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 2010 population to grow almost 20 percent by 2035. If this growth coupled with the recent observed growth of commuters in single-occupancy vehicles continues, the few projects with committed funding will do little to address 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 TransCAD model tested the operation of the future highway network under various scenarios. Two scenarios for 2040 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 (**Chapter 10**) 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.

Existing + Committed Conditions

The initial step in identifying projects for the SUATS Long-Range Transportation Plan is to analyze how the existing transportation network combined with committed projects will perform in 2040 given current growth patterns. As discussed in **Chapter 4**, the only committed project in the SUATS MPO area is the widening of Alice Drive. Funding for construction of this project's final phase is scheduled for FY 2013.

The Existing + Committed (E+C) conditions shown in **Figure 5.1** include this project in addition to current projects under construction and existing facilities (determined using SCDOT's regional travel demand model for the SUATS MPO area). Compared to **Figure 4.2**, which shows the current (2010) congested corridors in Sumter, the E+C projects address but do not solve the congestion problems on Alice Drive or congestion throughout the SUATS region. Congestion slightly improves on Alice Drive but worsens on several roads, including Wedgefield Road, US 76/378 between Mason Road and Shaw AFB, Wise Drive, Loring Mill Road, Frierson Road, Guignard Drive, US 15 north and south of the city limits, and Mason Road.

Penny for Progress

The "Penny for Progress" is a term coined by supporters of 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 Penny for Progress was approved by Sumter County voters in the general elections of November of 2008. Passage of that referendum authorized Sumter County Council to levy a temporary sales tax to fund 16 capital projects, from fire station improvements to a new judicial center (county courthouse). The sales tax was implemented in May of 2009 and will be removed when the $75 million is collected, or in 7 years, whichever comes first. You can find more information about the 16 projects at http://www.sumtercountysc.org/?q=p4p-projects.

The 16 projects are being managed by a team of experienced project coordinators, and overseen by the Sumter County Administrator and Sumter County Council. The following roadway projects are part of the overall sales tax effort:

Highway 15 South Corridor Improvements

The intersection of US 15 South and Manning Avenue has been identified as confusing and unsafe for both motorists and pedestrians. Several roads intersect at this location, and access ramps blend with businesses in the roadway. Improvements will include new crosswalks, reduction of encroachments, median relocation, lane delineation and traffic signal upgrades. A new median will be constructed and landscaped to serve as a Southern gateway to the city.

Intersection Safety Improvements

Sumter planners, with the help of SCDOT, have identified the most dangerous intersections in our community based on the total number of crashes over a three year period. Improvements will include upgraded traffic controls, improved signal phasing, upgraded approach signage, and provided new dedicated right and left turn lanes. Additionally, some intersections may be re-engineered and reconstructed to increase safety for pedestrians and motorists. Table 4.3 in Chapter 4 lists the intersections identified for safety improvements.

Lafayette Drive/Highway 378 Interchange Improvements

The intersection at US 15N (Lafayette Dr) and the US76/378 Bypass (near McLaughlin Ford) is one of Sumter's most congested and frustrating intersections. Here, North Main Street, Lafayette Boulevard, the 378 Bypass, and both North and South Pike come together making navigation through the intersection both tedious and dangerous. This project centers on fully re-engineering this area with an interchange configuration for easy access and reduced traffic congestion.

Security

With the adoption of SAFETEA-LU and the subsequent adoption of MAP-21, the federal government established security as an independent planning factor for consideration in long range transportation plans. This plan seeks to evaluate transportation security while making recommendations for future improvement.

Emphasizing security during the transportation planning process helps identify and implement ways to improve security and mitigate imminent threats. For the transportation element, this effort is tied closely to the SUATS LRTP. The MPO has the advantage of considering security at a regional level, which is a logical first step to ensuring protection at the local level. While general strategies can be formulated at the regional level and the MPO can create multimodal recommendations that enhance security, implementation for many strategies will be the responsibility of local organizations. In the SUATS region, key security considerations include evacuation routes for coastal communities, the evacuation of affected areas in proximity to sensitive facilities, protection of freight corridors, the maintenance of bridges, and the safeguard of transit operations. Each of the considerations should continue to be a focus of the SUATS Policy Committee.

Four Categories of Security

Security measures typically fall into one of four categories: prevention, protection, redundancy, and recovery.

- **Prevention** mainly limits access to ensure the safety of the transportation system.
- **Protection** — in coordination with prevention elements — focuses on vulnerable components of the transportation system such as bridges and rail corridors.
- **Redundancy** within the transportation network creates identifiable alternative routes in the event of an incident. Redundancy most often refers to an interconnected street network, though similar methods should be extended to the bicycle and pedestrian network, transit system, and rail corridors.
- **Recovery** refers to both the initial response during an emergency and long-term activities that aid in the return of normal operations.

Security Measures

In order to ensure security is a continued area of focus for the MPO, the following strategies are recommended:

- Maintain continued coordination with key agencies such as the US Department of Homeland Security, the Federal Emergency Management Agency (FEMA), the National Incident Management System (NIMS), the South Carolina Public Safety Department, the South Carolina Emergency Management Division, and the applicable Regional Emergency Management program.
- Discuss how changes to the entry and exit points from Shaw Air Force Base may potentially affect evacuation from the base.
- Continue to coordinate closely with Shaw Air Force Base to understand the implications of new missions and troop movements on the security needs of the region.
- Consider implementing ITS technologies along potential evacuation routes.
- Work with Santee Wateree Regional Transit Authority to enhance security on buses and at bus stops.
- Coordinate with the City of Sumter Police Department and the Sumter County Sherriff's Office to identify areas of transportation concern that could benefit from increased patrolling.

Recommendations

As we evaluate the transportation network in to the future, it is evident that increasing demands will be placed on the existing road network. With limitations to new construction including natural and man-made barriers it will become even more 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, the Steering Committee, and the general public.

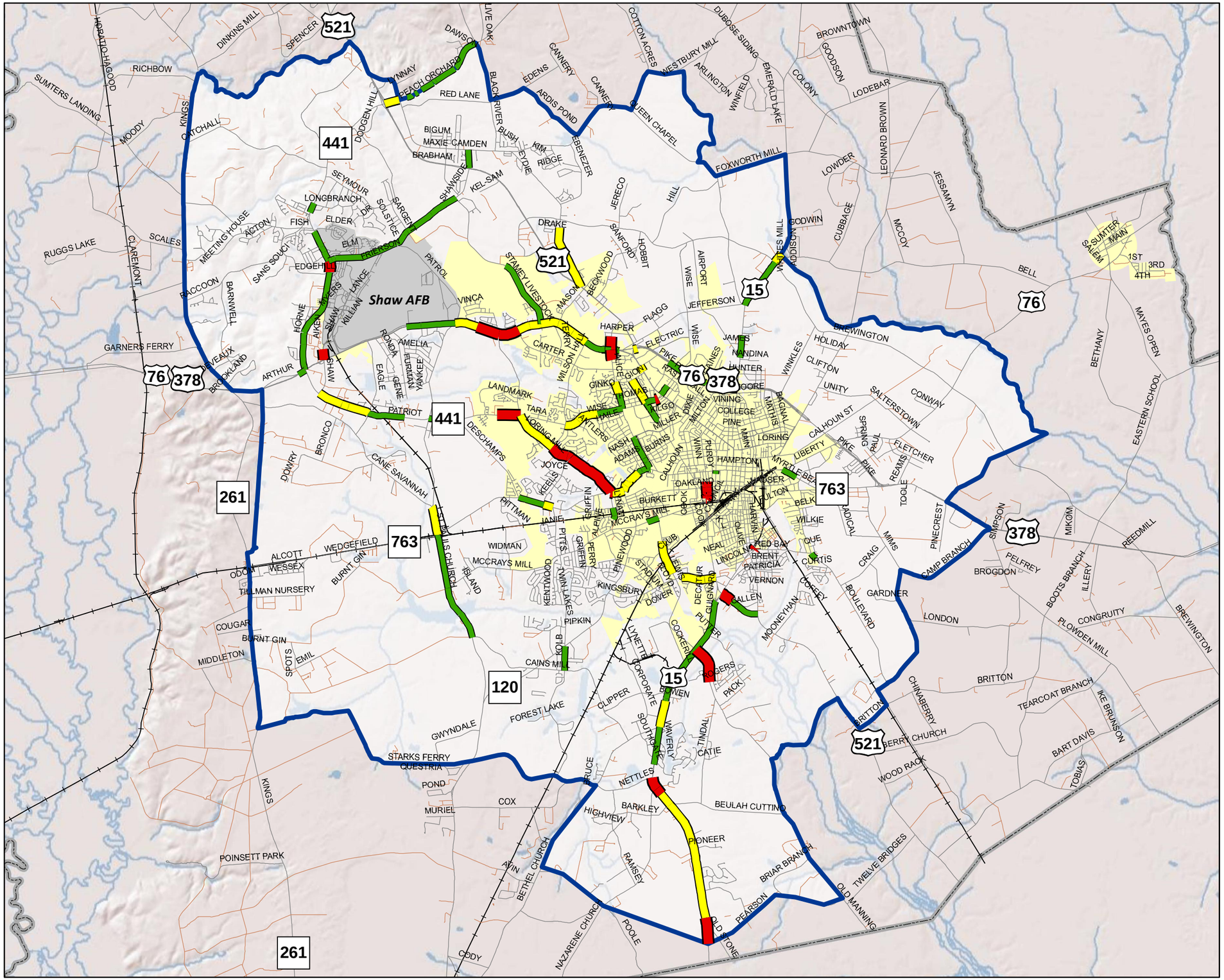
Recommendations are placed into three categories: Operational/Design Improvements, Existing Road Widening, and New Location Construction. It should be noted that, wherever possible, the recommendations emphasize the protection of existing roadways through the inclusion of plantable medians and better 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 list details recommended improvements for specific corridors. However, the list does not represent all roadway improvements recommended in the region. Additional improvements (i.e., bicycle/pedestrian improvements, intersection laneage, interchange upgrades, and operational and spot safety) have been proposed as part of the multimodal recommendations presented in subsequent chapters. In addition, not all of these projects will be contained in the fiscally constrained plan. However, all represent candidates for inclusion in the Vision Plan.

SUATS
Long-Range Transportation Plan

2010 - 2040

Figure 5.1
Existing and Committed Congested Corridors 2040



V/C Ratio

- 0.90 - 1.09
- 1.10 - 1.29
- Greater than 1.30
- Street
- Dirt Road
- Railroad
- Shaw Air Force Base
- City Limits
- SUATS Study Area Boundary
- County Boundary

NORTH

0 0.5 1 2 Miles

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Principal and Minor Arterials

Operational/Design Improvements

Operational and design improvements typically occur without altering the existing right-of-way. These projects include retrofitting a median into an existing two way left turn lane or implementing other access management strategies. Although these improvements will slightly increase the capacity of the roadway, the main outcome of the projects will be to enhance access and mobility while increasing traffic safety along the corridor. The following roadways are recommended for operational and design improvements:

- **Brewington Road** – US 521 to US 378
- **Broad Street** – Robert Graham Freeway (US 76/378 Bypass) to Washington Street
- **Washington Street** – Broad Street to Liberty Street
- **Bultman Drive** – Broad Street to Miller Road
- **Kings Highway (SC 261)** – US 76/378 to Cane Savannah Road
- **Cane Savannah Road** – Kings Highway (SC 261) to St. Pauls Church Road
- **St. Pauls Church Road** – Cane Savannah Road to Cains Mill Road
- **Cains Mill Road** – St. Pauls Church Road to Clipper Road
- **Clipper Road** – Cains Mill Road to US 15
- **Pocalla Road** – South Guignard Drive to Lafayette Drive
- **Lafayette Drive** – Pocalla Drive to US 76/378
- **Liberty Street** – Washington Street to Alice Drive
- **Red Bay Road** – US 15 to Coleman Road
- **US 521** – US 76/378 to Thomas Sumter Highway
- **Robert Graham Freeway (US 76/378 Bypass)** – Loring Mill Road to US 76 split
- **Frierson Road** – Shaw AFB Frierson Road Gate to US 521
- **McCrays Mill Road** – Stadium Road to Guignard Drive
- **Old Manning Road** – US 15 to Twelve Bridges Road
- **Pinewood Road** – Stadium Road to Wedgefield Road
- **Twelve Bridges Road** – Old Manning Road to US 521
- **Wesmark Boulevard** – Broad Street to Broad Street Extension

Existing Road Widening

Roads recommended to be widened represent facilities currently operating over capacity or projected to be over capacity. Additional lanes should accommodate the additional traffic volumes projected for 2040. A typical widening project should be constructed in two lane phases, with the use of two-way left turn lanes minimized to only those locations where traffic volumes or adjacent land uses require them. Numerous studies have shown that raised medians are safer than two-way left turn lanes. The following facilities are recommended for widening in the SUATS region:

- **Alice Drive** – Liberty Street to Wise Drive – widen to 4 lane divided
- **Brewington Road** – US 521 to US 378 – widen to 4 lane divided
- **Cains Mill Road** – St. Pauls Church Road to Clipper Road – widen to 4 lane divided
- **Camden Highway** – Queen Chapel Road to US 521 – widen to 4 lane divided
- **Cane Savannah Road** – Kings Highway to St. Pauls Church Road – widen to 4 lane divided
- **Clipper Road** – Cains Mill Road to US 15 – widen to 4 lane divided
- **Kings Highway (SC 261)** – US 76/378 to Cane Savannah Road – widen to 4 lane divided
- **Lewis Road** – McCrays Mill Road to US 15 – widen to 3 lane
- **Loring Mill Road** – US 76/378 to Wedgefield Road – widen to 4 lane divided
- **Mason Road** – Camden Highway (US 521) to Broad Street – widen to 4 lane divided
- **Old Manning Road** – US 15 to Twelve Bridges Road – widen to 4 lane divided
- **Patriot Parkway (SC 441)** – Loring Mill Road to Frierson Road – widen to 4 lane divided
- **St. Pauls Church Road** – Cane Savannah Road to Cains Mill Road – widen to 4 lane divided
- **Terry Road** – Broad Street to Carter Road – widen to 4 lane divided; realign with Mason Road
- **Twelve Bridges Road** – Old Manning Road to US 521 – widen to 4 lane divided
- **US 15** – Nettles Road to Pearson Road – widen to 4 lane divided
- **Wedgefield Road (SC 763)** – Deschamps Road to Pinewood Road – widen to 4 lane divided
- **Wesmark Boulevard** – Broad Street to Broad Street extension – widen to 2 lane divided, reserve ROW for four lane divided
- **Wise Drive** – Loring Mill Road to Alice Drive – widen to 4 lane divided

New Location Construction

In some instances, traffic congestion can be alleviated only by providing alternative routes between over-capacity facilities. These connections typically are constructed as collector streets. However, sometimes it is necessary to provide new connections in the form of a principal or minor arterial. Newly constructed arterials should improve the continuity between higher-level roadways. The following roadways are proposed in the SUATS region:

- **Alice Drive Extension** – US 521 to Wise Drive (This new facility is proposed to create network continuity and promote economic development)
- **New Frierson Road** – Patriot Parkway to Frierson Road (This new facility is a Department of Defense led and funded project)
- **Red Bay Road** – Boulevard Road to US 76/378 (This new facility is proposed to promote freight movements through the region)

Interchange Improvements

Several alternative solutions were examined to address the existing and projected future problems facing the US 76/378 Bypass. Analysis was initiated as a part of the project identification process for the 2008 Sales Tax Referendum. During this process, the need was expressed for creating a corridor that was well-connected, safe, and an attraction rather than a hindrance for businesses and industries.

The next analysis method applied to the Bypass was to evaluate critical interchange points along the corridor and identify ways for those points to be improved. This analysis method focused on providing improved access to US 76/378 through its frontage road and interchange system. As a part of this analysis, three key locations were identified as focal points for improvement:

- Wise Drive Interchange
- Wesmark Boulevard Interchange
- Lafayette Drive/Main Street Interchange

Wise Drive Interchange

Wise Drive currently has an overpass but no access to the US 76/378 Bypass. This road is centrally located between the Broad Street interchange and a partial access point on Miller Drive spaced over 1.7 miles apart, and would serve as a vital link for north-south connectivity as well as for business viability in the area. This cost-effective concept re-routes the existing frontage roads to allow spacing for full acceleration and deceleration ramps from the US 76/378 Bypass. The ramps will connect to Wise Drive through the use of a "square loop" design, allowing existing and future developments access to both the freeway and Wise Drive.

Wesmark Boulevard Interchange

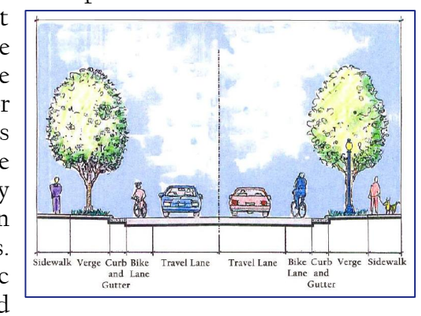
The next point analyzed was the Wesmark Boulevard connection with US 76/378. The final alternative provides enhanced cross-access by extending Wesmark Boulevard across US 76/378, and constructing a new bridge over the Bypass. Access to the existing service roads would be enhanced by providing two new intersection points. This alternative was determined to be the most effective way to enhance access while continuing to provide a high level of service to the Bypass.

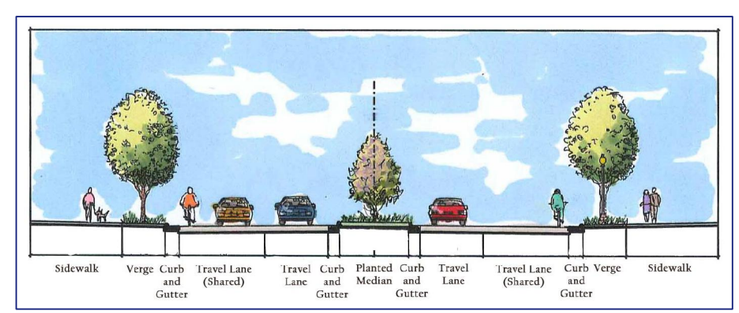
Lafayette Drive/Main Street Interchange

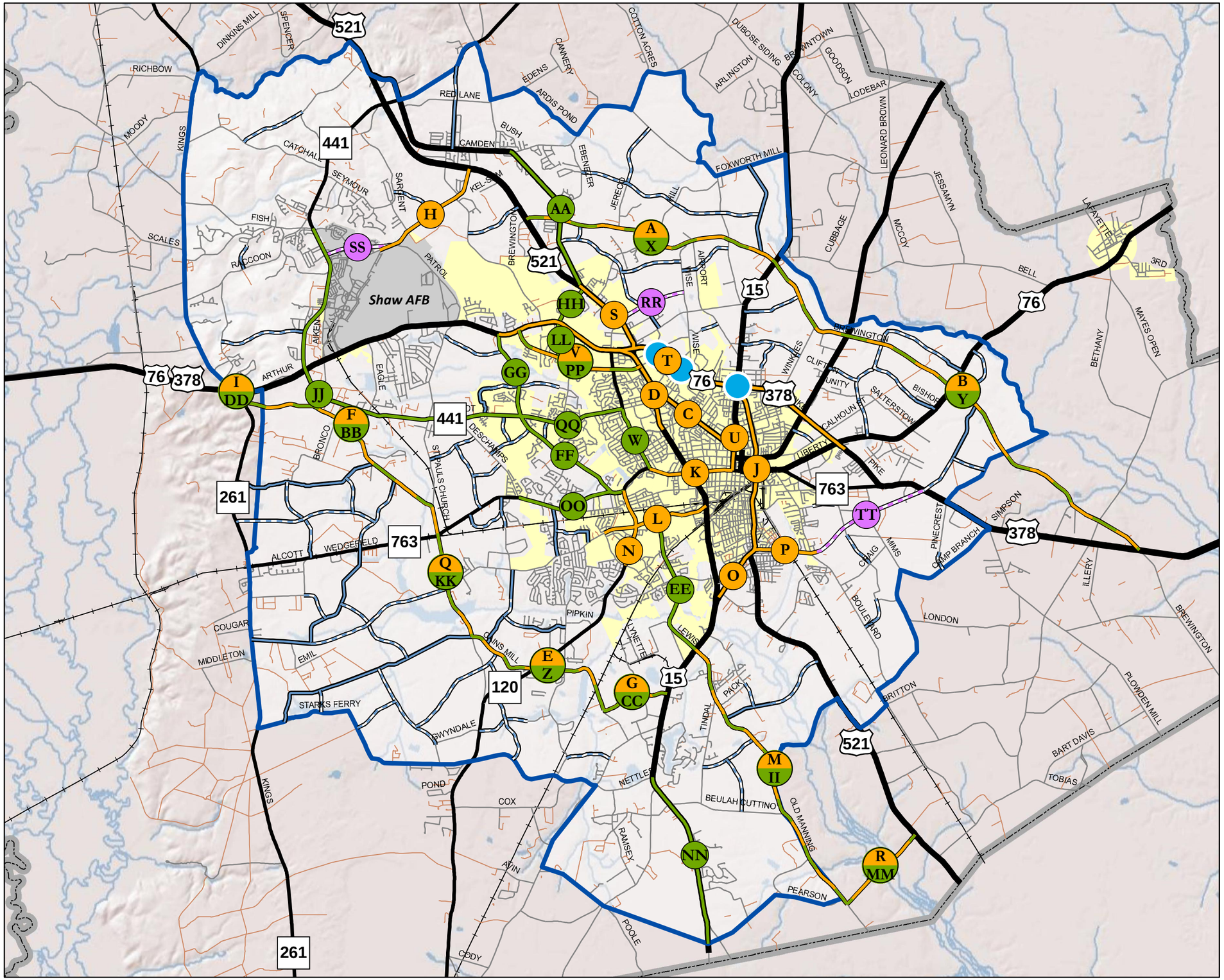
Finally, the interchange of Lafayette Drive/Main Street with US 76/378 was analyzed as a part of the *Lafayette Drive Corridor Study*, completed in March 2007. Improvements at this location are currently being analyzed as part of the NEPA process with funding from the Penny for Progress sales tax. Improvements to the surrounding roadway network are also proposed in conjunction with the interchange modifications.

Collectors

The projects previously listed represent only the principal and minor arterials recommended in the plan. Collector streets are recommended throughout the region to improve the general connectivity of the road network. The collector street system provides critical connections in the transportation network by bridging the gap between arterials and locals. Collectors gather traffic from neighborhoods and distribute it to the system of major and minor thoroughfares throughout the area. Recommended collector streets connect some of Sumter's key facilities and growing neighborhoods. These new facilities are envisioned to have two lanes and often have exclusive left turn lanes at intersections with principal and minor arterials and less frequently at intersections with other collectors. As the images on this page show, collectors can include a variety of features depending on the surrounding land use context. **Figure 5.2** shows all of the proposed principal and minor arterial projects, as well as proposed collector streets.







SUATS
Long-Range Transportation Plan

2010 - 2040

Figure 5.2 Recommended Roadway Projects

Projects - Roadway

- Operational/Design Improvement
- Widen Existing
- Proposed New Location
- Proposed Interchange Project

Projects - Collector Streets

- Existing Collector Improvement
- Proposed New Location - Collector
- US Highway
- SC Highway
- Street
- Dirt Road
- Railroad
- Shaw Air Force Base
- City Limits
- County Boundary

NORTH

0 0.5 1 2 Miles

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Roadway Project Prioritization

In order to best understand how to allocate the region's limited financial resources, it is important to establish priorities for widening, new location, and intersection improvement projects. 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 and councils of government (COGs).

As noted in throughout this chapter, there are a variety of access management, widening, new location, and intersection/interchange improvements recommended for the SUATS region. Per the direction of SCDOT, this prioritization process was used to determine the rankings of regionally significant projects that could potentially receive funding from SUATS guideshare money. Access management projects are by their nature smaller projects that would not be considered as regionally significant. As a result, these projects are not assessed using the SCDOT ranking criteria. Recommended improvements to the Interstate network would be funded through other mechanisms than regional guideshare money, and as a result are also not included in the regional project rankings. The projects included in the current one-cent sales tax were not included in the project ranking since they were evaluated at an earlier time when being considered for inclusion in the sales tax referendum.

This page contains a detailed description of the ranking criteria established by SCDOT for the purposes of prioritizing roadway widening projects. Using the standard SCDOT methodology allows SUATS to best understand how the region's projects will compete for state and federal funding. As a result, no local ranking criteria were proposed or considered for project areas that were rated by SCDOT.

Table 5.1a shows the weighting factors, project information, and rankings for the proposed roadway widening projects. All the projects are shown in order of their SCDOT-determined rankings. **Tables 5.1b** and **5.1c** show the SCDOT determined rankings and scoring criteria for new location roadways and intersection improvements, respectively.

The purpose of the 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, will be necessary to determine specific impacts on a project-by-project basis when individual project studies are begun.

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

In cooperation with the state's metropolitan planning organizations (MPOs) and council of governments (COGs), 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, COG, 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 long-term 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.

Table 5.1.a Project Evaluation Matrix Proposed Roadway Widening Projects

Project ID	Route	Route Name	Length	Project Limits	Project Cost Estimate	Functional Classification	Existing Lanes	Improved # of lanes	PQI	Safety Score	Viability Rank	V/C Rank	Truck Rank	Overall Rank
W	SC 120	Alice Drive	1.30	Wise Drive (S-43-380) to Liberty Street (SC-763)	$14,100,000	Urban - Minor Arterial	2	4	2.28	5	19	1	1	**1**
QQ	S-43-380	Wise Drive	2.20	Loring Mill Road (S-43-208) to Alice Drive (SC-120)	$20,000,000	Urban - Minor Arterial	2	4	3.74	3	17	2	5	**2**
EE	S-43-25	Lewis Road	3.05	McCrays Mill Road (S-43-33) to US 15	$12,300,000	Urban - Collector	2	3	3.81	4	20	6	2	**3**
JJ	SC 441	Patriot Parkway	7.81	Loring Mill Road (S-43-204) to Fish Road (S-43-37)	$68,500,000	Urban - Minor Arterial	2	4	2.70	3	16	4	7	**4**
PP	S-43-1074/467	Wesmark Boulevard/Carter Road	2.75	Broad Street (US 76) to Broad Street Extension (S-43-1429)	$24,100,000	Urban - Collector	2	4	2.16	5	14	7	3	**5**
NN	US 15	US 15	3.77	Nettles Road (S-43-251) to Pearson Road (S-43-131)	$31,000,000	Rural - Minor Arterial	2	4	3.02	4	15	5	4	**6**
GG	SC 441	Loring Mill Road	2.54	Wise Drive (S-43-380) to Wedgefield Road (SC-763)	$15,300,000	Urban - Minor Arterial	2	4	3.74	1	18	3	6	**7**
AA	S-43-1342	Camden Highway	3.58	Queen Chapel Road (S-43-92) to US 521	$27,500,000	Urban - Collector	2	4	3.45	3	13	8	8	**8**
DD	SC 261	Kings Highway (SC 261)	0.35	US 76/378 to Cane Savannah Road (S-43-539)	$2,800,000	Rural - Minor Arterial	2	4	2.49	5	12	10	9	**9**
OO	SC 763	Wedgefield Road (SC 763)	2.01	Deschamps Road (S-43-93) to Loring Mill Road (SC 441)	$19,200,000	Urban - Minor Arterial	2	4	2.92	5	11	9	14	**10**
KK	S-43-40	St. Pauls Church Road	2.87	Cane Savannah Road (S-43-370) to Cains Mill Road (S-43-458)	$23,800,000	Rural - Major Collector	2	4	2.35	4	10	11	10	**11**
II	S-43-25	Old Manning Road	6.40	US 15 to Twelve Bridges Road (S-43-32)	$53,100,000	Rural - Major Collector	2	4	3.25	4	9	12	11	**12**
HH	S-43-673	Mason Road	0.86	Camden Highway (US 521) to Broad Street (US 76/378)	$7,300,000	Urban - Minor Arterial	2	4	2.65	5	8	16	16	**13**
CC	S-43-486	Clipper Road	1.35	Cains Mill Road (S-43-458) to US 15	$11,900,000	Rural - Local	2	4	2.66	3	6	14	17	**14**
FF	S-43-204	Loring Mill Road	1.92	US 76/378 to Wise Drive (S-43-380)	$24,700,000	Urban - Collector	2	4	3.67	4	4	15	12	**15**
Z	S-43-458	Cains Mill Road	3.54	St. Pauls Church Road (S-43-40) to Clipper Road (S-43-486)	$29,900,000	Urban - Collector	2	4	3.72	4	5	17	15	**16**
BB	S-43-539/370	Cane Savannah Road	4.74	Kings Highway (SC 261) to St. Pauls Church Road (S-43-40)	$39,800,000	Urban - Collector	2	4	3.26	2	7	13	13	**17**
X	S-43-81	W. Brewington Road	5.43	US 521 to US 15	$83,500,000	Urban - Collector	2	4	2.96	5	1	18	18	**18**
MM	S-43-32	Twelve Bridges Road	2.00	Old Manning Road (S-43-25) to US 521	$16,800,000	Rural - Major Collector	2	4	3.40	4	2	19	19	**19**
Y	S-43-81	E. Brewington Road	9.99	US 15 to US 378	$45,500,000	Rural - Major Collector	2	4	2.85	2	3	20	20	**20**

Table 5.1.b Project Evaluation Matrix Proposed New Location Roadway Projects

Project ID	Route	Route Name	Length	Project Limits	Project Cost Estimate	Functional Classification	Improved # of lanes	2040 AADT	Overall Rank
SS	S-43-364	NewFrierson Road	1.41	Patriot Parkway (SC-441) to Frierson Road (S-43-364)	$8,400,000	Urban - Collector	2	1569	1
TT	S-43-466	Red Bay Road	2.58	Coleman Street (S-477) to US 76/378	$27,300,000	Urban - Minor Arterial	4	3900	2
RR	SC 120	Alice Drive Extension	1.44	US 521 to Wise Drive (S-43-380)	$14,500,000	Urban - Minor Arterial	4	181	3

Table 5.1.c Project Evaluation Matrix Proposed Intersection Improvements

Major Route	Major Route Name	Minor Route	Minor Route Name	Leg 1 2011 AADT	Leg 2 2011 AADT	Leg 3 2011 AADT	Leg 4 2011 AADT	Composite 2011 AADT	Safety Score	Overall Rank
US 76	Broad Street	S-1074	Wesmark Blvd	30800	30800	11200	5600	39200	1	1
US 76	Broad Street	US 521	Bultman Drive	30800	16500	17600	7300	36100	2	2
SC 120	Pinewood Road	S-33	McCrays Mill Rd	20600	20600	12800	8700	31350	2	3
US 15		S-25	Lewis Rd/Old Manning	20500	11800	7200	6300	22900	3	4
US 521	N. Guignard Drive	SC 763	Liberty Street	17200	16800	13700	12100	29900	2	5
SC 763	W. Liberty Street	SC 120	Alice Drive	15500	13700	15500	15500	30100	2	6
US 76	Broad Street	S-55	Miller Road	16500	16500	10400	7500	25450	2	7
SC 120	Pinewood Road	S-528	Kolb Road	6600	6600	3200	2300	9350	5	8
S-25	Lewis Road	S-522	Kingsbury Drive	6700	6300	4700	2100	9900	4	9
SC 763	Wedgefield Road	S-507	Pitts Road	5500	5500	3200	3200	8700	4	10

* These projects are discussed in Chapter 4.

Access Management

In an environment of revenue-constrained transportation planning and competing agendas, ***access management*** is not just good policy but 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. Access management results from a cooperative effort between state and local agencies and private land owners to systematically control the "location, spacing, design, and operation of driveways, median openings, interchanges, and street connections to a roadway."[1]

A corridor with poor access management includes endless driveways and several traffic signals. The result affects all motorists as commute times increase, fuel efficiency lowers and vehicle emissions rise. 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 between motorists, pedestrians, and cyclists
- Increasingly poor efficiency of the roadway
- Congestion outpacing growth in traffic
- Spillover cut-through traffic on adjacent residential streets
- Limited sustainability of commercial development

As development continues to sprout around heavily traveled corridors, protecting the through capacity will be important for the well-being of the transportation system and 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. Access management benefits all users as shown in **Table 5.2**.

[1] Access Management Manual, Transportation Research Board, National Academy of Sciences, Washington DC, 2003

Table 5.2 - Benefits of Corridor Access Management

User	Benefit
Motorists	▪ Fewer delays and reduced travel times ▪ Safer traveling conditions
Bicyclists	▪ Safer traveling conditions ▪ More predictable motorist movements ▪ More options in a connected street network
Pedestrians	▪ Fewer access points and median refuges increases safety ▪ More pleasant walking environment
Transit Users	▪ Fewer delays and reduced travel times ▪ Safer, more convenient trips to and from transit stops in a connected street and sidewalk network
Freight	▪ Fewer delays and reduced travel times lower cost of delivering goods and services
Business Owners	▪ More efficient roadway system serves local and regional customers ▪ More pleasant roadway corridor attracts customers ▪ Improved corridor aesthetics ▪ Stable property values
Government Agencies	▪ Lower costs to achieve transportation goals and objectives ▪ Protection of long-term investment in transportation infrastructure
Communities	▪ More attractive, efficient roadways without the need for constant road widening

Access Management Strategy Toolkit

Access management is not a one-size fits all solution to corridor congestion. Successful strategies differ throughout a region and even along the same road. The toolkit provides a general overview of the various strategies available to mitigate congestion and its effects. A comprehensive access management program includes evaluation methods and supports the efficient and safe use of the corridors for all transportation modes. The purpose of the toolkit is to provide local engineering and planning officials with access management strategies as well as an overview of their application and use.

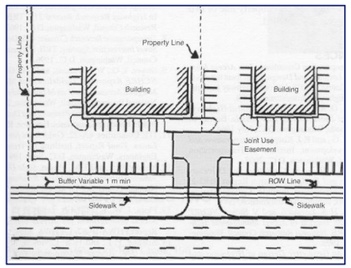
Driveway Treatments

Number of Driveways

In many cases, new development occurs adjacent to an existing site or adjacent to another new development. In these cases, driveway permit applicants should be encouraged to seek cross access easements/agreements from an existing adjacent property or coordinate with an adjacent proposed development to create interconnected internal circulation systems and shared-use external driveways. Approximate construction cost varies and is usually the responsibility of private development.

Driveway Placement/Relocation

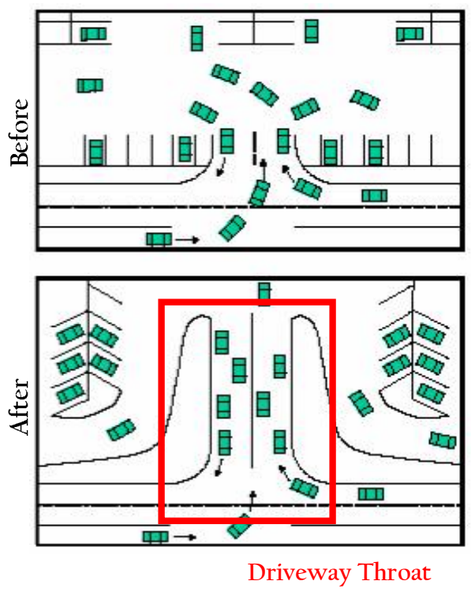
Driveways located close to intersections create and contribute to operational and safety issues. These issues include intersections and driveway blockages, increased points of conflict, frequent/unexpected stops in the through travel lanes, and driver confusion as to where vehicles are turning. Driveways close to intersections should be relocated or closed, as appropriate. As a best planning practice, no driveway should be allowed within 100 feet of the nearest intersection.



On-Site Treatments

Improved On-Site Traffic Circulation

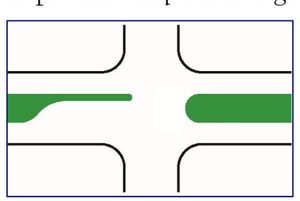
On-site traffic circulation can be improved by managing the driveway throat length, defined as the distance from the edge of the public street to the first internal site intersection. An adequate separation should be provided (minimum 100 feet for large shopping centers) to prevent internal site operations from affecting an adjacent public street, ultimately causing spillback problems. Approximate construction cost varies and is usually the responsibility of private development.



Turn Treatments

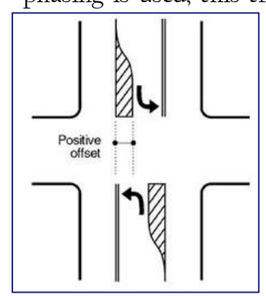
Left Turn Storage Bays

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. Approximate construction cost varies.



Median Treatments

Non-Traversable Median

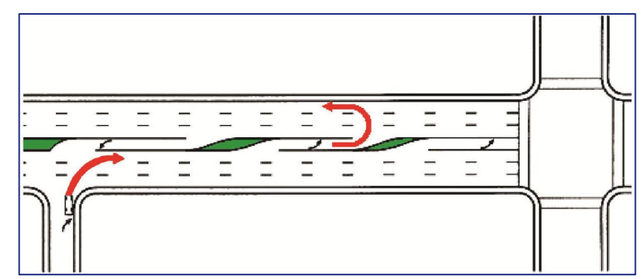
These features are raised or depressed cross section elements that physically separate opposing traffic flows. Inclusion in a new cross section or retrofit of an existing cross section should be considered for some multi-lane arterials (general) and for multi-lane roadways with high pedestrian volumes, 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.

- *Advantages*—increased safety and capacity by separating opposing vehicle flows, providing space for pedestrians to find refuge, and restricting turning movements to locations with appropriate turn lanes.
- *Disadvantages*—increased emergency vehicle response time (indirect routes to some destinations), inconvenience, increased travel distance for some movements, and potential opposition from the general public and affected property owners.

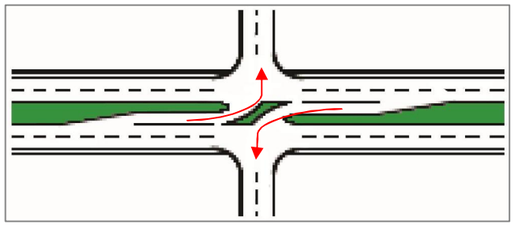
Median U-Turn Treatment

These treatments involve prohibiting or preventing minor street left turns at signalized intersections. Instead, these turns are made by first making a right-turn and then making a U-turn at a nearby median opening. These treatments can increase safety and efficiency of roadway corridors with high volumes of through traffic, but should not be used where there is not sufficient space available for the provision of U-turn movements. The location of U-turn bays must consider weaving distance, but also not contribute to excessive travel distance. Approximate construction cost is $50,000 - $60,000 per median opening.

- *Advantages*—reduced delay for major intersection movements, potential for better two-way traffic progression (major and minor street), fewer stops for through traffic, and fewer points of conflict (for pedestrians and vehicles) at intersections.
- *Disadvantages*—increased delay for some turning movements, increased travel distance, increased travel time for minor street left turns, and driver confusion.



Directional Crossover (Left-Over Crossing)



When a median exists on a corridor, special attention must be given to locations where left turns are necessary. A left-over 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. To accomplish this movement, a right turn followed by a U-turn is required. Such designs are appropriate in areas with high traffic volumes on the major road and lower volumes of through traffic on the cross 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. By reducing the number of conflict points for vehicles along the corridor, these treatments improve safety.

Intelligent Transportation System

Closed Circuit Television Traffic Monitoring

Closed Circuit Television (CCTV) cameras are primarily used on interstate facilities and major arterials to provide visual traffic volume and flow information to traffic management or monitoring centers. These centers use this information to deploy incident response patrols/equipment and to provide roadway travel delay information to motorists. By having visual roadway information, traffic management centers are able to identify incidents quickly and respond appropriately and efficiently, helping to reduce the effect of incidents on a single location or on multiple roadways. Approximate construction cost is $20,000 per location.

Adaptive Signal Control

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 ten percent during peak periods. Approximate construction cost is $250,000 per system and $10,000 per intersection in addition to 25% of capital costs in training, etc.

Emergency Vehicle Preemption

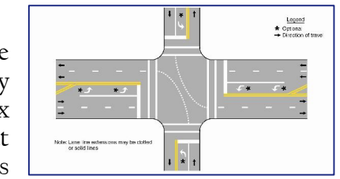
This strategy involves an oncoming emergency or other suitably equipped vehicle changing the indication to green of a traffic signal to favor the direction of desired travel. Preemption improves emergency vehicle response time, reduces vehicular lane and roadway blockages, and improves the safety of the responders by stopping conflicting movements. Approximate construction cost is $5,000-$7,000 per intersection plus $2,000 per equipped vehicle.

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 left-turn 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. Approximate construction cost is $100,000 to $150,000 per signal for wood or metal poles and wires. If constructed with mast arm poles, the cost would range from $150,000 to $200,000.

Intersection and Minor Street Treatments

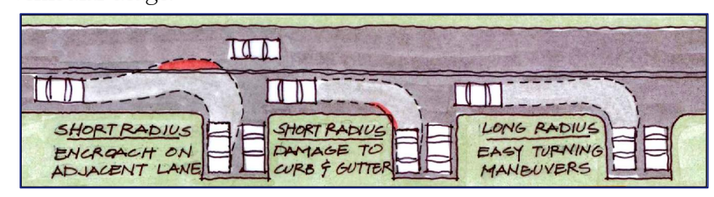
Skip Marks (Dotted Line Markings)



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.

Intersection and Driveway Curb Radii

Locations with inadequate curb radii have the potential to necessitate that turning vehicles use opposing travel lanes to complete their turning movement. 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. This also may endanger pedestrians standing on the corner. Curb radii should be adequately sized for area context and likely vehicular usage.

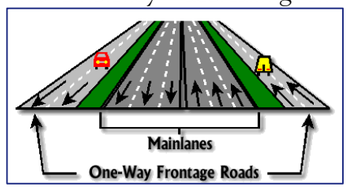


Minor Street Approach Improvements

At signalized intersections, minor street vehicular volumes and associated delays may require that a disproportionate amount of green time be allocated to the minor street, contributing to higher than desired main street delay. Often, with laneage improvements to the minor street approaches, such as an additional left-turn lane or right-turn lane, signal timing can be re-allocated and optimized.

One-Way Frontage Roads

Many older major roadway corridors have two-way service roads along both sides of the street. Converting these service roads to one-way with slip ramps has the potential to improve their safety and efficiency—decreasing the number of intersection conflict points from 96 (two-way) to 36 (one-way) at minor road intersections and also reducing confusion at intersections. Approximate construction cost is $1,000,000 per mile.



Types of Corridors and Potential Solutions

Some access management strategies are better suited to one corridor type than another. **Table 5.3** lists four popular cross sections with local examples and the potential access management strategies.

SUATS Access Management Corridor Strategies

Sumter can proactively combat worsening congestion and deteriorating corridors by implementing appropriate access management strategies. In the 2035 LRTP the following five strategic corridors were identified for detailed analysis and recommendations:

- Liberty Street (Alice Drive to Main Street)
- Broad Street (Market Street to Wise Drive)
- Bultman Drive (Broad Street to Kilgo Street)
- McCrays Mill Road (Stadium Road to Lewis Road)
- Pinewood Road (Stadium Road to Oakland Avenue)

The corridors, as well as a summary discussion of their recommendations, are included in the following section.

Table 5.3 – Types of Corridors and Potential Solutions

Cross Section		Access Management Strategy	
Five Lanes (Predominantly Retail Land Uses) Local Example ▪ Broad Street ▪ Bultman Drive ▪ Lafayette Drive ▪ McCrays Mill Road		▪ Adaptive signal control ▪ Median U-turn treatment ▪ Non-traversable median treatment ▪ Offset left turn treatment ▪ Intersection and driveway curb radii ▪ Left-turn storage bays	▪ Minor street approach improvements (left-turn lane and right-turn lane) ▪ Emergency vehicle preemption ▪ Driveway throat length ▪ Consolidate driveways/cross access ▪ Driveway placement/relocation
Four-Lane Divided with Landscaped Median Local Example ▪ Broad Street west of Robert Graham Freeway (US 76/378 Bypass)		▪ Adaptive signal control ▪ Median U-turn treatment ▪ Offset left turn treatment ▪ Intersection and driveway curb radii ▪ Minor street approach improvements (left-turn lane and right-turn lane)	▪ Emergency vehicle preemption ▪ Driveway throat length ▪ Consolidate driveways/cross access ▪ Driveway placement/relocation ▪ Signalization (driveways) ▪ Left-turn storage bays
Four-Lane Undivided Local Example ▪ Liberty Street		▪ Adaptive signal control ▪ Offset left turn treatment ▪ Intersection and driveway curb radii ▪ Minor street approach improvements (left-turn lane and right-turn lane) ▪ Emergency vehicle preemption	▪ Driveway throat length ▪ Consolidate driveways/cross access ▪ Driveway placement/relocation ▪ Signalization (driveways) ▪ Left-turn storage bays
Four-Lane with Service Roads and Partially Controlled Access Local Example ▪ Robert E. Graham Freeway (US 76/378 Bypass)		▪ Adaptive signal control ▪ CCTV traffic monitoring ▪ Non-traversable median treatment	▪ One way frontage road system with skip ramps ▪ Emergency vehicle preemption

Liberty Street Corridor (Alice Drive to Main Street)

As a part of the 2035 LRTP, a detailed analysis and recommendations were developed for the Liberty Street Corridor. The recommendations are listed below.

Specific Recommendations

Recommendation #1 – The approximately ¼-mile section between Alice Drive and Swan Lake is mostly a 5-lane section with a two-way left turn lane. The City should work with local land owners to encourage improvements to on-site circulation and consolidate driveways. A median treatment that restricts access to right-in/right-out will reduce safety concerns and improve the capacity and aesthetics of the roadway. In particular, the intersection of Liberty Street and Alice Drive suffers from high traffic volumes and a confusing design. Two of the three legs of the intersection operate at level of service F.

Liberty Street and Alice Drive

Liberty Street at Swan Lake

This intersection should be improved by considering following:

- Add skip marks for all motorists turning left
- Move driveway access away from intersection to avoid vehicle conflict
- Install channelized right-in/right-out island
- Install a gateway sign to welcome visitors to the community

Recommendation #2 – From Swan Lake to Guignard Drive, Liberty Street remains a 5-lane section with a two-way left turn lane. As the road approaches Guignard Street, adjacent land uses become mostly commercial. The following two measures are recommended:

- Construct a non-traversable landscaped median in lieu of the two-way left-turn lane to control access and increase safety
- Move driveway access away from the intersection with Artillery Drive to improve traffic flow and reduce congestion

Recommendation #3 – Between Guignard and Main Streets the cross section changes to four lanes with multiple side roads and driveways servicing adjacent commercial property. To improve the function and safety of this segment, the following recommendations should be considered:

- Coordinate traffic signals to reduce driver delay and frustration in the area
- Increase signage in advance of intersections to reduce driver confusion and improve safety
- Consolidate driveways to combine turning movements, increase safety, limit driver confusion, and ease congestion
- Improve on-site traffic circulation to prevent spillback issues and safety problems on Liberty Street

Several recommendations can improve the intersections along this section of Liberty Street. These recommendations include:

- Replace curb and gutter and provide protected left turns for all approaches at Guignard Street
- Provide protected left turns for motorists turning left onto Liberty Street from Purdy Street
- Move driveway access away from intersection with Washington Street
- Install channelized right-in/right-out islands to control access and improve traffic flow

Broad Street Corridor (Market Street to Wise Drive)

As a part of the 2035 LRTP, a detailed analysis and recommendations were developed for the Broad Street Corridor. The recommendations are listed below.

Specific Recommendations

Recommendation #1 – The intersection of Broad and Market Streets is a T-intersection with dual left turn lanes from Market onto southbound Broad Street. For the three-year period ending in 2005, 12 crashes occurred here. The following suggestions should improve the safety of the intersection:

- Add skip marks for motorists turning left off Market Street
- Replace curb and gutter to better define the roadway

Broad Street and Gion Street

Recommendation #2 – The following recommendations are intended to improve the safety and function of the corridor between Wesmark Boulevard and Bultman Drive, including the intersection of Broad and Gion Streets at which 29 crashes occurred:

- Move or close driveway access near Wesmark Boulevard intersection
- Construct a non-traversable landscaped median with u-turn and right-in/right-out access as a means to improve traffic flow and reduce crashes at the intersections with Gion Street and Sumter Mall
- Restrict access to right-in/right-out at site driveways by installing channelized islands
- Consolidate driveways in front of Sumter Mall to ease congestion and improve safety

Recommendation #3 – The Broad Street intersections with Bultman Drive and Wise Drive can be improved with the following recommendations:

- Upgrade signalization to provide protected left turn for all approaches at the Broad Street and Bultman Drive intersection
- Add skip marks for left tuning movements on all approaches to the intersection with Bultman Drive
- Move driveway access away from both intersections
- Replace curb and gutter at the intersection with Wise Drive

Bultman Drive Corridor (Broad Street to Kilgo Street)

As a part of the 2035 LRTP, a detailed analysis and recommendations were developed for the Bultman Drive Corridor. The recommendations are listed below.

Specific Recommendations

Recommendation #1 – The following recommendations for the intersection of Bultman Drive and Broad Street repeat those found in the Broad Street Corridor recommendations:

- Upgrade signalization to provide protected left turn for all approaches at the Broad Street and Bultman Drive intersection
- Add skip marks for left tuning movements on all approaches to the intersection with Bultman Drive
- Consolidate and move driveways within 75 feet of intersection

Recommendation #2 – More than 20,000 vehicles per day pass through the intersection of Bultman Drive and Wise Drive. High volumes of left turns and multiple driveways affect the functionality and safety of the intersection. The following recommendations are intended to improve these conditions:

- Upgrade signalization to provide protected left turn for all approaches
- Consolidate and move driveways within 75 feet of intersection

McCrays Mill Road Corridor (Stadium Road to Lewis Road)

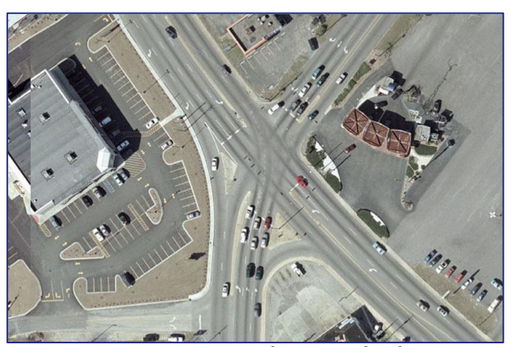
As a part of the 2035 LRTP, a detailed analysis and recommendations were developed for the McCrays Mill Road Corridor. The recommendations are listed below.

Specific Recommendations

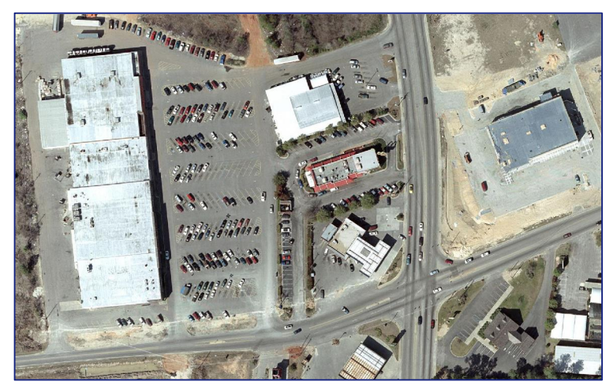
Recommendation #1 – On an average day, 32,200 vehicles enter the intersection of McCrays Mill and Pinewood Roads. Between 2003 and 2005, nine crashes resulting in three injuries occurred at the intersection. The number of crashes and poor function of the roadway could be improved by implementing the following recommendations:

- Consolidate and better define driveways with curb and gutter to combine turning movements, increase safety, limit driver confusion, and ease congestion
- Move or consolidate driveway access away from intersections
- Improve on-site traffic circulation

Recommendation #2 – East of Pinewood Road, a two-way left turn lane divides the two travel lanes. The turn lane should be replaced with a landscaped median with u-turn and right-in/right-out access to control access and increase safety.



Broad Street and Bultman Drive



McCrays Mill Road and Pinewood Road

Pinewood Road Corridor (Stadium Road to Oakland Avenue)

As a part of the 2035 LRTP, a detailed analysis and recommendations were developed for the Pinewood Road Corridor. The recommendations are listed below.

Specific Recommendations

Recommendation #1 – Development along the Pinewood Road Corridor has focused at the McCrays Mill Road intersection. The following recommendations for this intersection repeat those found in the McCrays Mill Road Corridor recommendations:

- Consolidate and better define driveways with curb and gutter to combine turning movements, increase safety, limit driver confusion, and ease congestion
- Move or consolidate driveway access away from intersections
- Improve on-site traffic circulation

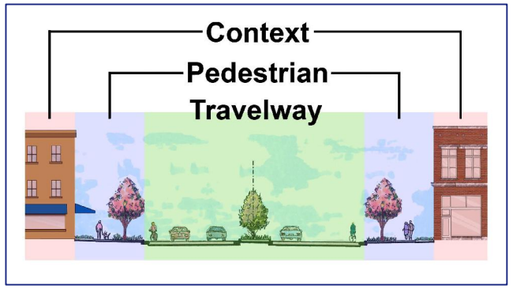
Recommendation #2 – North of the McCrays Mill Road intersection, several driveways serve the strip mall and outparcels west of Pinewood Road. To improve the traffic entering and existing this shopping area and to prevent internal site operations from affecting Pinewood Road, driveways should be consolidated and on-site traffic circulation improved.

Pinewood Road south to McCrays Mill Road

Pinewood Road north of McCrays Mill Road

Complete Streets

A Complete Street is a community-oriented street that safely and conveniently accommodates all modes of travel. Such a street allows pedestrians, bicyclists, motorists, and transit users to use the street safely and conveniently regardless of their age or ability to move. The citizens, business owners, and local officials in the SUATS region recognize the importance of a shift away from an automobile-dominated roadway and toward a balanced, multi-modal transportation system that respects all users of the roadway and the rights of adjacent land owners. The concepts presented in this section extend to all the elements that follow, including the Bicycle and Pedestrian Element, Transit, and Freight Elements. Complete streets as described below are divided into four basic zones or realms – context realm, pedestrian realm, travelway realm, and intersection realm. Together these street designs ensure the needs of all users are accommodated.



Context Realm

The context realm is defined by buildings that frame the major roadway. Guidance for the context realm focuses on four areas of consideration.

Building Form and Massing

High-quality street design should be supplemented with buildings located close to the street that frame the public space enjoyed by pedestrians. In more urban areas, these buildings should be located directly behind the sidewalk, and with stairs, stoops, or awnings, may even encroach into the pedestrian realm to provide visual interest and access to the public space. Suburban environments that must incorporate setbacks for adjacent buildings should limit this distance to 20 feet or less and avoid off-street parking between buildings and the pedestrian realm. Larger setbacks in these suburban areas will diminish the sense of enclosure afforded to the pedestrian and move access to the buildings farther away from the street. In both environments, building heights should measure at least 25% of the corridor width. That is, a 100-foot wide roadway right-of-way should be framed by buildings that are at least 25 feet high on both sides with facades that are at most 20 feet from the edge of right-of-way.

Architectural Elements

Careful placement and design of buildings adjacent to the major roadway offer opportunities for meaningful interaction between transportation and land use. These opportunities are greatly enhanced when land uses such as restaurants, small shops and boutiques, residential units and offices are located adjacent to the street. Building scale and design details incorporated into individual

buildings foster a comfortable, engaging environment focused on the pedestrian. Common building design treatments generally favored in a pedestrian environment include awnings, porches, balconies, stairs, stoops, windows, appropriate lighting, promenades, and opaque windows.

Transit Integration

Areas targeted for high-quality transit service must be supported through land use and zoning policies that sustain transit-oriented development and reflect the benefits of increased access to alternative modes of travel. Policy examples include appropriate densities and intensities for supporting transit use, parking ratios that reflect reduced reliance on the automobile, and setback and design guidelines that result in pedestrian supportive urban design. In addition, potential transit service identified for transportation corridors within the community should take into consideration the land use, density/intensity, and urban design characteristics of the surrounding environment before selecting proposed technologies or finalizing service plans.

Site Design

The complete street is truly integrated into the surrounding environment when the interface between the site and the street is complementary to the pedestrian environment created along the entire corridor. Access to the site should be controlled through a comprehensive access management program to minimize excessive driveways that create undesirable conflicts for traveling pedestrians. Building orientation, further defined by landscape and architectural elements incorporated into the site should reinforce the public space protected between the buildings. Public paths through sites should be provided to shorten blocks longer than 600 feet.

Pedestrian Realm

The pedestrian realm extends between the outside edge of sidewalk and the face-of-curb located along the street. Safety and mobility for pedestrians within this 'public' realm is predicated upon the presence of continuous sidewalks along both sides of the street built to a sufficient width for accommodating different space needs within different environments; such as suburban verses downtown settings. The quality of the pedestrian realm is also greatly enhanced by the presence of high-quality buffers between pedestrians and moving traffic, safe and convenient opportunities to cross the street, and consideration for shade and lighting needs. Each is discussed below.

The pedestrian realm may consist of up to four distinct functional zones – frontage zone, throughway zone, furnishing zone, and edge zone. The frontage zone is located near the back of sidewalk and varies in width to accommodate potential window shoppers, stairs, stoops, planters, marquees, outdoor displays, awnings or café tables. The throughway zone provides clear space for pedestrians to move between destinations and varies in width from 5 to more than 10 feet based on the anticipated demand for unimpeded walking area. The furnishing zone provides an important buffer between pedestrians and moving traffic. It generally measures at least 8 feet wide to accommodate street trees, planting strips, street furniture, utility poles, sign poles, signal and electrical cabinets, phone booths, fire hydrants, bicycle racks or retail kiosks targeted for the pedestrian realm. The edge zone is incorporated into the pedestrian realm concurrent with the presence of on-street parking to allow sufficient room for opening car doors.

Incorporation of one or more of these function zones is generally based upon the context of the surrounding built environment. For example, a more urban, downtown environment will include all four zones in the pedestrian realm and could measure up to 24 feet wide. An equally important link to the pedestrian network that is located in a more suburban setting may omit one or more of the function zones listed above; with an overall minimum width of 10 feet.

Recommended design elements for promoting a healthy pedestrian realm generally focus on one of four areas of concentration: pedestrian mobility, quality buffers, vertical elements, and public open space. Together, these best practices can be implemented in both urban and suburban environments, to varying degrees, for promoting healthy pedestrian environments.

Pedestrian Mobility

The presence of a comprehensive, continuous pedestrian network serves as the foundation for fostering a walkable community that supports active transportation and mode choice. Sidewalks generally provide clear zones of 5 to 10 feet wide to accommodate pedestrian travel. In more urban environments, amenities in the frontage zone and furniture zone will greatly increase the overall width of the corridor as compared to more suburban settings. Mid-block pedestrian crosswalks should be incorporated into the urban fabric as needed to ensure convenient and safe crossing opportunities are provided approximately every 300 feet. As a general rule, mid-block crossings should be considered on two-lane streets with a block length greater than 500 feet when the posted speed limit for the travel lanes does not exceed 40 miles per hour.

Quality Buffers

Lateral separation between pedestrians and moving traffic greatly enhances the character of the pedestrian realm. The amount of separation incorporated into the pedestrian realm may vary between corridors based on the context of the surrounding built environment or on streets with different travel speed and/or traffic volume characteristics. In downtown areas, on-street parking, either parallel or angled, provides sufficient distance (8 to 18 feet) for separating pedestrian and vehicle traffic. Likewise, landscape planting areas at least 5 feet wide incorporated into either urban or suburban environments provide adequate lateral separation for pedestrians. In urban areas, street trees may be placed in tree wells within an overall hardscaping surface instead of using suburban-style grass areas.

Vertical Elements

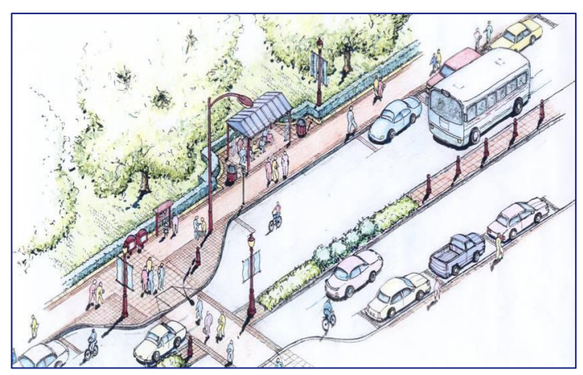
Vertical elements traditionally incorporated into the pedestrian realm include street trees, pedestrian-scale street lighting, and utilities. Street trees provide necessary shade to pedestrians and soften the character of the surrounding built environment. They should be spaced between 15 and 30 feet apart, be adapted to the local environment, and fit the scale and character of the surrounding area. Pedestrian-scale street lighting incorporated into the pedestrian realm should use metal halide fixtures mounted between 12 and 20 feet high. Utilities should not interfere with pedestrian circulation or block entrances to buildings, curb cuts, or interfere with sight distance triangles. In some cases, burying utilities avoids conflict and clutter caused by utility poles and overhead wires. Relocation of overhead utilities to tall poles on just one side of the roadway is a cost-effective aesthetic alternative to burial of utilities in a duct bank under the road.

Public Open Space

The pedestrian realm serves a dual purpose within the built environment – acting as both a transportation corridor and a public open space accessible to the entire community. Therefore, specific design elements incorporated into the pedestrian environment should reinforce this area as a public space; including opportunities for visitors to enjoy the unique character of the corridor in both formal and informal seating areas. Public art and/or specialized surfaces and materials introduced into the pedestrian realm are appreciated by slower moving pedestrians. In more urban areas, street furniture and/or outdoor cafes provide opportunities for 'people watching' that foster community ownership in the pedestrian realm. Furthermore, building encroachments in downtown areas, such as stairs and stoops, provide for interesting points of access to the pedestrian realm. Lastly, awnings and canopy trees provide shade which is helpful in the temperate climate of this region.

Travelway Realm

The travelway realm is defined by the edge of pavement, or curb line in more urban areas, that traditionally accommodates the travel or parking lanes needed to provide mobility for bicycles, transit vehicles, and automobiles sharing the transportation corridor. This area also separates the two pedestrian realms defined within the complete street and may provide carefully-designed crossing opportunities between intersections. Recommended design elements incorporated into the travelway realm serve to achieve greater balance between travel modes sharing the corridor and favor design solutions that promote human scale for the street and minimize pedestrian crossing distance. Guidance for the travelway realm focuses on two areas of consideration – modes of travel and medians.



Multimodal Corridors

Balance between travel modes within a transportation corridor provides choice for mobility that could lead to reduced congestion on major roadways and a healthier citizenry. On a complete street, safe and convenient access to the transportation network for bicycles, transit vehicles, and automobiles is afforded within the travelway realm. Travel lanes for automobiles and transit vehicles should measure between 11 and 13 feet wide to manage travel speeds and reinforce the intended character of the street. Parking lanes incorporated into the travelway realm should not exceed 8 feet in width (including the gutter pan) and may be protected by bulb-outs evenly spaced throughout the corridor. Bus stops located along the corridor should be well-designed to include shelters and benches that comfort patrons while waiting for transit service. On-street bicycle lanes (typically 4 to 6 feet wide) should be considered when vehicle speeds range from 30 to 40 miles per hour. Wide outside lanes may be preferred on streets with slower speeds. To avoid situations where citizens with only basic skills may be attracted to a corridor, designated bicycle routes on parallel corridors may be the best option when speeds on the major street exceed 40 mph. According to state law, bicyclists are considered vehicles and are permitted on all corridors except freeways and access-controlled highways.

Median Treatments

Medians are often incorporated into the travelway realm to provide dedicated left turn lanes, opportunities for landscaping, and pedestrian refuge at crossings. They generally vary in width from 10 feet on some collector streets to 16 feet wide on suburban boulevards. The width depends on the intended application of the median and the limitations set forth by the context of the surrounding built environment. Medians also reinforce other access management solutions provided within the travelway to reduce the number of conflict points and maintain the human scale intended for the complete street. In addition to center medians, other access management solutions incorporated into the travelway realm should limit the number of individual driveways along the corridor and avoid the use of right turn deceleration lanes. Together, these improvements will reduce the overall pedestrian crossing distance for the travelway and maximize the safety for pedestrians traveling inside the pedestrian realm.

Intersection Realm

The intersection realm requires careful consideration for the concerns of multiple travel modes that could meet at major intersections within the transportation system. Recommendations for improving the multimodal environment in and around these major intersections focus on two areas of concentration – operations and geometric design.

Operations

In terms of operations, traffic signals or roundabouts are the most appropriate applications for traffic control devices that could also maintain the pedestrian scale of the street reinforced in the context, pedestrian, and travelway realms. The merits of a traffic signal verses a roundabout for intersection control should be determined on a case-by-case basis by considering issues such as desired speed of traffic, availability of right-of-way, anticipated traffic patterns, and the context of the built environment surrounding the intersection.

Geometric Design

Geometric considerations for the intersection should reinforce the operational characteristics of the traffic signal or roundabout. At traffic signals, this includes the introduction of curb extensions, or bulb-outs, to shorten pedestrian crossing distance and protect on-street parking near the intersection. Curb return radii for signalized intersections should be 15 to 30 feet to control turning speed. At roundabouts, special consideration should be given to entry and exit speeds, pedestrian refuge in the splitter islands, and predictability of movements for pedestrians, bicycles, and vehicles. Both intersection treatments may consider special pavement markings to distinguish pedestrian areas or bicycle lanes provided these surfaces need to be stable, firm, and slip resistant. Additional consideration should be given to maintaining adequate sight triangles in the intersection, addressing the treatment of bicycle lanes through the intersection, and complying with ADA requirements for crosswalk and curb ramp design.

Project Sheets

Project sheets have been created for each roadway recommendation to support the development of the SUATS LRTP. The project sheet succinctly provides the location, description, objective, length, cost, year of implementation, operational characteristics, and multimodal characteristics. A vicinity map and illustrative cross-section also are provided. The project sheets are designed to be used by local governments and SUATS to solicit funding and implementation of specific projects.

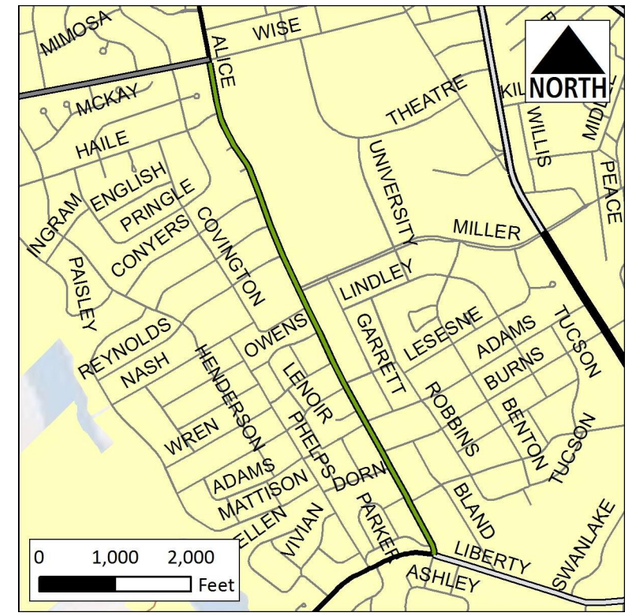
Project W – Alice Drive Widening

Alice Drive (Project W) is proposed to be widened between Liberty Street and Wise Drive. This corridor is currently approaching congested conditions, a condition that is forecast to continue in the future. Widening this corridor would alleviate congestion and provide a more reliable north-south route through the city. Improvements on this corridor would address one of the top ten intersections with the worst crash history in the MPO boundary. Improvements to this section of Alice Drive would serve as a complement to those currently underway on the northern section of this corridor, giving the corridor a uniform cross-section and operating characteristics. This recommendation was suggested during the public outreach process and was also included in the SUATS 2035 LRTP.

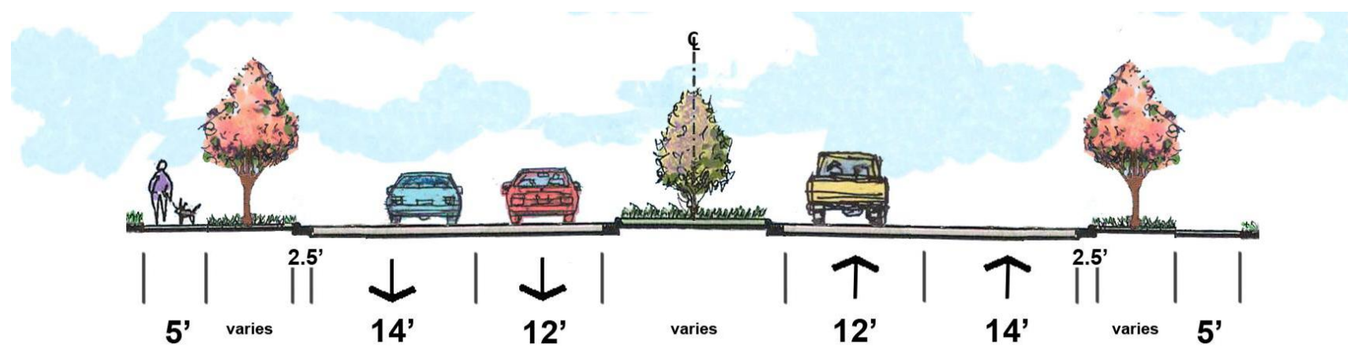
Project at a Glance	
Project ID	W
Project Type	Widening
Project Ranking	1
Primary Purpose	Congestion Relief
Length	1.36 miles
Probable Construction Cost (in Build-Out Year)	$14.1 million
LRTP Horizon Year	2030
Crash Rate (100 mvmt)	486.3

Operational Characteristics		
	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	3	4
Volume	14,850	14,230
Capacity	12,400	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	Sidewalk on East Side	Wide Outside Lanes / Sidewalk on West Side
Transit Corridor	SWRTA West Liberty Route	No Improvement
Freight Corridor	No	No Improvement



Project W – Vicinity Map



Project W – Proposed Typical Cross-Section

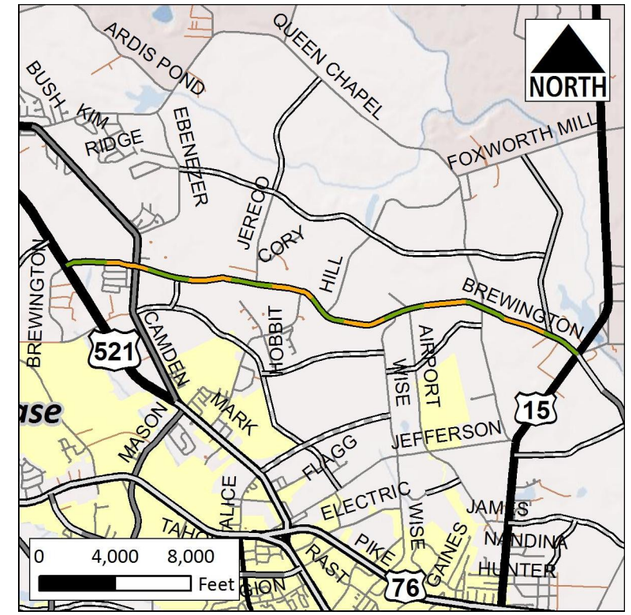
Project X – Brewington Road Widening

Brewington Road (Project X) is proposed to be widened between US 521 and US 15. With improvements to better accommodate freight, this route could effectively serve as a northern bypass for truck traffic. The route provides a direct connection between US 378 east of Sumter to US 521 north of Sumter, and could be used as an alternate route to US 76/US 378. This route also serves an area in the northern portion of the SUATS area identified as ripe for future growth. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was also included in the SUATS 2035 LRTP.

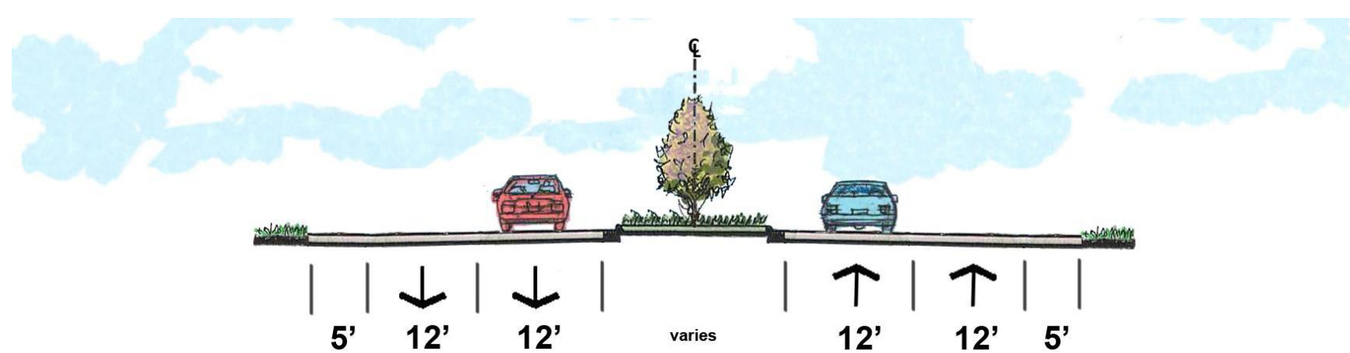
Project at a Glance	
Project ID	X
Project Type	Widening
Project Ranking	18
Primary Purpose	Goods Movement
Length	10.00 miles
Probable Construction Cost (in Build-Out Year)	$83.5 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	392.8

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	900	5,180
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project X – Vicinity Map



Project X – Proposed Typical Cross-Section

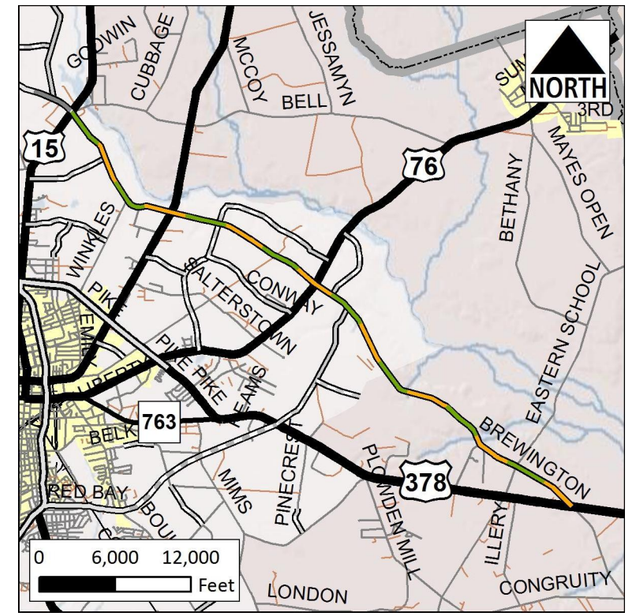
Project Y – Brewington Road Widening

Brewington Road (Project Y) is proposed to be widened between US 15 and US 378. With improvements to better accommodate freight, this route could effectively serve as a northern bypass for truck traffic. The route provides a direct connection between US 378 east of Sumter to US 521 north of Sumter, and could be used as an alternate route to US 76/US 378. This route also serves an area in the northern portion of the SUATS area identified as ripe for future growth. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was also included in the SUATS 2035 LRTP.

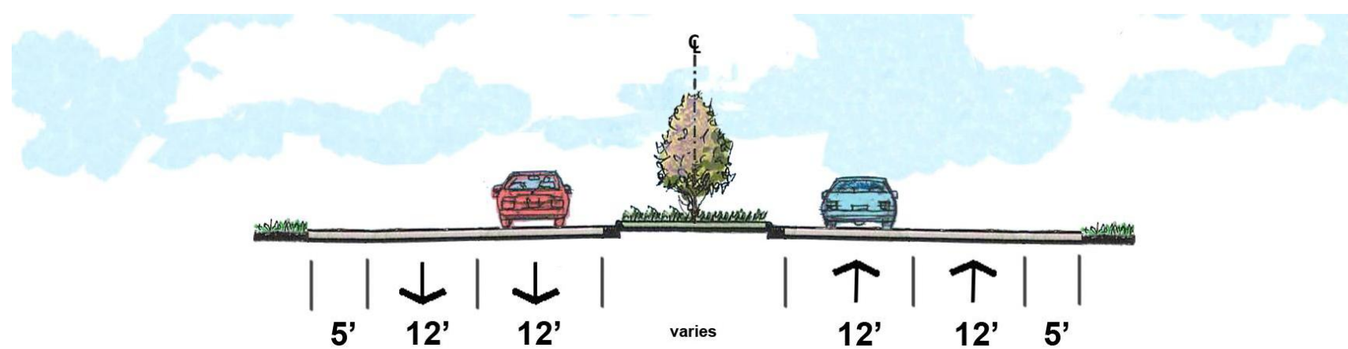
Project at a Glance	
Project ID	Y
Project Type	Widening
Project Ranking	20
Primary Purpose	Goods Movement
Length	5.44 miles
Probable Construction Cost (in Build-Out Year)	$45.5 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	537.1

Operational Characteristics	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	500	1,080
Capacity	8,600	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project Y – Vicinity Map



Project Y – Proposed Typical Cross-Section

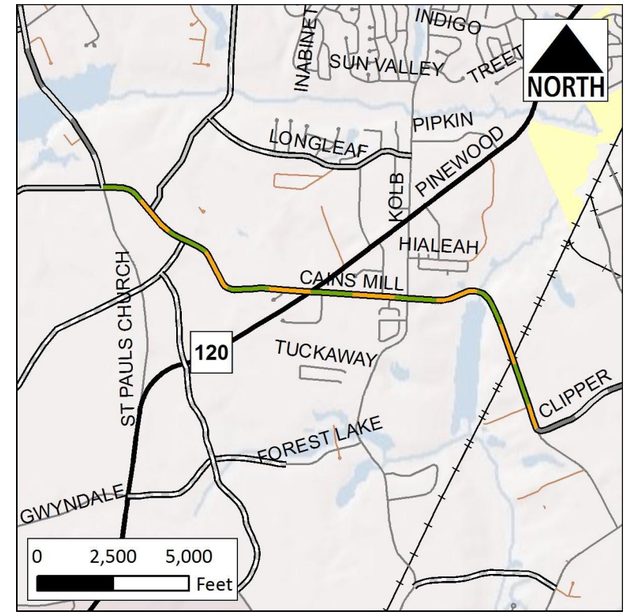
Project Z – Cains Mill Road

Cains Mill Road (Project Z) is proposed to be widened between St. Pauls Church Road and Clipper Road. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process and is also included in the SUATS 2035 LRTP.

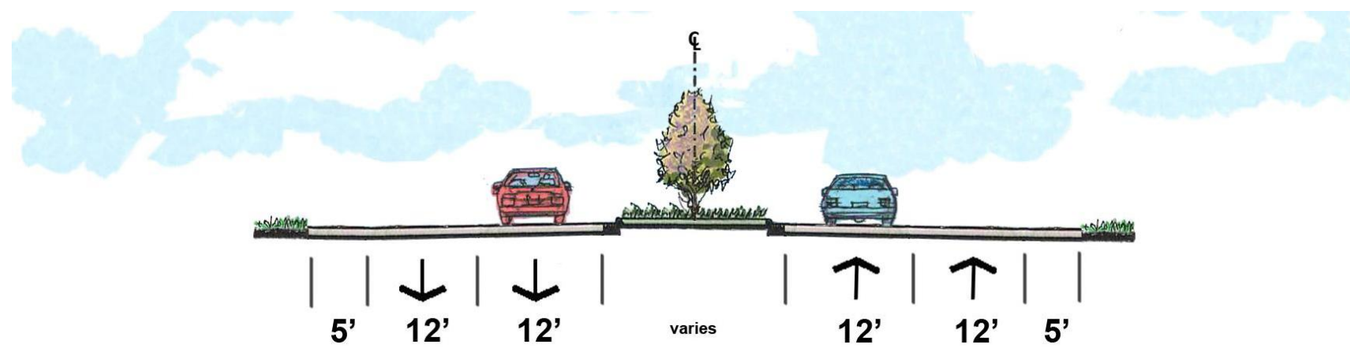
Project at a Glance	
Project ID	Z
Project Type	Widening
Project Ranking	16
Primary Purpose	Goods Movement
Length	3.58 miles
Probable Construction Cost (in Build-Out Year)	$29.9 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	246.7

Operational Characteristics	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	2,050	3,880
Capacity	8,600	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project Z – Vicinity Map



Project Z – Proposed Typical Cross-Section

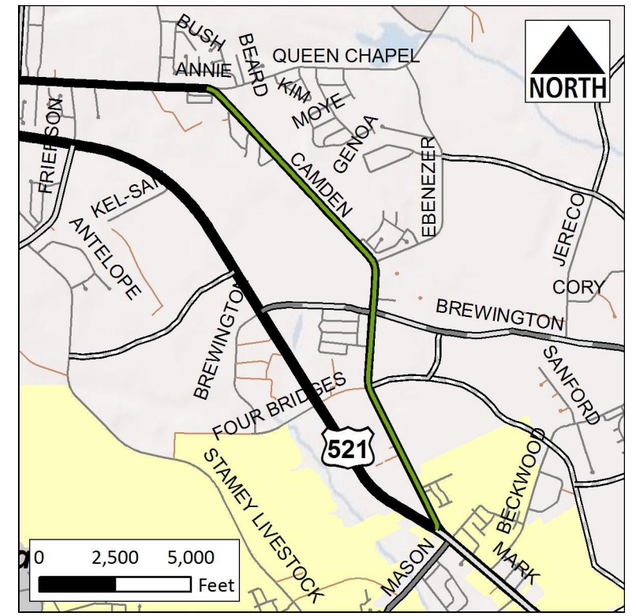
Project AA – Camden Highway

Camden Highway (Project AA) is proposed to be widened between Queen Chapel Road and US 521. This corridor is currently approaching congested conditions, a condition that is forecast to worsen in the future. Widening this corridor would alleviate congestion and provide a more reliable alternative to US 521 north of the city. This project also falls within an area experiencing growth as a result of operations at Shaw Air Force Base. This recommendation was included in the SUATS 2035 LRTP.

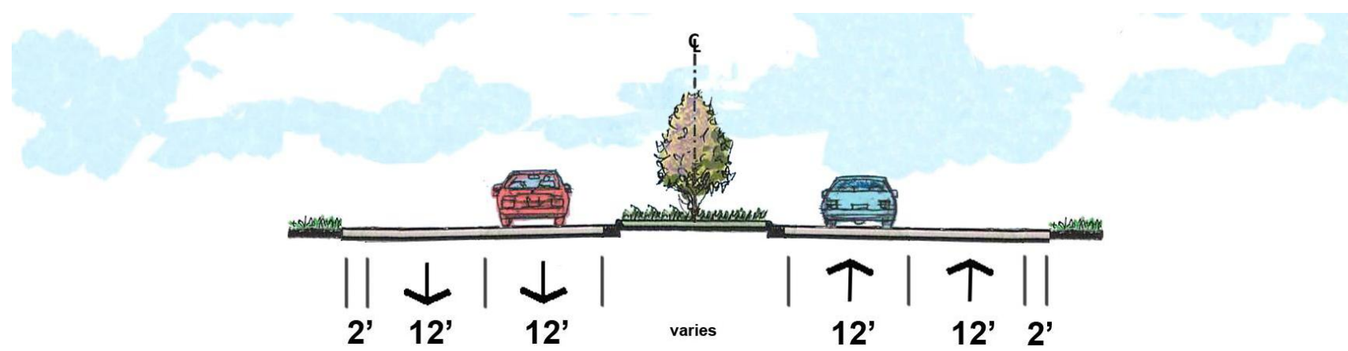
Project at a Glance	
Project ID	AA
Project Type	Widening
Project Ranking	8
Primary Purpose	Congestion Relief
Length	3.28 miles
Probable Construction Cost (in Build-Out Year)	$27.5 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	232.8

Operational Characteristics	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	5,500	8,290
Capacity	8,600	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	No Improvement
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project AA – Vicinity Map



Project AA – Proposed Typical Cross-Section

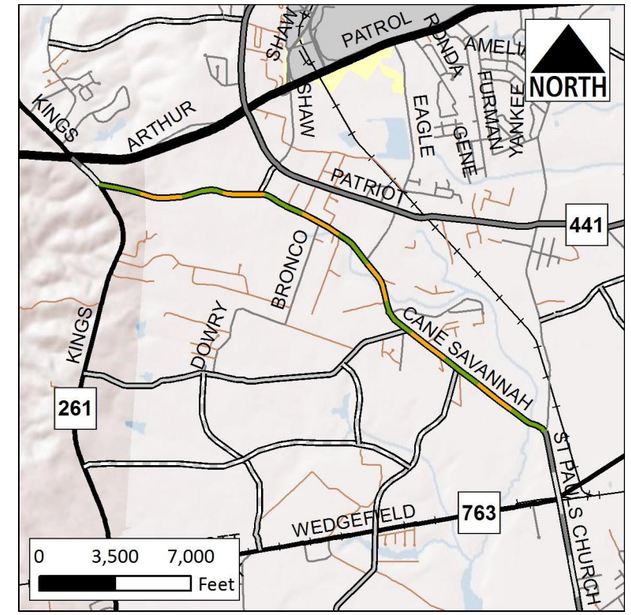
Project BB – Cane Savannah Road

Cane Savannah Road (Project BB) is proposed to be widened between Kings Highway (SC 261) and St. Pauls Church Road. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process and is also included in the SUATS 2035 LRTP.

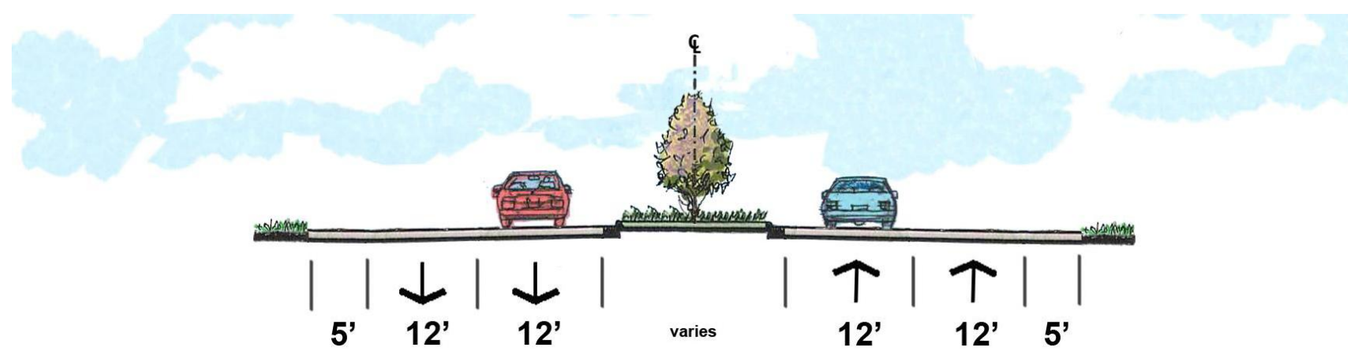
Project at a Glance	
Project ID	BB
Project Type	Widening
Project Ranking	17
Primary Purpose	Goods Movement
Length	4.77 miles
Probable Construction Cost (in Build-Out Year)	$39.8 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	252.2

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	2,950	4,790
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project BB – Vicinity Map



Project BB – Proposed Typical Cross-Section

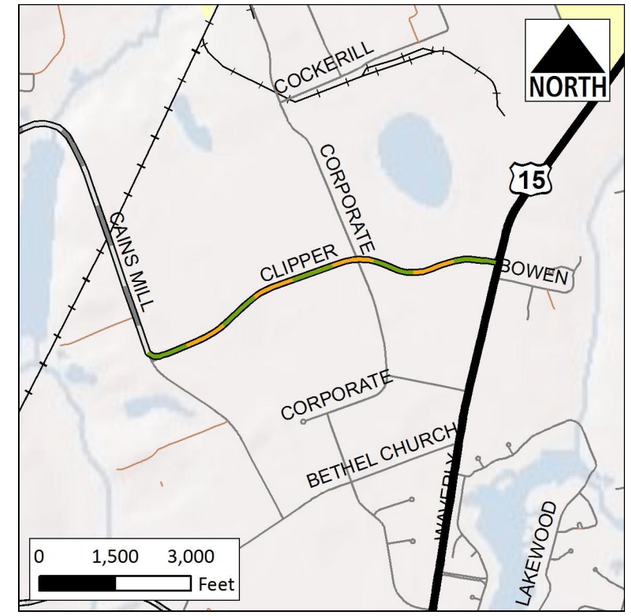
Project CC – Clipper Road

Clipper Road (Project CC) is proposed to be widened between Cains Mill Road and US 15. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process and is also included in the SUATS 2035 LRTP.

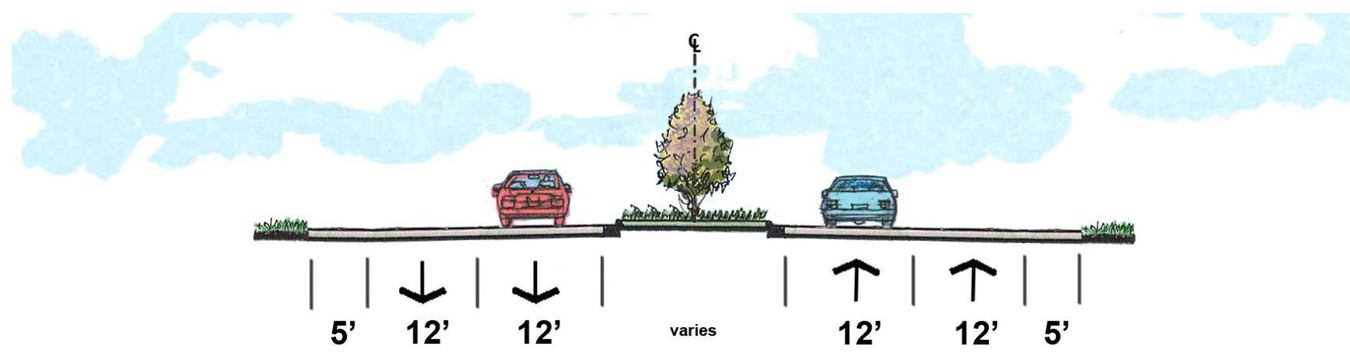
Project at a Glance	
Project ID	CC
Project Type	Widening
Project Ranking	14
Primary Purpose	Goods Movement
Length	1.42 miles
Probable Construction Cost (in Build-Out Year)	$11.9 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	Not Available

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	Not Available	1,760
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project CC – Vicinity Map



Project CC – Proposed Typical Cross-Section

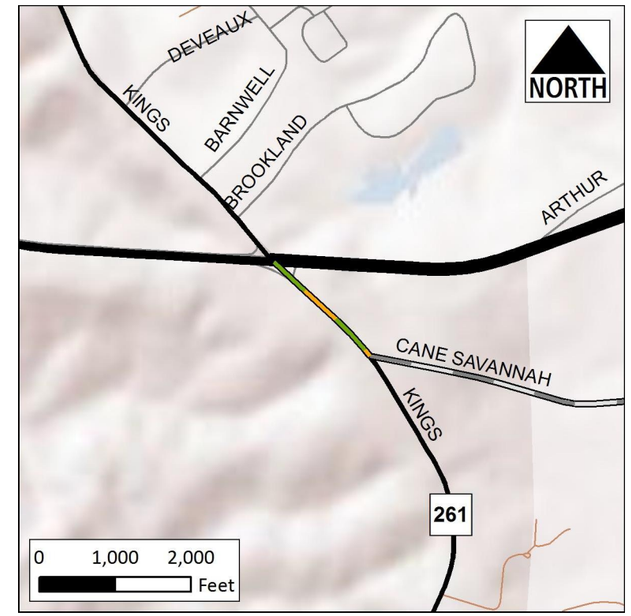
Project DD – Kings Highway (SC 261)

Kings Highway (Project DD) is proposed to be widened between US 76/378 and Cane Savannah Road. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process and is also included in the SUATS 2035 LRTP.

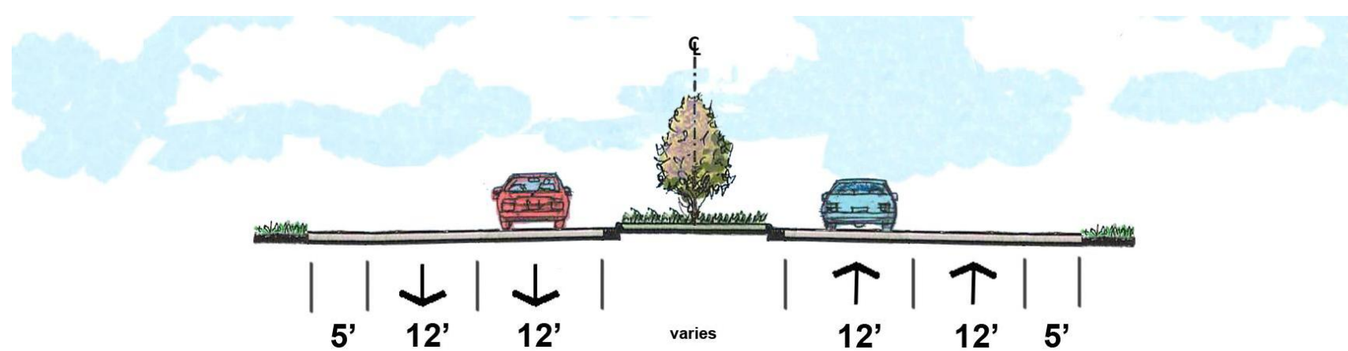
Project at a Glance	
Project ID	DD
Project Type	Widening
Project Ranking	9
Primary Purpose	Goods Movement
Length	0.33 miles
Probable Construction Cost (in Build-Out Year)	$2.8 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	779.0

Operational Characteristics		
	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	2	4
Volume	5,600	8,740
Capacity	10,800	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project DD – Vicinity Map



Project DD – Proposed Typical Cross-Section

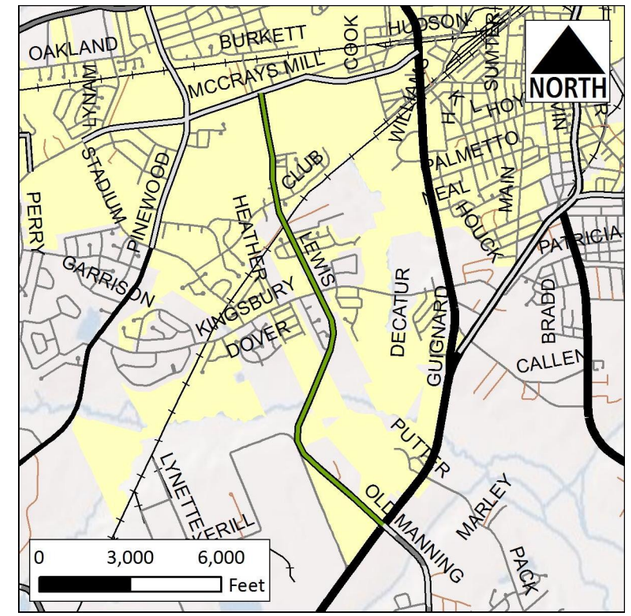
Project EE – Lewis Road

Lewis Road (Project EE) is proposed to be widened between US 15 and McCrays Mill Road. Lewis Road and its continuation as Old Manning Road serve an important role for freight mobility in the southern part of the SUATS region. Portions of this corridor are also forecast to experience congested conditions by the plan's 2040 horizon year. Improvements on this corridor would address two of the top ten intersections with the worst crash history in the MPO boundary. This recommendation was included in the SUATS 2035 LRTP.

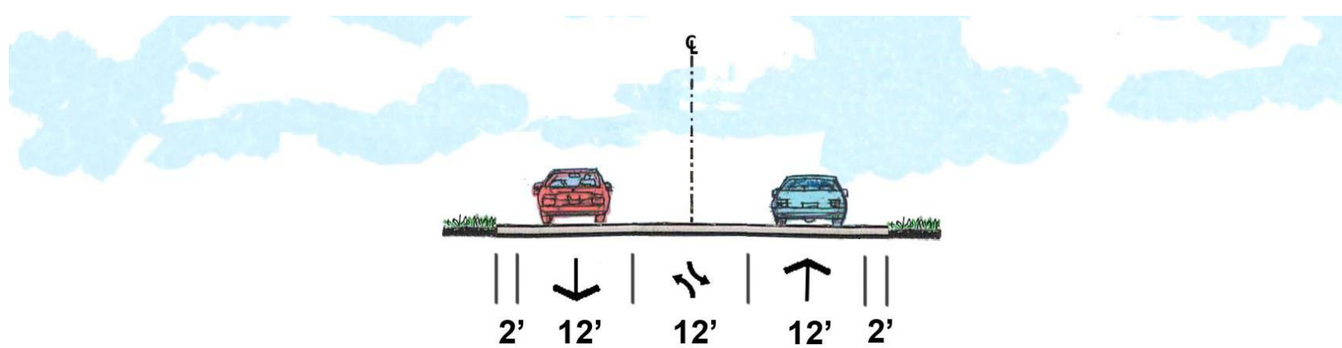
Project at a Glance	
Project ID	EE
Project Type	Widening
Project Ranking	3
Primary Purpose	Congestion Relief and Goods Movement
Length	3.05 miles
Probable Construction Cost (in Build-Out Year)	$12.3 million
LRTP Horizon Year	2030
Crash Rate (100 mvmt)	419.6

Operational Characteristics	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	3
Volume	5,950	6,020
Capacity	8,600	12,400

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	No Improvement
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project EE – Vicinity Map



Project EE – Proposed Typical Cross-Section

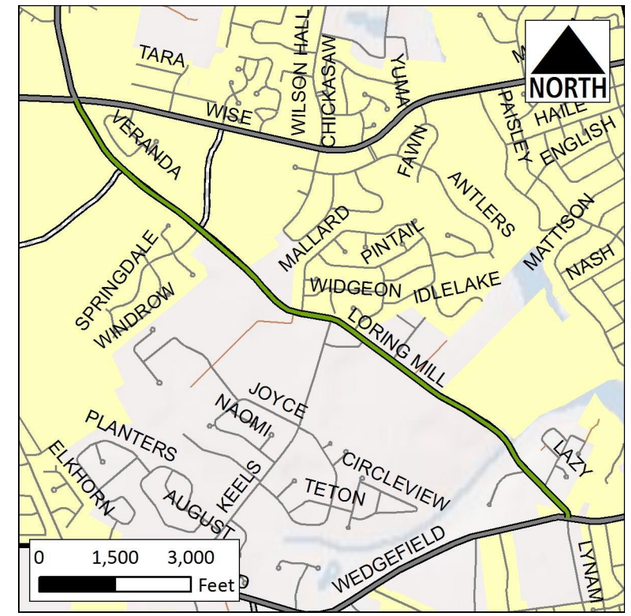
Project FF – Loring Mill Road

Loring Mill Road (Project FF) is proposed to be widened between Wedgefield Road and Wise Road. Widening Loring Mill Road will help provide a multimodally friendly alternative north-south route on the eastern side of the study area. Portions of this corridor are already approaching congested conditions, and are forecast to experience significant congestion by the plan's 2040 horizon year. This recommendation was included in the SUATS 2035 LRTP.

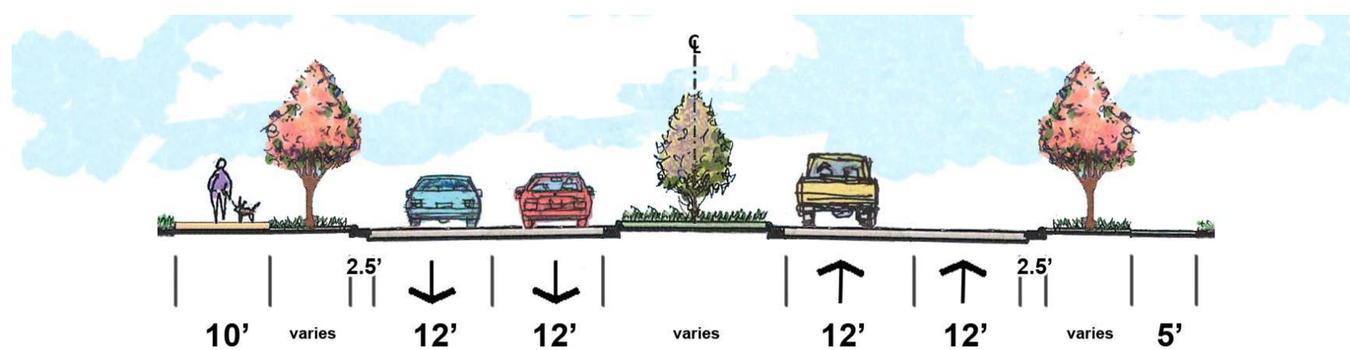
Project at a Glance	
Project ID	FF
Project Type	Widening
Project Ranking	15
Primary Purpose	Congestion Relief and Multimodal Integration
Length	2.47 miles
Probable Construction Cost (in Build-Out Year)	$24.7 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	147.0

Operational Characteristics	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	3	4
Volume	8,650	16,670
Capacity	10,800	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	Multi-Use Path on West Side / Sidewalk on East Side	No Improvement
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project FF – Vicinity Map



Project FF – Proposed Typical Cross-Section

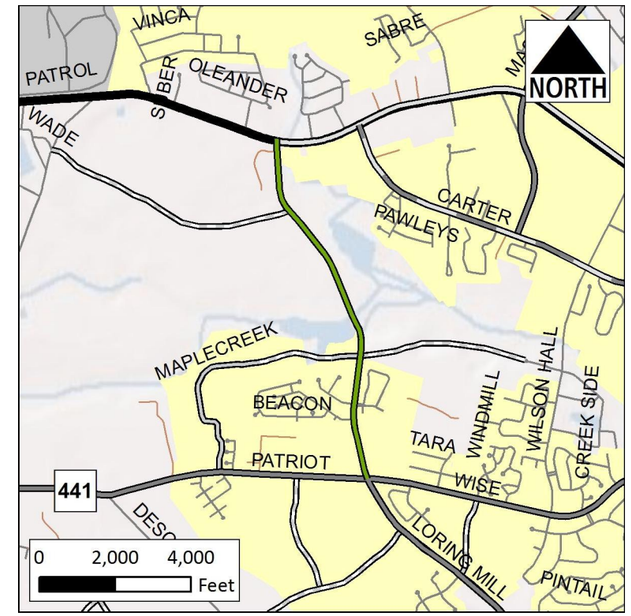
Project GG – Loring Mill Road

Loring Mill Road (Project GG) is proposed to be widened between Wise Road and US 76/378. Widening Loring Mill Road will help provide a multimodally friendly alternative north-south route on the eastern side of the study area. Portions of this corridor are already approaching congested conditions, and are forecast to experience significant congestion by the plan's 2040 horizon year. This recommendation was included in the SUATS 2035 LRTP.

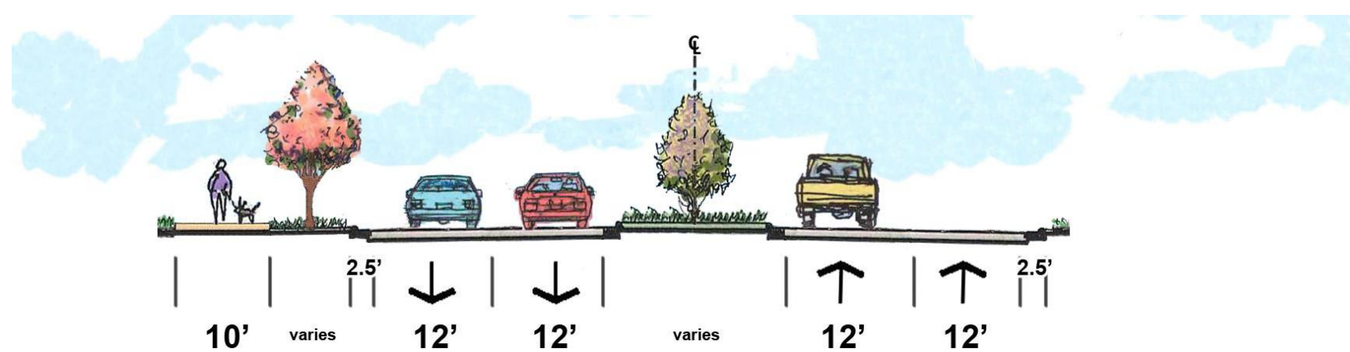
Project at a Glance	
Project ID	GG
Project Type	Widening
Project Ranking	7
Primary Purpose	Congestion Relief and Multimodal Integration
Length	1.82 miles
Probable Construction Cost (in Build-Out Year)	$15.3 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	436.8

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	3,100	2,600
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Multi-Use Path on West Side
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project GG – Vicinity Map



Project GG – Proposed Typical Cross-Section

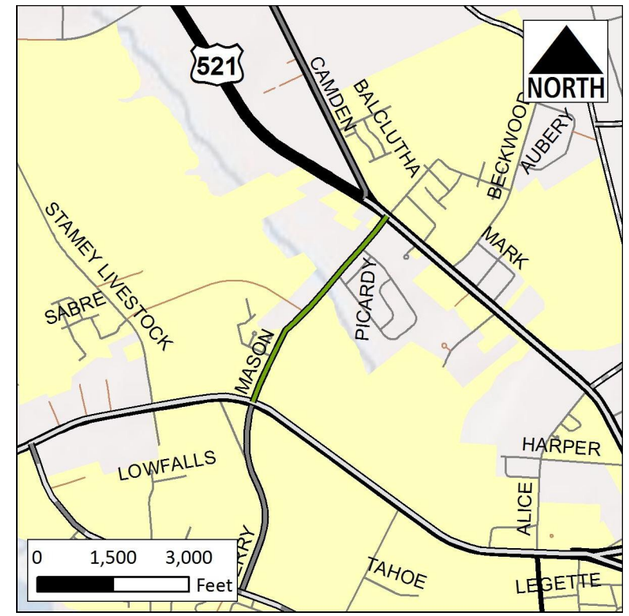
Project HH – Mason Road

Mason Road (Project HH) is proposed to be widened between Broad Street and Camden Highway (US 521). Currently, the intersections of Mason Road and Terry Road with Broad Street are offset. Linking these two roadways and improving them will enhance safety by establishing one ninety-degree intersection that can be signalized rather than two unconnected and skewed intersections. This will provide a more seamless linkage across US 76/US 378 as well as improved connectivity to US 521. Although congestion on these unimproved roads is not forecast, linking and improving these facilities could help relieve congestion on neighboring roads. This recommendation was included in the SUATS 2035 LRTP.

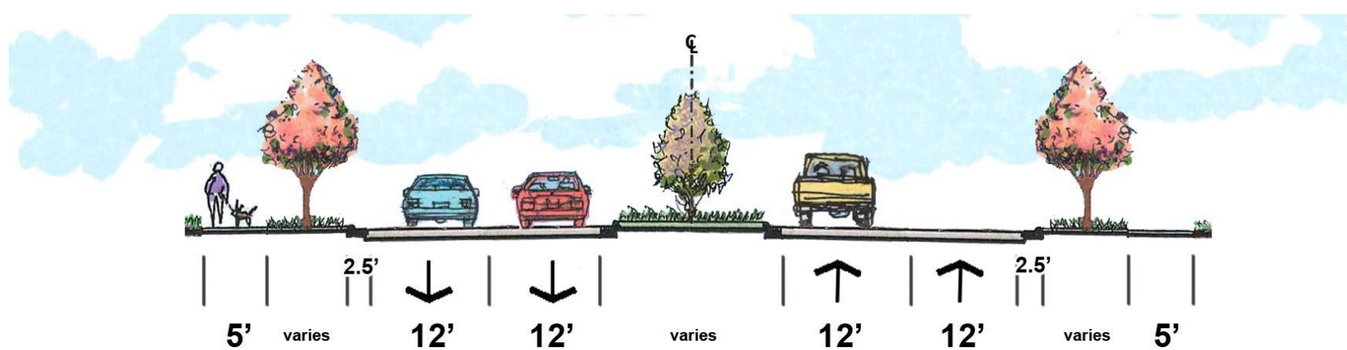
Project at a Glance	
Project ID	HH
Project Type	Widening
Project Ranking	13
Primary Purpose	Congestion Relief
Length	0.87 miles
Probable Construction Cost (in Build-Out Year)	$7.3 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	960.5

Operational Characteristics		
	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	2	4
Volume	3,500	4,050
Capacity	10,800	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Sidewalks
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project HH – Vicinity Map



Project HH – Proposed Typical Cross-Section

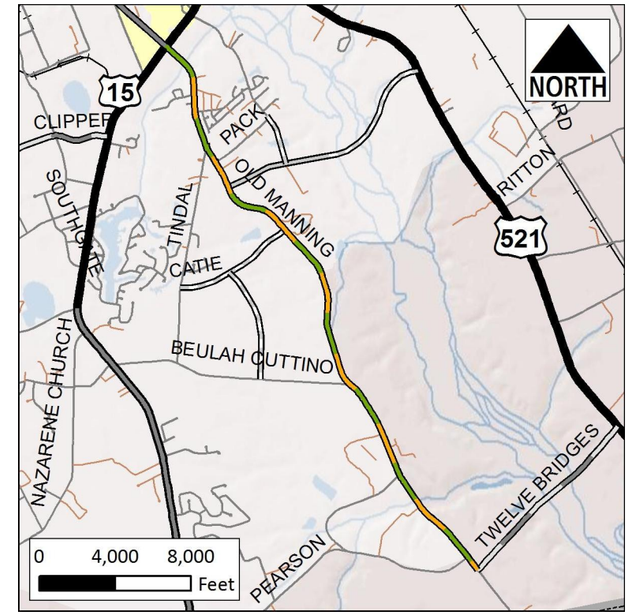
Project II – Old Manning Road

Old Manning Road (Project II) is proposed to be widened between Twelve Bridge Road and US 15. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. Improvements on this corridor would address one of the top ten intersections with the worst crash history in the MPO boundary. Existing and projected future congested conditions could also be addressed through improvements at this location. This recommendation was suggested during the public outreach process.

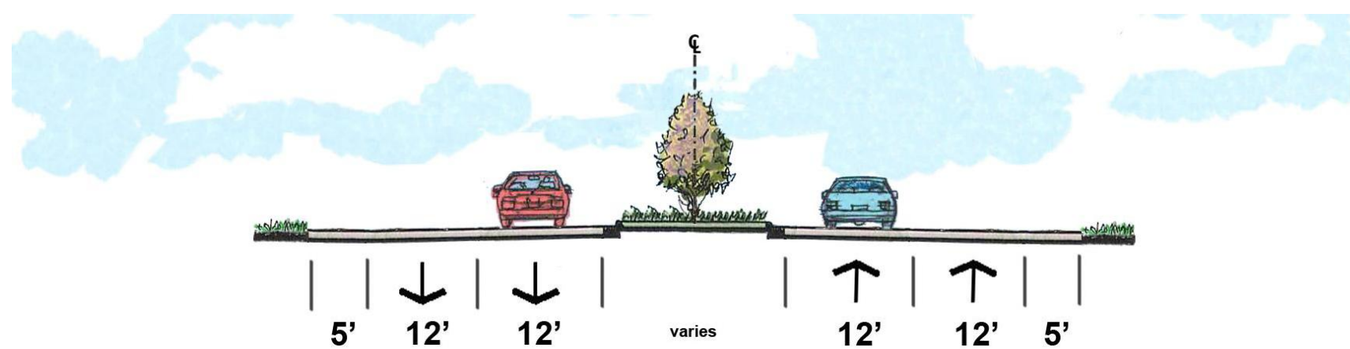
Project at a Glance	
Project ID	II
Project Type	Widening
Project Ranking	12
Primary Purpose	Goods Movement
Length	6.35 miles
Probable Construction Cost (in Build-Out Year)	$53.1 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	180.3

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	4,150	5,480
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project II – Vicinity Map



Project II – Proposed Typical Cross-Section

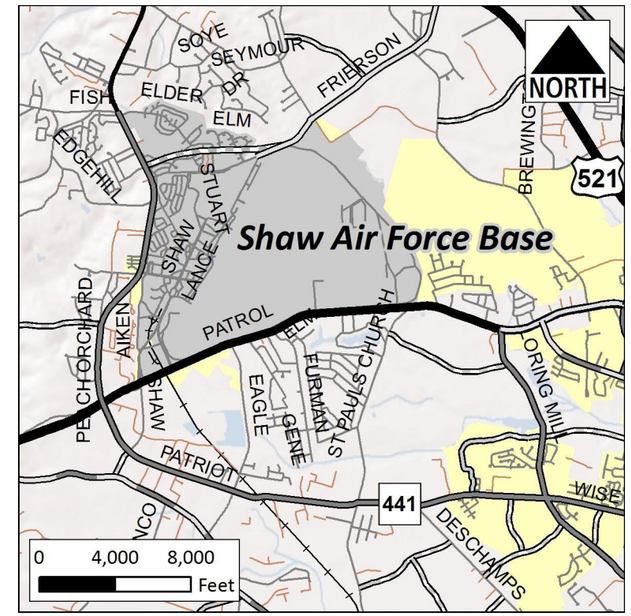
Project JJ – Patriot Parkway

Patriot Parkway (Project JJ) is proposed to be widened between Loring Mill Road and Fish Road. Portions of this corridor are already approaching congested conditions, and are forecast to experience significant congestion by the plan's 2040 horizon year. This corridor also serves as a key access route to Shaw Air Force Base. Improvements to this facility will help serve regional growth spurred by the AFB, along with increased demand. This recommendation was included in the SUATS 2035 LRTP.

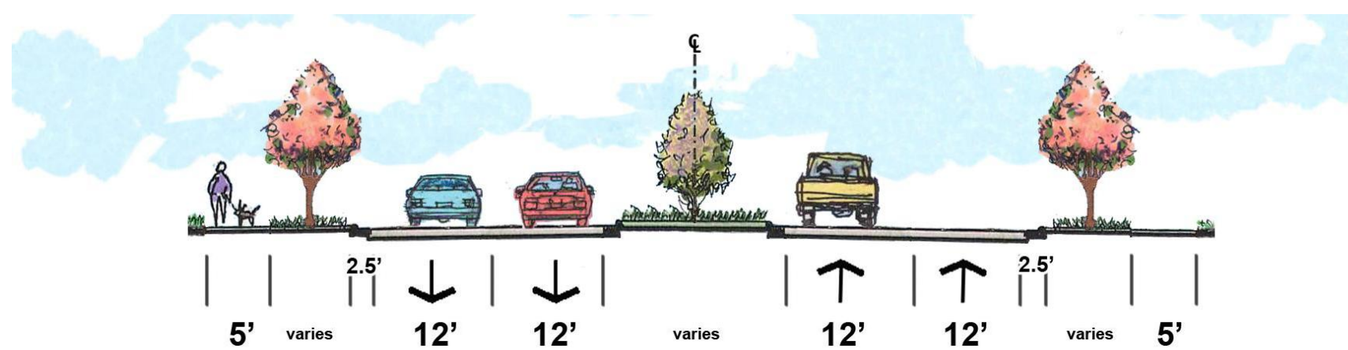
Project at a Glance	
Project ID	JJ
Project Type	Widening
Project Ranking	4
Primary Purpose	Accessibility and Congestion Relief
Length	7.98 miles
Probable Construction Cost (in Build-Out Year)	$68.5 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	282.9

Operational Characteristics	Existing	Future
Facility Type	Principal Arterial	Principal Arterial
Travel Lanes	2	4
Volume	8,200	18,260
Capacity	14,600	33,600

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	Bike Route Signage / Sidewalks
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project JJ – Vicinity Map



Project JJ – Proposed Typical Cross-Section

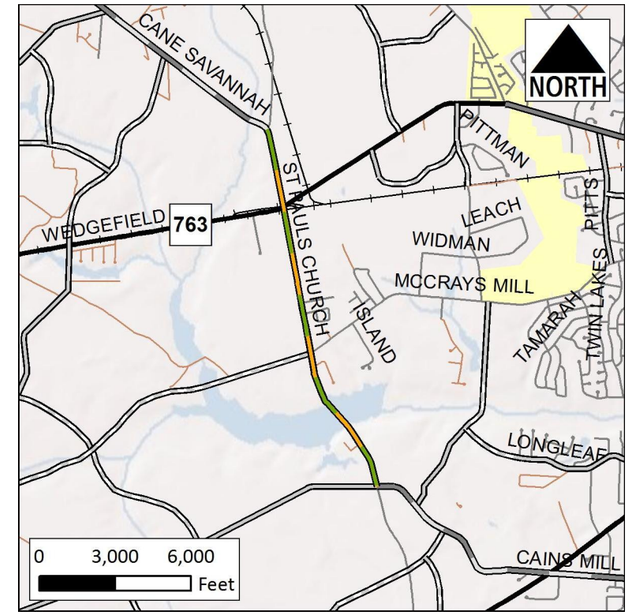
Project KK – St. Pauls Church Road

Patriot Parkway (Project KK) is proposed to be widened between Cains Mill Road and Cane Savannah Road. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process and is also included in the SUATS 2035 LRTP.

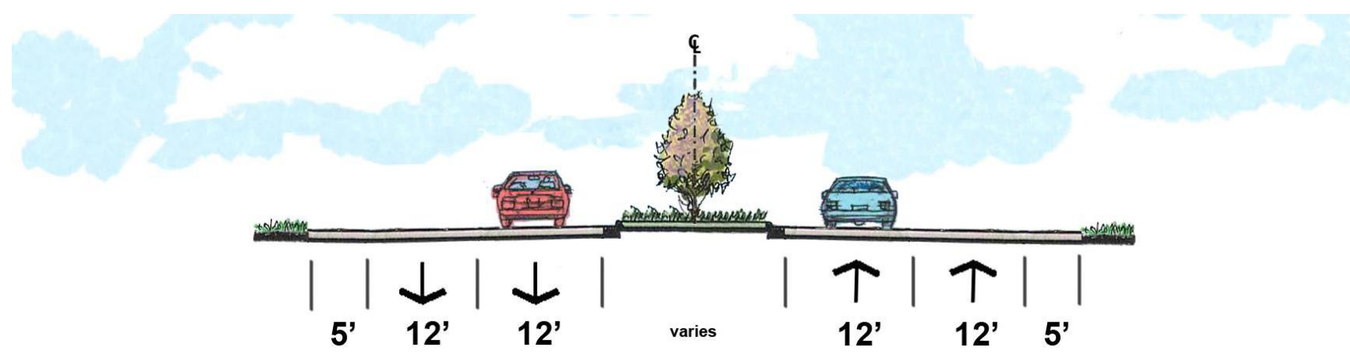
Project at a Glance	
Project ID	KK
Project Type	Widening
Project Ranking	11
Primary Purpose	Goods Movement
Length	2.84 miles
Probable Construction Cost (in Build-Out Year)	$23.8 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	265.3

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	3,600	9,810
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project KK – Vicinity Map



Project KK – Proposed Typical Cross-Section

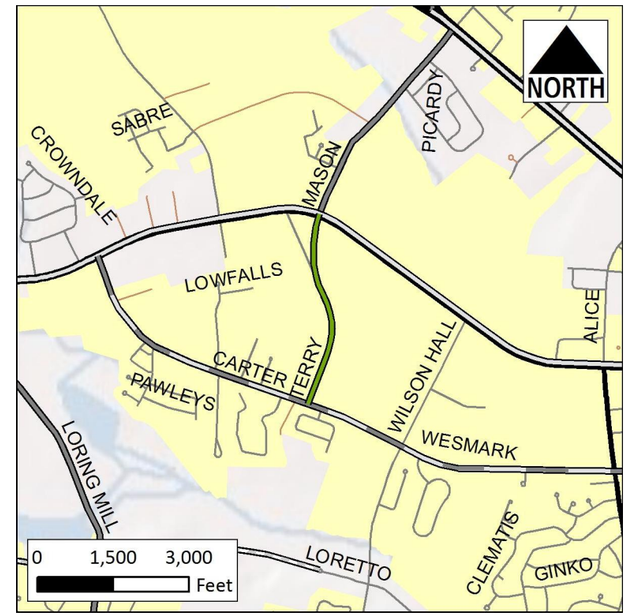
Project LL – Terry Road

Terry Road (Project LL) is proposed to be widened between Carter Road and Broad Street. Currently, the intersections of Mason Road and Terry Road with Broad Street are offset. Linking these two roadways and improving them will enhance safety by establishing one ninety-degree intersection that can be signalized rather than two unconnected and skewed intersections. This will provide a more seamless linkage across US 76/US 378 as well as improved connectivity to US 521. Although congestion on these unimproved roads is not forecast, linking and improving these facilities could help relieve congestion on neighboring roads. This recommendation was included in the SUATS 2035 LRTP.

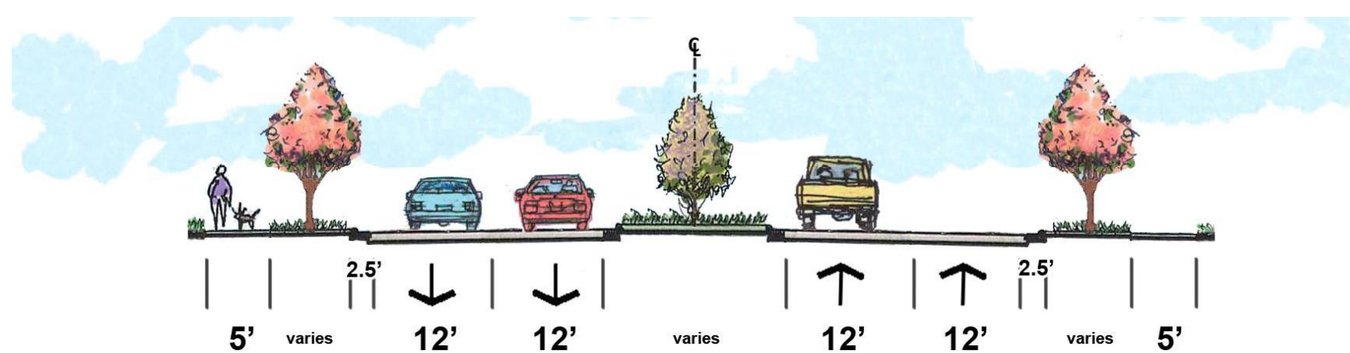
Project at a Glance	
Project ID	LL
Project Type	Widening
Project Ranking	13
Primary Purpose	Congestion Relief
Length	0.74 miles
Probable Construction Cost (in Build-Out Year)	$6.2 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	Not Available

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	Not Available	Not Available
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Sidewalks
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project LL – Vicinity Map



Project LL – Proposed Typical Cross-Section

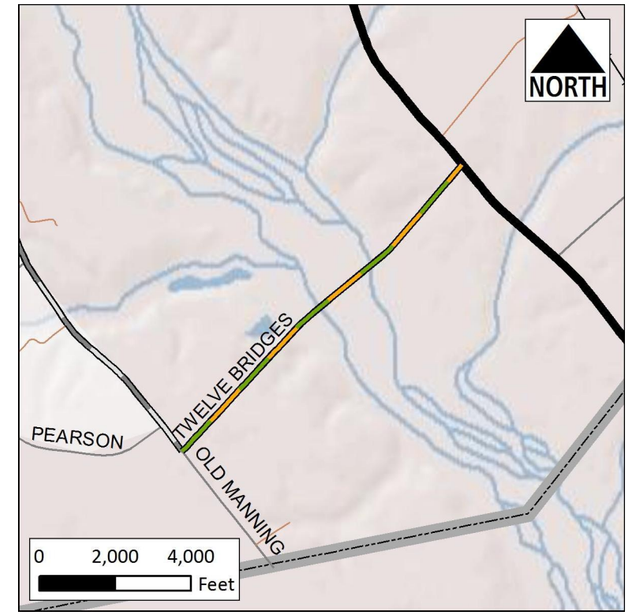
Project MM – Twelve Bridges Road

Twelve Bridges Road (Project MM) is proposed to be widened between Old Manning Road and US 521. Combined with its corresponding projects, improvements to better accommodate freight could help this route serve as a southern bypass for truck traffic. The route provides a direct connection between US 76/US 378 at the western edge of the SUATS boundary west of Sumter to US 15 and ultimately US 521 southeast of Sumter. This route could serve as an alternate freight route, diverting freight traffic from US 76/US 378 and downtown Sumter. This route also serves a current industrial growth area in the southern portion of the SUATS region. Widening this road would serve freight traffic or other increased vehicular traffic in the future. Enhancements to this route could also better serve bicycle and pedestrian traffic in the area. This recommendation was suggested during the public outreach process.

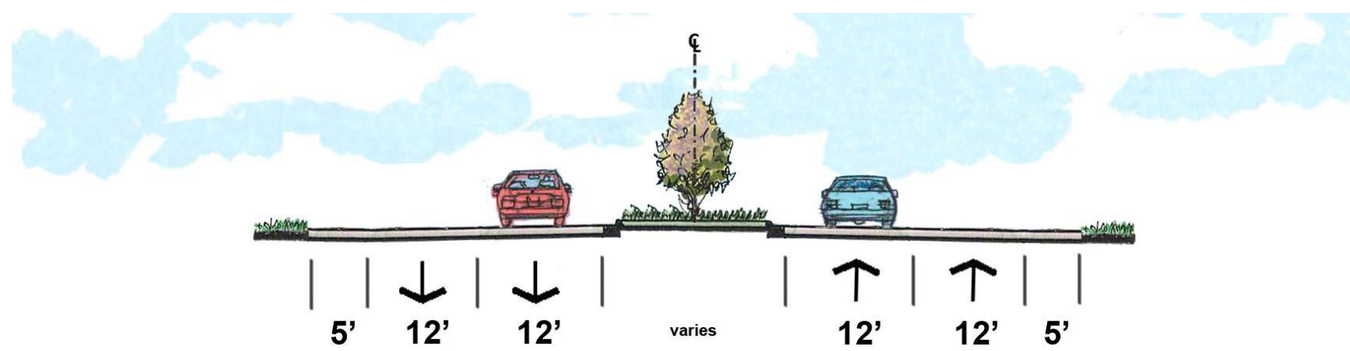
Project at a Glance	
Project ID	MM
Project Type	Widening
Project Ranking	19
Primary Purpose	Goods Movement
Length	2.00 miles
Probable Construction Cost (in Build-Out Year)	$16.8 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	280.5

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	650	Not Available
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	Paved Shoulders
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project MM – Vicinity Map



Project MM – Proposed Typical Cross-Section

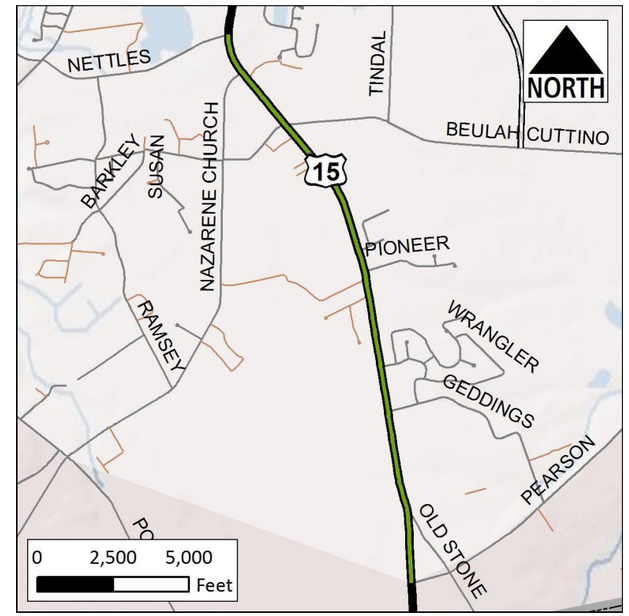
Project NN – US 15

US 15 (Project NN) is proposed to be widened between Pearson Road and Nettles Road. This project would continue the four lane cross-section already in place on US 15 north of Nettles Road. Portions of this corridor are already approaching congested conditions, and are forecast to experience significant congestion by the plan's 2040 horizon year. Improvements on this corridor would also serve a key freight route and a growing industrial area. This recommendation falls within the recently expanded MPO boundary and therefore was not included in the SUATS 2035 LRTP.

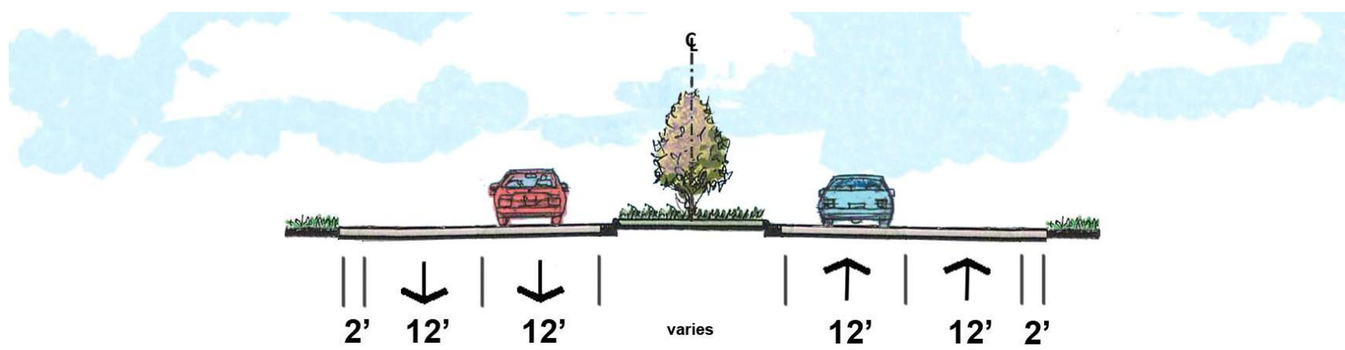
Project at a Glance	
Project ID	NN
Project Type	Widening
Project Ranking	6
Primary Purpose	Congestion Relief and Goods Movement
Length	3.71 miles
Probable Construction Cost (in Build-Out Year)	$31.0 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	310.3

Operational Characteristics		
	Existing	Future
Facility Type	Minor Arterial	Principal Arterial
Travel Lanes	2	4
Volume	8,100	13,760
Capacity	10,800	33,600

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	None	No Improvement
Transit Corridor	None	No Improvement
Freight Corridor	Yes	Widening



Project NN – Vicinity Map



Project NN – Proposed Typical Cross-Section

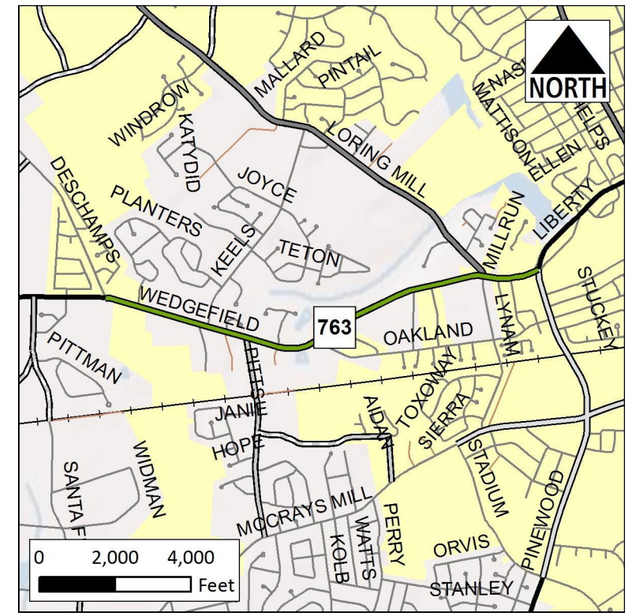
Project OO – Wedgefield Road (SC 763)

Wedgefield Road (Project OO) is proposed to be widened between Deschamps Road and Pine Road. Wedgefield Road is a key east-west linkage across the study area. Portions of this corridor are forecast to experience congested conditions by the plan's 2040 horizon year. Improvements on this corridor would also address one of the top ten intersections with the worst crash history in the MPO boundary. This recommendation was included in the SUATS 2035 LRTP.

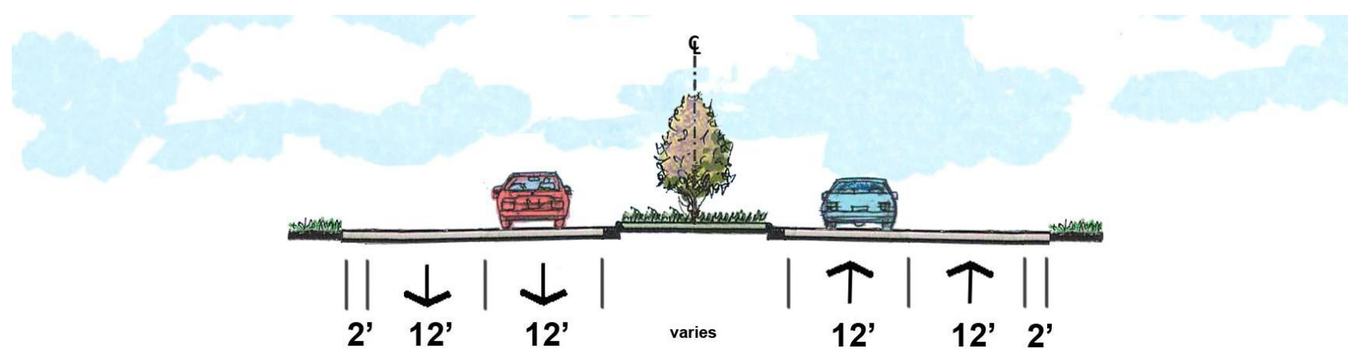
Project at a Glance	
Project ID	OO
Project Type	Widening
Project Ranking	10
Primary Purpose	Congestion Relief
Length	2.29 miles
Probable Construction Cost (in Build-Out Year)	$19.2 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	229.1

Operational Characteristics	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	2	4
Volume	8,750	11,840
Capacity	10,800	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	None	Bike Route Signage
Transit Corridor	None	No Improvement
Freight Corridor	No	No Improvement



Project OO – Vicinity Map



Project OO – Proposed Typical Cross-Section

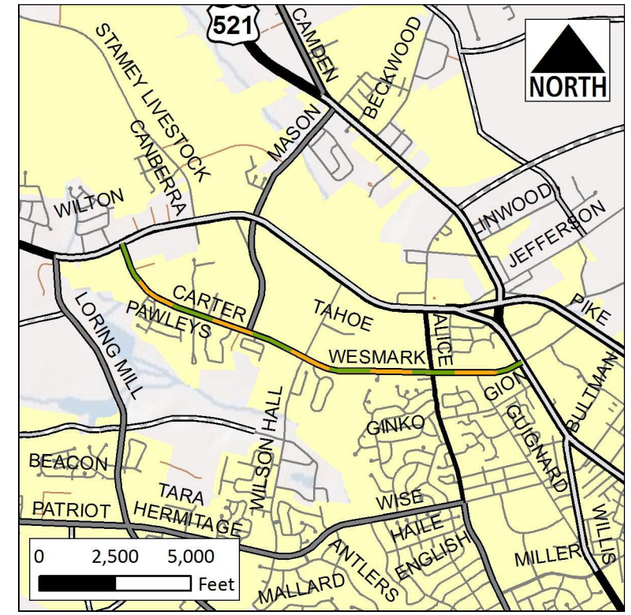
Project PP – Wesmark Boulevard

Wesmark Boulevard (Project PP) is proposed to be widened between Broad Street and Broad Street Extension. At this time, a full four lane widening for this facility is not needed. However, reserving right of way for further widening would help ensure the corridor doesn't become prohibitively constrained. Portions of this corridor currently experience congested conditions. Improvements on this corridor would also address one of the top ten intersections with the worst crash history in the MPO boundary. This recommendation was included in the SUATS 2035 LRTP.

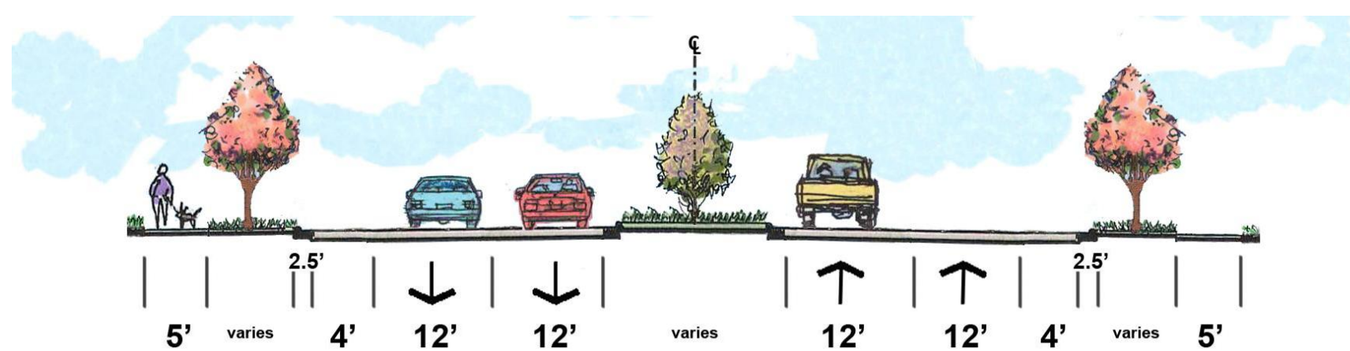
Project at a Glance	
Project ID	PP
Project Type	Widening
Project Ranking	5
Primary Purpose	Congestion Relief
Length	2.80 miles
Probable Construction Cost (in Build-Out Year)	$24.1 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	212.6

Operational Characteristics		
	Existing	Future
Facility Type	Collector	Minor Arterial
Travel Lanes	2	4
Volume	7,000	12,300
Capacity	8,600	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	Partial Sidewalks	Paved Shoulders / Bike Route Signage / Sidewalks
Transit Corridor	SWRTA Shaw Shuttle Route	No Improvement
Freight Corridor	No	No Improvement



Project PP – Vicinity Map



Project PP – Proposed Typical Cross-Section

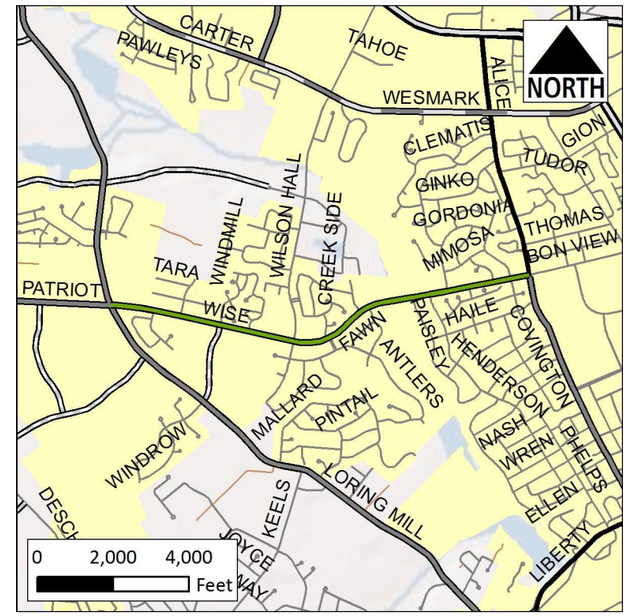
Project QQ – Wise Drive

Wise Drive (Project QQ) is proposed to be widened between Loring Mill Road and Alive Drive. Portions of this corridor are forecast to experience congested conditions by the plan's 2040 horizon year. When continuing onto Patriot Parkway, this corridor also serves as a key access route from downtown Sumter to Shaw Air Force Base. This recommendation was included in the SUATS 2035 LRTP.

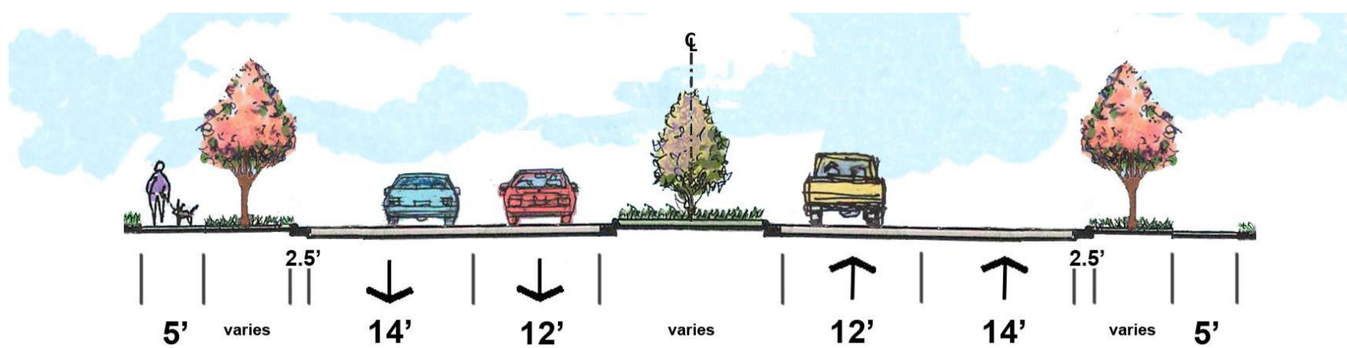
Project at a Glance	
Project ID	QQ
Project Type	Widening
Project Ranking	2
Primary Purpose	Accessibility and Congestion Relief
Length	2.19 miles
Probable Construction Cost (in Build-Out Year)	$20.0 million
LRTP Horizon Year	2040
Crash Rate (100 mvmt)	177.2

Operational Characteristics		
	Existing	Future
Facility Type	Minor Arterial	Minor Arterial
Travel Lanes	2	4
Volume	9,050	12,500
Capacity	10,800	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	Sidewalk on North Side	Wide Outside Lanes / Sidewalk on South Side
Transit Corridor	SWRTA West Liberty Route	No Improvement
Freight Corridor	No	No Improvement



Project QQ – Vicinity Map



Project QQ – Proposed Typical Cross-Section

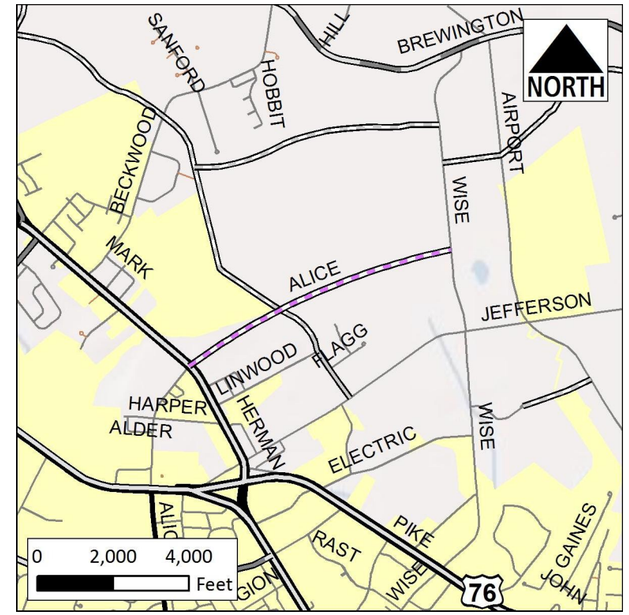
Project RR – Alice Drive Extension

Alice Drive Extension (Project RR) is a proposed roadway between US 521 and Wise Drive. This project would extend the existing Alice Drive corridor up to Wise Drive in the northern portion of the study area. Extending Alice Drive would create an alternative route for multimodal traffic between the city center and the northern portion of the study area. This facility will improve network continuity and promote economic development. This recommendation was suggested during the public outreach process.

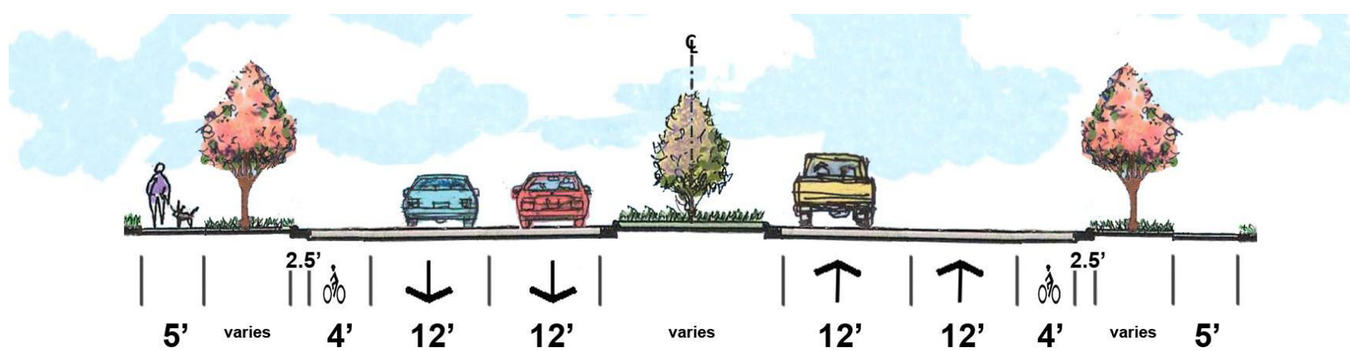
Project at a Glance	
Project ID	RR
Project Type	Proposed New Location
Project Ranking	3
Primary Purpose	Livability and complete streets
Length	1.44 miles
Probable Construction Cost (in Build-Out Year)	$14.5 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	n/a

Operational Characteristics		
	Existing	Future
Facility Type	n/a	Minor Arterial
Travel Lanes	n/a	4
Volume	n/a	11,490
Capacity	n/a	24,800

Multimodal Characteristics		
	Existing	Improvement
Bike/Ped Corridor	n/a	Bicycle Lanes / Sidewalks
Transit Corridor	n/a	No Improvement
Freight Corridor	n/a	No Improvement



Project RR – Vicinity Map



Project RR – Proposed Typical Cross-Section

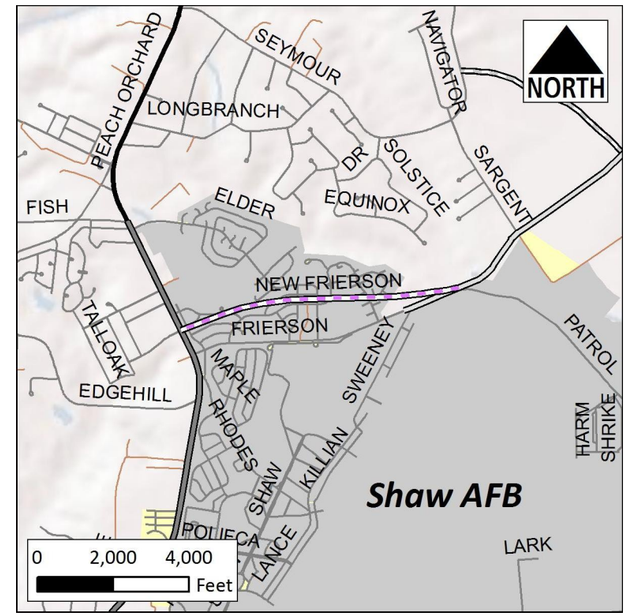
Project SS – New Frierson Road

New Frierson Road (Project SS) is a proposed roadway between Patriot Parkway and Frierson Road. This project would create a new linkage through the Shaw Air Force Base, establishing a new gatehouse entrance off of SC 441. This project is being planned, designed, and funded using US Department of Defense funds. When combined with Project H, this facility helps serve the growth in and around the AFB.

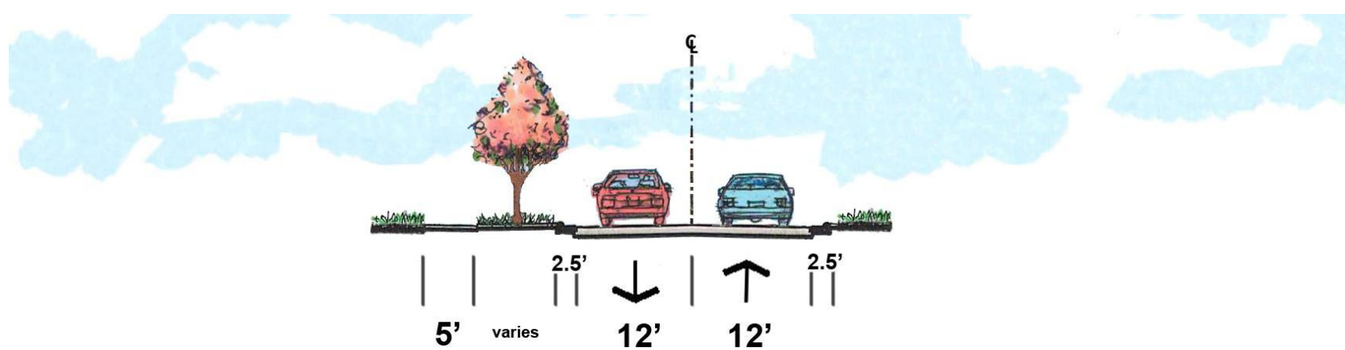
Project at a Glance	
Project ID	SS
Project Type	Proposed New Location
Project Ranking	1
Primary Purpose	Accessibility
Length	1.41 miles
Probable Construction Cost (in Build-Out Year)	$8.4 million
LRTP Horizon Year	2018
Crash Rate (100 mvmt)	n/a

Operational Characteristics	Existing	Future
Facility Type	n/a	Collector
Travel Lanes	n/a	2
Volume	n/a	1,570
Capacity	n/a	8,600

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	n/a	Sidewalk on North Side
Transit Corridor	n/a	No Improvement
Freight Corridor	n/a	No Improvement



Project SS – Vicinity Map



Project SS – Proposed Typical Cross-Section

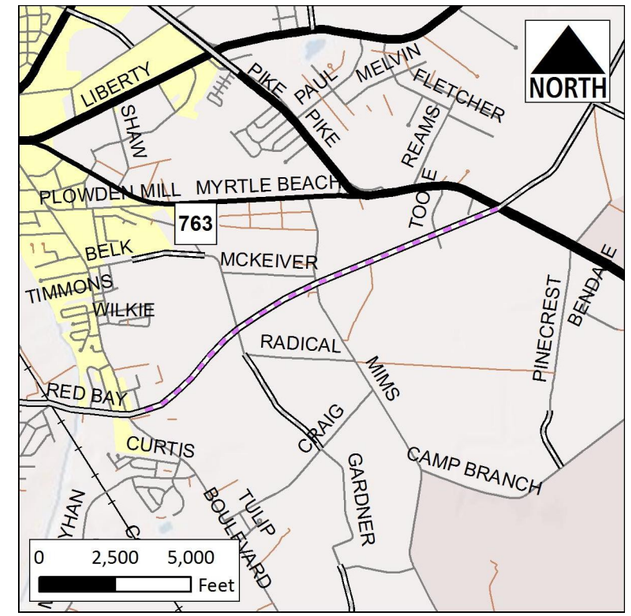
Project TT – Red Bay Road

Red Bay Road (Project TT) is a proposed roadway between Coleman Street and US 76/378. This project would extend the existing Red Bay Road corridor up to US 76/US 378. The need for this project has been studied independently through the Red Bay Road Corridor Study. Extending Red Bay Road will create a direct connection for freight traffic between US 15/US 521 and US 378, thereby avoiding travel through the city. Extension of this corridor would also serve a growing industrial area. This recommendation was included in the SUATS 2035 LRTP.

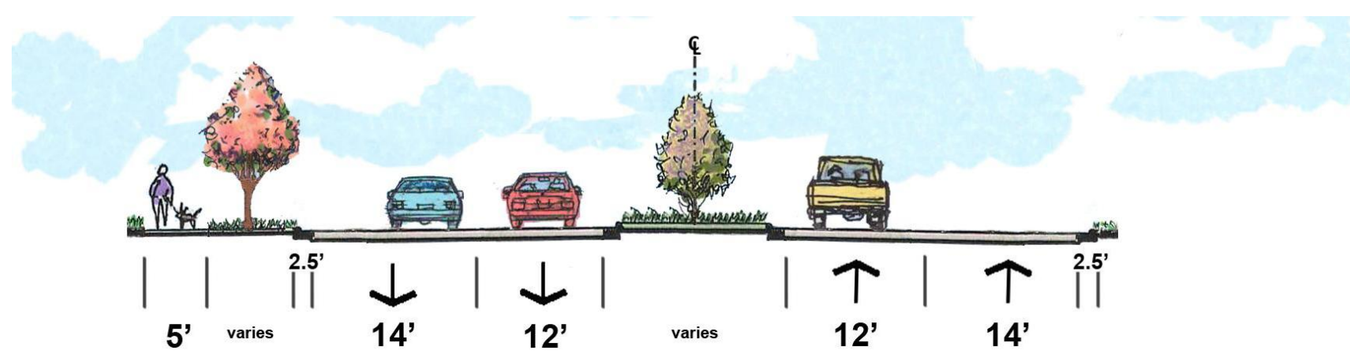
Project at a Glance	
Project ID	TT
Project Type	Proposed New Location
Project Ranking	2
Primary Purpose	Goods Movement
Length	2.58 miles
Probable Construction Cost (in Build-Out Year)	$27.3 million
LRTP Horizon Year	Vision Plan
Crash Rate (100 mvmt)	n/a

Operational Characteristics	Existing	Future
Facility Type	n/a	Minor Arterial
Travel Lanes	n/a	4
Volume	n/a	2,290
Capacity	n/a	24,800

Multimodal Characteristics	Existing	Improvement
Bike/Ped Corridor	n/a	Wide Outside Lanes / Sidewalk on North Side
Transit Corridor	n/a	No Improvement
Freight Corridor	n/a	Widening



Project TT – Vicinity Map



Project TT – Proposed Typical Cross-Section

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