at the Sumter Airport beginning in late 2017. These include:

- Runway surface work, including the application of a rejuvenation compound which will extend the asphalt life by 5-7 years.
- Runway restriping.
- Runway lighting replacement to be completed June 2018.
- Runway and taxiway signage update.

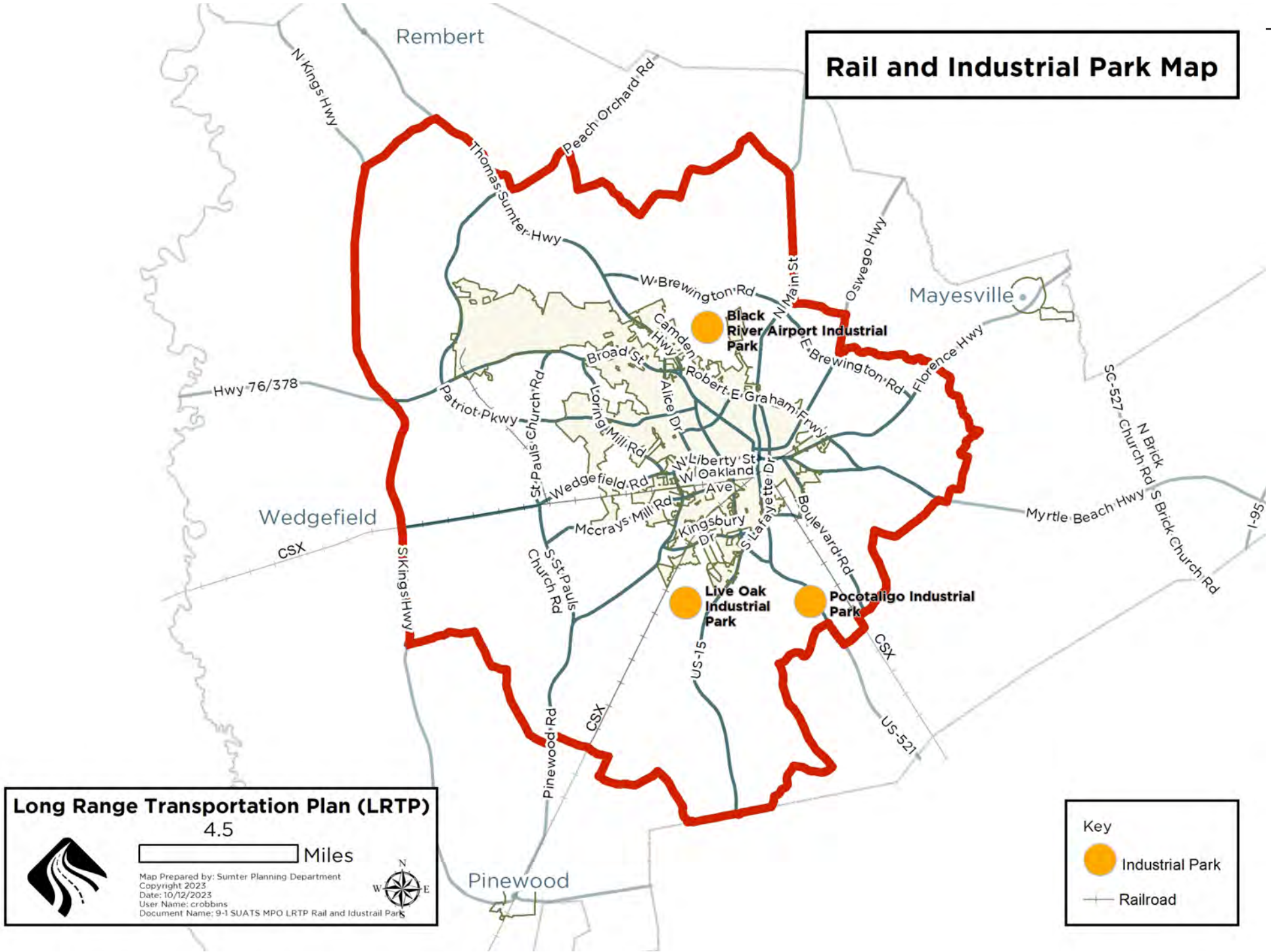
Table 10.4 - Projected Emplaned Pilots and Passengers

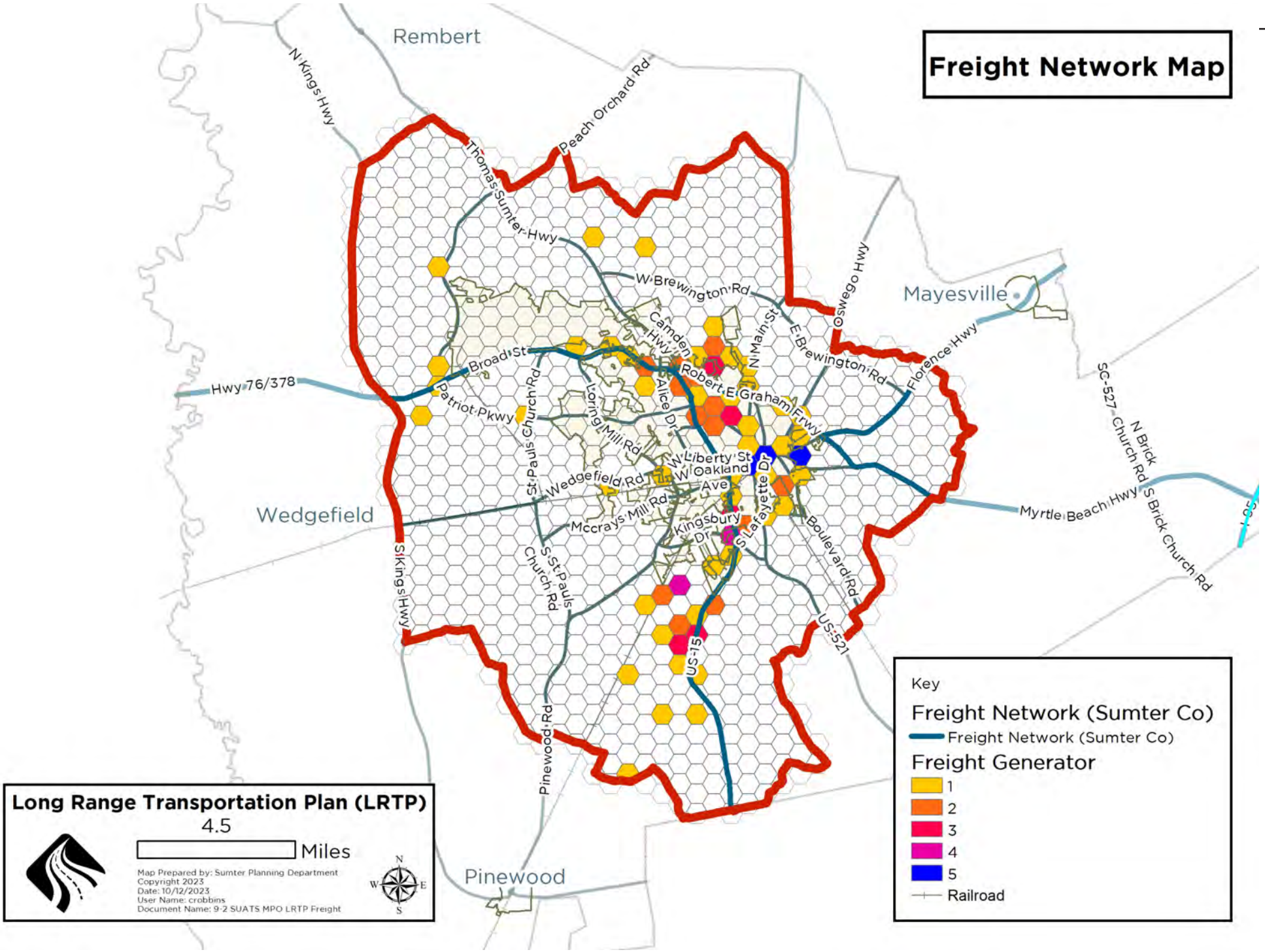
Year	Pilots/ Passengers	Design Hour Peak (pilots/passengers per hour	Design Day Peak (pilots/Passengers per day)
2001	36,496	-	-
2006	47,313	73	362
2011	56,571	87	432
2016	68,086	105	521
2023			

Source: Sumter Airport Layout Plan

Shaw Air Force Base (Shaw AFB)

Though not in use by the general public, the air facilities at Shaw AFB provide a major air terminal for personnel and supplies. Planning for enhanced air facilities at Shaw AFB is the responsibility of the Department of Defense.


Rail and Industrial Park Map
Rembert
N Kings Hwy
Thomas Sumter Hwy
Peach Orchard Rd
W Brewington Rd
N Main St
Oswego Hwy
Mayesville
Black River Airport Industrial Park
Camden Hwy
Broad St
Robert E Graham Frwy
E Brewington Rd
Florence Hwy
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Alice Dr
W Liberty St
W Oakland Ave
Wedgefield Rd
Wedgefield
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
CSX
S Kings Hwy
S St Pauls Church Rd
Live Oak Industrial Park
Pocotaligo Industrial Park
US-15
CSX
Pinewood Rd
CSX
US-521
Myrtle Beach Hwy
SC-527
N Brick Church Rd
S Brick Church Rd
I-95
Pinewood
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 9-1 SUATS MPO LRTP Rail and Idustrail Park
N
W
E
S
Key
Industrial Park
Railroad


Freight Network Map
Rembert
Mayesville
Wedgefield
Pinewood
N Kings Hwy
Peach Orchard Rd
Thomas Sumter Hwy
W Brewington Rd
Oswego Hwy
Camden Hwy
N Main St
E Brewington Rd
Florence Hwy
Broad St
Hwy 76/378
Patriot Pkwy
St Pauls Church Rd
Loring Mill Rd
Robert E Graham Frwy
Alice Dr
W Liberty St
W Oakland Ave
Wedgefield Rd
Mccrays Mill Rd
Kingsbury Dr
S Lafayette Dr
Boulevard Rd
S St Pauls Church Rd
S Kings Hwy
US-15
US-521
Pinewood Rd
SC-527
N Brick Church Rd
S Brick Church Rd
Myrtle Beach Hwy
Key
Freight Network (Sumter Co)
Freight Network (Sumter Co)
Freight Generator
1
2
3
4
5
Railroad
Long Range Transportation Plan (LRTP)
4.5
Miles
Map Prepared by: Sumter Planning Department
Copyright 2023
Date: 10/12/2023
User Name: crobbins
Document Name: 9-2 SUATS MPO LRTP Freight
N
W
E
S

Sumter Muncipal Airport Report Card

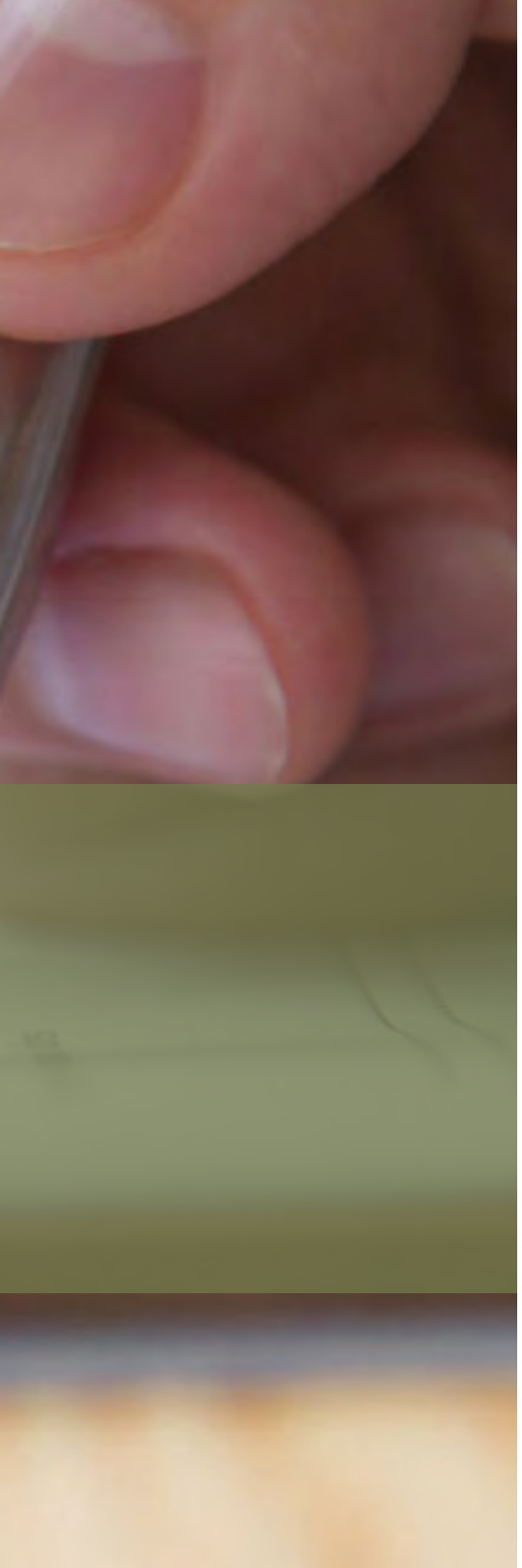
Table 10.4 - Sumter Municipal Airport (SMS) Airport Report Card					
Actions Needed to Meet Facility and Service Objectives (with Associated Project Costs)					
	Actual	Minimum Objective	Compliant?	Action Needed to Meet Objective	Estimated Cost
Runway Length	5,501 ft	5,000 ft	Yes	-	-
Runway Width	100 ft	75 ft	Yes	-	-
Taxiway	Full Parallel	Full Parallel	Yes	-	-
Runway Lighting	MIRL	MIRL	Yes	-	-
Taxiway Lighting	MITL	MITL	Yes	-	-
Primary Runway PCI	78	70 or greater	Yes	-	-
Approach Type	IS	RNAV (GPS) LPV	Yes	-	-
Navigational Aids					
- VGSI	P2L/P2L	PAPIs or VASIs	Yes	-	-
- REILs	REILs/REILs	REILs	Yes	-	-
Weather Reporting	AWOS-III P/T	ASOS or AWOS	Yes	-	-
Airport Master Plan/ALP	2004	SCAC/FAA approved master plan/ALP within 10 years	No	Update Airport Master Plan	Cost Included in CIP
	Other Actions Needed to Meet Facility and Service Objectives (No Associated Costs)				
Fuel	Jet A and 100 LL	Jet A and 100 LL	Yes		Demand Driven
FBO	Available	Available	Yes		Demand Driven
Ground Transportation	Rental Car Available	On-Site or Prearranged Rental Car	Yes		Demand Driven
Unobstructed Approaches					
- Runway 5	Trees in Approach	Clear Approach	No	Remove Obstruction	TBD
- Runway 23	Trees in Approach	Clear Approach	No	Remove Obstruction	TBD
- Runway 14	Trees in Approach	Clear Approach	No	Remove Obstruction	TBD
- Runway 32	Trees in Approach	Clear Approach	No	Remove Obstruction	TBD
				Estimated Project Costs	$ 0

Sumter Muncipal Airport Report Card

Table 10.5 - Sumter Municipal Airport (SMS) Report Card			
Program Year	Pavement Type	Project Description	Estimated Cost
	Major Pavement Rehabilitation Planned 2018-2022		
	No projects currently identified in this category		
		Total	$ 0
	Capital Improvement Plan (CIP) 2018-2022		
2018	Plans/Studies	Airport Layout Plan (ALP) Update	$ 180,000
2019	Apron	Airport Reconstruction Phase II (Design)	$ 237,000
2020	Apron	Apron Reconstruction Phase II (Construction)	$ 3,633,000
2021	Plans/Studies	Runway Extension Environmental Assessment (EA)	$ 150,000
2022	Runway	Runway Extension and Runway Strengthening (Design)	$ 425,000
	Runway	Runway Extension and Runway Strengthening (Construction)	$ 5,500,000
	Apron	Apron Reconstruction Phase III (Design)	$ 120,000
		Total	$ 10,245,000
		Total Project Costs for Airport	$ 10,245,000

Report Card from South Carolina Aviation System Plan Update, Prepared by the South Carolina Aeronautics Commission, 2018

Chapter 11
Financial Plan



Financial Plan

Revenue Forecast

Project Cost Projections

2021-2027 Transportation Improvement Program (TIP)

Alternative Funding Strategies

2030 Interim Year Fiscally Constrained Projects

2040 Horizon Year Fiscally Constrained Projects

2050 Vision Year Fiscally Constrained Projects

Fiscally Constrained Projects Map

Financial Plan

Introduction

The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58) requires development of new policies while providing new direction in transportation.[1] The legislation continues the program estalbished under the FAST Act that a financial plan be completed as part of the LRTP development.

The financial plan shows proposed investments that are realistic in the context of reasonably anticipated future revenues over the life of the plan and for future network years, set for the purpose of the 2050 SUATS LRTP as 2030, 2040, and 2050. Meeting this test is referred to as "financial constraint."

The 2050 SUATS Long Range Transportation Plan is financially constrained. The mix of transportation recommendations proposed to meet metropolitan transportation needs over the next 27 years is consistent with revenue forecasts. The Financial Plan details both proposed investments toward these recommendations and revenue forecasts over the life of the plan.

The proposed project recommendations were developed in collaboration with the City of Sumter, Sumter County, and SCDOT. These projects include roadway, bicycle and pedestrian facilities, and services for the life of this plan and reflect existing and committed projects, the Transportation Improvement Program (TIP), and the future plans of the MPO, SCDOT, the City of Sumter, Sumter County, and SWRTA.

These recommendations also reflect travel demand benefits and socioeconomic impacts studied using the evaluation process. Finally, these projects are a result of an extensive public participation process, both through public workshops and the SUATS Technical Committee.

Revenue forecasts were developed after a review of previous state and local expenditures, current funding trends, and likely future funding levels. The revenue forecasts involved consultation with SCDOT, the City and County of Sumter, SUATS MPO, and SWRTA. All dollar figures discussed in this section initially were analyzed in current year dollars (i.e. 2023) and then inflated to reflect projected year of funding or implementation. Based on current national averages, an annual increase rate of 2.0% was used to forecast revenues as well as expenses.

This chapter provides an overview of revenue assumptions, probable cost estimates, and financial strategies along with the detailed research results used to derive these values. Since this is a planning level funding exercise, all funding programs, projects, and assumptions will have to be re-evaluated in subsequent plan updates.

Financial Planning Scenario

The SUATS MPO currently obtains the majority of its funding through federal and state Regional Mobility Program (RMP) funding. This funding amount is determined largely by current and projected regional population and vehicle miles traveled compared to other regions of the state. As a result, funding levels are not expected to increase substantially over the life of this plan. These funding levels will not be sufficient to implement many of the projects identified as a part of this study, thereby leaving many deficiencies unaddressed across all modes of transportation.

Based on current national averages, an annual increase rate of 2.0% was used to forecast revenues and expenses.

In order to mitigate this funding shortage, alternative funding sources that can be generated using other methods need to be identified. These funding sources will be discussed in greater detail at the end of this chapter.

The financial plan incorporates an assumption that Sumter's previous "Penny for Progress" capital sales tax, will be re-established in 2024. This program began in 2007 and was reauthorized in 2016 before failing to gain reauthorization in 2022. The initiative is arranged in 7-year cycles. As a means to demonstrate a continued local commitment to support transportation improvements, the 1-cent sales tax is assumed to be re-established in 2024 and renewed in each subsequent 7-year increment to last through the duration of the plan. In order to determine a reasonable expectation for future funding, sales tax renewals were assumed to remain consistent with the $100 million in projected funding from the last attempted reauthorization in 2022. Sales tax funds are assumed to increase with inflation at each renewal, with the

1 The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58) is the current Surface Transportation Legislation establishing funding and policy priorities for the United States. It provides $550 billion over fiscal years 2022 through 2026 in new Federal investment in infrastructure, including in roads, bridges, and mass transit, water infrastructure, resilience, and broadband.

7-year lump sum amount increased each cycle based on previous trends.

Following this assumption, the amount of the P4P initiative currently dedicated to transportation projects (20%) is assumed to continue on in future sales tax renewals. Within the sales tax, 80% of funding would be dedicated to highway capital projects and 20% would be dedicated to bicycle and pedestrian funding. This funding split is intended to demonstrate a commitment to non-motorized travel in the SUATS MPO area while allocating the majority of funds to highway capital projects.

It is important to note that the purpose of the 2050 SUATS Long Range Transportation Plan is only to provide a reasonable expectation of future funding. The composition of any future sales tax referenda will be a topic of discussion for the City of Sumter and Sumter County, and will ultimately be decided on by the County's voters.

System Revenues

Table 11.1 displays the forecasted revenues for the 2050 SUATS Long Range Transportation Plan, assuming the continuation of current funding levels and reauthorization of the 1-cent sales tax. Funding is divided to reflect 2030 and 2040 interim years and a 2050 final plan year. Roadway capital projects, roadway maintenance, walk + bike, transit operations, and transit capital each are divided into individual revenue categories.

These tables indicate that using current funding level estimates total projected overall revenue during the planning period would be approximately $856 million. After considering the estimated costs for all modes, the total cost over the planning period would be approximately $1.947 billion.

Maintenance Funding

Maintenance funding in the SUATS MPO area primarily is used for roadway maintenance and paving of dirt roads, though pedestrian and bicycle facilities also are maintained with these funds. Maintenance currently is funded by C-funds in this area. C-funds are based from the county gas tax. Of the total, 25% go to city road maintenance, 25% go to state road maintenance, and 50% go to the county. The county splits its 50% equally between paving dirt roads and maintenance. This fund generates approximately $2.8 million annually for Sumter County, an amount that is expected to rise approximately 2.5% on average annually based on previous trends.

SCDOT also uses statewide funding sources for maintenance efforts such as repaving and bridge replacement. SUATS coordinates regularly with SCDOT to determine if maintenance needs are being satisfied exclusive of guideshare funding.

Table 11.1 - Long Range Transportation Revenue Forecast

Period	Roadway Capital	Roadway Maintenance	Walk + Bike Capital	Transit Capital	Transit Operations	Totals
2023-2030	$ 52,191,117	$ 112,626,401	$ 13,999,996	$ 4,368,058	$ 11,356,951	**$ 194,542,523**
2031-2040	$ 76,247,947	$ 175,979,419	$ 19,768,569	$ 6,825,116	$ 17,745,303	**$ 296,566,354**
2041-2050	$ 86,747,107	$ 225,268,534	$ 21,714,916	$ 8,736,726	$ 22,715,488	**$ 365,182,771**
Totals	**$ 215,186,170**	**$ 513,874,354**	**$ 55,483,481**	**$ 19,929,900**	**$ 51,817,742**	**$ 856,291,648**

Highway Capital Funding

Regional Mobility Program (RMP) funding received through SCDOT is the only forecastable federal and state capital highway funding available in the SUATS MPO area. A range of intersection improvements and corridor revitalization plans are funded in the 2021-2027 SUATS Transportation Improvement Program (TIP) as shown in Table 11.3. RMP funding is currently set at $5.0 million. The RMP amount received annually by SCDOT has not historically kept pace with inflation, however a significant increase was implemented by SCDOT in 2023. Given this increase, the first change to the SUATS fund in nearly 20 years, this plan assumes that amount will be maintained as a static figure throughout the life of the LRTP.

The Penny for Progress (P4P) sales tax was recently used to fund several different highway capital improvements, including intersection improvements, interchange rehabilitation, and sidewalk safety improvements. As described previously, this plan makes the assumption that the P4P initiative will be re-instated via referendum in 2024, with 75% of its transportation category of funds being allocated to roadway capital projects.

Walk + Bike Funding

Table 11.1 reflects the proposed revenues for bicycle and pedestrian projects. In the past, new bicycle and pedestrian facilities in the SUATS MPO area have been funded using the Transportation Enhancement program. Enhancement funds have historically been available from the state annually as a part of STP and RMP funding sources.

Previous federal legislation combined Enhancement, Recreational Trails, and Safe Routes to School programs and combined them into a new Transportation Alternatives (TA) funding source. For the purposes of this plan, it is assumed that 25% of the Regional Mobility Program and 20% of a renewed penny sales tax would be used toward this category, at a total of $55.4 million over the life of this plan. This funding level expresses the desire of SUATS to continue to pursue and receive funding for future walk and bike projects.

Transit Funding

Table 11.1 includes the projected revenues for transit capital and operations projects. Annual revenue projections for capital and operations projects were applied based on previous funding cycles and serve as the basis for expected revenue for the SUATS area served by SWRTA. This plan assumes a continued funding level consistent with historical funding for both transit capital and operations projects.

Capital transit funds come from several federal and state sources. Currently, SWRTA receives Federal 5307, 5310, 5311, and State funds. The funding amounts are projected to increase with inflation.

Transit Operations Funding Transit operations funding comes from Federal 5307 grants, State funds, City funds, local cash fares, local contracts, and other local miscellaneous sources. Funding from each of these sources is expected to increase with inflation.

Project Cost Projections

System Costs

Once the funding levels have been established, the next step is to consider what needs to be filled within the three horizon periods of the plan (2030, 2040, and 2050). To do this, the evaluation matrices shown in Chapter 7 has been consulted. While it would be ideal to implement all projects, only a portion can be accommodated in a fiscally constrained plan.

The following tables and figures divide the projects in the evaluation matrix into 2030, 2040, and 2050 funded horizon years and a vision plan.

Tables 11.5, 11.6, and 11.7, identify projects during each of these three horizons. The map displayed on pages 186 and 187 show the financially constrained roadway projects.

An annual average inflation of 2.5% and cumulative inflation of 94.78% between the years 2023 and 2050 was applied to projects identified for this LRTP, with an overall assumption that each project would be implemented using 2050 dollars.

It is forecasted that the total cost of improvements in the 2050 SUATS LRTP will exceed the projected available revenues.

The projected cost of long-range transportation improvements for the SUATS MPO is $1.947 billion.

Of this total, $1.091 billion is expected to remain unfunded through 2050.

Table 11.2 - Long Range Transportation Project Cost Forecast

Period	Roadway Capital	Roadway Maintenance	Walk + Bike Capital	Transit Capital	Transit Operations	Totals
2023-2030	$ 52,191,117	$ 112,626,401	$ 13,999,996	$ 4,368,058	$ 11,356,951	**$ 194,542,523**
2031-2040	$ 76,247,947	$ 175,979,419	$ 19,768,569	$ 6,825,116	$ 17,745,303	**$ 296,566,354**
2041-2050	$ 86,747,107	$ 225,268,534	$ 21,714,916	$ 8,736,726	$ 22,715,488	**$ 365,182,771**
Unfunded Vision	***$ 712,075,629***	***$ 223,286,372***	***$ 104,806,181***	***$ 4,473,053***	***$ 46,829,380***	***$ 1,091,470,615***
Totals	**$ 927,153,800**	**$737,160,726**	**$ 160,289,662**	**$ 24,402,953**	**$ 98,647,122**	**$1,947,762,263**

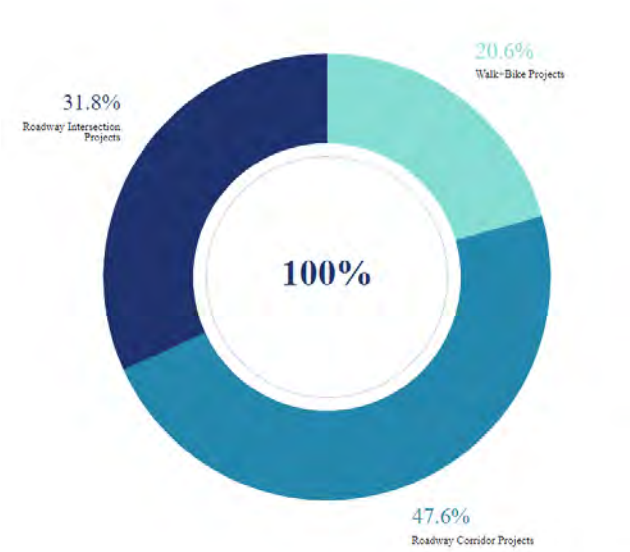
Table 11.3 - Scheduled Roadway Improvement Projects (Corridor & Intersection)
2021-2027 SUATS Transportation Improvement Program

Funding Sources	Project	Project Type	Previous Years	FY2024	FY2025	FY2026	FY2027	Totals
P4P, STBGP, RMP	Manning Avenue Revitalization	Corridor Improvement	$1,414,000	$12,033,000				$13,447,000
P4P, STBGP, RMP	North Main Street Revitalization	Corridor Improvement	$1,414,000	$10,713,000				$12,127,000
RMP	Lafayette Drive Corridor Improvement	Corridor Improvement	$100,000					$100,000
RMP	"Connect 378" - US-378 Operational and Design Improvements	Corridor Improvement	$400,000					$400,000
RMP	West Liberty Street Road Diet	Corridor Improvement	$135,000					$135,000
RMP	West Calhoun Street Traffic Calming	Corridor Improvement		$50,000	$400,000			$450,000
RMP	US-378 @ N. St. Pauls Church Road	Intersection Improvement	$450,000	$35,000				$475,000
RMP	US-378 @ Loring Mill Road	Intersection Improvement	$475,000	$50,000	$1,650,000			$2,175,000
RMP	US-378 @ Robert Dinkins Road	Intersection Improvement	$300,000		$1,500,000			$1,900,000
P4P	N. Washington Street Intersections	Intersection Improvement	$3,000,000					$3,000,000
							Grand Total	**$34,209,000**

Allocation of Roadway and Walk+Bike Capital Funding

Because the sources of funding for roadway and walk+bike projects are anticipated to come from two primary sources (SUATS Regional Mobility Program and a possible Local Option Sales Tax), it is necessary to establish percentage allocations for each project category. During the planning horizon of this LRTP, the expected division of funds in these categories is expected to be as follows: 31.8% for Roadway Intersection Projects, 20.6% for Walk+Bike Projects, and 47.6% for Roadway Corridor Projects.

Figure 11.4 - Expected Allocation Percentages for Roadway and Walk+Bike Capital Project Categories



Alternative Funding Strategies

The total projected cost for all long-range transportation projects (excluding roadway maintenance) within the SUATS MPO area is approximately $1.210 billion. Of this total, approximately $868 million is expected to remain unfunded through the 2050 horizon year. Significant unmet transportation needs also exist across the board. As a result, it is important to identify potential funding sources for these projects as well as for projects from other modes.

Existing revenues alone will not sufficiently fund a complete program of infrastructure maintenance and construction of desired improvements in the SUATS MPO. Therefore, SUATS must consider alternative funding measures that could allow for the implementation of this plan.

One alternative funding measure, a 1-cent sales tax, has already been implemented and has been found to produce dramatic results. Several alternative funding measures under consideration in other areas follow.

Impact Fees

Developer impact fees and system development charges provide another funding option for communities looking for ways to fund collector streets and associated infrastructure. They are most commonly used for water and wastewater system connections or police and fire protection services, but recently they have been used to fund school systems and pay for the impacts of increased traffic on existing roads. Impact fees place the costs of new development directly on developers and indirectly on those who buy property in the new developments. Impact fees free other taxpayers from the obligation to fund costly new public services that do not directly benefit them. A growing number of communities in South Carolina have approved the use of impact fees. The use of impact fees requires special authorization by the General Assembly.

Transportation Bonds

Transportation bonds have been instrumental in the strategic implementation of local roadways and non-motorized travel throughout South Carolina. Voters in communities both large and small regularly approve the use of bonds in order to improve their transportation system. Projects that historically have been funded through transportation bonds include sidewalks, road extensions, new road construction, and streetscape enhancements. While bonds are not necessarily a new source of revenue, they do allow mitigation of the impacts of inflation by pushing forward the timeline for improvements.

Developer Contributions

Through diligent planning and earlier project identification, regulations and policies can be developed to require capital contributions from developers when property is developed. These measures would reduce the cost of right-

of-way and could require developers to make improvements to account for the additional demand and wear on the network.

Oversize Agreement

An oversize agreement provides cost sharing between the city/county and a developer to compensate a developer for constructing a collector street instead of a local street. For example, instead of a developer constructing a 22-foot wide local street, additional funding would be provided by the locality to upgrade the particular cross-section to a 34-foot back-to-back cross section to accommodate additional space for bike facilities and/or on-street parking.

Bicycle and Pedestrian Funding

Bicycle and pedestrian projects are often eligible for their own funding sources. For instance, the Robert Wood Johnson foundation funds a grant program called Active Living by Design. The purpose of this program is to provide communities with a small grant to study bicycle, pedestrian, or other healthy living initiatives. There are other such grant programs in existence for bicycle and pedestrian projects, which would help to supplement the funding currently received by these modes.

Discretionary Federal Transportation Program

The ***Infrastructure Investment and Jobs Act (IIJA***), which funds federal transportation inv estment from FY2022 to FY2026, creates over $150 billion worth of discretionary grant programs available directly to local jurisdictions, providing an extraordinary opportunity for SUATS to obtain these new funds for projects that will advance the safety, equity, and climate goals outlined in the IIJA.

Selected examples of the discretionary programs available under the IIJA that SUATS may leverage include:

Program Name	Description	National Funding Levels
INFRA	The Nationally Significant Multimodal Freight and Highway Improvment Program (INFRA) awards competitive grants for multimodal freight and highway projects of national or regional significance to improve the safety, efficiency, and reliability of the movement of freight and people in and across rural and urban areas.	$ 8.0 Billion
RAISE (Formerly BUILD/ TIGER)	The Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Transportation Discretionary Grant program provides a unique opportunity for investment in road, rail, transit and port projects that promise to achieve national objectives.	$7.5 Billion
SS4A	The Safe Streets and Roads for All (SS4A) program supports USDOT's National Roadway Safety Strategy and the goal of zero roadway deaths.	$6.0 Billion

2030 Interim Year

Table 11.5 - Improvement Projects for 2030 Interim Year				
Project ID	**Project**	**Project Extents**	**Length (mi)**	**Project Cost Estimate**
Corridors				
S-5	Broad St. Safety Improvements	Miller Rd. to Warren St.	1.22	$ 4,733,600
S-6	Camden Hwy. Safety Improvements	Broad St. to Mason Rd.	1.91	$ 7,410,800
S-8	N/S Guignard Dr. Safety Improvements	Miller Rd. to McCray's Mill Rd.	1.80	$ 6,984,000
RD-3	E. Liberty St. Road Diet	N/S. Harvin St. to Boulevard Rd.	0.58	$ 3,375,600
S-4	Broad St. Safety Improvements	Alice Dr. to Miller Rd.	2.11	$ 8,186,800
Intersections				
IS-4	N. Guignard Dr. @ W. Liberty St. Intersection	N. Guignard Dr. @ W. Liberty St.	N/A	$ 6,790,000
IS-19	US-378 @ US-521 Intersection	US-378 @ US-521	N/A	$ 4,850,000
IS-3	Miller Rd. @ N. Guignard Dr. Intersection	Miller Rd. @ N. Guignard Dr.	N/A	$ 4,850,000
Walk+Bike Improvements				
Rankings In Development				

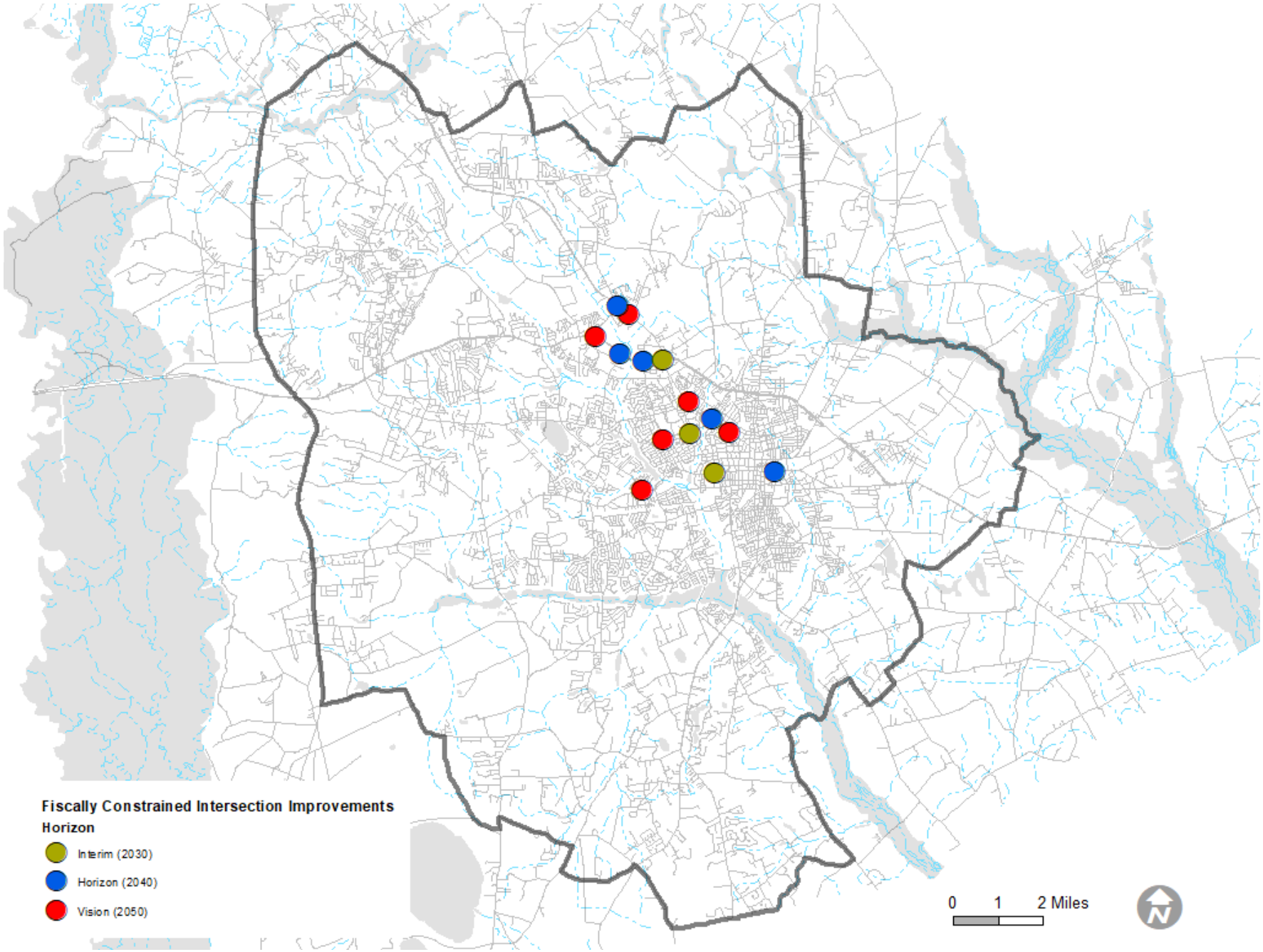
Table 11.6 - Improvement Projects for 2040 Horizon Year

Project ID	Project	Project Extents	Length (mi)	Project Cost Estimate
Corridors				
S-12	N/S. Lafayette Dr. Safety Improvements	Loring Dr. to Divine St.	0.82	$ 3,181,600
O-2	Bultman Dr./N. Guignard Dr. Operational Improvements	Broad St. to Miller Rd.	0.87	$ 6,751,200
RD-5	W. Liberty St. Road Diet	N/S. Sumter St. to Alice Dr.	1.78	$ 10,359,600
RD-1	N/S. Washington St. Road Diet	Warren St. to Dingle St.	0.84	$ 4,888,800
RD-6	E/W. Calhoun St. Road Diet	N. Washington St. to Commerce St.	0.71	$ 4,132,200
S-2	Broad St. Safety Improvements	N. Saint Paul's Church Rd. to Stamey Livestock Rd.	1.85	$ 7,178,000
S-3	Broad St. Safety Improvements	Stamey Livestock Rd. to Alice Dr.	1.57	$ 6,091,600
RD-4	N/S. Harvin St. Road Diet	E. Calhoun St. to CSX Railroad Track	0.65	$ 3,783,000
Intersections				
IS-2	Broad St. @ Alice Dr. Intersection	Broad St. @ Alice Dr.	N/A	$ 6,790,000
IS-10	E. Liberty St. @ S. Lafayette Dr. Intersection	E. Liberty St. @ S. Lafayette Dr.	N/A	$ 4,850,000
IS-11	Broad St. @ Wilson Hall Rd. Intersection	Broad St. @ Wilson Hall Rd.	N/A	$ 4,850,000
IS-6	Broad St. @ Miller Rd. Intersection	Broad St. @ Miller Rd.	N/A	$ 4,850,000
IC-8	US-521 @ Mason Rd. Intersection	US-521 @ Mason Rd.	N/A	$ 6,790,000
Walk+Bike Improvements				
Rankings In Development				

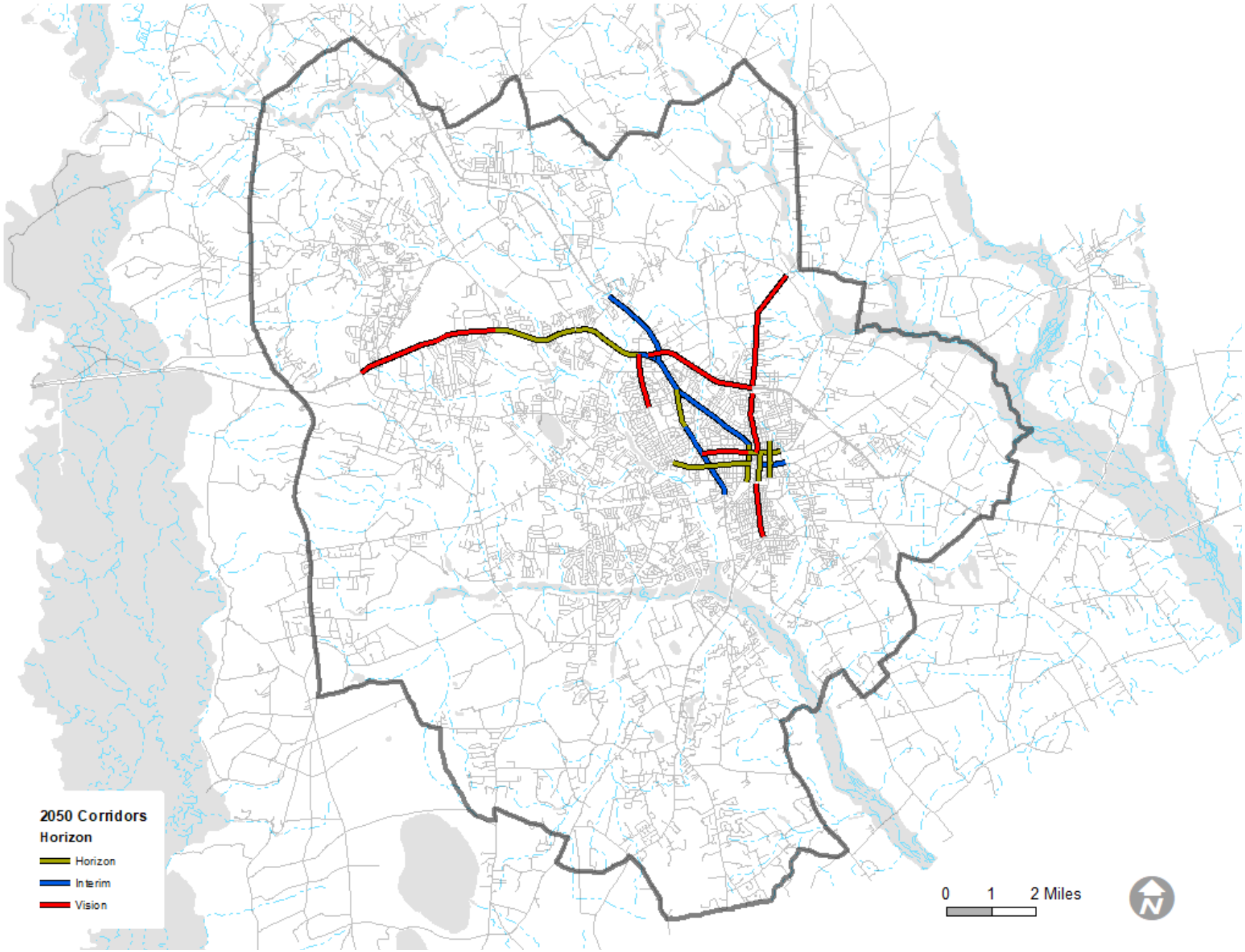
Table 11.7 - Improvement Projects for 2050 Vision Year

Project ID	Project	Project Extents	Length (mi)	Project Cost Estimate
Corridors				
S-13	Manning Ave. Safety Improvements	US-15 to Divine St.	1.19	$ 4,617,200
S-7	N. Main St. Safety Improvements	N. Pike Rd. to E. Brewington Rd.	2.74	$ 10,631,200
O-7	Alice Dr. Operational Improvements	Broad St. to Wise Dr.	1.23	$ 9,544,800
S-9	Robert E. Graham Freeway Safety Improvements	Broad St. to N. Main St.	2.58	$ 10,010,400
S-10	W. Calhoun St. Safety Improvements	N. Washington St. to N. Guignard Dr.	1.06	$ 4,112,800
S-11	N. Main St. Safety Improvements	US-15 to W. Calhoun St.	1.34	$ 5,199,200
S-1	Broad St. Safety Improvements	SC-441 to N. Saint Paul's Church Rd.	3.26	$ 12,648,800
Intersections				
IS-22	Broad St. @ Wise Dr.	Broad St. @ Wise Dr. Intersection	N/A	$ 4,850,000
IS-5	Broad St. @ N. Purdy St.	Broad St. @ N. Purdy St. Intersection	N/A	$ 4,850,000
IC-4	Broad St. @ Mason Rd.	Broad St. @ Mason Rd. Intersection	N/A	$ 9,700,000
IC-7	US-521 @ Beckwood Rd.	US-521 @ Beckwood Rd. Intersection	N/A	$ 6,790,000
IS-23	Alice Dr. @ Miller Rd.	Alice Dr. @ Miller Rd. Intersection	N/A	$ 4,850,000
IS-13	Wedgefield Rd. @ Loring Mill Rd.	Wedgefield Rd. @ Loring Mill Rd. Intersection	N/A	$ 4,850,000
Walk+Bike Improvements				
Rankings In Development				

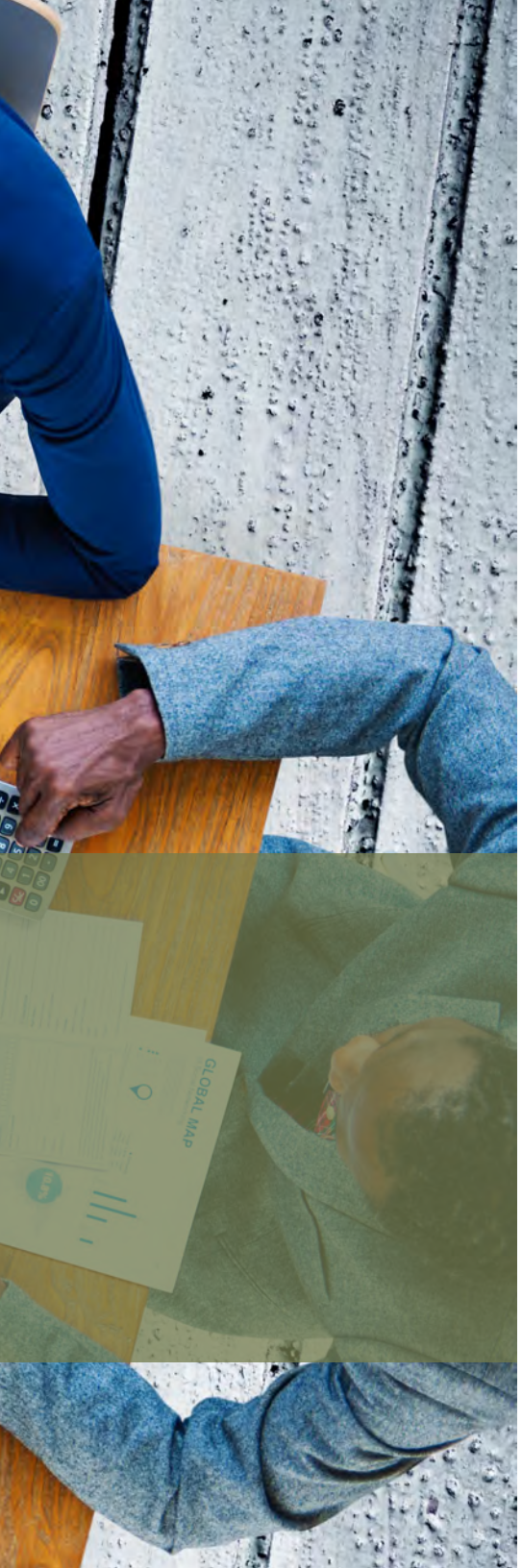
Fiscally Constrained Intersections Map



Fiscally Constrained Corridors Map



Chapter 12
Implementation Plan



Chapter 12

Introduction

General Action Items

Project Projections

Street Improvement Action Items

Walk + Bike Improvement Action Items

Public transit Improvement Action Items

Freight Improvement Action Items

Introduction

Taking action on the many recommendations in the SUATS 2050 LRTP requires attention to several factors, not the least of which is the ability to secure funding. The Sumter area has risen to the challenge of diminishing state and federal revenues in recent years through the use of the Penny for Progress sales tax. Leaders continue to face the challenge of allocating appropriate levels of funding to the highest priority projects. The need also exists to identify cost-effective projects that provide additional safety improvements or protect specific corridors through enhanced access management strategies.

Given the scarcity of federal dollars coming to the region and the anticipated population and employment growth, we can expect the quality of the SUATS transportation system to diminish without continued support from alternative funding sources. Renewal of the 1-cent sales tax along with innovative financing strategies like transportation bonds, developer impact fees, vehicle registration fees, or a combination thereof will be needed over the next decade to maintain the quality of life and economic vitality of the region.

To adopt and implement the plan, the SUATS Policy Committee will work proactively with stakeholders, including:

- SCDOT
- Sumter County Legislative Delegation
- City of Sumter
- Sumter County
- Santee Wateree Regional Transportation Authority
- Shaw Air Force Base
- Private Industry
- Santee Lynches Regional Council of Governments
- Residents and Businesses

The SUATS 2050 LRTP represents an important step toward implementing multimodal improvements that affect travel safety, mobility, development patterns, and the aesthetics of the Sumter region. Some of the recommended improvements will be implemented through the development review process. Major infrastructure improvements most likely will be a product of state and federal funding. Continued funding through a 1-cent sales tax renewal could be put toward spot improvements or as matching funds for major infrastructure needs.

During development of this study a number of transportation and land development issues were raised by citizens, including frustration over delays in getting transportation improvements completed. The planning, design, and construction of publicly-funded transportation projects in SUATS has taken years longer than originally scheduled, based on recent history. Local, state, and private partnerships offer strategic advantages to implementing improvements on a timely basis. The implementation plan recognizes each challenge and suggests strategies to address them. General recommendations and actions strategies follow to help the SUATS MPO area achieve its goals.

Responsible Agencies

To successfully implement this plan, responsible agencies with influence and authority to enact recommendations must work independently and collaboratively to bring about change. Policy and program initiatives, for the most part, will occur at the local level, with City and County Councils setting policy for their respective jurisdictions. Some of the proposed transportation improvements will encompass right-of-way owned by different public or private agencies, and some improvements will occur as a result of development and redevelopment opportunities. However, the majority of responsibility for implementing the roadway recommendations will require a coordinated effort between SCDOT and SUATS.

Sumter is fortunate in that the “Team Sumter” approach that has been used to great success, in which the City, County, and various other topic-specific partners, have been able to achieve results beyond any one entity’s individual capability. SUATS likewise benefits from this “Team Sumter” approach, as - in contrast to many other MPOs - there is one muncipality and one county that must come to agreement on project selection and policy implementation.

General Action Items

Action Plan

The following action items list appropriate steps for local leaders to implement the recommendations of this plan and key agencies that should be involved with the task. Some of the tasks are recommended to be initiated during the first 2 - 4 years following adoption of the LRTP to take advantage of momentum gained during the planning process. While all the listed items are not expected to be completed within this time frame, the process should be initiated.

Beyond the tasks listed below, the success of this plan hinges on the City and County continuing to work with and educate local citizens and businesses. While public support can encourage implementation, opposition can significantly delay a project.

General Action Items

- Request inclusion of high-priority projects in the next update of the state's Transportation Improvement Program (TIP).
- Create a standing citizen committee that will encourage and educate the public as well as seek to aid in the implementation of this plan.
- As areas are developed and redeveloped, introduce traffic calming improvements to minimize impacts that negatively affect the character and integrity of adjacent neighborhoods.
- Promote alternative modes of transportation through better street design and improved developer participation.
- As physical infrastructure improvements are made, avoid and/or minimize impacts to environmentally sensitive areas to preserve the natural environment.
- Proactively support walking and bicycling provisions in all SCDOT street improvements.
- Conduct comprehensive re-evaluation and rightsizing of designated roadway functional classifications within the MPO Study Area
- Create aesthetic gateways (at key locations along major routes) that invite and welcome citizens and visitors to the SUATS region.
- Implement access management policies and construct measures that create a balance between the need for access to the transportation system and the desire to protect the mobility of major corridors.
- Promote re-introduction of the Penny for Progress sales tax via voter referendum at the next opportunity in 2024.

Policy Action Items

- Adopt an MPO "Complete Streets" policy that establishes the need to accommodate bicycle, pedestrian, and transit safety and mobility as well vehicular needs to encourage a well-balanced transportation system.
- Amend City and County Ordinances to require that subdivisions larger than 30 units include at least 2 separate points of access from a public street and at least one stub-out street to extend and connect with future streets (where geographically applicable).
- Create a Broad Street Corridor Overlay District within the City of Sumter's Zoning Ordinance. Items addressed in the Overlay District would include street signage control, streetscape elements, landscaping, access and cross access, parking, and building orientation and frontage.
- Create a Liberty Street Corridor Overlay District within the City of Sumter's Zoning Ordinance that will implement the intent of this plan. Items that should be addressed in the Overlay District include street signage control, streetscape elements, landscaping, access and cross access, parking, and building orientation and frontage.
- Amend City and County Ordinances to require better connectivity within and between neighborhoods (subdivisions) by requiring street stub-outs to accommodate future street extensions and connections with neighboring undeveloped parcels.

Composite Corridor/Intersection Priority List

	Project ID	Project Name	Project Extents	Estimated Project Cost
2023-2030	S-5	Broad St. Safety Improvements	Miller Rd. to Warren St.	$ 4,733,600
	S-6	Camden Hwy. Safety Improvements	Broad St. to Mason Rd.	$ 7,410,800
	S-8	N/S Guignard Dr. Safety Improvements	Miller Rd. to McCray's Mill Rd.	$ 6,984,000
	RD-3	E. Liberty St. Road Diet	N/S. Harvin St. to Boulevard Rd.	$ 3,375,600
	S-4	Broad St. Safety Improvements	Alice Dr. to Miller Rd.	$ 8,186,800
	IS-4	N. Guignard Dr. @ W. Liberty St. Intersection	N. Guignard Dr. @ W. Liberty St.	$ 6,790,000
	IS-19	US-378 @ US-521 Intersection	US-378 @ US-521	$ 4,850,000
	IS-3	Miller Rd. @ N. Guignard Dr. Intersection	Miller Rd. @ N. Guignard Dr.	$ 4,850,000
2031-2040	S-12	N/S. Lafayette Dr. Safety Improvements	Loring Dr. to Divine St.	$ 3,181,600
	O-2	Bultman Dr./N. Guignard Dr. Operational Improvements	Broad St. to Miller Rd.	$ 6,751,200
	RD-5	W. Liberty St. Road Diet	N/S. Sumter St. to Alice Dr.	$ 10,359,600
	RD-1	N/S. Washington St. Road Diet	Warren St. to Dingle St.	$ 4,888,800
	RD-6	E/W. Calhoun St. Road Diet	N. Washington St. to Commerce St.	$ 4,132,200
	S-2	Broad St. Safety Improvements	N. Saint Paul's Church Rd. to Stamey Livestock Rd.	$ 7,178,000
	S-3	Broad St. Safety Improvements	Stamey Livestock Rd. to Alice Dr.	$ 6,091,600
	RD-4	N/S. Harvin St. Road Diet	E. Calhoun St. to CSX Railroad Track	$ 3,783,000
	IS-2	Broad St. @ Alice Dr. Intersection	Broad St. @ Alice Dr.	$ 6,790,000
	IS-10	E. Liberty St. @ S. Lafayette Dr. Intersection	E. Liberty St. @ S. Lafayette Dr.	$ 4,850,000
	IS-11	Broad St. @ Wilson Hall Rd. Intersection	Broad St. @ Wilson Hall Rd.	$ 4,850,000
	IS-6	Broad St. @ Miller Rd. Intersection	Broad St. @ Miller Rd.	$ 4,850,000
	IC-8	US-521 @ Mason Rd. Intersection	US-521 @ Mason Rd.	$ 6,790,000
2041-2050	S-13	Manning Ave. Safety Improvements	US-15 to Divine St.	$ 4,617,200
	S-7	N. Main St. Safety Improvements	N. Pike Rd. to E. Brewington Rd.	$ 10,631,200
	O-7	Alice Dr. Operational Improvements	Broad St. to Wise Dr.	$ 9,544,800
	S-9	Robert E. Graham Freeway Safety Improvements	Broad St. to N. Main St.	$ 10,010,400
	S-10	W. Calhoun St. Safety Improvements	N. Washington St. to N. Guignard Dr.	$ 4,112,800
	S-11	N. Main St. Safety Improvements	US-15 to W. Calhoun St.	$ 5,199,200
	S-1	Broad St. Safety Improvements	SC-441 to N. Saint Paul's Church Rd.	$ 12,648,800
	IS-22	Broad St. @ Wise Dr.	Broad St. @ Wise Dr. Intersection	$ 4,850,000
	IS-5	Broad St. @ N. Purdy St.	Broad St. @ N. Purdy St. Intersection	$ 4,850,000
	IC-4	Broad St. @ Mason Rd.	Broad St. @ Mason Rd. Intersection	$ 9,700,000
	IC-7	US-521 @ Beckwood Rd.	US-521 @ Beckwood Rd. Intersection	$ 6,790,000
	IS-23	Alice Dr. @ Miller Rd.	Alice Dr. @ Miller Rd. Intersection	$ 4,850,000
	IS-13	Wedgefield Rd. @ Loring Mill Rd.	Wedgefield Rd. @ Loring Mill Rd. Intersection	$ 4,850,000

- Revise street width and right-of-way requirements to implement complete street design principles. City and County officials should revise the right-of-way profiles and street width requirements included in existing ordinances to match current best practices for complete street roadway design

- Advocate for adoption of access management overlay ordinances that provides the legal framework for the City and County to administer and enforce consistent access management standards along high-profile corridors.

Street Improvement Action Items

Short-Term Action Items (1 – 5 years implementation)

- Pursue "spot safety funds" through the SCDOT District office for immediate improvements to locations based on 5-year crash statistics.

- Continue to coordinate with SCDOT to ensure that intersections currently programmed for improvement are addressed in the near term.

- Work with SCDOT to complete the projects in the current TIP.

- Allocate available guideshare funds to facilitate completion of high-priority improvements.

- Complete the transportation projects funded via the 2016 Penny for Progress program.

Mid-Term Action Items (6 – 17 years implementation)

- Work with SCDOT and available local funding sources to actively pursue planning, engineering, and construction dollars for the projects identified in the Future Roadway Chapter and Financial Plan Chapter as Interim Year (2030):

- Aggressively pursue Transportation Alternatives Program (TAP) funding to implement the walk+bike projects included in the LRTP financial plan.

Long-Term Action Items (18 – 27 years implementation)

- Work with SCDOT officials and available local funding sources to actively pursue planning, engineering, and construction dollars for the projects identified in the Future Roadway Chapter and Financial Plan Chapter as Vision Year (2050):

- Aggressively pursue federal funding to provide sidewalk connections between existing sidewalks and high traffic pedestrian areas.

Walk + Bike Improvement Action Items

Bicycle and Pedestrian Improvement Action Items

- Adopt a policy that all new collector and arterial streets provide full facilities for bicycles and pedestrians.
- Pursue funding to complete high-priority bicycle projects consistent with recommendations in the Walk + Bike Chapter:
- Pursue funding to provide sidewalk connections between existing sidewalks and high traffic pedestrian areas.
- Aggressively pursue funding to implement high-priority multi-use path locations
- Establish the following bicycle and pedestrian-related programs:
    - Education — New and experienced bicyclists need to be made aware of where suitable routes are and what destinations can be accessed. Motorists, pedestrians, and cyclists need to understand the "rules of the road" to keep themselves safe while operating not only on but also adjacent to these facilities. Consider means of educating the public in these regards.
    - Encouragement — The more desirable the region becomes for pedestrians and cyclists (by providing more destinations oriented for them), the more successful these modes will become. Set a goal regionally and locally to be widely recognized as a bicycle-friendly community.
    - Enforcement — Work with local and county law enforcement officials to ensure laws pertaining to the interaction between motorists and pedestrians/cyclists are obeyed. Ensure high proportions (more than 90%) of such citations are upheld in court.
    - Parking — provide bicycle parking and/or bike racks at key destination points throughout the region. Areas include, but are not limited to, malls, theaters, parks, the central business district, libraries and schools.
- Work cooperatively with area private and public schools and cycling advocacy groups to initiate the following programs to better integrate bicycle and pedestrian facilities into the community:
    - Initiate a Safe Routes to School Program.
    - Publicize and participate in National Walk to School Day
    - Initiate annual rideabouts and bike rodeos.
    - Participate in the School-Based Safety Education Program.
    - Develop public services announcements to encourage a healthy community through enhanced cycling and walking.
- Establish a Sidewalk Improvement Policy to identify and provide dedicated funding for projects to repair damaged sidewalks, fill sidewalk gaps, and upgrade sidewalks and intersections to meet current ADA standards.
- Commission a comprehensive sidewalk condition inventory update at least every 5 years to help establish priorities for funding sidewalk improvements.
- Establish a Marked Crosswalk Policy to provide for the consistent application of treatment systems at signalized and non-signalized intersections and at mid-block crosswalks to ensure that marked crosswalks are of a consistent quality on all local, collector, and arterial roadways
- Create a Sidewalk and Bike Facility Fee-In-Lieu Policy to provide the option for residential and commercial developers to either construct sidewalk and/or bicycle facilities along the right-of-way as part of their development or to pay a fee for future construction of sidewalk segments. These funds would then be used to construct sidewalk segments that span greater distances and across multiple properties to connect into the greater pedestrian network
- Establish a SUATS bikeshare program, comprised of rentable docked or dock-less bikes and/or scooters strategically positioned around the region and managed either by a 3rd party contractor or a not-for-profit partner.
- Revise Local Development Standards Ordinances to increase minimum sidewalk size to at least 5 ft. width with a 5-foot vegetative buffer from the street in residential areas, and at lesat 10 ft. width in retail centers and the central business district.

Public Transit Improvement Action Items

Transit Improvement Action Items

- Advocate to SWRTA for the changes and improvements to existing fixed route service a outlined in the 2019 Santee-Lynches Regional Transit Needs Assessment + Framework Plan that are noted in the Transit Chapter of this document.
- Create a Transfer Hub to serve as a central transfer point. In SUATS, an additional transfer hub to the west around the area of the Sumter Mall, would enhance the value of fixed routes.
- Create Unique Name and Brand for Sumter's Fixed-Route Transit Network
- Advocate to SWRTA for establishment of new fixed route service a outlined in the 2019 Santee-Lynches Regional Transit Needs Assessment + Framework Plan that are noted in the Transit Chapter of this document.
- Increase number of bus shelters and stop signage. SWRTA's total bus stop and shelter infrastructure is extremely minimal, which affects potential riders' understanding of where they can access transit. A comprehensive effort to install route signage at all bus stops should be undertaken as soon as possible.
- Work with SWRTA to establish a coordinated transit marketing and advertising strategy
- Increase duration and frequency of existing and planned fixed transit routes.
- Promoting coordination and collaborative partnerships with other public transit and human service agencies
- Maximize use of commercial space within James E. Clyburn Intermodal Transportation Center, with income subsidizing transit services.
- Increase passenger amenities such as sidewalks, shelters, and benches by enhancing bus stops and coordinating upgrades to transit stops with improvements to the pedestrian and bicycle network.
- Coordinate upgrades to transit stops with improvements to the pedestrian and bicycle network.

Freight Improvement Action Items

- Designate truck routes and sign appropriately as recommended in the Freight Chapter. Post truck route signage at city limits, highway exits, and other appropriate locations directing truck drivers to those streets on which their movements are permitted. Consolidated truck routes should be clearly designated for the following primary routes:
  - US-378 Bypass: primary east-west truck route
  - US-15: primary north-south truck route
  - US-521: primary northwest-southeast truck route

- Work with SCDOT to prioritize resurfacing on designated truck routes to reduce noise and vibration from trucks.

- Publish and distribute educational materials to businesses and industries concerning truck routes.

- Work with SCDOT to create a secondary truck route between US-378 (west) and US-15 (south) by upgrading portions of Kings Highway (SC-261), Cane Savannah Road, St. Pauls Church Road, Cains Mill Road, and Clipper Road.

- Work with SCDOT to make improvements at critical intersections on truck routes to more easily facilitate large vehicle movements and encourage their use by truckers.

- Adjust signal timing along high priority routes to reduce emissions and delay for through movements based on posted speed limits.

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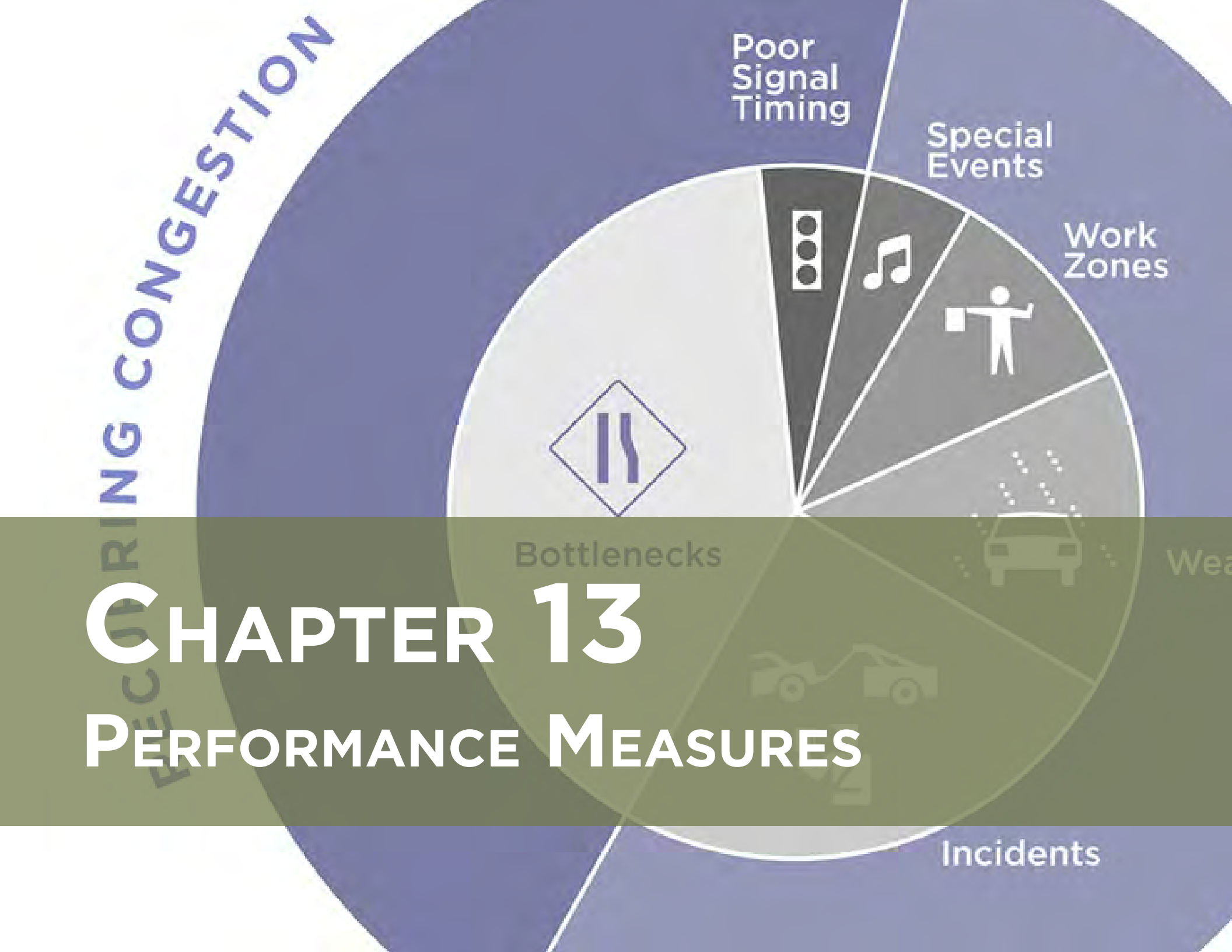

Chapter 13
Performance Measures

Chapter 13

Performance Measures

Starting in 2010, federal legislation transformed the transportation federal aid program by establishing new requirements for performance management and performance-based planning and programming, designed to ensure the most efficient investment of federal transportation funds. MPOs must apply a transportation performance-based planning approach when carrying out their federally-required transportation planning and programming activities. Performance-based planning & programming or "performance management" is a strategic approach that uses system generated information to make investment and policy decisions to achieve goals set for the multimodal transportation system.

Specifically, Performance-Based Planning & Programming (PBPP) refers to the application of performance management as standard practice in the planning and programming decision-making process. These requirements outline a systematic and objective driven approach to transportation decision-making that supports national goals for the federal-aid highway and public transportation programs.

MPOs may establish their own performance measures and targets or adopt the statewide measures and targets set by SCDOT. As part of the metropolitan transportation planning process, the MPO also must publish a System Performance Report.

The System Performance Report presents the baseline or current condition and performance of the transportation system with respect to these performance measures and targets, and future conditions as data is available.

The Transportation Performance Management approach focuses investment on the achievement of the following national performance areas:

- **Safety Performance (PM-1)**
- **Pavement and Bridge Performance (PM-2)**
- **System and Freight Performance (PM-3)**
- **Transit Asset Management Performance (PM-4)**
- **Transit Agency Safety Plans (PM-5)**

Safety Measure (PM-1)

Safety Measure

In March 2016, the Highway Safety Improvement Program (HSIP) and the Safety Performance Management Measures Rule (Safety PM Rule) were published in the Federal Register. The Safety Performance Measures Final Rule supports the HSIP by requiring MPOs to set targets for safety-related performance measures and report progress to state DOTs.

The Final Rule establishes the following performance measures:

- Number of fatalities
- Rate of fatalities per 100 million vehicle miles traveled
- Number of serious injuries
- Rate of serious injuries per 100 million vehicle miles traveled
- Number of combined non-motorized fatalities and non-motorized serious injuries

Safety performance targets are provided annually by SCDOT to FHWA as five-year rolling averages for each safety performance measure.

Safety Performance

MPOs can choose to set performance targets or commit to help implement the state's targets. SUATS has elected to support the state's safety targets.

SUATS safety targets are shown in Table 13.1. The 2019-2023 targets were adopted on October 26, 2022 and are in effect until February 27, 2023. SUATS supports the safety performance targets through its planning and programming activities.

Strategies to Maintain and Improve Safety Performance

- Identify the region's high-crash locations and the crash factors involved at those locations
- Prioritize safety as part of intersection improvements for all mode users.
- Implement bicycle and pedestrian projects that provide a greater degree of separation
- Prioritize modernization of rural roads with limited to no shoulder and narrow lanes

Table 13.1 - 2019-2023 Safety Targets

Performance Measure	SUATS Targets (2019-2023 Average)	Statewide Targets (2019-2023 Average)
Number of Fatalities	14.2	1,119
Fatality Rate*	2.018	1.94
Number of Serious Injuries	45	2,868
Serious Injury Rate*	6.394	4.96
Number of Non-Motorized Fatalities and Serious Inuries	8.4	485
* Per 1 million vehicle miles traveled (VMT)		

Pavement and Bridge Condition Measure (PM-2)

Pavement and Bridge Condition Measure

Effective May 20, 2017, FHWA published a final rule establishing performance measures for use in managing pavement and bridge performance on the National Highway System (NHS). State targets are set based on asset management analyses and reflect investment strategies that work toward achieving a state of good repair over the life cycle of facilities.

The Final Rule establishes the following Performance Measures:

- % of Interstate pavements in Good condition
- % of Interstate pavements in Poor condition
- % of non-Interstate NHS pavements in Good condition
- % of non-Interstate NHS pavements in Poor condition
- % of NHS bridges by deck area classified as in Good condition
- % of NHS bridges by deck area classified as in Poor condition

Pavement and bridge condition performance is assessed and reported over a four-year performance period. The PM2 rule requires states to establish two-year and four-year performance targets for each PM-2 measure.

Pavement and Bridge Performance

MPOs may either support the state DOT's four-year targets or establish their own targets within 180 days of the DOT's establishment of its targets. SUATS MPO has chosen to support SCDOT's pavement and bridge targets and will continue to coordinate with SCDOT in the development of pavement and bridge targets. While these targets are only directly applicable to the NHS network, SUATS emphasizes these performance areas for all roadways within its jurisdiction.

The SCDOT PM2 – Pavement and Bridge Condition Performance Targets were adopted by the SUATS Policy Committee on May 3, 2021. The SUATS MPO Pavement and Bridge Condition Performance Targets are shown in Table 13.2.

Strategies to Maintain and Improve Safety Performance

- Implement a data-driven prioritization process and direct funding based on pavement need
- Continue to coordinate with SCDOT to ensure bridge maintenance is completed on a regular and needed basis

Table 13.2 - Pavement and Bridge Condition Targets

Performance Measure	Baseline 2018	2-Year (2018-2019) Target	4-Year (2018-2021) Target
% of Pavements of the Interstate System in Good Condition	-	-	71.0%
% of Pavements of the Interstate System in Poor Condition	-	-	3.0%
% of Pavements of the Non-Interstate NHS in Good Condition	50.4%	14.9%	21.1%
% of Pavements of the Non-Interstate NHS in Good Condition	8.6%	4.3%	4.6%
% of NHS Bridges Classified as in Good Condition	41.1%	42.2%	42.7%
% of NHS Bridges Classified as in Poor Condition	4.0%	4.0%	6.0%

System Performance Measure (PM-3)

System Performance Measure

Effective May 20, 2017, FHWA published a final rule establishing measures that report on the performance of the Interstate and non-Interstate NHS to carry out the National Highway Performance Program (NHPP), and freight movement on the Interstate system to carry out the National Highway Freight Program (NHFP).

The Final Rule establishes the following Performance Measures:

- % of reliable person-miles traveled on the Interstate
- % of reliable person-miles traveled on the non-Interstate NHS
- % of Interstate system mileage providing for reliable truck travel time – Truck Travel Time Reliability Index

Performance for the PM-3 measures is reported over a four-year performance period. The PM-3 rule requires states to establish two-year and four-year performance targets.

System Performance

MPOs are required to either support the state four-year targets or establish their own targets within 180 days of the state DOT's target establishment. SUATS has chosen to support the SCDOT's system performance targets and will continue to coordinate with SCDOT in the development of system performance targets. Regardless of which targets the MPO chooses to adopt, the targets must be reevaluated and readopted every four years and reflected within the Long Range Transportation Plan.

Table 13.3 presents SCDOT's statewide system performance targets. The SUATS Policy Committee adopted SCDOT's performance targets on May 3, 2021.

Strategies to Maintain and Improve System Performance

- Continue to monitor travel time reliability as the region continues to grow
- Work with major regional employers to develop travel demand management strategies and alternative commute alternatives

Table 13.3 - System Performance Measures

Performance Measure	Baseline	2-Year Target	4-Year Target
% of the Person-Miles Traveled on the Interstate that are Reliable	94.7%	91.0%	90.0%
% of the Person-Miles Traveled on the Non-Interstate NHS that are Reliable	-	-	81.0%
Truck Travel Time Reliability Index (TTTR)	1.34	1.36	1.45

Transit Asset Management (PM-4)

Transit Asset Management

This section presents the Transit Asset Management (TAM) targets adopted by the Santee-Wateree Regional Transit Authority (SWRTA) —which serves the SUATS MPO region— and the State of Good Repair (SGR) performance of their capital assets. The final TAM rule, effective October 1, 2016, defines transit asset management as "a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets."

SWRTA has adopted the SCDOT's TAM targets. SUATS coordinates with SWRTA on transit asset management and will continue to do so as an integral part of the MPO's continuing, comprehensive, and cooperative (3-C) planning process.

Transit agencies are required to set fiscal year performance targets and report SGR performance for each asset category to FTA on an annual basis. FTA has established performance measures to approximate the SGR for each category of capital assets. Calculating performance measures helps transit agencies to quantify the condition of their assets, which facilitates setting targets that support local funding prioritization. The Transit Asset Management Targets for the SUATS MPO are shown in Table 13.x.

Strategies to Maintain and Improve Performance Measures

- Continue to monitor transit asset condition as the transit systems continue to grow and age
- Implement a data-driven prioritization process and direct funding based on transit asset condition need

Table 13.4 - Transit Asset Management Measures

	2020	2021	2022	2023	2024
Revenue Vehicles					
Age - % of revenue vehicles within a particular asset class that have met or exceeded their useful life benchmark (ULB)					
Over-the-Road Bus	15%	15%	15%	15%	15%
Bus	15%	15%	15%	15%	15%
Cutaway Bus	30%	30%	30%	30%	30%
Mini-Van	20%	20%	20%	20%	20%
Van	20%	20%	20%	20%	20%
Equipment					
Age - % of vehicles that have met or exceeded their useful life benchmark (ULB)					
Non-Revenue (Service) Vehicles	30%	30%	30%	30%	30%
Facilities					
Condition - % of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale					
Administration	0%	0%	0%	0%	0%
Maintenance	0%	0%	0%	0%	0%

Transit Safety and Reliability (PM-5)

Transit Safety and Reliability

This section presents the transit safety targets adopted by the SUATS MPO Policy Committee. The final transit safety rule, which became effective July 19, 2018, requires public transportation systems that receive federal funds under FTA's Urbanized Area Formula Grants to develop safety plans that include the processes and procedures to implement Safety Management Systems, including transit safety performance targets for:

- Fatalities
- Injuries
- Safety Events
- System Reliability

Transit agencies are required to set fiscal year performance targets and report performance for each category to FTA on a triennial basis. FTA has established performance measures to improve public transportation safety by guiding transit agencies to more effectively and proactively manage safety risks in their systems.

Calculating performance helps transit agencies to quantify their safety risks and set targets that support local funding prioritization. As with the previous section, SUATS will include the SCDOT TAM targets (adopted by SWRTA) in this long range transportation plan. SUATS will support these targets through its planning and programming activities. The Transit Safety Targets for the SUATS MPO are shown in Table 13.5.

Strategies to Maintain and Improve Performance Measures

- Identify the region's specific transit safety and reliability incidents and the factors involved in each incident
- Prioritize safety and reliability as part of each agency's transit operating procedures and decisions
- Complete a Transit Development Plan with a focus on system reliability and performance

Table 13.5 - Transit Safety Measures

Mode of Transit Service	Fatalities (total)	Fatalities Per 100,000 VRM	Injuries (total)	Injuries per 100,000 VRM	Safety Events (total)	Safety Events per 100,000 VRM)	System Reliability (VRM/Failures)
Fixed Route	0	0	2.4	0.73	5.4	1.64	1206
Commuter Bus	0	0	1	0.64	1.2	0.77	1251
Demand Response	0	0	0.20	0.13	0	0	597

Placeholder for future Insertion of Report Card on
Success Toward Achieving Policy Objectives

SUATS

Sumter Area Transportation Study

Metropolitan Planning Organization