



300 S. ADAMS STREET
TALLAHASSEE, FL 32301
www.crtpa.org

TECHNICAL ADVISORY COMMITTEE

9:00 AM – 11:00 AM
2nd Floor Conference Room

RENAISSANCE BUILDING
435 N Macomb Street
Tallahassee, Fl. 32301

April 2, 2019

1. AGENDA MODIFICATIONS

2. CONSENT

A. Minutes of the February 5, 2019 TAC Meeting

The minutes of the February 5, 2019 TAC Meeting have been prepared for TAC approval.

Recommended Action: *For TAC approval.*

3. PRESENTATIONS/DISCUSSION/ACTION

A. Fiscal Year (FY) 2021 – FY 2025 Transportation Alternatives (TA) Priority Project List

The FY 2021 – 2025 TA Priority Project List has been developed for committee review and recommendation of approval.

Recommended Action: *For TAC recommendation of approval.*

If you have a disability requiring accommodations, please contact the Capital Region Transportation Planning Agency at (850) 891-6800. The telephone number of the Florida Relay TDD Service is #711.

B. Southwest Area Transportation Plan – Draft Orange Avenue Recommendations Report

An update on the development of the Southwest Area Transportation Plan will be provided.

Recommended Action: *None. For committee information.*

C. Midtown Area Transportation Plan Phase II Kickoff

An update on the initiation of Phase II of the Midtown Area Transportation Plan will be provided.

Recommended Action: *None. For committee information.*

4. OPEN FORUM FOR PUBLIC COMMENT

Citizens are invited to address the committee.

5. INFORMATION

6. ITEMS FROM COMMITTEE MEMBERS OR STAFF

April 2, 2019



Committee AGENDA ITEM 2A

COMMITTEE MEETING MINUTES

TYPE OF ITEM: Consent

STATEMENT OF ISSUE

The minutes of the February 5, 2019 Technical Advisory Committee (TAC) have been prepared for review and approval.

RECOMMENDED ACTION

Option 1: Recommend approval of the February 5, 2019 TAC Minutes.

ATTACHMENTS

Attachment 1: Minutes of the February 5, 2019 TAC Meeting.



300 S. ADAMS STREET
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TECHNICAL ADVISORY COMMITTEE

9:00 AM – 11:00 AM
2nd Floor Conference Room

RENAISSANCE BUILDING
435 N Macomb Street
Tallahassee, Fl. 32301

Minutes

February 5, 2019

Members Present: Andrea Rosser, Alisha Wetherell, Steve Shafer, Allen Secreast, Ryan Guffey, Megan Doherty, Artie White, Britney Moore, Jill Jeglie, Jeff Horton

1. AGENDA MODIFICATIONS: NONE

2. CONSENT

A. CRTPA Safety Targets and Performance Measures

CRTPA prepared updated safety targets and performance measures to adopt for the CRTPA area as required by the Federal Highway Administration (FHWA).

Action: The TAC made a motion of approval. The motion was made by Mr. Steve Shafer, with a second by Mr. Artie White and the motion passed unanimously.

B. TAC 2019 Committee Calendar

Action: The TAC adopted the proposed meeting calendar for 2019. The motion was made by Ms. Megan Doherty, with a second by Mr. Steve Shafer and the motion passed unanimously.

If you have a disability requiring accommodations, please contact the Capital Region Transportation Planning Agency at (850) 891-6800. The telephone number of the Florida Relay TDD Service is #711.

3. PRESENTATIONS/DISCUSSION/ACTION

A. Election of TAC Chair and Vice-Chair

Action: The TAC elected Mr. Ryan Guffey to serve as TAC Chair for the 2019 Calendar year. The motion was made by Mr. Jeff Horton with a second by Ms. Jill Jeglie. The motion passed unanimously.

The TAC elected Ms. Andrea Rosser to serve as TAC Vice-Chair for the 2019 Calendar year. The motion was made by Mr. Steve Shafer with a second by Mr. Artie White. The motion passed unanimously.

B. Tharpe Street and Pensacola Street Operational Analyses

A summary presentation of the Draft Traffic and Operations Analysis Reports for Tharpe Street and Pensacola Street were provided for committee information and recommendation of approval.

TAC members had discussions about Tharpe Street recommendations stating that they would not support the use of sharrows in the industrial sections of the roadway or on any sections where the posted speed limits are 35 mph and higher. Members discussed the desire to try operational improvements and those within the right-of-way to avoid disruption to residential areas.

Action: A motion to approve both studies was made by Ms. Andrea Rosser, with a second by Mr. Jeff Horton. The motion passed unanimously.

4. OPEN FORUM FOR PUBLIC COMMENT

There was no public comment.

5. INFORMATION

6. ITEMS FROM COMMITTEE MEMBERS OR STAFF



April 2, 2019

COMMITTEE AGENDA ITEM 3A

CRTPA FISCAL YEAR 2021 – FY 2025 TRANSPORTATION ALTERNATIVES PRIORITY PROJECT LIST

TYPE OF ITEM: TYPE OF ITEM: Presentations/Discussion/Action

STATEMENT OF ISSUE

Staff is seeking approval of the CRTPA Fiscal Year 2021 – FY 2025 CRTPA Transportation Alternatives (TA) Priority Project List (PPL), provided as ***Attachment 1***.

RECOMMENDED ACTION

Option 1: Recommend the CRTPA adopt the FY 2021 – FY 2025 Transportation Alternatives Priority Project List.

HISTORY AND ANALYSIS

The CRTPA annually adopts priority project lists that identify the ranked order of projects for which the agency is seeking transportation funding. Once adopted, the lists are provided to the Florida Department of Transportation as that agency develops the Annual Work Program. One of these lists, the Transportation Alternatives PPL is proposed for adoption at today's meeting and contains projects that were solicited and reviewed as part of the CRTPA Transportation Alternatives Program (TAP).

As a background, the CRTPA TAP was established in 2013 subsequent to the creation of the Transportation Alternatives Program associated with the July 6, 2012 signing of P.L. 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21) by President Obama.

Transportation Alternatives are federally funded programs and projects, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for the

planning, design or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.

Fifty percent (50%) of the TA funding received by each state is to be distributed by population. For those Metropolitan Planning Organizations with a population greater than 200,000 (which includes the CRTPA), the MPO agency must run the competitive grant process, necessitating the creation of the CRTPA TAP.

The CRTPA receives approximately \$310,000 annually in TA funding explicitly dedicated to the CRTPA region. In addition, other TA funding is available for placement on TA projects within the CRTPA region. This funding, which is outside of the dedicated amount to the CRTPA, is placed on projects at the discretion of the Florida Department of Transportation.

Consistent with CRTPA Board direction, solicitation of new TA projects occurs biennially with the CRTPA most recently soliciting new applications last year (2018). As a result, this year's TA PPL reflects projects that were previously solicited and included on last year's FY 2020 – FY 2024 CRTPA TA PPL.

The Latest

As noted above, the CRTPA solicits new applications every two (2) years and, therefore, this year's FY 2021 – FY 2025 TA PPL reflects the two projects* and the ranked order as contained on last year's TA PPL which was adopted on March 19, 2018, as follows:

Priority	Project	Limits	Funding Sought	Phases
1	Blountstown Street Sidewalk Improvements (Sponsor: City of Tallahassee)	US 90 to Tharpe Street (CR 158)	\$910,149	Seeking Construction & CEI funding
2	Spring Creek Hwy (CR 365) Paved Off Road Bike Path (Sponsor: Wakulla County)	US 98 to Shadeville Rd (CR 61)	\$1.4 million	Seeking Design, Construction & CEI funding

*Note: More applications were received than the above two; however, one of the requirements associated with the CRTPA TA Program is that applicants must include proof of right-of-way ownership from the submitting agency. As a result, applications for which right-of-way issues were identified were not evaluated further and, as a result, were not placed on the draft priority project list. And as a result were not placed on the draft transportation

CRTPA Transportation Alternatives Program Process

Guiding the CRTPA TAP is the CRTPA TAP Subcommittee. The subcommittee, comprised of 6 members (3 from the CRTPA's Citizen's Multimodal Advisory Committee (CMAC) and 3 from the Technical Advisory Committee (TAC)), reviewed and recommended a ranking of the TA applications that were received by the CRTPA on February 22, 2018.

The received applications were reviewed and ranked based upon the adopted CRTPA's TAP Evaluation Criteria (approved at the March 21, 2016 CRTPA meeting), as follows:

ADOPTED CRITERIA

PROPOSED EVALUATION CRITERIA		MAXIMUM POINTS
1	SAFETY (Describe how the project will improve public safety for all transportation users)	20
2	CONNECTIVITY (Describe how the project facilitates or improves multimodal linkages)	20
3	ACCESSIBILITY (Describe how the project contributes to enhanced mobility options for transp. disadv.)	20
4	PUBLIC BENEFIT (Describe how the project improves the public travel experience and travel options)	20
5	REGIONAL PLAN (Describe how the project relates to the adopted plans of the region)	5
6	PROJECT CONSTRUCTABILITY (Is right-of-way required?)	5
7	LEVERAGING OF FUNDS (Is there a commitment of local funding?)	5
8	COMMUNITY SUPPORT	5
Maximum Total Points		100

The CRTPA DRAFT FY 2021 – FY 2025 TA Priority Project List is the culmination of the following actions associated with the CRTPA 2018 TAP calendar:

- December 1, 2017 – Announcement of CRTPA TAP application solicitation*
- December 19, 2017 (3 PM) – CRTPA TAP Informational Meeting (Location: Tallahassee City Hall, Tallahassee Room, 2nd Floor)
- February 16, 2018 – TAP applications DUE to CRTPA
- February 22, 2018 – TAP applicant interviews & recommended ranking by TA Subcommittee

*The CRTPA is scheduled to solicit new project applications in late 2019

PUBLIC INVOLVEMENT

A public meeting to present the DRAFT FY 2021 – FY 2025 TA Priority Project List was held on February 21 at the Tallahassee Senior Center.

ATTACHMENT

Attachment 1: DRAFT FY 2021 – FY 2025 TA Priority Project List

Capital Region Transportation Planning Agency
DRAFT Transportation Alternatives Priority Project List
Fiscal Year 2021- Fiscal Year 2025

Priority	Project	Limits	Funding Sought	Phases
1	Blountstown Street Sidewalk Improvements (Sponsor: City of Tallahassee)	US 90 to Tharpe Street (CR 158)	\$910,149	Seeking Construction & CEI funding
2	Spring Creek Hwy (CR 365) Paved Off Road Bike Path (Sponsor: Wakulla County)	US 98 to Shadeville Rd (CR 61)	\$1.4 million	Seeking Design, Construction & CEI funding



Southwest Area

TRANSPORTATION PLAN

DRAFT

Orange Avenue

Corridor Plan

MARCH 26, 2019



BLUEPRINT 
INTERGOVERNMENTAL AGENCY

Kimley»Horn

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Introduction and Project Background

Orange Avenue, along with Springhill Road, North Lake Bradford Road, and South Lake Bradford Road, make up the transportation corridors for the Southwest Area Transportation Plan. The purpose of the Plan is to identify transportation improvements for the Southwest Area Transportation corridors. The improvement opportunities identified include operational and multimodal improvements and future transportation enhancements.

The Florida Department of Transportation (FDOT) previously identified Orange Avenue (SR 371; SR 373) for a road widening project, with a Project Development and Environment (PD&E) study beginning in late 2018. Due to this FDOT project, the Southwest Area Transportation Plan has been divided into two-phases, focusing first on Orange Avenue, ahead of the PD&E study. The information gathered and evaluated regarding the first phase of the Southwest Area Transportation Plan is summarized in this corridor plan, which outlines the transportation improvement opportunities for Orange Avenue (SR 371; SR 373) from Monroe Street (SR 61) to Capital Circle Southwest (SR 263) **Figure 1**. This Plan encourages FDOT to consider the information outlined herein during the evaluation of the feasibility of recommended facilities along Orange Avenue in relation to environmental, cultural, historical, right-of-way, and contamination issues. The recommended facilities along Orange Avenue will be determined through the finalized PD&E study. **Figure 2** shows the Southwest Area Transportation Plan corridors and the phased approach to public outreach conducted for the Plan.

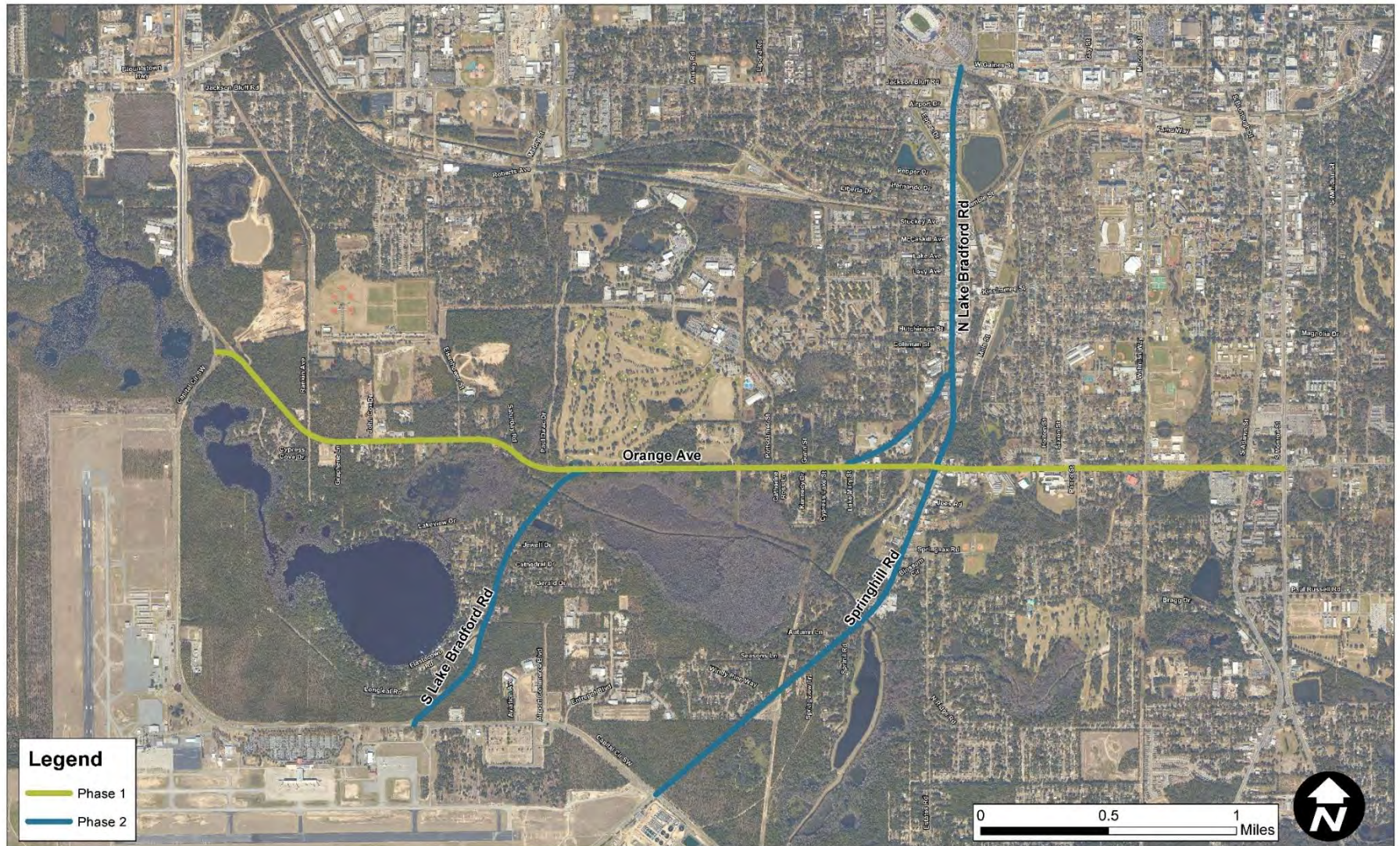


Figure 1. Orange Avenue Corridor

Existing conditions along Orange Avenue are outlined in this document for public consumption and technical guidance along with the data collection and analyses that took place. Public outreach efforts and recurring topics heard from participants during the multiple outreach efforts are also incorporated. The opportunities to address the multiple user types along Orange Avenue, future transportation needs, and recommended typical sections are provided for consideration for the PD&E study.

Following this Corridor Plan will be a similar Corridor Plan for North Lake Bradford Road, South Lake Bradford Road, and Springhill Road, which will all be incorporated into a final Southwest Area Transportation Plan.

Figure 2. Southwest Area Transportation Plan Corridors and Phases



Overall Project Goal

The objective for the Southwest Area Transportation Plan is to create a vision for the area that is consistent with the 2040 Regional Mobility Plan, FDOT plans, Blueprint 2020 sales tax extension projects, and the Tallahassee-Leon County Comprehensive Plan. The Corridor Plan also reflects input from local land owners, residents, business owners, and public officials regarding the guiding elements for future development of the transportation network in the area. Below is an outline of the Goals and Objectives of this plan.

Goals and Objectives

1. Balanced Transportation System and Safety
 - 1.1 Incorporate ITS and technology throughout the study area to improve safety for all user types
 - 1.2 Allow for a balanced transportation system that includes all appropriate modes for the corridors within the study area
 - 1.3 Provide project recommendations that support emergency response and disaster preparedness
2. Compatibility with Local Planning Efforts
 - 2.1 Develop corridor recommendations that consider existing and future land use maps
 - 2.2 Promote consistency with the Comprehensive Plan, 2040 Regional Mobility Plan, neighborhood/sector plans, and Blueprint projects
 - 2.3 Create corridor recommendations that coincide with, or improve upon, ongoing and future transportation projects in the area
 - 2.4 Recommend projects consistent with the Congestion Management Plan
3. Increased Multi-modal Connectivity to Support Current and Future Development
 - 3.1 Identify potential improvements to transit service and related amenities.
 - 3.2 Improve the pedestrian and bicycle network through the addition of new facilities and improvements to existing facilities
 - 3.3 Improve roadway design to improve safety and mobility for all modal users along study corridors
 - 3.4 Identify potential Complete Streets applications that focus on all transportation types
4. Improved Community Cohesion and Connectivity
 - 4.1 Engage the community in the planning process through public and stakeholder involvement efforts

- 4.2 Improve access to and between existing community assets such as churches, schools, parks, community centers, neighborhoods, and Tallahassee International Airport
- 4.3 Increase the effectiveness and safety of all modal connections between community assets and neighborhoods
- 4.4 Implement appropriate bicycle and pedestrian signage and crossings in areas with schools and other high pedestrian areas
5. Improved Economic Opportunities
 - 5.1 Apply access management techniques to the corridor to maximize safe travel to and from local businesses
 - 5.2 Develop corridor enhancements that improve multi-modal access to community assets
 - 5.3 Develop corridor recommendations that encourage context-sensitive development in the Southwest Area
 - 5.4 Continue to allow for efficient freight movement on existing freight corridors

Project Considerations

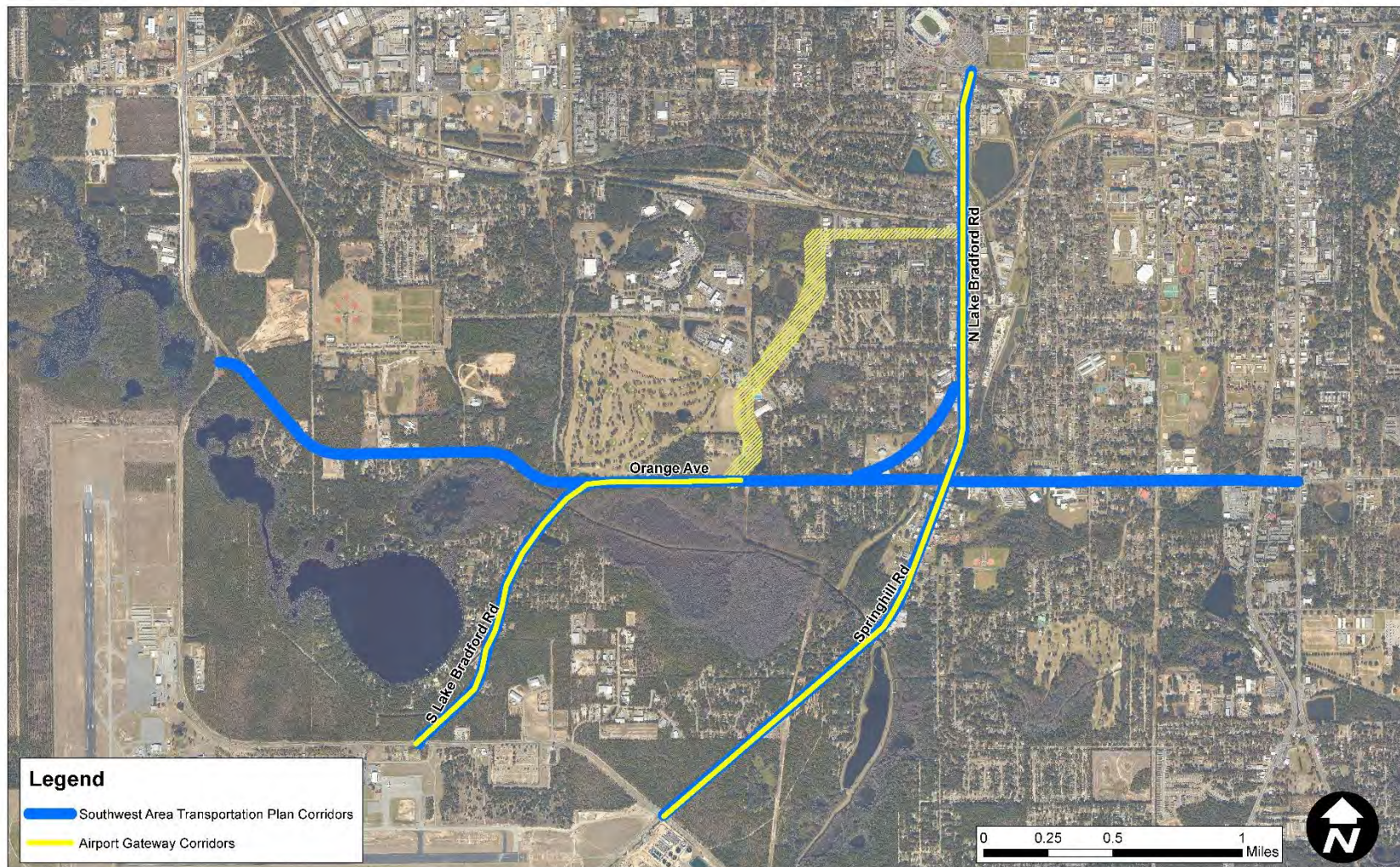
The Blueprint Intergovernmental Agency approved an Airport Gateway Project amendment in March 2018 to allocate funding to the following corridors for improvements related to transportation, sense of place, and safety:

- South Lake Bradford Road
 - Capital Circle Southwest to Orange Avenue
- North Lake Bradford Road
 - Orange Avenue to Gaines Street
- Orange Avenue¹
 - South Lake Bradford Road to new gateway road alignment
- Springhill Road
 - Capital Circle Southwest to Orange Avenue
- New corridor connecting Orange Avenue to North Lake Bradford Road (*not a part of the Southwest Area Transportation Plan*)
 - Orange Avenue to North Lake Bradford Road; accessing North Lake Bradford via Stucky Avenue

Figure 3 illustrates the location of the corridors that are included in the Airport Gateway. After the Southwest Area Transportation Plan is completed, Blueprint will take the recommendations and move forward to additional environmental, planning, and design phases.

¹ For the Orange Avenue Corridor Plan, the section between South Lake Bradford Road and the proposed new north/south corridor should consider opportunities related to a possible new intersection and upgraded multi-modal facilities through the Airport Gateway project.

Figure 3. Airport Gateway Corridors



Existing Land Use

Transportation and Land Use History

The area south of Tallahassee's downtown/urban core has been the focal point of several improvement efforts over the last decades. Growth in Tallahassee has primarily occurred away from the southern area. **Figure 4** shows that the southern area that used Orange Avenue as the main east-west transportation artery was rural, with little to no development in 1938.

In 1949 growth was slowly moving south, as shown in **Figure 5**; however, much of the area remained rural.



Figure 4. 1938 Aerial Photo



Figure 5. 1949 Aerial Photo

As the southside area continued to slowly develop, by 1960, there were several housing developments/neighborhoods built along Orange Avenue, as well as scattered small businesses as shown in **Figure 6**.

Figure 6. 1960 Aerial Photo



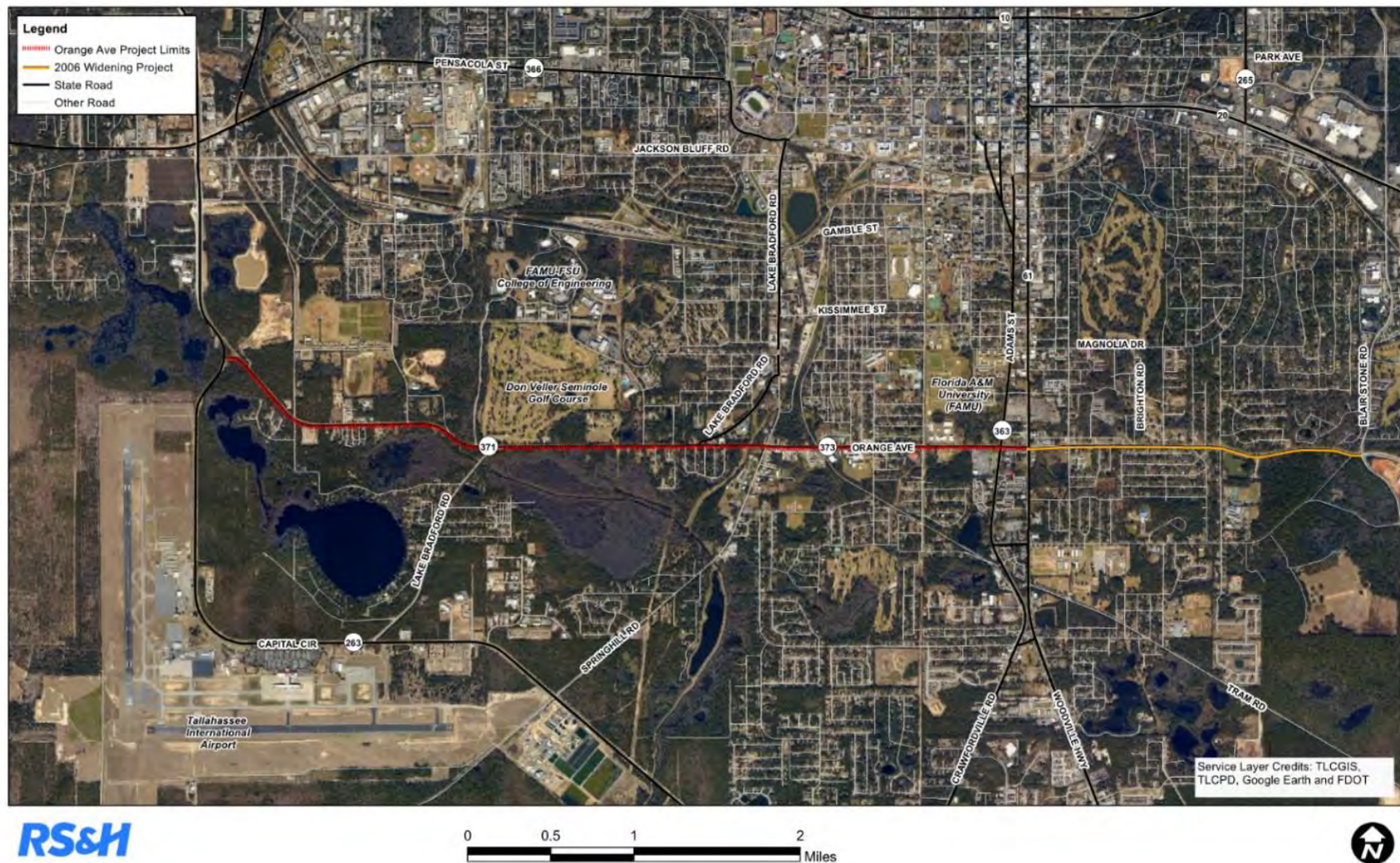
By 1963, there were several small businesses at the intersection of Orange Avenue and Springhill Road, as shown in **Figure 7**.

Figure 7. Intersection of Orange Avenue and Springhill Road in 1963



Today, the southern area has developed along Orange Avenue primarily with residential and small businesses. Orange Avenue continues to serve as the main east-west corridor in the southern area, providing the connection from Capital Circle Southwest to Capital Circle Southeast. Present day Orange Avenue is shown in **Figure 8**.

Figure 8. Present Day Orange Avenue

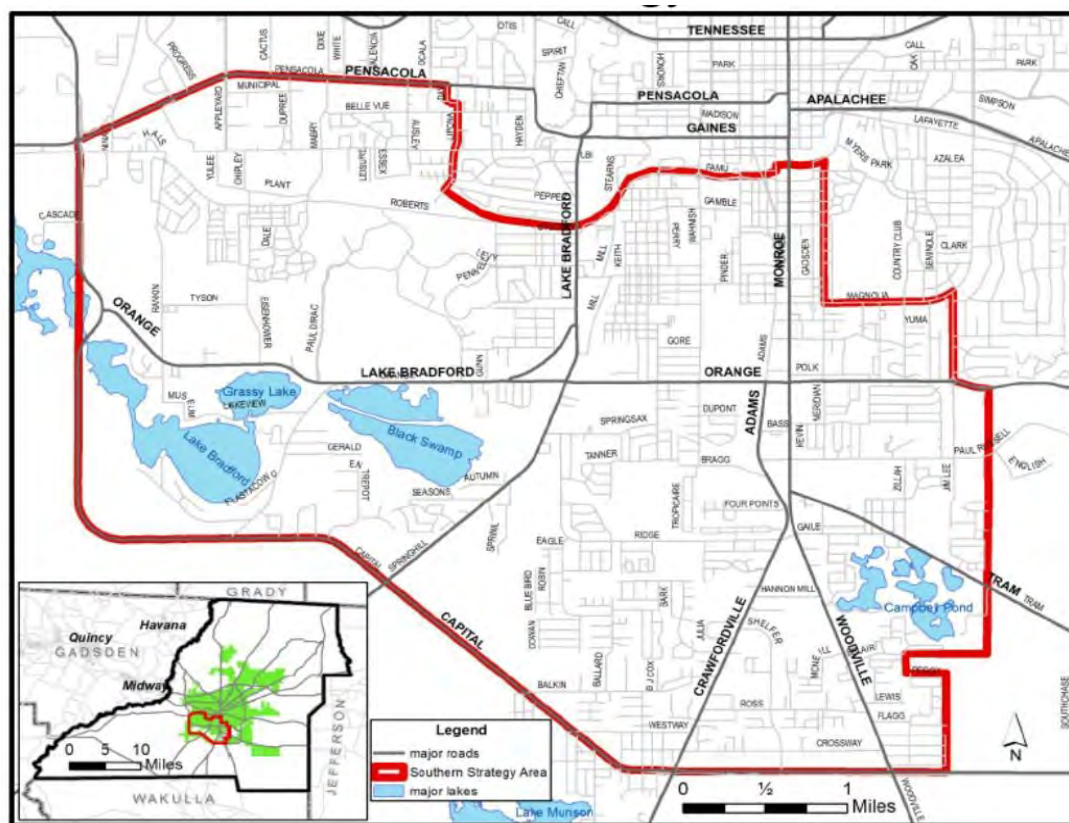


In 2006, the eastern end of Orange Avenue underwent reconstruction from Monroe Street to Blair Stone Road. This project widened the facility to four lanes and included sidewalks, bike lanes, stormwater improvements and landscaping. From Monroe Street west, Orange Avenue transitions from a four-lane facility with a center turn lane to a two-lane facility.

According to the American Community Survey of the US Census (2017), the four census tracts that touch Orange Avenue show that the demographics of the four census tracts display an average population of 81% African American. The median age of the population of the four tracts is approximately 26 years of age with a comparatively lower household income than the remainder of Leon County.

In recognition of the relative lack of economic development, growth and opportunities within the area, the City of Tallahassee and Leon County Comprehensive Plan incorporated a targeted effort known as the Southern Strategy in 1998. This Southern Strategy Area (SSA) included the area in **Figure 9**.

Figure 9. Tallahassee-Leon County Planning Department Southern Strategy Area



The primary goals for the SSA included the promotion of quality land development with an increase in population, the incentivization and retention of businesses and employment opportunities, and the promotion of mixed-income housing within the area to encourage population growth. There have been several additional efforts subsequent to the designation of the SSA focused on growth and development through land use and transportation strategies. The efforts that impact Orange Avenue have included:

- Five-Year Economic and Development Strategy (2004, Angelou Economics)
- Lake Bradford Sector Study (2005, Tallahassee-Leon County Planning Department)
- Retaining and Expanding Businesses of Tallahassee's Southside (2006, Florida State University)
- Multimodal Transportation District (2009, Tallahassee-Leon County Planning Department)
- South City Report (2015, Urban Land Institute)
- Southern Strategy Area Comprehensive Report (2016, Tallahassee-Leon County Planning Department)

Each of these efforts have identified or encapsulated a variety of strategies to promote sustainable economic development and quality growth through the coordination of transportation and land use.

Existing Land Use

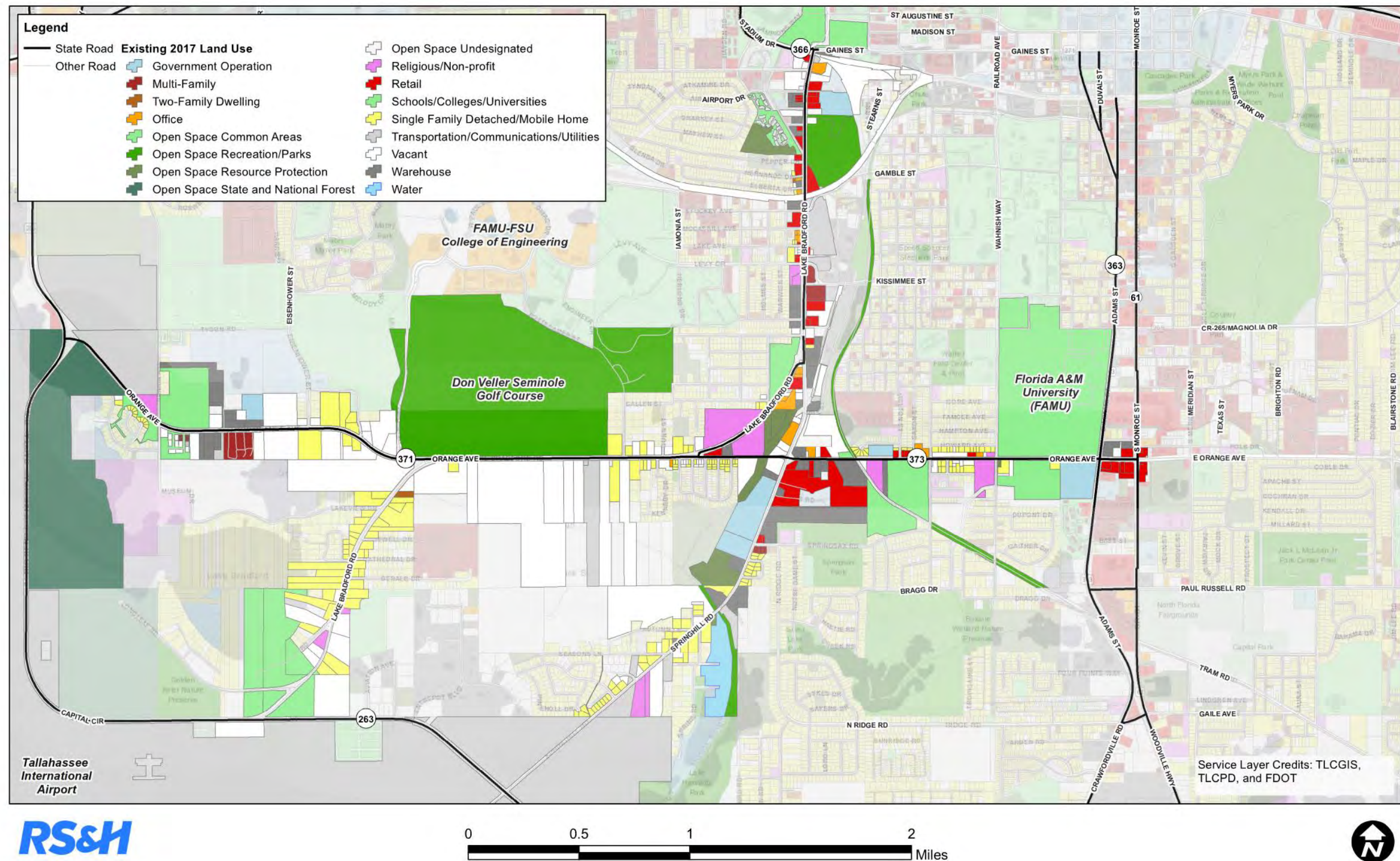
To understand the existing land use within the study area, a review of the parcels adjacent to each of the major facilities was conducted, with a focus on Orange Avenue for this effort. The parcels are shown in **Figure 10**. The majority of land use along Orange Avenue is Single Family Detached/Mobile Home with slightly over 40% of the parcels in this category. The next highest category of use along Orange Avenue is Vacant properties with over 25%. Approximately 15% of the parcels are in Retail and Warehouse. Multi-family housing is almost 5% with the remainder of the property categories make up 15% of the land use along Orange Avenue.

Table 1 provides a summary of existing land uses throughout the Southwest Area Transportation Plan.

Table 1. Existing Land Use Summary

Land Use	Lake Bradford Road	Orange Avenue	Springhill Road	Total
Government Operation	0.66%	1.32%	2.00%	1.26%
Multi-Family	1.32%	4.85%	3.00%	3.35%
Office	5.96%	1.76%	2.00%	3.14%
Open Space Common Areas	0.66%	1.32%	0.00%	0.84%
Open Space Recreation/Parks	1.32%	0.88%	1.00%	1.05%
Open Space Resource Protection	1.32%	0.88%	3.00%	1.46%
Open Space State and National Forest	0.00%	0.44%	0.00%	0.21%
Open Space Undesignated	0.66%	0.88%	1.00%	0.84%
Religious/Non-profit	3.31%	2.20%	2.00%	2.51%
Retail	14.57%	8.37%	3.00%	9.21%
Schools/Colleges/Universities	3.97%	1.76%	0.00%	2.09%
Single-Family Detached/Mobile Home	29.80%	40.09%	44.00%	37.66%
Transportation/Communications/Utilities	1.99%	2.20%	8.00%	3.35%
Two-Family Dwelling	1.32%	0.00%	0.00%	0.42%
Vacant	24.50%	25.55%	17.00%	23.43%
Warehouse	8.61%	7.49%	13.00%	9.00%
Water	0.00%	0.00%	1.00%	0.21%

Figure 10. Existing Land Use



Future Land Use

Future land use must conform to the goals and vision of the Tallahassee-Leon County Comprehensive Plan, which is articulated below:

“The Comprehensive Plan shall protect and enhance the quality of life in this community by providing economically sound educational, employment, cultural, recreational, commercial, industrial and professional opportunities to its citizens while channeling inevitable growth into locations and activities that protect the natural and aesthetic environments and residential neighborhoods.”

The Land Use Element of the Comprehensive Plan provides the framework for growth and development within Tallahassee and Leon County. This element provides the connection between the community’s overall vision and priorities with land use and development patterns. The current Land Use Element, which was adopted in 1991 and only incrementally revised since then, is being updated. The draft goals identified are applicable to the study area as part of the larger community, however, no specific goals have been identified that are applicable to only the study area and Orange Avenue. In addition, the proposed 2019 amendments to the Comprehensive Plan are not within the study area.

According to the Major Ongoing and Proposed Development Report for Tallahassee and Leon County, there is no significant development scheduled within the study area as of this writing. The criteria for this designation is defined as 20+ residential units and/or 10,000+ square feet of non-residential construction.

The 2030 future land use categories found along Orange Avenue are shown in **Figure 11** and listed and defined below per the Land Use Element of the Comprehensive Plan:

- **Central Urban**

This category is characterized by older developed portions of the community that are primarily located adjacent to or near the urban core and major universities. The land use is intended to provide a variety of residential types (up to 45 dwelling units per acre), employment (including light manufacturing), office, and commercial activities. Infill and potential redevelopment and/or rehabilitation activity should be encouraged.

- **Government Operational**

The primary function of this future land use category is to provide for the operation and provision of services on property owned or operated by local, state, and federal governments. Allowed uses include community services, heavy infrastructure, and post-secondary uses, which include police and fire stations, electric generating facilities, postal facilities, and government offices.

- **Residential Preservation**

The primary function of this future land use category is to protect existing stable and viable residential areas from incompatible land use intensities and density intrusions. This future land use category allows for single family, townhouse, and cluster housing developments within a range of up to six dwelling units per acre. Consistency with surrounding residential types and density shall be a major determinant in granting development approval. New and infill development shall be consistent with the existing residential type and density. Commercial, including office as well as any industrial land uses, are prohibited.

- **Suburban**

This land use category is intended to create an environment for economic investment or reinvestment through the mutually advantageous placement of employment and shopping opportunities with convenient access to low- to medium-density residential land uses. This category predominantly consists of single-use projects that are interconnected whenever feasible. Mixed-use projects and the principles of traditional neighborhood developments are encouraged, though not required. A mix of residential types are permitted. The density range is up to a maximum of 20 dwelling units per acre. Other permitted uses include commercial, office, community services, passive and active recreation, light industrial, and light infrastructure. Business activities are not intended to be limited to serve area residents, and as a result, may attract shoppers from larger portions of the community.

- **Educational**

This land use category is limited to educational uses and facilities for all public schools and for private schools with three hundred or more students and ancillary community services to serve the student population or the community in general.

- **Recreation/Open Space**

This land use category contains all government owned lands which have active or passive recreational facilities, historic sites, forests, cemeteries, or wildlife management areas and all privately owned lands which have golf courses, cemeteries, or wildlife management areas.

- **Urban Residential 2**

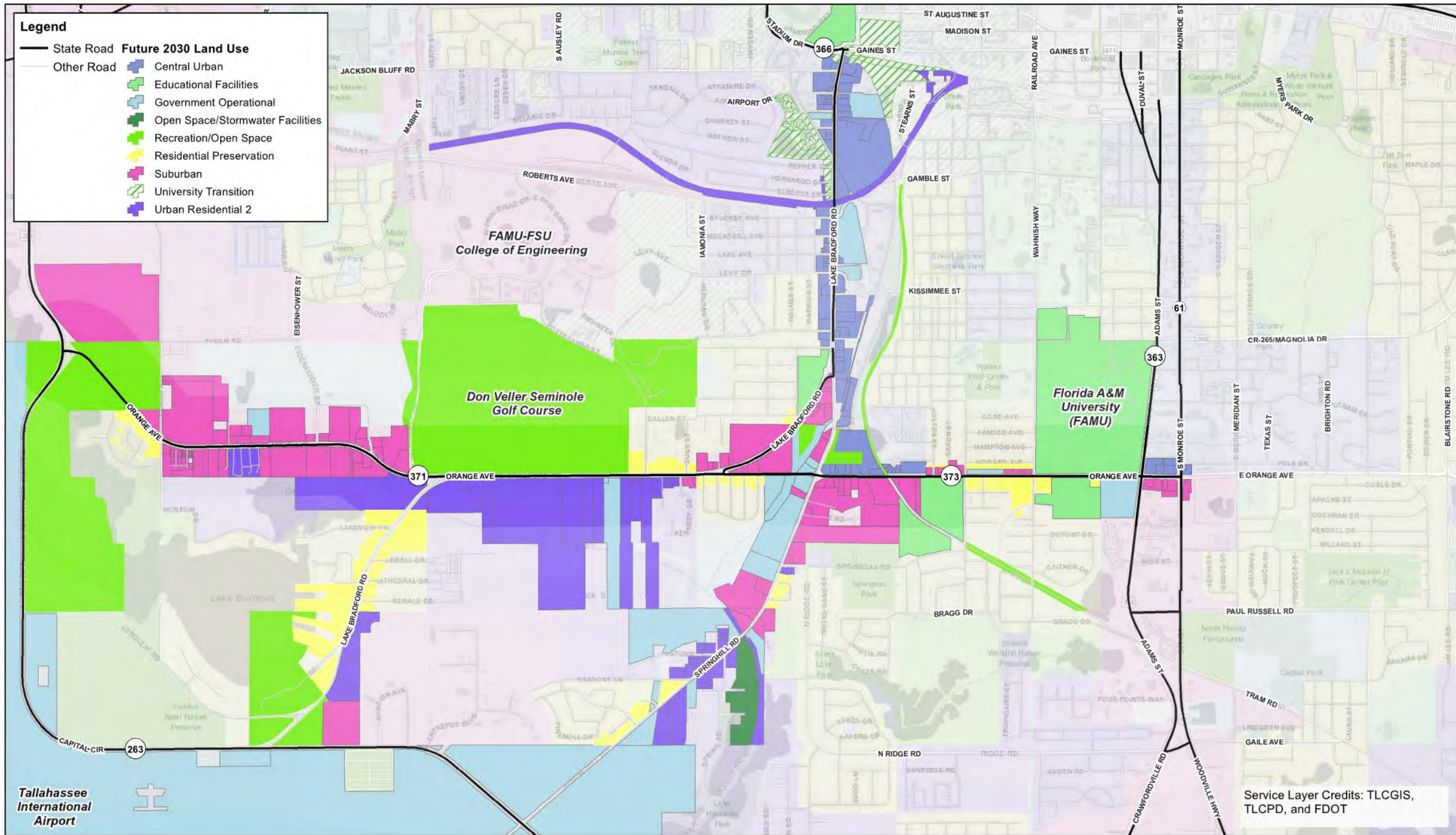
The primary function of the Urban Residential land use category is to promote a range of residential densities (4-20 dwelling units per acre), thereby promoting infill development, reducing urban sprawl, and maximizing the efficiency of infrastructure. This category allows townhouses, single-family detached homes, two-family homes, and apartments, as well as open space/recreation and community facilities related to residential use. This category is not intended to be applied within the interior of an existing neighborhood.

As previously discussed approximately 25% of the existing parcels along Orange Avenue are Vacant. The largest categories for the future land uses of the vacant parcels along Orange Avenue are Residential Preservation and Suburban. **Table 2** displays the 58 total vacant parcels and how they are identified on the future land use map shown in **Figure 11**.

Table 2. Vacant Parcels and Future Land Use Map Identification

Orange Avenue	Vacant Parcels
Central Urban	5
Government Operational	3
Residential Preservation	22
Suburban	19
Urban Residential 2	9
Total	58

Figure 11. 2030 Future Land Use



The existing zoning and development codes, when combined with the future land use designations, are critical in understanding the development/redevelopment efforts. **Table 3** below depicts the primary existing land uses along Orange Avenue and the future land use designations found within each roadway section. The existing land use information is found in the 2017 update and the future land use has the horizon year of 2030. As noted previously, the Comprehensive Plan is currently being updated with an anticipated completion date in 2019.

Table 3. Primary Existing Land Uses Along Orange Avenue

Orange Avenue Existing and Future Land Use		
Roadway Section	Existing Land Use	Future Land Use
Capital Circle to South Lake Bradford Road	Open Space/Common Areas	Recreation/Open Space Suburban Urban Residential 2 Residential Preservation
	Open Space State/National Forest	
	Single Family	
	Vacant	
	Warehousing	
South Lake Bradford Road to Springhill Road	Vacant	Suburban Urban Residential 2 Residential Preservation Government Operational Recreation/Open Space
	Open Space (Golf Course)	
	Single Family	
	Religious	
Springhill Road to South Adams Street	Retail	Suburban Residential Preservation Educational Government Operational Central Urban
	Schools/Colleges/Universities	
	Religious	
	Single Family	
	Government	

With the existing and future land use designations on the parcels along Orange Avenue, the zoning and allowable development in the future are in place to encourage new development and redevelopment that promote sustainable economic growth for the area.

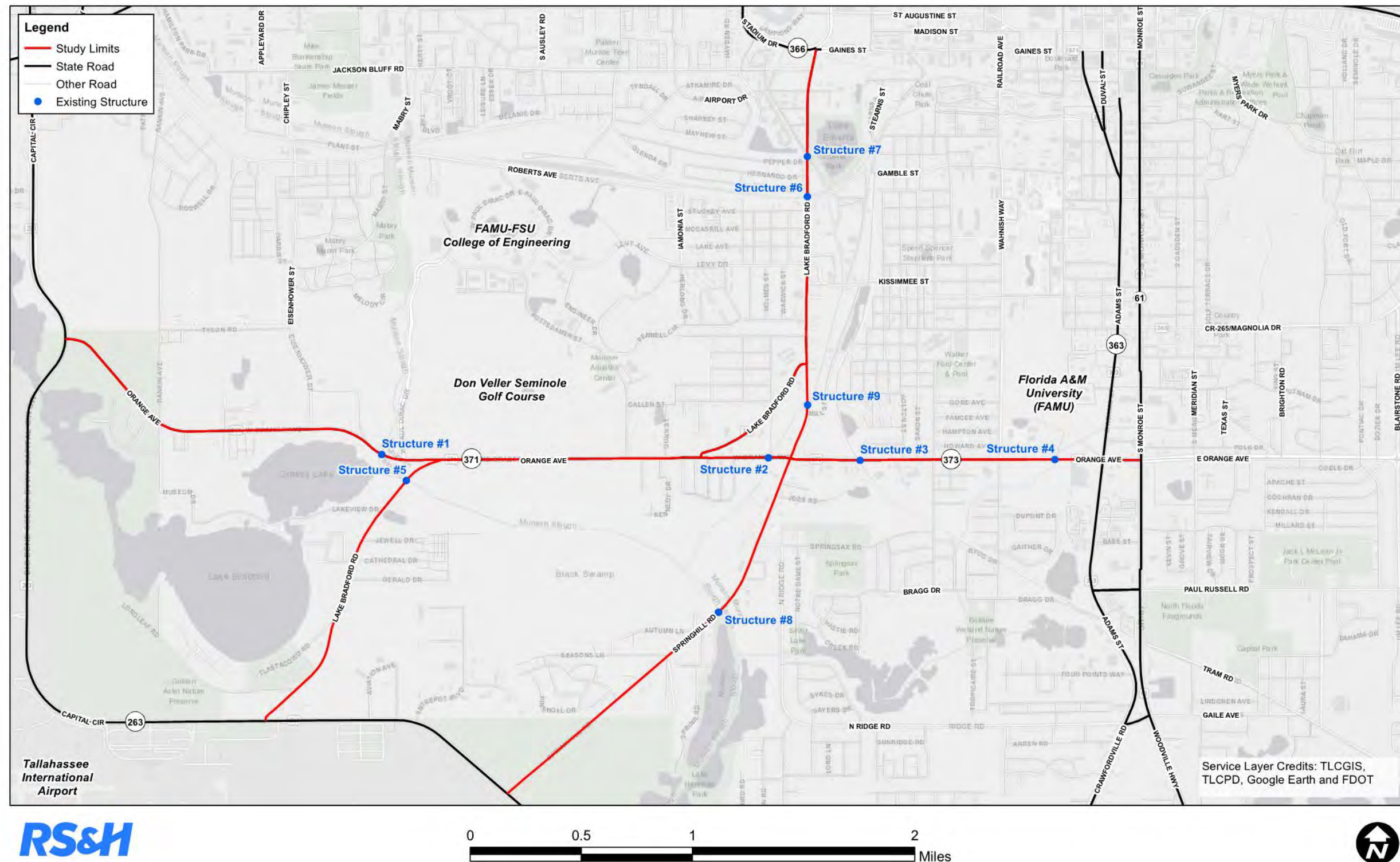
Corridor Inventory

Structures Inventory

Bridges are regularly inspected by FDOT to determine their structural and operational integrity. If a bridge is deemed structurally deficient, the bridge should be repaired or replaced within the next six years. A bridge that is functionally obsolete indicates that the configuration of the bridge does not meet current roadway design conditions. The sufficiency rating considers a variety of factors and is part of the formula used by the Federal Highway Administration to determine funding allocations for bridges. Sufficiency ratings are based on a scale from one to 100, with 100 considered to be a fully sufficient bridge (usually new). The sufficiency ratings shown for the bridges along Orange Avenue were found in the December, 2018 FDOT bridge report.

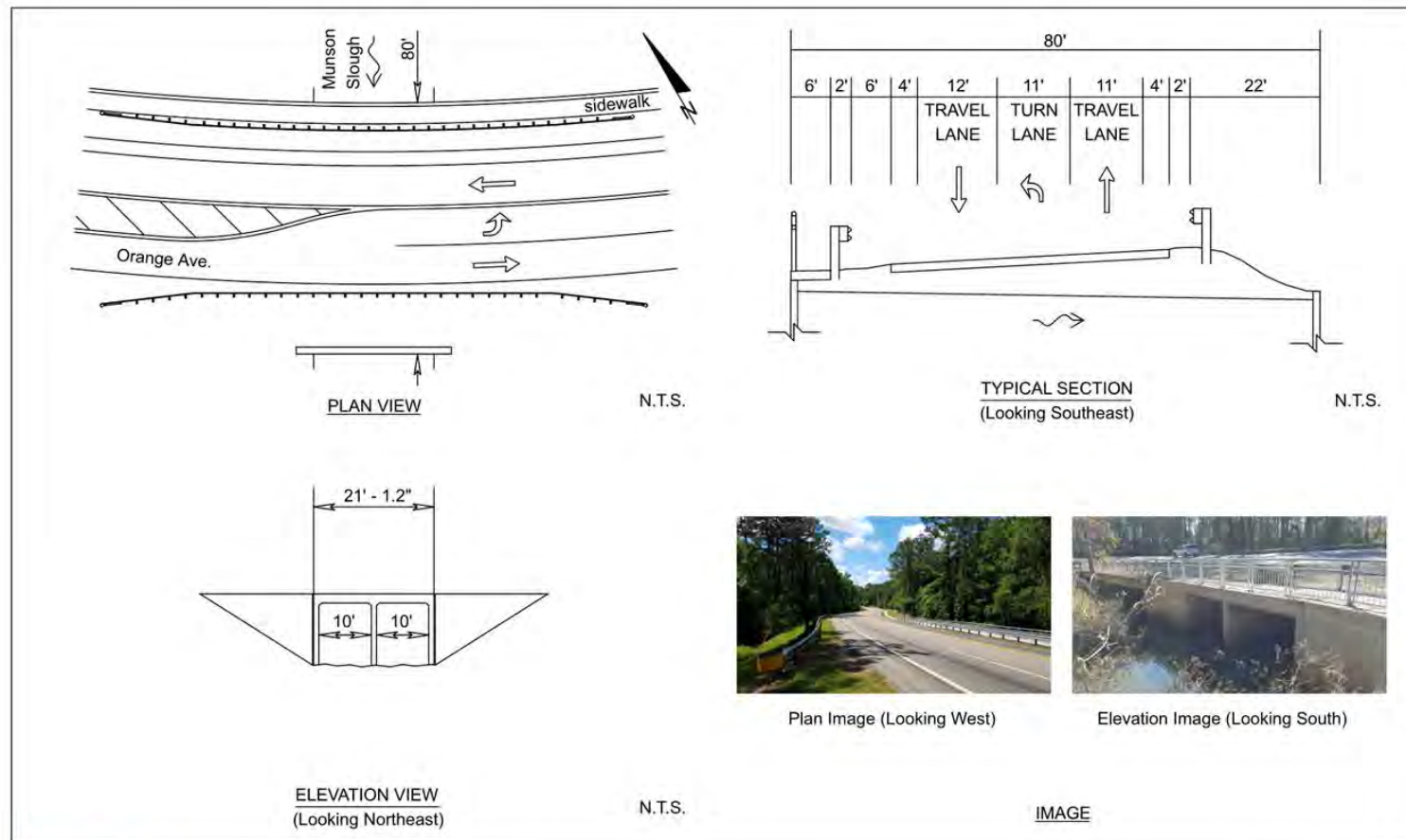
Figure 12 provides an overview of individual structures within the project area. **Figure 13** through **Figure 16** reflect a structures inventory performed within the project limits. Projections in plan, elevation, and section view are accompanied by pictures taken during various site visits. Structures 1 through 4 are located along Orange Avenue. None of the four bridges are rated as functionally obsolete or structurally deficient.

Figure 12. Structure Locations



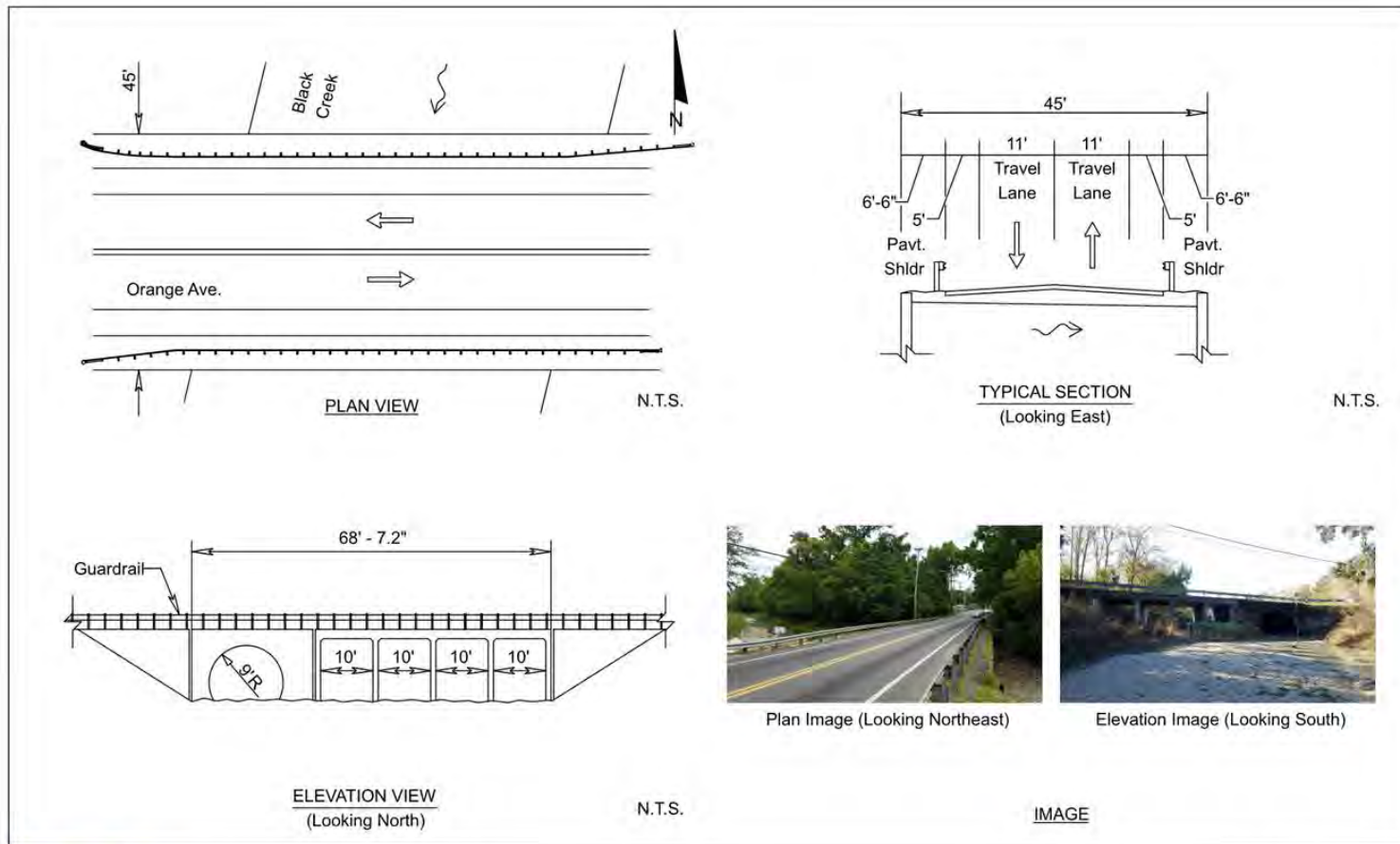
Structure 1 is located on West Orange Avenue, approximately 370 feet west of Paul Dirac Road and approximately 800 feet west of the intersection with South Lake Bradford Road. Built in 1963, the bridge spans Munson Slough and has a sufficiency rating of 78.2.

Figure 13. Structures Inventory – Structure #1



Structure 2 spans Black Creek and is located between Lake Bradford Road and Springhill Road. The bridge was built in 1957 and has a sufficiency rating of 99.0.

Figure 14. Structures Inventory – Structure #2



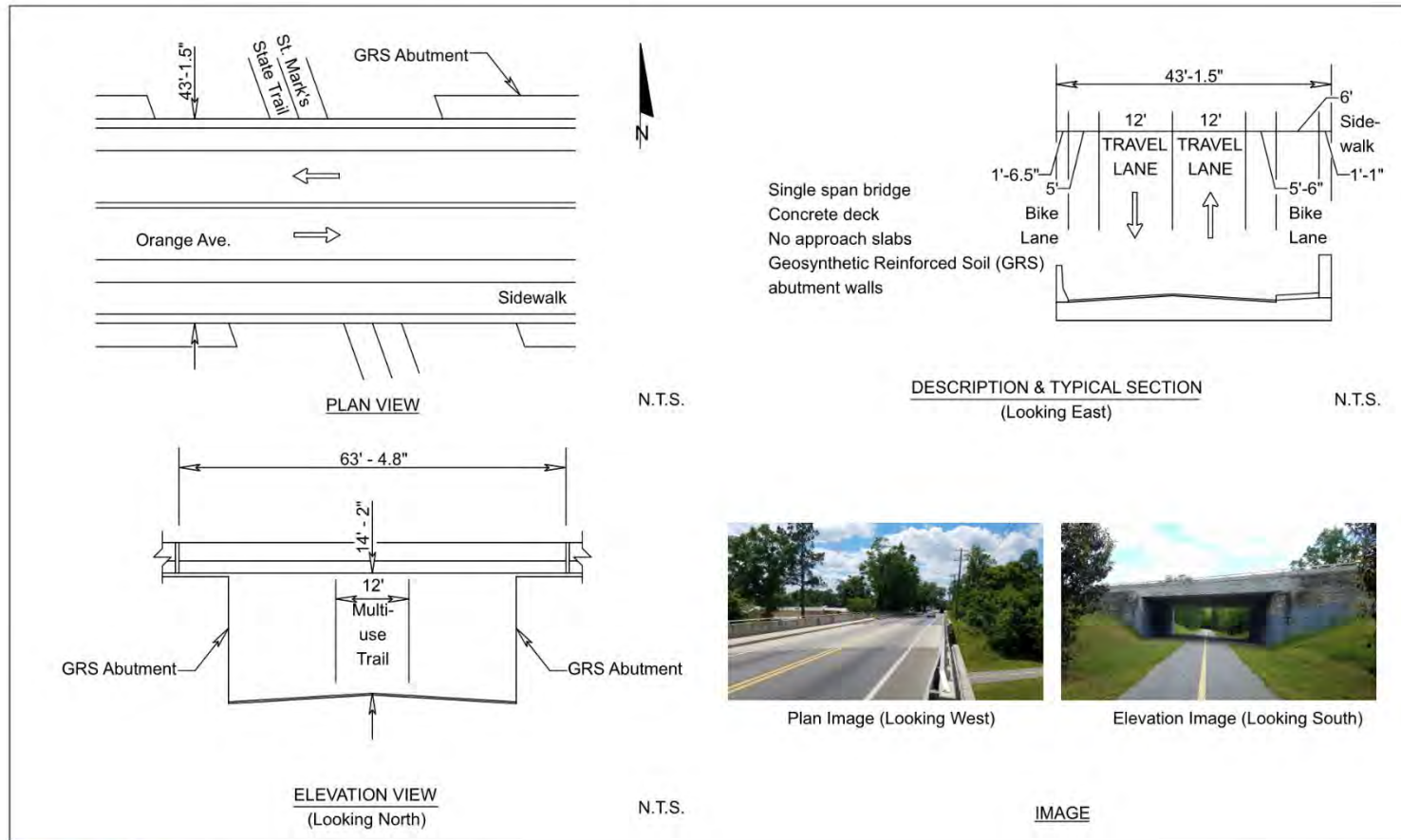
RS&H

Structures Inventory - Structure # 2
Bridge #550037, Orange Ave. over Black Creek

Sources: FDOT SLD, 2018 4th
Quarter Bridge Inspections
Created: 2/13/2019

Structure 3 is located approximately one-quarter mile east of Springhill Road. Built in 2014, the bridge spans the St. Marks Historic Railroad State Trail and has a sufficiency rating of 93.5.

Figure 15. Structures Inventory – Structure #3

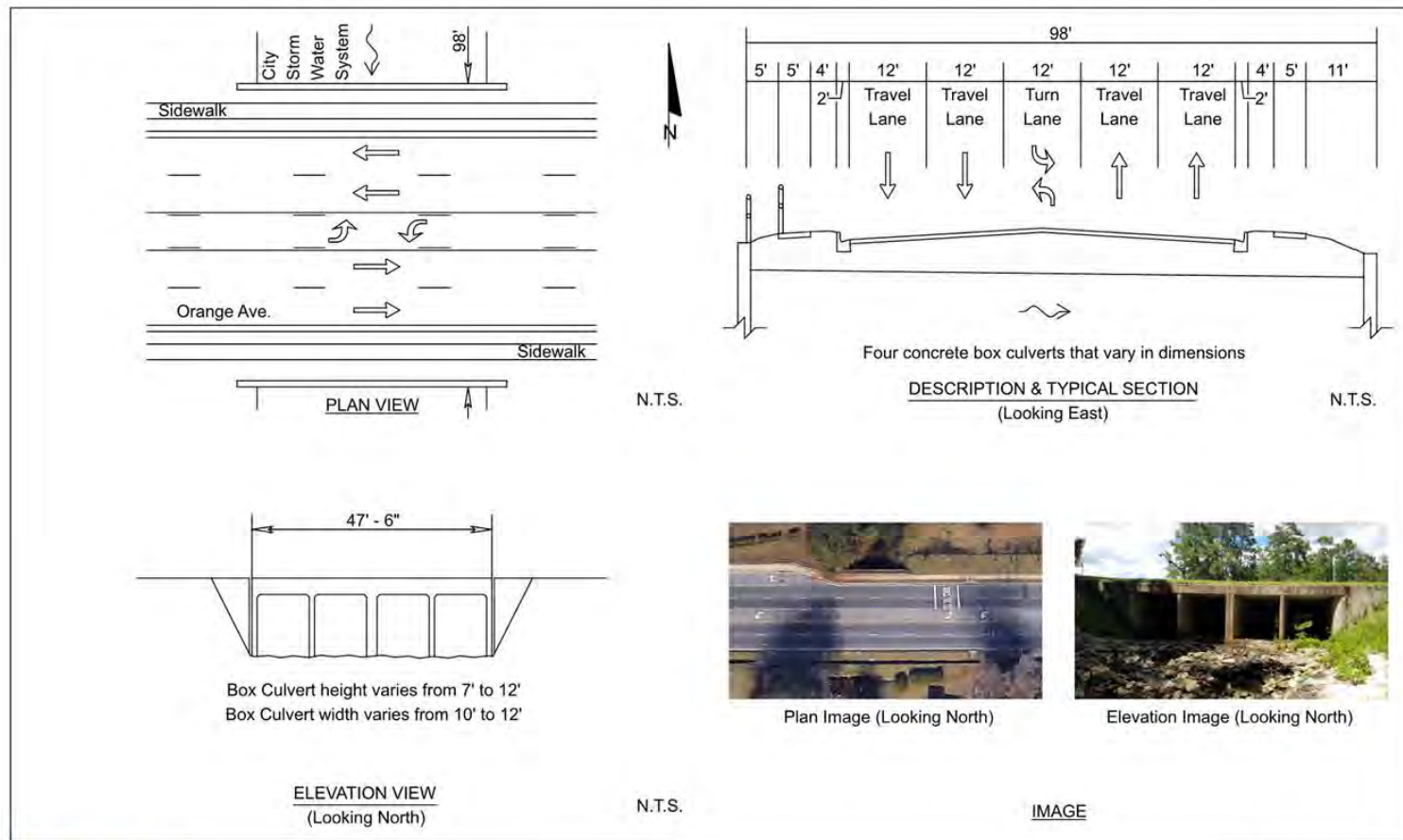


RS&H Structures Inventory - Structure # 3
Bridge #550171, Orange Ave. over St. Marks Trail

Sources: FDOT SLD, 2018 4th
Quarter Bridge Inspections
Created: 2/13/2019

Structure 4 is located approximately 1,100 feet east of Wahnish Way and 900 feet west of South Adams Street. The bridge spans the City of Tallahassee Stormwater System facility and was built in 1975. The bridge has a sufficiency rating of 77.7.

Figure 16. Structures Inventory - Structure #4



Utilities

The following companies were identified as having utilities present within the right-of-way of Orange Avenue.

- CenturyLink
- Dial Communications
- Crown Castle Fiber
- Level 3 Communications
- Comcast Cablevision
- MCI
- Unite Fiber LLC
- City of Tallahassee

Lighting

Figure 17 illustrates the results of a lighting inventory conducted within the project limits. A total of 204 existing lamp poles were located on all facilities, with 5 lamps observed to be out of service during site visits. No lighting is currently provided along the entirety of South Lake Bradford Road or the segments of Springhill Road that have been highlighted in red.

Figure 17. Lighting Inventory



Pedestrian visibility is of high importance when developing or assessing roadway lighting schemes. This assessment includes the time spent by a pedestrian in the intersection, as well as the time waiting for a 'walk' cycle at a sidewalk or island refuge. **Figure 18** through **Figure 20** illustrate the adequacy of lighting at several key intersections along the project. The darker color indicates the areas of high visibility, with visibility decreasing as the distance from the lamp increases.

Figure 18. Lighting Assessment – Intersection of Orange Avenue and Wahnish Way

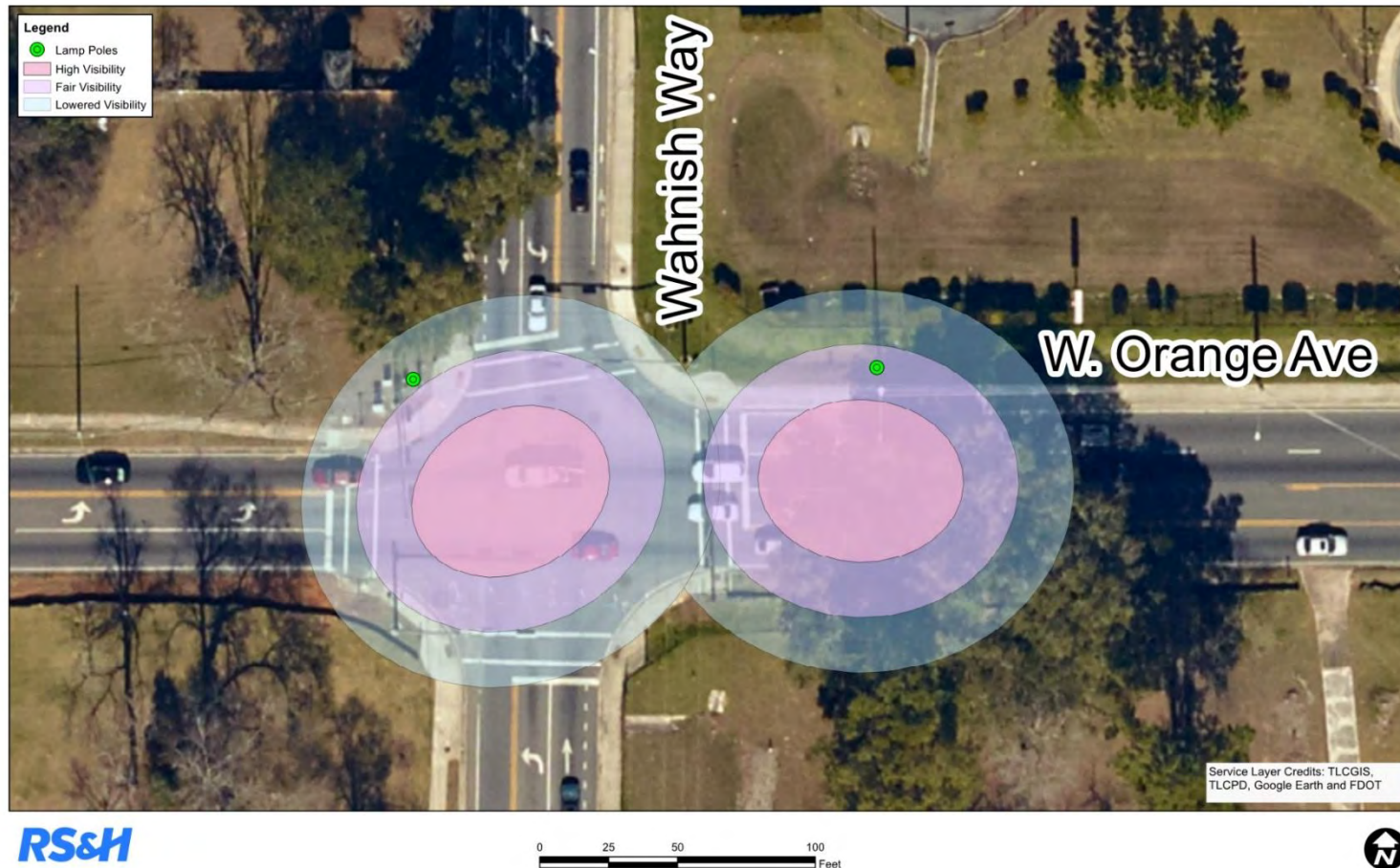


Figure 19. Lighting Assessment – Intersection of Orange Avenue and Pasco Street

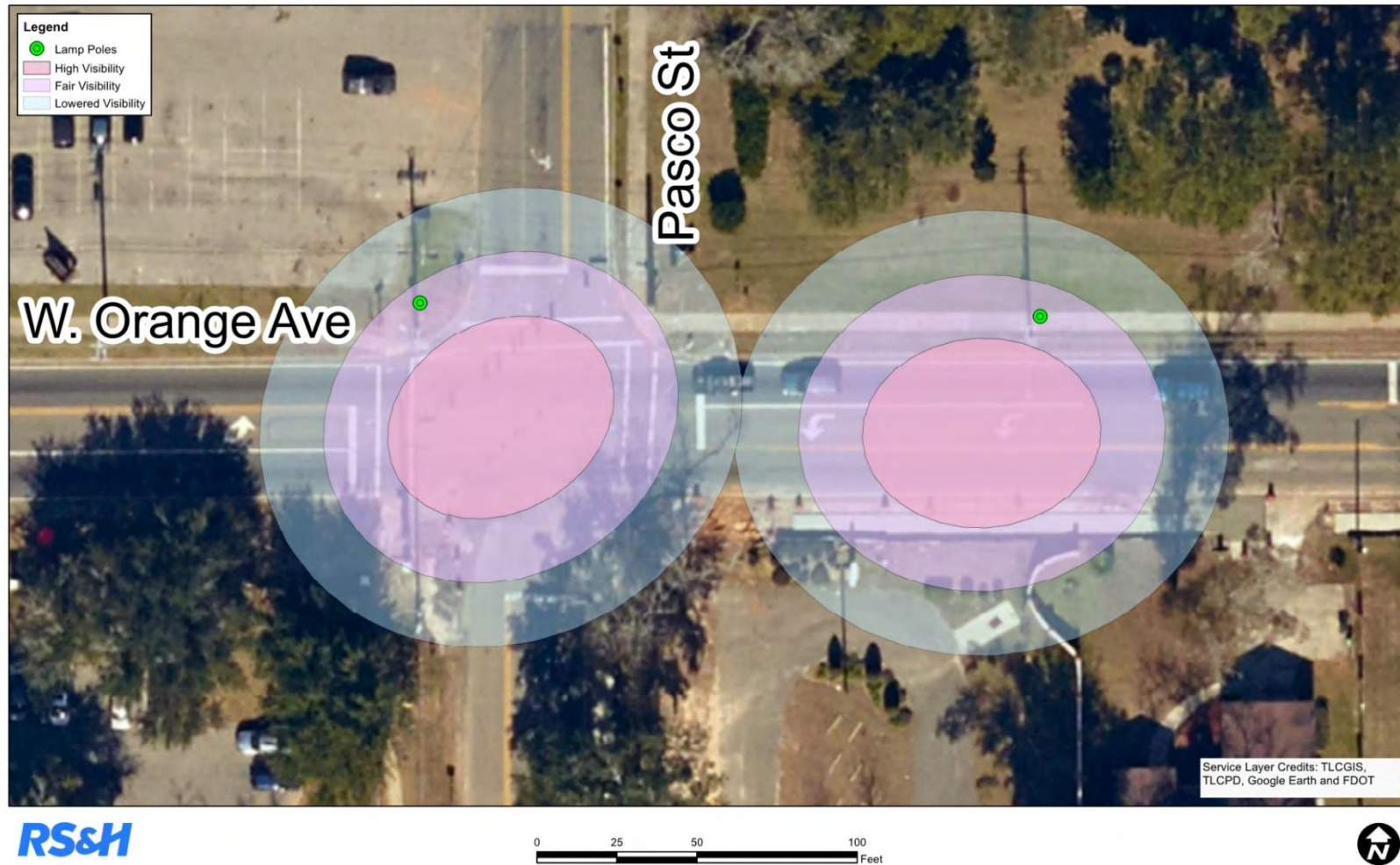
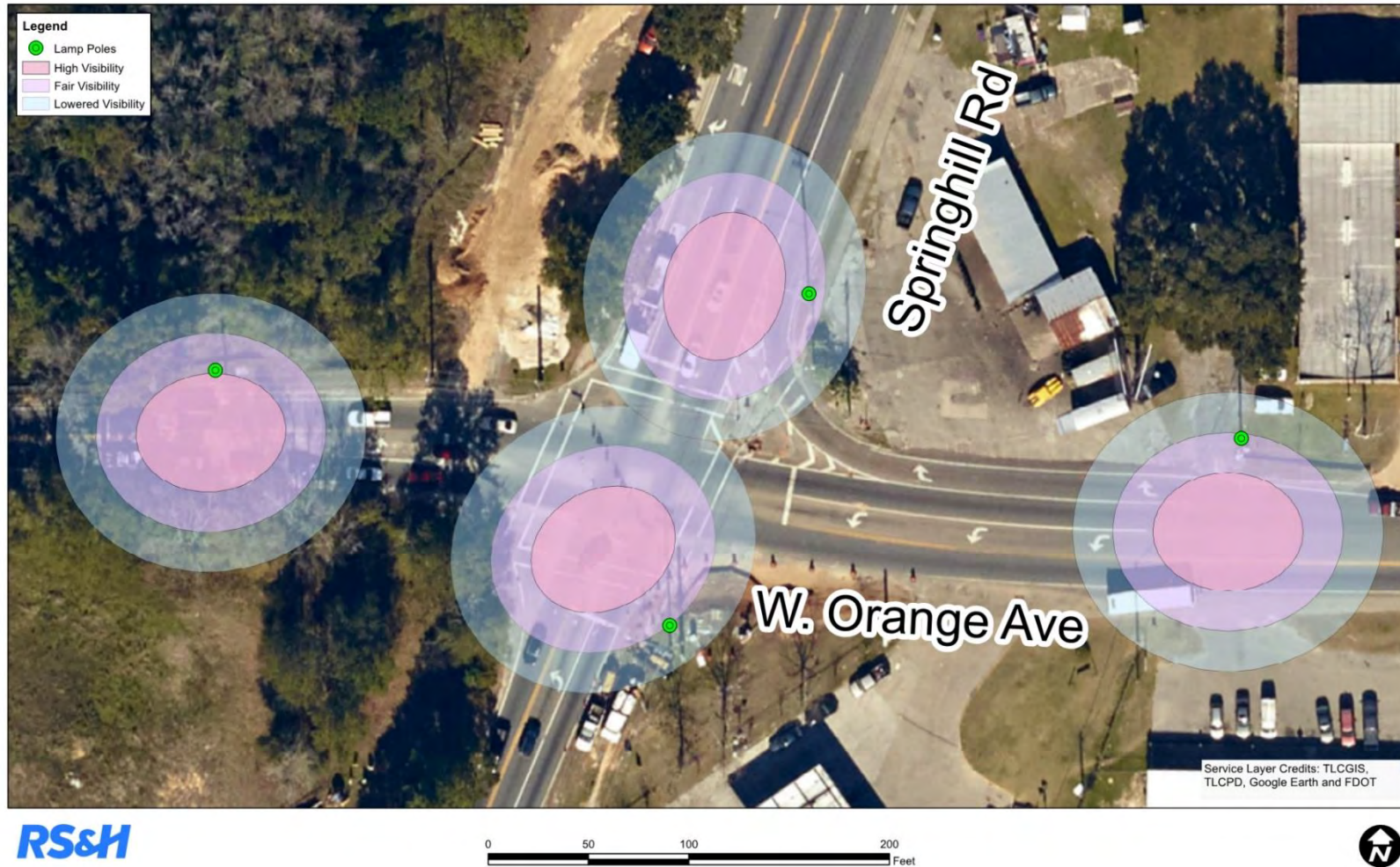


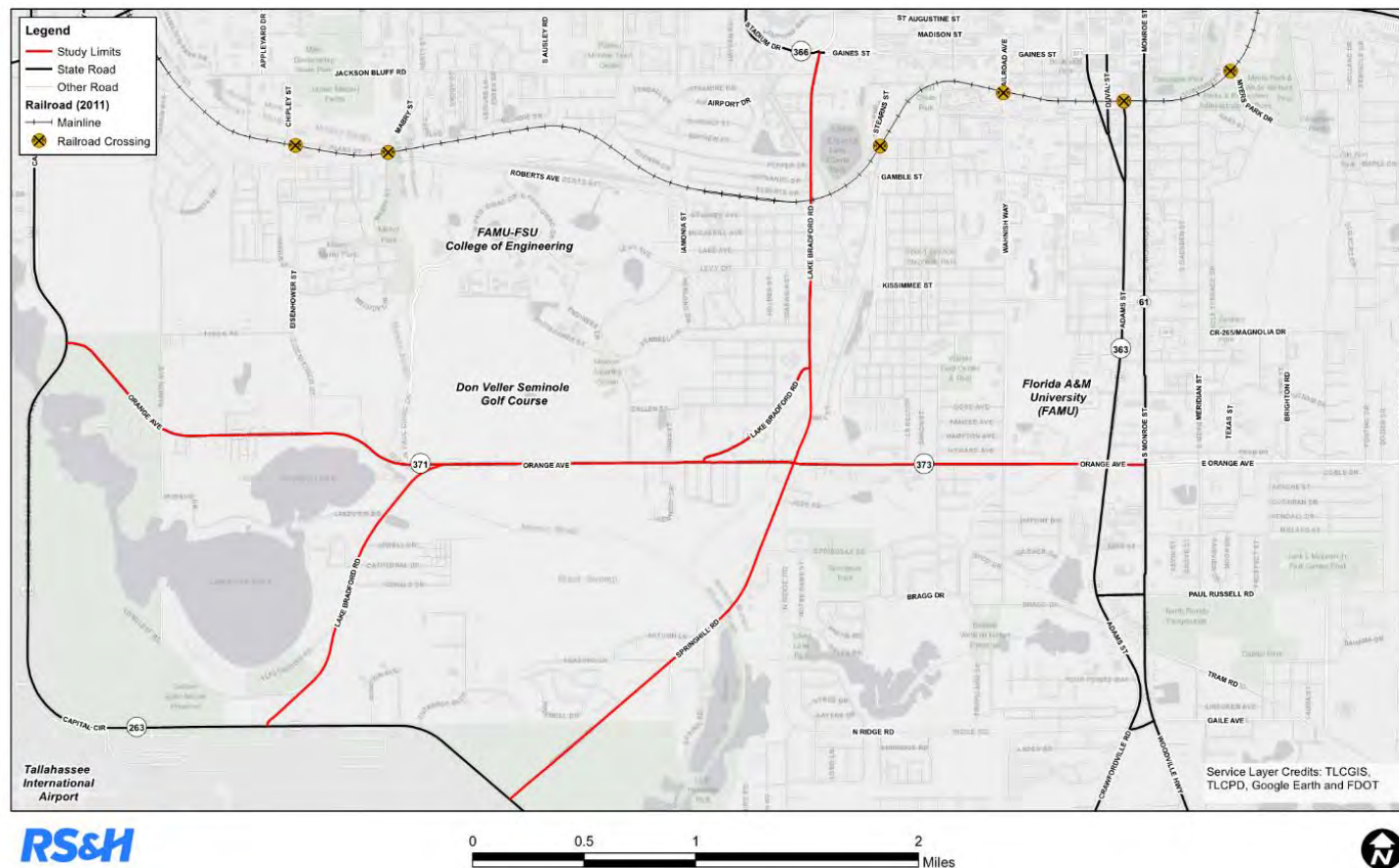
Figure 20. Lighting Assessment – Intersection of Orange Avenue and Springhill Road



Rail

As shown in **Figure 21**, there is one existing rail line within the study area. The CSX line runs basically parallel to Orange Avenue to the north and crosses North Lake Bradford Road approximately one-quarter of a mile south of Stadium Drive. There are no rail crossings on Orange Avenue.

Figure 21. Railroad Information



Existing Transportation Facilities

Roadway Network

The Orange Avenue section of the Southwest Transportation Plan study area consists of SR 371, which spans from Capital Circle Southwest to North Lake Bradford Road, and SR 373, from North Lake Bradford Road to South Monroe Street. Orange Avenue is classified as a minor arterial with a posted speed limit of 45 mph on SR 371 and a posted speed limit of 35 mph on SR 373. The roadway features of each segment are summarized below:

- Capital Circle Southwest to South Lake Bradford Road —
 - Two-lane undivided roadway.
 - Right-of-way along this section varies from 100 to 105 feet.
- South Lake Bradford Road to North Lake Bradford Road —
 - Two-lane undivided roadway.
 - Right-of-way along this section varies from 95 to 210 feet.
- North Lake Bradford Road to Springhill Road —
 - Two-lane undivided roadway.
 - Right-of-way along this section varies from 50 to 75 feet.
- Springhill Road to Wahnish Way —
 - Two-lane undivided roadway.
 - Right-of-way along this section varies from 65 to 90 feet.
- Wahnish Way to South Adams Street —
 - Four-lane roadway.
 - Right-of-way along this section varies from 65 to 100 feet.
- South Adams to South Monroe Street —
 - Four-lane roadway.
 - Right-of-way along this section varies from 65 to 100 feet.

Driveways and Access Points

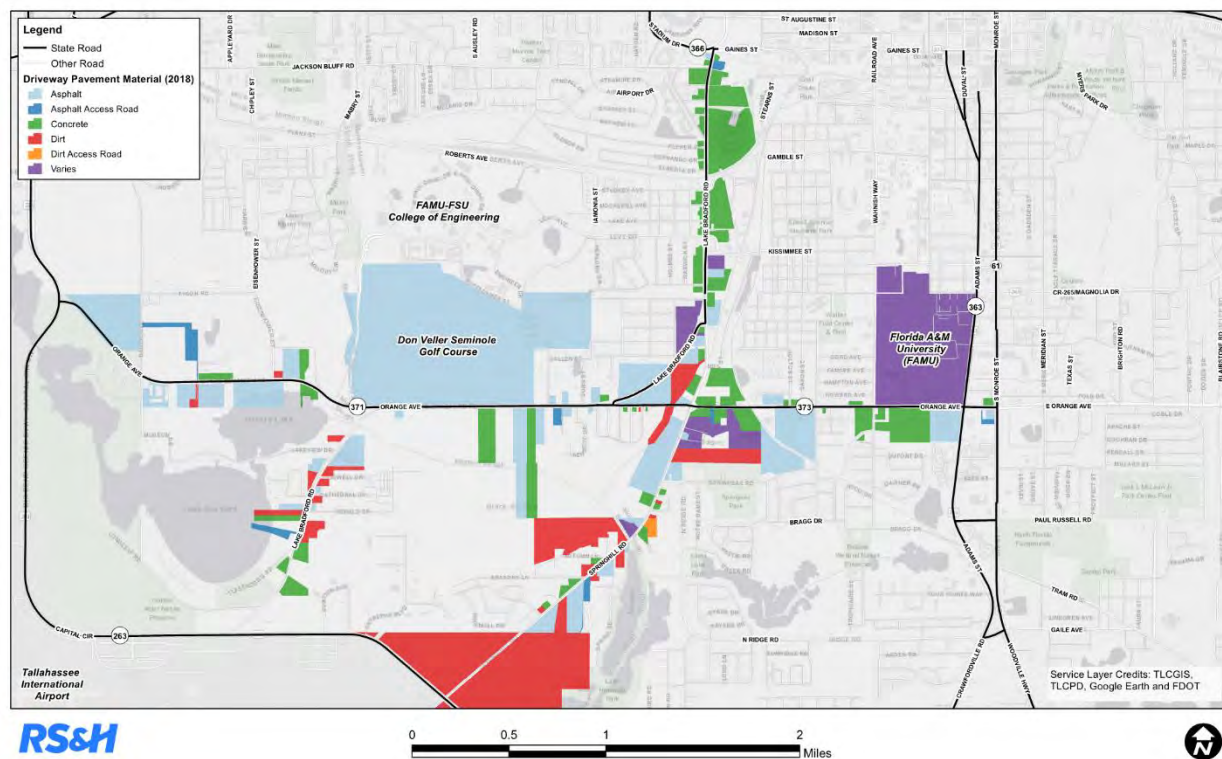
The number of access points onto a facility is a key element of both safety and operational efficiency, as well as a major component of the coordination between transportation and land use. Of the 361 parcels directly adjacent to the corridors within the study area, 210 have driveway access to the corridor, some of which have multiple access points adding up to 297 driveway access points. Driveway materials vary throughout the project and have been inventoried and noted in **Table 4**. Orange Avenue has a total of 77 driveway access points.

Table 4. Driveway Access Points and Driveway Material

	Concrete	Asphalt	Dirt	Total
Orange	35	39	3	77
Springhill	65	30	20	115
Lake Bradford	55	35	15	105
Total	155	104	38	297

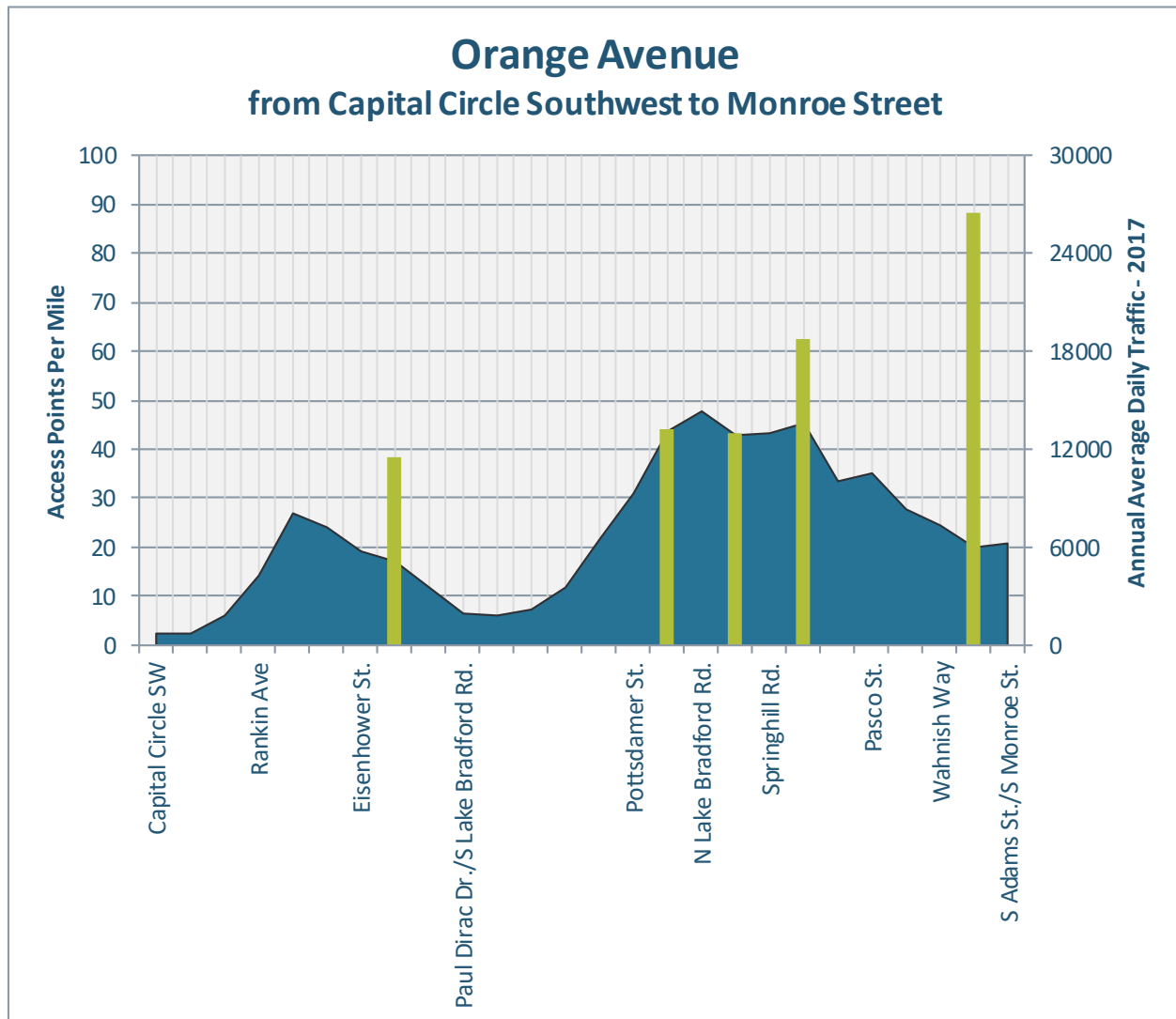
Figure 22 is a graphical representation of the data described in **Table 4** and the spatial distribution of parcels with driveway access; there are parcels that have multiple access points.

Figure 22. Driveway Access Points



Driveway and access point density varies from corridor to corridor and for this reason the access points per mile were calculated. The analysis for Orange Avenue is summarized by dividing the corridor into sections with the number of driveways between each section obtained via Google Earth and site visits. **Figure 23** shows the calculation of a weighted moving average in terms of access points per mile plotted in blue and numerically labeled on the left axis. The green bars are numerically labeled on the right axis and represent the Annual Average Daily Traffic for 2017. The scales used to represent the magnitudes of the AADT histogram and access management plot are independent and set to best display the data.

Figure 23. Access Points Per Mile



Access point density along the corridor peaks at Orange Avenue's intersection with North Lake Bradford Road and is due to the number of businesses and residential communities that are located near the intersection of these two roadways. East of this intersection, the access point density begins to decline and the AADT begins to increase. West of the Orange Avenue and Springhill Road intersection, the corridor transitions from high density neighborhoods with 0.1-acre parcels to multi-acre parcels resulting in fewer driveways per mile and a lower AADT.

Traffic Analysis

Traffic data was collected and analyzed throughout the Southwest Area Transportation Plan study area. The following sections describe the existing traffic trends along with the existing and future traffic operational and segment analyses focusing on the Orange Avenue corridor.

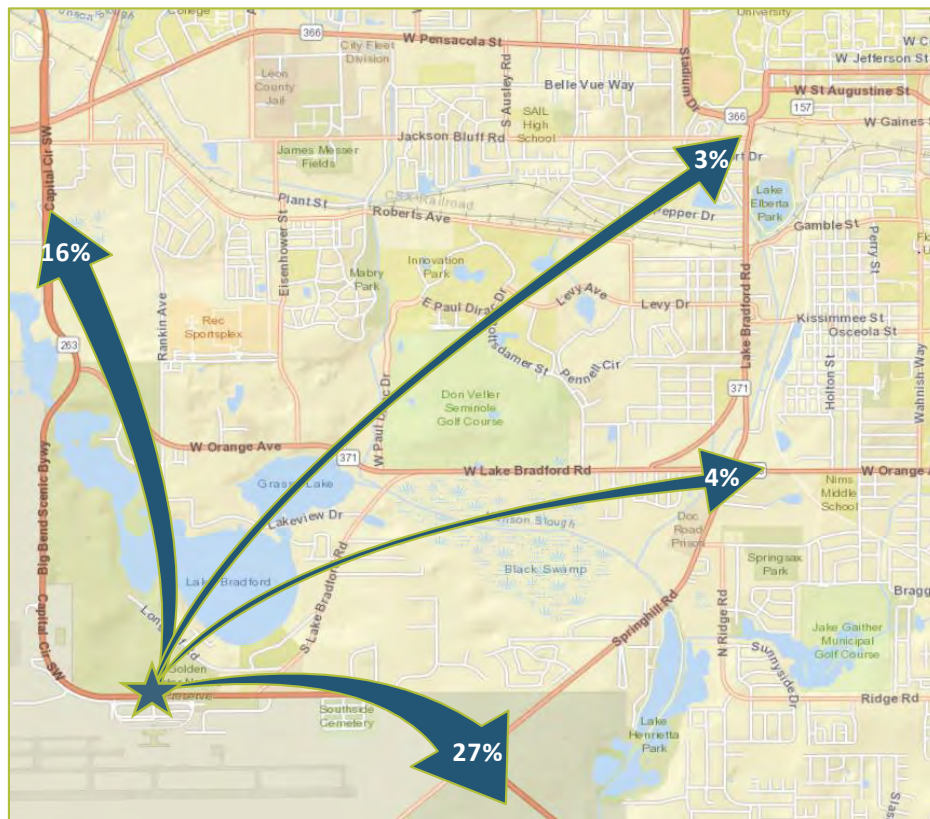
Existing Traffic Trends Analysis

Origin-destination (O-D) data was collected from 11/2/2017 to 11/14/2017. The technology used to collect the O-D data is Bluetooth. The Bluetooth data was collected anonymously by device media access control (MAC) addresses as they passed into or through the signal range of Bluetooth collection units placed strategically in and around the southwest area of Tallahassee. Records are not otherwise associated with the owner of the vehicle or device detected by the collection units. Data was collected specifically for analyses of travel patterns in the area.

The collected Bluetooth data is used to determine trends rather than a quantifiable volume of trips. Bluetooth's capabilities are limited and only capture a small percentage of vehicles traveling along the roadway; however, it provides insight into travel patterns and routes. The overall traffic patterns of trips originating south end of the study area at the airport are shown in **Figure 24**.

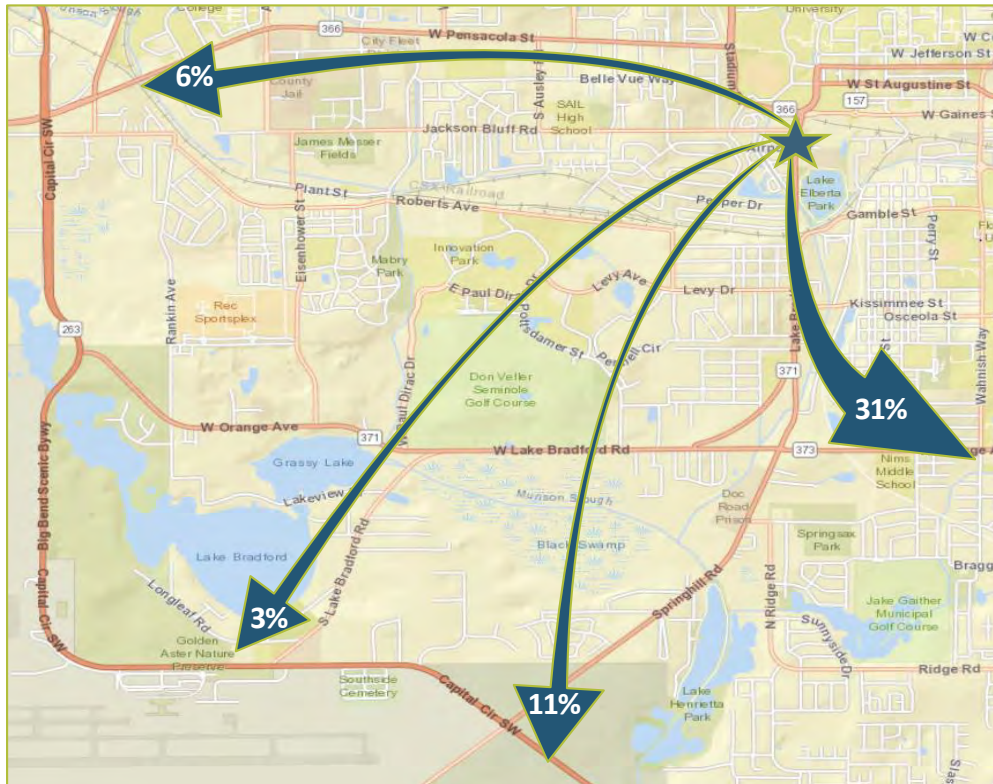
The data shows that of the traffic that originates on Capital Circle SW by the airport, 16% reach Capital Circle north of Orange Avenue, 27% reach Capital Circle east of Springhill Road SW, 4% reach Orange Avenue east of Springhill Road and 3% reach the northern portion of North Lake Bradford Road. Other destinations, including trips that stop before they reach the identified destinations, make up the remaining trips. The traffic that reaches the northern portion of North Lake Bradford (shown as 3% on the trend map) generally utilizes two primary separate routes. Data collected indicates that 25% of the trips that reach the northern point of North Lake Bradford Road use South Lake Bradford Road and 75% use Springhill Road.

Figure 24. Traffic Patterns Originating from South of Corridor



The percentage of traffic that originates at the northern portion of North Lake Bradford Road primarily utilizes two separate routes to reach the airport (shown as 3% on the **Figure 25**). Fifty percent of the trips travel south on Springhill Road to Capital Circle Southwest and 50% use South Lake Bradford Road. The data also shows that 6% reach West Pensacola Street east of Capital Circle SW, 3% reach Capital Circle SW from adjacent to the airport, 11% reach Capital Circle SW east of Springhill Road, and 31% reach Orange Avenue east of Springhill Road.

Figure 25. Traffic Patterns Originating from North of Corridor



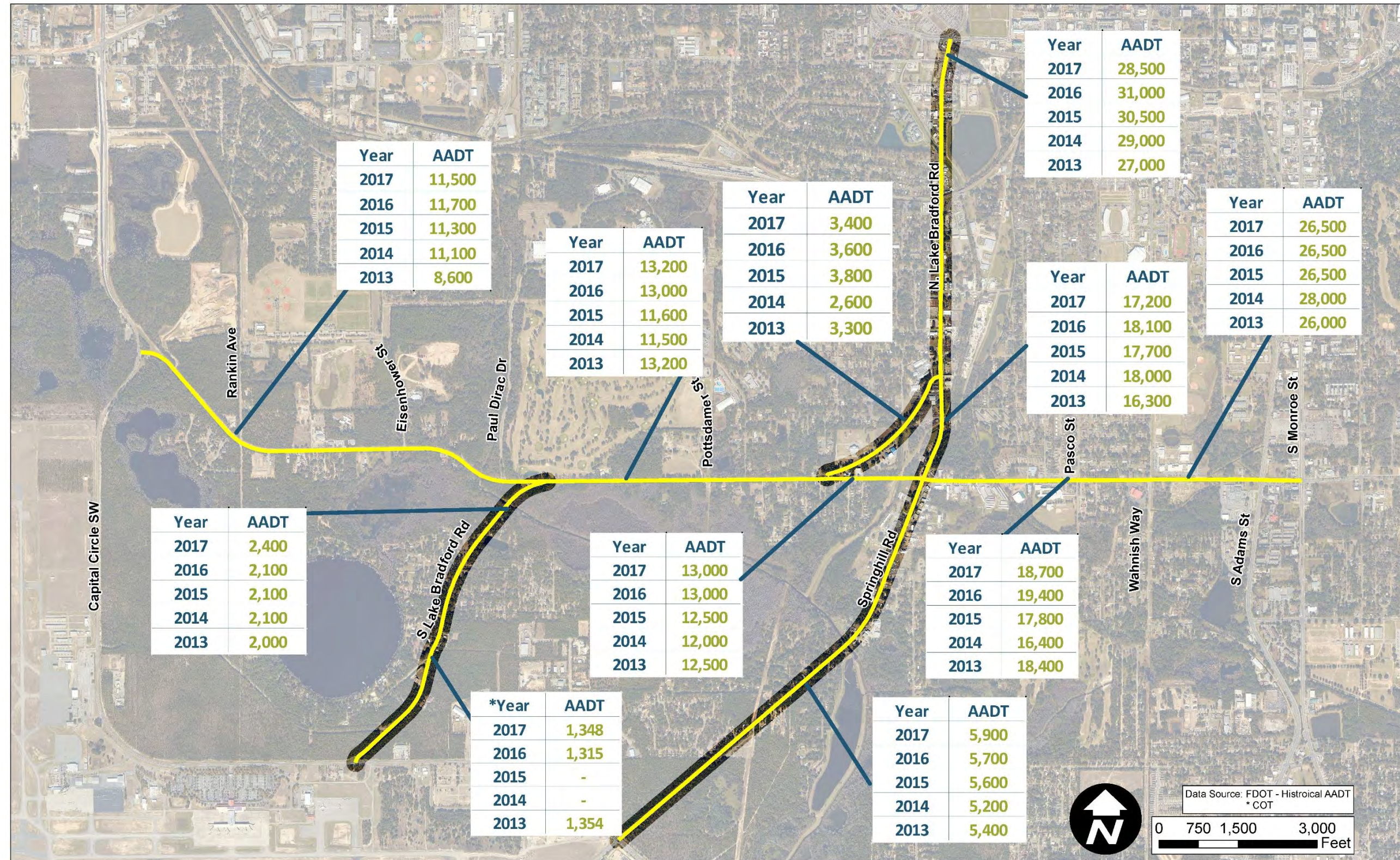
Capacity Analysis

Signalized intersection data was obtained from the City of Tallahassee. The Synchro files were reviewed with the provided counts and adjusted to correct for inconsistencies in the model files and the City's collected turning movement counts. Additional traffic volume data, were collected during the analysis period.

Historical Traffic Volumes and Trends

Annual Average Daily Traffic (AADT) volumes along Orange Avenue were obtained from FDOT's online traffic website. The last five years of data were used to determine the annual growth of the traffic. Annual growth rates were calculated for six count stations along Orange Avenue, which varied from 0.5% to 6.7%. An annual growth rate of 2% was chosen to provide a conservative approach and applied to the 2017 volumes to project to the 2045 horizon year. **Figure 26** shows the historical traffic volumes throughout the Southwest Area Transportation Plan study area.

Figure 26. Historical AADT Traffic Data



Segment Analysis

The 2017 AADTs along the corridor were compared to FDOT's Generalized Maximum Service Volume Tables (12/18/12). Orange Avenue is categorized as a state signalized arterial. It was determined that the segment from Springhill Road to Wahnish Way is operating today over capacity. This is a result of high traffic volumes (AADT 18,700) compared to a maximum service volume (capacity) of 15,600. All other Orange Avenue segments are currently well under capacity. **Figure 27** shows the existing (2017) capacity conditions along the corridor.

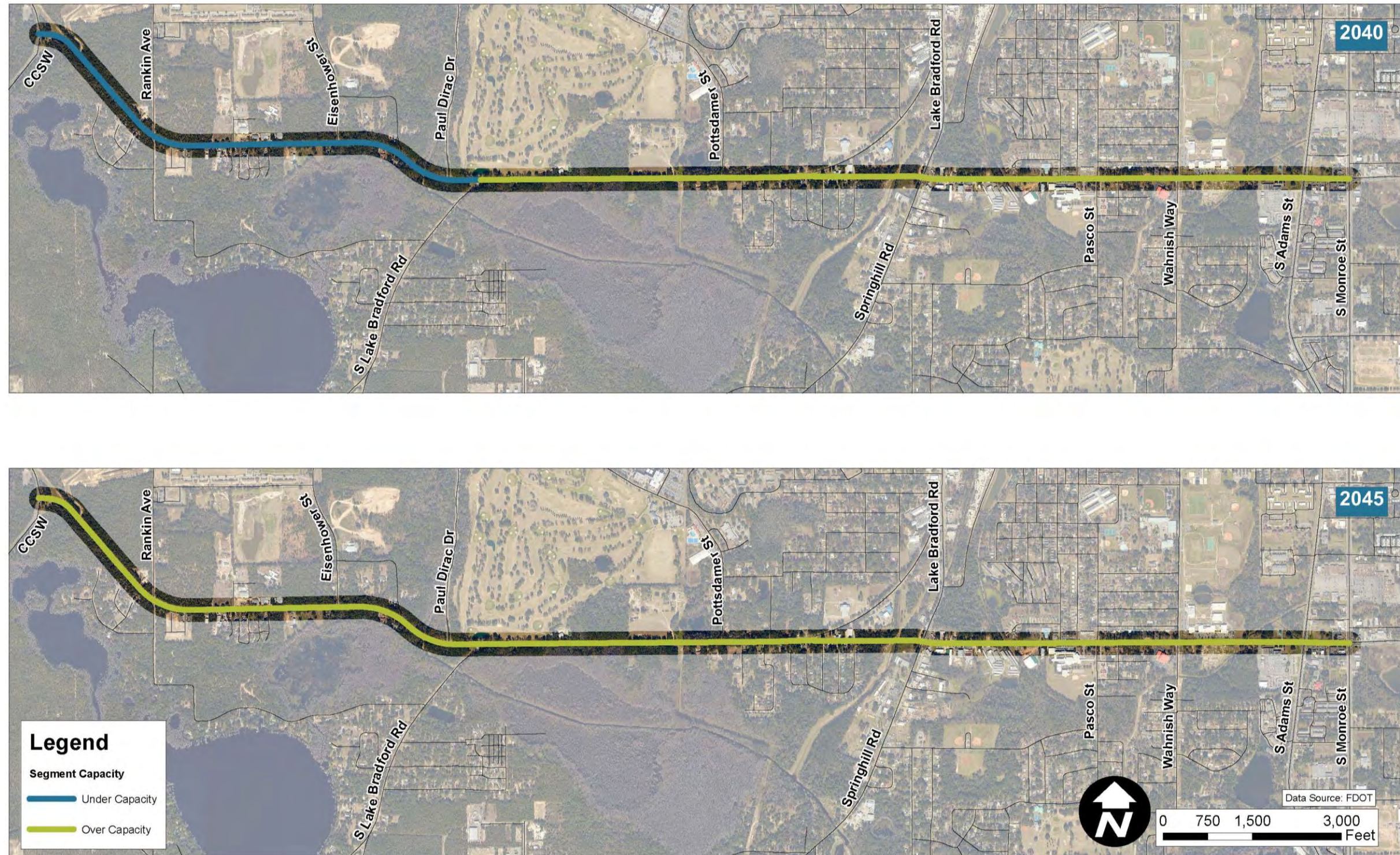
The 2017 traffic volumes were forecasted to the year 2040 and 2045 by applying the 2% annual growth rate to the volumes and it was determined that by 2040, the segment from South Lake Bradford Road to South Monroe Street will be over capacity. Five years later (2045), the entire corridor from Capital Circle Southwest to South Monroe Street is anticipated to be over capacity. **Figure 28** shows the 2040 and 2045 capacity conditions along the corridor.

The traffic growth is being applied over a 28-year period, which provides insight into future demand along the corridor. Future planned projects near the corridor, including expansion plans for FSU's Southwest campus and Innovation Park, along with standard growth will contribute to this impending capacity issue. Consideration should be given to providing additional capacity along the corridor to accommodate future development and growth in the area.

Figure 27. 2017 AADT Capacity Analysis



Figure 28. Future Capacity Analysis



Existing Intersection Analysis

There are six signalized intersections along Orange Avenue. **Table 5** shows the existing Level of Service (LOS) and the AM/PM peak period intersection delays. The intersections at Capital Circle Southwest, Springhill Road, Adam Street, and Monroe Street are all experiencing significant delay and congestion under current conditions. **Appendix A** contains the associated Synchro summaries.

Table 5. Existing LOS and Delays at Signalized Intersections

Intersection with Orange Avenue	AM		PM	
	LOS	Delay(sec)	LOS	Delay(sec)
Capital Circle Southwest	F	85.8	F	80.4
Springhill Road	E	59.9	E	72.4
Pasco Street	B	14.6	C	29.3
Wahnish Way	C	44.0	D	40.9
Adams Street	E	56.0	E	65.8
Monroe Street	E	66.5	F	85.7

The existing signalized intersections from Capital Circle Southwest to Springhill are actuated uncoordinated, while the intersections from Pasco Street to South Monroe Street are actuated coordinated. Retiming the intersections will result in improvements to the corridor. In addition, the future planned widening of Capital Circle Southwest is expected to alleviate congestion at the intersection with Orange Avenue.

Crash Analysis Overview

The FDOT Crash Analysis Reporting (CAR) System was utilized to obtain verified crash location data, which was then supplemented by crash details and reports from the Signal Four Analytics software. Crash data for years 2012 to 2016 (the most recent years for CAR) were obtained for Orange Avenue in Leon County, Florida. The data below reflects crashes recorded along the project corridor.

Overall Crashes (498)

A total of 498 crashes within the study area—including 241 injury crashes and no fatal crashes—were reported over the five-year period between January 1, 2012 to December 31, 2016 (most current and available data at the time of the study). The annual crash frequency varied during the analysis years, with a maximum of 134 crashes in 2015 and a minimum of 75 crashes in 2016.

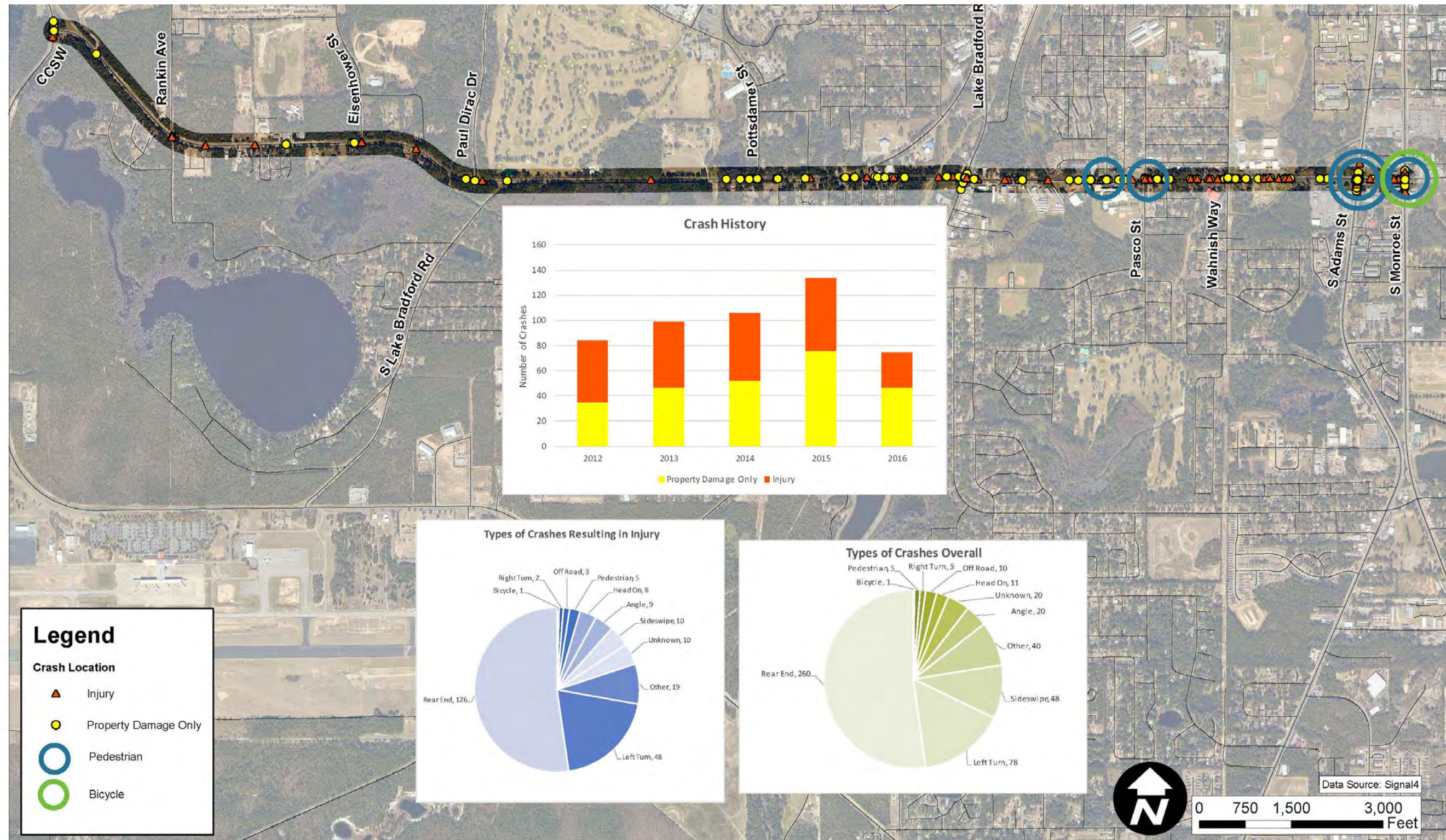
Crash data were analyzed to estimate the severity of crashes and contributing factors. Injury crashes accounted for 48% of all crashes. Crashes that occurred under dark conditions accounted for 25% of all crashes and crashes that occurred on wet surface conditions accounted for 19%. **Table 6** summarizes the crashes that occurred in the study area during the five-year analysis period.

Table 6. Crashes in Five-Year Period along Orange Avenue

Year	Total Crashes	Injury Crashes	Fatal Crashes	Dark Crashes	Wet Crashes	Alcohol Related Crashes
2012	84	49	0	19	19	2
2013	99	52	0	32	27	5
2014	106	54	0	31	22	4
2015	134	58	0	34	21	4
2016	75	28	0	10	8	3
TOTAL	498	241	0	126	97	18
Average Per Year	100	48	0	25	19	4
Percent of Total Crashes		48%	0%	25%	19%	4%

The locations of the 108 crashes recorded along the corridor are shown in **Figure 29**.

Figure 29. Five Year Crash Data (2012-2016)



Crash characteristics were assessed to determine temporal trends in the 498 crashes during the five-year study period, such as monthly, weekday vs. weekend, and hourly variations in crash frequency. August and October were the most common months for crashes, with 52 (10%) compared to the monthly median of 42 crashes. The day of the week during which the most crashes occurred was Friday, with 92 crashes (18%) compared to the median of 71 crashes. The two-hour period during which the most crashes occurred was between 5:00 P.M. and 6:00 P.M., with 60 crashes (12%) compared to the one-hour median of 21 crashes. **Figure 30** through **Figure 32** depict the monthly, weekly, and hourly patterns observed in the five years of crash data from 2012 to 2016 along the corridor.

Figure 30. Monthly Crash Trends along Orange Avenue

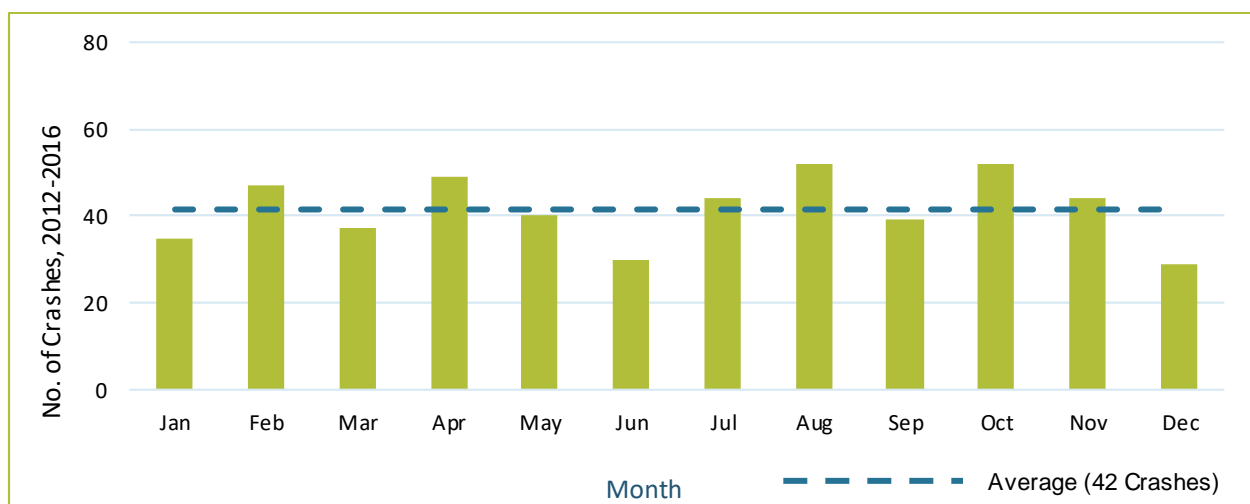


Figure 31. Weekday Crash Trends along Orange Avenue

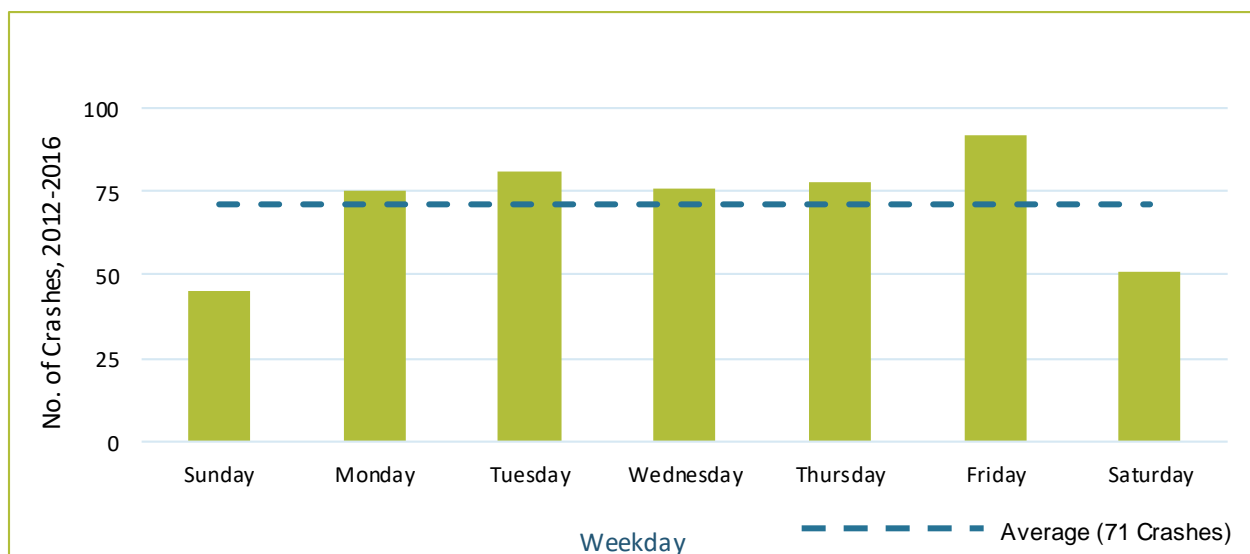
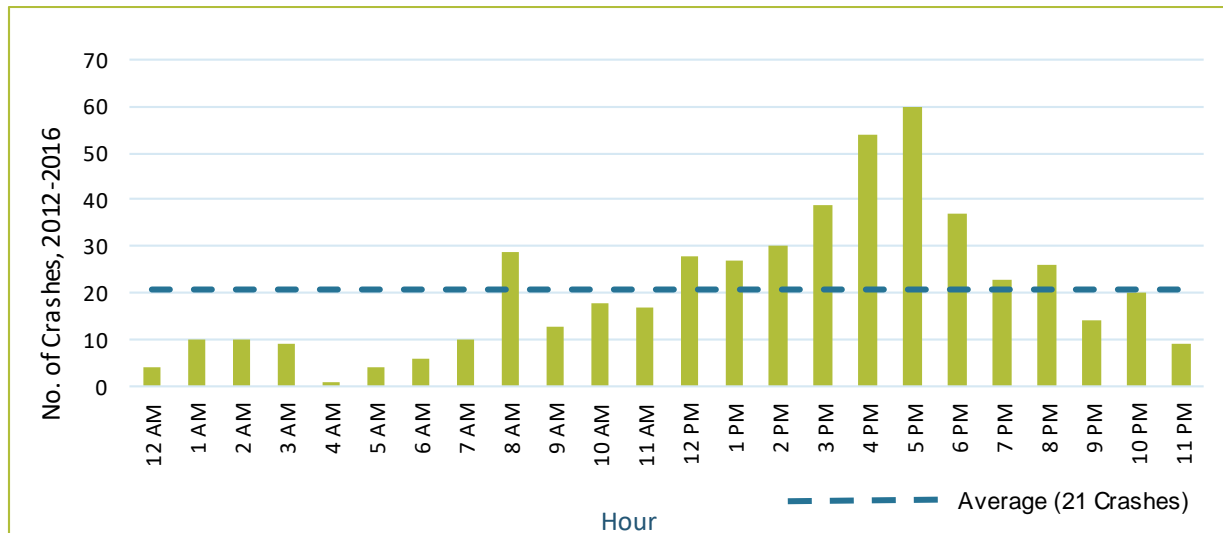
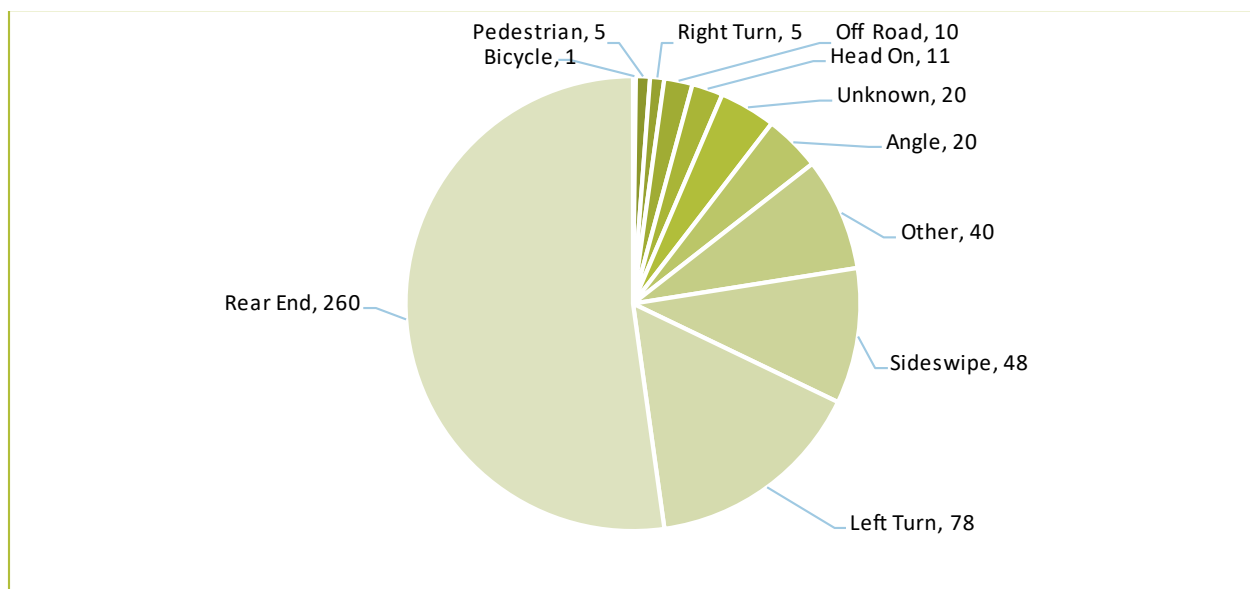


Figure 32. Hourly Crash Trends along Orange Avenue



Several parameters were used to determine trends in the crash types that occurred along the corridor from 2012 to 2016. The highest percentage of any crash type within the study area was attributed to rear end crashes, which accounted for 260 of the 498 crashes (52%). Left-turns were the second most common crash type, with 78 crashes (16%). Of the crashes that involved injuries, 52% were rear-end crashes. **Figure 33** below summarizes the five years of crash data by crash type.

Figure 33. Type of Crash, 2012-2016 along Orange Avenue



Crash Rate Analysis-Segments

Crash rates per million vehicle miles traveled (MVMT) on the corridor were calculated for each year from 2012 to 2016. Roadway classifications varied based on the area type (all study segments are urban in this case), number of travel lanes, and the presence of a median. Orange Avenue from Capital Circle Southwest to Wahnish Way is classified as an urban, two-lane, undivided roadway. And Orange Avenue from Wahnish Way to Monroe Street is classified as urban, four-lane, divided paved. These classifications were utilized to compare the study segments to the statewide average crash rate for similar facilities in each year.

Crashes along each segment, the associated crash rate (crashes per million vehicle miles traveled), and the statewide average for similar facilities are summarized in **Table 7**. Crashes on Orange Avenue from North Lake Bradford Road to Springhill Road were over the state average for all years (2012-2016). The segment from Springhill Road to Wahnish Way and from Wahnish Way to Monroe Street are above the state average for 2012-2015.

Table 7. Orange Avenue Crash Summary by Segment, Rate, and Statewide Average

	Limits	Segment Length (miles)		2012	2013	2014	2015	2016
Segment 1	Capital Circle Southwest to South Lake Bradford Road	1.576	Total Crashes	9	13	11	7	13
			Crash Rate	1.43	2.63	1.72	1.08	1.93
			Statewide Average	2.68	3.19	3.46	3.45	-
Segment 2	South Lake Bradford Road to North Lake Bradford	1.067	Total Crashes	3	0	6	3	3
			Crash Rate	0.64	0.00	1.34	0.66	0.59
			Statewide Average	2.68	3.19	3.46	3.45	-
Segment 3	North Lake Bradford to Springhill	0.347	Total Crashes	14	9	17	25	25
			Crash Rate	8.85	5.69	11.19	15.80	15.20
			Statewide Average	2.68	3.19	3.46	3.45	-
Segment 4	Springhill to Wahnish Way	0.813	Total Crashes	26	30	26	37	3
			Crash Rate	4.66	5.49	5.34	7.00	0.52
			Statewide Average	2.68	3.19	3.46	3.45	-
Segment 5	Wahnish Way to Monroe Street	0.547	Total Crashes	37	47	46	62	26
			Crash Rate	7.00	9.06	8.24	11.73	4.92
			Statewide Average	4.67	5.15	5.80	6.16	-

Crash Analysis Findings

In summary, over the five-year analysis period from 2012 to 2016, the study area exhibited a relatively high percentage (52%) of crashes resulting from rear end collisions, due at least in part to the existing congestion along the corridor. Three roadway segments exhibited sustained crash rates exceeding the statewide average for similar facilities. Above average crashes occurred during the PM peak period which, coupled with the congestion exhibited at the signalized intersections in the PM peak hour, means that congestion and capacity constraints result in a higher than average crash rate.

Environmental Inventory

The following sections summarize the results of the socio-economic, cultural, and natural environmental data collection and analysis conducted as part of this corridor study. This analysis was conducted at a desktop level utilizing available U.S. Census tract data along with Federal Emergency Management Agency (FEMA) data.

Social

Community

Community cohesion is the degree to which residents have a sense of belonging to their community. This may also include the degree to which neighbors interact and cooperate with one another; the level of attachment felt between residents and institutions in the community; and/or a sense of common belonging, cultural similarity or “togetherness” experienced by the population. There are multiple established neighborhoods throughout the study area. When selecting a recommended opportunity, consideration should be given to how the recommendation will impact connectivity among the neighborhoods.

Demographics

An analysis of minority and low-income populations (Environmental Justice or Potential EJ populations) was conducted through a review of census data and field reconnaissance. In addition, the level of vehicle ownership was reviewed as part of the socioeconomic assessment. The surrounding community has a high minority population. Along the corridor there are areas where over 50% of the households are living below the poverty line. There also are areas where 15% of the homes do not own a vehicle. This supports the need for transit, pedestrian, and bicycle facilities along the corridor. **Figure 34** and **Figure 35** show the poverty and vehicle ownership maps.

Figure 34. US Census Poverty Data

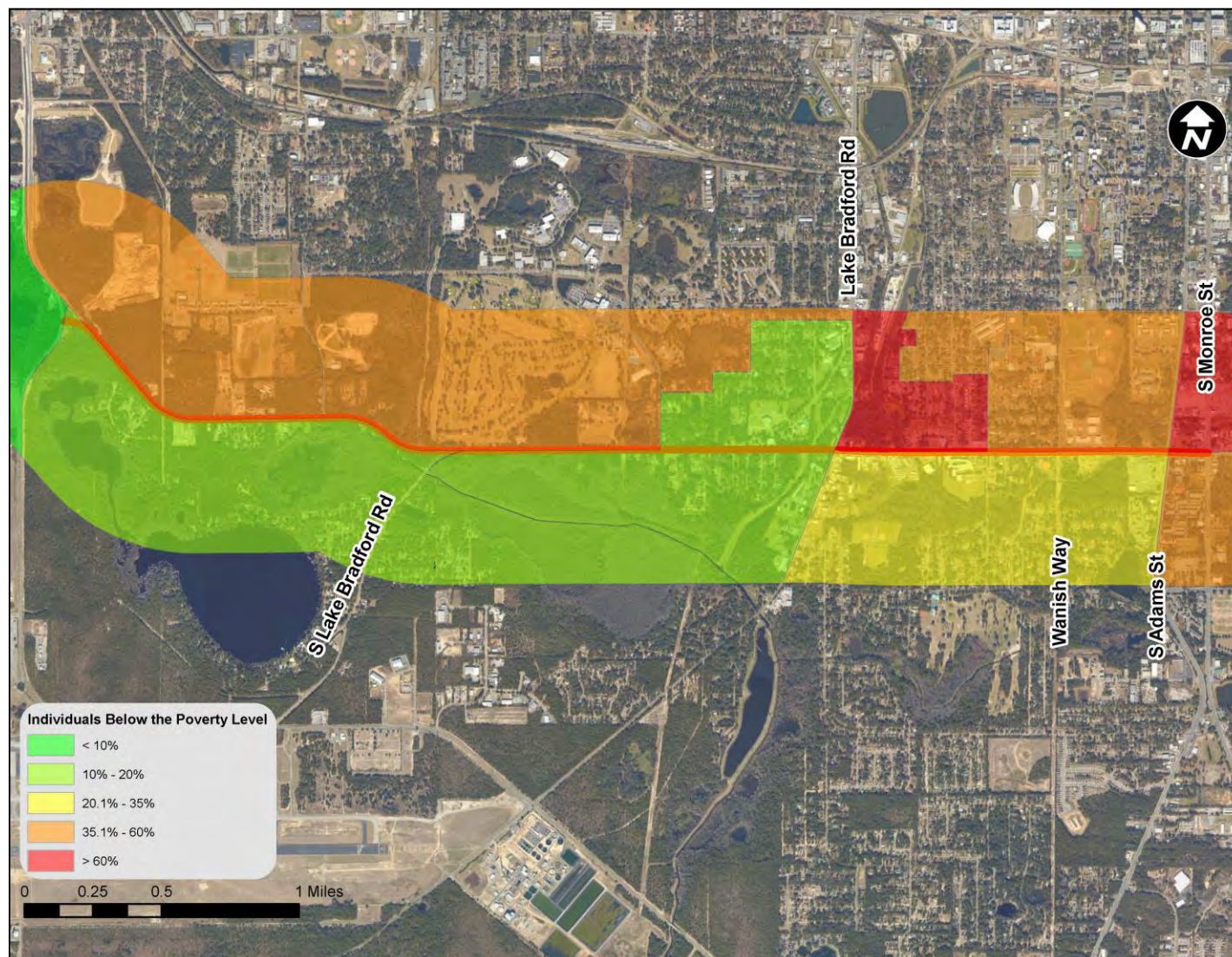
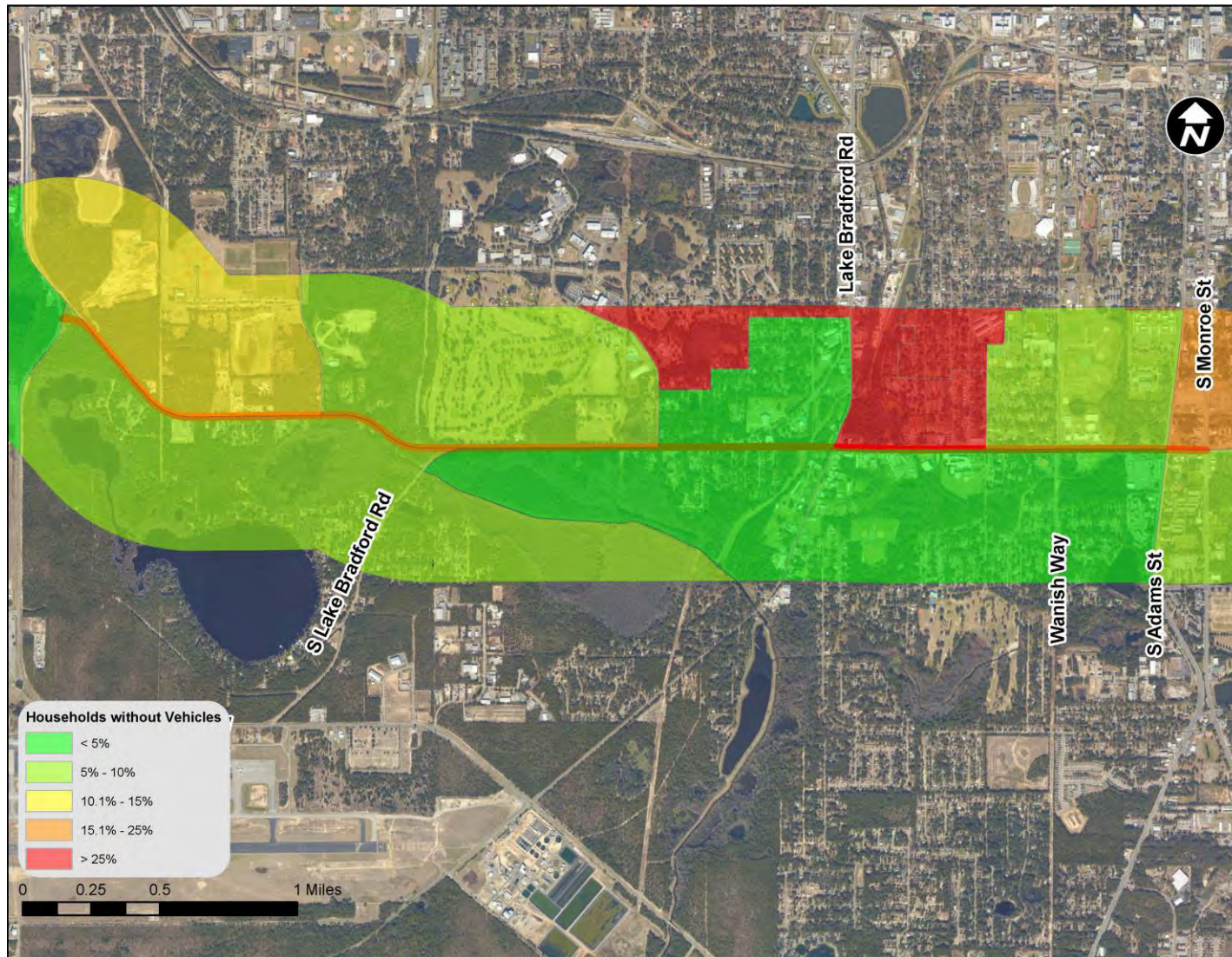


Figure 35. US Census Vehicle Ownership Data



Cultural

Historic Sites/Districts

There are multiple State Historic Preservation Office (SHPO) structures and one SHPO bridge in the project area. Eligibility for listing in the National Register of Historic Places (NRHP) for their significance to transportation and commerce will be determined as part of the PD&E study for Orange Avenue.

Recreational Areas

Recreational facilities and other community facilities near the corridor are shown in **Figure 36**. There are two schools directly along corridor (Nims Middle School and FAMU Research School) and multiple schools in the surrounding area. Consideration should be given to the impacts of any opportunity to the connectivity of residential, community centers, recreational, and educational facilities.

Natural

Wetlands and Floodplains

Figure 37 shows the presence of the wetlands and flood zones near the project corridor. The avoidance and minimization of impacts to wetlands and natural surface waters are critical criteria during the evaluations of opportunities. FEMA Flood Insurance Rate Map GIS data for Leon County indicates the project is located within FEMA flood zones AE and A. Flood zone AE represents the 100-year flood with base flood elevations determined. Flood zone A represents the 100-year flood with no base flood elevations determined.

Stormwater treatment should be designed to maintain the natural predevelopment hydroperiod and water quality, as well as to protect the natural functions of adjacent wetlands. Wetland impacts and stormwater treatment will be addressed as part of the FDOT PD&E Study.

Figure 36. Recreational and Community Facilities

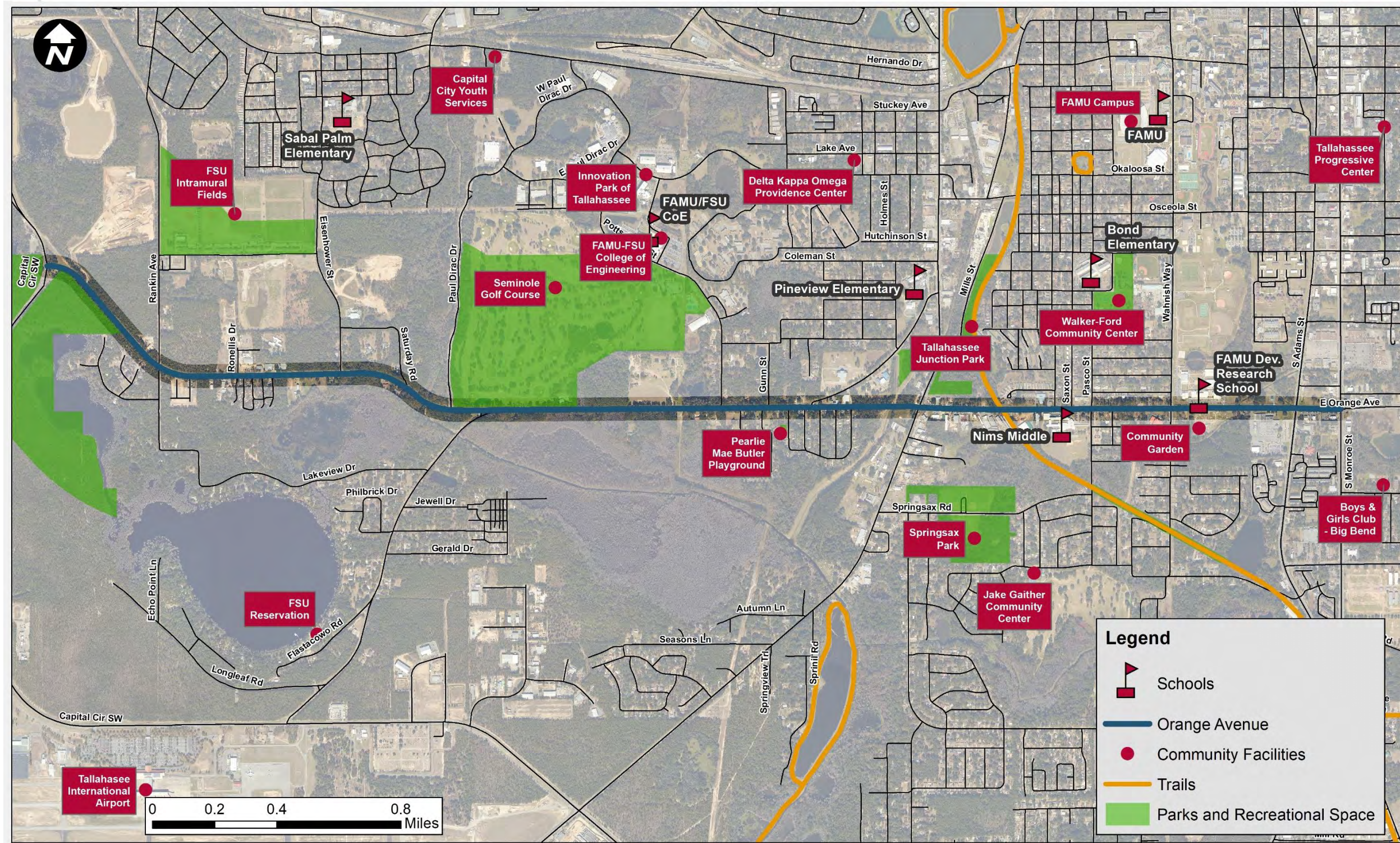
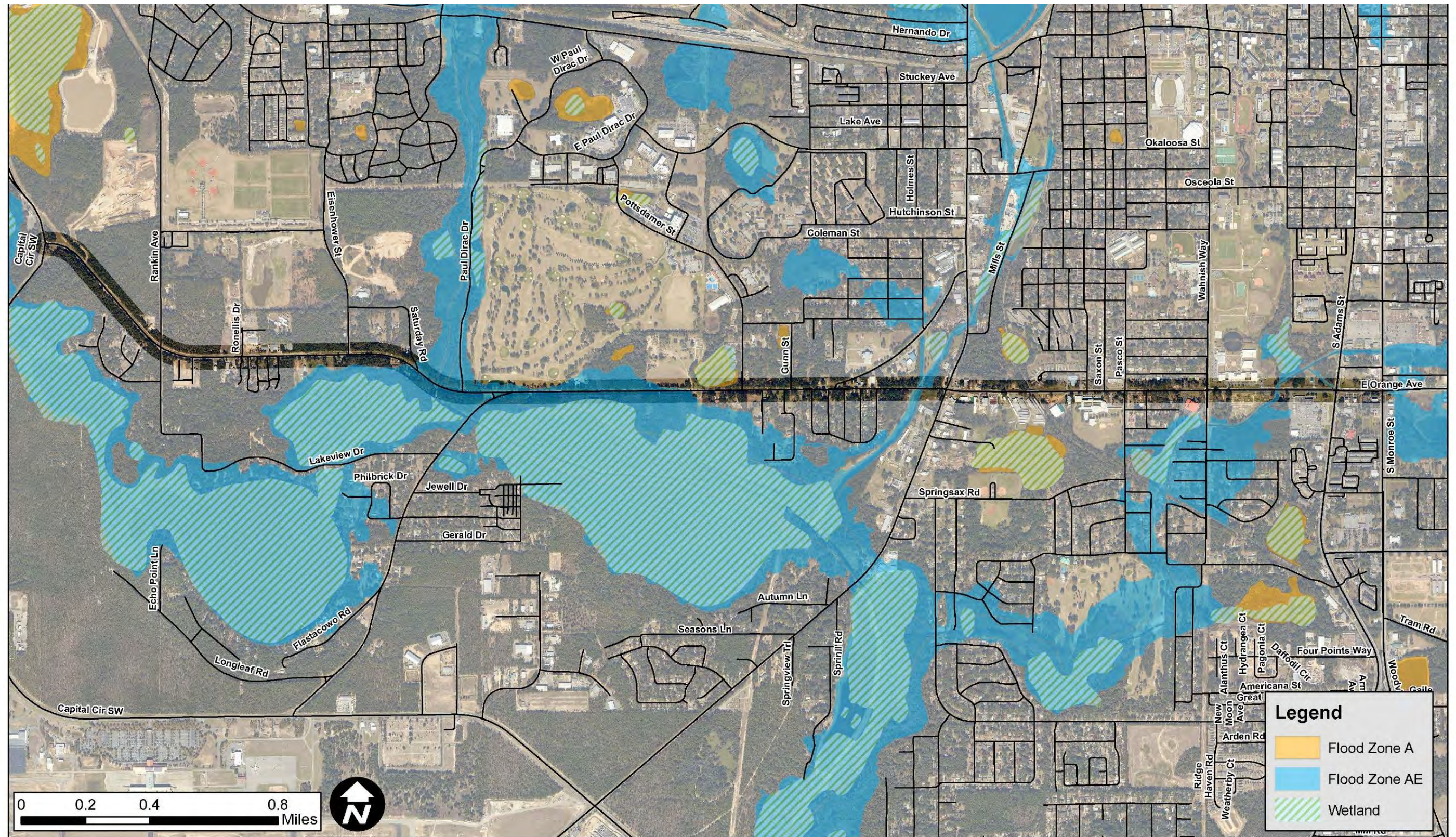


Figure 37. Flood and Wetland Map



Future Projects

There are multiple planned projects in the surrounding area that will impact Orange Avenue. These projects should be considered throughout the next phases of Orange Avenue redevelopment to ensure consistency and continuity in design and recommendations.

Capital Circle Southwest Widening (FDOT Project 219749-2)

The limits for the Capital Circle Southwest (SR 263) capacity project are from Crawfordville Road to Springhill Road and from Springhill Road to Orange Avenue. The project is a roadway widening project that is currently in the right-of-way acquisition stage. The project is intended to widen the existing roadway facility from two lanes to six lanes with the addition of lighting, stormwater management facilities, and intersection improvements. In addition, the typical section will include a 10-foot multi-use path on the east side of the roadway and a 5-foot sidewalk will be included on the west/south side of the roadway. The segment from Crawfordville Road to Springhill Road is funded for right-of-way acquisition and construction. The schedule indicates that bids for construction will be received in fall 2021. The segment from Springhill Road to Orange Avenue is also funded for right-of-way acquisition and construction. The schedule indicates that bids for construction will be received fall 2020. This project will directly impact the intersection of Capital Circle Southwest and Orange Avenue. This project also has the potential to impact travel patterns in the area as capacity increases along the corridor it will become more advantageous for commuters with the potential of reducing cut through traffic in the surrounding community.

Innovation Park of Tallahassee

Innovation Park is located north of Orange Avenue with access to the Orange Avenue corridor via both Paul Dirac Drive and Pottsdamer Street. This is a research and development business park that is managed by the Leon County Research and Development Authority. The park is affiliated with Florida State University, Florida A&M University, and Tallahassee Community College along with supporting businesses.

The Park is continuing to grow and expand with the renovation of existing facilities and construction of new facilities. Currently, there are plans for a 40,000-square foot state-of-art incubator/accelerator. This will offer space for education, mentoring, and other support for startup and second stage businesses looking to commercialize new technologies in Tallahassee. In addition, Danfoss Turbocor is expanding their footprint with the construction of 44,000 additional square feet which will add 120 new jobs. The Florida State University will be constructing a new interdisciplinary research and commercialization 125,000 square foot building to accommodate researchers in the disciplines of bio-medical engineering, chemistry, chemical engineering, condensed matter physics, and device prototyping. The Park is also constructing a trail along the central pond that will have three different entry points to support Park employees along with providing an amenity to the surrounding community. The expansion of the Park will increase the traffic demand in the area which will need to be considered as part of the future redevelopment of the surrounding corridors. In addition, as the park continues to expand and add job

opportunities, attention should be paid to multimodal connectivity to the surrounding community to provide access to the new amenities along with job opportunities.

Airport Gateway: Springhill Road, and North and South Lake Bradford Road (Gateway District)

This project is identified as a gateway project with the intention of creating an urban gateway into Tallahassee from the Tallahassee International Airport. This is a Blueprint Intergovernmental Agency project known as the Airport Gateway which includes Springhill Road and North and South Lake Bradford Road and Orange Avenue from South Lake Bradford Road to a new North-South roadway. Additional planning and design of the Airport Gateway corridors will occur upon completion of this Southwest Area Transportation Plan.

Proposed New Corridor

As identified previously, Innovation Park of Tallahassee is a park that houses Florida State University and Florida A&M University facilities. The planned expansions will continue to grow this partnership and the need for connectivity to the main campus. The new north-south roadway will connect Orange Avenue to Stuckey Avenue which connects into North Lake Bradford Road and FAMU Way Expansion. The proposed intersection of the new roadway and Orange Avenue will be located west of the existing intersection of Orange Avenue and Pottsdamer Road. This potential intersection location along with the proposed roadway improvements along with the surrounding corridors should be considered as part of FDOT's Orange Avenue PD&E, described in the subsequent section.

Orange Avenue/Meridian Road Placemaking

The Orange Avenue and Meridian Road Placement project is located just east of the project corridor limits for this Study. The placemaking project is intended to revitalize the commercial area from Orange Avenue north of the Town South shopping center. A StarMetro Superstop will be constructed with covered seating and bus bays at the intersection of Orange Avenue and Meridian Road. In addition, stormwater facilities will be enhanced with the intention of improving pedestrian access between Town South shopping center and the new development. This will be done in a park-like design similar to Lake Ella in the Midtown District. Connectivity to this proposed facility will positively impact the communities along the Orange Avenue study corridor.

Orange Avenue PD&E

Florida Department of Transportation is currently initiating and will be completing a PD&E study along the corridor from Capital Circle Southwest to South Monroe Street. This study will result in the completion of the required NEPA documents along with a preferred Orange Avenue roadway alternative. This project is in the early stages and will analyze the existing facility traffic and multimodal needs along with extensive public involvement and environmental considerations to shape the preferred alternative that will move forward to design. It is understood that the PD&E will consider the results of the Southwest Area Transportation Plan.

Outreach Efforts



Orange Avenue District Forum Participants

The Southwest Area Transportation Plan team completed extensive public outreach efforts to collect information from residents, business owners, and other stakeholders in the project area. Because the PD&E study for Orange Avenue began during the development of the plan, it was imperative that the public had multiple opportunities to provide information and ideas regarding Orange Avenue. All public outreach efforts were advertised through multiple avenues including agency websites, newsletters, and emails. All public involvement efforts complied with Title VI. The general approach

taken to collect public input is summarized below. The full summary of input is provided in **Appendix B**.

Technical Team Meetings

The technical team for the plan was made up of a staff from the City of Tallahassee, Leon County, and FDOT. The team met several times throughout the development of this plan to provide insight into ongoing local projects, existing project delivery, and additional guidance for developing recommendations. This team will continue to identify and help implement some of the short-term recommendations and additional enhancements such as transit upgrades and landscaping in coordination with the Orange Avenue corridor widening project.

Stakeholder Meetings

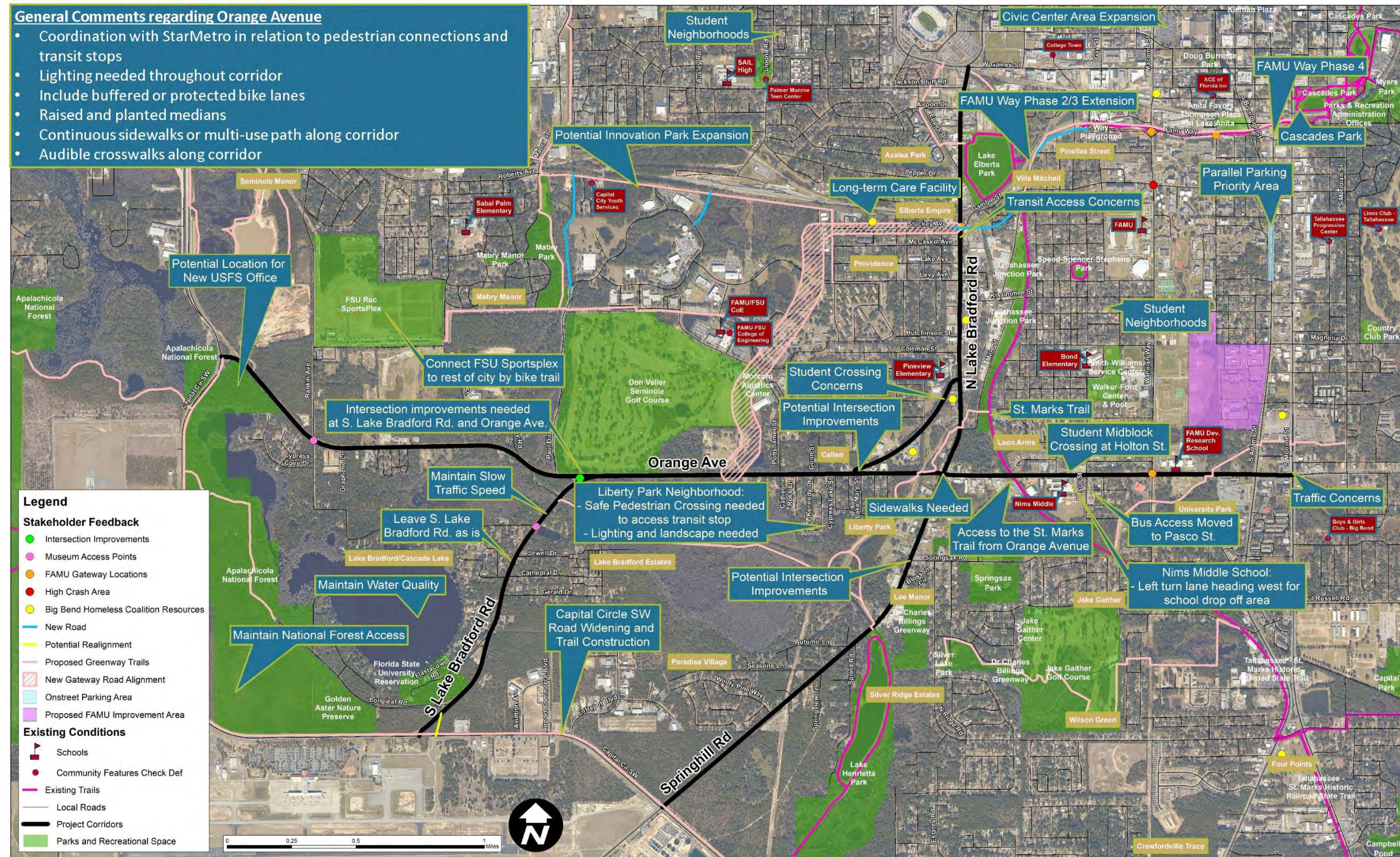
A series of 14 stakeholder meetings were held with the following persons/agencies for their input related to each of the Southwest Area Transportation Plan corridors:

- Southside CRA Advisory Board (1/24/2018)
- Big Bend Minority Chamber of Commerce (1/25/2018)
- Florida A&M University (1/31/2018)
- Florida State University (1/17/2018)
- Capital City Chamber of Commerce (2/1/2018)
- Innovation Park (1/17/2018)
- Big Bend Homeless Coalition (1/22/2018)
- R. Frank Nims Middle School (3/22/2018)
- Pineview Elementary School (1/30/2018)
- Leon County School Board (1/10/2018)
- Greater Tallahassee Chamber of Commerce (1/18/2018)
- Tallahassee Museum (1/23/2018)

- U.S. Forest Service (1/23/2018)
- Joint City County Bike Work Group (2/1/2018)

Through these stakeholder meetings, an abundance of information regarding planned development, new or changing roadways, and known transportation improvements needed were gathered. **Figure 39** shows a summary of the input received from the stakeholder meetings.

Figure 38. Stakeholder Input



Neighborhood Association Meetings

Localized meetings were held during previously scheduled neighborhood association meetings along Orange Avenue. This beneficial effort meeting with residents involved in their neighborhoods meant they could express not only their concerns and desires, but others' concerns and desires due to their strong relationships and knowledge of those living in the area. Five neighborhood association meetings were held with the following neighborhoods:

- Callen Neighborhood (1/10/2019)
- College Terrace Neighborhood (8/30/2018)
- Liberty Park Neighborhood (7/19/2018)
- Jake Gaither Neighborhood (11/15/2018)
- Providence Neighborhood (8/20/2018)

These meetings also allowed the project team to advertise through their neighborhood association emails and gave residents additional opportunities to provide input in a more formalized setting. Localized neighborhood association meetings will continue to be held along the remaining corridors included in the Southwest Area Transportation Plan.



*Callen Neighborhood Entrance off
Orange Avenue*

Orange Avenue District Forums

Two District Forums focusing on gaining information related to Orange Avenue were held in June 28, 2018 and October 4, 2018. These district forums provided participants with multiple opportunities to ask questions, understand existing and future conditions in the area, and provide their input for what transportation upgrades or improvements they felt were most needed along Orange Avenue.

District Forum 1



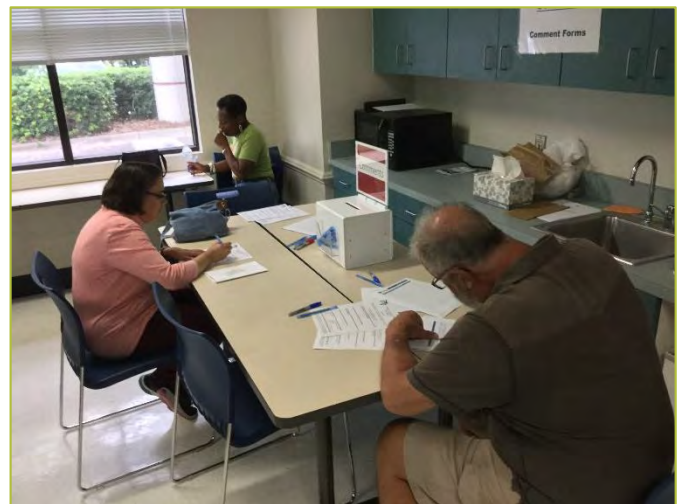
The first District Forum focusing on Orange Avenue included formal presentation on the Southwest Area Transportation Plan, the project's goals, and intended outcome of the plan. This District Forum presented a series of maps showing existing transportation facilities, traffic and safety figures, summaries of input previously received from stakeholders, and multiple opportunities to provide input. The participants at this workshop provided an assortment of recommendations including the following:

Orange Avenue District Forum Participants

- Need for continuous bike lanes and sidewalks along the entire Orange Avenue corridor
- Need for a connection between Orange Avenue and the Tallahassee-St. Marks Historic Railroad State Trail
- Upgrades to make Orange Avenue more aesthetically pleasing and enjoyable for people to walk along
- Pedestrian safety measures including pedestrian crossings at the schools along Orange Avenue and access to transit stops



Formal Project Presentation



. Participants Providing Comments

Orange Avenue District Forum 2

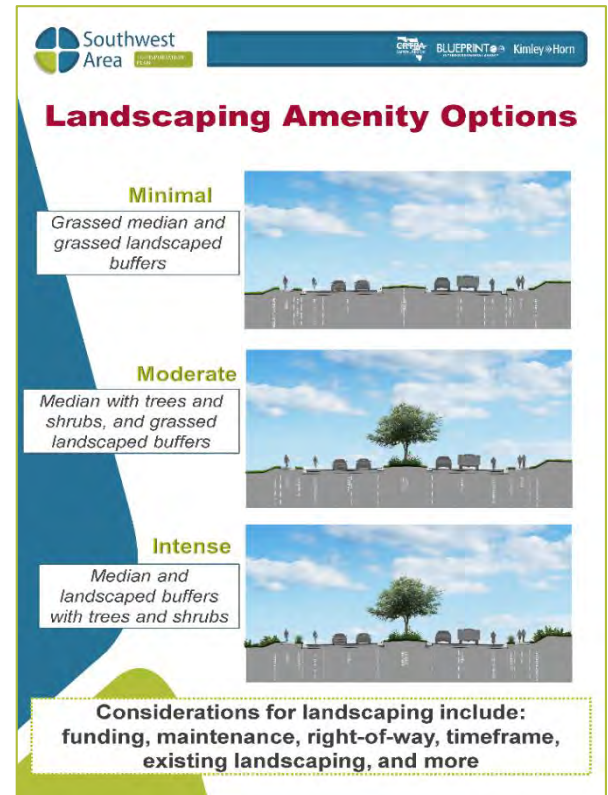
The second District Forum presented improvement opportunities along Orange Avenue. Opportunities regarding the following topics were addressed and participants were encouraged to identify which they preferred for the corridor:

- Connection between the Tallahassee-St. Marks Historical Railroad State Trail and Orange Avenue
- Typical sections along Orange Avenue broken down into the following segments:
 - Capital Circle Southwest to South Lake Bradford Road
 - South Lake Bradford Road to North Lake Bradford Road
 - North Lake Bradford Road to Springhill Road
 - Springhill Road to Wahnish Way
 - Wahnish Way to Monroe Street
- Preferred landscaping
- Preferred bicycle and pedestrian facilities
- Transportation amenities such as lighting, transit facilities, and placemaking

Most of the District Forum participants expressed a preference toward the four-lane typical section opportunity with a multi-use path on one side of the corridor and a sidewalk on the other. Participants also expressed that they preferred bicycle facilities off the road for safety reasons and stated that this would encourage more people to use bicycling as a form of transportation in the area. They also expressed the desire for moderate landscaping and lighting along the corridor.

Overall Feedback

Through the extensive outreach conducted focusing on gathering input for Orange Avenue, the overall sentiment from participants was a need for better multi-modal facilities along the entire corridor. Participants expressed concerns that if bicycle lanes were constructed instead of an off-road bicycle facility such as a multi-use path, the corridor wouldn't be as safe for most bicyclists in the area. They also expressed the need for continuous sidewalks along the corridor as many residents in the area enjoy walking and use it for transportation purposes to connect to other neighborhoods, schools, and commercial establishments. Beautifying the corridor and keeping the sense of place for the Southwest Area was another response often heard during outreach efforts. Making it a place people want to travel along while making safety the top priority was echoed by many residents in the project area.



Landscaping Options presented at District Forum #2

Transportation Opportunities Along Orange Avenue

The following pages discuss the existing transportation facilities by user types and the different opportunities for addressing these transportation facilities along Orange Avenue. The transportation facilities have been broken down by the following user types:

- **Pedestrians**
 - Sidewalks
 - Multi-use path
 - Pedestrian crossings
 - Pedestrian island refuges
- **Bicyclists**
 - Bicycle lanes
 - Multi-use path
 - Trail connections
- **Transit Facilities**
 - This information will be provided to StarMetro for consideration
- **Motorists**
 - Corridor expansion
 - Access management
 - Intersection improvements

This information should be considered to help provide an understanding of the existing inconsistent multi-modal facilities along the corridor, the need for improved transportation facilities to manage expanding traffic demands, and options to provide safe facilities for other user types.

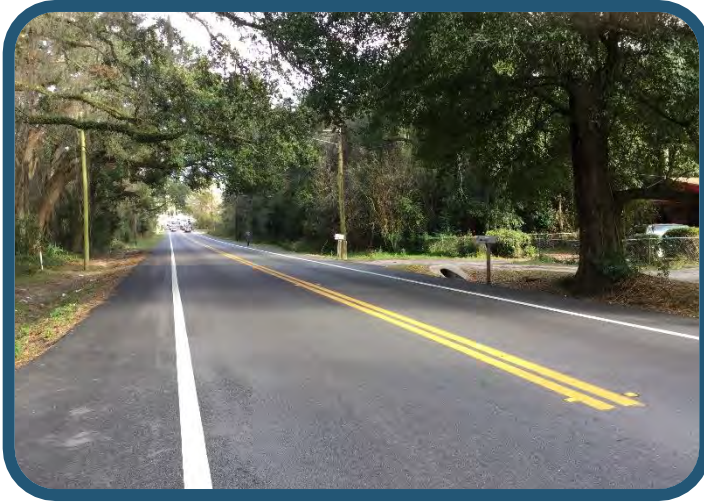


Access Along Orange Avenue



Pedestrian Footpath Along Orange Avenue

PEDESTRIANS



Sidewalks

Existing Sidewalk Conditions

Orange Avenue has sporadically placed sidewalks along the length of the corridor, which appear to be based on existing right-of-way availability. The intermittent sidewalks switching between the north and south sides of the corridor creates a lack of connectivity for pedestrians and has been identified as a major issue along Orange Avenue. From Capital Circle Southwest, a 4 to 5-foot sidewalk is present along the north side of the corridor continuously to North Lake Bradford Road. From North Lake Bradford Road to Springhill Road, there are no sidewalks present. A pedestrian-desired path can be seen on the south side of the corridor over to Springhill Road, indicating a strong need for pedestrian facilities in this area. The feedback from the public echoed this sentiment, with North Lake Bradford Road to Springhill Road being one of the most highly mentioned locations for pedestrian facilities. Starting at Springhill Road, a sidewalk is present directly adjacent to the road on the south side of the corridor for the remainder of the study area. A sidewalk begins on the north side of the corridor slightly west of Holton Street and continues until Monroe Street and beyond.



Existing sidewalk along Orange Avenue near business access



Sidewalk along Orange Avenue with vegetative buffer



Existing sidewalk on north side of Orange Avenue

Sidewalk Opportunities

- Capital Circle Southwest to South Lake Bradford Road
 - 6-foot sidewalk on south side of corridor
 - Replace existing 4 to 5-foot sidewalk on the north side of the corridor and expand to 6 feet
- South Lake Bradford Road to North Lake Bradford Road
 - 6-foot sidewalk on south side of corridor
 - Replace existing 4 to 5-foot sidewalk on the north side of the corridor and expand to 6 feet
- North Lake Bradford Road to Springhill Road
 - Construct 6-foot sidewalk on south side of the corridor
 - Construct 6-foot sidewalk on north side of the corridor
 - Temporary sidewalk on south side of the corridor until road widening occurs
- Springhill Road to Wahnish Way
 - 6-foot sidewalk on south side of corridor
 - Extend existing sidewalk on north side of the corridor further west to Springhill Road
- Wahnish Way to Monroe Street
 - If sidewalk is replaced on either the north or south side, add 6-foot sidewalk

Note: 5-foot sidewalk is a minimum width in areas with a utility buffer, but 6-foot sidewalk is desired. In cases where there is an existing sidewalk, the sidewalk should be replaced to be 6-foot if being impacted by the road widening project. FDOT's PD&E will determine impacts to existing sidewalks along Orange Avenue.

Multi-Use Path

Existing Conditions

Multi-use paths have become a popular transportation facility over the years, allowing enough space for dual uses. Currently, along Orange Avenue, there are no adjacent multi-use paths. The Tallahassee-St. Marks Historic Railroad State Trail crosses underneath Orange Avenue west of Holton Street with no access to or from Orange Avenue. Many public involvement participants for this plan have expressed the desire for a connection to the Tallahassee-St. Marks Historic Railroad State Trail from Orange Avenue via multi-use path or sidewalk. During the public involvement efforts, the most commonly mentioned facility needed and desired by participants was a multi-use path. Many participants noted that they would not feel safe having only on-street bicycle lanes as an option to ride along Orange Avenue. Several multi-use paths are planned in close proximity to Orange Avenue and Capital Circle Southwest.



Tallahassee- St. Marks Historic Railroad State Trail along Woodville Highway



Capital Cascades Trail Shared- Use Path along FAMU Way

"Set back the sidewalks from the back of curb to improve p



View from Tallahassee- St. Marks Historic Railroad State Trail to Orange Avenue

Multi-use Path Opportunities

- Capital Circle Southwest to South Lake Bradford Road
 - Construct a 12-foot multi-use path along the south side of the corridor
 - Remove existing sidewalk and construct a 12-foot multi-use path along the north side of the corridor
- South Lake Bradford Road to North Lake Bradford Road
 - Construct a 12-foot multi-use path along the south side of the corridor
 - Remove existing sidewalk and construct a 12-foot multi-use path along the north side of the corridor
- North Lake Bradford Road to Springhill Road
 - Construct a 12-foot multi-use path along the south side of the corridor
 - Construct a 12-foot multi-use path along the north side of the corridor
- Springhill Road to Wahnish Way
 - Remove existing sidewalk and construct a 12-foot multi-use path along the south side of the corridor
 - Remove existing sidewalk and construct a 12-foot multi-use path along the north side of the corridor
- Wahnish Way to Monroe Street
 - Remove existing sidewalk and construct a 12-foot multi-use path along the south side of the corridor
 - Remove existing sidewalk and construct a 12-foot multi-use path along the north side of the corridor

“For bicycle and pedestrian amenities – prefer multi-use path as it is safer for all, in my opinion.”

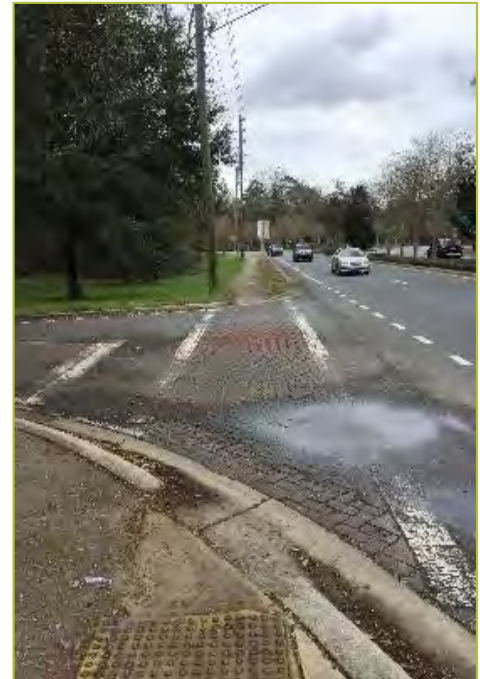
Crosswalks

Existing Conditions

Along Orange Avenue, the following signalized intersections have existing crosswalks:

- Springhill Road
- Pasco Street
- Wahnish Way
- Adams Street
- Monroe Street

Because of the intermittent and inconsistent sidewalks and lack of crosswalks, pedestrians have unsafe connectivity options along the entire corridor. There is also a lack of crossings near R. Frank Nims Middle School, with the only pedestrian crossing located at Pasco Street east of the school. Many participants during the public outreach efforts expressed the need for an additional signalized crossing on the west side of the school as many kids are crossing there already. Another crossing location mentioned multiple times was near the Liberty Park neighborhood just east of North Lake Bradford Road. A heavily used transit stop is located on the northern side of Orange Avenue near this location. Many residents in and near Liberty Park cross Orange Avenue without any facility to access this transit stop. Another location mentioned needing a pedestrian crossing is the Florida A&M University community garden on the south side of Orange Avenue, just east of Wahnish Way. Students from the Florida A&M University Development Research School use the community garden and have no safe way to cross the four-lane section of Orange Avenue. All new crossings added along Orange Avenue should be signalized pedestrian crossings.



Existing crosswalk along east side of Orange Avenue



Existing signalized pedestrian crossing on South Adams Street

Crosswalk Opportunities

- Capital Circle Southwest to South Lake Bradford Road
 - Capital Circle Southwest and Orange Avenue intersection
 - Crossing from South Lake Bradford Road to north side of Orange Avenue to access Paul Dirac Road
- South Lake Bradford Road to North Lake Bradford Road
- North Lake Bradford Road to Springhill Road
 - Crossing from Liberty Park Neighborhood (Lake Henrietta Street) to north side of Orange Avenue
- Springhill Road to Wahnish Way
 - Crossing from R. Frank Nims Middle School (Holton Street) to north side of Orange Avenue
 - Possibility for a pedestrian bridge instead of a crossing here
- Wahnish Way to Monroe Street
 - Crossing from FAMU Community Garden to FAMU DRS school

“Additional features needed are audible crosswalks, as well as delayed timed crosswalks to accommodate safe travel for the disabled and the elderly.”

Pedestrian Refuge Islands

Existing Conditions

From Capital Circle Southwest to Wahnish Way, Orange Avenue is a two-lane undivided corridor. After Wahnish Way, Orange Avenue has an additional two turn-lanes and then becomes a four-lane undivided corridor with left-hand turn lanes. With such high volumes of both pedestrians and motor vehicles, it is important for pedestrians to feel safe and have refuge when crossing Orange Avenue. Pedestrian refuge islands or raised medians should be located where there is not a signalized intersection or crossing. If possible, during the road widening of Orange Avenue, a median should be placed throughout to serve as refuges for pedestrians and cyclists along the corridor.



Pedestrian refuge island located on Monroe Street and Lake Ella



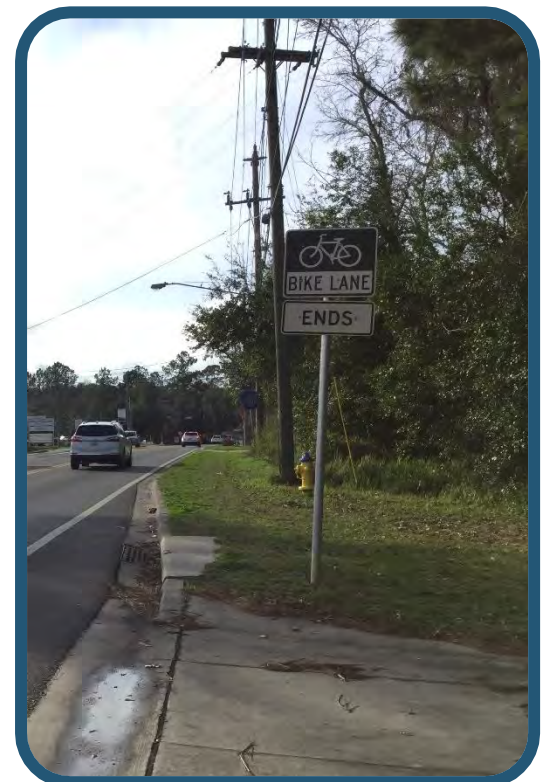
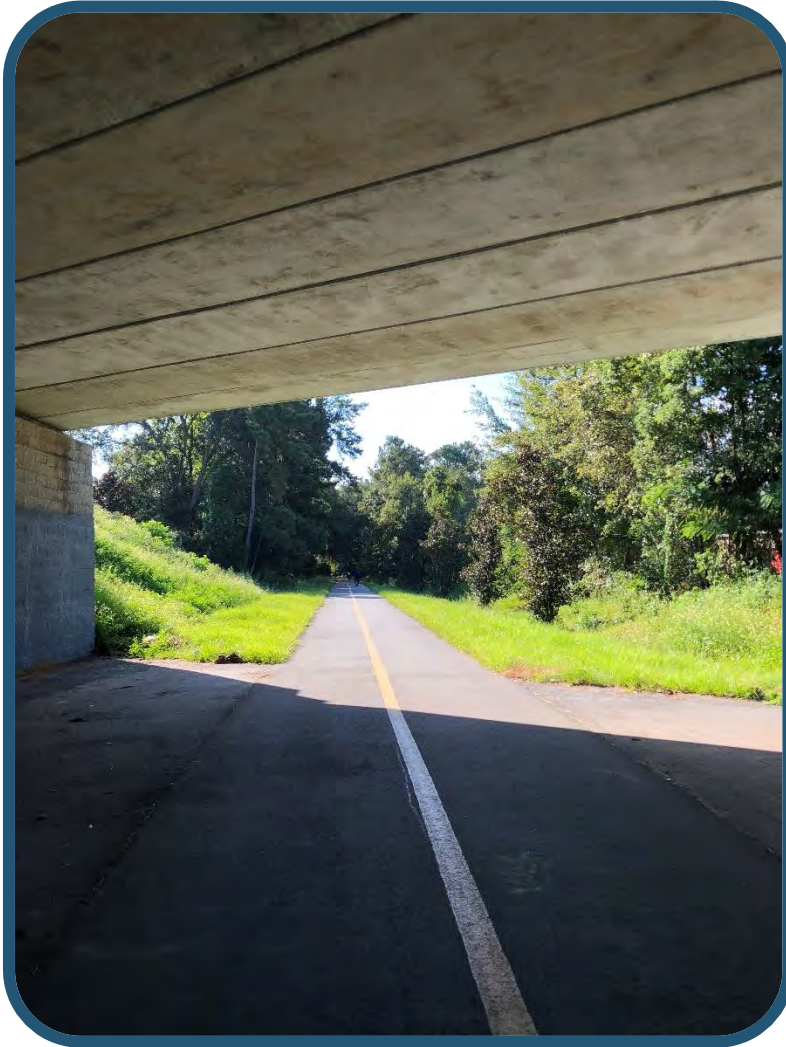
Pedestrian refuge island at roundabout on FAMU Way

Pedestrian Refuge Island Opportunities

- Capital Circle Southwest to South Lake Bradford Road
 - South Lake Bradford Road and Paul Dirac Road
- South Lake Bradford Road to North Lake Bradford Road
 - Proposed FSU Road if no signalized intersection is constructed
- North Lake Bradford Road to Springhill Road
- Springhill Road to Wahnish Way
 - Signalized crosswalk at Nims Middle School with pedestrian refuge for safe student crossings
- Wahnish Way to Monroe Street
 - South Adams Street – Add pedestrian refuges to medians that run along Orange Avenue

“Include raised, planted medians to facilitate crossings by pedestrians and improve the appearance of the corridor.”

BICYCLISTS



Bicycle Lanes

Existing Conditions

East of Monroe Street, during the widening of Orange Avenue, 4-foot bicycle lanes were added to the corridor along with a 5-foot sidewalk and 3-foot grass buffer between the sidewalk and curb on both the north and south side of the street. Once you reach Monroe, the bicycle lanes cease to exist. There is a 6-foot sidewalk on both sides of the corridor. These continue until Wahnish Way as 5-foot sidewalks with a 3-foot buffer and a 1-foot shoulder. The sidewalk returns to 6 feet with no buffer on the north side of the corridor between Adams and Wahnish Way. The 1-foot shoulder also becomes a 2-foot shoulder west of Wahnish Way, and the sidewalks return to a 5-foot width with a 3-foot buffer. The sidewalk continues in front of Nims Middle School, becoming a 4-foot sidewalk with utility blockage and access management issues.

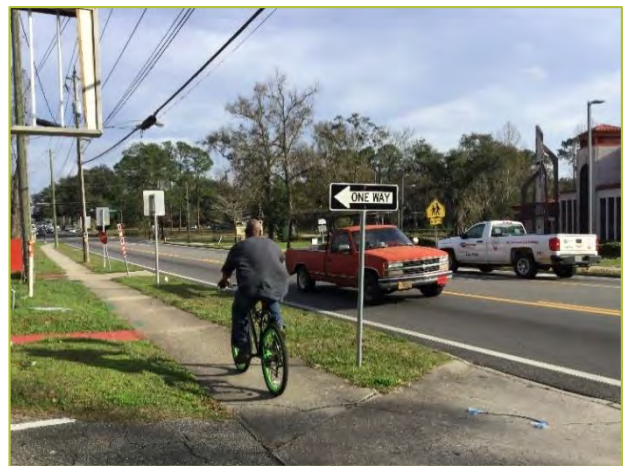
West of the Leon County Health Department on the north side of the corridor, the paved shoulder on both sides becomes a 4-foot bike lane that varies in size due to the limited right-of-way. The bike lane abruptly ends about .3 mile west of the Health Department. A 6-foot bike lane begins on both sides west of Springhill Road, reduces to a 5-foot lane near Cypress Lake Road and ends at Pottsdamer Street, continuing as a wide paved shoulder, leaving nearly 2.5 miles without a bike lane before reaching Capital Circle Southwest. A 5-foot sidewalk set back from the roadway about 5 feet reappears along this route on the north side of the corridor just west of the start of North Bradford Lake Road and continues to Capital Circle Southwest.



Designated Bike Lane on East Orange Avenue



Abrupt termination of existing bike lane along Orange Avenue



Cyclists along Orange Avenue using the sidewalk

Bicycle Opportunities

- Capital Circle Southwest to South Lake Bradford Road
 - Construct a multi-use path
 - Add a 7-foot buffered bike lane
- South Lake Bradford Road to North Lake Bradford Road
 - Construct a multi-use path
 - Add a 7-foot buffered bike lane
- North Lake Bradford Road to Springhill Road
 - Construct a multi-use path
 - Add a 7-foot buffered bike lane
- Springhill Road to Wahnish Way
 - Construct a multi-use path
 - Add a 7-foot buffered bike lane
- Wahnish Way to Monroe Street
 - Construct a multi-use path
 - Add a 7-foot buffered bike lane

Note: If right-of-way restrictions don't allow for a 7-foot buffered bike lane, 6 feet or 5 feet would be acceptable.

“Orange Avenue east of Monroe is great for confident cyclists, but not for casual cyclists, and it’s unpleasant for walkers. You do need continuous bike lanes and sidewalks the whole way, obviously.”

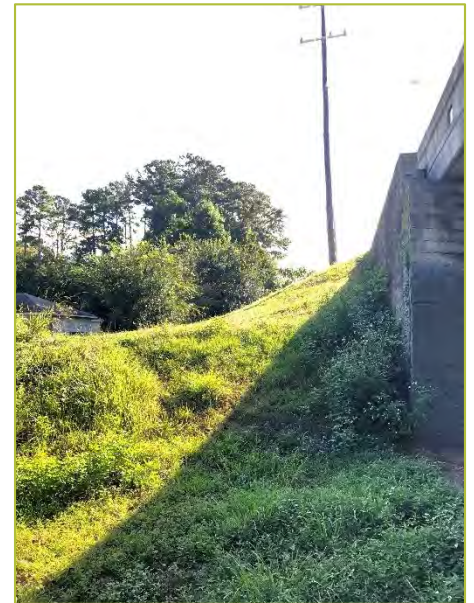
Connection to Tallahassee-St. Marks Historic Railroad State Trail

Existing Conditions

The Tallahassee-St. Marks Historic Railroad State Trail extension runs along the former CSX rail corridor and passes underneath Orange Avenue between Wahnish Way and Springhill Road. There is currently no connection between the trail and Orange Avenue, limiting access between the two facilities, nearby residents and businesses, and schools. Many participants during the outreach efforts expressed a need to make a safe connection between the trail and Orange Avenue.



St. Marks Trail where it passes under Orange Avenue



Lack of connection to St. Marks Trail on Orange Avenue

Connection to Tallahassee-St. Marks Historic Railroad State Trail Opportunities

- Construct a new four-lane bridge and access facilities on either side of Orange Avenue for bicyclists and pedestrians
- Construct Orange Avenue at grade and construct the trail as a bridge over the corridor
- Construct Orange Avenue and the trail both at grade and have a signalized crossing for trail users

"Pedestrian and bike connectivity to St. Marks Trail at Orange Avenue from the west is needed. There are lots of paths through the trees, and pedestrians need something better."

"Connection to the St. Marks Bike Trail MUST be included in any improvements to Orange Avenue."

TRANSIT RIDERS



Transit

Existing Conditions

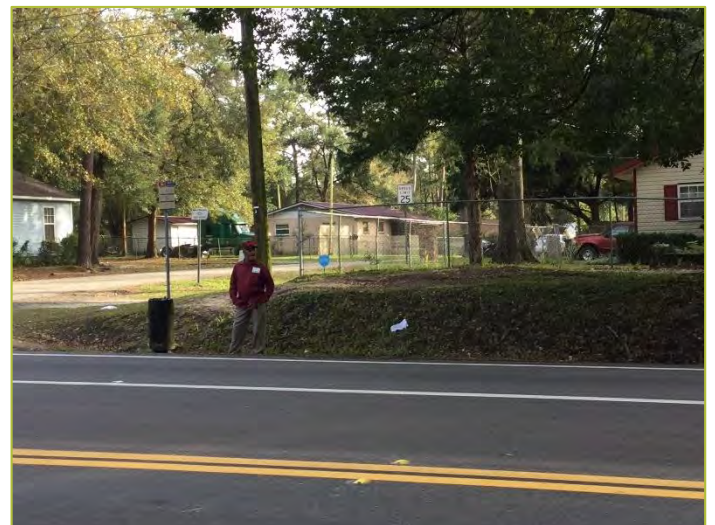
Along Orange Avenue, the following types of StarMetro Transit stops exist:

- No seating – pole only
- Two seats with bus stop pole
- Bench with bus stop pole
- Shelter

From Monroe Street to Wahnish Way, one shelter type stop exists, providing coverage and seating for people waiting for the bus. They are located on only one side of the corridor, however— one on the north side and the other further west on the south side, leaving people on the opposite side without shelter or much seating. Between Wahnish Way and Springhill Road, there are three two-seat with bus stop pole stops, and two with no seating. There is one shelter near the intersection of Orange Avenue and Wahnish Way. From Springhill Road to Capital Circle Southwest, there are five bus stops, none of which provide seating. The bus route runs consistently along the corridor but ends at Eisenhower Street, about one mile from Capital Circle Southwest. Existing census data regarding vehicle ownership in the area indicates the need for better transit availability and infrastructure in this area. The following opportunities and recommendations regarding transit facilities along Orange Avenue will be provided to StarMetro for consideration.



Bench with bus stop pole on Orange Avenue



No seating – pole-only stop on Orange Avenue

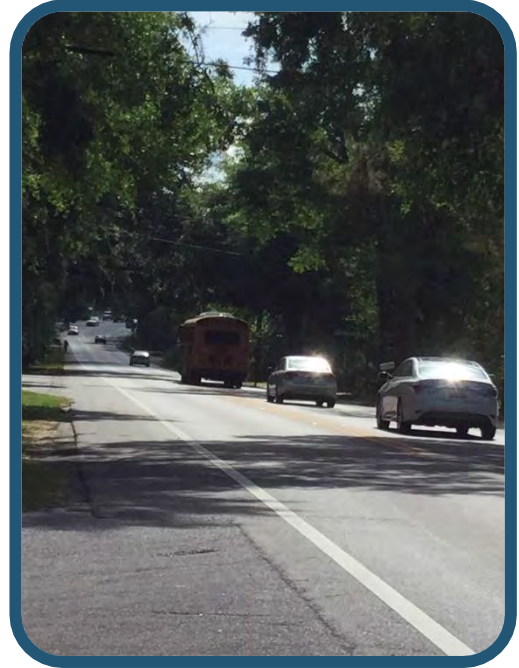
Transit Opportunities

Transit Amenity Level	Amenities
Low	Limited seating, structure
Medium	Seating, structure/shelter, trash cans, lighting
High	Ample seating, structure/shelter, trash cans, lighting, wayfinding, bicycle racks

- Capital Circle Southwest to South Lake Bradford Road
 - Low Transit Amenities
- South Lake Bradford Road to North Lake Bradford Road
 - Low to Medium Transit Amenities
- North Lake Bradford Road to Springhill Road
 - Low to Medium Transit Amenities
- Springhill Road to Wahnish Way
 - Medium to High Transit Amenities
 - Relocate the bus stop in front of R. Franks Nims Middle School to opposite side of Orange Avenue
- Wahnish Way to Monroe Street
 - Medium to High Transit Amenities

“Put covered areas at each bus stop along Orange Avenue.”

MOTORISTS



Motorists

Analysis Summary

The existing and future conditions analysis indicated that a portion of Orange Avenue is experiencing congestion and capacity issue today, and this is expected to continue into the future, the entire corridor is expected to operate over capacity.

In addition, the crash data indicated that 52% of crashes were rear-end crashes. Rear-end crashes are indicative of congestion. Many of the segment's yearly crash rates are over the statewide average and indicate that there is a safety issue along the corridor. Public involvement comments identified congestion at the signalized intersections to be a concern.

Future development in the area has the potential to impact the corridor with traffic pattern changes, additional intersections, and the need for additional improvements to the bicycle, pedestrian, and transit infrastructure.

Right-of-way along the corridor varies and will be considered as part the future PD&E phase through FDOT.



Two-lane existing



Existing Four-lane - Monroe Street and Orange Avenue

Roadway Opportunities

- Retiming all traffic signals
 - Continue to retime traffic signals and utilize the Transportation Management Center to actively adjust when needed will reduce delays at the intersections
- Capacity improvement along the entire corridor
 - The corridor four-lane typical section should tie into the eastern section of Orange Avenue east of South Monroe Street that was improved in 2013 to accommodate an increase in traffic volume along with improved pedestrian and bicycle facilities
 - Most crashes over the last five years on Orange Avenue were rear-end collisions, indicating congestion. Alleviating that congestion with increased capacity along the corridor will impact the crash rate and improve the corridor safety
- Future road projects in the area will impact intersection operations and provide additional capacity in the Southwest area of Leon County. FDOT's Capital Circle SW project will increase north widening and south and east/west capacity in the Southwest area.
- Access management should be considered when providing any improvements along the corridor. Good access management improves safety at driveways, safety for pedestrians and bicyclists, and helps direct traffic advantageously for businesses and operations along the corridor.
- Future traffic volumes indicate that the roadway segment from South Lake Bradford Road to South Monroe Street is expected to operate over capacity by the year 2040 and the entire corridor is expected to be over capacity by the year 2045. The coupling of the existing crash rates and types and the projected future capacity constraint supports the opportunity for widening the corridor to four lanes.

"For future growth, the corridor should include at minimum a 4-lane roadway."

Existing Facilities Mapping and Opportunities

Appendix C graphically shows the existing facilities and indicates the opportunities by segment and user type. The subsequent maps are broken down by the following five sections of Orange Avenue:

- Capital Circle Southwest to South Lake Bradford Road
- South Lake Bradford Road to North Lake Bradford Road
- North Lake Bradford Road to Springhill Road
- Springhill Road to Wahnish Way
- Wahnish Way to Monroe Street

These maps show the existing facilities along Orange Avenue for pedestrians, bicyclists, and transit riders. This visually shows how many of the existing facilities along Orange Avenue are disconnected or lacking entirely to safely promote multi-modal movement. The possible opportunities, by user type, for each of the sections is included on these existing facilities maps.

Summary of Recommended Opportunities

Through a combination of data collection, traffic analysis, and stakeholder and public outreach, a set of preferred opportunities for Orange Avenue are provided for consideration into the PD&E study.

Capital Circle Southwest to South Lake Bradford Road

For this existing two-lane section of the Orange Avenue Corridor, the preferred opportunity would be to four-lane the corridor, add a 12-foot multi-use path to either the north or south side of the corridor, and add a 6-foot sidewalk on the side of the corridor without the multi-use path. Whichever side of the corridor that the multi-use path should be constructed on will be determined during the PD&E study to reduce right-of-way and environmental impacts. Low to medium transit amenities should be included in this section for increase comfort of transit users. A moderately landscaped median should also be included in the typical section for the corridor to serve as a pedestrian refuge. This segment of the corridor should also include potential intersection realignment and improvements near South Lake Bradford Road, Orange Avenue, and Paul Dirac Road. Please see **Figure 39** below for a typical section of the preferred opportunity.

South Lake Bradford Road to North Lake Bradford Road

This segment of the Orange Avenue Corridor from South Lake Bradford Road to North Lake Bradford Road is expected to be operating over capacity by 2045 and should be expanded. The preferred typical section includes four-laning the existing two-lane section, adding a 12-foot multi-use path to either the north or south side of the corridor, and adding a 6-foot sidewalk on the side of the corridor without the multi-use path. Whichever side of the corridor that the multi-use path should be constructed on will be determined during the PD&E study to reduce right-of-way and environmental impacts. Low to medium transit amenities should be included in this section. With the proposed new north-south road through Florida State University property North of Orange Avenue in this segment. Please see **Figure 39** below for a typical section of the preferred opportunity.

North Lake Bradford Road to Springhill Road

This section of the Orange Avenue Corridor has many residents and some business located directly adjacent to the corridor. Options for keeping this section a two-lane corridor were considered but with the projected traffic growth rate and expected capacity issues by 2045, the preferred opportunity would be to four lane this segment of the corridor. This segment also has high pedestrian traffic so the preferred opportunity for pedestrian facilities would be to add a 12-foot multi-use path to either the north or south side of the corridor and add a 6-foot sidewalk on the side of the corridor without the multi-use path. Whichever side of the corridor that the multi-use path should be constructed on will be determined during the PD&E study to reduce right-of-way and environmental impacts. A median in this segment would be preferred as a pedestrian refuge since there is so much pedestrian traffic. This segment will also require a signalized pedestrian crossing at the Liberty Park neighborhood. Low to medium transit amenities should be included especially near transit stop located near Lake Mary Street.

Intersection improvements are needed at Orange Avenue and North Lake Bradford Road as well as at Springhill Road. Please see **Figure 39** below for a typical section of the preferred opportunity.

Springhill Road to Wahnish Way

For this existing two-lane section of the Orange Avenue Corridor, the preferred opportunity would be to four-lane the corridor, add a 12-foot multi-use path to either the north or south side of the corridor, and add a 6-foot sidewalk on the side of the corridor without the multi-use path. This section is currently operating over capacity warranting corridor expansion. Also, in this segment, it is recommended that a connection between Orange Avenue and the Tallahassee-St. Marks Historic Railroad State Trail via multi-use path or sidewalk is constructed during the road widening project. A signalized pedestrian crossing was heavily supported connecting R. Franks Nims Middle School to the north side of the corridor. Currently, the only crossing from the school to the opposite side of the corridor is at Pasco Street; this deters students who are traveling to the west of the school from using the crossing. Medium to high transit amenities should be included in this section due to the number of business located here, and the number of neighborhoods connected to the north and south of Orange Avenue. The bus stop in front of R. Frank Nims Middle School should be considered for relocation as well. This segment of the corridor should also include intersection improvements at Pasco Street. Please see **Figure 39** below for a typical section of the preferred opportunity.

Wahnish Way to Monroe Street

This segment is the only existing four-lane portion of the Orange Avenue corridor in the Southwest area plan. This area should have improved multi-modal facilities including a 12-foot multi-use path on either the north or south side of the corridor. The existing sidewalk should remain on the side of the corridor that does not have the multi-use path. A pedestrian crossing should be constructed between the FAMU garden and the FAMU Development and Research School. Medium to high transit amenities should be included in this section to the high proximity to Florida A&M University and businesses. Please see **Figure 39** below for a typical section of the preferred opportunity.

Table 8 through **Table 10** details each recommended opportunity component based estimated cost and public support. As a general recommendation, lighting should be included in all typical sections considered with any future enhancement to the corridor.

Figure 39. Recommended Typical Section

Typical Section Features:

Four Travel Lanes




Multi-Use Path

Sidewalk

















Preferred Opportunity Components along Orange Avenue are detailed in Table 8 – Table 10. Each opportunity contains an icon for three categories, which are indicative of the estimated cost and the amount of public support.

Icon Key

	LOW COST This opportunity is low cost and will require little monetary investments.
	MEDIUM COST This opportunity is moderately costly and requires investment.
	HIGH COST This opportunity is very costly and requires high monetary investments.

	LOW PUBLIC SUPPORT Few members of the public are supportive of this opportunity.
	MODERATE PUBLIC SUPPORT Members of the public are relatively supportive of this opportunity.
	HIGH PUBLIC SUPPORT Members of the public are largely supportive of this opportunity.

Table 8. Summary of Sidewalk Opportunities

Sidewalk Opportunities	Cost	Public Support
Sidewalks on the north side of the corridor.		
Sidewalks on the south side of the corridor. ²		
Multi-Use path on either side of the corridor. ³		
Pedestrian Crossing at Liberty Park Neighborhood. ⁴		
Pedestrian Crossing at R. Frank Nims Middle School.		
Pedestrian Bridge at R. Frank Nims Middle School. ⁵		
Pedestrian Crossing at FAMU DRS School and Community Garden.		













² Local agency short-range option would be to place a pre-fabricated sidewalk from the Liberty Park neighborhood on the south side of the corridor to Springhill Road since this area is currently heavily used by pedestrians.

³ Most heavily supported multi-modal facility type during outreach efforts.

⁴ Local agency option would be to construct a pedestrian crossing at Liberty Park to the existing gas station and StarMetro transit stop.

⁵ Enhances safety for all users and can be made to be an aesthetic feature for the Southwest area.

Table 9. Summary of Bicycle Opportunities

Bicycle Opportunities	Cost	Public Support
Bicycle Lanes on the north side of the corridor. ⁶		
Bicycle Lanes on the south side of the corridor. ⁷		
Multi-Use path on either side of the corridor. ⁸		
Connection to the St. Marks Trail Pedestrian Bridge with Connecting Paths		
At Grade Connection to the St. Marks Trail Crossing.		
Connection to St. Marks Trail Four-Lane Bridge with Connecting Paths. ⁹		

















⁶ Many participants expressed safety concerns about riding on the road. 7-foot buffered bike lanes would be preferred if on-road facilities are constructed.

⁷ Many participants expressed safety concerns about riding on the road. 7-foot buffered bike lanes would be preferred if on-road facilities are constructed.

⁸ Most heavily supported multi-modal facility type during outreach efforts.

⁹ The existing bridge does not have any facilities connecting to the trail that runs underneath the bridge to the roadway.

Table 10. Summary of Roadway Opportunities

Roadway Opportunities	Cost	Public Support
4-Lane Roadway from CCSW to South Lake Bradford Road. ¹⁰		
4-Lane Roadway from South Lake Bradford Road to North Lake Bradford Road. ¹¹		
4-Lane Roadway from North Lake Bradford Road to Springhill Road. ¹¹		
4-Lane Roadway from Springhill Road to Wahnish Way. ¹¹		
Intersection Realignment at South Lake Bradford Road and Paul Dirac Road.		
New Intersection at Orange Avenue and Proposed FSU North-South Road.		
Intersection Improvements Orange Avenue and North Lake Bradford Road.		
Intersection Improvements Orange Avenue and Springhill Road.		
Intersection Improvements Orange Avenue and Pasco Street.		

¹⁰ Expected to operate over capacity by the year 2045.

¹¹ Expected to operate over capacity by the year 2040.

Opinion of Probable Cost

Estimating planning level costs for the possible opportunities to Orange Avenue is from FDOT's Long-Range Estimating System plus a 50% contingency increase design, design construction, construction inspection, and other engineering costs. The reason a 50% increase was used was due to the known existing constraints along Orange Avenue including business and residential properties. The followings are costs per mile for the different opportunity types:

- Add two lanes to existing two-lane undivided arterial with 4-foot bike lanes – \$7.1 M
 - 7-foot buffered bike lanes are preferred if a multi-use path is not constructed
- 5-foot sidewalk on one side – \$275,000
 - 6-foot sidewalk is the preferred width for this corridor
- 12-foot multi-use path – \$425,000

Table 11 explains the amount of mileage needed per facility type and the associated cost. This does not include right-of-way acquisition or other unforeseen engineering costs.

Table 11. Mileage Required Per Facility and Cost

Facility Type	Distance	Opinion of Probable Cost for Implementation
Additional 2 Lanes with 4-foot Bike Lane	Approximately 3.8 miles	\$26.8 M
5-foot Sidewalk	Approximately 3.4 miles	\$900,000
12-foot Multi-Use Path	Approximately 4.3 miles	\$1.85 M
<u>Approximate Total: \$29.5 M</u>		

This approximate total cost for construction of improvements along Orange Avenue will be updated during the PD&E study and further refined after as design and right-of-way is determined

Next Steps

Through extensive public outreach and stakeholder input, a variety of possible multi-modal improvements for Orange Avenue have been proposed. The improvements include the need for safe and more connected pedestrian facilities such as continuous sidewalks, multi-use path along the entirety of the corridor, and pedestrian crossings near high traffic areas. Public and stakeholder input also indicated the desire for better bicycle facilities and transit amenities to accommodate the variety of user types often seen along Orange Avenue. Future traffic volumes indicate that the roadway segment from South Lake Bradford Road to South Monroe Street is expected to operate over capacity by the year 2040 and the entire corridor is expected to be over capacity by the year 2045. The crash rates over the last five years show rates that are above the statewide average for similar facilities and majority of crash types are rear-end crashes which are indicative of congestion. The coupling of the existing crash rates and types and the projected future capacity constraint supports the opportunity for widening the corridor to four lanes.

The opportunity improvements identified in this corridor plan are based on both data analyses along with public and stakeholder input. It is recommended Florida Department of Transportation Project Development and Environment (PD&E) Study for Orange Avenue consider the opportunity improvements. Coordination with the Capital Region Transportation Planning Agency, Blueprint Intergovernmental Agency, and the City of Tallahassee should continue as the PD&E better identifies which of the opportunities seem most feasible for implementation.

Appendix A- Synchro Summaries

DRAFT

HCM Signalized Intersection Capacity Analysis

93: Capital Circle SW & Orange Ave

03/26/2019



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	183	853	16	413	761
Future Volume (vph)	17	183	853	16	413	761
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	7.2	7.2	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1568	1390	1699	1316	1599	1651
Flt Permitted	0.95	1.00	1.00	1.00	0.08	1.00
Satd. Flow (perm)	1568	1390	1699	1316	135	1651
Peak-hour factor, PHF	0.80	0.90	0.90	0.80	0.90	0.90
Adj. Flow (vph)	21	203	948	20	459	846
RTOR Reduction (vph)	0	177	0	7	0	0
Lane Group Flow (vph)	21	26	948	13	459	846
Heavy Vehicles (%)	6%	7%	3%	13%	4%	6%
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	12.4	12.4	43.0	43.0	69.8	69.8
Effective Green, g (s)	12.4	12.4	43.0	43.0	69.8	69.8
Actuated g/C Ratio	0.13	0.13	0.45	0.45	0.73	0.73
Clearance Time (s)	7.2	7.2	6.8	6.8	6.8	6.8
Vehicle Extension (s)	3.0	3.0	5.0	5.0	2.0	5.0
Lane Grp Cap (vph)	202	179	759	588	402	1197
v/s Ratio Prot	0.01		c0.56		c0.24	0.51
v/s Ratio Perm		c0.02		0.01	0.59	
v/c Ratio	0.10	0.15	1.25	0.02	1.14	0.71
Uniform Delay, d1	37.0	37.2	26.6	14.9	31.4	7.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.4	122.9	0.0	89.5	2.4
Delay (s)	37.2	37.6	149.5	14.9	120.9	9.9
Level of Service	D	D	F	B	F	A
Approach Delay (s)	37.5		146.7			48.9
Approach LOS	D		F			D

Intersection Summary

HCM 2000 Control Delay	85.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	96.2	Sum of lost time (s)	20.8
Intersection Capacity Utilization	100.9%	ICU Level of Service	G
Analysis Period (min)	15		























Description: TMC Date: 10/23/2012 updated with raw 11/20/2016

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

239: Springhill Rd & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	388	80	54	296	268	128	366	63	226	203	5
Future Volume (vph)	7	388	80	54	296	268	128	366	63	226	203	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.0	6.2		6.1	6.2	6.2	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1662	1661		1599	1651	1444	1614	1655		1554	1667	1062
Flt Permitted	0.44	1.00		0.11	1.00	1.00	0.54	1.00		0.12	1.00	1.00
Satd. Flow (perm)	770	1661		183	1651	1444	915	1655		199	1667	1062
Peak-hour factor, PHF	0.44	0.82	0.83	0.79	0.89	0.74	0.71	0.82	0.79	0.88	0.79	0.42
Adj. Flow (vph)	16	473	96	68	333	362	180	446	80	257	257	12
RTOR Reduction (vph)	0	5	0	0	0	219	0	5	0	0	0	7
Lane Group Flow (vph)	16	564	0	68	333	143	180	521	0	257	257	5
Heavy Vehicles (%)	0%	3%	1%	4%	6%	3%	3%	3%	5%	7%	5%	40%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	1	6		5	2		7	4		3	8	1
Permitted Phases	6			2		2	4			8		8
Actuated Green, G (s)	53.2	50.4		60.3	54.0	54.0	59.1	47.6		68.1	52.1	54.9
Effective Green, g (s)	53.2	50.4		60.3	54.0	54.0	59.1	47.6		68.1	52.1	54.9
Actuated g/C Ratio	0.37	0.35		0.42	0.37	0.37	0.41	0.33		0.47	0.36	0.38
Clearance Time (s)	6.0	6.2		6.1	6.2	6.2	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0		3.0	5.0	3.0
Lane Grp Cap (vph)	300	578		138	616	539	429	544		243	600	447
v/s Ratio Prot	0.00	c0.34		c0.02	c0.20		0.03	0.31		c0.12	0.15	0.00
v/s Ratio Perm	0.02			0.18		0.10	0.14			c0.38		0.00
v/c Ratio	0.05	0.98		0.49	0.54	0.26	0.42	0.96		1.06	0.43	0.01
Uniform Delay, d1	29.6	46.5		32.0	35.6	31.5	28.6	47.5		37.3	35.0	27.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.1	31.3		2.8	1.7	0.6	0.7	28.6		73.7	1.0	0.0
Delay (s)	29.6	77.8		34.8	37.3	32.0	29.2	76.1		111.0	36.0	27.9
Level of Service	C	E		C	D	C	C	E		F	D	C
Approach Delay (s)		76.5			34.6			64.2			72.5	
Approach LOS		E			C			E			E	

Intersection Summary

HCM 2000 Control Delay	59.9	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	144.6	Sum of lost time (s)	24.3
Intersection Capacity Utilization	89.7%	ICU Level of Service	E
Analysis Period (min)	15		





















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

238: Pasco St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	592	14	9	661	13	41	22	49	12	8	7
Future Volume (vph)	14	592	14	9	661	13	41	22	49	12	8	7
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.0	6.1		6.0	6.1		5.8	5.8		5.8	5.8	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00		1.00	0.90		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1631		1662	1690		1662	1579		1662	1638	
Flt Permitted	0.32	1.00		0.34	1.00		0.74	1.00		0.64	1.00	
Satd. Flow (perm)	559	1631		598	1690		1293	1579		1113	1638	
Peak-hour factor, PHF	0.70	0.89	0.58	0.38	0.91	0.65	0.73	0.69	0.82	0.43	0.50	0.58
Adj. Flow (vph)	20	665	24	24	726	20	56	32	60	28	16	12
RTOR Reduction (vph)	0	1	0	0	0	0	0	49	0	0	11	0
Lane Group Flow (vph)	20	688	0	24	746	0	56	43	0	28	17	0
Heavy Vehicles (%)	0%	7%	0%	0%	3%	8%	0%	0%	0%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	111.6	108.6		113.0	109.3		13.8	13.8		13.8	13.8	
Effective Green, g (s)	111.6	108.6		113.0	109.3		13.8	13.8		13.8	13.8	
Actuated g/C Ratio	0.77	0.75		0.78	0.76		0.10	0.10		0.10	0.10	
Clearance Time (s)	6.0	6.1		6.0	6.1		5.8	5.8		5.8	5.8	
Vehicle Extension (s)	2.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	456	1230		496	1282		123	151		106	156	
v/s Ratio Prot	0.00	0.42		c0.00	c0.44			0.03			0.01	
v/s Ratio Perm	0.03			0.04			c0.04			0.03		
v/c Ratio	0.04	0.56		0.05	0.58		0.46	0.29		0.26	0.11	
Uniform Delay, d1	4.8	7.5		4.4	7.5		61.5	60.5		60.4	59.5	
Progression Factor	1.00	1.00		1.25	0.74		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.8		0.0	1.4		3.6	1.4		1.8	0.4	
Delay (s)	4.8	9.4		5.5	6.9		65.2	61.9		62.2	59.9	
Level of Service	A	A		A	A		E	E		E	E	
Approach Delay (s)		9.2			6.8			63.2			61.1	
Approach LOS		A			A			E			E	

Intersection Summary

HCM 2000 Control Delay	14.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	17.9
Intersection Capacity Utilization	58.5%	ICU Level of Service	B
Analysis Period (min)	15		






















Description: TMC Date: 1/7/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

240: Wahnish Way & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	649	29	28	664	348	19	50	41	200	31	20
Future Volume (vph)	39	649	29	28	664	348	19	50	41	200	31	20
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.1	6.1		6.0	6.1	6.1	6.0	6.1		6.1	6.1	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.93		1.00	0.93	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1639		1599	1683	1444	1662	1623		1614	1619	
Flt Permitted	0.21	1.00		0.21	1.00	1.00	0.71	1.00		0.36	1.00	
Satd. Flow (perm)	365	1639		352	1683	1444	1243	1623		616	1619	
Peak-hour factor, PHF	0.70	0.90	0.50	0.70	0.86	0.69	0.40	0.74	0.64	0.78	0.86	0.56
Adj. Flow (vph)	56	721	58	40	772	504	48	68	64	256	36	36
RTOR Reduction (vph)	0	2	0	0	0	162	0	24	0	0	25	0
Lane Group Flow (vph)	56	777	0	40	772	342	48	108	0	256	47	0
Heavy Vehicles (%)	0%	6%	0%	4%	4%	3%	0%	0%	0%	3%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	92.3	86.3		91.4	85.8	97.7	20.7	15.9		33.9	23.1	
Effective Green, g (s)	92.3	86.3		91.4	85.8	97.7	20.7	15.9		33.9	23.1	
Actuated g/C Ratio	0.64	0.60		0.63	0.60	0.68	0.14	0.11		0.24	0.16	
Clearance Time (s)	6.1	6.1		6.0	6.1	6.1	6.0	6.1		6.1	6.1	
Vehicle Extension (s)	3.0	4.0		3.0	4.0	3.0	2.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	287	982		271	1002	1040	192	179		227	259	
v/s Ratio Prot	c0.01	c0.47		0.01	0.46	0.03	0.01	0.07		c0.09	0.03	
v/s Ratio Perm	0.12			0.09		0.21	0.03			c0.17		
v/c Ratio	0.20	0.79		0.15	0.77	0.33	0.25	0.60		1.13	0.18	
Uniform Delay, d1	15.1	22.0		15.0	21.7	9.6	54.4	61.0		53.1	52.3	
Progression Factor	0.88	0.80		0.45	0.82	5.46	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	5.9		0.2	4.2	0.1	0.2	6.5		98.4	0.5	
Delay (s)	13.6	23.6		6.9	22.0	52.5	54.6	67.5		151.5	52.7	
Level of Service	B	C		A	C	D	D	E		F	D	
Approach Delay (s)		22.9			33.2			64.1			129.8	
Approach LOS		C			C			E			F	

Intersection Summary

HCM 2000 Control Delay	44.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	24.4
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		





















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Adams St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	665	108	85	688	150	266	682	257	72	208	51
Future Volume (vph)	69	665	108	85	688	150	266	682	257	72	208	51
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.3	6.4		6.3	6.4		6.4	6.4		6.4	6.4	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.97		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1646	3097		1646	3208		1583	3138		1662	3143	
Flt Permitted	0.15	1.00		0.19	1.00		0.41	1.00		0.12	1.00	
Satd. Flow (perm)	259	3097		330	3208		689	3138		217	3143	
Peak-hour factor, PHF	0.75	0.94	0.82	0.85	0.92	0.82	0.73	0.84	0.79	0.82	0.91	0.75
Adj. Flow (vph)	92	707	132	100	748	183	364	812	325	88	229	68
RTOR Reduction (vph)	0	11	0	0	14	0	0	29	0	0	19	0
Lane Group Flow (vph)	92	828	0	100	917	0	364	1108	0	88	278	0
Heavy Vehicles (%)	1%	5%	4%	1%	0%	3%	5%	0%	5%	0%	1%	6%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	62.2	53.3		62.4	53.4		62.6	47.9		40.5	32.2	
Effective Green, g (s)	62.2	53.3		62.4	53.4		62.6	47.9		40.5	32.2	
Actuated g/C Ratio	0.43	0.37		0.43	0.37		0.43	0.33		0.28	0.22	
Clearance Time (s)	6.3	6.4		6.3	6.4		6.4	6.4		6.4	6.4	
Vehicle Extension (s)	3.0	4.5		3.0	4.5		3.5	4.0		3.0	4.0	
Lane Grp Cap (vph)	197	1146		225	1189		448	1043		144	702	
v/s Ratio Prot	c0.03	0.27		0.03	c0.29		c0.14	c0.35		0.04	0.09	
v/s Ratio Perm	0.17			0.16			0.22			0.14		
v/c Ratio	0.47	0.72		0.44	0.77		0.81	1.06		0.61	0.40	
Uniform Delay, d1	27.8	39.0		26.9	39.9		30.6	48.0		41.8	47.6	
Progression Factor	0.98	1.04		1.41	0.82		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	2.0		0.7	2.3		11.0	45.9		7.5	0.5	
Delay (s)	28.1	42.5		38.5	35.2		41.7	93.9		49.2	48.1	
Level of Service	C	D		D	D		D	F		D	D	
Approach Delay (s)		41.1			35.5			81.2			48.4	
Approach LOS		D			D			F			D	

Intersection Summary

HCM 2000 Control Delay	56.0	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	85.0%	ICU Level of Service	E
Analysis Period (min)	15		






















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

217: Monroe St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	142	761	102	74	801	121	156	859	167	121	296	55
Future Volume (vph)	142	761	102	74	801	121	156	859	167	121	296	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.7	7.0		6.3	7.0		6.4	6.7		6.5	6.7	6.7
Lane Util. Factor	0.97	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.97		1.00	0.98		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3225	3079		1614	3195		1646	3179		1662	3260	1473
Flt Permitted	0.95	1.00		0.10	1.00		0.49	1.00		0.08	1.00	1.00
Satd. Flow (perm)	3225	3079		168	3195		849	3179		142	3260	1473
Peak-hour factor, PHF	0.77	0.92	0.56	0.71	0.94	0.86	0.90	0.89	0.73	0.78	0.91	0.82
Adj. Flow (vph)	184	827	182	104	852	141	173	965	229	155	325	67
RTOR Reduction (vph)	0	13	0	0	9	0	0	15	0	0	0	38
Lane Group Flow (vph)	184	996	0	104	984	0	173	1179	0	155	325	29
Heavy Vehicles (%)	0%	4%	10%	3%	2%	1%	1%	1%	4%	0%	2%	1%
Turn Type	Prot	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases				8			2			6		6
Actuated Green, G (s)	12.3	48.1		50.6	43.0		64.8	52.3		58.9	49.4	61.7
Effective Green, g (s)	12.3	48.1		50.6	43.0		64.8	52.3		58.9	49.4	61.7
Actuated g/C Ratio	0.09	0.33		0.35	0.30		0.45	0.36		0.41	0.34	0.43
Clearance Time (s)	6.7	7.0		6.3	7.0		6.4	6.7		6.5	6.7	6.7
Vehicle Extension (s)	2.0	4.5		2.0	4.5		1.5	3.5		1.5	3.5	2.0
Lane Grp Cap (vph)	275	1028		135	954		451	1154		158	1118	699
v/s Ratio Prot	c0.06	c0.32		0.04	c0.31		0.03	c0.37		c0.06	0.10	0.00
v/s Ratio Perm				0.23			0.14			0.34		0.02
v/c Ratio	0.67	0.97		0.77	1.03		0.38	1.02		0.98	0.29	0.04
Uniform Delay, d1	63.9	47.2		35.9	50.5		24.5	45.9		37.4	34.5	23.9
Progression Factor	1.20	0.62		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	15.4		21.5	37.5		0.2	32.2		65.5	0.7	0.0
Delay (s)	79.8	44.8		57.3	88.0		24.7	78.0		102.9	35.2	23.9
Level of Service	E	D		E	F		C	E		F	D	C
Approach Delay (s)		50.2			85.1			71.3			53.0	
Approach LOS		D			F			E			D	

Intersection Summary

HCM 2000 Control Delay	66.5	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	144.0	Sum of lost time (s)	26.9
Intersection Capacity Utilization	93.9%	ICU Level of Service	F
Analysis Period (min)	15		

Description: TMC Date: 01/30/2013

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

93: Capital Circle SW & Orange Ave

01/22/2019



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	508	704	6	303	760
Future Volume (vph)	24	508	704	6	303	760
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	7.2	7.2	6.8	6.8	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1662	1473	1733	1488	1630	1733
Flt Permitted	0.95	1.00	1.00	1.00	0.08	1.00
Satd. Flow (perm)	1662	1473	1733	1488	137	1733
Peak-hour factor, PHF	0.69	0.89	0.78	0.75	0.91	0.92
Adj. Flow (vph)	35	571	903	8	333	826
RTOR Reduction (vph)	0	300	0	3	0	0
Lane Group Flow (vph)	35	271	903	5	333	826
Heavy Vehicles (%)	0%	1%	1%	0%	2%	1%
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		2		1	6
Permitted Phases		8		2	6	
Actuated Green, G (s)	21.8	21.8	43.3	43.3	69.0	69.0
Effective Green, g (s)	21.8	21.8	43.3	43.3	69.0	69.0
Actuated g/C Ratio	0.21	0.21	0.41	0.41	0.66	0.66
Clearance Time (s)	7.2	7.2	6.8	6.8	6.8	6.8
Vehicle Extension (s)	3.0	3.0	5.0	5.0	2.0	5.0
Lane Grp Cap (vph)	345	306	716	614	359	1141
v/s Ratio Prot	0.02		c0.52		c0.17	0.48
v/s Ratio Perm		c0.18		0.00	0.44	
v/c Ratio	0.10	0.89	1.26	0.01	0.93	0.72
Uniform Delay, d1	33.6	40.3	30.8	18.1	33.0	11.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	24.8	128.6	0.0	29.1	2.8
Delay (s)	33.7	65.0	159.4	18.1	62.1	14.5
Level of Service	C	E	F	B	E	B
Approach Delay (s)	63.2		158.1			28.2
Approach LOS	E		F			C

Intersection Summary

HCM 2000 Control Delay	80.4	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	104.8	Sum of lost time (s)	20.8
Intersection Capacity Utilization	86.0%	ICU Level of Service	E
Analysis Period (min)	15		























Description: TMC Date: 10/23/2012 updated with 11/30/2016

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

239: Springhill Rd & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	353	114	93	454	253	128	275	81	325	497	21
Future Volume (vph)	9	353	114	93	454	253	128	275	81	325	497	21
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.0	6.2		6.1	6.2	6.2	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1662	1660		1662	1716	1458	1614	1658		1662	1733	1352
Flt Permitted	0.26	1.00		0.11	1.00	1.00	0.10	1.00		0.18	1.00	1.00
Satd. Flow (perm)	461	1660		185	1716	1458	170	1658		316	1733	1352
Peak-hour factor, PHF	0.75	0.92	0.77	0.65	0.90	0.85	0.78	0.95	0.70	0.88	0.74	0.66
Adj. Flow (vph)	12	384	148	143	504	298	164	289	116	369	672	32
RTOR Reduction (vph)	0	9	0	0	0	122	0	10	0	0	0	20
Lane Group Flow (vph)	12	523	0	143	504	176	164	395	0	369	672	12
Heavy Vehicles (%)	0%	1%	1%	0%	2%	2%	3%	1%	1%	0%	1%	10%
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	1	6		5	2		7	4		3	8	1
Permitted Phases	6			2		2	4			8		8
Actuated Green, G (s)	49.0	46.6		62.7	54.3	54.3	51.0	40.0		69.0	52.0	54.4
Effective Green, g (s)	49.0	46.6		62.7	54.3	54.3	51.0	40.0		69.0	52.0	54.4
Actuated g/C Ratio	0.34	0.32		0.44	0.38	0.38	0.35	0.28		0.48	0.36	0.38
Clearance Time (s)	6.0	6.2		6.1	6.2	6.2	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0		3.0	5.0	3.0
Lane Grp Cap (vph)	177	537		183	647	550	170	460		366	626	567
v/s Ratio Prot	0.00	c0.31		c0.05	c0.29		0.07	0.24		c0.16	c0.39	0.00
v/s Ratio Perm	0.02			0.29		0.12	0.27			0.32		0.01
v/c Ratio	0.07	0.97		0.78	0.78	0.32	0.96	0.86		1.01	1.07	0.02
Uniform Delay, d1	33.1	48.0		32.1	39.5	31.7	38.4	49.3		34.4	46.0	28.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.2	32.2		19.2	6.9	0.7	58.1	15.9		49.1	57.3	0.0
Delay (s)	33.2	80.2		51.2	46.4	32.4	96.5	65.2		83.5	103.3	28.1
Level of Service	C	F		D	D	C	F	E		F	F	C
Approach Delay (s)		79.1			42.7			74.2			94.2	
Approach LOS		E			D			E			F	

Intersection Summary

HCM 2000 Control Delay	72.4	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	143.9	Sum of lost time (s)	24.3
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		





















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

238: Pasco St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	857	13	17	723	25	17	12	23	43	19	22
Future Volume (vph)	41	857	13	17	723	25	17	12	23	43	19	22
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.0	6.1		6.0	6.1		5.8	5.8		5.8	5.8	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.92		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1712		1662	1706		1662	1613		1525	1601	
Flt Permitted	0.14	1.00		0.08	1.00		0.71	1.00		0.71	1.00	
Satd. Flow (perm)	242	1712		139	1706		1244	1613		1139	1601	
Peak-hour factor, PHF	0.25	0.73	0.72	0.26	0.72	0.55	0.48	0.34	0.61	0.66	0.43	0.81
Adj. Flow (vph)	164	1174	18	65	1004	45	35	35	38	65	44	27
RTOR Reduction (vph)	0	0	0	0	1	0	0	29	0	0	16	0
Lane Group Flow (vph)	164	1192	0	65	1048	0	35	44	0	65	55	0
Heavy Vehicles (%)	0%	2%	0%	0%	2%	0%	0%	0%	0%	9%	5%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	109.2	101.3		105.4	99.4		14.8	14.8		14.8	14.8	
Effective Green, g (s)	109.2	101.3		105.4	99.4		14.8	14.8		14.8	14.8	
Actuated g/C Ratio	0.78	0.72		0.75	0.71		0.11	0.11		0.11	0.11	
Clearance Time (s)	6.0	6.1		6.0	6.1		5.8	5.8		5.8	5.8	
Vehicle Extension (s)	2.0	4.0		3.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	268	1238		169	1211		131	170		120	169	
v/s Ratio Prot	c0.03	c0.70		0.02	0.61			0.03			0.03	
v/s Ratio Perm	0.44			0.27			0.03			c0.06		
v/c Ratio	0.61	0.96		0.38	0.87		0.27	0.26		0.54	0.32	
Uniform Delay, d1	18.4	17.6		23.8	15.3		57.6	57.6		59.4	58.0	
Progression Factor	1.00	1.00		2.48	0.60		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.9	18.1		0.8	4.8		1.5	1.1		6.1	1.5	
Delay (s)	21.3	35.7		59.8	14.0		59.1	58.7		65.5	59.5	
Level of Service	C	D		E	B		E	E		E	E	
Approach Delay (s)		33.9			16.6			58.8			62.4	
Approach LOS		C			B			E			E	

Intersection Summary

HCM 2000 Control Delay	29.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.9
Intersection Capacity Utilization	69.7%	ICU Level of Service	C
Analysis Period (min)	15		























Description: TMC Date: 1/7/2015 *Corrected with 1/7 counts

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

240: Wahnish Way & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	741	35	47	822	346	30	46	28	264	80	46
Future Volume (vph)	31	741	35	47	822	346	30	46	28	264	80	46
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.1	6.1		6.0	6.1	6.1	6.0	6.1		6.1	6.1	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	0.94		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1662	1719		1662	1716	1473	1662	1617		1662	1645	
Flt Permitted	0.06	1.00		0.12	1.00	1.00	0.66	1.00		0.42	1.00	
Satd. Flow (perm)	106	1719		202	1716	1473	1147	1617		740	1645	
Peak-hour factor, PHF	0.78	0.95	0.73	0.65	0.90	0.87	0.75	0.72	0.64	0.90	0.83	0.72
Adj. Flow (vph)	40	780	48	72	913	398	40	64	44	293	96	64
RTOR Reduction (vph)	0	1	0	0	0	127	0	18	0	0	17	0
Lane Group Flow (vph)	40	827	0	72	913	271	40	90	0	293	143	0
Heavy Vehicles (%)	0%	1%	0%	0%	2%	1%	0%	0%	4%	0%	0%	0%
Turn Type	pm+pt	NA		pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	79.8	74.3		80.9	74.8	95.4	20.6	14.7		41.4	29.5	
Effective Green, g (s)	79.8	74.3		80.9	74.8	95.4	20.6	14.7		41.4	29.5	
Actuated g/C Ratio	0.57	0.53		0.58	0.53	0.68	0.15	0.10		0.30	0.21	
Clearance Time (s)	6.1	6.1		6.0	6.1	6.1	6.0	6.1		6.1	6.1	
Vehicle Extension (s)	3.0	4.0		3.0	4.0	3.0	2.0	4.0		3.0	4.0	
Lane Grp Cap (vph)	121	912		180	916	1067	190	169		354	346	
v/s Ratio Prot	0.01	0.48		c0.02	c0.53	0.04	0.01	0.06		c0.12	0.09	
v/s Ratio Perm	0.17			0.21		0.15	0.02			c0.12		
v/c Ratio	0.33	0.91		0.40	1.00	0.25	0.21	0.53		0.83	0.41	
Uniform Delay, d1	27.3	29.7		23.3	32.5	8.6	52.2	59.4		42.6	47.8	
Progression Factor	1.33	0.96		0.64	0.78	2.20	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.7	6.7		0.9	22.6	0.1	0.2	4.1		14.6	1.1	
Delay (s)	37.0	35.1		15.9	47.8	19.0	52.4	63.5		57.3	48.8	
Level of Service	D	D		B	D	B	D	E		E	D	
Approach Delay (s)		35.2			37.9			60.5			54.3	
Approach LOS		D			D			E			D	

Intersection Summary

HCM 2000 Control Delay	40.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.4
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		





















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

6: Adams St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	723	247	253	828	119	207	436	157	106	606	129
Future Volume (vph)	69	723	247	253	828	119	207	436	157	106	606	129
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.3	6.4		6.3	6.4		6.4	6.4		6.4	6.4	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.98		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1614	3149		1662	3247		1599	3180		1646	3210	
Flt Permitted	0.17	1.00		0.08	1.00		0.10	1.00		0.23	1.00	
Satd. Flow (perm)	297	3149		132	3247		170	3180		402	3210	
Peak-hour factor, PHF	0.86	0.91	0.89	0.88	0.95	0.80	0.94	0.84	0.87	0.88	0.82	0.87
Adj. Flow (vph)	80	795	278	288	872	149	220	519	180	120	739	148
RTOR Reduction (vph)	0	25	0	0	9	0	0	24	0	0	12	0
Lane Group Flow (vph)	80	1048	0	288	1012	0	220	675	0	120	875	0
Heavy Vehicles (%)	3%	2%	0%	0%	0%	1%	4%	0%	2%	1%	1%	1%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)	59.5	50.6		74.6	59.4		52.2	39.6		40.2	33.6	
Effective Green, g (s)	59.5	50.6		74.6	59.4		52.2	39.6		40.2	33.6	
Actuated g/C Ratio	0.42	0.36		0.53	0.42		0.37	0.28		0.29	0.24	
Clearance Time (s)	6.3	6.4		6.3	6.4		6.4	6.4		6.4	6.4	
Vehicle Extension (s)	3.0	4.5		3.0	4.5		3.5	4.0		3.0	4.0	
Lane Grp Cap (vph)	209	1138		263	1377		191	899		174	770	
v/s Ratio Prot	0.02	0.33		0.14	0.31		0.10	0.21		0.03	0.27	
v/s Ratio Perm	0.14			0.44			0.32			0.17		
v/c Ratio	0.38	0.92		1.10	0.73		1.15	0.75		0.69	1.14	
Uniform Delay, d1	25.9	42.8		44.3	33.7		39.5	45.7		41.1	53.2	
Progression Factor	0.68	0.79		1.68	0.49		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	8.0		49.0	0.3		112.0	3.8		10.8	76.8	
Delay (s)	18.3	42.0		123.6	16.7		151.4	49.5		52.0	130.0	
Level of Service	B	D		F	B		F	D		D	F	
Approach Delay (s)		40.4			40.2			73.9			120.7	
Approach LOS		D			D			E			F	

Intersection Summary

HCM 2000 Control Delay	65.8	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	25.5
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		






















Description: TMC Date: 12/1/2015

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

217: Monroe St & Orange Ave

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	753	118	148	905	117	165	537	102	265	917	202
Future Volume (vph)	112	753	118	148	905	117	165	537	102	265	917	202
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	6.7	7.0		6.3	7.0		6.4	6.7		6.5	6.7	6.7
Lane Util. Factor	0.97	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3162	3217		1630	3232		1662	3219		1662	3292	1473
Flt Permitted	0.95	1.00		0.09	1.00		0.09	1.00		0.17	1.00	1.00
Satd. Flow (perm)	3162	3217		153	3232		162	3219		302	3292	1473
Peak-hour factor, PHF	0.79	0.89	0.90	0.83	0.85	0.74	0.82	0.81	0.82	0.93	0.91	0.92
Adj. Flow (vph)	142	846	131	178	1065	158	201	663	124	285	1008	220
RTOR Reduction (vph)	0	8	0	0	8	0	0	11	0	0	0	50
Lane Group Flow (vph)	142	969	0	178	1215	0	201	776	0	285	1008	170
Heavy Vehicles (%)	2%	1%	3%	2%	1%	0%	0%	1%	0%	0%	1%	1%
Turn Type	Prot	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4		3	8		5	2		1	6	7
Permitted Phases				8			2			6		6
Actuated Green, G (s)	10.5	41.2		59.3	44.8		57.9	43.3		57.8	43.3	53.8
Effective Green, g (s)	10.5	41.2		59.3	44.8		57.9	43.3		57.8	43.3	53.8
Actuated g/C Ratio	0.08	0.29		0.42	0.32		0.41	0.31		0.41	0.31	0.38
Clearance Time (s)	6.7	7.0		6.3	7.0		6.4	6.7		6.5	6.7	6.7
Vehicle Extension (s)	2.0	4.5		2.0	4.5		1.5	3.5		1.5	3.5	2.0
Lane Grp Cap (vph)	237	946		217	1034		223	995		265	1018	636
v/s Ratio Prot	0.04	0.30		c0.08	c0.38		0.09	0.24		c0.11	0.31	0.02
v/s Ratio Perm				0.26			0.28			c0.33		0.10
v/c Ratio	0.60	1.02		0.82	1.17		0.90	0.78		1.08	0.99	0.27
Uniform Delay, d1	62.7	49.4		36.1	47.6		38.6	44.0		33.4	48.1	29.6
Progression Factor	1.05	1.05		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.4	26.9		20.4	89.0		34.2	6.0		76.8	25.9	0.1
Delay (s)	67.3	78.6		56.6	136.6		72.7	50.1		110.2	74.1	29.6
Level of Service	E	E		E	F		E	D		F	E	C
Approach Delay (s)		77.2			126.5			54.7			74.4	
Approach LOS		E			F			D			E	

Intersection Summary

HCM 2000 Control Delay	85.7	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	26.9
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		

Description: TMC Date: 01/30/2013

c Critical Lane Group

Appendix B- Public Involvement

District Forum 1



WELCOME!

Orange Avenue District Forum Meeting

Dr. B.L. Perry, Jr.
Branch Library
2817 South Adams Street
Tallahassee, FL 32301
June 28, 2018
6:00 pm to 7:30 pm

The Capital Region Transportation Planning Agency (CRTPA) Complies with Various Non-Discrimination Laws and Regulations Including Title VI of the Civil Rights Act of 1964

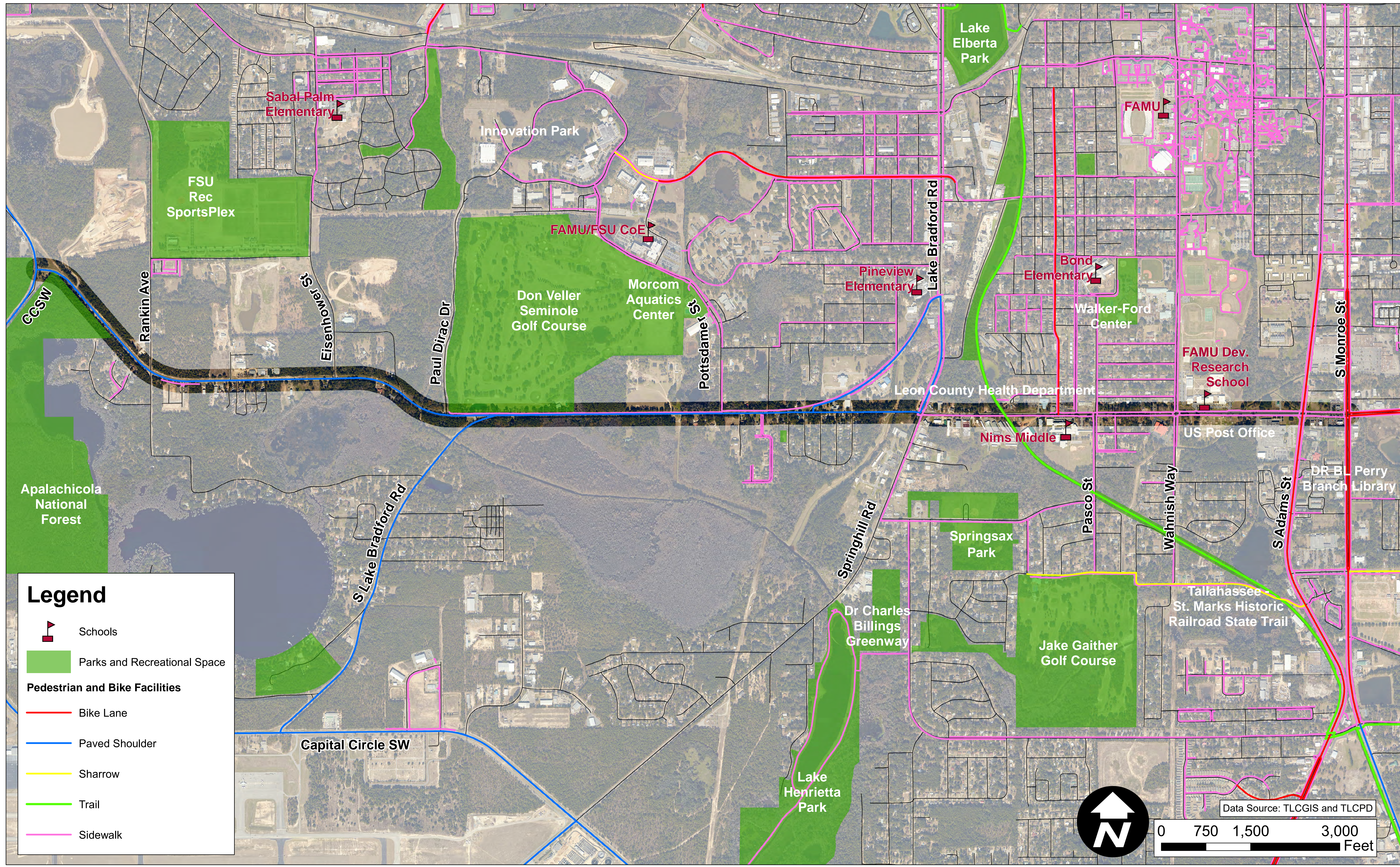
Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability, income, or family status. Persons wishing to express concerns about Title VI may do so by contacting:

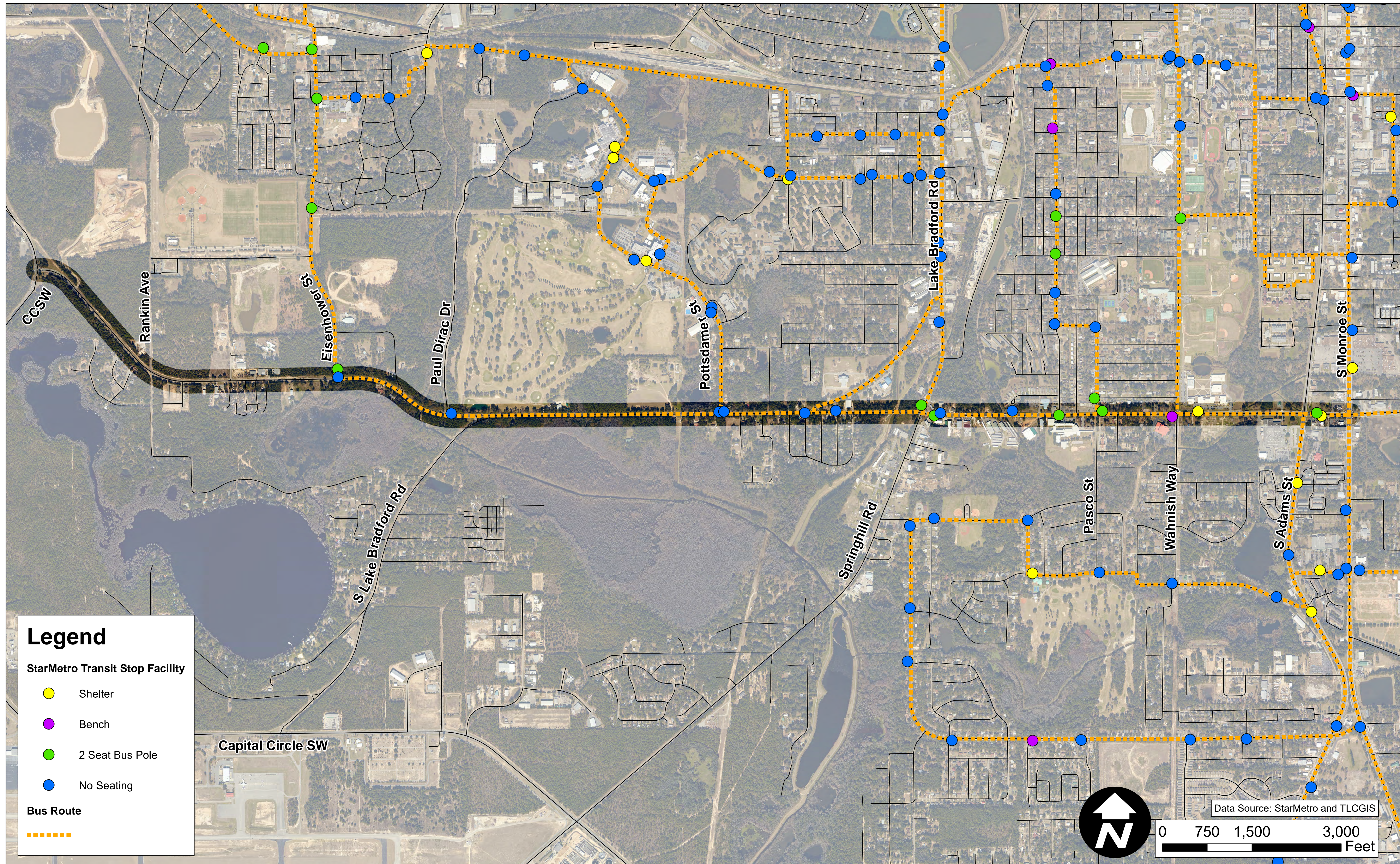
**Capital Region Transportation
Planning Agency**

Mobility Coordinator: Lynn Barr

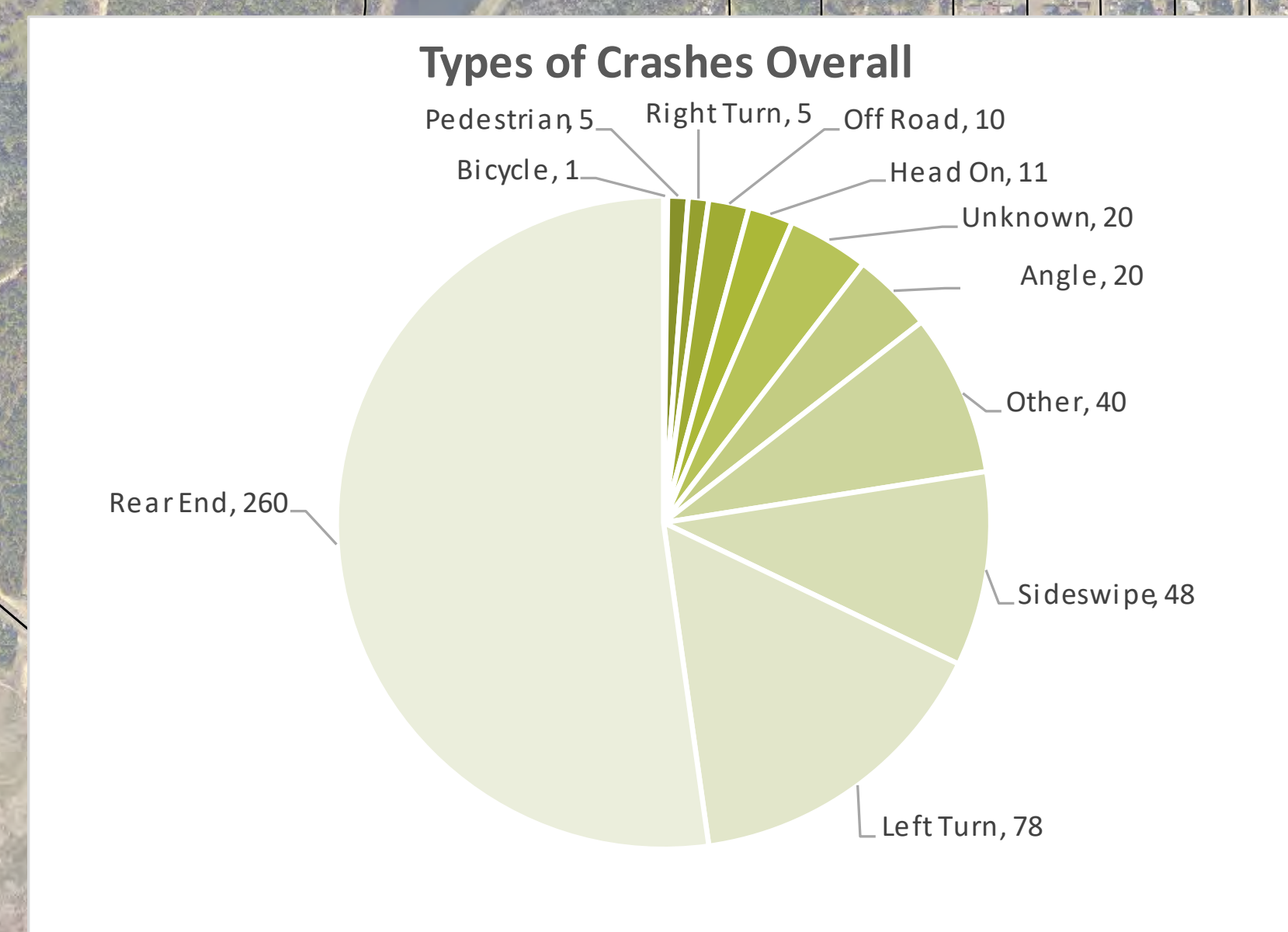
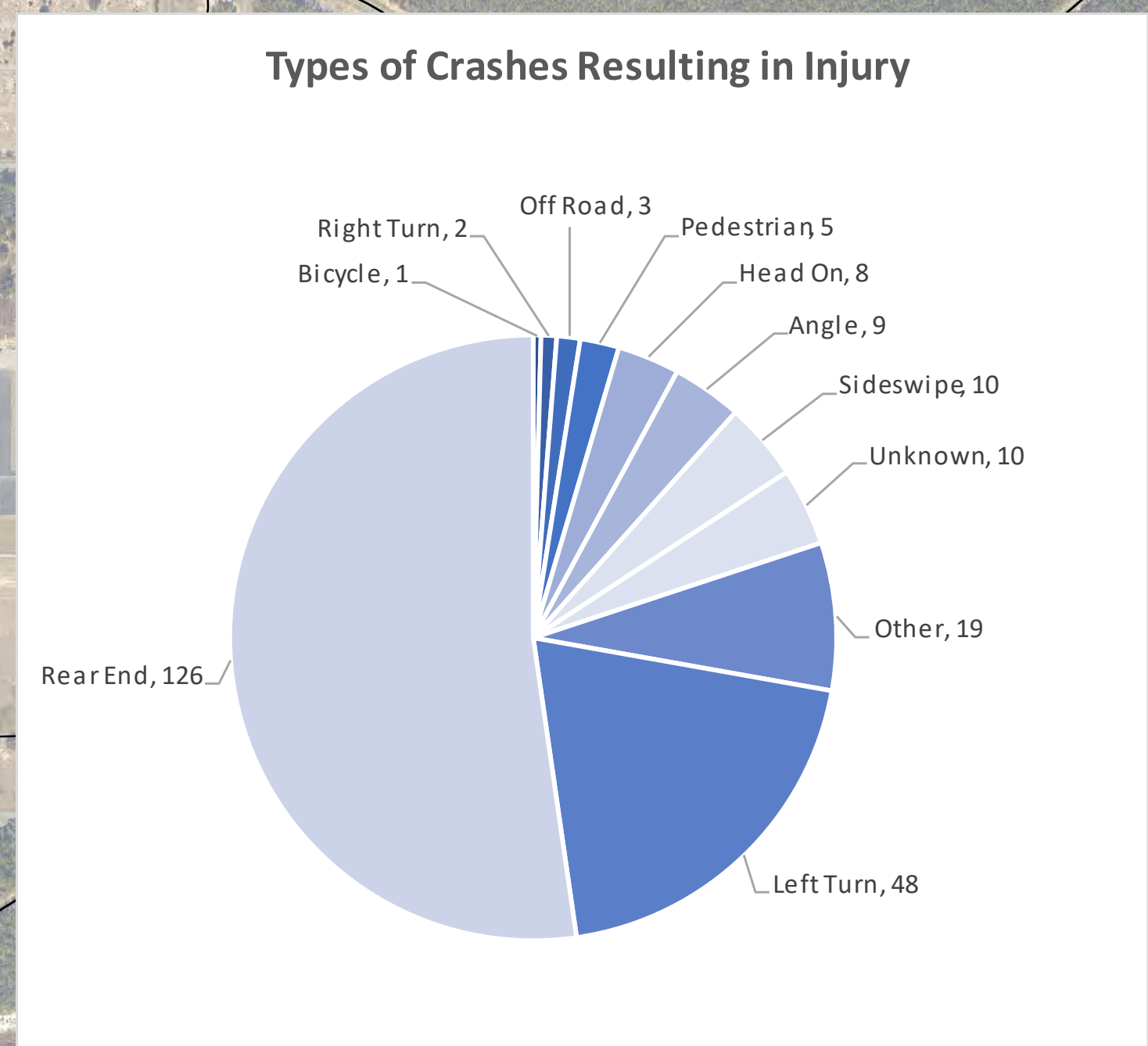
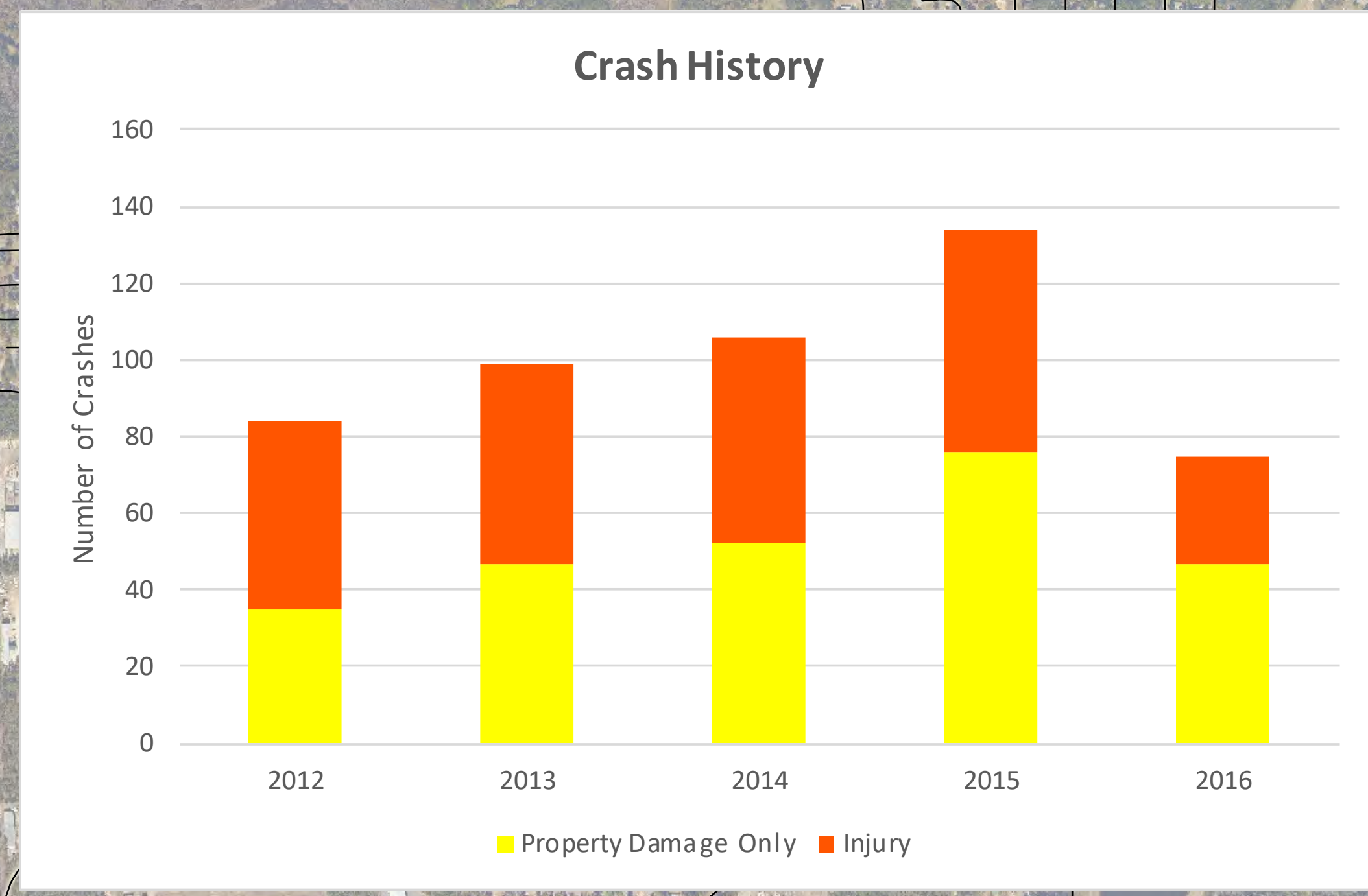
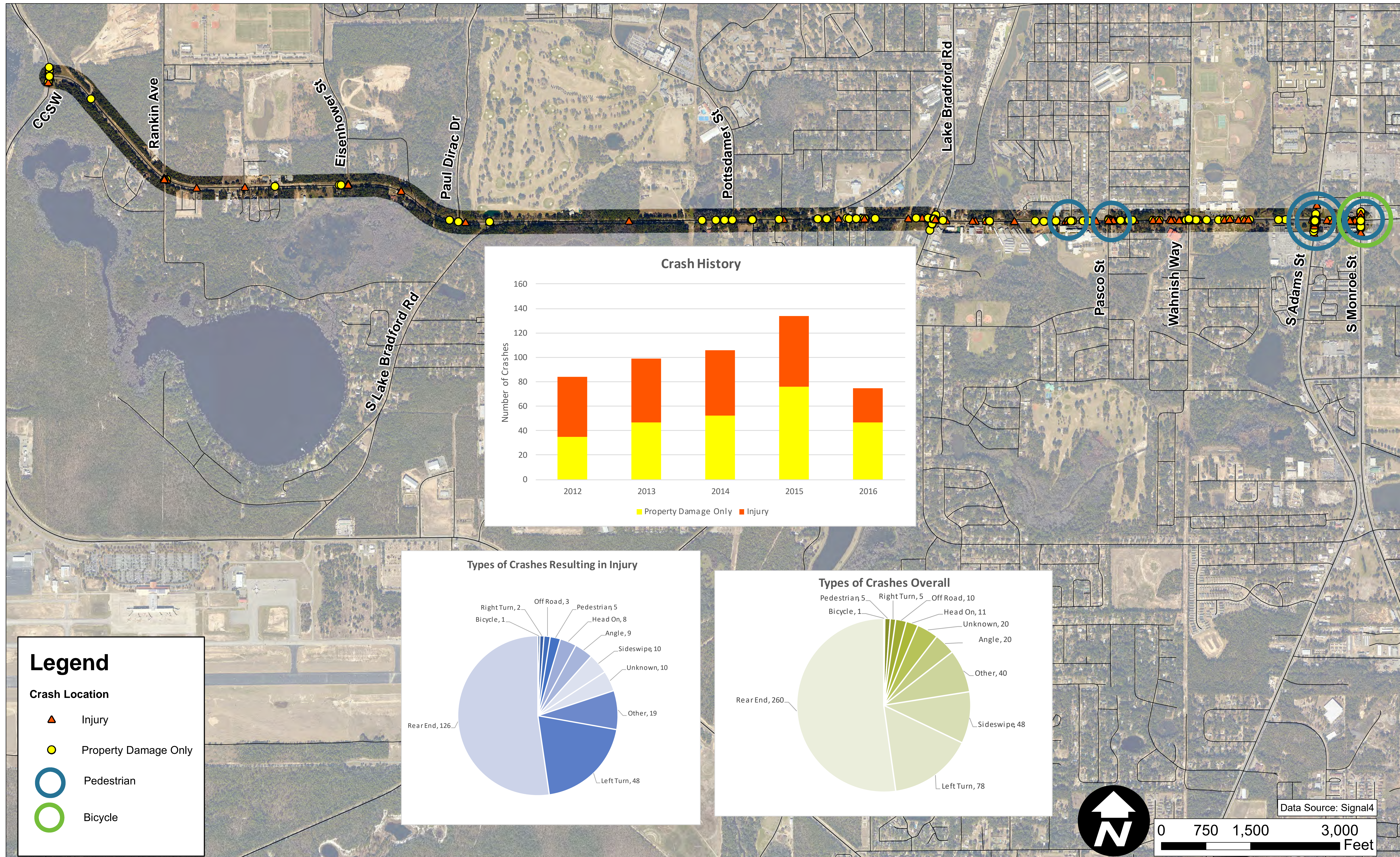
Lynn.Barr@crtpa.org; 850.891.8630







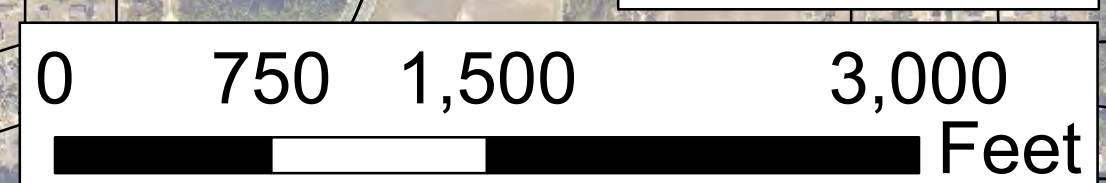




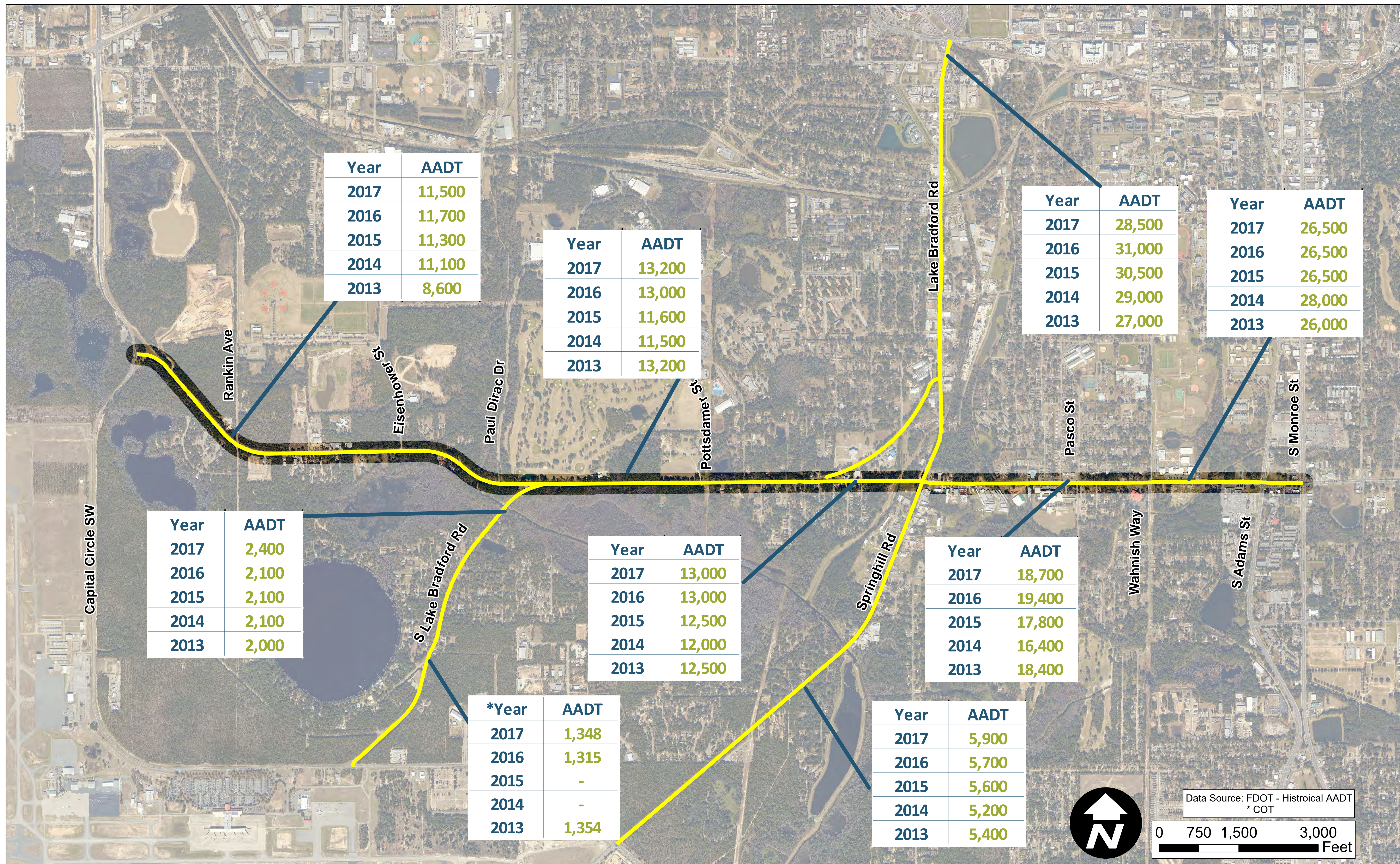
Legend

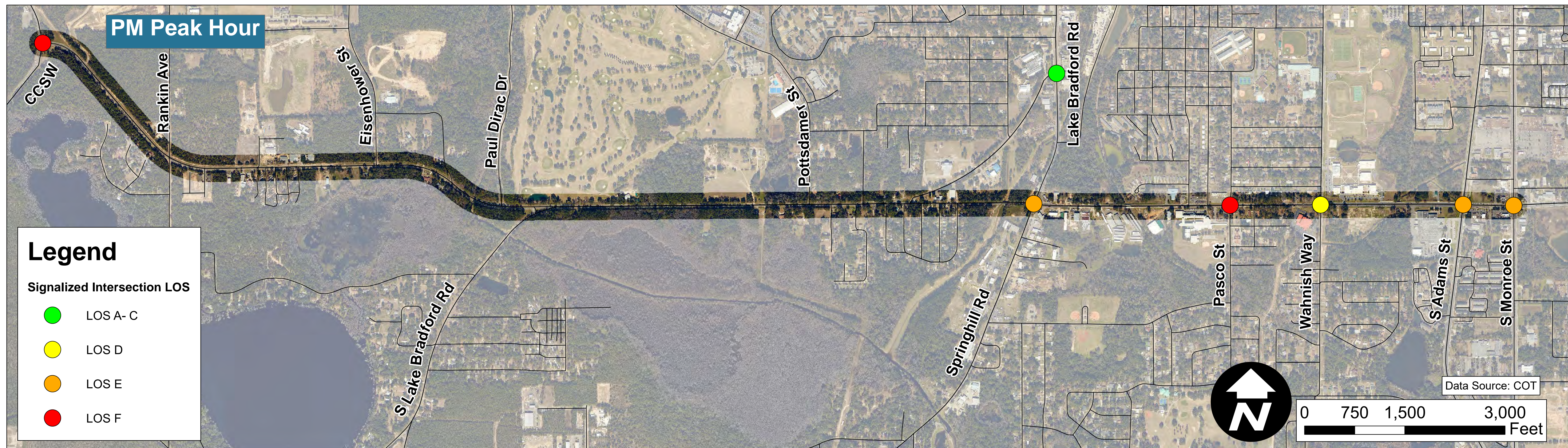
Crash Location

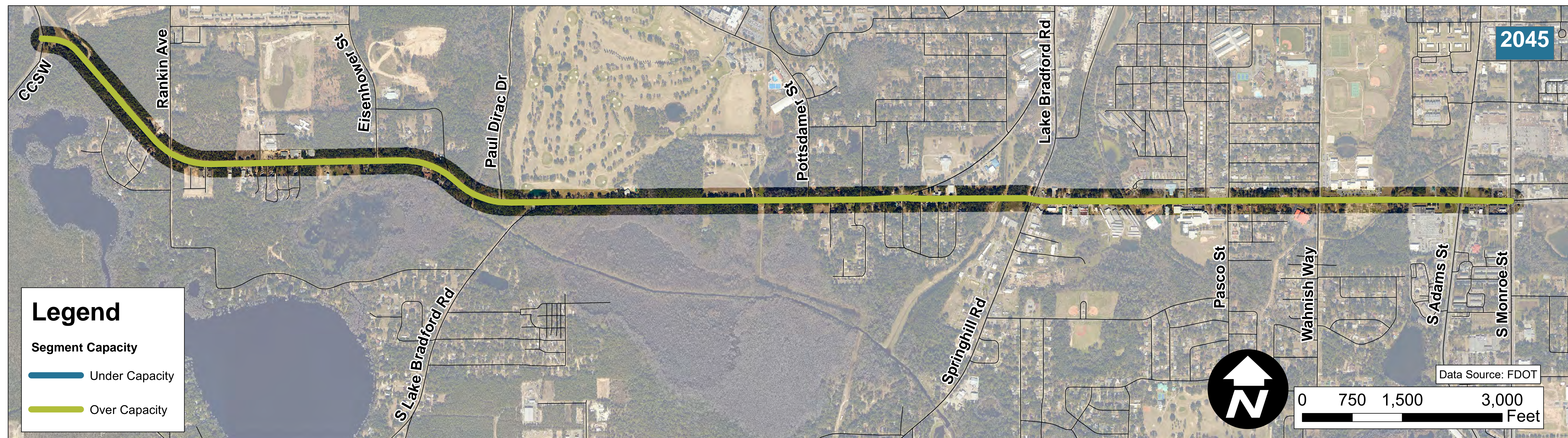
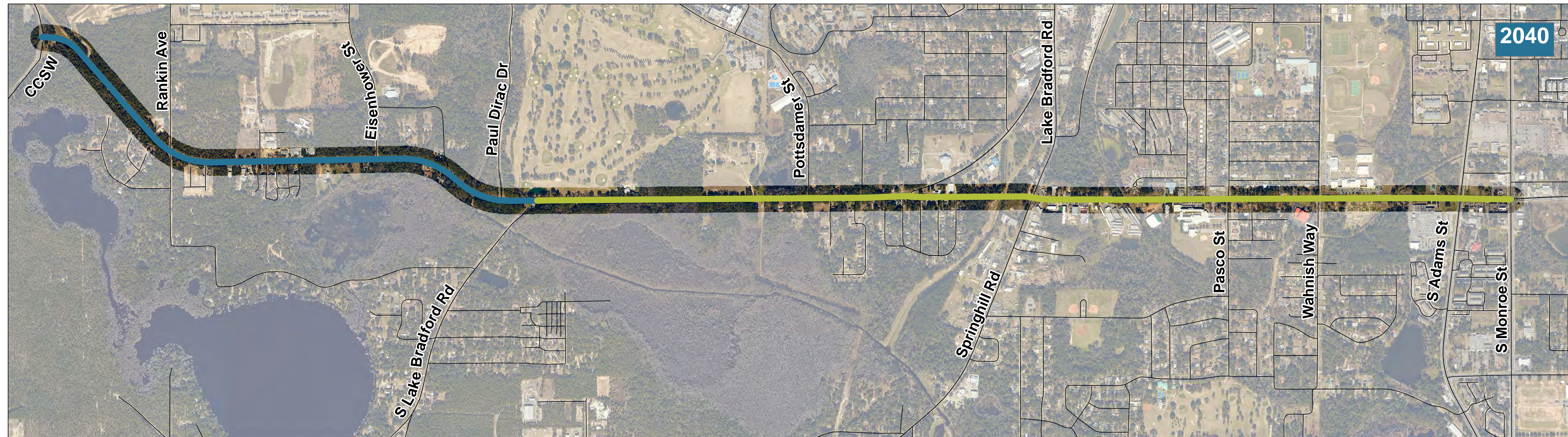
- Injury
- Property Damage Only
- Pedestrian
- Bicycle

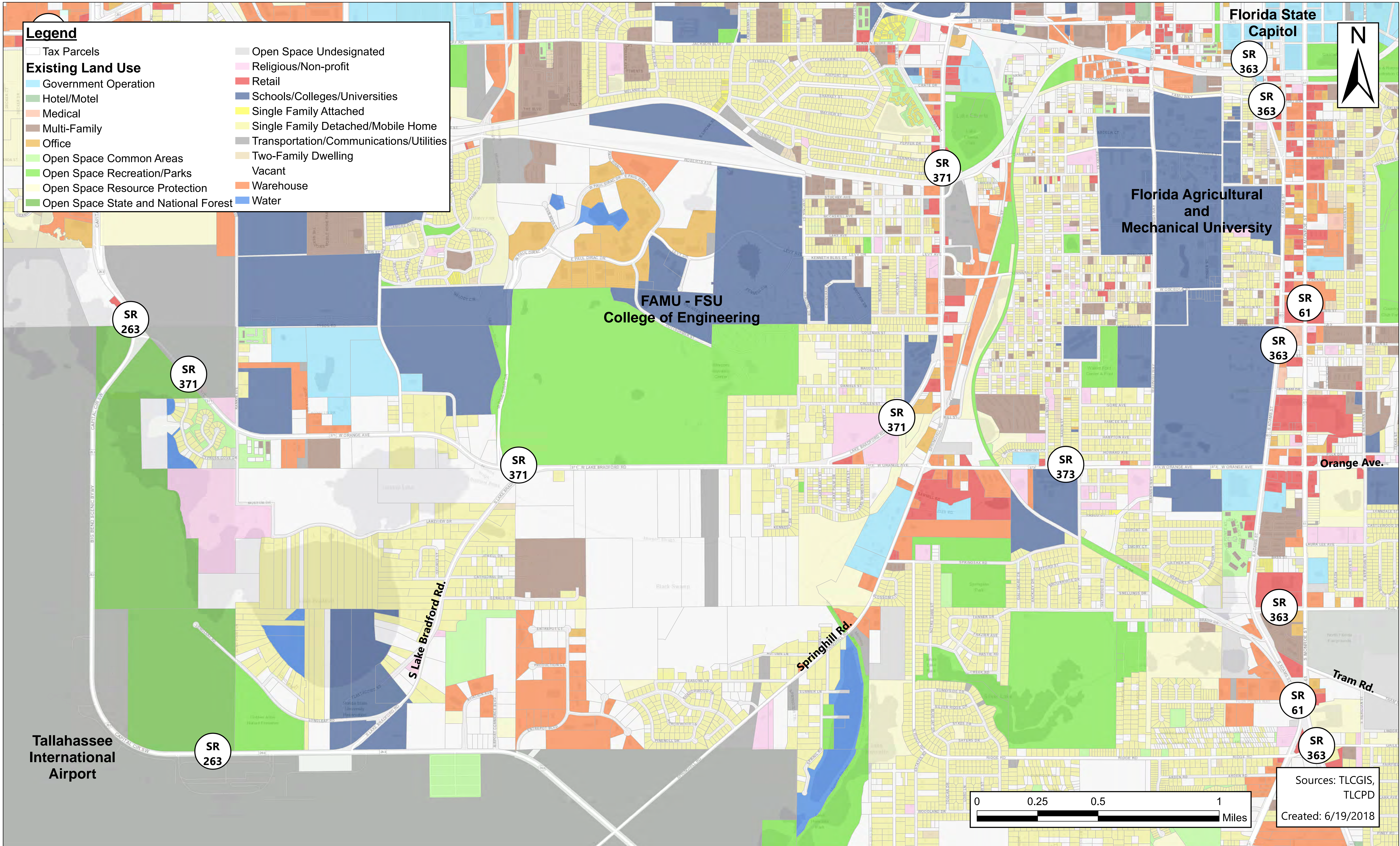


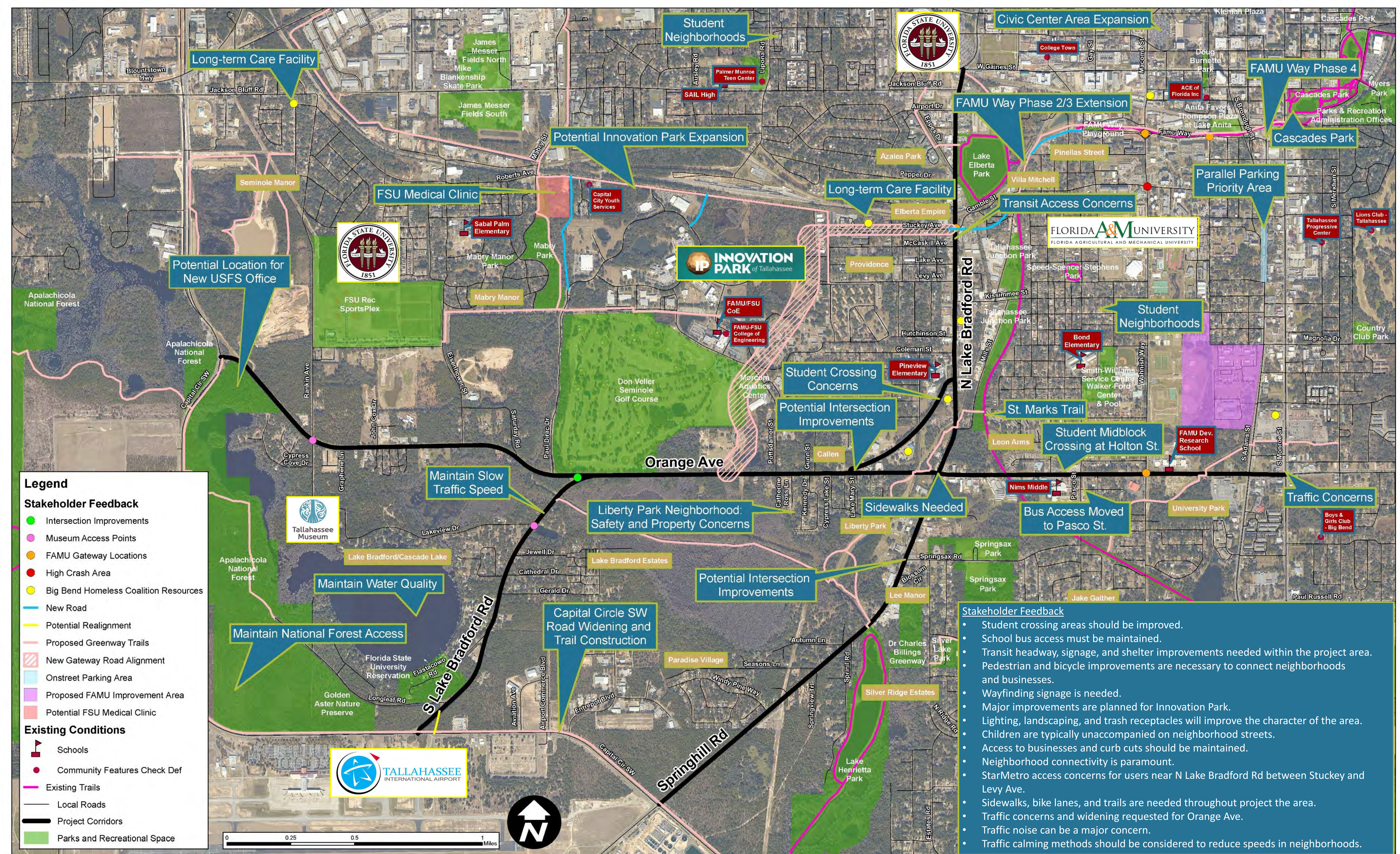
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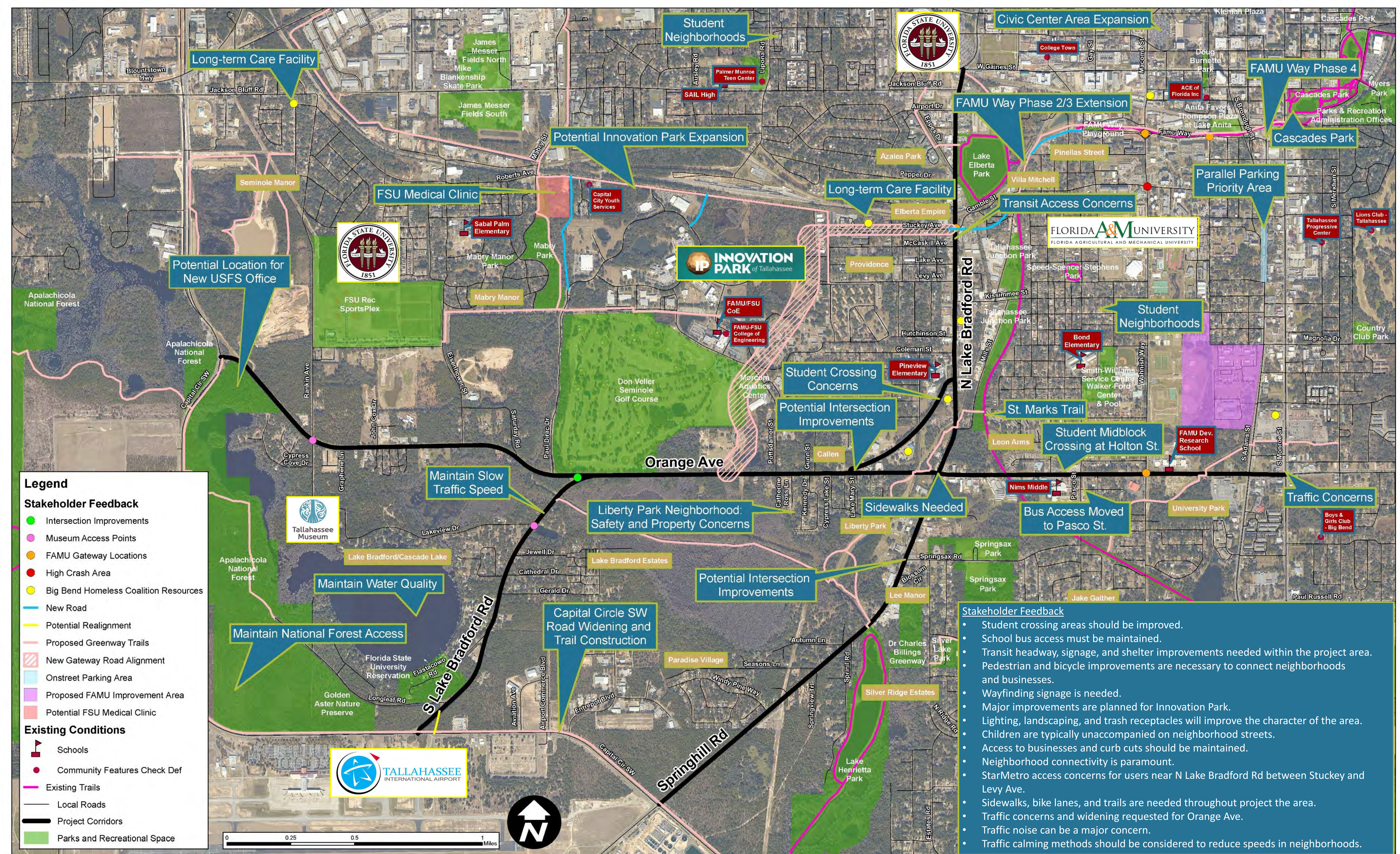












Southwest Area Transportation Plan

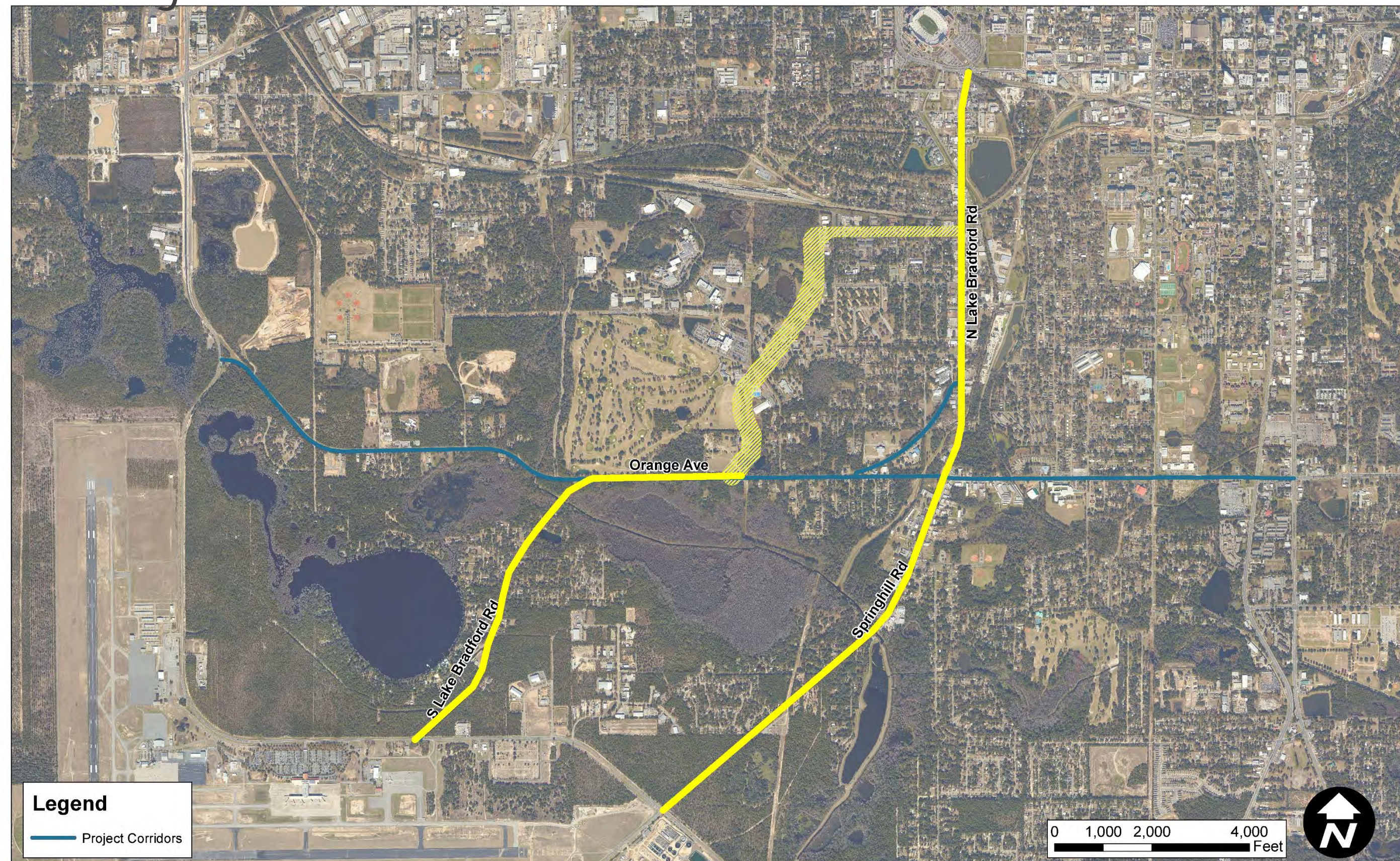
Orange Avenue District Forum
June 28, 2018

Project Purpose

To develop corridor plans that enhance safety, mobility, and connectivity in the southwest area of Tallahassee.

- Preserve the character of the existing neighborhoods and environmental features
- Consider data and analysis
- Consider public/stakeholder input

Project Corridors



Project Considerations

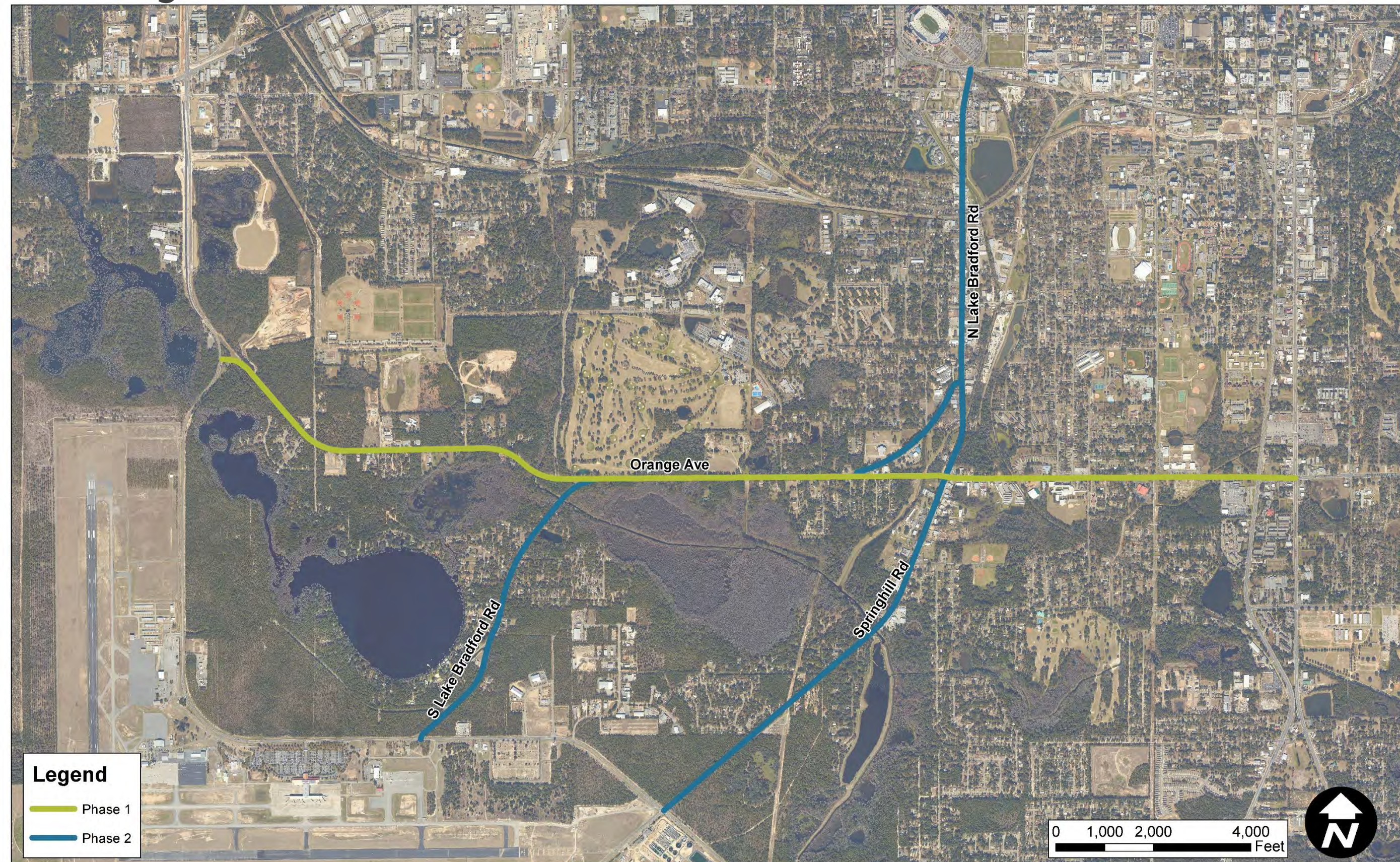
- The Airport Gateway project received Blueprint Intergovernmental Agency Approval on March 1, 2018
- Identified Airport Gateways:
 - Lake Bradford Road (N/S)
 - Capital Circle SW to Orange Avenue
 - Orange Avenue to Gaines Street
 - Orange Avenue
 - South Lake Bradford Road to new gateway road alignment
 - Springhill Road
 - Capital Circle SW to Orange Avenue
 - New corridor connecting Orange Avenue to N Lake Bradford Road (*not a part of this plan*)
 - Orange Avenue to North Lake Bradford Road

Project Phases

- Public outreach will be conducted in two phases:
 - Phase 1 - Orange Avenue area (Upcoming FDOT project)
 - Phase 2 - Lake Bradford Road and Springhill Road areas
 - Outreach beginning Fall 2018



Project Phases



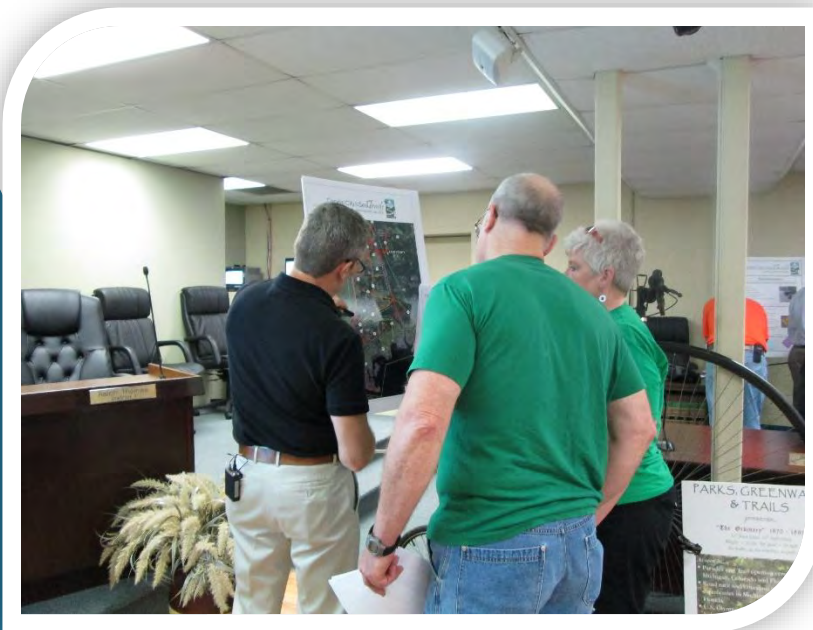
Completed Efforts For This Plan

- Data Collection and Analysis
 - Mapping
 - Existing Conditions
 - Traffic Counts
 - Crash/Safety Data
 - Land Use
 - Environmental
 - Transit
 - Bike/Pedestrian Facilities
- Stakeholder Outreach
 - Leon County School Board and local schools
 - US Forest Service
 - Tallahassee Museum
 - FAMU Representatives
 - Big Bend Homeless Coalition
 - Innovation Park Representatives
 - FSU and FSU Foundation Representatives
 - Chambers of Commerce



Orange Avenue District Forum Tonight...

We Want Your Input!



- Activity Stations
 1. Existing Transportation Facilities
 2. Stakeholder Feedback
 3. Traffic Information
 4. Comment Forms
- Review the Boards
- Ask Questions
- Provide Your Ideas



Activity Station 1: Existing Transportation Facilities

Maps showing the existing transportation facilities along the Orange Avenue Corridor

- Road network
- Existing bicycle and pedestrian infrastructure
- Bus routes and stops

Activity Objective

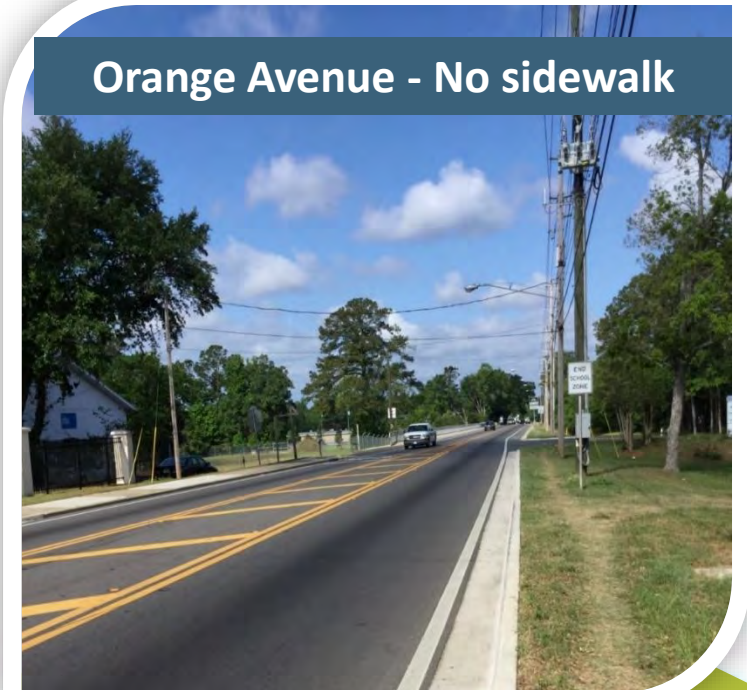
Use the available markers and Post-it® notes to let us know the following :

- Where you would like to see improvements?
- Are there areas where improvements are not needed?

Springhill Road - Deficient bridge



Orange Avenue - No sidewalk



Activity Station 2: Stakeholder Feedback

Map summarizing previous feedback received through stakeholder meetings which includes:

- Safety Improvements
- Operational Improvements
- Mobility Improvements
- Transit
- Pedestrian
- Bicycle



Activity Objective

- Use the available markers and Post-it® notes to let us know the following:
 - Are there additional areas of concern?
 - **Do you agree with what we've heard?**
 - Are there other comments on transportation in the area?

Stakeholder Feedback Map



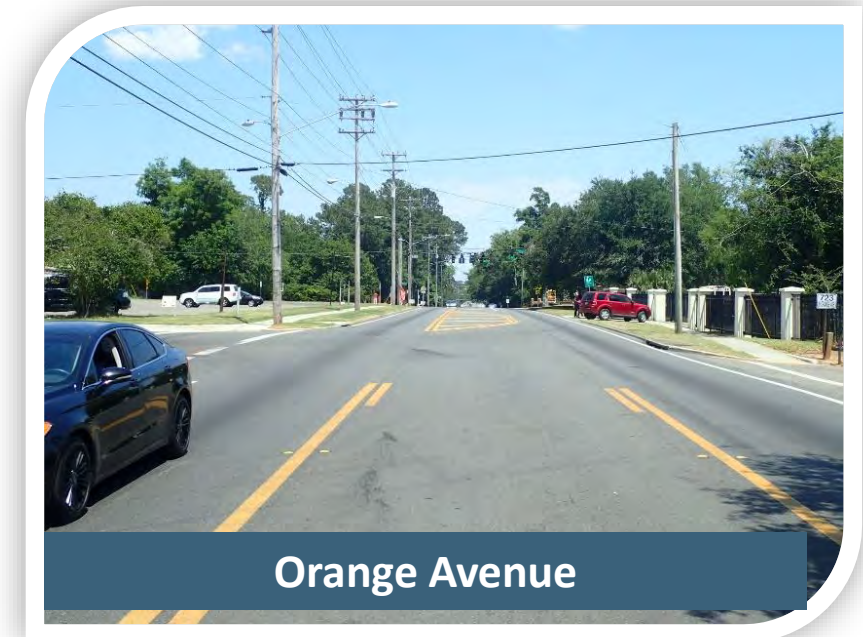
Stakeholder Feedback

- Student crossing areas should be improved.
- School bus access must be maintained.
- Transit headway, signage, and shelter improvements needed within the project area.
- Pedestrian and bicycle improvements are necessary to connect neighborhoods and businesses.
- Wayfinding signage is needed.
- Major improvements are planned for Innovation Park.
- Lighting, landscaping, and trash receptacles will improve the character of the area.
- Children are typically unaccompanied on neighborhood streets.
- Access to businesses and curb cuts should be maintained.
- Neighborhood connectivity is paramount.
- StarMetro access concerns for users near N Lake Bradford Rd between Stuckey and Levy Ave.
- Sidewalks, bike lanes, and trails are needed throughout project the area.
- Traffic concerns and widening requested for Orange Ave.
- Traffic noise can be a major concern.
- Traffic calming methods should be considered to reduce speeds in neighborhoods.

Activity Station 3: Traffic Information

Maps showing the current and future traffic conditions and crash data along the corridor

- Future traffic levels are estimated to be over capacity
- Number of crashes along the corridor is above the State Average Crash Rate



Activity Objective

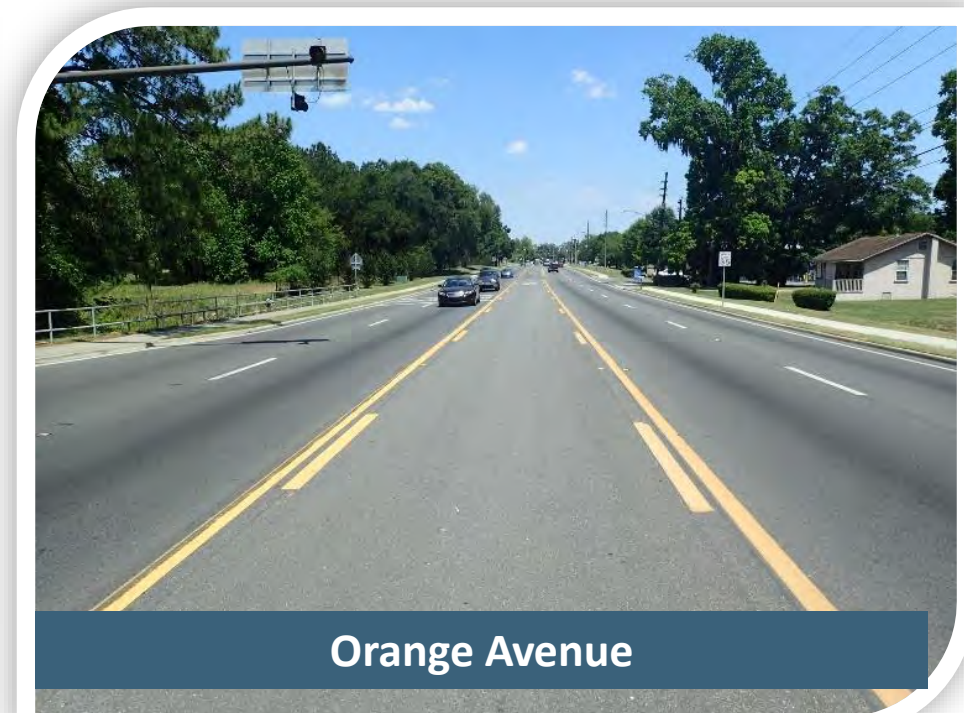
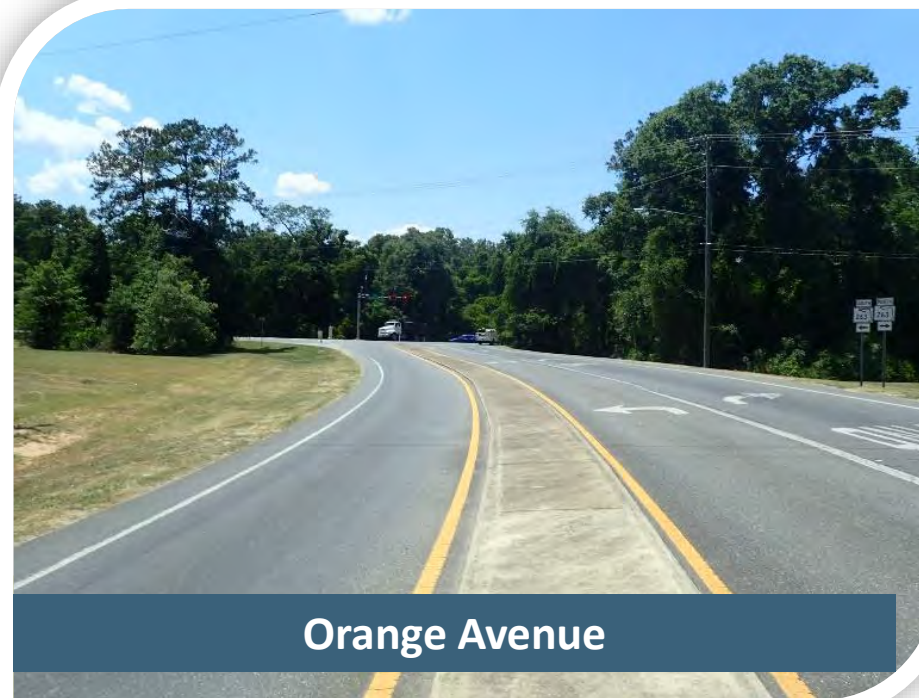
- Use the available markers and Post-it® notes to let us know the following:
 - Are there specific areas where traffic is an issue?
 - Areas of safety concerns?

Activity Station 4: Comment Forms

Activity Objective

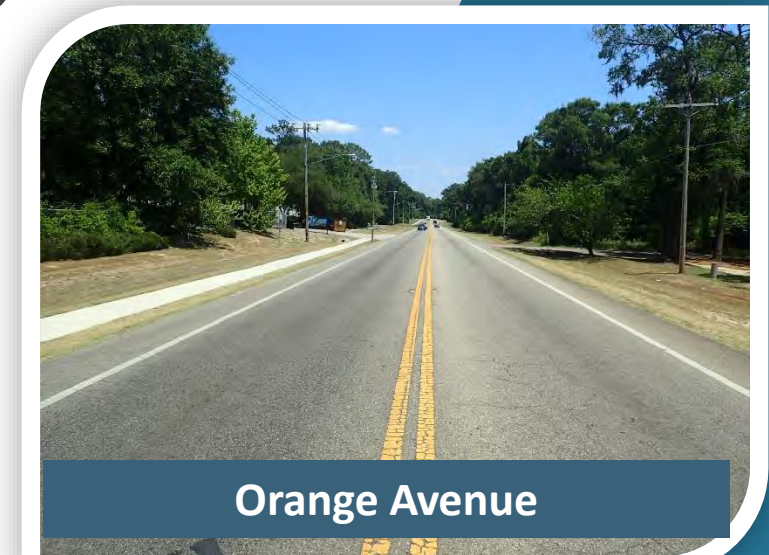
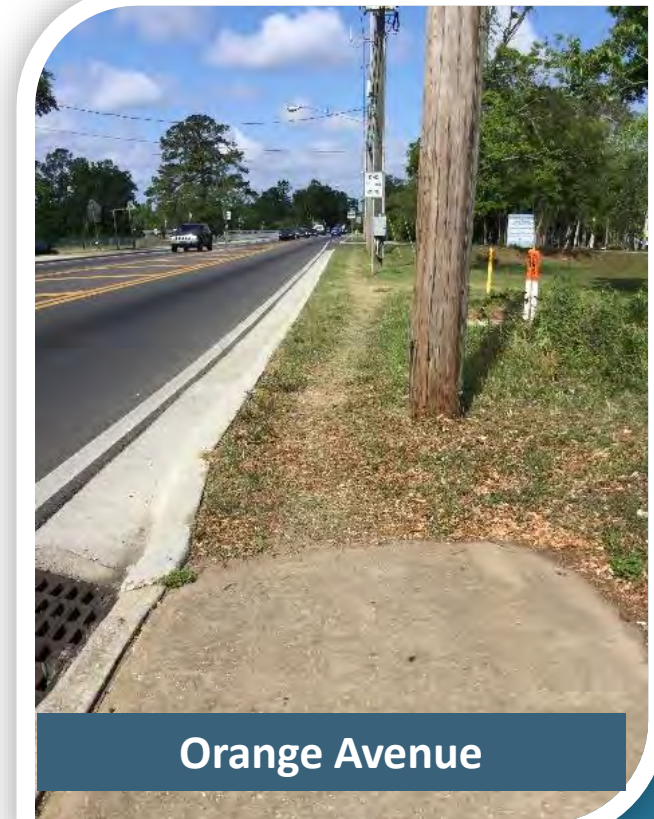
Please take a few moments to provide any additional feedback and comment on the forms provided at this station.

If you require additional writing space, please use an extra comment form, or continue onto the back.



Next Steps

- District Forums (Fall 2018)
 - Springhill Road
 - N/S Lake Bradford Road
- Additional Analysis/Corridor Assessment
- Identification of the Vision of the Corridors
- Improvement Recommendations
- Community Open House
- Corridor Master Plan



Southwest Area Transportation Plan

We appreciate your
participation!

Capital Region Transportation Planning Agency

CRTPA Contact: Jack Kostrzewa

Phone: 850-891-8625

Email: john.Kostrzewa@crtpa.org

ORANGE AVENUE DISTRICT MEETING
THURSDAY | JUNE 28, 2018
DR. BL PERRY BRANCH LIBRARY

SIGN IN SHEET

NAME	ADDRESS	EMAIL	PHONE NUMBER
Prince, Smith	Coleman St	fsn9500@gmail.com	11
Carolyn Smith	Coleman St.	11	11
Jeanne Manning	606 FANCEE Ave	pejeanne@MSN.com	575-5606
Suzanne Lee	F Dot	suzanne.lee@dot.state.fl.us	245-7936
Will Haly	1911 Wcheland Ct	willp2fs@gmail.com	728 6582
Kathryn Ziehwitz	1906 Redwood Dr	Kathryn.ziehwitz@fann.edu	850-896-4027
Howard Hodge		hhodge@pasgrp.com	850-212-1617
CONRAD Metcalfe	1344 TERRACE	conrad@killearn.org	607-327-0583
Rich Mospens	2317 Chester Ct	mospensr@comcast.net	850-443-2514
Tameka Smith		Tyes2005@yahoo.com	

ORANGE AVENUE DISTRICT MEETING

THURSDAY | JUNE 28, 2018

DR. BL PERRY BRANCH LIBRARY

SIGN IN SHEET

NAME	ADDRESS	EMAIL	PHONE NUMBER
Julie Christensen	1904 Miccosukee Rd	Julie.Christensen@tara.gov	
Chris Muehlenmann	2280 Miccosukee Rd	muehlenmann@leoncountyfl.gov	
Joe HANNON	ORANGE AVENUE		
TREVOR HYLTON	FAMU	thylton@fam.edu	606 5240
Kim Stephens		kstephens@chrtb.com	850-415-9615
Brenda Shultz	3151 Echo Point Lane	b.shultz@comcast.net	850-329-7844
William Barber	4277 LACAYLITE ST 32406	WBARBER@PECS.COM	850-526-2291
Charles Thomas	3115 PARKRIDGE DR	THOMAS.FARM@yaho.com	850-545-5275
HAROLD SHENK	3817 MCFARLANE DR	HSHENK@FS.FED.US	850-926-3561
Leann Watts Williams	COT/PRN A	leann.watts@williams.com	891-8527

ORANGE AVENUE DISTRICT MEETING

THURSDAY | JUNE 28, 2018

DR. BL PERRY BRANCH LIBRARY

SIGN IN SHEET

NAME	ADDRESS	EMAIL	PHONE NUMBER
Frankel St. Louis	600 Eugenia St.	frankel1.StLouis@Fomaha	(954) 612-1655
Daniel Albrighton	3420 W Thayer St	dalb@fordf.k12schools.net	(850) 933-5354
Gothy Stich	3085 Echo Point Lane	stichg2@longcrest.net	
Autumn Calder	3155 Calhoun St. S. 315	autumn.calder@blueprintia.org	219-1060
Mike Hannon	1109 W Orange Ave	mHannonSMR@gmail	850 545 2732
Kim Skula	2781 Ole Ben Cir.	kimberley.skula@gmail.com	850-322-2003
Xavier Pagan	—	xpagan@comp.com	850-892-9600
Dustin Dailey		dndailey@fsu.edu	
KEVIN GRAMM		Kevin.GRAMM@fsu.edu	
Stew Shuler		stew.shuler@fclgov.com	
Lynn Jones (Please Provide MAPS online)		mde42008@gmail.com	850-284-8778
Britney Moore	Dep-06T	Britney.moore@Dep.Stark.fl.us	850-245-3069
Gus Wilson	2027 Chulivere		850-519-1338
ROGER HOLDEN	3085 Gov Ct Dr		6566521
Sharon Smith	Highland St.	fsu950@gmail.com	

ORANGE AVENUE DISTRICT MEETING: COMMENT FORM

Please provide comments regarding the Southwest Area Transportation Plan below:

Orange Avenue east of Manroe is great for confident cyclists, but not for casual cyclists, and it's an unpleasant space for walkers. Some parts of the eastern streetscape could be duplicated to the west, but don't make Orange into a 4-lane highway. You do need continuous bike lanes and sidewalks the whole way, obviously. They should be separated from the motorized traffic lanes by a grass buffer.

Intersections need bulges to narrow traffic lanes and protect residents.

Access to St Mark's Hall from Orange, west and east, is very desirable.

Please pay great attention to aesthetics - make ~~make~~ this a street that people ~~can~~ might enjoy walking along. This is a marker of a development that works for residents. If it's a high-volume traffic thoroughway for ~~people~~ commuters who live + work elsewhere, it will show. Make it comfortable for humans ~~not~~ who are not in cars. This starts with buffered sidewalks + bike lanes. 1 Do not imitate Tennessee St!

The following optional questions are only used for informational purposes to determine who our public involvement activities are reaching and appealing to.

Your answers are confidential and will not be used for any other reasons.

Please provide the street name where you live:

I live on Wahala Way

Do you live within the southwest area of Tallahassee/Leon County? Yes ☐ No ☒ Not Sure

What is your gender?

☒ Male

☐ Female

Do you own or have access to a vehicle?

☐ Yes

☒ No

What is your race?

☒ White

☐ African-American

☐ Other

Do you have a disability that limits your mobility?

☐ Yes

☒ No

What is your age?

☐ Under age 18

☐ 18 to 29

☒ 30 to 59

☐ 60 to 74

☐ 75 or older

Do you speak a language other than English fluently? Yes, I speak Spanish. No ☐

I would be interested in serving as an interpreter. You may contact me at 904-222-1234

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, income, or family status.

ORANGE AVENUE DISTRICT MEETING: COMMENT FORM

Please provide comments regarding the Southwest Area Transportation Plan below:

Consider continuing data collection
on pedestrian safety, accessibility, and community
needs.

Traffic appears to be a major issue
during the evening between Pasco St and
Monroe St. Please, consider collecting data on
who is utilizing these roads and how to
divert local and non-local traffic

The following optional questions are only used for informational purposes to determine who our public involvement activities are reaching and appealing to.

Your answers are confidential and will not be used for any other reasons.

Please provide the street name where you live:

I live on 600 Eugenia St.

Do you live within the southwest area of Tallahassee/Leon County? ☒ Yes ☐ No ☐ Not Sure

What is your gender?

☒ Male
☐ Female

Do you own or have access to a vehicle?

☒ Yes
☐ No

What is your race?

☐ White
☒ African-American
☐ Other

Do you have a disability that limits your mobility?

☐ Yes
☒ No

What is your age?

☐ Under age 18
☒ 18 to 29
☐ 30 to 59
☐ 60 to 74
☐ 75 or older

Do you speak a language other than English fluently? Yes, I speak Haitian Creole No
I would be interested in serving as an interpreter. You may contact me at (954) 612-1655

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, income, or family status.

FAMU Greenway Enhancements to Consider

Contacts: Kathryn Ziewitz, FAMU Sustainability Institute, Kathryn.ziewitz@famuedu, 412-5413; Trevor Hylton, FAMU Extension, UF IFAS Extension, trevor.hylton@famuedu, 606-5240

*Carry out what is listed in Project #29, highlights of which are a 1.2 mile paved min. 10' non-moto trail and improvements to drainage ditch to facilitate flow and reduce flooding and erosion; plus simple (non traffic light) road crossings and signage to identify trail.

ADDITIONS TO CONSIDER

- 1) Add a full traffic light at Orange crossing to facilitate safe access both to trail and to FAMU Community garden from FAMU DRS School and for trail users;
- 2) Involve professional foresters to assess urban forests along corridor, thin and maintain forests along entire water course, including behind FAMU Community Garden;
- 3) Add buffer plantings of hardy, low-growing and appropriate native plants or fruit trees (consider Chickasaw plums) in this area and other CRPTA/FAMU areas;
- 4) Create interpretive/educational signage about waterway and connection to aquifer, plus about harm to environment from plastic and other trash;
- 5) Place trash receptacles;
- 6) Add seating areas;
- 7) Construct FAMU gateway signage;
- 8) Support enhancements to FAMU Community Garden in a node area along the east side of the garden bordering the trail and water course. If agreeable to FAMU and government authorities, this area would be accessible by the general public, including school children, university students, and trail users, and could include bike racks, gate access from trail, drinking fountain, demonstration planting beds to be maintained by FAMU, and interpretive signage about urban agriculture, water quality or other topics;
- 9) Enhance streetscape along FAMU Community Garden with fencing similar to being used for County Fairgrounds;
- 10) Add lighting for safety along strategic points of FAMU Greenway.

FAMU Blueprint/Cap. Regional Transport Authority Preliminary Ideas: the FAMU GREEN Proposal

Proposed Project	General Location	Match to Goals	Details
<p>FAMU Greenway Project with Enhancements in conjunction with gateway at Adams & Orange (enhanced proposal of Project #29 from Blueprint TLH-Leon Greenways plans). Would result in major improvements in appearance and function of Adams/Orange FAMU Gateway plus linkage to FAMU Greenway and enhancement to community of access to education about urban agriculture and</p> <p>1 stormwater.</p> <p>Stormwater retention/detention with water</p> <p>2 feature/walking trail</p> <p>Addition of Wayfinding signs at strategic locations along roadways including Orange Ave., Adams St, Wahnish Way, Okaloosa and Campbell Street</p> <p>3 (connecting to Bond Elementary)</p> <p>4 Closing Wahnish Way between Gamble & Okaloosa</p> <p>5 Urban agriculture initiative (FAMU SBDC and SBI) Storefront & streetscape improvements S. Monroe</p> <p>6 and Adams</p> <p>7 Plantings of natives along FAMU Green Corridors</p>	<p>Adams to Wahnish (full extent is from Meridian to St. Marks trail adjacent to Nims Middle School) south area of campus; trails would link to Project 1</p> <p>Wahnish Way and Adams MLK near intersection</p>	<p>Aesthetics; placemaking; mobility (non-motorized); enhancement of environmental features; improve stormwater quality; restore habitat & enhance landscaping.</p> <p>Enhancing placemaking and Connectivity</p> <p>pedestrian safety; curtail through traffic</p> <p>Aesthetics; restore habitat and enhance landscaping</p>	<p>*Carry out what is listed in Project #29 (1.2 mile min. 10' non-moto trail); improve channel to facilitate flow and reduce flooding and erosion; add signage. PLUS: 1) Add a light at Orange crossing to facilitate safe access both to trail and to FAMU Community garden from FAMU DRS School and for trail users; 2) involve county foresters to assess urban forests along corridor, thin and maintain forests along entire water course, including behind FAMU Community Garden, 3) add buffer plantings of native or fruit trees (consider Chickasaw plums); 4) create interpretive/educational signage about waterway and connection to aquifer, plus about harm to environment from plastic and other trash; 5) place trash receptacles, 6) construct FAMU gateway signage; 7) support enhancements to FAMU Community Garden that are accessible by public (bike racks, gate access from trail, drinking fountain, planting beds along Orange; interpretive signage about urban agriculture 8) Enhance streetscape along FAMU Community Garden with fencing similar to being used for County Fairgrounds; 9) Add lighting for safety along strategic points of FAMU</p> <p>Points of interest to include: stadium, campus and community gardens, historic buildings, FAMU Quad, Bond Elementary, Nims Middle, Walker-Ford Center.</p> <p>Plantings must be hardy and easy to maintain; potentially Chickasaw plums or natives.</p>

ACTIVITY STATION 3: TRAFFIC INFORMATION

Please provide comments regarding the information provided at Station 3.

Traffic flow on Orange Ave. during the evening may be poor due to non-community drivers sharing the road with drivers from the community. Should find a way to divert drivers who do not live in the community.

Synchronize the traffic lights so that they allow for efficient traffic flow between Pasco St. and Monroe St.

ACTIVITY STATION 3: TRAFFIC INFORMATION

Please provide comments regarding the information provided at Station 3.

Orange Avenue Corridor experiences traffic congestion most days of the week including weekends. Problematic areas that need to be addressed are from Lake Bradford Road to South Adams Street. For future growth the Corridor should include at minimum a 4-Lane Roadway. Additional features needed are Audible Crosswalks as well as Delayed Timed Crosswalks to accommodate safe travel for the Disabled and/or Elderly. Further Solar Traffic Signals should be considered or Smart Traffic Signals to utilize technology to manage traffic flow instead of relying on outdated, manually timed/controlled Traffic Signals.

ACTIVITY STATION 1: EXISTING TRANSPORTATION FACILITIES

Please provide comments regarding the information provided at Station 1.

- Pedestrian connectivity + bike connectivity
~~from~~ to St. Marks Trail at
Orange from the West is needed.

There are lots of paths through the
trees, and pedestrians need
something better.

ACTIVITY STATION 1: EXISTING TRANSPORTATION FACILITIES

Please provide comments regarding the information provided at Station 1.

Better mapping of paved shoulders is
needed. There are a lot of de facto
bike lanes resulting from the last FDOT
work (maybe 4 years ago?), but they
are discontinuous. It's important to
represent those discontinuities on any map
of existing facilities. Have staff ride
+ walk the whole corridor please!
Impossible to professionally plan without this!

ACTIVITY STATION 3: TRAFFIC INFORMATION

Please provide comments regarding the information provided at Station 3.

Synchronize traffic lites for
traffic volume

ACTIVITY STATION 2: STAKEHOLDER FEEDBACK

Please provide additional comments related to the corridor at Station 2.

Safety concerns on Magnolia dr.,

ACTIVITY STATION 2: STAKEHOLDER FEEDBACK

Please provide additional comments related to the corridor at Station 2.

NEW GATEWAY ROUTE IS GOING TO BE VERY (TOO) COSTLY. USE EXISTING LK. BRADFORD. THE NEW ROUTE DOES NOT INCLUDE EASY ACCESS TO FAMU.

CONNECTION TO THE ST. MARKS BIKE TRAIL MUST BE INCLUDED IN ANY IMPROVEMENTS TO ORANGE AVE

ORANGE AVENUE DISTRICT MEETING: COMMENT FORM

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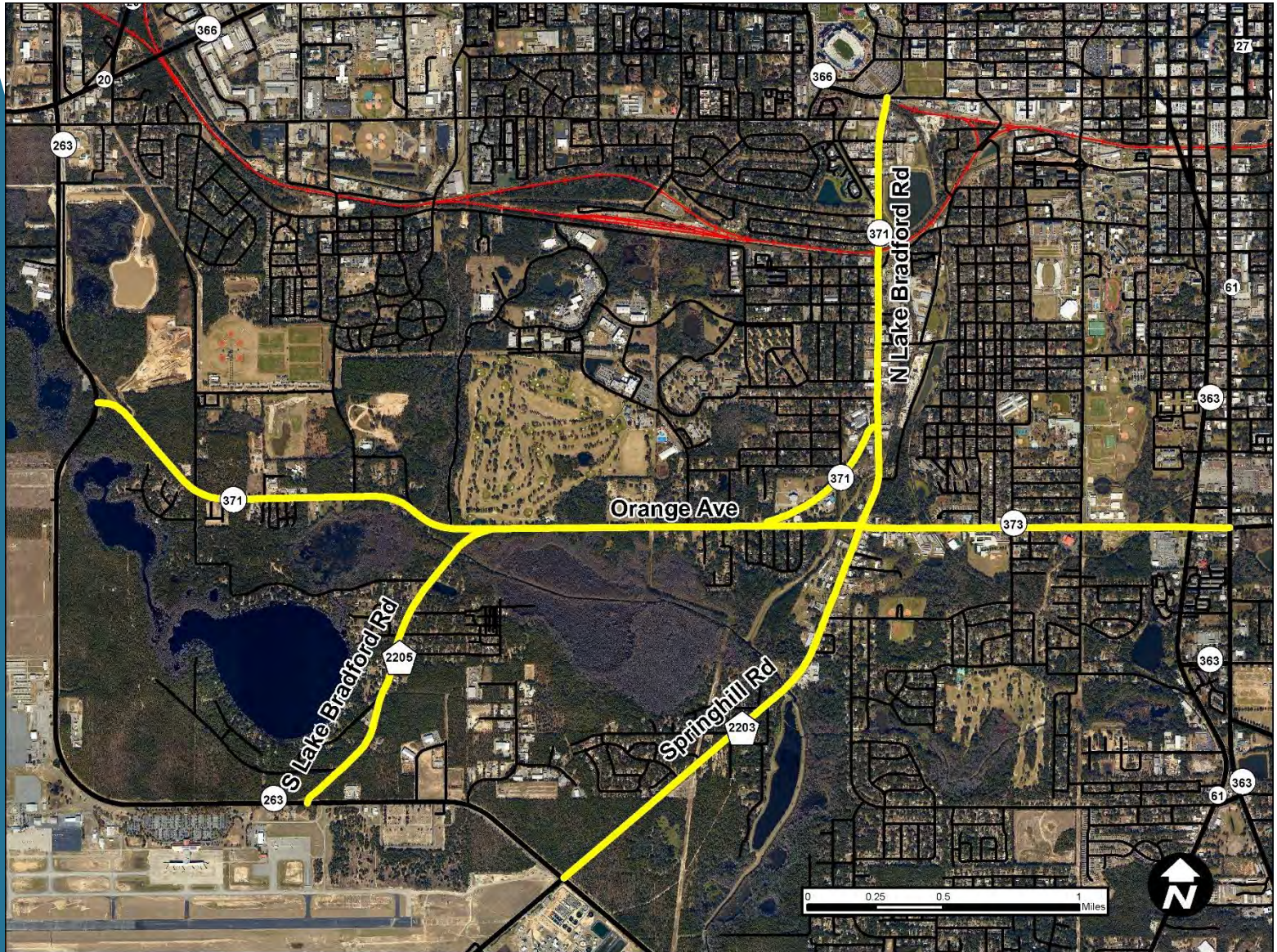
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[illegible]

Project Area



Project Corridors

- Lake Bradford Road (Capital Circle SW to Gaines Street)
- Orange Avenue (Capital Circle SW to Monroe Street)
- Springhill Road (Capital Circle SW to Lake Bradford Road)

Contact Information

CRTPA: Jack Kostrzewa

- Phone: 850-891-8625
- Email: jack.kostrzewa@talgov.com

Blueprint IA: Autumn Calder, AICP

- Phone: 580-219-1060
- Email: autumn.calder@blueprintia.org

Stakeholder Meetings			
Stakeholder	Stakeholder Representative	Contact Person	Email
Leon County School Board/Schools			
	Leon County School Board Representative	Danny Allbritton	allbrittond@leonschools.net
	R Frank Nims Middle School	Principal: Kelvin Norton	nortonk@leonschools.net
	Pineview Elementary School	Principal: Marilyn Jackson-Rahming	rahmingm@leonschools.net
FAMU			
	Craig Talton, Director of Facilities Planning & Construction	""	Craig.Talton@famu.edu
	Sameer Kapileshwari, Associate VP of Facilities Planning, Construction and Safety	""	sameer.kapileshwari@famu.edu
FSU			
	FSU Foundation	Kevin Graham	kevin.graham@fsu.edu
	Mark Bertolami, Director of Planning and Space Management	""	mbertolami@admin.fsu.edu
Greater Tallahassee Chamber of Commerce			
	Sue Dick	""	sdick@talchamber.com
	Jay Revell	""	jrevell@talchamber.com
Big Bend Minority Chamber of Commerce			
	Interim President: Gina Kinchlow	""	gina@mybbmc.org
Capital City Chamber of Commerce			
	Dianne Williams-Cox	""	capitalcitychamber@gmail.com
	Terence Hinson	""	
Innovation Park			
	Exec Director: Ron Miller	""	rmiller@inn-park.com
Tallahassee Museum & US Forest Service (combined meeting)			
	Tallahassee Museum	Russell Daws	rdaws@tallahasseeuseum.org
	US Forest Service Representative: Wakulla Ranger District	Harold Shenk	hshenk@fs.fed.us
South Side Community Leaders			
	Frenchtown/Southside Citizen's Advisory Committee	Rahni Wright	rahni.spencer@gmail.com
Presentation at the Bicycle Working Group			
	N/A	TLC Planning: Julie Christesen	Julie.Christesen@talgov.com
Big Bend Homeless Coalition			
	BBHC	Exec Director: Sylvia Smith	ssmith@bigbendhc.org

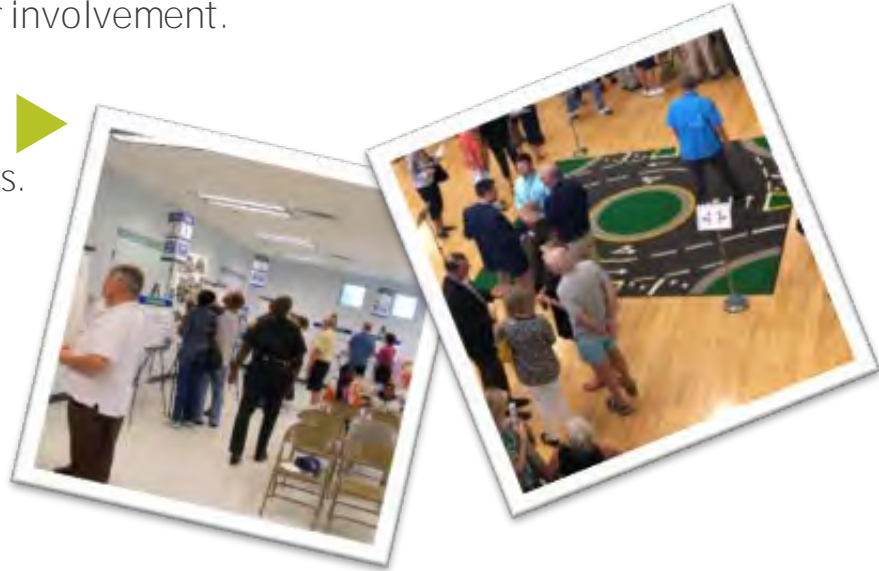
Southwest Area Transportation Plan

Project Goal

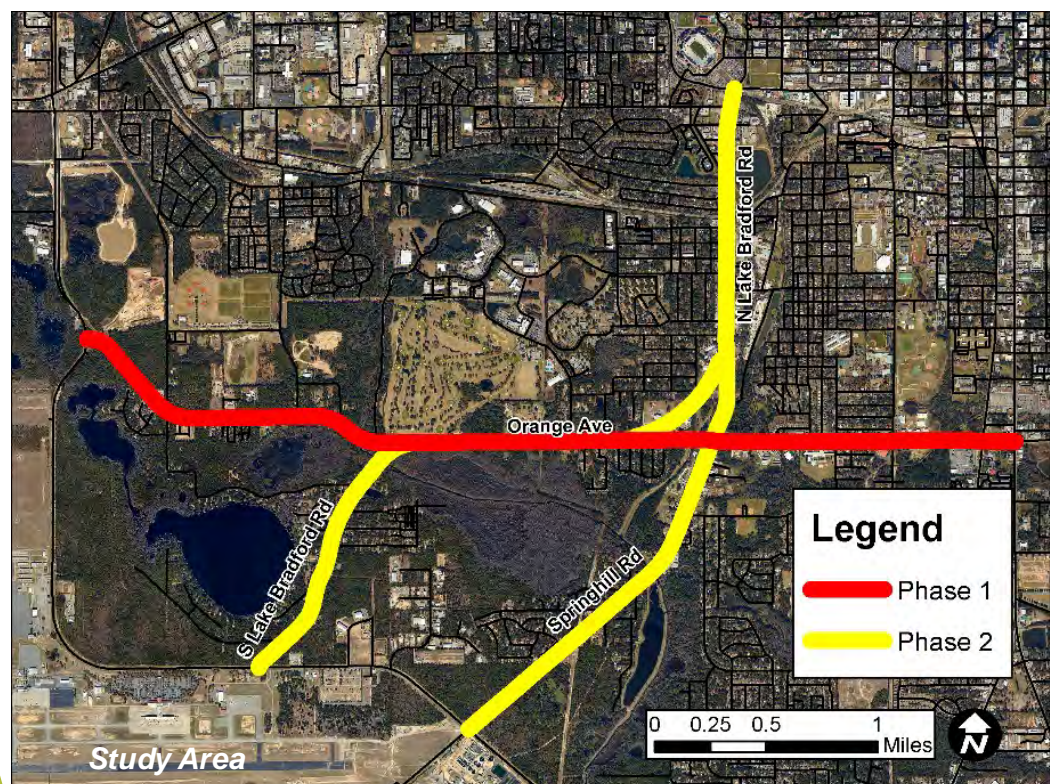
To develop complementary and cohesive corridor plans that enhance safety, mobility, and connectivity in the southwest area of Tallahassee, while preserving the character of the existing neighborhoods and environmental features through data analysis and public/stakeholder involvement.

In order to accommodate existing and future transportation efforts, the Plan is divided into two phases.

- Phase 1 will address the Orange Avenue corridor from Monroe Street to Capital Circle SW.
- Phase 2 will focus on North and South Lake Bradford Road as well as Springhill Road.



Both phases will include opportunities for citizens to be involved and to provide comment on the planning efforts.



Phase 1: Orange Avenue

First and foremost, we want your comments and suggestions on how the Orange Avenue corridor should be developed in the future.

- *What do we need to incorporate into the plans to address local concerns?*
- *Are there needs, such as access to Nims Middle School?*
- *Better access to the Tallahassee Museum?*
- *Better transit service?*

The Florida Department of Transportation (FDOT) will be performing a Project Development & Environment (PD&E) study beginning in the Fall of 2018 to look at the corridor for improvements such as four laning, intersection improvements, medians, bike lanes, and more. Now is your opportunity to suggest changes that should be incorporated into the FDOT plans.

Phase 2: Lake Bradford Rd and Springhill Rd

At the same time Phase 1 is moving forward, there are three other corridors that the Plan is addressing for potential improvements which include North and South Lake Bradford Road, and Springhill Road. The outreach to citizens for these corridors will be the same for the efforts on Orange Avenue. However, with these projects there are no currently funded or programmed phases such as the PD&E for Orange Avenue.

Work Completed to Date

To date, the work underway for the Plan includes a lot of data collection and meetings with large stakeholders including:

- | | |
|------------------------------|---|
| ✓ Leon County School Board | ✓ Innovation Park |
| ✓ FAMU | ✓ Big Bend Homeless Coalition |
| ✓ FSU | ✓ Tallahassee Chamber of Commerce |
| ✓ Tallahassee Museum | ✓ Big Bend Minority Chamber of Commerce |
| ✓ Nims Middle School | ✓ US Forest Service |
| ✓ Pineview Elementary School | ✓ Capital City Chamber of Commerce |

Project Team Contact Information

Capital Region Transportation Planning Agency (CRTPA)

- CRTPA Contact: Jack Kostrzewa
- Phone: 850-891-8625
- Email: john.kostrzewa@crtpa.org

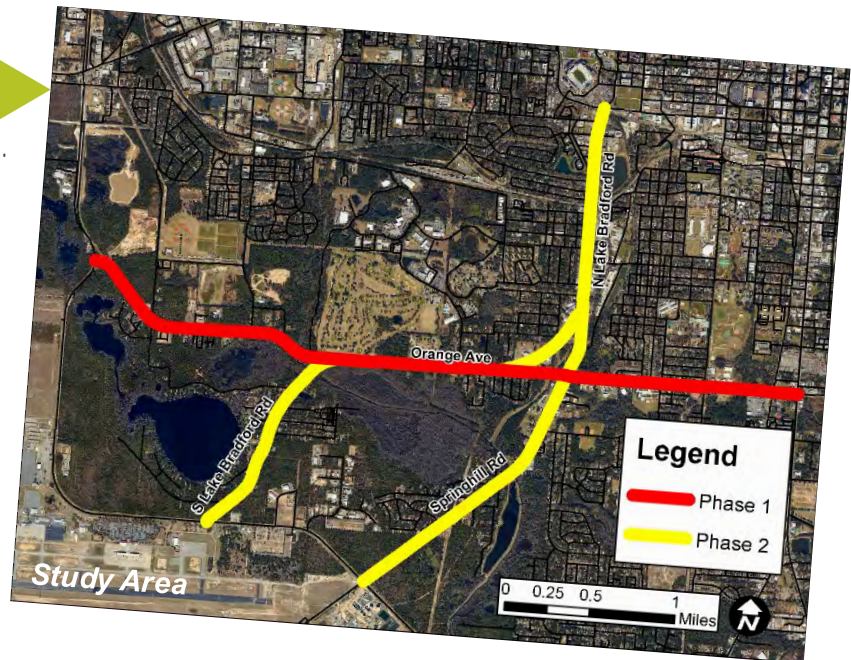
Southwest Area Transportation Plan

Project Goal

To develop complementary and cohesive corridor plans that enhance safety, mobility, and connectivity in the southwest area of Tallahassee, while preserving the character of the existing neighborhoods and environmental features through data analysis and public/stakeholder involvement.

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- Phase 1 will address the Orange Avenue corridor from Monroe Street to Capital Circle SW.
- Phase 2 will focus on North and South Lake Bradford Road as well as Springhill Road.



Both phases will include opportunities for citizens to be involved and to provide comment on the planning efforts.

Upcoming Public Meeting

Phase 1 District Forum: Orange Avenue

Location: DR BL Perry Jr Branch Library
2817 S Adams St, Tallahassee FL 32301

Date: Thursday, June 28, 2018

Time: 6:00 pm to 7:30 pm

We Want Your Input!

Phase 1: Orange Avenue

First and foremost, we want your comments and suggestions on how the Orange Avenue corridor should be developed in the future.

- *What do we need to incorporate into the plans to address local concerns?*
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| ✓ Nims Middle School | ✓ US Forest Service |
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Project Team Contact Information

Capital Region Transportation Planning Agency (CRTPA)

- CRTPA Contact: Jack Kostrzewa
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- Email: john.kostrzewa@crtpa.org

Appendix C- Existing Facilities and Opportunities by Segment

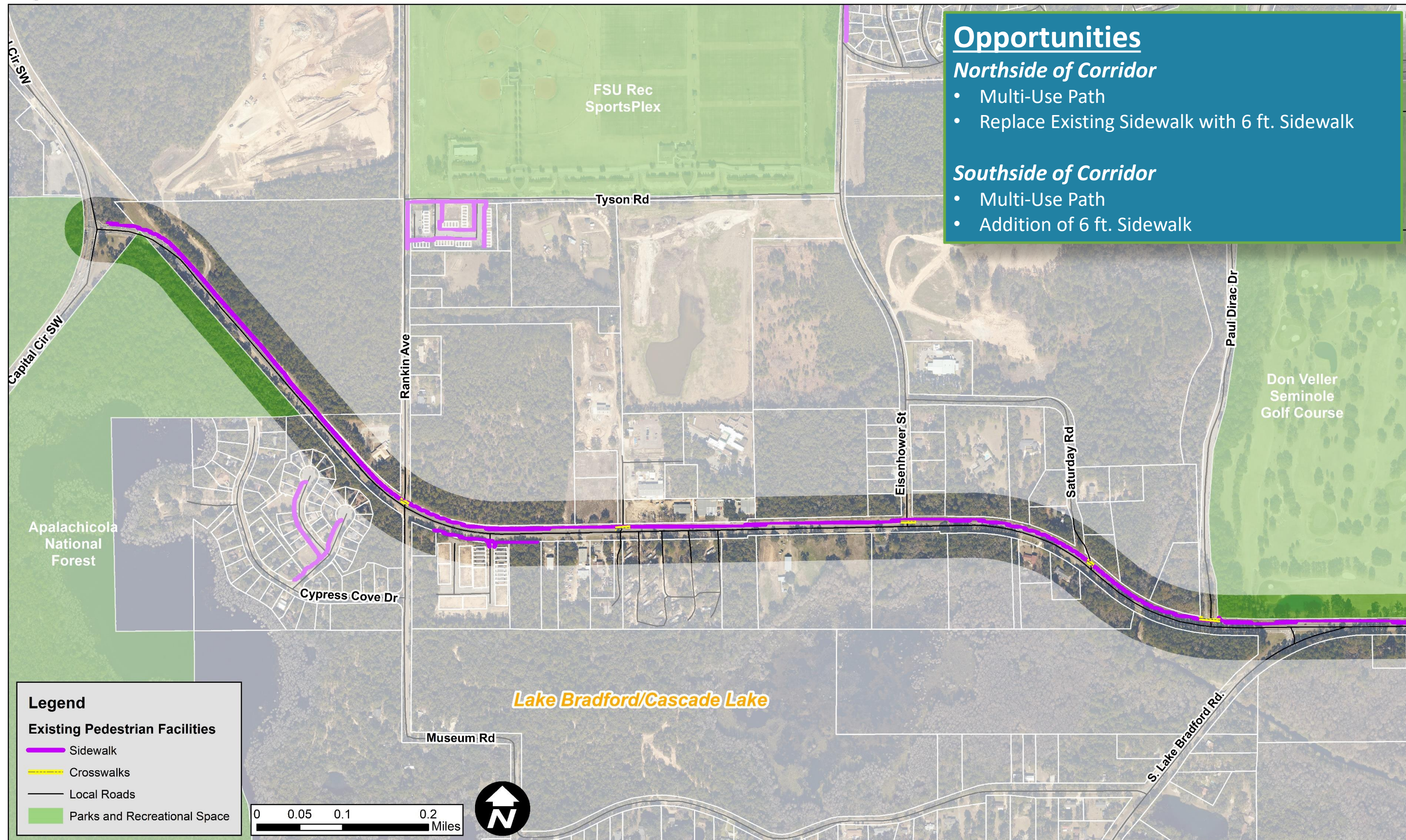
Opportunities

Northside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk

Southside of Corridor

- Multi-Use Path
- Addition of 6 ft. Sidewalk



Opportunities

Northside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane

Southside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane



Opportunities

Northside of Corridor

- Low to Medium Transit Amenities

Southside of Corridor



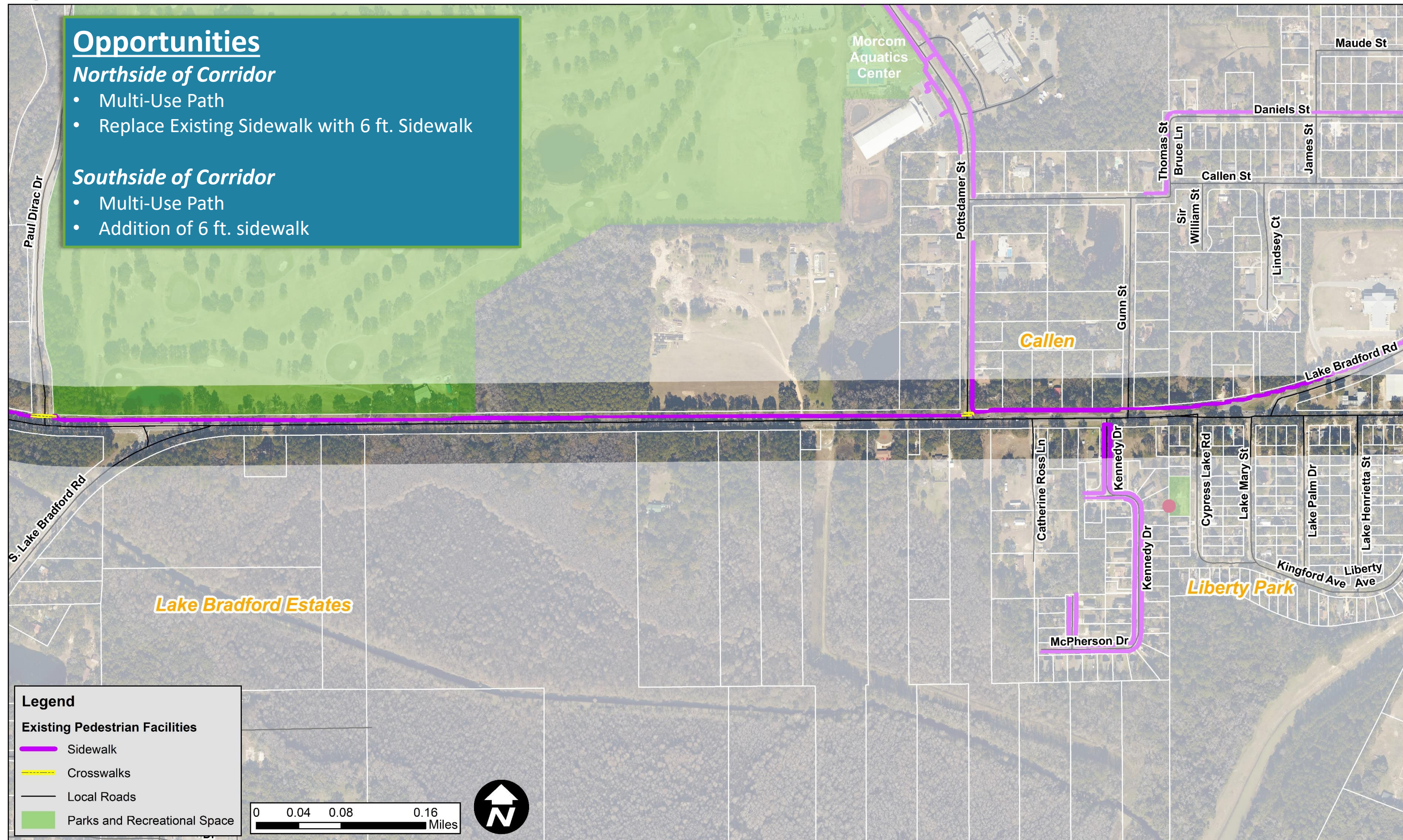
Opportunities

Northside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk

Southside of Corridor

- Multi-Use Path
- Addition of 6 ft. sidewalk



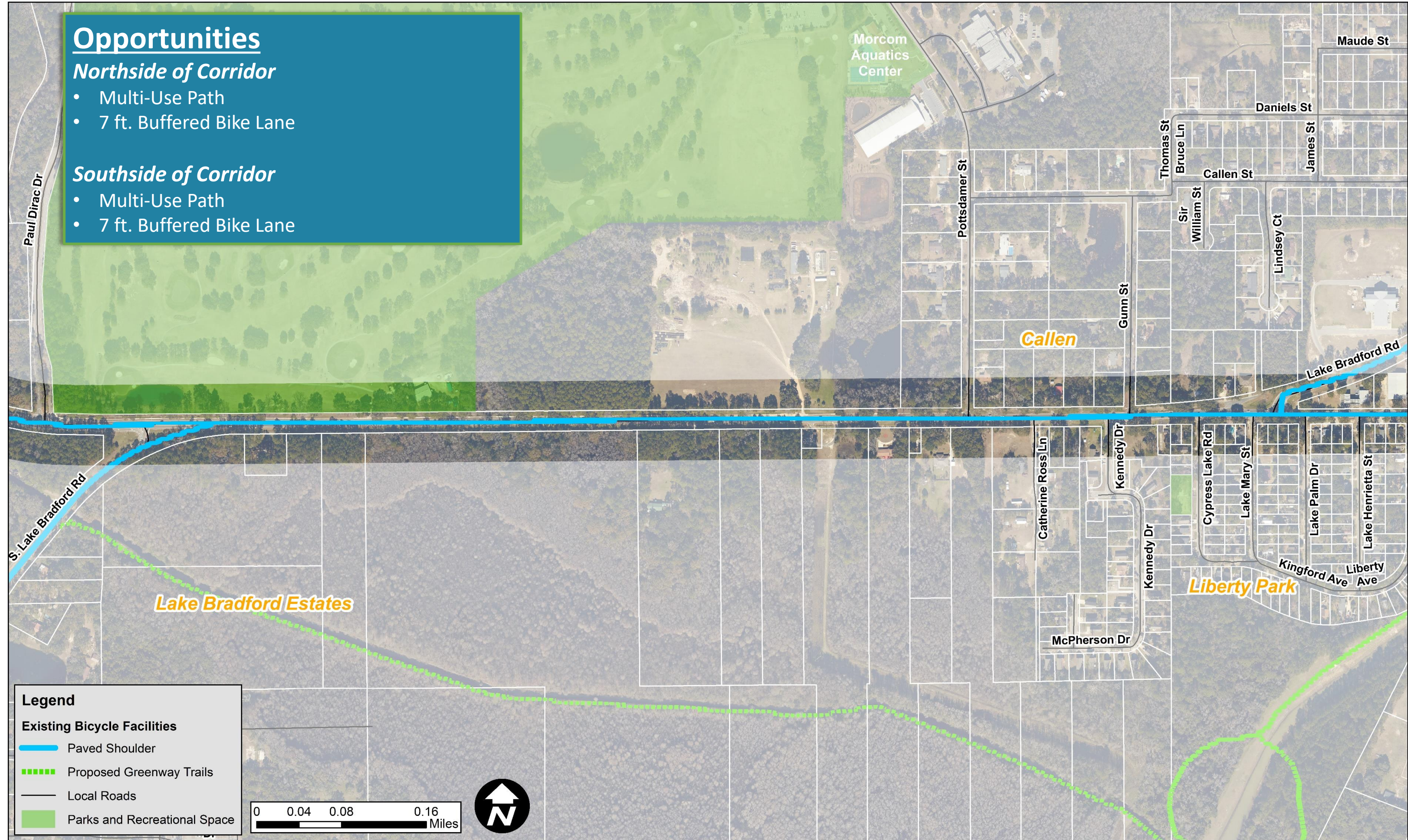
Opportunities

Northside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane

Southside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane



Legend

Existing Bicycle Facilities

- Paved Shoulder
- Proposed Greenway Trails
- Local Roads
- Parks and Recreational Space

Opportunities

Northside of Corridor

- Low to Medium Transit Amenities

Southside of Corridor

- Low to Medium Transit Amenities



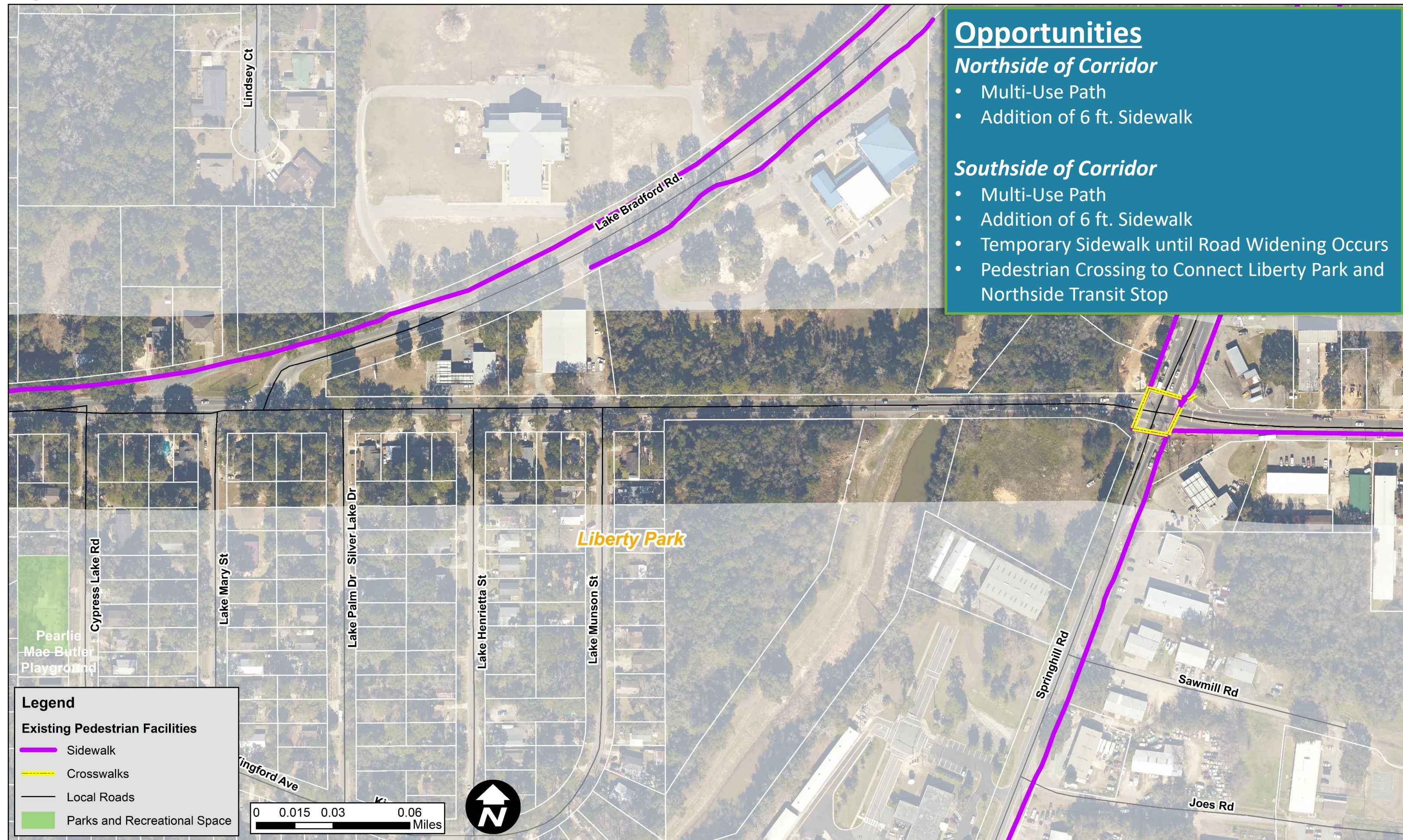
Opportunities

Northside of Corridor

- Multi-Use Path
- Addition of 6 ft. Sidewalk

Southside of Corridor

- Multi-Use Path
- Addition of 6 ft. Sidewalk
- Temporary Sidewalk until Road Widening Occurs
- Pedestrian Crossing to Connect Liberty Park and Northside Transit Stop



Legend

Existing Pedestrian Facilities

- Sidewalk
- - - Crosswalks
- Local Roads
- Parks and Recreational Space

0 0.015 0.03 0.06
Miles



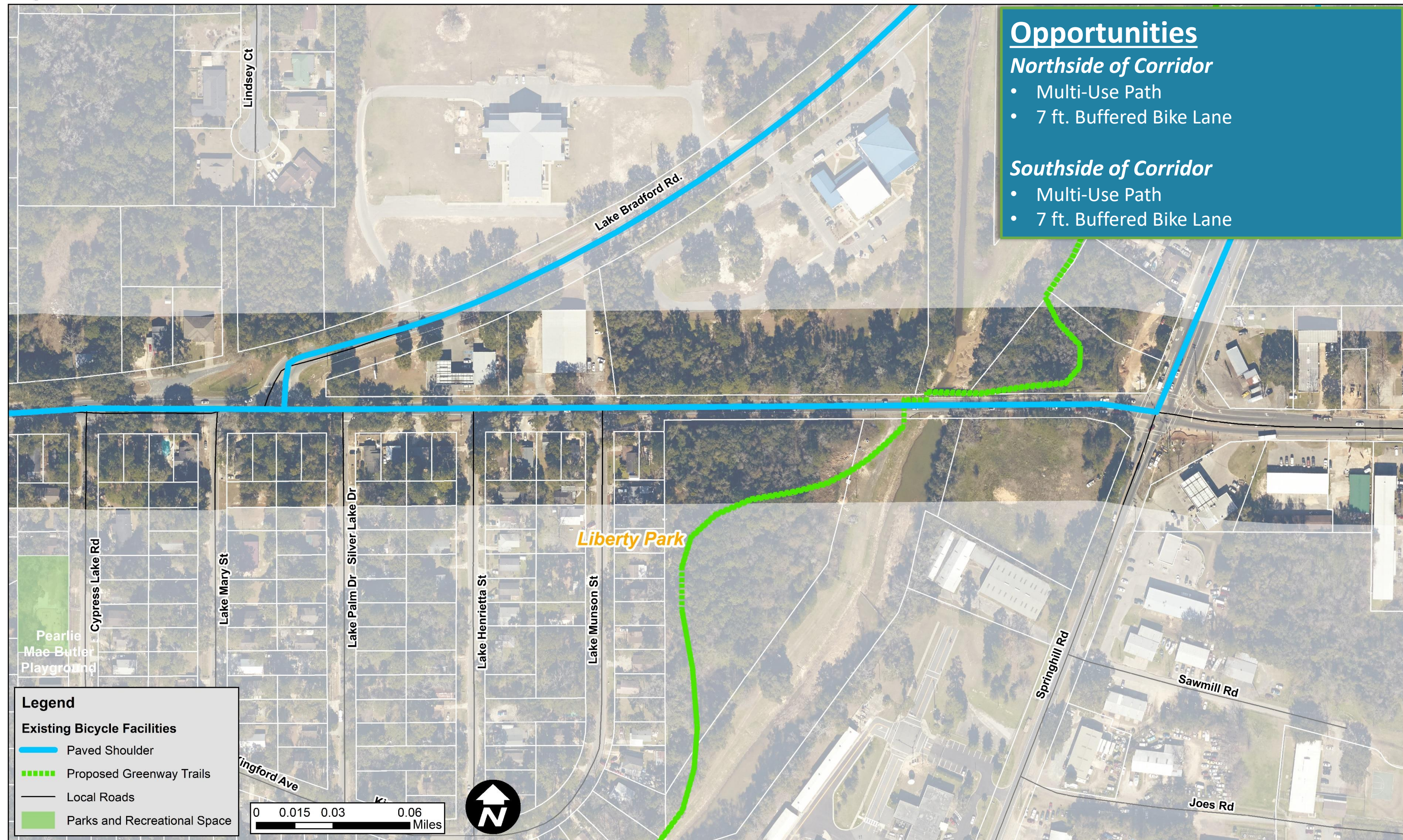
Opportunities

Northside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane

Southside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane



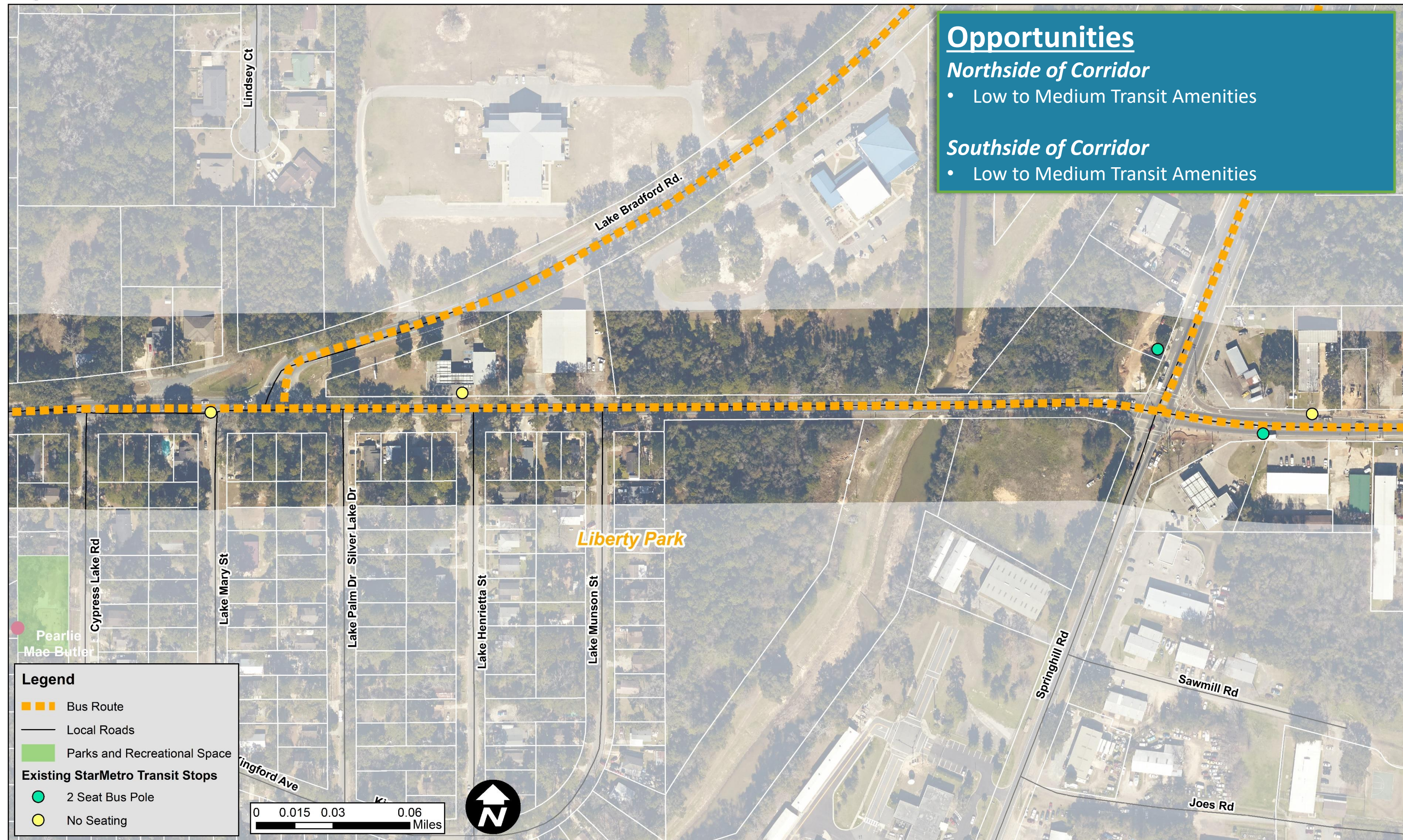
Opportunities

Northside of Corridor

- Low to Medium Transit Amenities

Southside of Corridor

- Low to Medium Transit Amenities



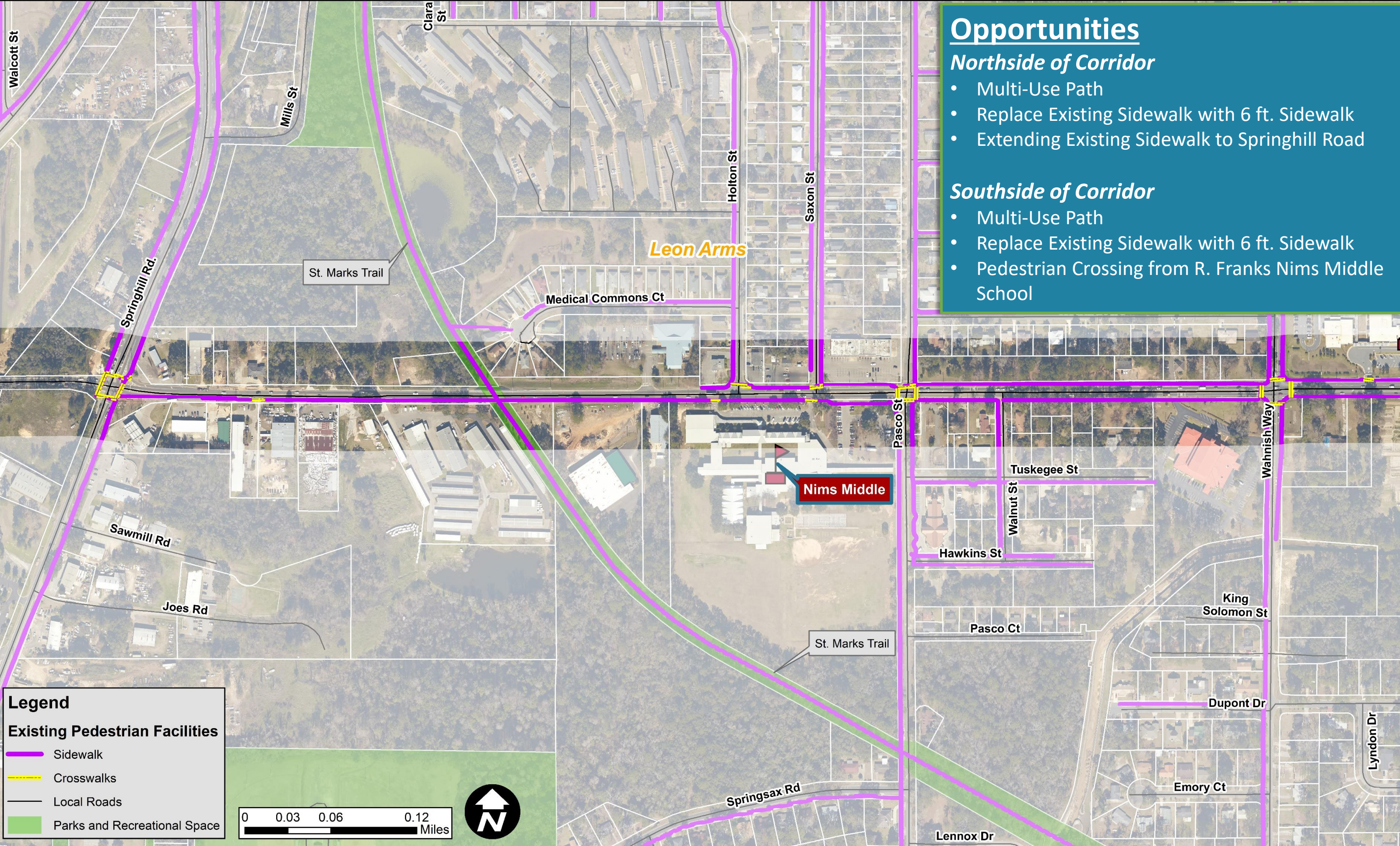
Opportunities

Northside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk
- Extending Existing Sidewalk to Springhill Road

Southside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk
- Pedestrian Crossing from R. Franks Nims Middle School



Legend

Existing Pedestrian Facilities

- Sidewalk
- Crosswalks
- Local Roads
- Parks and Recreational Space





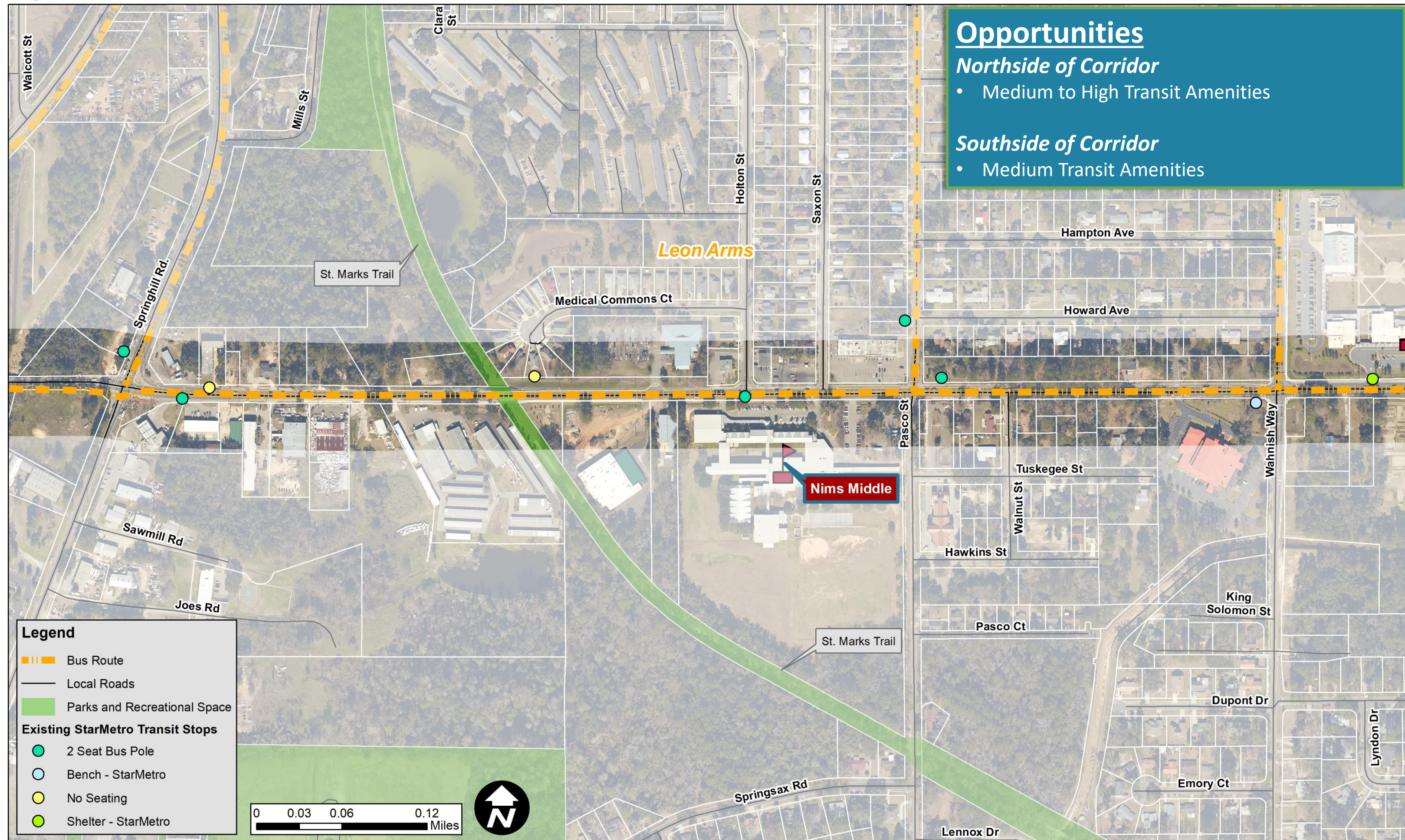
Opportunities

Northside of Corridor

- Medium to High Transit Amenities

Southside of Corridor

- Medium Transit Amenities



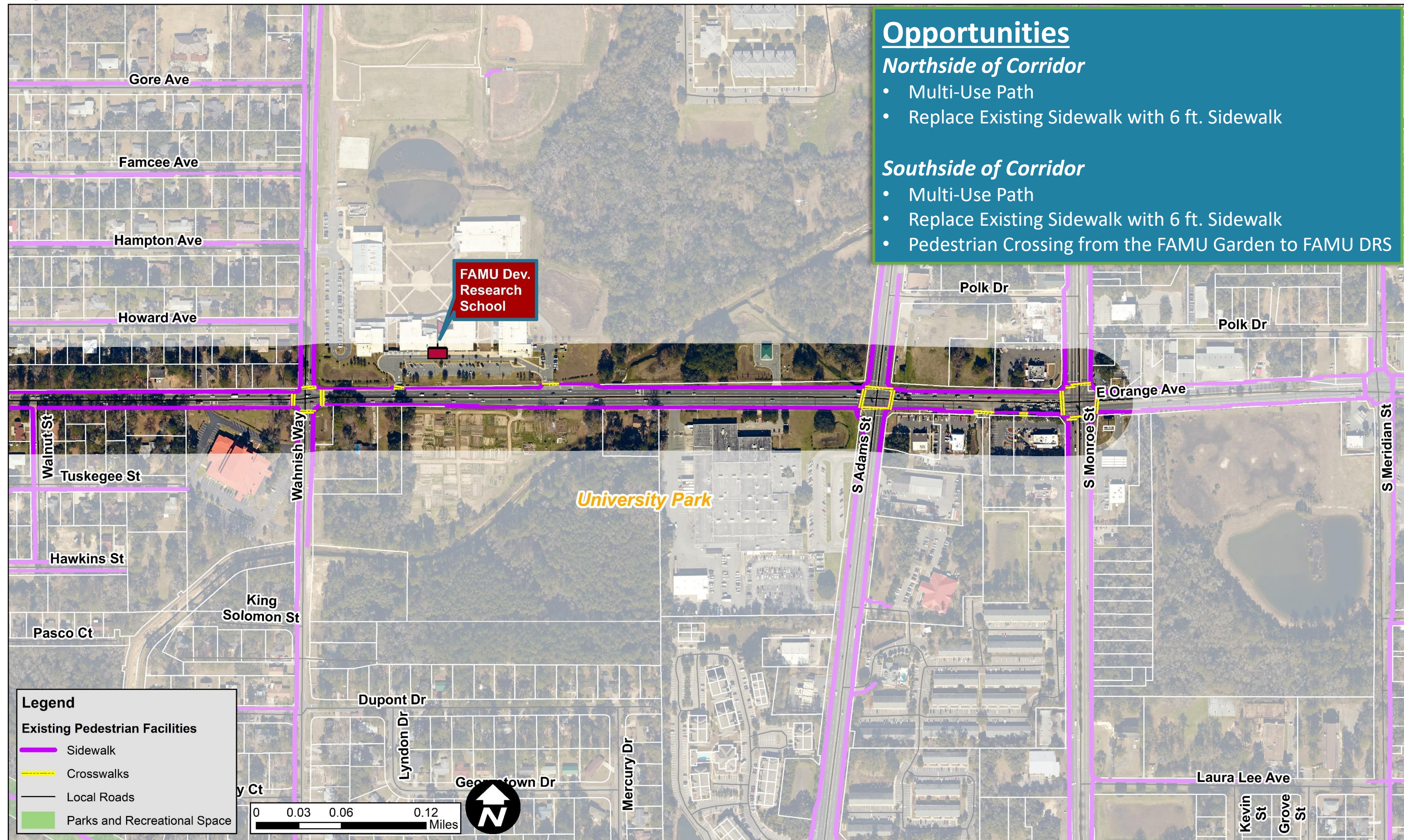
Opportunities

Northside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk

Southside of Corridor

- Multi-Use Path
- Replace Existing Sidewalk with 6 ft. Sidewalk
- Pedestrian Crossing from the FAMU Garden to FAMU DRS



Opportunities

Northside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane

Southside of Corridor

- Multi-Use Path
- 7 ft. Buffered Bike Lane



Opportunities

Northside of Corridor

- Medium to High Transit Amenities

Southside of Corridor

- Medium Transit Amenities





April 2, 2019

COMMITTEE AGENDA ITEM 3C

MIDTOWN AREA TRANSPORTATION PLAN PHASE II

TYPE OF ITEM: TYPE OF ITEM: Presentations/Discussion/Action

STATEMENT OF ISSUE

This item provides a discussion of the recent initiation of Phase II of the Midtown Area Transportation. Phase II will provide a focus on obtaining input on the transportation needs in Midtown through a series of meetings, surveys, workshops and an Open House with stakeholders and the public. A map of the study area is provided as **Attachment 1**.

HISTORY AND ANALYSIS

The Latest

Phase II of the Midtown Area Transportation Plan has recently been initiated and will build upon the options identified and evaluated in Phase I (provided as **Attachment 2**). This phase focuses on obtaining public input on transportation needs in Midtown through a series of stakeholder meetings, surveys, general public workshops, and an Open House. Upon receiving public input, the alternatives will be further refined.

As a background, Phase I of the Midtown Area Transportation Plan provided a traffic operations study that evaluated nine (9) transportation options (many of which are not stand alone and may be implemented in coordination with other identified options). Specifically, the following options were identified:

- **Beard St and North Gadsden St Realignment** - Realignment of Beard Street within existing right-of-way to improve connectivity at this location has been identified.
- **Sidewalk Connectivity** - Missing gaps in the Midtown area are identified (including key missing gaps at N. Gadsden, discussed below).
- **North Gadsden St corridor improvements from 6th Ave to Thomasville Rd** - Identifies construction of missing key sidewalk gaps and road diet in this key location of Midtown.

- **Midtown Boulevard/Complete Street** - by definition, complete streets are streets designed for all users (pedestrian, bicyclists, transit users as well as motorized transportation). Many of the proposed alternatives evaluated can be implemented in a manner that to improve the Midtown area for all users.
- **One-way southbound option of Thomasville Rd from N Gadsden St to N Monroe St** - This alternative improves roadway level of service and could be constructed to use existing right-of-way for complete street improvements. Potential negatives with proposal include reduced access to businesses.
- **One-way southbound option of Thomasville Rd from N Gadsden St to 6th Ave** - This alternative improves roadway level of service and could be constructed to use existing right-of-way for complete street improvements. Potential negatives with proposal include reduced access to businesses.
- **Thomasville, Meridian and N Gadsden Roundabout (includes all existing movements)** - Analysis identifies that this option does not operationally work and will have constructability issues. Additionally, a roundabout at this location creates pedestrian challenges. Study recommendation – Consider not moving forward with further exploration of this option.
- **Thomasville, Meridian and N Gadsden Roundabout (No Gadsden to Meridian movement)** - Analysis identifies constructability issues. Additionally, a roundabout at this location creates pedestrian challenges. Study recommendation – Consider not moving forward with further exploration of this option.
- **6th and 7th Ave Bi-Directional Roadways** - Convert the existing one-way pairs into two-way roadways. Analysis identifies that this change would reduce level-of-service and create additional conflict points at intersections. Study recommendation: Do not move forward with further exploration.

On February 20, 2018, the CRTPA approved Phase 1 of the plan and eliminated the 3 options identified above in blue from further study.

Plan Background

Transportation improvements to the Midtown area of Tallahassee have been discussed and documented for a number of years. Recent efforts include:

- The CRTPA's Connections 2040 Regional Mobility Plan" (adopted on November 16, 2015) which identifies the Thomasville Road/Meridian Road/Seventh Avenue intersection for improvement. This project has been included on the agency's RMP Roadways Priority Project List (and is on the most recent Roadway PPL scheduled for adoption at today's meeting).
- Blueprint Intergovernmental Agency Community Enhancement project ("Midtown Placemaking (Thomasville and Monroe Roads)") that identifies improvements at the five-points intersection of Meridian Road/Thomasville Road/Seventh Avenue as well as streetscaping improvements to Monroe Street (Thomasville Road to Tharpe Street) and Thomasville Road (Monroe Street to Post Road). This project was included in the November 2014 passage of the Leon County Penny Sales Tax Extension.

- FDOT safety study (“Thomasville Road (Midtown) Safety Study”) was conducted by the FDOT on Thomasville Road (Monroe Street to Betton Road) based upon a request by the CRTPA to evaluate bicycle and pedestrian safety along the corridor. The study, presented to the CRTPA on September 19, 2016, identified potential pedestrian safety improvements along the corridor (some of which are included on the agency’s Transportation Systems Management (TSM) Priority Project List for funding).

Midtown Area Transportation Plan

Building upon and coordinating the above efforts, the Midtown Area Transportation Plan was initiated at the June 19, 2017 CRTPA meeting. The plan is being developed in two parts (Phase I and Phase II).

Phase I of the Plan is complete and provides a technical review analyzing potential changes to the transportation network to gain a better understanding of travel patterns in and around the Midtown area of Tallahassee. This phase evaluated existing conditions including data collection efforts that have included use of Bluetooth technology to provide a picture of traffic patterns throughout the Midtown area (including traffic traveling both to and through Midtown).

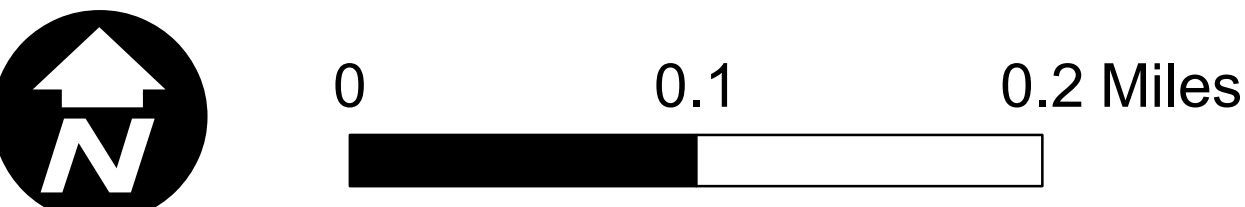
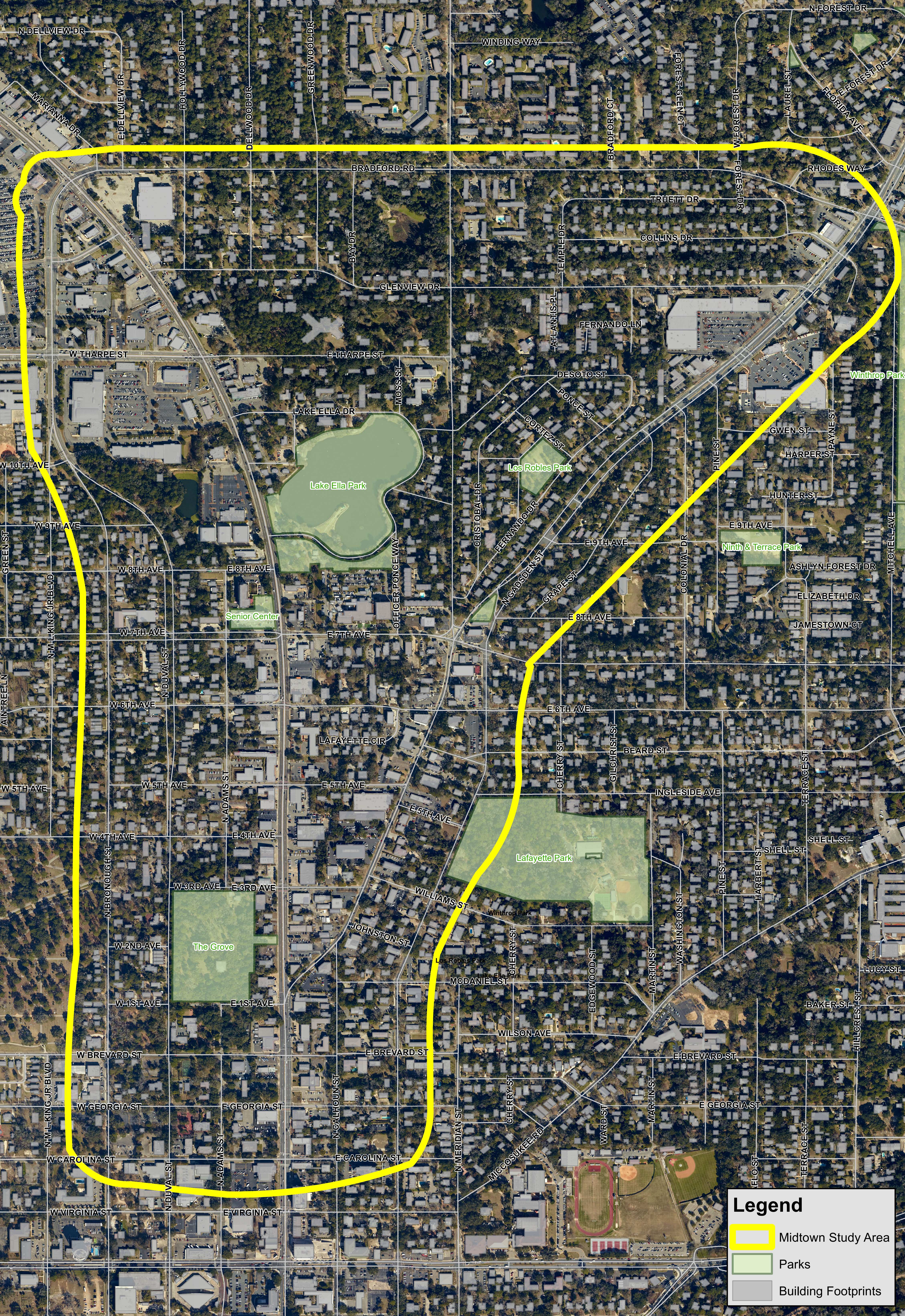
Included within Phase I was the identification of nine (9) options and how each option performs based on both qualitative and quantitative criteria. Due to the technical nature of Phase I of the Plan, coordination efforts focused largely on meetings with the Florida Department of Transportation District 3 and the CRTPA’s local planning partners.

Phase II of the Plan involves public and stakeholder input on the plan including the options identified as well as a refinement of those options.

ATTACHMENTS

Attachment 1: Project Map

Attachment 2: Potential Improvement Options (identified in Phase I)



Midtown Area Transportation Plan Phase II

Midtown Traffic Study: Potential Improvement Options for Future Study

The matrix below depicts how each alternative performs based on multiple qualitative and quantitative criteria. The alternatives are being evaluated to determine which may be viable to move forward for future, more detailed consideration. The criteria include:

- ✓ Maintain/Improve LOS: Does the alternative either maintain acceptable LOS or improve the LOS, when compared with the existing?
- ✓ Sense of Place: Does the alternative enhance the area by providing a uniqueness that sets it apart from the surrounding area?
- ✓ Traffic Calming: Does the alternative include a traffic calming component?
- ✓ Improves circulation/connectivity: Does the alternative improve access to the Midtown area along with improving access to businesses and amenities within the Midtown area?
- ✓ Opportunity for multi-modal enhancement: Does the alternative provide opportunity for enhancements of bikes and pedestrians, and transit facilities?
- ✓ Potential Need for Additional ROW: What is the estimated need for additional ROW that could be required?
- ✗ Indicates that there is a negative impact.

Alternatives	Maintain/ Improve LOS	Opportunity for Sense of Place improvements	Traffic Calming	Improves Circulation/Connectivity	Opportunity for Multi Modal Enhancement	Potential ROW Needs		Relative Cost	Additional Comments
						None/ Minor	Major		
Beard St and North Gadsden St Realignment	✓	-	-	✓	✓	✓	-	Low	Realignment could occur within the existing ROW. Coordination with adjacent landowner needed (parking lot in NW quadrant). Aligning the intersection would improve the operations. It would also make it easier to travel along the roadways, improving connectivity and circulation through midtown.
Sidewalk Connectivity	✓	-	-	✓	✓	✓	-	Med	Identification of key gaps.
North Gadsden St Corridor improvements from 6 th Ave to Thomasville Rd	-	-	✓	-	✓	✓	-	Med	Construct sidewalks along entire corridor on both sides of roadway and implement a road diet.
Placemaking/Complete Street	✓	✓	✓	-	✓	✓	-	Med	Creates a sense of place and traffic calming. Could be done with existing geometry but access management would need to be evaluated on a driveway by driveway basis. Parallel facilities could handle diverted traffic that may occur with reduced speeds. Additional midblock pedestrian crossings are possible.
One-way southbound of Thomasville Rd from N Gadsden St to 6 th Ave	✓	✓	*_-	✗	✓	✓	-	Low	Improves LOS. Access to businesses could be negatively impacted. *Recommended that additional features be included to ensure friction is provided along the roadway to reduce speeds and provide traffic calming.
One-way southbound of Thomasville Rd from N Gadsden St to N Monroe St	✓	✓	*_-	✗	✓	✓	-	Low	Improves LOS. Access to businesses could be negatively impacted. *Recommended that additional features be included to ensure friction is provided along the roadway to reduce speeds and provide traffic calming.
NOT MOVING FORWARD TO PHASE II									
Thomasville, Meridian and N Gadsden Roundabout (includes all existing movements)	✗	✓	✓	-	✗	-	✓	High	FDOT Safety study, Blueprint Midtown Placemaking, and the 2040 Regional Mobility Plan include this potential roundabout. Operationally this does not work. Additional concerns with grade change and extensive ROW needed. A roundabout would provide a unique characteristic to the midtown area.
Thomasville, Meridian and N Gadsden Roundabout (No Gadsden to Meridian movement)	✓	✓	✓	✗	✗	-	✓	High	The operations of the roundabout could work if the movement from 7 th Ave to Meridian would be removed. Additional concerns with grade change and extensive ROW needed. A roundabout would provide a unique characteristic to the midtown area.
6 th and 7 th Ave Bi-Directional Roadways	✗	-	✓	✓	-	✓	-	Low	Though bi-directional roadways cause additional friction, the LOS is degraded and it creates additional conflict points at the intersections. This would result in a need for operational improvements that are not warranted under current conditions and could result in larger intersection that create undesirable pedestrian conditions at crossings.