



North Monroe Street Design & Safety Study



Florida State University
Department of Urban & Regional Planning
Summer Studio 2010
Prepared for the CRTPA

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Table of Contents

| | |
|---|-----|
| Executive Summary | i |
| Methodology..... | i |
| Existing Conditions Highlights | iii |
| Recommendations | iv |
| Implementation | v |
| 1 Introduction..... | 2 |
| 2 Road Safety Audit Report..... | 7 |
| Road Safety Audit Overview | 7 |
| Final Report | 8 |
| 3 Traffic and Level of Service Analysis | 56 |
| 3.1 Level of Service Overview | 56 |
| LOS Evaluation Technique..... | 56 |
| Input Variables..... | 57 |
| Level of Service Levels Description..... | 57 |
| 3.2 Statewide LOS Standards | 60 |
| 3.3 Existing Level of Service along the North Monroe Street Corridor..... | 61 |
| Existing Traffic Volumes..... | 61 |
| Current Automobile Level of Service..... | 62 |
| Current Pedestrian and Bicycle Level of Service | 64 |
| Current Bus Level of Service..... | 67 |
| Public Input on the Area’s Level of Service | 69 |
| 4 Existing Conditions..... | 70 |
| 4.1 Lake Ella District..... | 71 |
| Public Input on the Lake Ella District..... | 72 |
| Sidewalks | 73 |
| Curb Ramps & Crosswalks | 75 |
| Streetscaping | 77 |
| Landscaping | 78 |
| Lighting/ Light Poles | 78 |

| | |
|---|-----|
| Signs..... | 79 |
| Parking..... | 81 |
| Power Lines and Utilities..... | 81 |
| Intersections..... | 82 |
| 4.2 Midtown Connector District..... | 90 |
| Public Input on the Midtown District..... | 91 |
| Sidewalks..... | 91 |
| Curb Ramps & Crosswalks..... | 93 |
| Landscaping..... | 95 |
| Lighting/Light Poles..... | 95 |
| Signs..... | 96 |
| Parking..... | 96 |
| Power Lines and Utilities..... | 96 |
| Intersections..... | 96 |
| 4.3 Commercial-Office District..... | 105 |
| Public Input on the Commercial/Office District..... | 106 |
| Sidewalks..... | 106 |
| Curb Ramps & Crosswalks..... | 108 |
| Streetscaping..... | 109 |
| Landscaping..... | 109 |
| Lighting/ Light Poles..... | 109 |
| Signs..... | 109 |
| Parking..... | 109 |
| Power Lines and Utilities..... | 109 |
| Intersections..... | 110 |
| 5 Planning Alternatives..... | 118 |
| 5.1 Entire Corridor Alternatives..... | 118 |
| Public Input on Proposed Alternatives..... | 118 |
| Sidewalks Alternatives..... | 119 |
| Curb Ramp Alternatives..... | 119 |
| Streetscaping Alternatives..... | 120 |

| | |
|---|-----|
| Landscaping Alternatives..... | 124 |
| Lighting and Sign Alternatives | 127 |
| Roadway Design Alternatives..... | 128 |
| Alternate Bicycle Route | 136 |
| Public Input about the Bicycle Route Alternative | 138 |
| 5.2 Lake Ella District Alternatives | 140 |
| Mid-Block Crossing Alternatives | 140 |
| Power Lines & Utilities Alternatives | 145 |
| Intersection Alternatives | 146 |
| 5.3 Midtown Connector District Alternatives | 150 |
| Sidewalk Alternatives | 150 |
| 5.4 Commercial-Office District Alternatives | 157 |
| Sidewalk Alternatives | 157 |
| Intersection Alternatives | 157 |
| 5.5 Level of Service Impacts | 162 |
| Automobile Level of Service with Design Recommendations..... | 162 |
| Pedestrian and Bicycle Level of Service with Design Recommendations | 164 |
| Bus Level of Service with Design Recommendations..... | 167 |
| 5.6 Forecasting Traffic Volumes: A Five Year LOS Projection | 169 |
| 6 Economic Development and Funding Alternatives | 174 |
| 6.1 Introduction | 174 |
| 6.2 Existing Funding Mechanisms | 174 |
| CRTPA Options | 175 |
| City of Tallahassee/Leon County options..... | 177 |
| Business Owner Opportunities | 182 |
| 6.3 Existing Mechanism Findings | 186 |
| 6.4 Modifiable Mechanisms | 186 |
| 6.5 Conclusion..... | 192 |
| 7 Implementation Plan | 195 |
| 7.1 Approach | 195 |
| 7.2 Construction Costs..... | 201 |

| | |
|-------------------------------|-----------|
| 7.3 Responsible Party | 204 |
| 7.4 Project Development | 204 |
| 7.5 Conclusion | 204 |
| Bibliography | 205 |
| List of Figures | 209 |
| List of Tables | 211 |
| List of Original Maps | 212 |
| Appendices | Volume II |

Executive Summary

Cities across the country have come to recognize the importance of integrating alternative modes of transportation that enable citizens to make short trips without relying on automobiles and gas consumption. Newly developed policies signed by United States Secretary of Transportation Ray LaHood state that “Increased commitment to and investment in bicycle facilities and walking networks can help meet goals for cleaner, healthier air; less congested roadways; and more livable, safe, cost-efficient communities.” In states such as Florida where automobile accidents are among the lead causes of death, increasing pedestrian safety is paramount and the state’s Capital City is an ideal place to create good examples of transportation policies that balance the various transportation needs in the community.

Recognizing the opportunity to integrate pedestrian facility improvements within the identified multi-modal transportation network, the Capital Regional Transportation Planning Agency (CRTPA) conceived a project along the North Monroe Street corridor from Tharpe Street to First Avenue in Tallahassee, Florida. The project’s goals included the identification of pedestrian and bicycle improvements along the North Monroe corridor and urban design recommendations to create a “sense of place.” The CRTPA engaged the Florida State University Department of Urban and Regional Planning (DURP) to produce a study to serve as the foundation for the community’s improvements to this thoroughfare which leads to the state’s Capitol in the downtown area.

The following report is a summary of findings from a study of the North Monroe corridor. This project was completed by graduate students from Florida State university’s Department of Urban and Regional Planning as the summer 2010 studio project for capstone credit. It has been determined that in a low-cost to high-cost range, estimated from approximately \$466,000 to \$6.2 million, the corridor’s safety, mobility, aesthetics and economic development potential can be greatly increased while creating a “sense of place” for citizen enjoyment while not negatively affecting the area’s level of service for automobile below an acceptable threshold. This conclusion was reached by evaluating the existing conditions and service levels and developing strategies to improve the corridor.

Methodology

The North Monroe corridor study area is comprised of several blocks just outside downtown Tallahassee connecting the Capitol complex to Lake Ella Park, a major local destination for locals and visitors. Within the corridor, there are unique functions and characteristics which enabled the DURP study group to divide the area into three distinct *districts*:

- **Lake Ella District** Characterized by Lake Ella Park providing space for exercise and leisure activities.
- **Midtown Connector District** Creates a connection of North Monroe to the Midtown area on Thomasville road and is characterized by similar features such as restaurants, bars and boutique shops.
- **Commercial/Office District** Characterized by various law offices and small service businesses.



Monroe Street Corridor Study Area

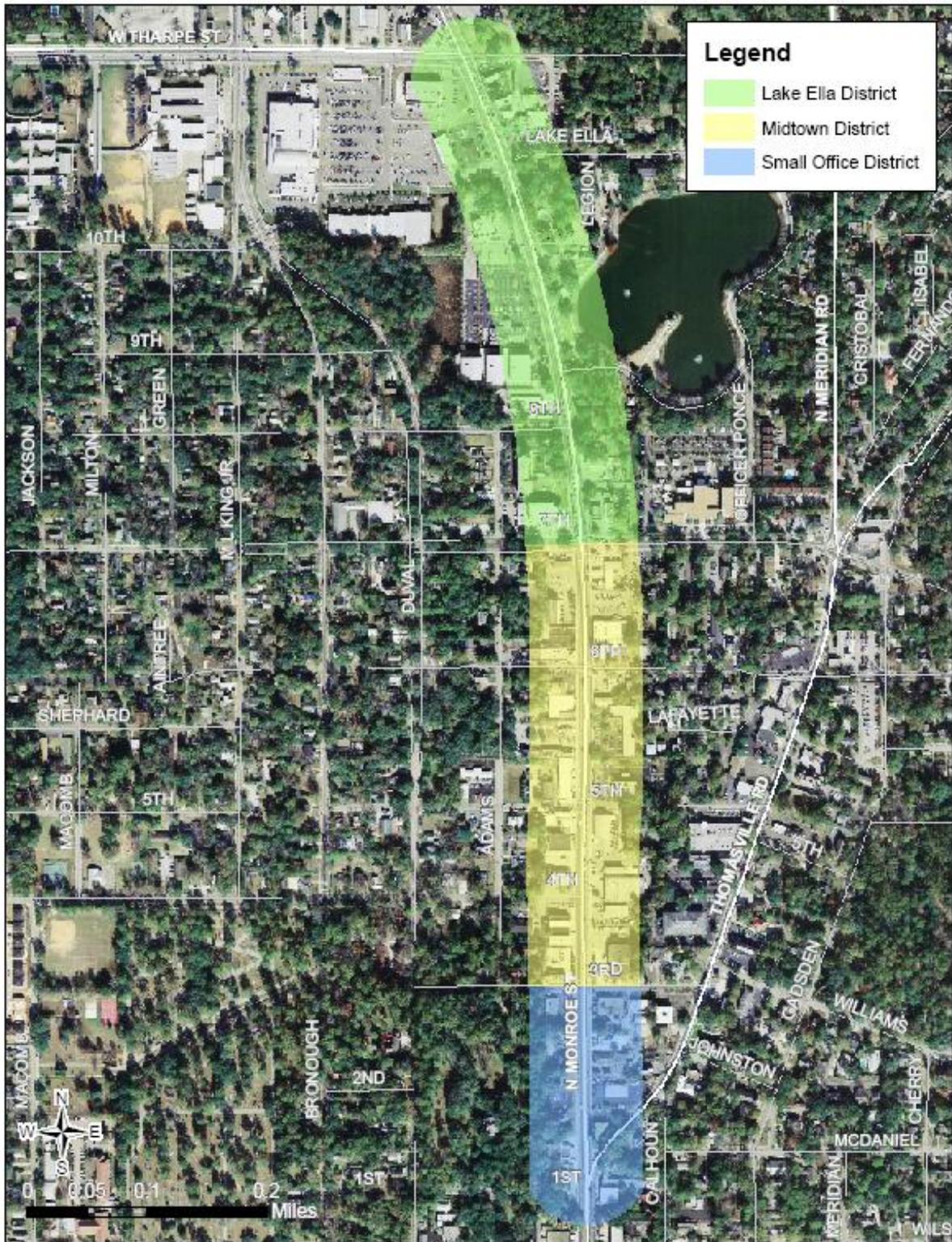
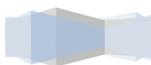


Figure ES.1: North Monroe Street study area districts

To support the project team’s findings and subsequent recommendations the studio planners conducted a Roadway Safety Audit (RSA) and two public meetings. The RSA is among the first conducted in Florida and is designed to be an outside evaluation of safety conditions by qualified professionals. The report found there are several low-cost solutions the CRTPA could implement to make the area both ADA compliant and generally safer for pedestrians and bicyclists. Further support and qualitative information was gained through the public input process. Two public meetings were conducted as well as two public surveys. Generally the public desired lower effective traffic speeds and safer crossing opportunities throughout the corridor. In addition to the study group’s own field analysis of the study area, the outside input from professionals and citizens helped identify problematic areas contained in the Existing Conditions (Section 4) of this report.

Existing Conditions Highlights

- Outdated driveway designs do not allow sidewalk construction behind turnout;
- Dual left turning lanes (center turning lane) cause hazards for pedestrians and drivers;
- Front-in parking blocks pedestrians’ access to sidewalks and cause issues when the vehicles are backing out over sidewalks into oncoming traffic;
- Various obstacles in the sidewalks including signal boxes, light/utility poles, drainage grates and manholes pose hazards for walkers and especially for people in wheelchairs;
- Narrow sidewalks can be unsafe for pedestrians and do not accommodate future growth in the area; large cross-slope affect ADA accessibility because too much cross-slope and ADA curb ramps are missing in many intersections;
- Bus stops without pedestrian shelter expose bus riders to the elements and prevent drivers from noticing pedestrians standing at bus stops.
- Lack of crosswalks at almost every side street in the area, including the Lake Ella entrance, reduces connectivity for pedestrians;
- Long stretches between traffic signals and lack of pedestrian crossing distance between some intersections;
- Lack of human-scale lighting, particularly along the Midtown Connector district;
- Lack of mid-block crossing to Lake Ella increases risk of pedestrians being struck by automobiles when trying to access the park between Tharpe and 7th Avenue;
- Location of bicycle lane on Tharpe Street is dangerous and can lead to fatalities;
- Missing crosswalks and timers at various intersections along the corridor;
- Outdated traffic signals at 7th Avenue have exceeded expected life and pose risks;
- Overhead street signs worn out and old need replacement.



Recommendations

Coupled with the RSA and input from the public meetings conducted during the study timeframe, the DURP study group developed recommendations to address safety issues along the corridor while creating a better balance in the *level of service* for both vehicles and pedestrians. These recommendations can be found in the Planning Alternatives (Section 5) of this report and include:

- Reduce automobile lanes from 12-feet to 11-feet to accommodate medians, buffers and sidewalk width improvements;
- Remove sidewalk barriers such as signal boxes, light/utility poles, drainage grates and manholes to reduce hazards for walkers and especially for people in wheelchairs;
- Repave driveways where needed and increase sidewalk width to 5-feet throughout the corridor to accommodate increased use anticipated with future growth in area;
- Improve ADA curb ramps at every intersection and reduce curb radii for safety;
- Provide minimum 3-foot buffers throughout corridor to better protect pedestrians on sidewalks and include trees for shade where appropriate;
- Raised medians with landscaping to improve safety and aesthetics;
- Pedestrian mid-block crossing at Lake Ella;
- Reduce drop-off distance between sidewalk and road asphalt at shoulder;
- Signage to warn drivers parked at front-in spots about pedestrians on street;
- Improve crosswalks at every intersection by reducing curb radii where necessary and using faux red brick to increase drivers' awareness of pedestrian presence and aesthetics;
- Coordinate with StarMetro to improve bus facilities;
- Incorporate human-scale signage and lighting along the Midtown Connector district;
- Move bicycle lane on Tharpe Street to the left of the right turn lane to reduce danger to bicyclists and motorists;
- Improve crosswalk timers and increase timing at intersections to provide appropriate crossing time for pedestrians;
- Replace outdated traffic signals with mast arm poles;
- Replace overhead street signs with larger reflective signs to increase their visibility;
- Feasibility study for an alternative bicycle lane along Martin Luther King, Jr. Blvd.



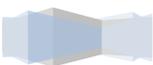
Implementation

To help guide the recommendations into an implementable plan the team further evaluated existing and potential funding and administrative options to facilitate an achievable process. Creating an interagency partnership will facilitate project feasibility while actively involving stakeholders in the development and future administrative process. Furthermore, creation of a business support network akin to a Community Redevelopment Agency (CRA) will further economic development and regulate the aesthetic quality for the area beyond the CRTPA's, City of Tallahassee's or Leon County's involvement.

Safety, mobility, aesthetic and economic development are favorable improvements for the area. These conclusions are supported by the DURP study group's analysis throughout this report consisting of the following sections:

- Road Safety Report
- Traffic and Level of Service
- Existing Conditions
- Planning Alternatives
- Economic development and Funding Alternatives
- Implementation Plan
- Appendices

Additionally this plan will support the CRTPA's goal to create a "sense of place" within the corridor, while achieving the improved safety and transportation goals for the area.



1 Introduction

Monroe Street is a major arterial road that serves as a primary gateway to Florida’s state Capital, Tallahassee. Receiving a large volume of traffic from a variety of sources, most notably I-10, North Monroe Street does not provide the aesthetically pleasing and welcoming characteristics that one would expect from a gateway corridor. Despite the roadway’s many strengths, it is underutilized by pedestrian traffic and does not define a “sense of place” to those who are currently using the area, or those simply passing through. The area identified for this study, the North Monroe Street Corridor, stretches from Tharpe Street on the north to Thomasville Road on the south and spans approximately one mile of roadway. This corridor was easily broken into three separate and equally distinguishable districts based on their individual characteristics; the Lake Ella District, Midtown Connector District, and Commercial-Office District (see Figure 1.1). Each district has its own identity and sets of issues to be addressed.



Figure 1.1: Lake Ella, c.1926 and 2010, Photo Credits Tallahassee magazine and Ashley Monroe¹

The Lake Ella District is approximately half the distance of the corridor and reaches from Tharpe Street to 8th Avenue. It includes one signalized intersection and four non-signalized intersections. This allows for vehicular traffic to flow relatively freely throughout the district, as there is only one stoplight within the half-mile stretch. The prominent feature of this district is its namesake Lake Ella Park, which historically has been used as a destination for Tallahassee residents since the 1800s (Dehart, 2007). Due to the high volume of patrons to the park, this district has the highest level of pedestrian activity of the three districts within the corridor. As

¹ All photos in the report were taken by Ashley Monroe unless otherwise noted.



this is the case, specific detail must be paid to ensure that pedestrian safety is a top priority despite the free-flowing traffic that presently exists. Currently there are very few pedestrian amenities in this area, and the closest crossings traversing North Monroe are a half-mile apart at Tharpe Street and 7th Avenue. This leads to unsafe crossing patterns for those currently using the area for pedestrian activities, and places them and vehicular traffic in danger.

The next district to the south is the Midtown Connector District, stretching from 7th Avenue to 4th Avenue. This district, as its name suggests is located in very close proximity to the burgeoning Midtown area of Tallahassee. This district is characterized by many of the same types of land uses as Midtown; restaurants and bars, small retail stores, and boutiques. The nature of this area is different from the Lake Ella District that is defined primarily by recreational uses and instead caters to entertainment and shopping. It contains the second highest volume of pedestrian traffic of the three districts and as such, requires attention to pedestrian amenities as well. Increasing the aesthetics, functionality, and pedestrian safety of this area will help associate this district with the Midtown area and hopefully will provide an economic boon for current and potential businesses. A “sense of place” is vitally important to this district and increased pedestrian traffic will result in more customers for the retail shops and restaurants. Increasing pedestrian safety as well as economic viability will help create a more appealing gateway into Florida’s state capital.



Figure 1.2: An example of a corridor façade, 2010

The third and southern-most district within the North Monroe Street corridor is the Commercial-Office District. This area has the least foot traffic, though serves as the entrance to downtown Tallahassee. Characterized by law offices and small businesses, this district has a feel that is distinctly different from the other two. It has many large parking lots that are underutilized, particularly during the evening, and does not include many destination locations,



though Thomasville Road leads directly into the Midtown area. The public meetings for this study revealed that this area was the lowest priority district of the three for the general public, but an examination of the existing conditions exposed many issues that still need to be addressed.

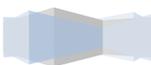


Figure 1.3: First Avenue, North Monroe Street and Thomasville Road, 2010

In order to properly diagnose the issues in these three diverse districts, the scope of this project was broken up into eight separate tasks:

- Intersections
- Sidewalks/Bicycle Lanes
- Landscaping
- Road Safety Audit
- Traffic/Level of Service
- Funding
- Public Input
- Action Plan

Each of these tasks required different subtasks to complete a thorough analysis of the corridor. Intersections were analyzed by first examining the existing conditions of the intersections, including the dimensions, geometry, and pedestrian amenities. Based on this



analysis, alternatives were suggested to increase pedestrian safety along the corridor, while maintaining the functionality for vehicular traffic.

Sidewalks and bicycle lanes were analyzed in much the same manner, with a detailed analysis and report on the existing conditions of the locations, dimensions, and conditions of the current sidewalks. Alternatives were additionally suggested based on these findings. This task also included analyzing the feasibility of adding a bicycle lane to this corridor or exploring alternate routes, making alternative suggestions to the existing conditions to promote bicycle safety.

The Landscaping task is an integral portion of this study to help create the “sense of place” that will serve as a source of pride for the citizens of Tallahassee. This task includes a detailed plan for the corridor, exploring a plant palette consisting of trees and plants that are appropriate for Tallahassee’s position as the state capital of Florida. Though opportunities for large landscaped areas are limited within the study area, the use of local flora in several strategic locations suggested in this report would provide an aesthetically pleasing atmosphere that is welcoming to visitors and residents alike.

The Road Safety Audit of the North Monroe Street corridor in this study is the first of its kind in Tallahassee and is based on the guidance of the Institute of Transportation Engineers and the Federal Highway Administration. This task required assembling a set of professionals related to the transportation field, and included a Traffic Engineer for the City, two Bicycle and Pedestrian Coordinators from the Florida Department of Transportation (FDOT), an FDOT Safety Program Manager, and a Safety Engineer also from FDOT. This group conducted their individual audits of the corridor and the results were compiled into a formalized report for this study to aid in the selection of appropriate alternatives.

The task of Traffic and Level of Service (LOS) included a detailed report of the existing vehicle, bicycle, pedestrian, and mass transit LOS. Taking into account a great deal of variables including lane widths, sidewalk widths, average annual daily traffic (AADT), etc., the analysis of the corridor provided information about the flow and quality of these different modes of transportation. The second part of this task included marking the effects, if any, the study’s chosen alternatives would have on the LOS throughout the corridor.

Funding options was a completely separate task from all others, to examine potential partners to help defray the costs of the proposed recommendations. Many alternatives for this



were investigated including federal, state, and local sources of funding. Public/Private partnerships were also explored and recommended in order to help the businesses in the area invest in themselves and their community.

The Public Input portion of this study included two public meetings at the Tallahassee Senior Center where citizen involvement was the cornerstone. The first meeting essentially gauged the interest of those in attendance and helped prioritize the districts moving forward. The second of the two meetings focused on public input for the specific alternatives that were being suggested for the CRTPA's consideration.

An Action Plan, or Implementation Plan, was the final piece in the study, combining all alternatives from the separate tasks and placing them in a cohesive document; prioritizing by High, Medium, and Low costs. They were also separated by district so that they could additionally be prioritized in that way. The Implementation Plan will be the key section for individuals reading this study to put these suggested alternatives into operation on the corridor.

This purpose of all of these tasks is to create a unified report that will emphasize the importance of the suggested alternatives to the pedestrian safety, functionality, aesthetic quality, and economic viability of the North Monroe Street corridor. Creating a true gateway into the state's capital will enhance the first impressions of visitors to Tallahassee and instill a sense of pride in current residents of the area. Realizing the goals of this project will require a great deal of political will, funding, and public involvement, but the end results will help further increase Tallahassee's image.



2 Road Safety Audit Report

Road Safety Audit Overview

As part of the North Monroe Street design and safety study, a team of experts independent of the study performed a Road Safety Audit (RSA) of the corridor. RSAs are a modern safety assessment tool used by transportation agencies worldwide to help identify and cure roadway design issues that jeopardize the safety of pedestrians and autos and contribute to vehicular crashes, injuries or fatalities. The North Monroe Street RSA is the first audit of its type to be conducted in Tallahassee and is one of the first few that have been conducted in the entire state. The RSA process begins with the creation of an RSA team, consisting of at least three professionals with knowledge of the transportation field, such as engineers, planners, and law enforcement officers that are also independent of the agency requesting the audit. The independence of an RSA team from the commissioning agency is necessary to ensure that there are unbiased opinions during the audit. In order to experience the full perspective of the environment, each professional examines the roadway both on foot and by vehicle. The team focuses on identifying safety related issues from both the pedestrian and auto experience; examples of auto safety issues include lack of proper signage, poor visibility of traffic lights, and general road maintenance such as faded paint lines. Pedestrian safety issues include poorly lit walkways, no barrier from road traffic, and accessibility issues with sidewalks or crossings. The RSA team takes notes of all safety issues identified and based on their area of expertise, provides findings and recommendations for safety improvement measures in one cohesive document.

For more information on the general process of RSAs and the specific process used in this RSA, please see the RSA methodology section in Appendix A. A copy of the RSA information packet can be viewed in Appendix F. The following section is the RSA Final Report of the North Monroe Street study. The report includes a background of the project, discussion of crash data, qualifications of the RSA team along with their acknowledgment of participating in the RSA and concludes with the findings and recommendations of the safety issues identified. The findings and recommendations are a result of the RSA team's examination of North Monroe Street, and the report was written by students of the FSU Summer 2010 studio. The FSU students had to provide input when some findings identified by the RSA team lacked recommendations for improvement.



NORTH MONROE STREET



ROAD SAFETY AUDIT

FINAL REPORT



Project Title: North Monroe St from 1st Ave Rd to Tharpe St

Date of Audit: June 14 – July 9, 2010

Project Characteristics:

Audit Type: Existing roadway

Land Use Development Proposal: No

Units of Measure: US

Adjacent Land Use: Urban

Design Speed (US): 35 mph

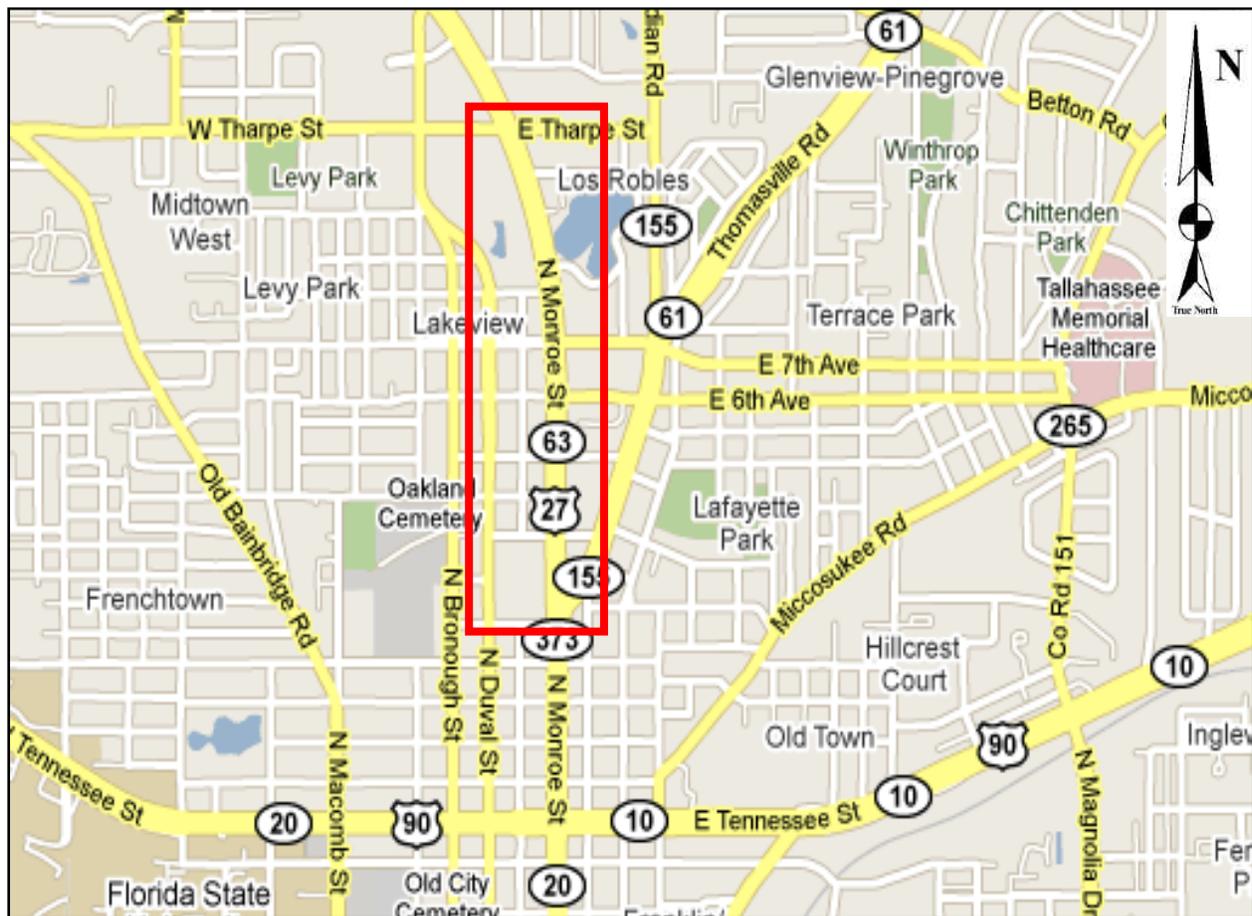
Traffic Flow Separation: Center turn lane throughout

Service Function (Urban): Major Arterial

Terrain: Generally Flat

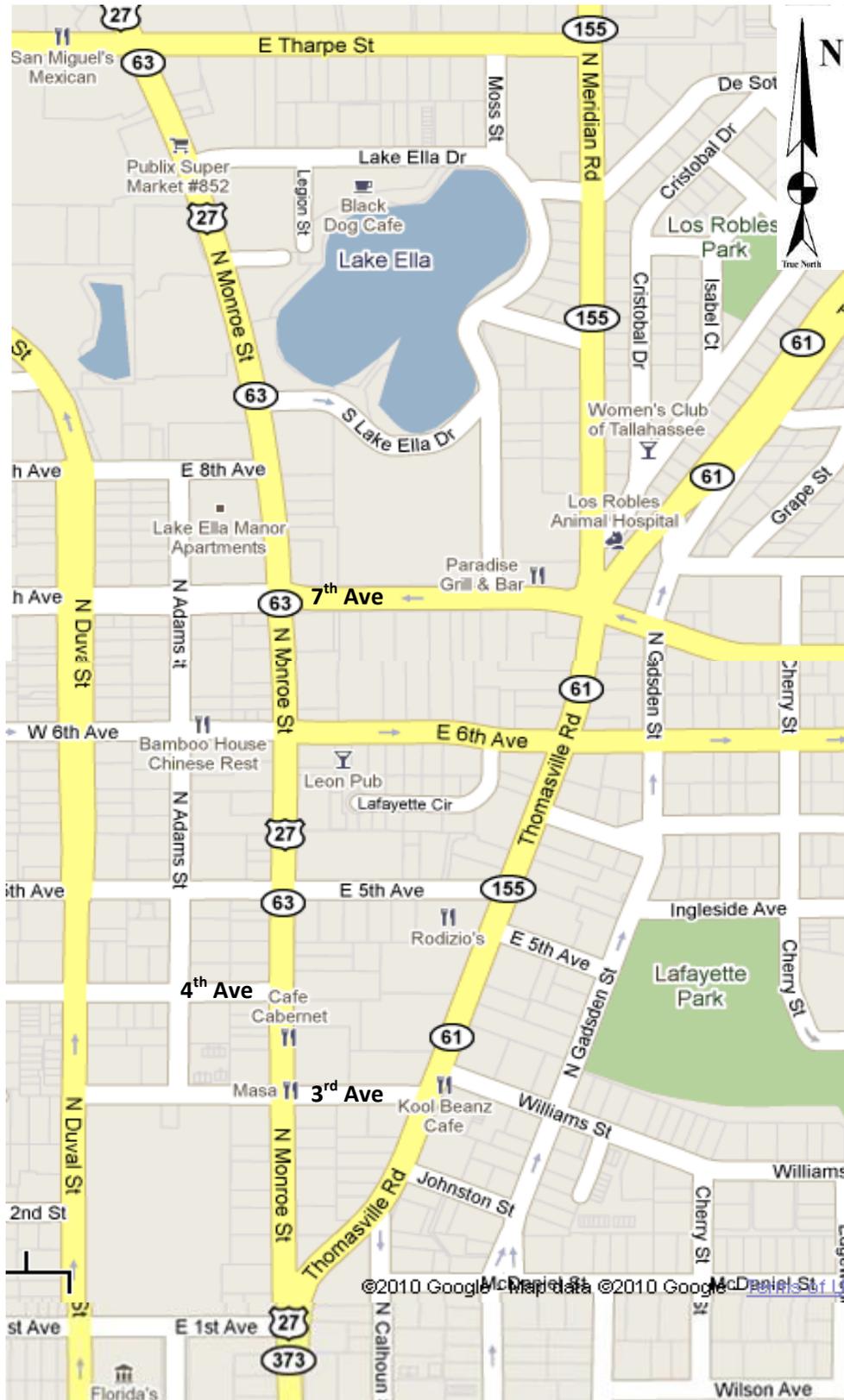
Climatic Conditions – Temperature: Summer, sunny, warm

Project Map:



Source: Google Maps

Street Map:



Source: Google Maps

RSA Team Members and Qualifications:

1. Allen Secreast, P.E., *Traffic Engineer – City of Tallahassee*

Mr. Secreast is the Traffic Mobility Manager with the City of Tallahassee’s Public Works Department and has been with the City for 8 years. He has previous traffic engineering experience in both the public and private sectors while living in Alabama and is also a registered Professional Engineer.

2. Zena Riley, *FDOT – D3, Bicycle and Pedestrian Coordinator*

Ms. Riley has been with FDOT for 6 years, and worked in Bicycle and Pedestrian Safety for 3 years. Her main duties at FDOT include assisting the other agencies with bicycle events, reviewing projects to ensure that appropriate bicycle and pedestrian facilities are included, as well as helping with public requests or concerns.

3. Jonathan Harris, *FDOT – D3, Safety Program Manager*

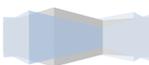
Mr. Harris has been with the Florida Department of Transportation for 6 years, working in roadway design for 4 years, and 2 years as the District 3 Safety Program Manager.

4. Dennis Scott, *FDOT – State Safety Office, Bicycle and Pedestrian Coordinator*

Mr. Scott has been working as a Bicycle and Pedestrian Coordinator for 26 years, serving for various transportation planning agencies. He has been with the Florida Department of Transportation for 8 years, and most of his duties consist of managing Bicycle and Pedestrian programs in the state of Florida, as well as other safety education initiatives. Mr. Scott has also managed various research projects engaging in bicycle and pedestrian facilities studies.

5. Joseph Santos, P.E., *FDOT – State Safety Office, Safety Engineer*

Mr. Santos started his career by serving 27 years as a civil engineer in the United States Navy Civil Engineering Corp. He has been with the Florida Department of Transportation for 18 years, where he has served as a Transportation Safety Engineer for 3 years. Mr. Santos’s proficiency at FDOT includes 5 years in construction, 8 years in planning, as well as 2 years in project management. He is also a registered Professional Engineer.



Project Background

There are many road safety issues along the North Monroe St corridor, especially concerning pedestrians. Some of the obvious issues include a lack of adequate lighting, noticeable crosswalks and ADA accessible sidewalks. Destinations such as Lake Ella, various restaurants, and the Midtown District have contributed to the growth of both pedestrians and auto traffic in the area, thus providing even more reasoning to improve the safety of both autos and pedestrians along this corridor. As part of the North Monroe St design and safety study for the Capital Region Transportation Planning Agency, a Road Safety Audit (RSA) has been performed of the corridor, from 1st Ave Rd to Tharpe St. The purpose of the final report is to document the RSA team's findings and recommendations of identified safety issues which will provide further evidence and support in the FSU Summer studio's creation of the North Monroe St design and safety study.

Corridor Facts

The portion of North Monroe St being studied (from 1st Ave Rd to Tharpe St) is a four-lane roadway with no medians, but a center turning lane throughout the majority of the corridor. The lanes are 12 feet wide and the center turning lane is also 12 feet wide. Sidewalks exist on both sides of the road and vary from 5 to 8 feet in width. No bicycle lanes exist on North Monroe St and there is not enough space between the traffic lane and the sidewalk for bicycles to ride. Bicyclists have been observed typically riding on the sidewalk.

There are six signalized intersections within this segment; they are located at Thomasville Rd, 3rd Ave, 5th Ave, 6th Ave, 7th Ave and Tharpe St. There are 5 intersections with stop signs only; these are South and North Lake Ella Drive in the Lake Ella area, 8th Ave, 4th Ave and 1st Ave. According to the City of Tallahassee's Traffic Center website, the amount of traffic on Monroe St is particularly significant, with more than 29,929 vehicles traveling daily on this roadway. The posted speed is 35 mph; however, most of the vehicles traveling this road are observed going over this limit which increases the possibility of car crashes, as well as jeopardizes the safety of pedestrians.



Crash Data

One of the key pieces of information obtained for this study was the crash data obtained from the Tallahassee Police Department (TPD). The crash data received from TPD can be divided into three categories: crashes with injuries, crashes with no injuries, and hit-and-runs. There were a total of 267 crashes reported from 2007 to 2009, including 199 crashes with no injuries, 41 with injuries, and 27 crashes involving hit and runs. Tables 2.1 through 2.3 display the crash data in from category:

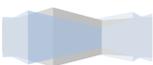


Table 2.1: TPD Crashes with no injuries

| All Crash Types NO Injuries [301s] (2007-2009) | |
|--|--------------|
| Intersection | # of Crashes |
| Thomasville & N Monroe St | 33 |
| E 4th Ave & N Monroe St | 8 |
| E 5th Ave & N Monroe St | 17 |
| E 6th Ave & N Monroe St | 28 |
| E 7th Ave & N Monroe St | 35 |
| E 8th Ave & N Monroe St | 8 |
| Lake Ella Dr & N Monroe St | 17 |
| E Tharpe St & N Monroe St | 39 |
| W Tharpe St & N Monroe St | 14 |
| <i>Grand Total:</i> | 199 |



Table 2.2: TPD Crashes with injuries

| All Crash Types W/ Injuries [302s](2007-2009) | |
|---|--------------|
| Intersection | # of Crashes |
| Thomasville & N Monroe St | 2 |
| E 4th Ave & N Monroe St | 2 |
| E 5th Ave & N Monroe St | 1 |
| E 6th Ave & N Monroe St | 10 |
| E 7th Ave & N Monroe St | 10 |
| E 8th Ave & N Monroe St | 2 |
| Lake Ella Dr & N Monroe St | 6 |
| E Tharpe St & N Monroe St | 6 |
| W Tharpe St & N Monroe St | 2 |
| <i>Grand Total:</i> | 41 |

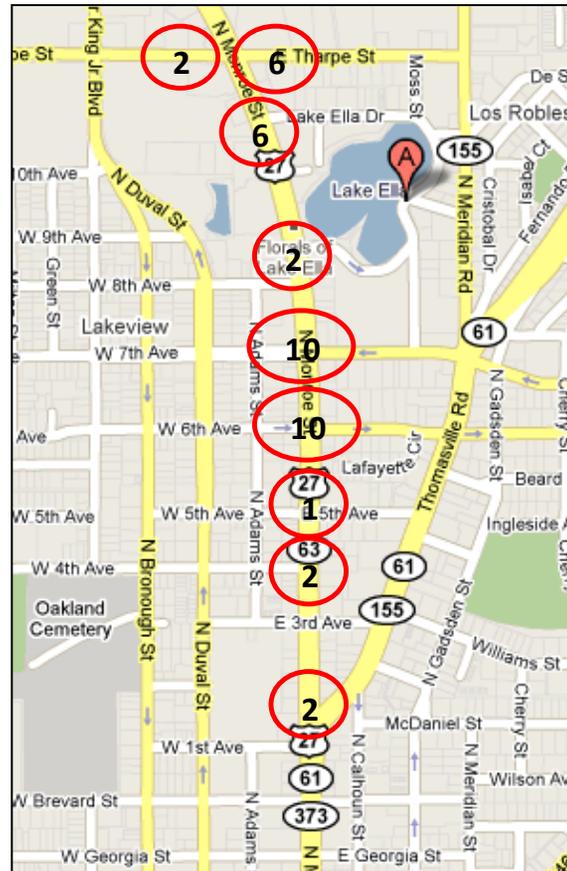


Table 2.3: TPD Hit & run crashes

| All Crash Types, Hit & Runs [303s] (2007-2009) | |
|--|--------------|
| Intersection | # of Crashes |
| Thomasville & N Monroe St | 2 |
| E 4th Ave & N Monroe St | 2 |
| E 5th Ave & N Monroe St | 1 |
| E 6th Ave & N Monroe St | 3 |
| E 7th Ave & N Monroe St | 3 |
| E 8th Ave & N Monroe St | 2 |
| Lake Ella Dr & N Monroe St | 1 |
| E Tharpe St & N Monroe St | 7 |
| W Tharpe St & N Monroe St | 6 |
| <i>Grand Total:</i> | 27 |



Table 2.1 shows the crashes that did not involve injuries, revealing that most of the collisions took place at the intersections of North Monroe St with Thomasville Rd, East 7th Ave, and East Tharpe St. Table 2.2 reveals that most of the crashes with injuries occurred at the intersections of East 6th and 7th Avenue, where some intersection geometric problems and traffic signal issues have been identified by the RSA team. Table 2.3 shows that the hit and runs remain steady and low along the North Monroe corridor compared to the other type of crashes. The North Monroe and Tharpe St intersection had the most reported hits and runs.

Because this audit focuses on improving safety, a request was made for all of the crash reports (41 total) that concerned crashes with injuries. An evaluation of these reports was necessary to identify the real causes leading to these incidents. Of the 41 reports reviewed, only one incident involving a pedestrian being struck by a car was reported; this occurred at the 6th Ave intersection and was attributed to poor lighting of the crosswalk. In reviewing the accident reports provided by TPD, it was clear that most of the causes of these crashes were associated mainly with drivers not paying attention to traffic, being careless or being distracted. The majority of accidents were rear end collisions as drivers were not aware of stopped traffic ahead, followed by issues with vehicle turning in front of oncoming traffic at the intersections of 6th and 7th Ave. The center turning lane also factored a role in some accidents, as vehicles would occasionally merge into traffic or cut in front on approaching vehicles.

No fatalities have occurred on this stretch of North Monroe St from 2007 to 2009 (or to date), and many injuries that resulted from the crashes were minor and non-life threatening, ranging from bumps to fractures. Only one red light running incident was reported during the time frame, at the Tharpe St intersection.



FINDINGS & RECOMMENDATIONS

ENTIRE CORRIDOR – 1st Avenue to Tharpe St

1. **Issue:** Steep drop-off between road and sidewalk

Description of Safety Issue:

Much of the corridor has a very steep drop-off (in some cases up to 4 inches) between the asphalt of the right edge of the traffic lanes and the curb apron. This is hazardous to bicyclists and other facility users.



Recommendation:

Mill roadway and repave traffic lanes to smooth out transition from roadway to curb. Insufficient road right-of-way space prohibits a bicycle lane to exist; bicyclists should be diverted to a safer roadway route. Further analysis on bicycle accommodations along this corridor is highly recommended.



2. **Issue:** Outdated driveway designs

Description of Safety Issue:

Many driveways are not built according to current design standards that allow sidewalk construction to be built behind turnout.



Recommendation:

Update and reconstruct driveways on properties with design issues to allow for the development of a continuous sidewalk.



3. **Issue: Dual left turning lanes (aka: center turning lane)**

Description of Safety Issue:

Dual left turning lanes into driveways can cause hazards for pedestrians as drivers may not see them. This can also be an issue for drivers not knowing what driveway the other vehicle is trying to turn into.



Recommendation:

An access management study of the entire corridor should be considered to improve the center lane issue through the use of medians. This would better manage the locations of where vehicles can turn, decreasing the possibility of auto and pedestrian accidents.



4. **Issue: Front-in parking spaces along some businesses**

Description of Safety Issue:

Front-in parking causes issues with pedestrians, forcing them to walk between parked vehicles and the outside travel lane. These spaces also cause issues when the vehicles are backing out over sidewalks into oncoming traffic, presenting a high risk for pedestrians and cyclists as well.



Recommendation:

Immediate recommendations include signage to warn drivers to look for pedestrians when backing up. Intermediately, businesses should be deterred from using the limited space for parking and rather use the area for landscaping, outdoor seating or some other pedestrian friendly use. Parking spaces will have to be relocated to other areas more suitable for parking. Over time, the amount of open access to Monroe Street should be reduced. A proactive approach should be to require new buildings to be constructed closer to the street.



5. **Issue:** Obstacles in sidewalks

Description of Safety Issue:

Obstacles in the sidewalks, such as signal boxes, light/utility poles, drainage grates and manholes make it difficult to navigate some portions of the sidewalk, especially for people in wheelchairs.



Recommendation:

Obstacles should be relocated or redesigned to better accommodate pedestrians. Utilities could be converted to an underground system, light poles could be relocated to less intrusive locations, and drainage gates/manholes can be updated to safer designs.



6. **Issue:** Narrow sidewalks

Description of Safety Issue:

Narrow sidewalks create dangerous situations for pedestrians and other facility users.



Recommendation:

If widening sidewalks is not feasible due to right-of-way constraints, some sort of buffer between traffic lanes and the sidewalks should be created to better divide auto and pedestrian traffic.



7. **Issue: Sidewalks with a large cross-slope effect ADA accessibility**

Description of Safety Issue:

Some sections of sidewalk have too much cross-slope to meet ADA requirements and ADA ramps are missing in many locations. This poses an issue for people in wheelchairs or other type of mobile device that are trying to cross streets or simply travel the sidewalk.



Recommendation:

Sidewalks and intersections lacking ADA accessibility should be reconstructed to meet current ADA requirements. Cross-slopes should be realigned to allow for ADA ramps.



8. **Issue:** Bus stops without pedestrian shelter

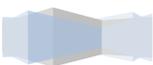
Description of Safety Issue:

Every bus stop on the corridor lacks shelter to protect riders from sun or rain and bus stop locations are not very noticeable. This is an issue for drivers as they may not notice pedestrians standing at bus stops and for pedestrians who may not notice the bus stops.



Recommendation:

Coordinate with StarMetro to improve the bus stop facilities, including shelters, to make the stops more visible and comfortable for bus riders.



9. **Issue: Lack of shade throughout the corridor and poor maintenance of existing landscaping**

Description of Safety Issue:

The lack of shade throughout the corridor can be dangerous during hot summer months as there is no protection for pedestrians. The poor maintenance of existing landscaping can limit the visibility of autos/pedestrians, increasing the opportunity for accidents.



Recommendation:

Trees and landscaping should be added where feasible and in a uniform manner. The addition of landscaped medians would improve the overall appearance of the corridor as well as provide a pedestrian refuge and shade. Existing landscape should be properly maintained so that they are not overgrown and do not create visual impairments.



10. **Issue: Long stretches between traffic signals and lack of pedestrian crossing**

Description of Safety Issue:

The distance between some intersections makes it difficult for pedestrians to cross Monroe Street and increases the possibility of pedestrians dangerously crossing in the middle of a block.



Recommendation:

Determine where it is feasible to create mid-block crossings based on high pedestrian traffic. At intersections, crosswalks should be located on every roadway leg to increase connectivity and decrease illegal pedestrian crossings.



11. **Issue:** Vehicles going over the 35 mph speed limit

Description of Safety Issue:

The general speed of vehicles travel along the corridor is well over 35 mph, which increases the risk of auto accidents as well as potential incidents with pedestrians. Vehicles traveling over the speed that has been designed for the roadway creates an issue with stop-and-go traffic in the area during rush hour, with many accidents being reported as rear-end collisions.



Recommendation:

This section of North Monroe St needs speed enforcement on a regular basis.

12. **Issue:** Lack of human scale lighting

Description of Safety Issue:

Other than the outdoor lighting from night-operated businesses, there is a lack of lighting at the human level along the entire corridor, which is a safety issue for any pedestrians walking on the sidewalks at night. This also increases the risk of vehicles not seeing pedestrians crossing the street at night.



6th Ave crosswalk at night headed north

Recommendation:

Lighting other than the standard street lamps present should be added at the human scale to increase the safety and visibility of pedestrians at night. A well-lit road is safer for drivers traveling along the corridor.





LAKE ELLA AREA

13. Issue: Right-turn-only lanes on southbound Monroe St

Description of Safety Issue:

The right-turn-only lanes, such as at the Publix Shopping Center and the On the Border/Golden Corral restaurants, can lead to high speed turns, increasing the risk of auto and pedestrian accidents.



Recommendation:

The lanes should be examined to determine how to reduce turning speeds and better support pedestrian traffic.



14. **Issue:** Narrow sidewalks

Description of Safety Issue:

The sidewalk on the southeast side of Monroe St near Lake Ella is very narrow, making it difficult for two people to walk next to each other, much less cross paths with another person. If bicyclists happen to be riding on the sidewalk, this could also cause a passage issue.



Recommendation:

The available right-of-way should be examined to determine if there is enough space to widen the sidewalks or the traffic lanes could be slightly narrowed to accommodate for more right-of-way for wider sidewalks.



15. **Issue:** Lack of crosswalks

Description of Safety Issue:

The lack of crosswalks at almost every side street in the area, including the Lake Ella entrance, reduces connectivity for pedestrians and can cause issues with drivers seeing pedestrians crossing.



Recommendation:

Crosswalks should be constructed that are emphasized with texture and colored surfaces for better visibility.



16. **Issue: No mid-block crossing**

Description of Safety Issue:

There is not any type of mid-block crossing between 7th Avenue and Tharpe Street, which increases the possibility of pedestrians dangerously crossing Monroe Street to access Lake Ella, as well as the other existing businesses in the area.



North Monroe St looking South



North Monroe St looking North

Recommendation:

The pedestrian crossing experience from 7th Ave to Tharpe St could be improved with a raised protected median and crosswalks. A mid-block crossing could be installed near North and South Lake Ella, as well as Legion Street.





THARPE ST

17. **Issue:** Lack of sidewalk connectivity

Description of Safety Issue:

There is a lack of connectivity between the sidewalk and the CVS, as there is no direct pedestrian access from the crosswalks at Tharpe and Monroe Street. Pedestrians are forced to walk through the grass or in the driveway, which can be dangerous, especially with cars turning into the CVS at high speeds due to the right-turn lane.



Recommendation:

Implement sidewalk infill to improve connectivity to CVS. The crosswalk should be marked and the turning radii should be reduced at the entrance of the CVS to decrease the turning speed into the driveway.



18. **Issue: Poor crosswalk condition**

Description of Safety Issue:

The crosswalk on the west side of Tharpe Street is skewed, increasing the crossing distance and amount of time people are in the roadway. Pedestrian buttons are located too high on the signal pole at the crosswalk and this poses a problem for people in wheelchairs.



Recommendation:

Relocate pedestrian buttons on poles in compliance with ADA standards. In addition, repave and realign the crosswalk closer to a ninety-degree angle to decrease the amount of time pedestrians are spending on the roadway.



19. **Issue:** Location of bicycle lane on West Tharpe St

Description of Safety Issue:

The bicycle lane on eastbound Tharpe St is to the right of the right-turn-only lane, which can lead to collisions between cyclists and vehicles.



Recommendation:

The bicycle lane on eastbound Tharpe St should be relocated to the left of the right-turn-only lane.



20. **Issue:** Crossing at the Publix Shopping Center

Description of Safety Issue:

The outbound turn radii from the Publix Shopping Center onto Monroe St are very large which increases the exposure of pedestrians walking along Monroe, as well as the crossing distance. Moreover, the inbound radii are too large, allowing high speed turns into the Publix shopping center driveway.

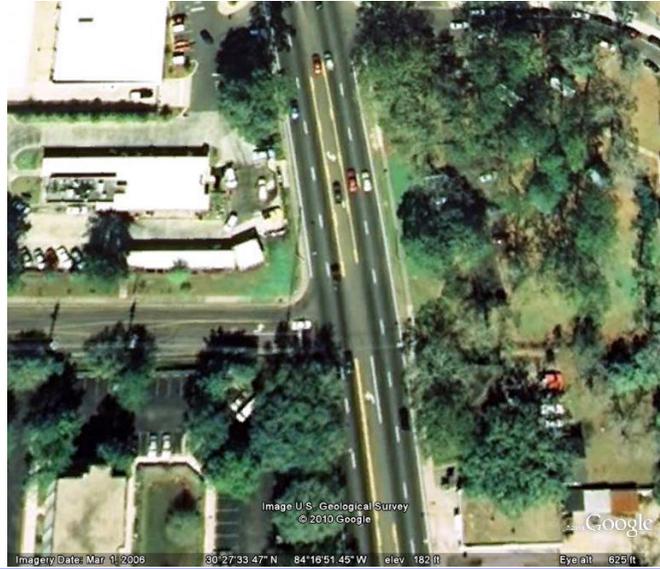


Recommendation:

The driveway should be revised by tightening the turning radii, including the possibility of a channeled right turn lane. It will be helpful to decrease the outbound and inbound turn radii. The crossing should also be improved with painted stop lines and marked crosswalks.



8th AVE



Issue : No issues noted

Description of Safety Issue:

N/A

Recommendation:

N/A



7TH AVE



21. Issue: Missing crosswalk

Description of Safety Issue:

There is no crosswalk on the Southside of Monroe Street at this intersection. There is also an issue with the pedestrian crossing buttons being located too high on the poles.

Recommendation:

Add a crosswalk on the south side of the intersection with a LPI (Lead Pedestrian Interval) to allow more time for the pedestrians crossing the road. Standard crosswalks with appropriate street markings should be used to enhance the



crossing experience for people in wheelchairs. Furthermore, the pedestrian crossing button should be placed appropriately using ADA standards. The north side of the intersection would be ideal to place a raised median nose to provide more pedestrian crossing support, including a crossing refuge.

22. **Issue: Short crosswalk signal time**

Description of Safety Issue:

The crosswalk signal time across both North Monroe and 7th Avenue is short, which forces pedestrians to hurry when crossing, especially when vehicles are traveling faster than the posted speed.



Recommendation:

Since the Senior Center is located at this intersection and the elderly require more time to cross the roadway, longer crossing times are suggested with the use of LPI (Lead Pedestrian Interval). In addition the Southeast radius could be tightened for shorter crossing distance and traffic calming.



23. **Issue: Driveway entrances at the Shell gas station/Circle K convenience store**

Description of Safety Issue:

Multiple driveway entrances can increase the possibility of car crashes, especially when they are located close to intersections as they can create conflict points with traffic and vehicles leaving or accessing the Shell gas station/Circle K convenience store.



Recommendation:

Suggest access management study that will improve the driveway entrances at Shell gas station, reduce vehicle crashes, and maintain a steady flow of traffic.



24. **Issue: Signal pole needs to be replaced**

Description of Safety Issue:

The signal pole at 7th Ave has exceeded its expected life and is a danger to the traveling public, especially if heavy winds are present.



Recommendation:

The signal pole should be replaced with a mast arm pole.



25. **Issue:** Overhead signing

Description of Safety Issue:

The overhead signing is difficult to read for drivers and can be dangerous if not observed.



Recommendation:

The signing should be replaced with proper signing that is sufficiently large and reflective enough for drivers to see both during the day and at night.



6th AVE



26. **Issue:** Lack of sidewalk connectivity

Description of Safety Issue:

There is a lack of connectivity between the sidewalk and the businesses located on the west side of 6th Avenue, and curb ramps are missing on some of the corners.



Recommendation:

Conduct a sidewalk inventory study to identify major gaps between the walkways and develop sidewalk infill projects that install curb ramps where appropriate to improve connectivity.

27. **Issue: Landscaping obstacle on sidewalk**

Description of Safety Issue:

On the sidewalk in front of the Amedisys business, there are several trees that have grates around them. This is can be a problem for pedestrians who are visually impaired and can be “toe stumpers” for anyone.



Recommendation:

If the trees are owned by the business, request that the grates be removed and possibly replaced with mulch or something less obstructive and less dangerous for pedestrians.



28. **Issue: Poor crosswalk conditions**

Description of Safety Issue:

The crosswalk is skewed and does not match up to the curb ramps and on the southeast corner of 6th and Monroe Street the ramp faces the wrong way. The push button for pedestrians is too high on the signal pole and it is unclear which crossing will be activated.



Recommendation:

The crosswalk should be repaved and appropriately oriented to improve its current poor condition and its connectivity. The push button for the pedestrian crossing should be placed adequately using ADA standards, and the crossing signals should be examined. A LPI (Lead Pedestrian Interval) would be effective on the left turn for traffic turning left onto 6th Avenue. A raised median nose could be placed on Monroe Street at this location to enhance the pedestrian crossing experience.



29. **Issue: Bus stop without pedestrian shelter**

Description of Safety Issue:

The bus stop between 6th and 7th Avenue does not have a shelter or pad to protect pedestrians from the sun or rain. This may also be an issue for drivers as they may not recognize the bus stop.



Recommendation:

Coordinate with StarMetro to provide shelter with appropriate lighting to enhance safety, including a bench for bus riders, and to make the stop more obvious for drivers.



30. **Issue: Signal pole needs to be replaced**

Description of Safety Issue:

The signal pole at 6th Ave has exceeded its expected life and is a danger to the traveling public, especially if heavy winds are present.



Recommendation:

The signal pole should be replaced with a mast arm pole.



5TH AVE



31. **Issue:** Lack of curb ramps on sidewalks

Description of Safety Issue:

Curb ramps are missing at some quadrants, which make it unsafe for pedestrians, especially those in wheelchairs who may have some difficulty accessing the sidewalks when crossing the roadway.



Recommendation:

Reconstruct crosswalk landings to include curb ramps that meet ADA requirements.



32. **Issue:** Signal pole needs to be replaced

Description of Safety Issue:

The signal pole at 5th Ave has exceeded its expected life and is a danger to the traveling public, especially if heavy winds are present.



Recommendation:

The signal pole should be replaced with a mast-arm pole.



4th AVE



Issue : No issues noted

Description of Safety Issue:

N/A

Recommendation:

N/A



3rd AVE



33. Issue: Poor design of crosswalks

Description of Safety Issue:

A lack of curb ramps at the intersection's crosswalks prevent connectivity of the sidewalks and are an issue for people in wheelchairs, on bicycles, pushing strollers, etc. who are trying to cross.



Rendering – Potential After

Recommendation:

Reconstruct crosswalk landings to include curb ramps, which meet ADA requirements. During this time, the landing should also be reconstructed to be a bulb-out rather than inlet, which will provide a larger pedestrian landing for ease of visibility by drivers, and larger turning radius for vehicles forcing them to slow down before turning. Bulb-outs also reduce the crossing time and exposure for pedestrians.



34. **Issue: Short crosswalk signal time**



Description of Safety Issue:

The cross signal timing when crossing 3rd Avenue is very short, forcing pedestrians to hurry across once crossing.

Recommendation:

The crossing signal time should be extended. Signals could be replaced with the newer countdown signals, which indicate to pedestrians how many seconds are left to cross.

Recommended countdown signal

35. **Issue: Front-in parking spaces along eastside of Monroe St**

Description of Safety Issue:

The front-in parking spaces at the Rag Junkie and Oriental Rug Gallery could be a safety issue for pedestrians or other vehicles when backing up.



Recommendation:

Signage should be included in front of the parking spaces, warning drivers of potential pedestrians or traffic behind them when backing up.



36. **Issue: Obstacles in sidewalks**

Description of Safety Issue:

A utility pole in the sidewalk, located at the northeastern section of the intersection, makes it difficult to cross the street, much less navigate a wheelchair around. Also poorly located is a signal box in the sidewalk northwest of the intersection, presenting the same issues as the utility pole.



Recommendation:

The utility pole and the signal box should be relocated to create a more passable sidewalk.

37. **Issue: Confusing pedestrian crosswalk buttons**

Description of Safety Issue:

At the southeast and northwest corners, it is not clear which crosswalk the pedestrian push buttons activate, which can be very confusing for people

Recommendation:

The utility pole and the signal box should be relocated to create a more passable sidewalk.



38. **Issue:** Signal pole needs to be replaced

Description of Safety Issue:

The signal pole at 3rd Ave has exceeded its expected life and is a danger to the traveling public, especially if heavy winds are present.



Recommendation:

The signal pole should be replaced with a mast-arm pole.





THOMASVILLE RD

39. **Issue:** No pedestrian features present at intersection

Description of Safety Issue:

This intersection does not have any type of crosswalk or pedestrian facilities, which is dangerous for current pedestrians and the growing foot traffic entering the Midtown area.



Recommendation:

Redesign the intersection to include pedestrian crossing features. A key step in accomplishing this is to modify the northbound right-turn lane traffic light, which is constantly flowing with a green arrow. A proper stoplight would give pedestrians the opportunity to cross.



1ST AVE



Issue : No issues noted

Description of Safety Issue:

N/A

Recommendation:

N/A



Acknowledgement Statement

I acknowledge my participation in the Road Safety Audit of North Monroe Street for the FSU Urban Planning 2010 summer studio and agree that the recommendations I provided are honest, unbiased and representative of my personal opinion based on my professional experience.

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Date

JOE SANTOS
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JRS
Signature

July 20, 2010
Date



3 Traffic and Level of Service Analysis

Level of service (LOS) is a quantitative measure of how well a transportation infrastructure system operates. It is comprised of six letter grade levels A-F, with “A” being the highest and “F” being the lowest. Determining the LOS for the study area of the North Monroe Street corridor is essential to ensure that all recommended improvements maintain an acceptable vehicle LOS while improving bicycle and pedestrian LOS. Presented in this section is an overview of the level of service analysis process, level of service standards for the State of Florida, and multimodal level of service analyses for the five segments within the study area of the corridor. This analysis followed the standards and techniques set forth in the ARTPLAN software, as well as the accompanying Florida Department of Transportation 2009 Quality/Level of Service Handbook.

3.1 Level of Service Overview

LOS Evaluation Technique

ARTPLAN was the software utilized for this LOS analysis. It is FDOT’s multimodal planning software for signalized roadways in the State of Florida. The program is multimodal in structure, meaning that the software calculates an LOS for the automobile, bicycle, pedestrian, and bus. ARTPLAN calculates LOS based on three types of characteristics: roadway attributes, traffic, and control (signals). Each mode and their LOS are linked; as the LOS of one mode improves it may have a positive, negative, or neutral effect on other modes. Figure 3.1 illustrates the connectivity between different modes of transportation and their characteristics. For example, automobile traffic volume and the number of roadway lanes will affect pedestrian and bicycle LOS.

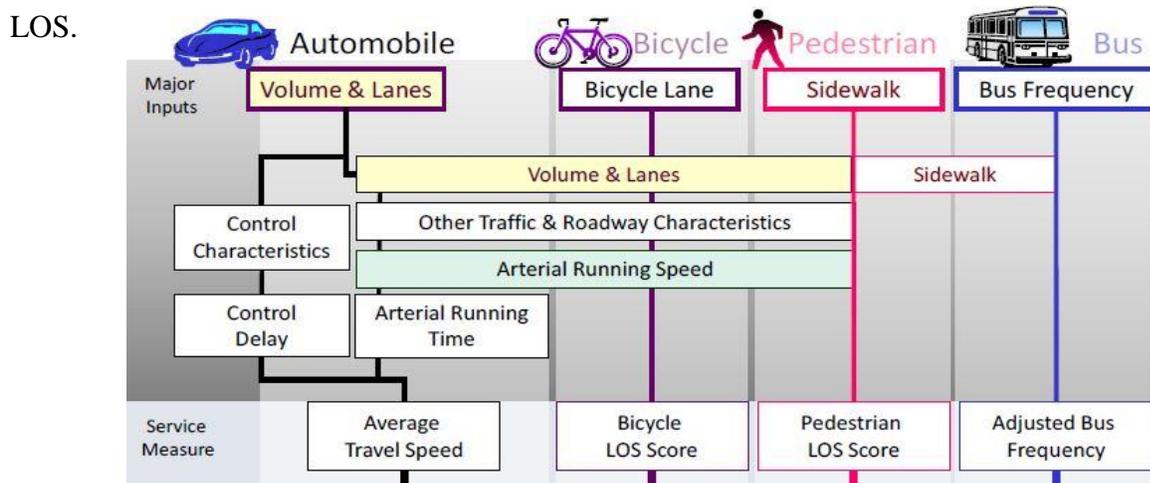


Figure 3.1. Multimodal Flow Chart

Source: Florida Department of Transportation 2009 Quality/Level of Service Handbook

Input Variables

Certain variables have more of an impact on a multimodal LOS analysis than other variables. Although all these variables are important, the most significant input ones are: area type, number of thru lanes, left turn lanes, paved shoulder/bicycle lane, sidewalk, annual average daily traffic, planning analysis hour factor, directional distribution factor, bus frequency, signalized intersection spacing, and the thru effective green ratio. The complete list of input variables is shown in Table 3.1 and descriptions of each variable are found in Appendix G.

Table 3.1: ARTPLAN Input Variables

| <i>Roadway Variables</i> | | | |
|--------------------------------------|----------------------------|---------------------------------|----------------------------|
| Roadway Type | Area Type | Number of Thru Lanes | Roadway Class |
| Posted Speed | Free Flow Speed | Length | Exclusive Left Turn Lanes |
| Exclusive Left Turn Lane Storage | Exclusive Right Turn Lanes | Median Type | Bicycle Pavement Condition |
| Paved Shoulder/Bicycle Lane | Obstacle to Bus Stop | Auto Outside Lane Width | |
| Sidewalk/Roadway Separation | Sidewalk | Sidewalk/Roadway Barrier | |
| <i>Traffic Variables</i> | | | |
| Annual Average Daily Traffic | Local Adjustment Factor | Directional Distribution Factor | Peak Hour Factor |
| Percent Right Turns | Percent Heavy Vehicles | Percent Left Turns | |
| Planning Analysis Hour Factor | Bus Frequency | Bus Span of Service | |
| <i>Control Variables</i> | | | |
| Number of Signalized Intersections | Cycle Length | Control Type | Arrival Type |
| Exclusive Left Effective Green Ratio | Thru Effective Green Ratio | | |

Source: Florida Department of Transportation 2009 Quality/Level of Service Handbook

Traffic volumes were obtained from the Florida Department of Transportation (FDOT), turning movements and signal timing from the City of Tallahassee’s Traffic Engineering Department, and roadway dimensions from observations in the field (Appendix H, p. 16).

Level of Service Levels Description

The following are the standard descriptions of automobile level of service used in transportation planning. Automobile LOS is essentially the ratio of volume to capacity and the vehicle speed of a roadway. It ranges from free flowing traffic with insignificant delays to forced flow traffic with excessive delays.



Table 3.2: Automobile Level of Service Descriptions

| | Description |
|--------------|--|
| LOS A | Highest LOS, which describes primary free-flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at intersections is minimal. |
| LOS B | Represents reasonable unimpeded traffic flow operations at average travel speeds. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension. |
| LOS C | Represents stable traffic flow operations. However, ability to maneuver and changing lanes may be more restricted than LOS B and longer queues and/or adverse signal coordination may contribute to lower average travel speeds. Motorists will experience noticeable tension while driving. |
| LOS D | Borders on a range in which small increases in traffic flow may cause substantial increases in approach delay and, hence, decreases in speed. This may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these. |
| LOS E | This represents traffic flow characterized by significant delays and lower operating speeds. Such operations are caused by some combination of adverse progression, high signal density, extensive queuing at critical intersections, and inappropriate signal timing. |
| LOS F | This represents traffic flow characterized at extremely low speeds. Intersection congestion is likely at critical signalized locations, with high approach delays resulting. Adverse signal progression is frequently a contributor to this condition. |

Source: *Highway Capacity Manual, 2000.*

The following are the standard descriptions of bicycle and pedestrian level of service used in transportation planning (Table 3.3). Bicycle and pedestrian LOS is characterized by the existence of a bicycle lane and sidewalk, and the level of interaction with motor vehicles.

Table 3.3: Pedestrian and Bicycle Level of Service Descriptions

| LOS Grade | Description |
|------------------|---|
| LOS A | Highest LOS, which includes ample sidewalk space and bicycle lanes. Low level of interaction with motor vehicles. |
| LOS B | Represents an LOS similar to LOS A. Provides ample sidewalk space and bicycle lanes, but a low to moderate interaction with motor vehicles. |

| | |
|--------------|---|
| LOS C | Represents a roadway with sidewalks and bicycle lanes. However, on a roadway high volume of motor vehicles and increased traffic speed. Moderate interaction with motor vehicles. |
| LOS D | Represents an LOS similar to LOS D. However, a moderate to high level of interaction with motor vehicles. |
| LOS E | Represents a roadway that may or may not provide sidewalks or bicycle lanes. Pedestrians and bicyclist have a high level of interaction with motor vehicles. |
| LOS F | Represents a roadway with no sidewalk or bicycle lane. Roadway is primarily designed for high speed and high volume of motor vehicles |

Source: Highway Capacity Manual, 2000.

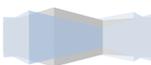
Bus level of service is mostly dependent on the frequency in which the bus operates, as well as the pedestrian LOS. Pedestrian and Bus LOS are closely related due to the ability for pedestrian to access bus stops. Table 3.4 shows the bus LOS and the frequency associated with each letter grade.

Table 3.4: Bus Level of Service Descriptions

| LOS Grade | Frequency (Vehicles /hour) | Description |
|------------------|-----------------------------------|---|
| LOS A | >6.0 | Passengers don't need schedules |
| LOS B | 4.01 to 6.0 | Frequent Service, passengers need schedules |
| LOS C | 3.0 to 4.0 | Maximum desirable time to wait if bus is missed |
| LOS D | 2.0 to 2.99 | Service unattractive to choice riders |
| LOS E | 1.0 to 1.99 | Service available during hour |
| LOS F | <1.0 | Service unattractive to all riders |

Source: Highway Capacity Manual, 2000.

Examples of multimodal LOS by grade are shown in Figure 3.2. Visualizing each grade helps further understand the relationship between level of service and the quality of the experience that users will encounter along a roadway.



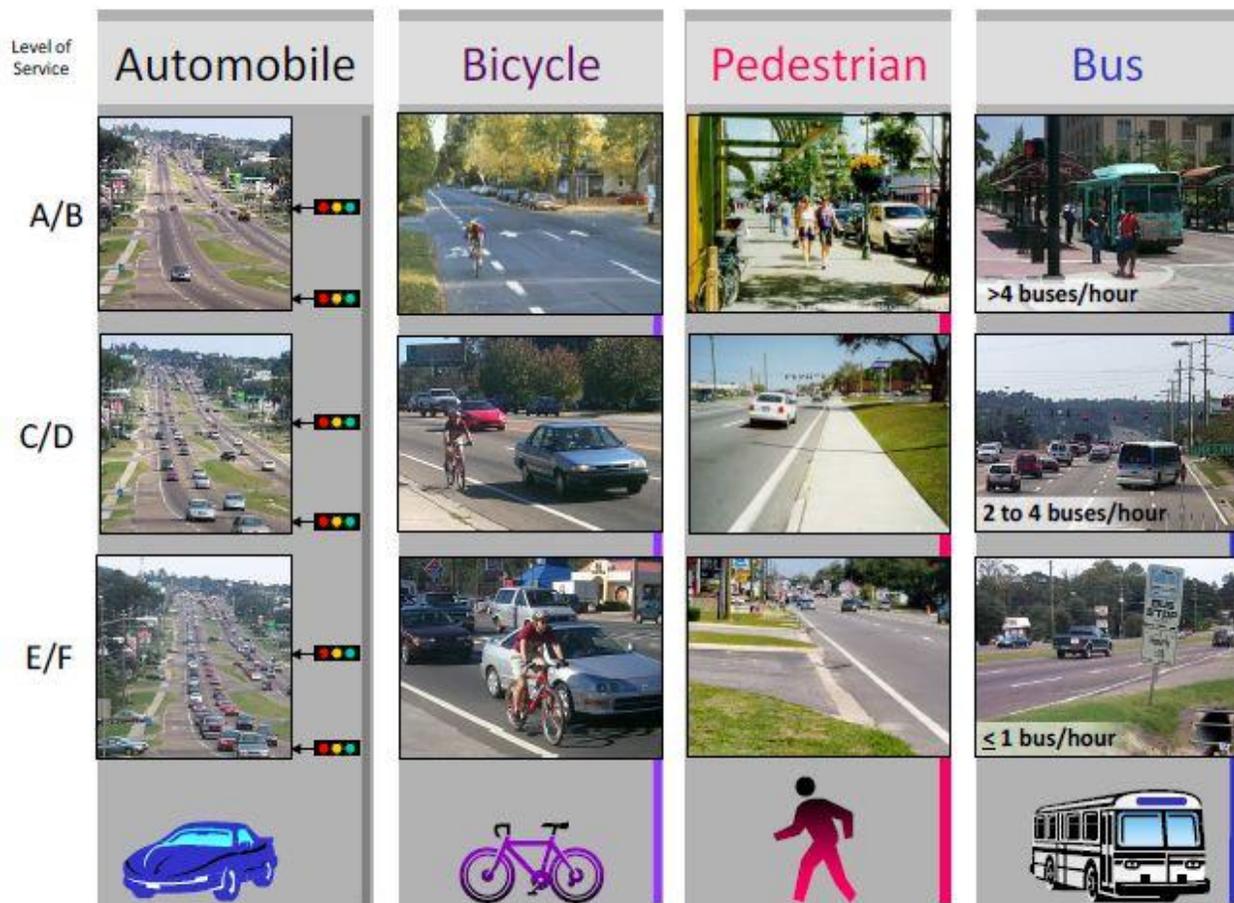


Figure 3.2: Level of Service by Mode of Transportation

Source: Florida Department of Transportation 2009 Quality/Level of Service Handbook

3.2 Statewide LOS Standards

In 1992 FDOT established minimum peak hour LOS standards for roadways in Rule 14-94.003 of the Florida Administrative Code. In 2009 state legislation passed allowing local governments to establish their own LOS standards for select roadways. In cooperation with FDOT, the city of Tallahassee and Leon County developed minimum LOS standards in the Comprehensive Plan. Policy 1.4.3 of the Comprehensive Plan states:

The level of service on all roadway facilities on the state highway system operating at the recommended adopted minimum level of service standard or better at the time of adoption of the Comprehensive Plan will be maintained at the state adopted minimum level of service or a more strict local standard for the facility (if required adopted as part of plan).

The North Monroe Street corridor study area would fall within this rule, and therefore maintained at a state LOS standard of “D,” as summarized in Table 3.5.

Table 3.5: FDOT Statewide Minimum LOS Standards

| Area | Other Multi-Lane |
|-------------------------------|------------------|
| Urbanized Areas under 500,000 | LOS D |

Source: Florida Administrative Code

3.3 Existing Level of Service along the North Monroe Street Corridor

This LOS analysis was performed on the operating conditions of the peak direction, 100th highest volume hour of the year (k100). For planning purposes, the 100th highest hour represents the typical weekday peak hour during the area’s peak season. This can be thought of as a typical drive in the peak direction during rush hour traffic.

Existing Traffic Volumes

Most planning and engineering applications begin with traffic volumes. Annual average daily traffic (AADT) is the most basic of all traffic volume parameters. AADT is the total traffic volume on a highway segment for one year divided by the number of days in a year. FDOT provides AADT values for state road and was consulted to obtain the AADT values for the North Monroe Street corridor (Appendix H). Table 3.6 shows the AADT for the corridor.

Table 3.6: Annual Average Daily Traffic for the Monroe Street Corridor Study Area, 2009

| Segment | AADT |
|--|--------|
| Thomasville Road to 7 th Avenue | 25,500 |
| 7 th Avenue to Tharpe Street | 36,500 |

Source: FDOT Traffic Information

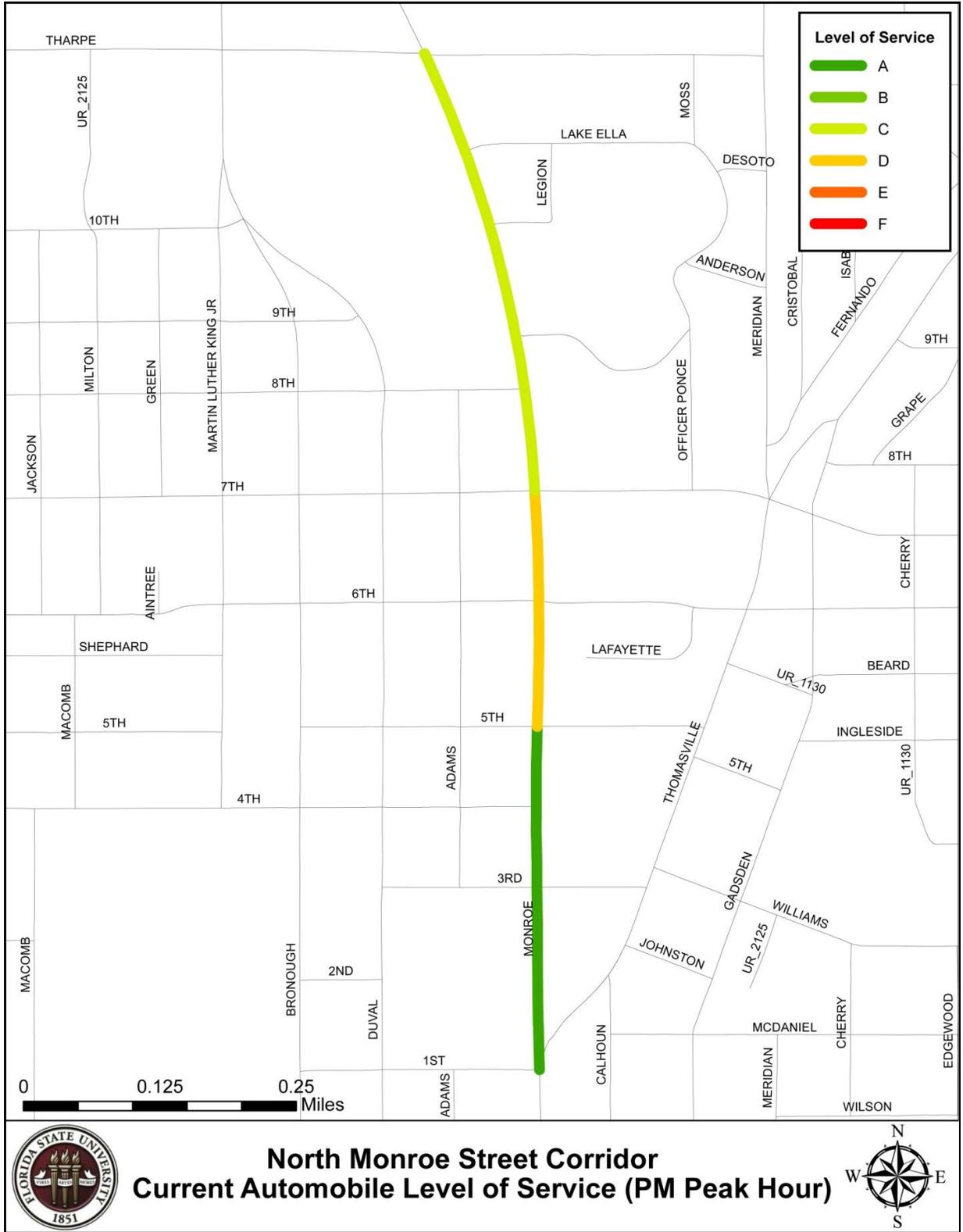
In the peak direction during the pm peak hour, North Monroe Street from 7th Avenue to Tharpe Street has a higher traffic volume than the rest of the corridor. This is due to traffic from minor arterial roads feeding onto North Monroe Street as commuters head north and the area being a destination with a shopping center and Lake Ella Park nearby.



Current Automobile Level of Service

Map 3.1 shows the LOS for automobile traffic along the North Monroe Street corridor study area. From Thomasville Road to 5th Avenue the LOS is an “A.” During the peak hour in this segment, traffic is free flowing at average speeds. This is due to a lack of signalized intersections present within this segment and a lower traffic volume, as shown in Table 3.3. From 5th Avenue to 7th Avenue the LOS is a “D.” This is grade is a result of two signalized intersections being found in this segment at 5th Avenue and 7th Avenue which increases delay and decreases traffic speed. From 7th Avenue to Tharpe Street the LOS is a “C.” During the peak hour in this segment traffic is stable and free flowing, however the ability for vehicles to maneuver and change lanes may be restricted which is caused by a higher traffic volume. All segments of the North Monroe Street corridor operate within the statewide minimum LOS standards adopted by the FDOT, The City of Tallahassee and Leon County.



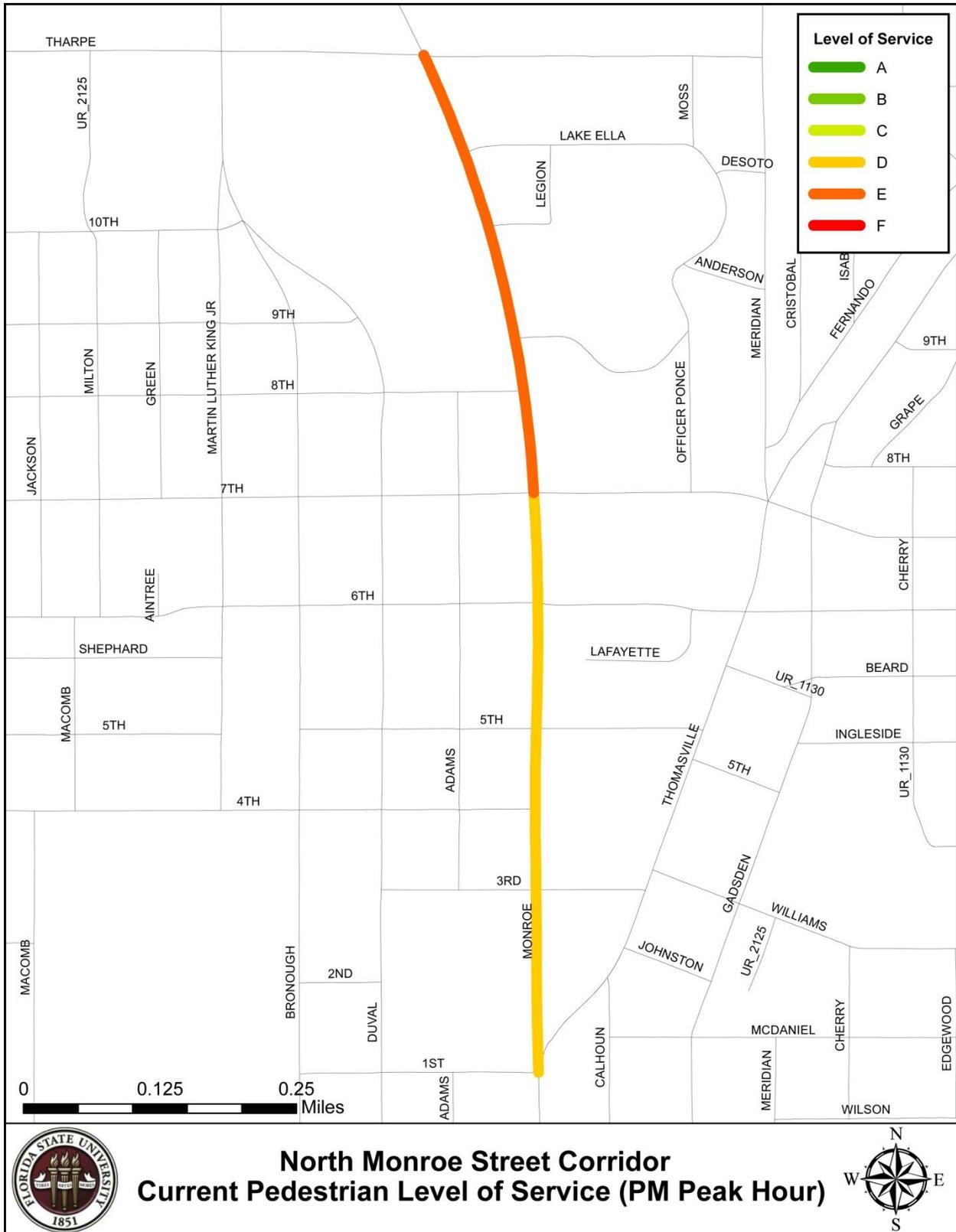


Map 3.1: North Monroe Street Current Automobile Level of Service (PM Peak Hour)

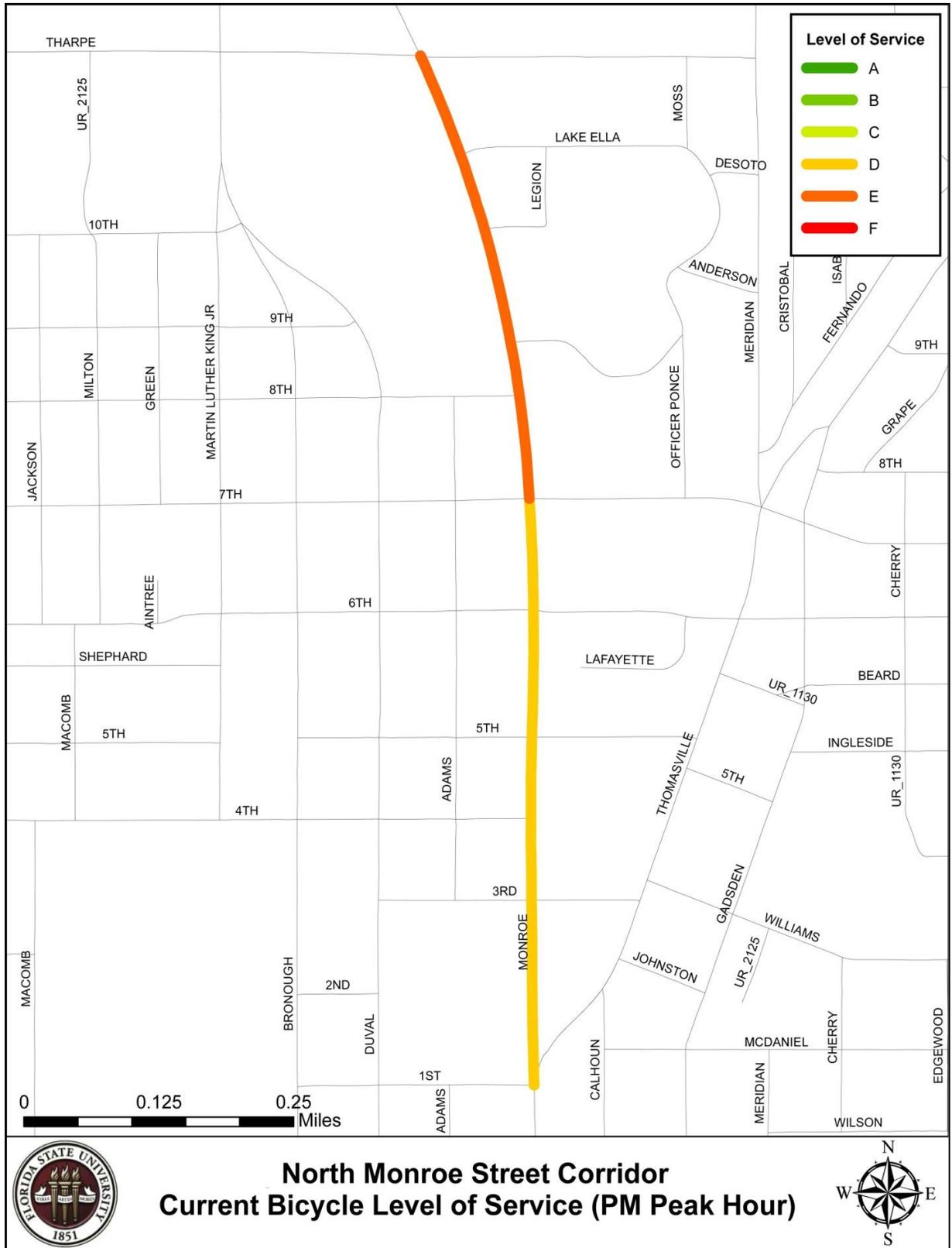
Current Pedestrian and Bicycle Level of Service

Map 3.2 and Map 3.3 show the LOS for pedestrian and bicyclist use along the North Monroe Street corridor study area. The LOS for both modes of transportation are equivalent due to similar determinants and characteristics for each grade, therefore they may be discussed concurrently. From Thomasville Road to 7th Avenue the LOS is a “D.” During the peak hour pedestrians and bicyclists experience a moderate to high level of interaction with motor vehicles. This is due to a high volume of traffic, lack of a bicycle lane and no buffer between the roadway and pedestrians or bicyclists. From 7th Avenue to Tharpe Street the LOS is an “E.” Pedestrians and bicyclists have a higher level of interaction with motor vehicles in this segment, due to an increase in the volume of traffic starting at 7th Avenue. (Table 3.3) In this segment, no bicycle lane or buffer between the roadway exists.





Map 3.2 North Monroe Street Current Pedestrian Level of Service (PM Peak Hour)

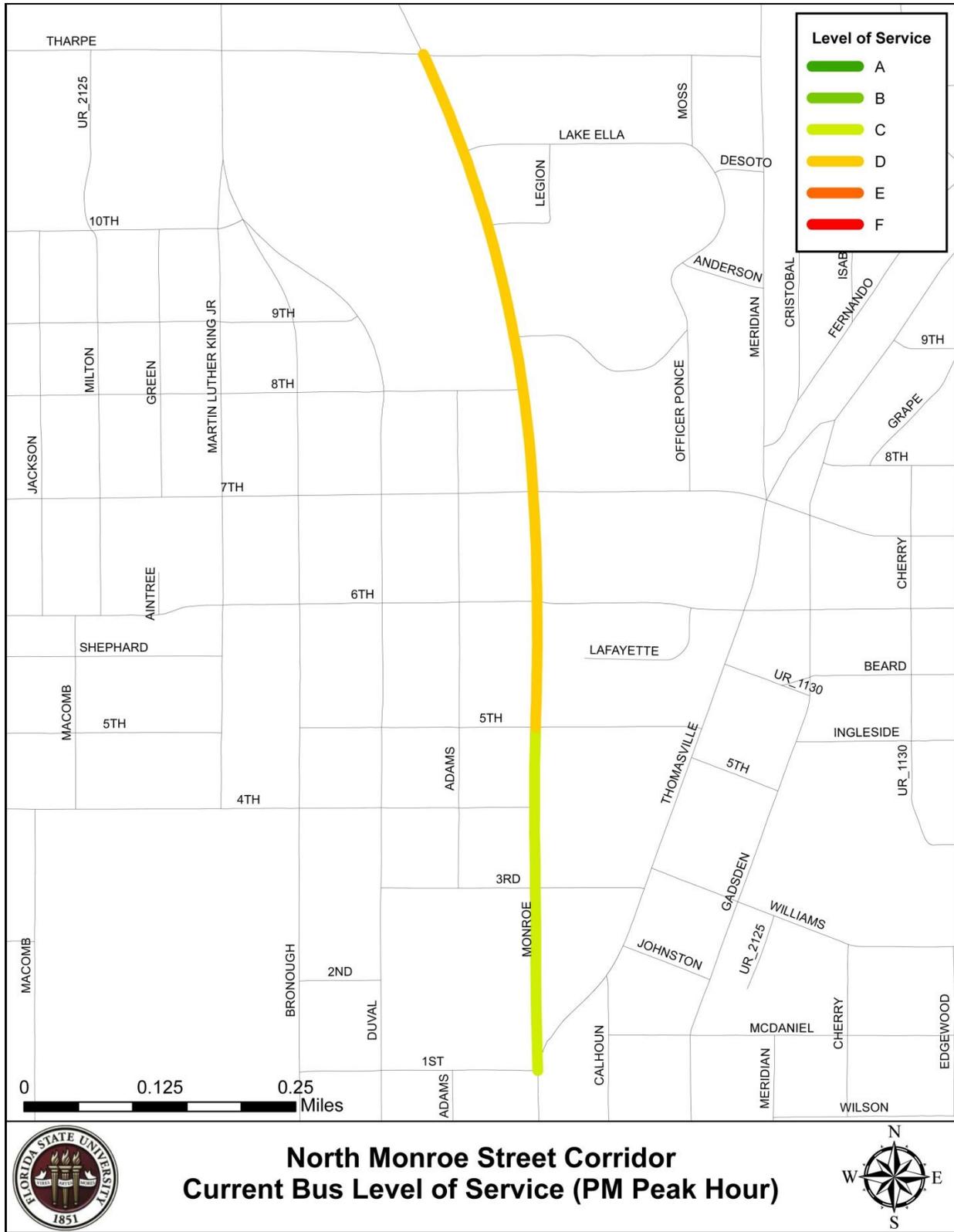


Map 3.3: North Monroe Street Current Level of Service (PM Peak Hour)

Current Bus Level of Service

Map 3.4 shows the LOS for bus transit along the North Monroe Street study area. From Thomasville Road to 5th Avenue the LOS is a “C.” This is due to the frequency in which the bus operates, as well as the pedestrian LOS (Appendix G). From 5th Avenue to Tharpe Street the LOS is a “D.” Although bus frequency is identical to the previous segment, this lower bus LOS can be attributed to a lower pedestrian LOS. The bus service along the corridor operates at an acceptable LOS, however may be unattractive to choice riders. It is noted with the adoption of StarMetro’s NOVA2010 new bus scheduling that the bus LOS along the corridor might be altered.





Map 3.4: North Monroe Street Current Bus Level of Service (PM Peak Hour)

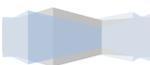
Public Input on the Area's Level of Service

Generally, participants in the public input meetings feel strongly about the lack of safety for walkers and bicyclists along the North Monroe corridor. Citizens feel that over time the corridor's designed has yielded to the needs of motor vehicles while disregarding the needs of pedestrians. Stakeholders point out the number of curb cuts into parking areas that interrupt the sidewalks and the absence of crosswalks along the Lake Ella district, which experiences the highest level of pedestrian traffic in the study area –yet has a sub-standard pedestrian level of service (E). While some of the recommendations from the public input meeting – such as the reduction of traffic lanes along the corridor – are not feasible, others include more reasonable alternatives such as reduction of traffic lanes to reduce traffic speed and accommodate sidewalk improvements. For details about the public input meetings, please refer to Appendix C in Volume II of this study.

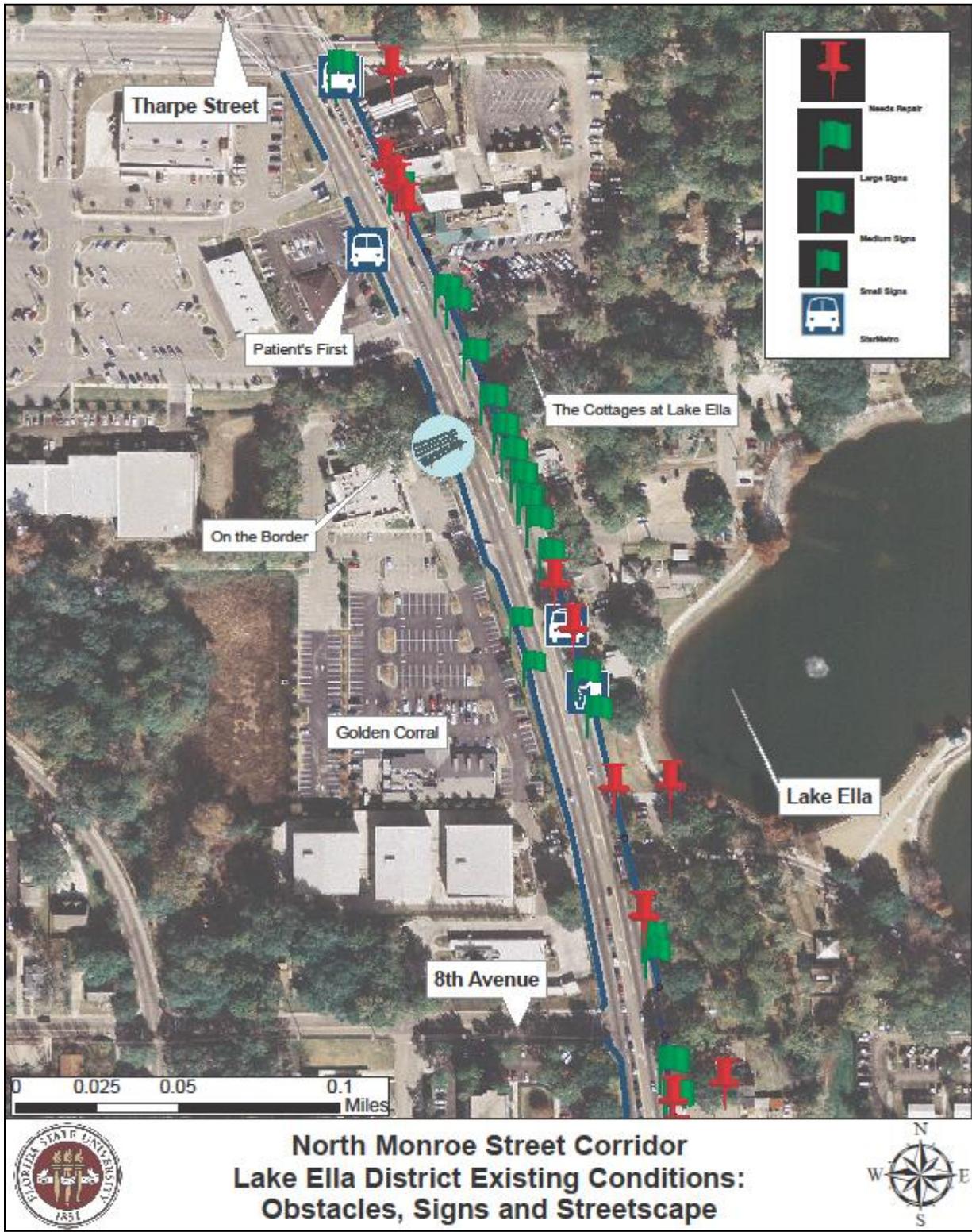


4 Existing Conditions

The section of the North Monroe corridor evaluated for this study is almost a mile long from Tharpe Street to the intersection of Thomasville Road and Monroe Street. It embodies many of the varying characteristics and traits that make the Tallahassee area unique. This stretch of roadway consists of five lanes of traffic: two northbound travel through-lanes, two southbound travel through-lanes, and one center turn lane. Each of these lanes is 12 feet wide on average and thus the typical roadway is 60 feet wide. The roadway is showing some signs of wear and the transition from roadway to curb is uneven in places, making it difficult for bicyclists to share the roadway with automobiles. The diversity of businesses and range of pedestrian use observed along this street led us to the conclusion that it would be ideal to divide the North Monroe corridor into three separate “districts”. Each district was identified by its physical, natural, commercial, and industrial characteristics. The three districts were designated as the Lake Ella District, the Midtown Connector District, and the Commercial-Office District. Beginning at Tharpe Street, the majestic oak trees and greenscaping along Lake Ella create a natural environmental and historical attraction within Leon County that draws locals and visitors alike to relax and enjoy the beauty of North Florida. Farther down the corridor North Monroe Street transitions to a bustling commercial sector, boasting restaurants, flower shops, clothing stores, and bars. As the corridor draws closer to downtown approaching Thomasville Road, the buildings and industries become more focused around law offices and buildings. Each of the Districts briefly mentioned will be further described in terms of physical characteristics, existing conditions, and proposed alternatives to improve the safety and mobility of these areas.



4.1 Lake Ella District



Map 4.1: Lake Ella District Existing Conditions

The Lake Ella District is centered on one of Tallahassee’s most prominent land marks: Lake Ella itself. This area is already known for its environmental features, as well as being a local hub for families and individuals to enjoy the outdoors by walking, playing on the grass, or sitting around the lake. Commercial businesses line the front of the lake, and surround the area, yet the pedestrian traffic to these areas is underrepresented. An initial analysis has shown deficiencies within this district that may be deterring residents from taking advantage of the full extent of the commercial district surrounding Lake Ella. The evaluation of existing conditions of this area led to alternatives that are centered around creating a safe and pedestrian friendly area that is well lit; this will ideally help provide access to all businesses, as well as increase the natural aesthetics of the corridor. A primary element of the existing conditions report is observing whether or not all sidewalks are ADA accessible. The area defined as the “Lake Ella District” for the purposes of this study begins at the corner of Tharpe Street and North Monroe Street, extending south to 7th Avenue.

Public Input on the Lake Ella District

Stakeholders emphasized at both public input meetings that within the Lake Ella district many pedestrians and bicyclists not only access the park, but also the shopping at the Lake Ella shopping center. In particular, meeting participants point out the need for greater accessibility to the Publix supermarket from the street and sidewalk connectivity is key. Some shoppers travel by bus and are wheelchair –dependent. Therefore, the alternatives will need to accommodate for special needs at bus stops in this area. Generally, the meeting participants expressed concern about danger in crossing to Lake Ella because of the lack of a crosswalk. According to one meeting participant, “drivers are anxious that they will miss their turns [at Tharpe Street] due to pedestrians [and there is] no audible signal for walk light.” Medians and crosswalks were suggested as possible alternatives. Participants also pointed out the large parking lot areas at El Corral across from Lake Ella. These could possibly serve as parking for visitors to the park and, therefore, a crosswalk in this general area might be convenient.



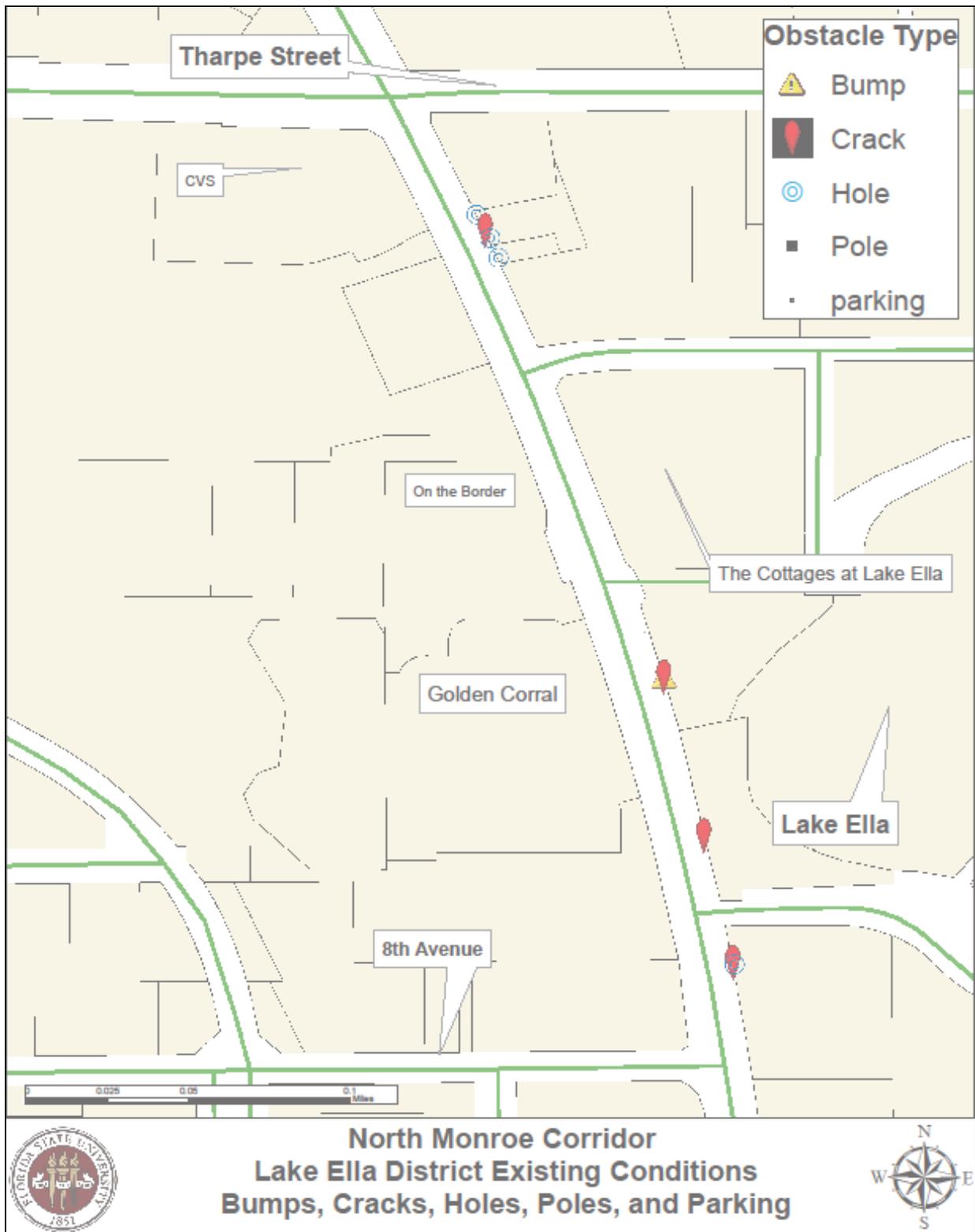
Sidewalks



Figure 4.1: A portion of the Northwest sidewalk conditions within the Lake Ella District

The concept of walkability within the Lake Ella District is difficult to achieve safely due to the high traffic volume and poor sidewalk quality that has long been overlooked. The close proximity to traffic does not allow for a safe walkway, and pedestrians may perceive the area as dangerous. The east side of Monroe Street within this segment consists of poorly maintained sidewalks, with frequent cracks and breaks that hinder the ability of pedestrian use. Conversely, the western portion of Monroe Street has well maintained sidewalks, with few cracks or breaks. There are four areas along the eastern side of this section with large holes, five areas with disruptive cracks, and one large bump, which can be seen in Map 4.2.





Map 4.2: Lake Ella District Existing Obstacles



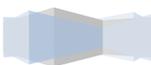
The width throughout both sidewalks varies from 4-7 feet, meeting legal requirements; however, the varying widths and lack of access points to the sidewalk do not provide a safe haven for mobility. According to the *Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Street and Highways* put out by the Florida Department of Transportation “walkways and sidewalks must be designed to accommodate physically disabled persons whose mobility is dependent on wheelchairs or other devices”. (State of Florida Department of Transportation, May 2007) As previously noted the deteriorating sidewalk conditions provide unfavorable wheelchair accessibility and bicycle use.

Curb Ramps & Crosswalks

The curb ramps within the Lake Ella District on the west side of the roadway are mediocre at best. Figure 4.2 shows an example. Though some are well maintained or well marked, a great number are poorly positioned. In many cases the directional exit of the curb is into oncoming traffic, and is the only curb ramp for the bisecting intersection. Both the east and west sides have curb ramps that fail to have truncated domes to meet ADA guidelines. There are 18 curb ramps in the Lake Ella District, six of which are in poor condition for ADA accessibility as shown in Map 4.3.



Figure 4.2: Existing poor condition curb ramp within the Lake Ella District





Map 4.3 Curb Ramps Providing ADA Accessibility

Crosswalks on the western portion of Monroe Street are well spaced, but tend to not be visibly marked. The eastern side of the crosswalk on North Monroe Street at the corner of 6th Avenue is an example of an ideal crosswalk for the corridor. It has been constructed with brick pavers, enhancing the character of the area as well as providing for increased visual and audible identification of pedestrians crossing the busy road. In this intersection on the western segment of the northbound of 6th Avenue is also a well placed buffer that acts as a pedestrian refuge.

Streetscaping

The StarMetro Bus waiting areas are located in the midst of the sidewalk with little to no shade, often with no trash receptacles, providing little shelter, comfort, or convenience to those waiting.. Within this stretch of highway the only provided streetscape is a covered bench, with a trashcan located in front of a commercial business.

Along the front of the Tallahassee Senior Center is a concrete wall (See Figure 4.3) that is currently unattractive in both appearance and in comparison to its surroundings. Chipped and degenerated, the wall needs improvements aesthetically.



Figure 4.3: Existing wall located on North Monroe Street in front of the Senior Center



Landscaping

Many portions of the Monroe Street corridor along the Lake Ella District are privately maintained and landscaped, and are exemplary in their practices. The stretch of landscaping on the western portion of Monroe Street that spans from “On the Border” past “Golden Corral”, and represents what well maintained green space can do to improve the aesthetics of an area. Surrounded by green buffers of native shrubbery, flowers, and Magnolia trees this area provides residents, and those passing by with a more pleasant experience. The consistency of the landscaping with that of its neighbor Lake Ella provides for a seamless ecological break in the midst of stretches of un-shaded concrete.

Continuing south to the Senior Recreational Center on 7th Avenue is an example of poorly maintained vegetation as shown in Figure 4.4. The trees and shrubs within this area have become overgrown, and are intruding on the walkway creating a negative experience and safety hazard for pedestrians and bicyclists. Overhanging tree branches into the roadway though are not currently a threat.



Figure 4.4: Poorly maintained landscaping

However, during severe weather the danger of the trees breaking into the road is escalated. The eastern portion of Monroe Street is well-shaded with a great deal of native vegetation. However, as was previously mentioned, the sidewalk conditions are poor along this stretch so the natural foliage cannot be enjoyed by pedestrians.

Lighting/ Light Poles

The current lighting within the Monroe Street corridor has been constructed to encourage vehicular traffic, and does not promote pedestrian traffic or safety. Increasing uniform lighting standards within the city that includes a combination of human scale vertical lighting as well as coinciding horizontal fixtures on businesses would improve the perspective of the area. Lower-hanging fixtures enhance the perceived safety of an area, and endorse pedestrian mobility. The current light poles also hinder the ability of bicycle and pedestrian mobility on sidewalks due to their placement in the middle or near center of walkways, Figure 4.5 shows an example of this.



Figure 4.5: Example of poorly placed light pole impeding pedestrian traffic-flow

Signs

The existing signage identifying the StarMetro bus stops within the Monroe Street corridor are not readily visible or placed in a way that encourages residents of Tallahassee to use public transit. Signs are placed high on electrical poles, and do not provide any indication of the proposed transit route, nor any suggestion to the time frames in which the bus runs. Also, the Tallahassee Police Department has a sign located across from Lake Ella to direct individuals to their headquarters; however, it is located in such a way that it is directing passerby's to the wrong street. The sign is also deteriorating, and difficult to read when passing in a vehicle. Figure 4.6 and Figure 4.7 show examples of human scale lighting with consistent signage that improves the aesthetic qualities of the corridor.





Figure 4.6: Decorated human scale lighting in downtown Tallahassee





Figure 4.7: Tallahassee Downtown Connectivity Plan: vertical lighting and sign combinations

Parking

There are currently no existing concerns with parking conditions or parking lots within the Lake Ella District. There is a large parking lot between “On the Border” and “Golden Corral” that is underutilized and has potential for increased public parking to serve Lake Ella Park. As a large parking lot located across from a public park this lot has the potential to be utilized as public parking; however, the absence of a crosswalk currently hinders the ability of the public to do so.

Power Lines and Utilities

In contrast to the rest of the corridor the current utility lines of the Lake Ella District are above ground and disrupt the natural beauty of the area.



Intersections

The Lake Ella District has some of the worst existing conditions of the three segments along the corridor. With the exception of Tharpe Street, the entrance to the corridor and only signalized intersection in this segment, there are no crosswalk facilities present. Even that intersection has poor geometry and excessive crosswalk lengths. This area was identified as having the highest volume of pedestrian traffic along the corridor, yet it contains the fewest pedestrian amenities. The distance between the North Monroe crosswalk at Tharpe and the next closest Monroe Street crossing at 7th Avenue is approximately one-half mile, or half the distance of the total corridor. Additionally, none of the three side streets along Lake Ella contain crosswalks, though they are in very close proximity to a city park with strong pedestrian activity. This district will be a focal point for many policy recommendations. The following are the existing intersections in this district, followed by an analysis of each:

- **North Monroe Street at Tharpe Street (Signalized)**
- **North Monroe Street at Lake Ella Drive (Stop Controlled)**
- **North Monroe Street at Legion Street (Stop Controlled)**
- **North Monroe Street at South Lake Ella Drive (No Control)**
- **North Monroe Street at 8th Avenue (Stop Controlled)**

North Monroe Street at Tharpe Street

This is the northernmost intersection of the one-mile corridor, and carries a high volume of vehicular traffic. West Tharpe Street contains five lanes of traffic at the intersection; two lanes traveling westbound, one left turn-lane, one through lane, and one right turn-lane. East Tharpe contains three lanes of traffic; one eastbound lane, one left turn-lane, and one through lane that also permits right turns. There are two turning prohibitions present at this intersection; no u-turns while traveling northbound on Monroe, and no right turn on red while traveling eastbound on the cross street. Tharpe Street does not intersect Monroe Street at a right angle; therefore when originally designed, the crosswalks were skewed to match the roadway. The curb radii for the intersection are listed in Table 4.1.



Table 4.1: Tharpe Street Curb Radii

| Location | Curb Radius | Acceptable? |
|------------------|-------------|-------------|
| Southwest Corner | 12'4" | Y |
| Northwest Corner | 63' | N |
| Northeast Corner | 13' | Y |
| Southeast Corner | 24'6" | Y |

Three of these curb radii fit within the 15 to 25 foot guideline set forth in the *Florida Intersection Design Guide* recommendations for passenger vehicles in an urban area, the northwest corner, however, far exceeds this at 63 feet (FDOT 2007). The *Florida Intersection Design Guide* states that radii over 40 feet should be provided where large trucks and buses frequently turn and where “speed reductions would cause problems” (Sect. 3.13.1). This particular segment however has a relatively low volume of heavy traffic flow, with it only accounting for 2.66% of the overall annual average daily traffic (see Appendix G). PEDSAFE, a Federal Highway Administration sponsored project, also recommends 15 to 25 feet curb radii, “for arterial streets with a substantial volume of turning buses and/or trucks,” so anything within this range should be more than acceptable for this corridor (PEDSAFE). The FDOT Design Guide also states “where large radii are used, an intermediate refuge or median island is desirable, or crosswalks may need to be offset so that crosswalk distances are not objectionable” (Florida Intersection Design Guide 3.13.1). The current crosswalk distances are as follows, and can be seen along with the other intersection measurements in Figure 4.8:

- **Southern:** 74 feet
- **Western:** 102 feet, 5 inches
- **Northern:** 109 feet, 7 inches
- **Eastern:** 50 feet, 4 inches

Due to the skewed angle of intersection that is visible in Figure 4.9, the western and northern crosswalk distances far exceed any other along the corridor, placing the pedestrian in the roadway for an extended period of time. However, pedestrian signals are provided at every corner to regulate the timing of the pedestrian crossings.



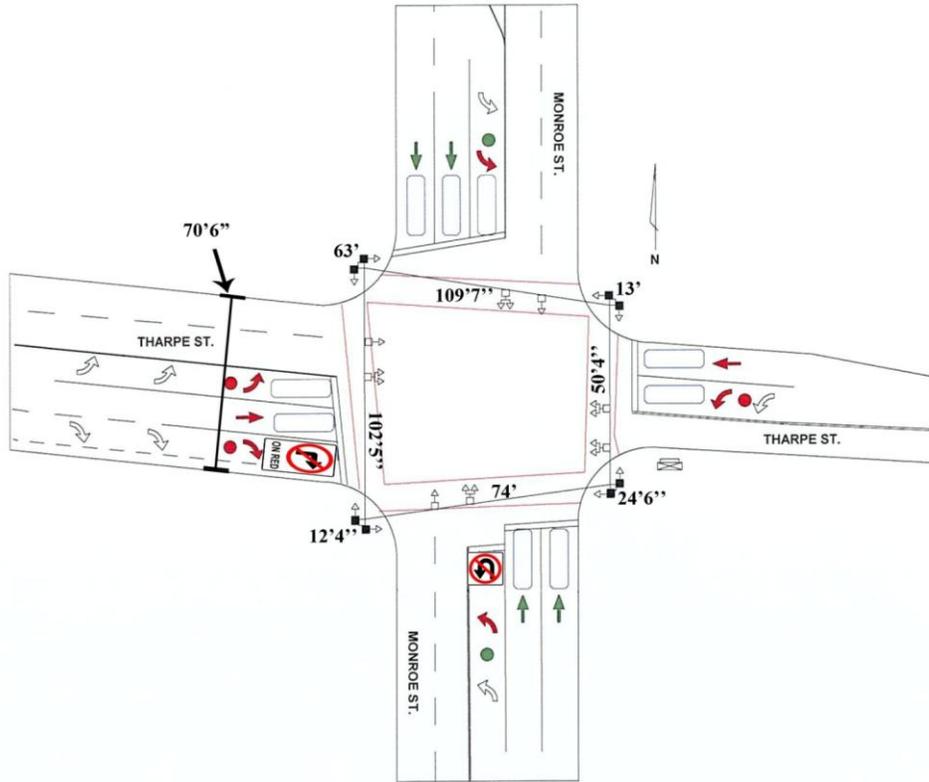


Figure 4.8: North Monroe Street at Tharpe Street



Figure 4.9: North Monroe Street at Tharpe Street



The existing pedestrian signal timing for the Tharpe Street intersection does not meet the new industry standard of 3.5 ft/sec that Signal Timing Engineer for the City of Tallahassee, Alan Otley recommended. Because of its skewed geometry resulting in extended crosswalk distances, the crossing distances do not allow for proper signal timing. The current pedestrian signal timing can be found in Table 4.2. As highlighted in yellow each of the signal times fall short of the suggested timing. See Appendix H for raw signal data.

Table 4.2: Tharpe Street Pedestrian Signal Timing Data

| Crosswalk | Width | Pedestrian Crossing Time | Allowed Walking Speed |
|-------------------|------------|--------------------------|-----------------------|
| Southern/Northern | 109.58 ft. | 29 sec. | 3.8 ft/sec |
| Eastern/Western | 102.42 ft. | 20 sec. | 5.1 ft/sec |

North Monroe Street at Lake Ella Drive

This stop-controlled intersection is the northern entrance to Lake Ella Park. Lake Ella Drive is a two-lane road with traffic traveling both ways. Being so close to the park, it is intriguing that there is no crosswalk at this intersection as shown in Figure 4.10. The curb radii at this intersection are within the Florida Intersection Design Guide’s Section 3.13.1 and PEDSAFE recommendations, as seen in Table 4.3.

Table 4.3: Lake Ella Drive Curb Radii

| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 22'4" | Y |
| Northern Corner | 11'4" | Y |





Figure 4.10: North Monroe Street at Lake Ella Drive

North Monroe Street at Legion Street

Legion Street is a small two-lane road that previously connected to Lake Ella Drive, but is now closed to through traffic. This side street is currently utilized as access to parking for the cottage shops at Lake Ella. As seen in Figure 4.11, there is also no crosswalk present at this stop-controlled intersection, which is home to frequent pedestrian traffic. The distance from sidewalk to sidewalk is 56 feet, where a crosswalk would be present. The curb radii here are also surprising, as the northern radius is 23 feet, and the southern is 29 feet, 7 inches, also seen in Table 4.4. The former barely fits within the guidelines set by the PEDSAFE project and the *Florida Intersection Design Guide*, and the later exceeds it by 4 feet, 7 inches. This is not typical for an area with relatively strong pedestrian traffic. Also, given that there is no traffic signalization, it also does not have a pedestrian signalization.



Table 4.4: Legion Street Curb Radii

| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 29'7" | N |
| Northern Corner | 23' | Y |



Figure 4.11: North Monroe Street at Legion Street

North Monroe Street at South Lake Ella Drive

This intersection, which can be viewed as an aerial photograph in Figure 4.12, serves as the southern entrance to the popular pedestrian destination, Lake Ella Park. This entrance only allows traffic flowing one-way eastbound into the park. This eliminates the need for any type of traffic regulation device, as no one is exiting the road onto the arterial roadway. Surprisingly there is not a crosswalk present at this intersection either, meaning that all three park-access roads where a large portion of the corridor's pedestrian activity is located, are without marked

crosswalks. The measurement of the distance between the north and south sidewalks where the crosswalk would be is 45 feet, 6 inches. The measurement of the southern curb radius is listed in Table 4.5, and is within the 15 to 25 foot range that is acceptable. Since there are no crosswalks or traffic signals here, there are also no signals to regulate pedestrian traffic.

Table 4.5: South Lake Ella Drive Curb Radius

| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 22'3" | Y |



Figure 4.12: North Monroe Street at South Lake Ella Drive



North Monroe Street at 8th Avenue

North Monroe Street at 8th Avenue is a stop-controlled intersection, seen in Figure 4.13, which enters the corridor from the west side. It is a two-lane road with traffic traveling eastbound and westbound and does not completely intersect the main arterial. There are no turn prohibitions, and the intersection lacks any crosswalk features to connect the north and south ends of the sidewalk. The measurement for the roadway that would function as a crosswalk is 51 feet 6 inches. As seen in Table 4.6, the curb radii for this intersection are on the upper end of, and even exceed what the acceptable range of 15 to 25 feet. The southern radius is 25 feet 9 inches and the northern radius is 24 feet 2 inches. This is uncharacteristic of a road of this type in this setting. Also, since there is no traffic signal there are also no pedestrian signals present. This intersection requires more features to make it pedestrian friendly.

Table 4.6: 8th Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 25'9" | N |
| Northern Corner | 24'2" | Y |

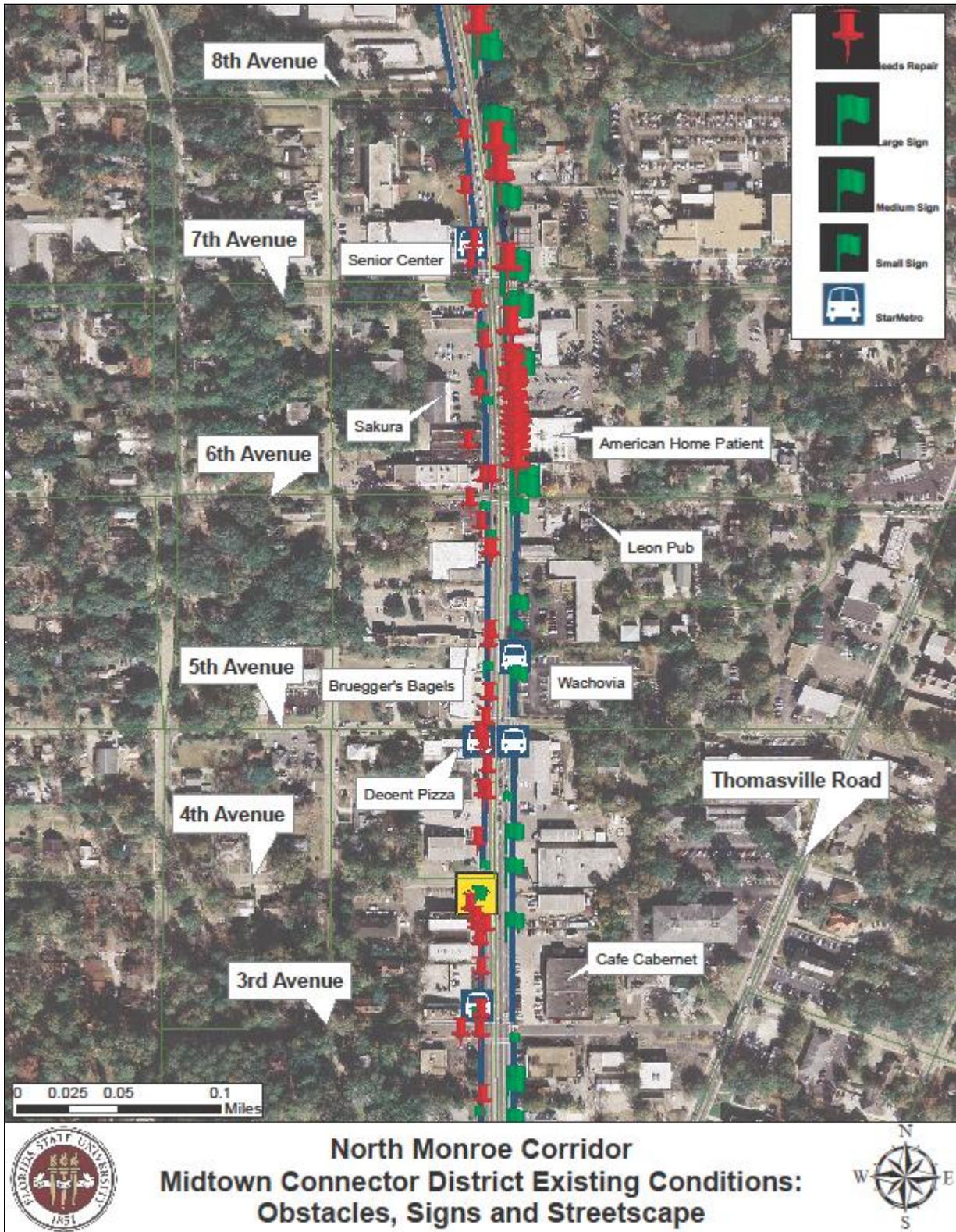
Measurements were taken of the entire roadway at this point, just north of the intersection. The measurement from the eastern sidewalk to the curb is 7 feet, the western sidewalk to the curb is 11 feet, 5 inches, and the traveled roadway measurement is 64 feet, 10 inches. Combined, this provides a total width of 76 feet, 10 inches.



Figure 4.13: North Monroe Street at 8th Avenue



4.2 Midtown Connector District



Map 4.4: Midtown Connector Existing Conditions

The area classically defined as “Midtown” has undergone improvements over the past 10 years to improve the commercial viability of the area, and attract the young professionals of Tallahassee to work and play in this area. As a historical portion of the city, the gateway of Midtown has become a primary connector to the past and future of the State’s capital city. This area has become a link to historic landmarks such as the Prince Murat Motel and has incorporated many additions to the area in the form of restaurants, bars, lounges, and specialty boutiques. This study is looking to capitalize on the characteristics of this area in order to create a collaborative showcase that will connect the non-traditional Monroe Street portion of Midtown to Midtown-proper. The current conditions of the North Monroe Midtown District have been evaluated in terms of safety, walkability, welcoming pedestrian features, and improvements that might enhance the experience of this region. The “Midtown Connector District” for the purpose of this study begins at 6th Avenue and extends to 3rd Avenue.

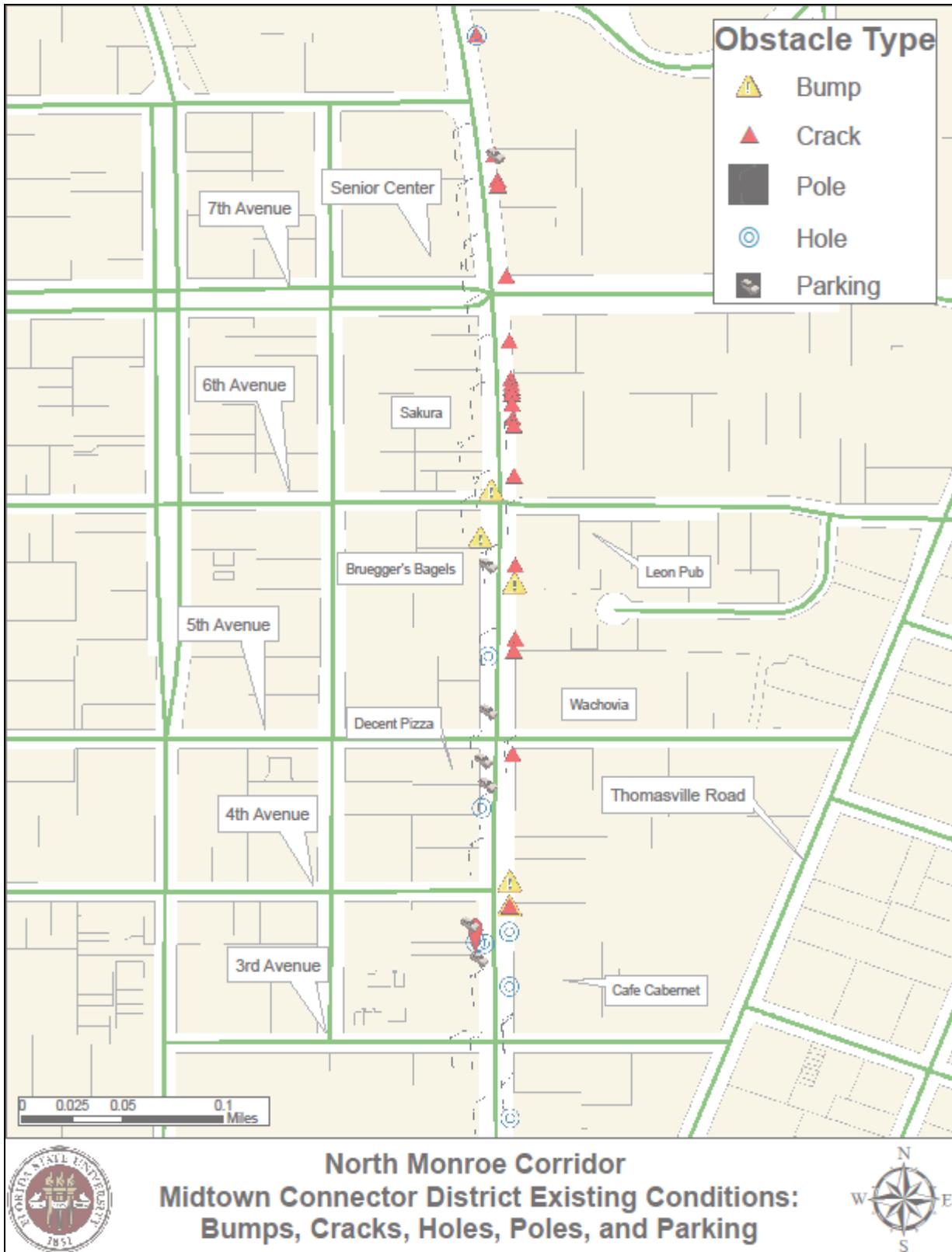
Public Input on the Midtown District

Public concern in this district is mostly about the contiguous sidewalks and the lack of pedestrian safety due to curb cuts into parking lots and the absence of buffers. Meeting participants emphasized the need for crosswalk improvements – particularly on the 7th Avenue intersections. Overall, this segment of North Monroe Street is intimidating for pedestrians and bicyclists and will need significant attention if the goal is to increase pedestrian accessibility. Medians, lighting and signage (pedestrian scale) were suggested for improvements.

Sidewalks

Sidewalks in the Midtown District range in width, and degeneration. Lack of ADA accessibility in many areas is coupled with potholes, cracks, raised stairs that prohibit wheelchair access to portions of the sidewalks, and narrow widths placing pedestrians dangerously close to traffic. The commercial strip of businesses on the western portion of the corridor where Bella Bella and Decent Pizza are located has sidewalk impediments due to parking and light poles, excessive curb cuts, and poorly placed handicapped parking creating safety hazards with traffic on Monroe Street. The obstacles or impediments range from bumps, cracks, holes, light poles and parking. There are 5 bumps, 21 areas with severe cracks, 22 light poles, 8 large holes, and six areas where parking causes an obstacle to pedestrian access as seen in Map 4.5.





Map 4.5: Midtown Connector Existing Pedestrian Obstacles

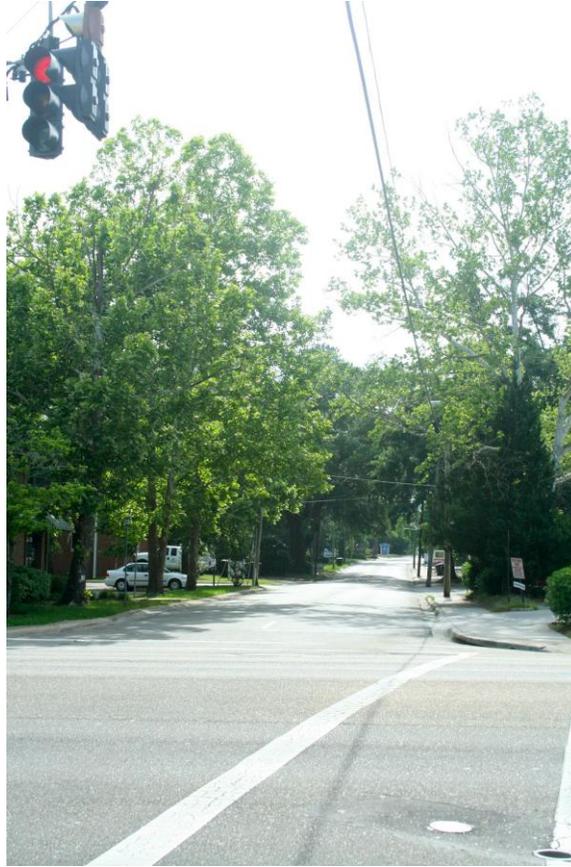
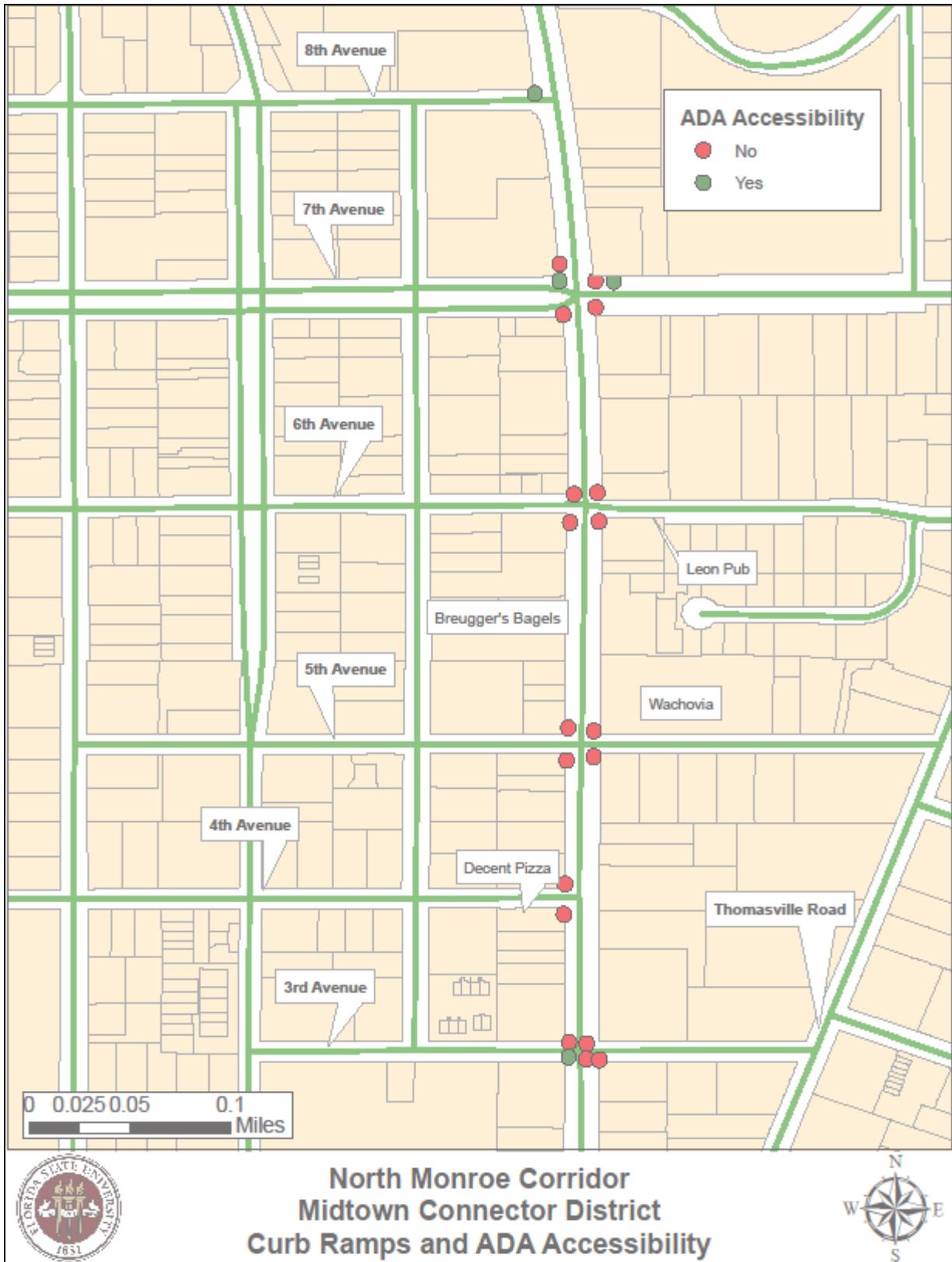


Figure 4.14: 6th Avenue connection between Midtown Connector District and “Midtown Proper”

Curb Ramps & Crosswalks

In addition to the sidewalks, the curb cuts within this segment of North Monroe are poorly maintained, and are in many cases safety hazards to pedestrians. In portions of the Midtown Connector District curb ramps fail to provide ADA access to the sidewalk. In addition, some of the entrances are placed close to, or in the direct line of, storm drains. This creates a safety hazard for wheelchairs, bicyclists and pedestrians walking the corridor during dusk and nighttime hours. In the Midtown Connector District, there are many curb ramps that are in need of replacement. There is no curb ramp at the northwest corner of the 5th Street intersection, and a total of 38 curb ramps in this district, 32 of which do not provide easy ADA accessibility as shown in Map 4.6.





Map 4.6: Midtown Connector Curb Ramps Providing ADA Accessibility

Landscaping

The current landscaping within this area provides minimal shade, and during summer days this area remains exposed to extreme heat. Around 4th Avenue, private property owners on the east side of North Monroe have taken it upon themselves to improve the aesthetics of their business with planted palm trees in front of their buildings. This is the only portion of the area with significant landscaping, and provides no shade, aside from portions of tree cover located in front of the Grey Fox, shown in Figure 4.15, located at the northeast corner of 6th Avenue and Monroe Street. The western portion of North Monroe consists of long stretches of commercial businesses, parking lots, and minimal landscaping. The area feels unwelcoming and feebly maintained; however, slight improvements in many parking areas or landscaping between parcels could drastically enhance the aesthetics of this district.



Figure 4.15: Privately owned and well maintained landscaping in the Midtown Connector District

Lighting/Light Poles

The flourishing Midtown area and 6th Avenue are becoming increasingly geared towards young professionals seeking nightlife entertainment, yet the area is currently designed for high traffic and is not conducive to night-time pedestrian traffic. Highway positioned lighting gives



the area a sense of danger due to high vehicular traffic, and is poorly placed for pedestrian uses. When approaching 6th Avenue, it is evident that there is no lighting to promote pedestrian traffic from the North Monroe corridor's restaurants, bars, and lounges to Midtown's commercial district. Improving the safety of this region by providing lower human scale luminaries geared towards pedestrian traffic, as well as encouraging businesses within the area through public-private partnerships to establish horizontal lighting is the first step in developing a connection between the two districts. The placement of current light poles disrupts the already narrow sidewalks, hindering pedestrian and ADA access.

Signs

The advertisement of Midtown and the Downtown area is minimal to nonexistent in the North Monroe corridor, and could be significantly improved to increase economic development within all districts. The eastern portion of Monroe finds many commercial businesses with signage that does not promote patrons entering or acknowledging these areas. Improving individual commercial business signs and facade improvements will improve the aesthetics for many of the strip mall areas. Improving the visibility of current establishments will in turn create a positive correlation to economic growth and increased pedestrian traffic. Street signs identifying the bisecting avenues are poorly placed in their current location or in the case of 5th Avenue, missing entirely.

Parking

There is limited public parking within the Midtown Connector District despite the fact that it is the area with the highest number of restaurants and shops, requiring frequent vehicle and pedestrian access. Additionally, some of the current parking for these businesses impedes sidewalk access, making it difficult for pedestrians to access the sidewalks without entering the street along certain sections.

Power Lines and Utilities

The Utility and Power lines for the Midtown Connector District are currently underground, creating no further concern or considerations for this aspect of the district.

Intersections

With its moderate level of current pedestrian traffic and its connection to Midtown, this district is another important piece of the corridor. The intersections along this segment are very



compact and the distance between signals is minimal. The overall geometries of the intersections are also generally acceptable with the side streets crossing at close to ninety degrees in most instances. The largest issues here occur at 7th Avenue near the Tallahassee Senior Center, where a crosswalk is noticeably absent from the southern crossing of the intersection. The southeast curb radius is also quite large; making the crossing distance greater than if it were reduced. Also, there is no crosswalk present at 4th Avenue near a popular local pizzeria. The following are the intersections in this district and will be further analyzed in more detail:

- **North Monroe Street at 7th Avenue (Signalized)**
- **North Monroe Street at 6th Avenue (Signalized)**
- **North Monroe Street at 5th Avenue (Signalized)**
- **North Monroe Street at 4th Avenue (Stop Controlled)**

North Monroe Street at 7th Avenue

This signalized intersection is unique from the rest along the corridor, because the western side of the cross street has four travel lanes. There are two lanes traveling westbound and two lanes traveling eastbound, separated by a raised median. The eastern side of 7th Avenue is one-way traveling westbound and contains three lanes; a left turn-lane, a center lane with left turns and through traffic permitted, and a right lane with right turns and through traffic permitted. Given that the eastern side of the street is one-way westbound, there are no right turns allowed traveling northbound on Monroe, and no left turns traveling southbound. The curb radii for the intersection are as found in Table 4.7.

Table 4.7: 7th Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|------------------|-------------|-------------|
| Southwest Corner | 28'7" | N |
| Southern Median | 11'1" | Y |
| Northern Median | 8' | Y |
| Northwest Corner | 25'6" | N |
| Northeast Corner | 20'2" | Y |
| Southeast Corner | 34'6" | N |

Half of these curb radii fit within the guidelines, but three of them exceed the 25-foot recommendation. The southeast corner of the intersection almost exceeds that number by 10 feet. This does not provide optimal crossing distances for pedestrians at this intersection. The



crosswalk distances are as follows and can be seen in Figure 4.16 along with all other intersection measurements:

- **Southern:** No crosswalk – Roadway measurement: 71 feet, 4 inches
- **Eastbound Western:** 27 feet
- **Westbound Western:** 32 feet
- **Northern:** 77 feet, 7 inches
- **Eastern:** 60 feet, 5 inches

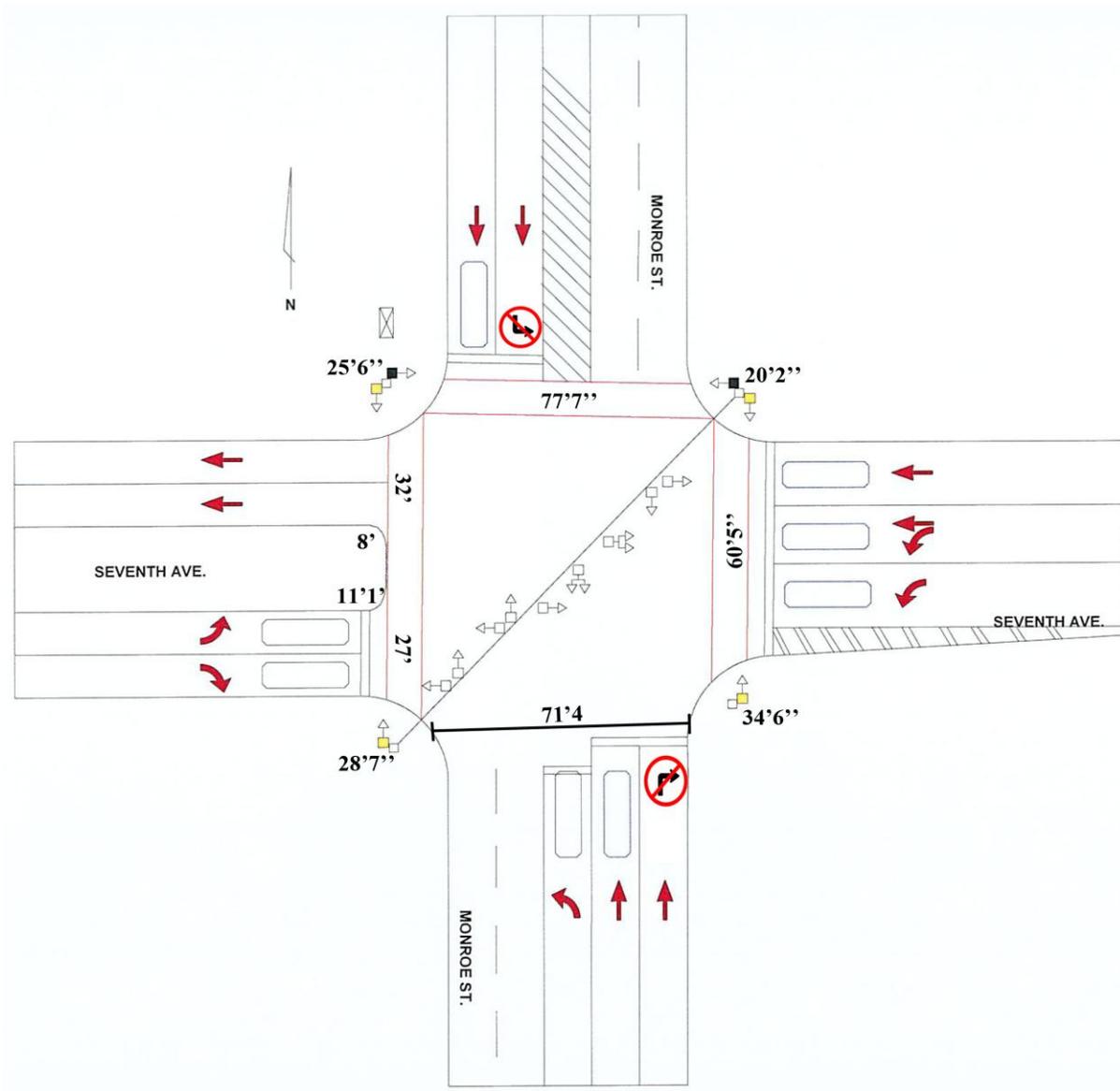


Figure 4.16: North Monroe Street at 7th Avenue

This lack of a crosswalk on the southern portion of the intersection, as visible in Figure 4.17, effectively means that a pedestrian would have to travel 197 feet and cross twelve lanes of traffic to cross from the southwest corner to the southeast corner. The same pedestrian would only have to travel 71 feet, 4 inches and cross five lanes of traffic, were a crosswalk present. These existing conditions result in significantly more time in the roadway. All of the marked crosswalks are regulated by pedestrian signals.



Figure 4.17: North Monroe Street at 7th Avenue

Despite the presence of some large curb radii, the pedestrian signal timing for this intersection exceeds the recommended rate of 3.5 ft/sec, which is important given the mobility issues of some of the seniors at the Tallahassee Senior Center. Table 4.8 shows that both of the figures are at or around 3 ft/sec which is the most pedestrian friendly walk rate of all the intersections along the corridor.

Table 4.8: 7th Avenue Pedestrian Signal Timing Data

| Crosswalk | Width | Pedestrian Crossing Time | Allowed Walking Speed |
|-------------------|-----------|--------------------------|-----------------------|
| Southern/Northern | 77.58 ft. | 25.5 sec. | 3.0 ft/sec |
| Eastern/Western | 60.42 ft. | 20.5 sec. | 2.9 ft/sec |

North Monroe Street at 6th Avenue

6th Avenue is a two-lane, one-way road with traffic flowing eastbound. This being the case, there is no right turn permitted traveling southbound on Monroe, and no left turn permitted traveling northbound. The curb radii for this intersection are found in Table 4.9.

Table 4.9: 6th Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|------------------|-------------|-------------|
| Southwest Corner | 21'9" | Y |
| Northwest Corner | 18'6" | Y |
| Northeast Corner | 17'9" | Y |
| Southeast Corner | 18' | Y |

These curb radii also all fall within the 15 to 25 foot range set forth by the *Florida Intersection Design Guide* and the PEDSAFE project. The crosswalk distances are as follows and can be seen along with the other intersection measurements in Figure 4.18:

- **Southern:** 72 feet, 3 inches
- **Western:** 33 feet, 3 inches
- **Northern:** 68 feet, 1 inch
- **Eastern:** 36 feet

Measurements of the entire roadway were taken at this point in the corridor to the north of the northern crosswalk. The eastern sidewalk to the curb measured 8 feet, the western sidewalk to the curb measured 8 feet, 2 inches, the traveled roadway measured 60 feet, resulting in a total width of 76 feet, 2 inches.

The geometry of this intersection could require some improvements to the crosswalks traversing North Monroe. As visible in Figure 4.19, they are currently skewed on the northern and southern portions of the intersection and could be squared to a right angle to reduce the distance, thereby reducing the amount of time pedestrians spend in the intersection. Pedestrian signals are present in this intersection to help regulate the movement of pedestrians crossing the roadways.



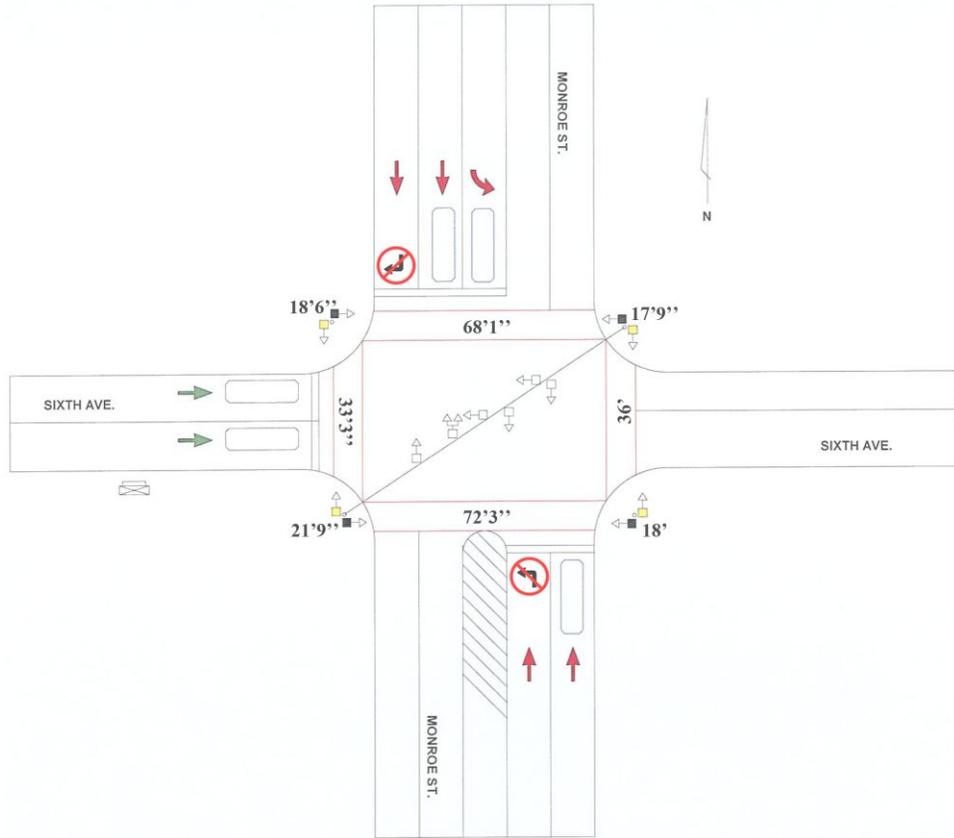


Figure 4.18: North Monroe Street at 6th Avenue



Figure 4.19: North Monroe Street at 6th Avenue



The pedestrian signal timing at the 6th Avenue intersection appears to conform to the recommended walk rate of 3.5 ft/sec as visible in Table 4.10, each of the traffic directions are at or below this walk rate. All raw pedestrian traffic signal data can be found in Appendix H.

Table 4.10: 6th Avenue Pedestrian Signal Timing Data

| Crosswalk | Width | Pedestrian Crossing Time | Allowed Walking Speed |
|-------------------|-----------|--------------------------|-----------------------|
| Southern/Northern | 72.25 ft. | 20.4 sec. | 3.5 ft/sec |
| Eastern/Western | 36 ft. | 11.7 sec. | 3.1 ft/sec |

North Monroe Street at 5th Avenue

At this signalized intersection North Monroe meets 5th Avenue, which is a two-lane road with eastbound and westbound traffic. There is no right turn on red allowed traveling eastbound on 5th Avenue on the west side of the corridor. The curb radii for the intersection are listed in Table 4.11.

Table 4.11: 5th Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|------------------|-------------|-------------|
| Southwest Corner | 17'7" | Y |
| Northwest Corner | 15' | Y |
| Northeast Corner | 21'4" | Y |
| Southeast Corner | 18'6" | Y |

The curb radii listed here meet all the guidelines set forth by the *Florida Intersection Design Guide* and PEDSAFE. The crosswalk measurements are as follows and can be seen with the other intersection measurements in Figure 4.20:

- **Southern:** 65 feet, 4 inches
- **Western:** 41 feet, 6 inches
- **Northern:** 65 feet, 10 inches
- **Eastern:** 40 feet, 2 inches

The geometry of this intersection also closely resembles a right angle, though the western crosswalk is a bit elongated due to a slightly skewed intersection angle as seen in Figure 4.20. Pedestrian signalization is also present on all crosswalks; however three of the eight signals are currently not functioning properly and are not illuminated. These signals can be seen in red on the North Monroe and 5th Avenue intersection diagram, Figure 4.21.

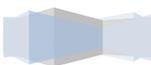




Figure 4.20: North Monroe Street at 5th Avenue

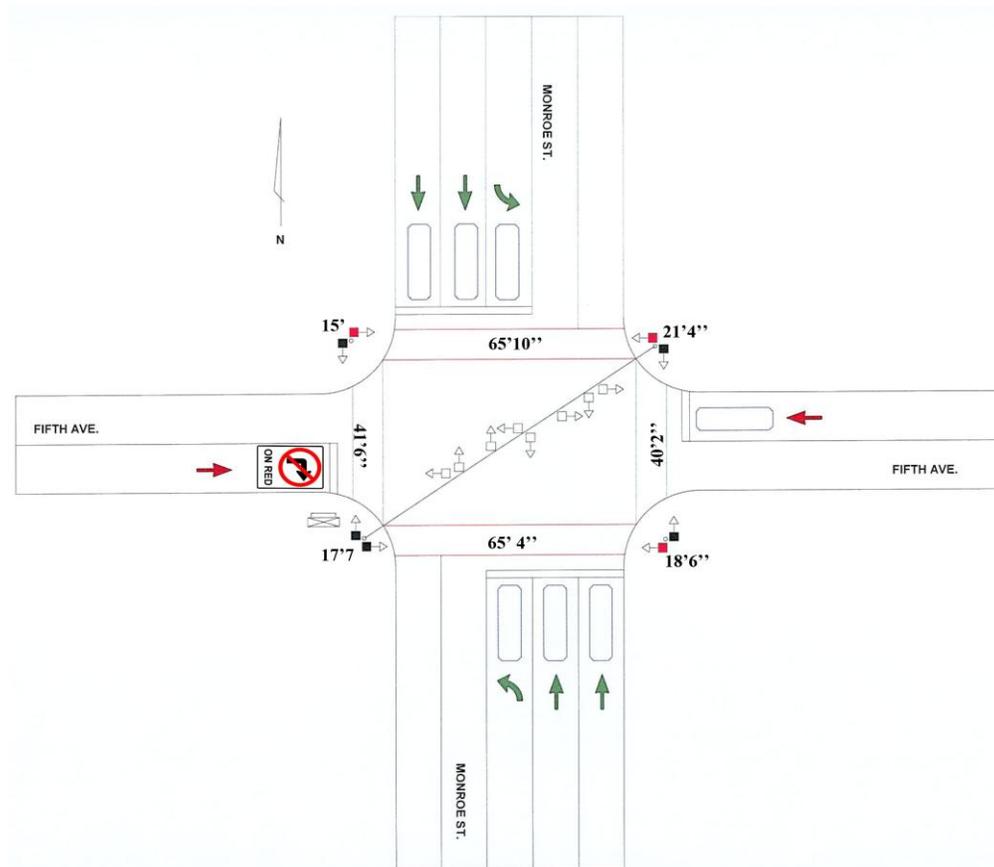


Figure 4.21: North Monroe Street at 5th Avenue



The 5th Avenue intersection’s pedestrian signal timing does not entirely conform to the new recommended walk rate of 3.5 ft/sec. As seen in Table 4.12 highlighted in yellow, the northern/southern crosswalks are .8 ft/sec off the standard. The eastern/western crosswalks meet the standard exactly.

Table 4.12: 5th Avenue Pedestrian Signal Timing Data

| Crosswalk | Width | Pedestrian Crossing Time | Allowed Walking Speed |
|-------------------|-----------|--------------------------|-----------------------|
| Southern/Northern | 65.83 ft. | 15.3 sec. | 4.3 ft/sec |
| Eastern/Western | 41.5 ft. | 12 sec. | 3.5 ft/sec |

North Monroe Street at 4th Avenue

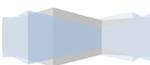
North Monroe at 4th Avenue is a two lane side-street joining North Monroe on the western side, while not carrying over to the eastern. It is one of the six intersections along the one-mile corridor that is not signalized. It is stop-controlled, and as a result does not include any pedestrian signalization. It is also lacking a crosswalk to connect sidewalks on either side of the avenue in Figure 4.22, a very integral feature for pedestrian safety. The distance between the sidewalks is 38 feet. Its two curb radii, as noted in Table 4.13, are relatively small with the southern corner measuring 8 feet, 9 inches and the northern corner measuring 17 feet. It also provides no turn prohibitions for traffic exiting 4th Avenue to Monroe Street, allowing potentially dangerous non-signalized left turns onto the corridor.

Table 4.13: 4th Avenue Curb Radii

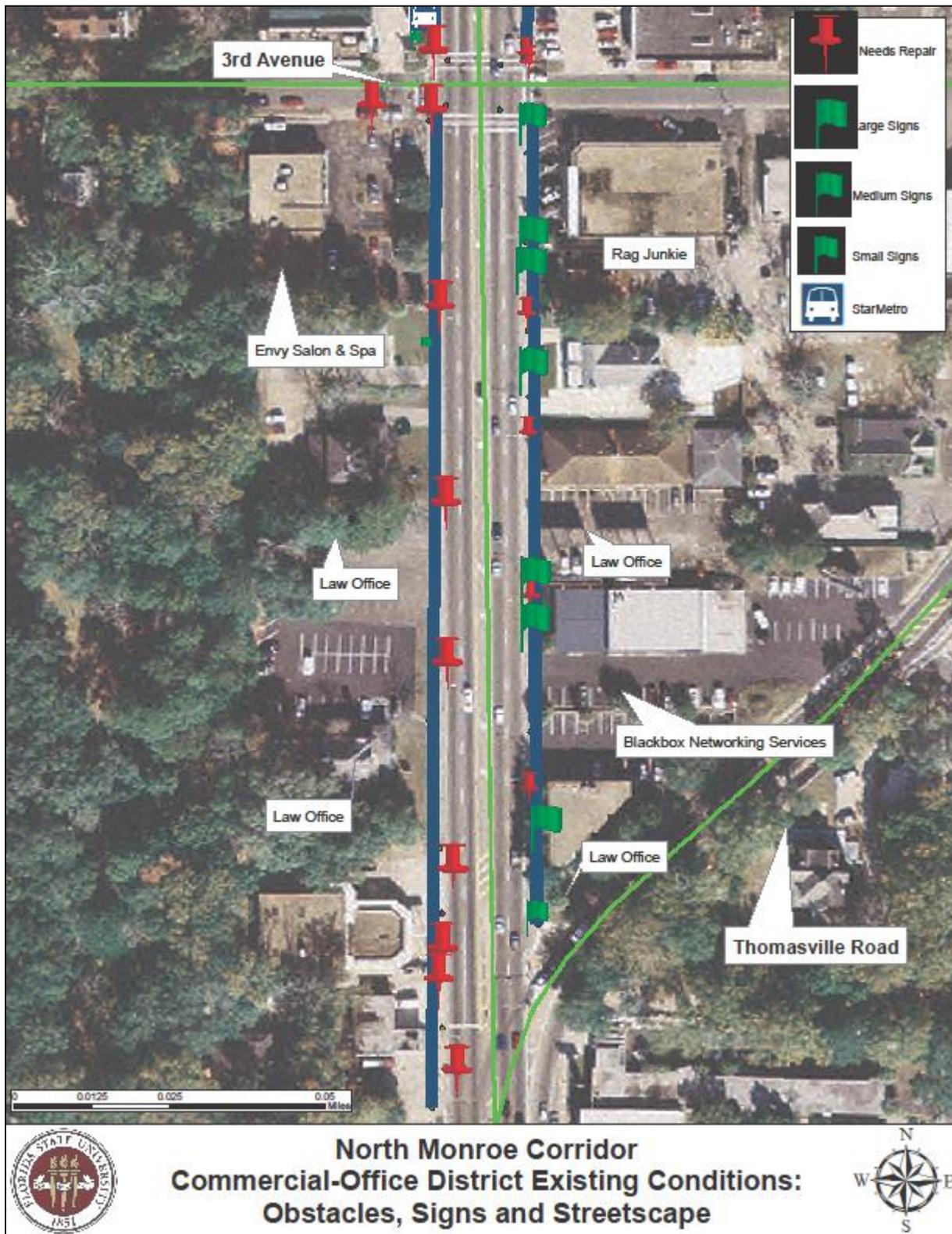
| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 8'9" | Y |
| Northern Corner | 17' | Y |



Figure 4.22: North Monroe at 4th Avenue



4.3 Commercial-Office District



Map 4.7: Commercial-Office District Existing Conditions

Map 4.7 shows the Commercial-Office District, which lies between 3rd street and 1st Avenue and really has no unifying theme or cultural identity that is representative of the residents in the surrounding area. Rather than being a connective corridor to unite the Lake Ella District with the heart of downtown Tallahassee, the mixture of vacant offices, law offices, pawnshops, plumbing facilities, and other offices make it difficult to create a highly desirable neighborhood to walk in. There is however a couple of salons, jewelry stores and a clothing store that could encourage walkability with a better streetscape and sidewalk improvements. The benefit of these improvements could further encourage multi-modal transportation throughout the corridor as a whole, additionally linking the area to downtown and the university areas.

Improving the pedestrian crossing at the Thomasville and North Monroe intersections lends itself to additionally increasing the accessibility to the surrounding areas. This could incorporate connectivity not only to the Midtown area, but additionally through Gadsden Street up to Lafayette Park.

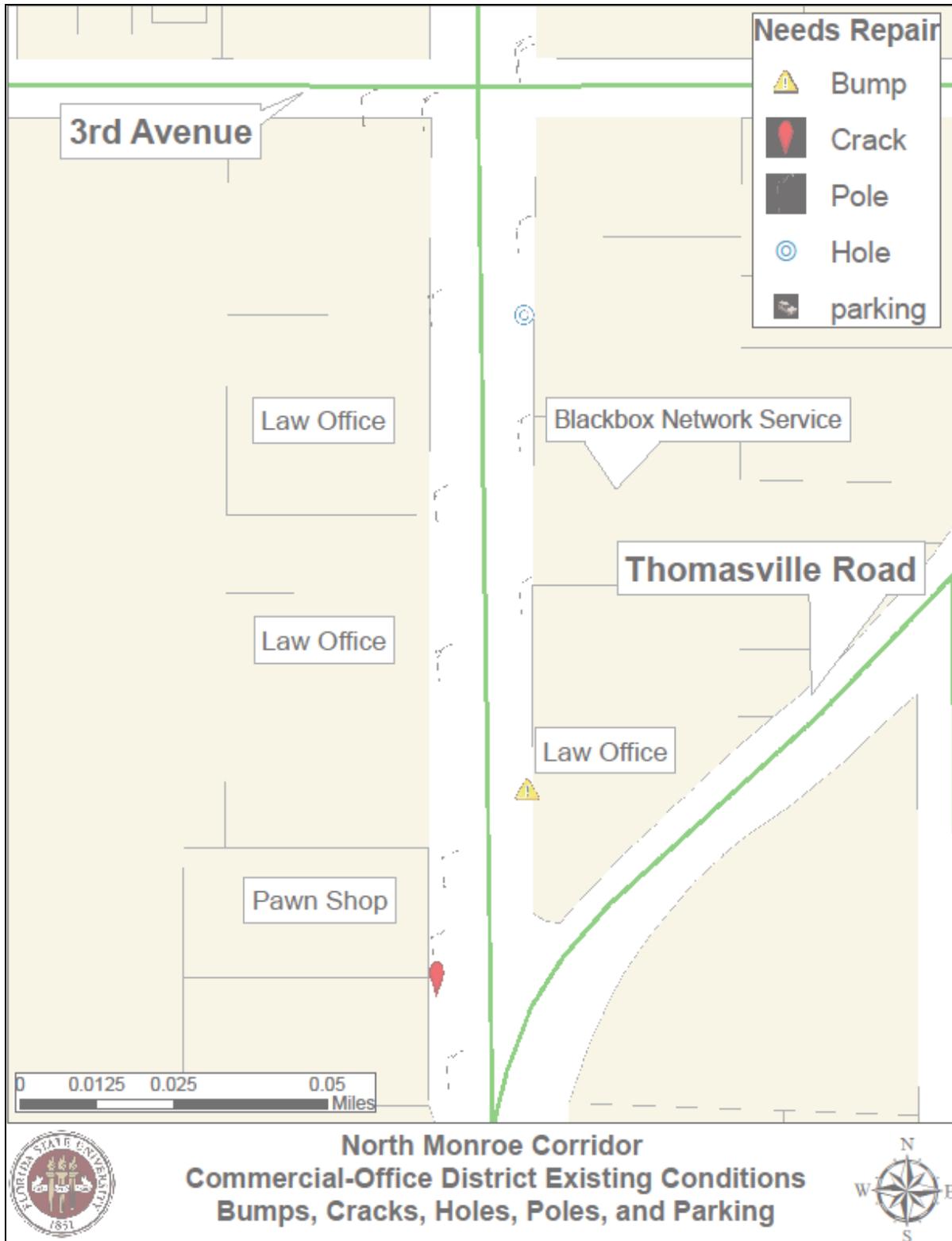
Public Input on the Commercial/Office District

Stakeholders at the public meetings expressed concern about the lack of crosswalks, particularly at the Thomasville-North Monroe intersection in this district of the corridor study area. Other concerns included the lack of lighting for pedestrians and the need for safe harbors (medians) for pedestrians who cross mid-block. Because of the proximity to hotels (Prince Murat and Hotel Duval) the Thomasville-North Monroe intersection needs to be addressed, according to some meeting participants. Visitors who may want to access the nearby Midtown restaurants must cross this district and without the safe crossings and sidewalks it is dangerous, according to meeting participants. Other recommendations include pedestrian signage directing visitors to places such as the restaurants and human-scale lighting with signage (flags) for the businesses.

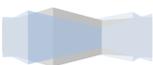
Sidewalks

Both the west and east side of the sidewalk in the Commercial-Office District are generally in good condition, though there are a few patches with uneven surfaces or holes. These areas are more distinguished around water meters and deterioration along the edges of curb cuts has also affected parts of the sidewalk. There is one area with a large bump, one large hole, one area with serious cracks, and 10 light poles that create obstacles to pedestrian traffic as seen in Map 4.8.



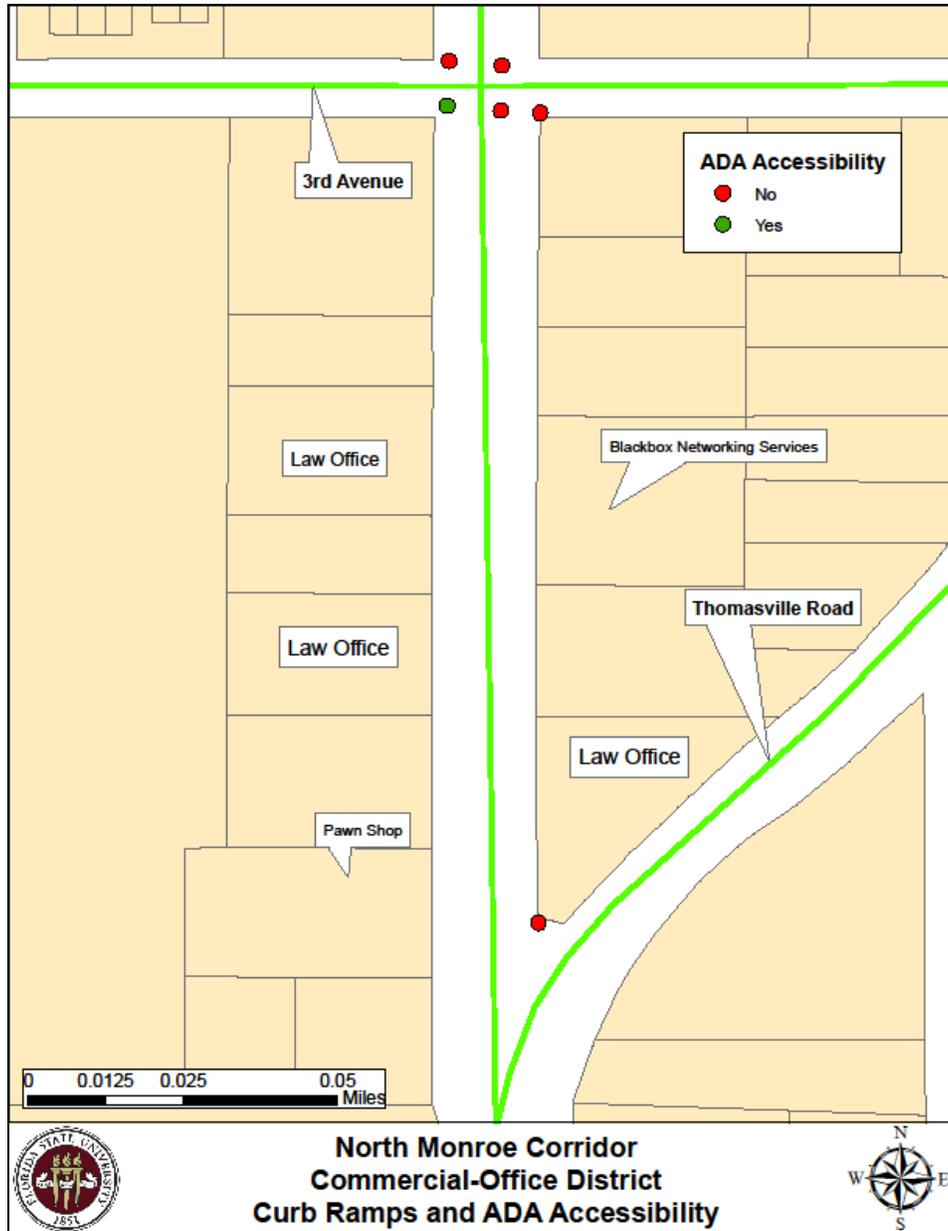


Map 4.8: Commercial- Office District Existing Obstacles



Curb Ramps & Crosswalks

The primary problem within the Commercial-Office District is the lack of crosswalks at the Thomasville intersection. The two corners at the intersection of 3rd Street on the east side do not incorporate curb ramps, providing no access ramps onto the street with additional storm drainages entering on both corners. There are 10 total curb ramps in this section, eight of which do not provide easy ADA accessibility, as seen in Map 4.9.



Map 4.9: Commercial- Office District Curbs Ramps Providing ADA Accessibility

Streetscaping

There is virtually no streetscape or improvements of any kind, such as benches, trashcans, or bicycle racks in this district.

Landscaping

Many of the businesses in this district do have some sort of landscaping ranging from grass or groundcover to bushes and trees. There is no consistent shade, nor is there consistent maintenance throughout. Much of it appears to be privately owned, but sections might be within the right-of-way and available for improvements.

Lighting/ Light Poles

The lighting in this district is the same as in the previous two districts. There are a few places that have additional light posts that also interfere with the street, and a few poles that appear to have been left behind from previously existing lights. The light at the southwest corner of 3rd Avenue impedes the crosswalk more than the others, only allowing for a 4 foot sidewalk.

Signs

The main issue with the signage is the large billboards on the east side of the street that create quite an eyesore. Additionally there are some cheap plastic and metal signs scattered about cluttering any existing landscaping and taking away from the district's appeal.

Parking

The lack of parking along the North Monroe corridor, may give some reason as to why people are not encouraged to park and walk to retail or restaurant establishments. The Commercial-Office District has a couple of large parking lots that are underused, and the incorporation of a public parking lot in this area might further encourage walking both north up the corridor toward Lake Ella and south toward downtown Tallahassee and Florida State University.

Power Lines and Utilities

The utility poles for the Commercial-Office District are located underground and do not pose a threat, risk, or concern to pedestrians or motorists.



Intersections

This district is the smallest segment of the corridor and contains only two major intersections. The intersection at 3rd Avenue is the best example of good intersection geometry along the corridor with its tight angles and crosswalks present at every crossing. Thomasville Road's intersection however, is lacking any pedestrian amenities. There is no crossing at Thomasville Road, which in effect cuts off the eastern side of the corridor from downtown and vice-versa. Also, no crossing exists across North Monroe Street, forcing pedestrians to cross unsafely or to travel excessive distances to reach their destinations. The following intersections comprise the area:

- **North Monroe Street at 3rd Avenue (Signalized)**
- **North Monroe Street at Thomasville Road (Signalized)**
- **North Monroe Street at 1st Avenue (Stop Controlled)**

North Monroe Street at 3rd Avenue

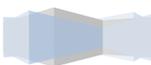
This signalized intersection essentially creates a right angle, as 3rd Avenue completely intersects North Monroe at approximately ninety degrees. It is a two-lane road with one lane traveling east and one traveling west, with no turning prohibitions present in any direction. The curb radii for the intersection are found in Table 4.14.

Table 4.14: 3rd Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|------------------|-------------|-------------|
| Southwest Corner | 17' | Y |
| Northwest Corner | 17' | Y |
| Northeast Corner | 17'9" | Y |
| Southeast Corner | 18'7" | Y |

These curb radii are within the 15 to 25 feet recommended by the *Florida Intersection Design Guide* and the Federal Highway Administration's sponsored PEDSAFE project. The crosswalk distances are as follows, and can be seen with the rest of the intersection measurements in Figure 4.23:

- **Southern:** 63 feet, 3 inches
- **Western:** 34 feet, 8 inches
- **Northern:** 65 feet, 7 inches
- **Eastern:** 37 feet, 10 inches



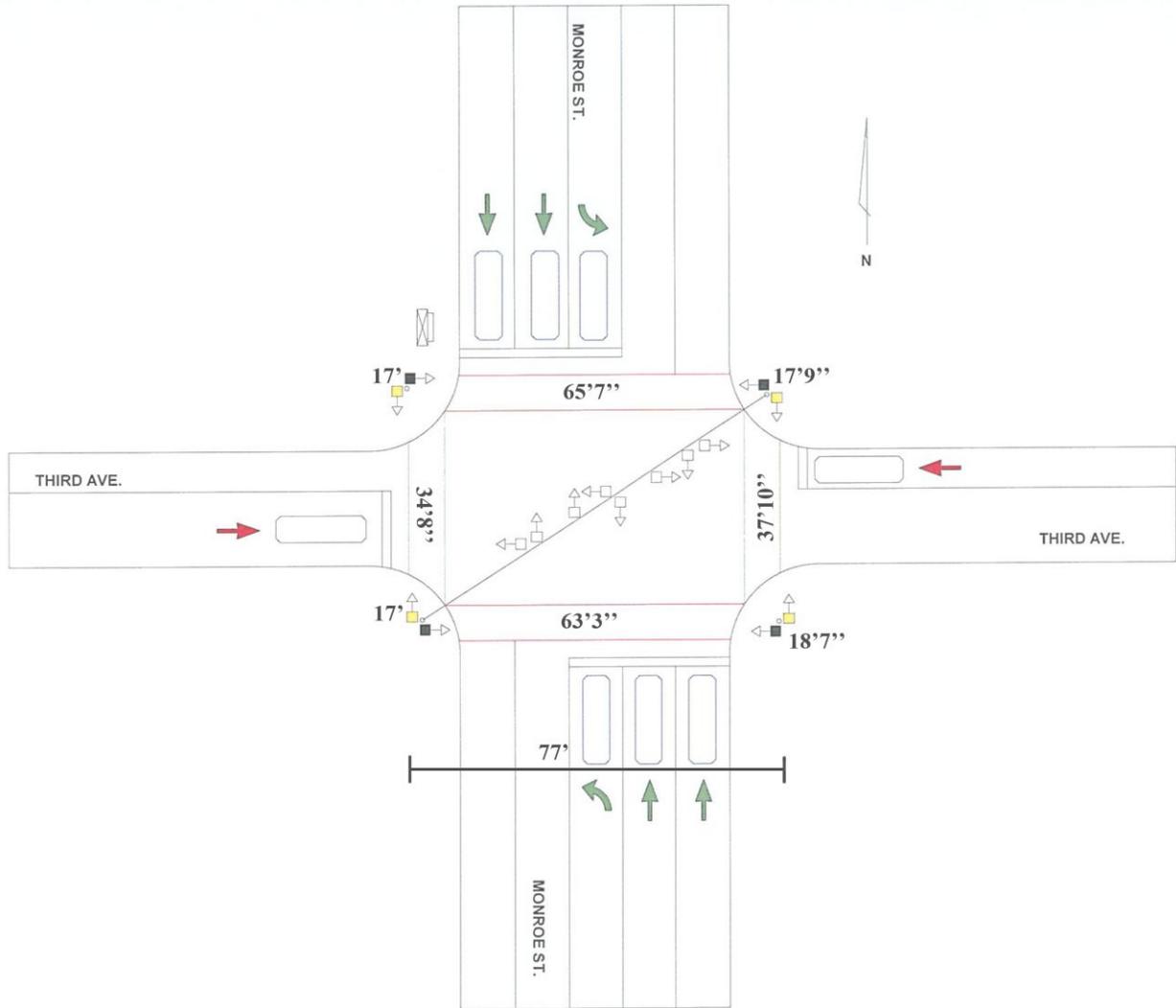


Figure 4.23: North Monroe Street at 3rd Avenue

Measurements of the entire roadway were also taken at this point in the corridor, just south of the southern crosswalk. The eastern sidewalk to the curb measured 8 feet, 2 inches, the western sidewalk to the curb measured 8 feet, 6 inches, the traveled roadway measured 60 feet, 4 inches, making the total width 77 feet at this point.

Given that the geometry of the intersection is almost completely at a right angle, as seen in Figure 4.24, there are very few improvements that could reduce the amount of time pedestrians spend in the roadway while crossing. Pedestrian signalization for all crosswalks is also present to regulate the timing of pedestrian crossing.





Figure 4.24: North Monroe Street at 3rd Avenue

The pedestrian signal timing for 3rd Avenue does conform to the 3.5 ft/sec walk rate that was recommended by the Signal Timing Engineer along the eastern/western crosswalks; however, as visible in Table 4.15, the northern/southern crosswalks do not. It is about .7 ft/sec off the standard.

Table 4.15: 3rd Avenue Pedestrian Signal Timing Data

| Crosswalk | Width | Pedestrian Crossing Time | Allowed Walking Speed |
|-------------------|-----------|--------------------------|-----------------------|
| Southern/Northern | 65.58 ft. | 15.6 sec. | 4.2 ft/sec |
| Eastern/Western | 37.83 ft. | 12 sec. | 3.2 ft/sec |



North Monroe Street at Thomasville Road

North Monroe Street at Thomasville Road is a major signalized intersection that carries a relatively large volume of traffic connecting two arterial roads. A free-flowing right turn-lane from northbound Monroe Street to Thomasville Road, and permitted right-turns on red from Thomasville Road to northbound Monroe Street provide impediments to pedestrian cross-traffic. Also, no crosswalk facilities are provided to allow for safe passage across Thomasville Road or Monroe Street. Two concrete islands exist between either side of Thomasville Road, one between the sidewalk south of the turn-lane and the traffic turning southbound on Monroe Street, and the other between the same southbound turning traffic and the northern sidewalk. There is no discernable connection between these islands and the sidewalks to either side of Thomasville Road. Additionally, the lack of crosswalk facilities traversing Monroe Street at this point in the corridor is cause for concern, as the distance between the nearest crosswalks to either side (Brevard Street to the south and 3rd Avenue to the north) is approximately a quarter of a mile. Narrow concrete medians exist on either side of the southbound turning traffic from Thomasville Road to Monroe Street, but do not provide much pedestrian relief. Also, given that no crosswalk facilities are present, pedestrian signalization is also absent from this intersection. These existing conditions can be visualized in Figure 4.25 and Figure 4.26.



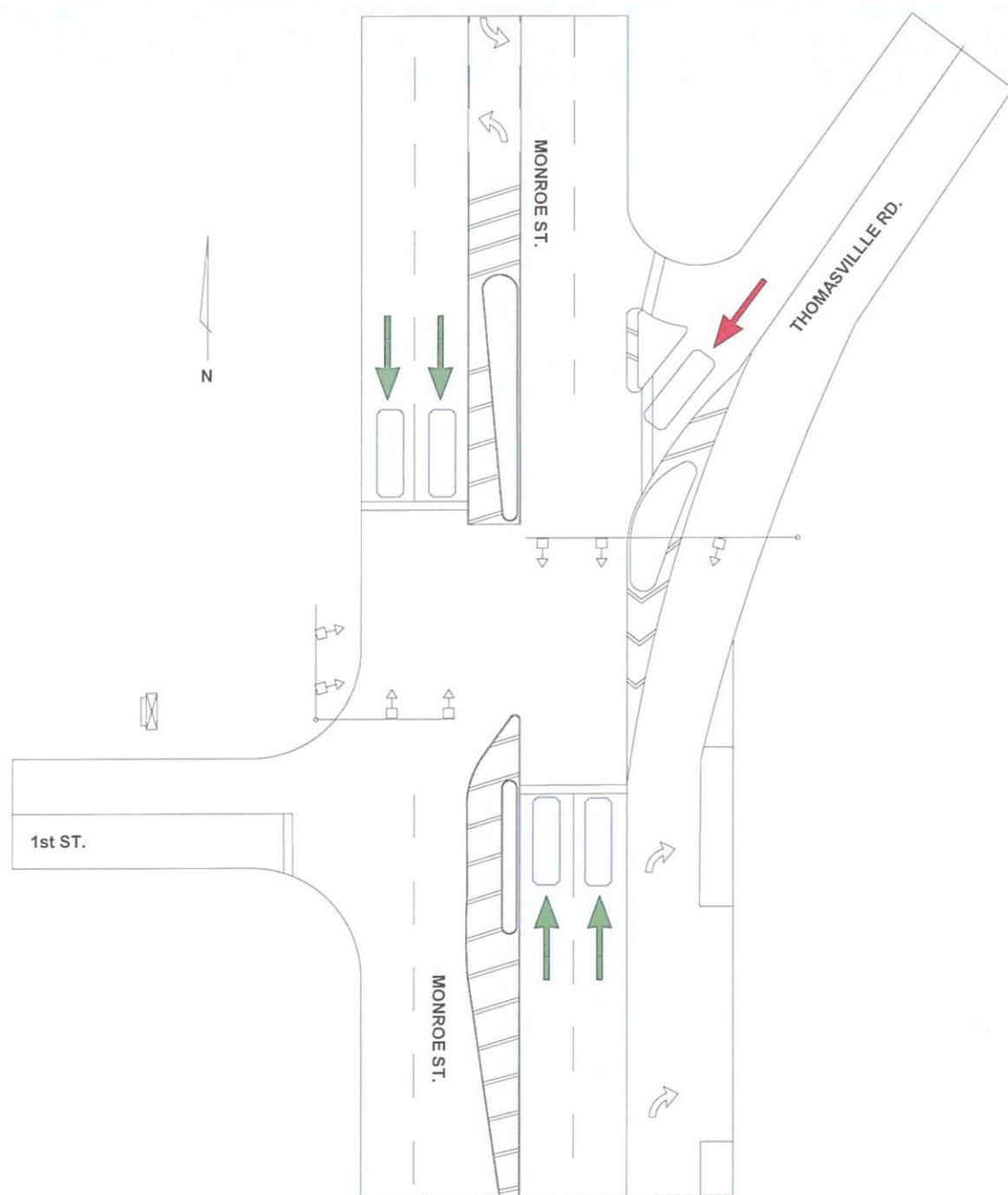


Figure 4.25: North Monroe Street at Thomasville Road (SR 61)





Figure 4.26: North Monroe Street at Thomasville Road (SR 61)



North Monroe Street at 1st Avenue

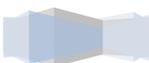
This intersection is stop-controlled and enters Monroe Street from the west side, though it does not continue through the main arterial, as visible in Figure 4.27. It is a small two lane road that only permits right turns southbound onto Monroe Street and carries very little traffic, vehicular or otherwise. The northern and southern curb radii, as seen in Table 4.16, are relatively equivalent and measure 17 feet, 4 inches, and 17 feet, 6 inches respectively. A crosswalk is present traversing the avenue measuring 27 feet, 10 inches connecting the sidewalks on either side. These measurements can be seen in Figure 4.28. Given that the street does not perpendicularly cross the corridor, there are no provisions for pedestrian traffic to cross Monroe Street here.

Table 4.16: 1st Avenue Curb Radii

| Location | Curb Radius | Acceptable? |
|-----------------|-------------|-------------|
| Southern Corner | 17'6" | Y |
| Northern Corner | 17'4" | Y |



Figure 4.27: North Monroe Street at 1st Avenue



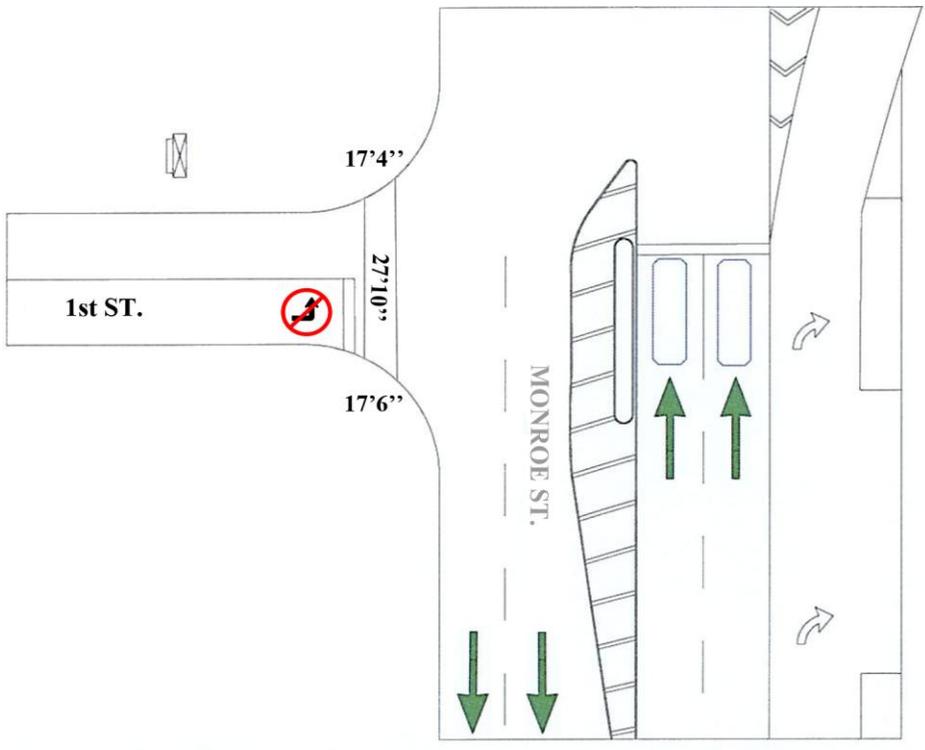


Figure 4.28: North Monroe Street at 1st Avenue



5 Planning Alternatives

Active transportation systems should connect the places where people live, learn, work, shop, and play by providing safe and convenient walking and bicycling facilities. The safety of all road users can increase as more people choose active transportation," (Centers for Disease Control, 2010, p. 5). Alternative design features were sought that would increase pedestrian and bicyclists comfort and safety, overall aesthetics, and provide a sense of uniformity and connectivity throughout the corridor. The *Tallahassee Downtown Connectivity Plan* establishes the following as major and contributing factors that affect pedestrian's measure of level of comfort within an area: posted traffic speed, buffer from oncoming traffic, sidewalk width, shade, topography, pedestrian scaled buildings, and the presences of covered areas to escape the weather or heat (RMPK Group, 2004). Through the use of public input gathered for this study, we have found that the measures recognized by the *Tallahassee Downtown Connectivity Plan* are also significant contributions to the comfort level individuals feel within the North Monroe corridor. Therefore, we have based our recommendations on improving the overall level of comfort and safety of pedestrians.

The improvement alternatives have been organized based on their significance to the entire corridor or to a particular district. Many of the existing issues found apply to the majority of the corridor, while a few issues have been identified as being more specific to the Lake Ella, Midtown or Commercial-Office District. The following sections outline the alternatives recommended for improving the North Monroe corridor.

5.1 Entire Corridor Alternatives

Public Input on Proposed Alternatives

Public meeting participants ranked the **Midtown Connector** as a second priority (8 out of 12 participants) and within this district buffers and sidewalks were the top priority (9 out of 12) and also medians with 8 out of 12 participants ranking this alternative as a high priority. Signs stood out as having the most votes for the least priority (4 out of 12) but still 7 out of 12 said it was a high priority.

The Business/Office district was ranked as the least priority by 10 out of 12 participants and the high-cost alternative at Thomasville Road received the most votes for a desirable alternative – 5 out of 12. For a complete list of the rankings for the proposed alternatives, please refer to the Public Input section in Appendix C of this report.



Sidewalks Alternatives

Due to the deterioration and narrow width of the sidewalks on the North Monroe corridor, it is recommended that they be replaced. Doing so would allow for the widening of the sidewalks; making the avenue more pedestrian friendly, easier to travel upon and alleviating many other issues found in the walkway. According to the United States Department of Transportation's Federal Highway Administration, accessibility issues arise when trying to make improvements to curb ramps on narrow sidewalks (September 2001).

In the existing conditions analysis of the Midtown Connector District and Commercial-Office District, a number of obstacles and extraneous poles were observed that could be relocated, extracted, or removed completely during the replacement of the North Monroe sidewalks. Additional obstacles within the sidewalk and along the entire corridor include cracks, breaks, or obtrusive water meters placed within the walkway. The cracks and breaks within the walkway can be improved with the correction of the sidewalk, which would also reduce the number of obstacles found within the pedestrian corridor.

Based on the existing right-of-way in the individual North Monroe Street Districts, landscaping such as trees and shrubbery should be added to increase shade and the aesthetic value of the corridor, where feasible. In areas where trees, buffers, or planters will not be feasible it is recommended that the nearest intersection right-of-way on the four corners shall be converted to grass filled buffers where trees or planters shall be located. Any obstacles currently located within the walkways of the sidewalks that also hinder pedestrian accessibility such as poles, street lights, or utilities shall be relocated.

In areas where the right-of-way permits, landscaping will be added to shade the sidewalk and pedestrian areas. This landscaping, as discussed in the *North Monroe Corridor Landscaping and Streetscaping Alternatives*, will consist of grass lined buffers along The Lake Ella District, and sidewalk planters to provide additional shade. While replacing these sidewalks many of the existing curb ramps that are currently not up to safety standards or fail to provide adequate ADA access can also be corrected as previously noted in *North Monroe Corridor Curb Ramp Alternatives*.

Curb Ramp Alternatives

In order to comply with ADA regulations and to provide a safe environment for pedestrians, the existing curb ramps should be replaced and corrected to meet the state and



federal regulations on curb ramp safety. According to ADA regulations “transitions from ramps to [side] walks, gutters, or streets shall be flush and free of abrupt changes”; thus providing a smooth transition for wheeled devices such as wheelchairs, strollers, or bicycles to enter or exit the sidewalks and safely into crosswalks (Americans with Disabilities Act, September 2002). Any identified curb ramps that do not align to provide a safe entrance or exit should be replaced. Any intersections where an ADA compliant curb ramps do not exist should be altered to include such ramps, complete with truncated domes. Because of these requirements a total of twenty-nine curb ramps will need to be constructed or replaced throughout the North Monroe corridor, due to failure to meet adequate pedestrian and handicap standards of safety. The Lake Ella District has nine current entrances to sidewalks that have either no curb ramp or are defined as being in poor or fair condition. Within the Midtown District there are currently sixteen out of eighteen curb ramps in poor or fair conditions, as well as three sidewalks with no curb ramp at all. The inclusion of additional crosswalks in the Commercial-Office District would require the installation of an additional curb ramps with truncated domes. Truncated domes are located at crossing ramps and are small domes with flattened tops that help people, especially those with ADA needs, to identify the beginning of a crossing. The definitions for good, fair, or poor curb ramp conditions can be in Section 4 of this report. Figure 5.1 shows a before and potential after image of improved sidewalks and curb ramps with truncated domes that meet ADA regulations.



Figure 5.1: Before and potential after image of improved sidewalks and curb ramps

Streetscaping Alternatives

In order to improve safety and create a pedestrian friendly landscape and streetscape, the following alternatives have been recommended for this corridor. Due to the high volume of



traffic, it would be beneficial for pedestrian traffic to include a buffer to divide the sidewalk from the roadway. Currently the sidewalks range from 4 to 7 feet in width, and with the recommendations of widening the sidewalks, a 2 to 3 feet wide greenscaped buffer will be included as well, as seen in Figure 5.2.



Figure 5.2: Projected ideal streetscape

The width of this buffer would vary in terms of the available right-of-way, and sidewalk width. The greenscaped buffer would provide a safe separation for individuals from oncoming traffic that, as noted earlier, increases pedestrian’s level of comfort and safety. As StarMetro already has a route that goes through this area, it is recommended that right-of-way also be used to place shelters as well as trash cans at these locations to improve and encourage the transit experience. Additionally, to improve the StarMetro experience, maps should be placed either in the shelters or in the absence of such a feature, under the StarMetro sign. These maps should



outline transit routes and pick-up schedules within the City of Tallahassee, thereby making utilization of the bus system easier and more desirable for pedestrians.

Wall murals on commercial buildings can also improve the aesthetics of the district by providing a sense of place and identity. Enhancing the area by adding more decorative murals throughout the district would provide a cohesive look for the entire corridor. Formerly blank walls or buildings can be distinguished by innovative business advertisements. Two locations have been established as model candidates for these murals on the North Monroe corridor. Seen in Figure 5.3, the brick wall located on the side of the Durra Quick Print business at the southwest corner of 7th Avenue and Monroe Street, would be an ideal location to advertise the business and could be instrumental in enhancing, branding, or giving a sense of individuality to the Midtown Connector District.



Figure 5.3: Blank wall suggested for mural within the Midtown Connector District at Durra Quick Print

As seen in Figure 5.4, Music Masters has already taken the steps to use wall space for advertisement with their artistic musical mural on the side of their business; the wall located from 7th Avenue to 8th Avenue in front of the Senior Center is an ideal location for aesthetic enhancements.

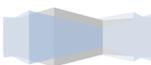




Figure 5.4: Music Masters' art and potential location for a mural near the Senior Center

The wall spans half a block and has great potential to bring a sense of identity and place to the corridor by enhancing it with local art. This location is in close proximity to Lake Ella, as well as Midtown, providing an opportunity to depict the transition from one district to another through the use of art. A mural depicting Lake Ella, or the signature canopy roads of Tallahassee, could serve as a transition between the Lake Ella and Midtown Connector Districts, reminding residents and visitors of the unique beauty that surrounds them. In order to involve the Tallahassee community, this alternative is suggested because it would call for recommendations for artistic ideas from local artist. This would not only cut costs of hiring outside individuals for such projects, but would also provide a sense of hometown support for local artists and their ideas. This has been a useful tool in Gainesville, Florida with such projects as the Martin Luther King, Jr. Multipurpose Center that consists of a mural done by a Gainesville local depicting several sports achievements within the city. The mural was placed in this location to encourage children, teens, and adults to look around their community and notice that “there are endless opportunities ahead” with hard work and perseverance (Division of Cultural Affairs).

Additional façade improvements are also recommended to help create a sense of place and link the districts together. This would ideally involve the local businesses, encouraging aesthetic improvements for them and increasing communication and continuity throughout the corridor. Figure 5.5 shows one such proposed façade improvement at the corner of 6th Avenue and Monroe Street. Additionally, a higher-cost crosswalk can be seen, as well as human scale lighting and a landscaped median.





Figure 5.5: Rendering of potential façade improvements at 5th Avenue and Monroe Street

Landscaping Alternatives

The North Monroe corridor is a gateway to the city of Tallahassee; to enhance this area it is suggested to increase landscaping and provide visually pleasing streetscape throughout the district. Due to the pedestrian traffic, increasing native landscaping of trees throughout the sidewalks will increase shade as well as provide for a cohesive visual identity representative of Tallahassee. In identifying landscaping for the area, greenery was sought that was low maintenance, and would be consistent with the landscaping palette currently in place for the city of Tallahassee. According to the University of Florida Institute of Food and Agriculture Science (IFAS) Southern Magnolias, East Palatka Holly, Sabal Palms, and Live Oaks are all found to meet the qualifications set forth by this project (Norcini, 2009). In keeping with providing a “sense of place” and an identity for Tallahassee as a major focus of the North Monroe Street Corridor, it is recommended that the landscaping be a unique blend of shrubbery and trees that are native North Florida or thrive in the region. The recommendations for this study are a blend



of proposed alternatives from recent projects within the Tallahassee area; this was done in order to establish a connection to many of the redevelopment projects within the region.

As one is entering the renovated Downtown area it is notable the combination of Live Oaks, Southern Magnolias, Crape Myrtles, Canopy trees, and low laying native shrubbery within the area. Planters are placed as buffers on sidewalks and on vertical human scale lights to separate pedestrians from oncoming traffic as well as being aesthetic additions to the walkway. The Gaines Street Corridor improvements have recommended the addition of landscaped medians that include Florida's native Sabal Palms with low shrubbery surrounding the root system as well as placing these shrubs at intersection corners where the right of way permits.



Figure 5.6: Median Landscaping Alternative as seen in the Gaines Street Redevelopment Plan

The North Monroe Corridor Study is unique in that unlike these re-developments this area is primarily commercial industries on a major arterial road that is the gateway into Tallahassee. In order to increase the visual aspects of the corridor, as well as providing improved safety buffers the blending of these two alternatives is suggested. Where appropriate the use of native vine plants along the outside of buildings would be encouraged to improve the façade. This can already be seen in the commercial businesses of Blossoms Flower Shop and the Grey Fox.

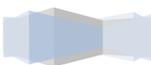




Figure 5.7: Before and potential after renderings of landscaped median alternatives



Based on the median constraints and long term maintenance we would recommend the use of Sabal Palms for planting areas along the medians of North Monroe where feasible (see Figure 5.7). These trees have low nutritional needs, a high tolerance for drought conditions, medium growth rate and are ideal plants for parks and buffers according to the *University of Florida Institute of Agricultural and Food Sciences* (Norcini, 2009). Due to the recommended curb radii improvements of this study on the northwest portion of Tharpe Street and North Monroe Street, as well as on the South East corner of 7th Avenue and North Monroe, there is an opportunity to include landscaping on these corners and curbs. In these instances due to the constraint of the public right-of-way and long-term maintenance it would be ideal to place planters within these greenscaped corners that contain trees to provide further shade for the corridor, but do not hinder the ability of drivers to identify businesses or other motorists.

Lighting and Sign Alternatives

Based on the *Tallahassee Downtown Connectivity Plan*, vertical human scale lighting and sign combinations have been identified as alternatives for the North Monroe corridor. Human scaled design is any object, such as lighting, buildings, or signage that is at a height proportional to the presence of a human. Low vertical lighting and signs are friendly to pedestrians and encourage them to travel the area and focus on items not otherwise visible from an automobile (State of Florida Department of Transportation , May 2007). The lower human scale lighting throughout the corridor will provide an area that is conducive to pedestrian travel as well as providing a consistent flow into downtown.

Including signs that identify both businesses as well as the district in which the traveler is in will assist in the branding or providing a “sense of place” for the region. These banners could be located on the vertical lighting as illustrated in Figure 5.8, to offset costs these banners will have the option to be purchased by businesses for advertisement.



Figure 5.8: Proposed vertical human scale lighting and signage

It is also recommended that poorly placed Tallahassee Police Department, StarMetro, and official county or city boundary signs be relocated and converted into a standard model such as those found in downtown Tallahassee to provide conformity throughout the city.

A useful consideration for nighttime lighting for pedestrian visibility and safety is incorporating street name light boxes to make them visible to pedestrians at night. An example of these signs can be seen in Figure 5.9. Additional signage at the pedestrian level was a recommendation received at one of the public input meetings that could be useful for pedestrians in identifying what public facilities, businesses and other attractions exist in the nearby walking areas.



Figure 5.9: Depicts a uniform light box to better illuminate street names

Roadway Design Alternatives

Two major alternate improvements have been suggested to enhance the overall safety of the corridor: the addition of directional medians and the reduction of the lane widths. While the roadway design alternatives are suggestions created by the graduate planning team, an access management study is highly recommended prior to the acceptance of any of the improvements outlined in this section. Table 5.1 shows the standard measurements for roadway features. This table was considered in all recommendations.

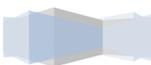


Table 5.1: Various roadway standards

| Roadway Feature | Standard | Reference Document | Reference Authority | Reference Section |
|-----------------------------|--------------------|--|---|-----------------------|
| Minimum Median Width | 15.5 ft. | Florida Median Handbook Interim Version 2006 | Florida Department of Transportation (FDOT) | 4.3 |
| Minimum Travel Lane Width | 11 ft.* | Florida Intersection Design Guide 2007 | Florida Department of Transportation (FDOT) | 3.9.1 |
| Minimum Turn Lane Width | 10 ft.* | Florida Intersection Design Guide 2007 | Florida Department of Transportation (FDOT) | 3.9.1 |
| Acceptable Curb Radii | 15 ft. to 25 ft. | PEDSAFE | Federal Highway Administration (FHWA) | Curb Radius Reduction |
| Acceptable Curb Radii | 15 ft. to 25 ft.** | Florida Intersection Design Guide 2007 | Florida Department of Transportation (FDOT) | 3.13.1 |
| U-turn Minimum Median Width | 20 ft.*** | Florida Median Handbook Interim Version 2006 | Florida Department of Transportation (FDOT) | 5.1 |

***For urban arterial where design speed is less than 40 MPH**

****Adequate for passenger vehicles**

*****From turn-lane to shoulder**

Due to the character of North Monroe Street, directional medians are being suggested for the entire stretch of the corridor. Medians can be effective in improving roadway safety as they can guide vehicular turn options and reduce conflict points. Additionally, they can provide refuge for pedestrians crossing the street and can slow down traffic due to the physical barrier they impose.

In considering medians for the North Monroe corridor, the nature of each district were taken into account, including the types of businesses present. Figures 5.10 to 5.12 depict the suggested locations for the medians. The maps were created to show where certain areas of the existing center turn lane have been blacked out to represent the proposed medians. The directional median is the most appropriate type for the corridor, as there are many businesses on both sides of Monroe Street that attract travelers and limiting the turning access could be financially detrimental to certain businesses. The addition of medians would replace the current center “suicide” turning lane, but still provide access and opportunities for vehicles to make u-turns at strategic locations. Landscaping of the medians is highly desirable where feasible. However, in some areas, such as the Midtown Connector District, the landscaping should be minimal so as to not obstruct the view of businesses or traffic on either side of Monroe Street.

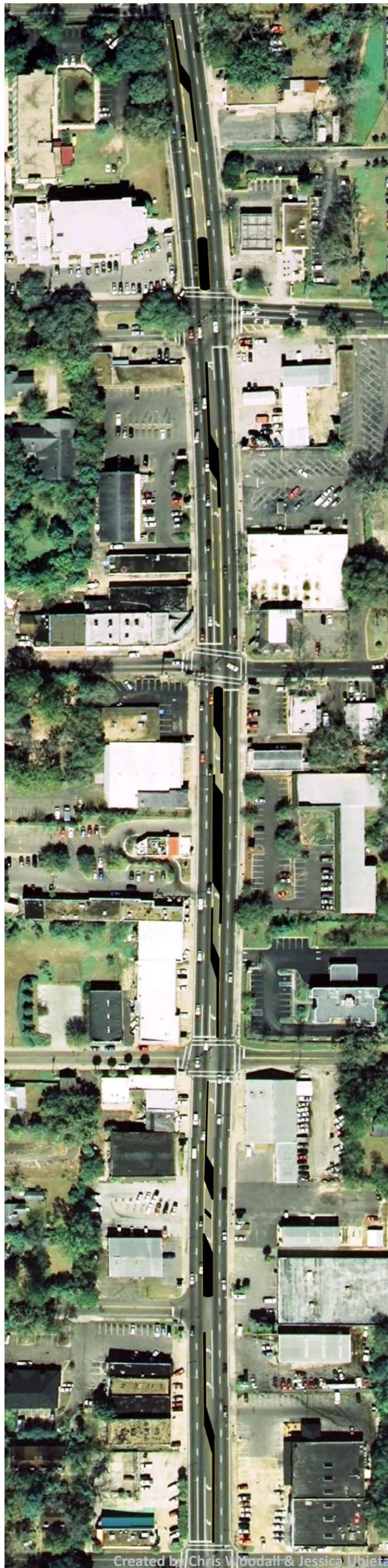




Created by Chris Woodall & Jessica Ubieta



Figure 5.10: Proposed Directional Medians for the Lake Ella District



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131



Figure 5.11: Proposed Directional Medians for the Midtown Connector District

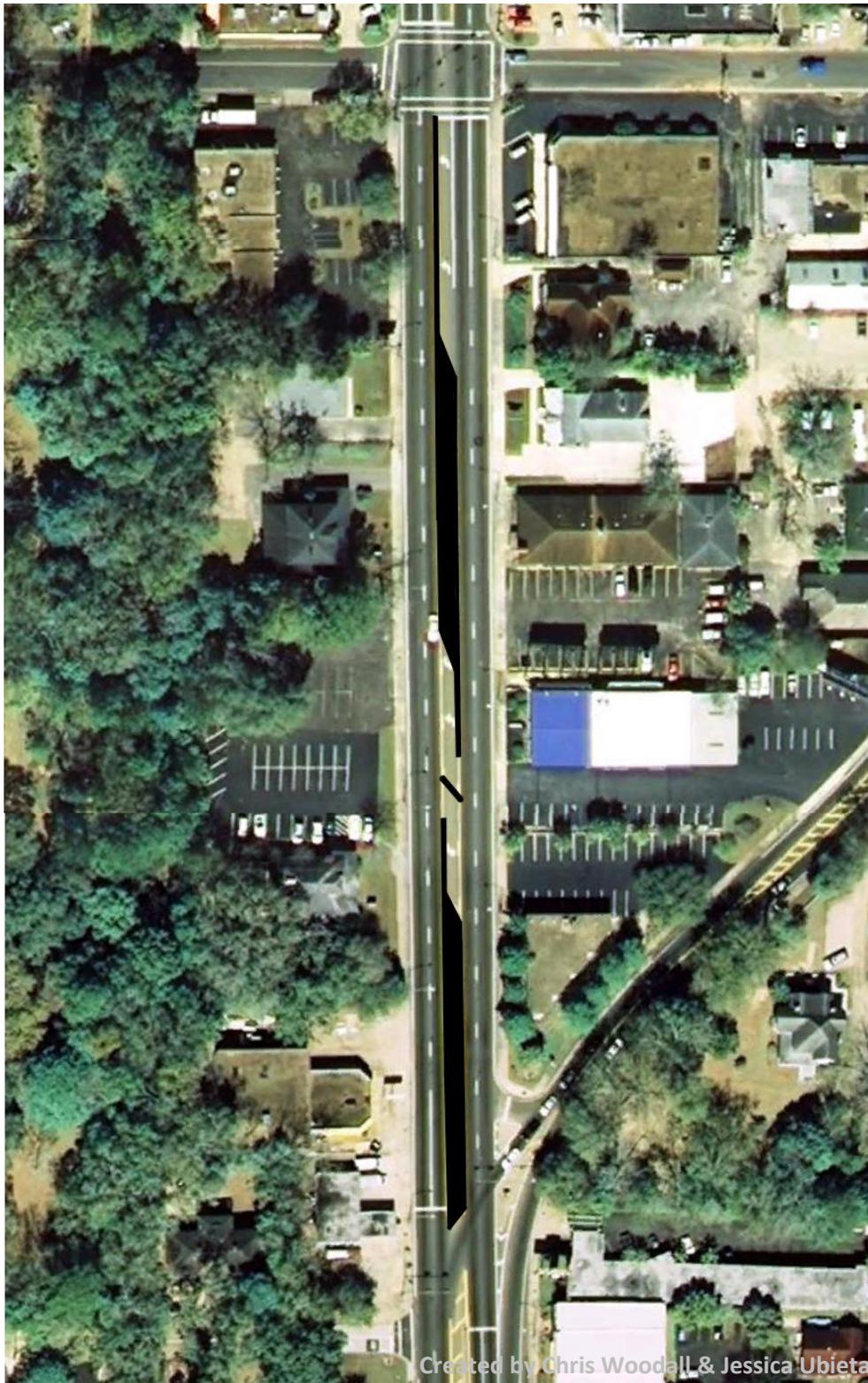


Figure 5.12: Proposed Directional Medians for the Commercial-Office District



The addition of medians to the North Monroe corridor will require special considerations to accommodate u-turns, allowing access to the wide variety of land uses along the roadway. Section 5.1 in the Florida Median Handbook Interim Version 2006 states that a median width of 20 feet is required to facilitate passenger vehicle u-turns from the turn-lane to the shoulder. In order to achieve a median of this width, additional right-of way would have to be acquired, or concessions made in regards to the other proposed roadway features. For example, removing the 3 feet wide buffers from either side of the roadway, added to the 15.5 feet median would result in 21.5 feet, meeting the 20 foot requirement. Though this is not the preferred method, it might provide an acceptable and practical way to deal with right-of-way constraints at select intersections designated by a future access management study for u-turns along the corridor.

Figure 5.13 is from Section 5.2 in the Median Handbook and illustrates two methods used to accommodate the u-turns that would otherwise protrude onto the shoulder. Techniques such as these should be considered for the corridor to enhance the ability of the roadway to allow essential u-turns.

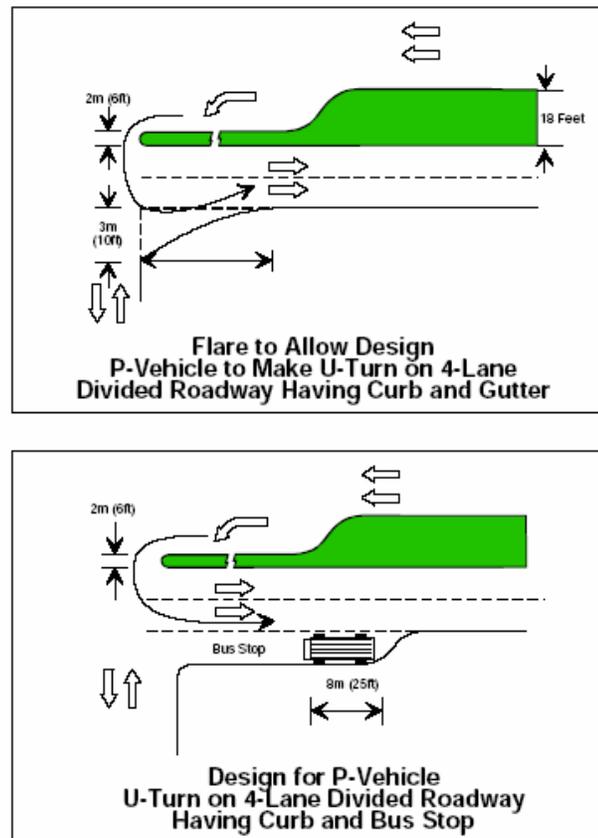


Figure 5.13: Methods to accommodate u-turns

The medians along the corridor, at their fullest will be 15.5 feet wide to comply with the FDOT's *Median Handbook Interim Version* (2006). Also important for implementation, the *Handbook* states that Project Managers should be allowed, "complete flexibility...on decisions involving directional median openings as long as they meet minimum traffic engineering standards for storage, deceleration, sight distance, and maneuverability" (p. 18). These standards should be explored during the proposed access management study.

FDOT's *Handbook* also states that highest priority for retrofitting from center turn lanes to restrictive medians should be given to, "Existing 5 lane sections on the FIHS and those facilities over 28,000 in daily traffic" (p. 21). This stretch of the corridor is not part of the Florida Intrastate Highway System (FIHS), but it does contain close to 28,000 in average daily traffic (see Appendix I).

All lanes have been proposed to be narrowed, including the center lane. The traffic lane widths will be narrowed from 12 feet per lane to 11 feet per lane. This additional footage will be used for the creation of the directional medians as well as buffers between the roadway and sidewalk. *Complete Streets: Best Policy and Implementation Practices*, a publication of the American Planning Association states that "Reducing road width or number of travel lanes ('road diets') has safety and operational benefits for drivers...and should be one of the first options considered when balancing the needs of all travelers" (American Planning Association, 2010). Lessening excessive traffic speeds is one of the benefits of such lane reductions, and would help alleviate a major issue that was both observed by the study group and mentioned in public input meetings (American Planning Association, 2010). According to Table 3-4 in FDOT's *Florida Intersection Design Guide 2007*, an arterial road in an urban area with design speeds of under 40 miles per hour that is not part of the FIHS or SIS (Strategic Intermodal System), may have 11 foot wide travel lanes and as narrow as 10 foot wide turn lanes (Sec. 3.9.1). Figure 5.14 illustrates the typical cross-section suggested for the North Monroe corridor, including 5 foot wide sidewalks and 3 foot wide sidewalk buffers.



Proposed North Monroe Street Design Typical Cross-Section

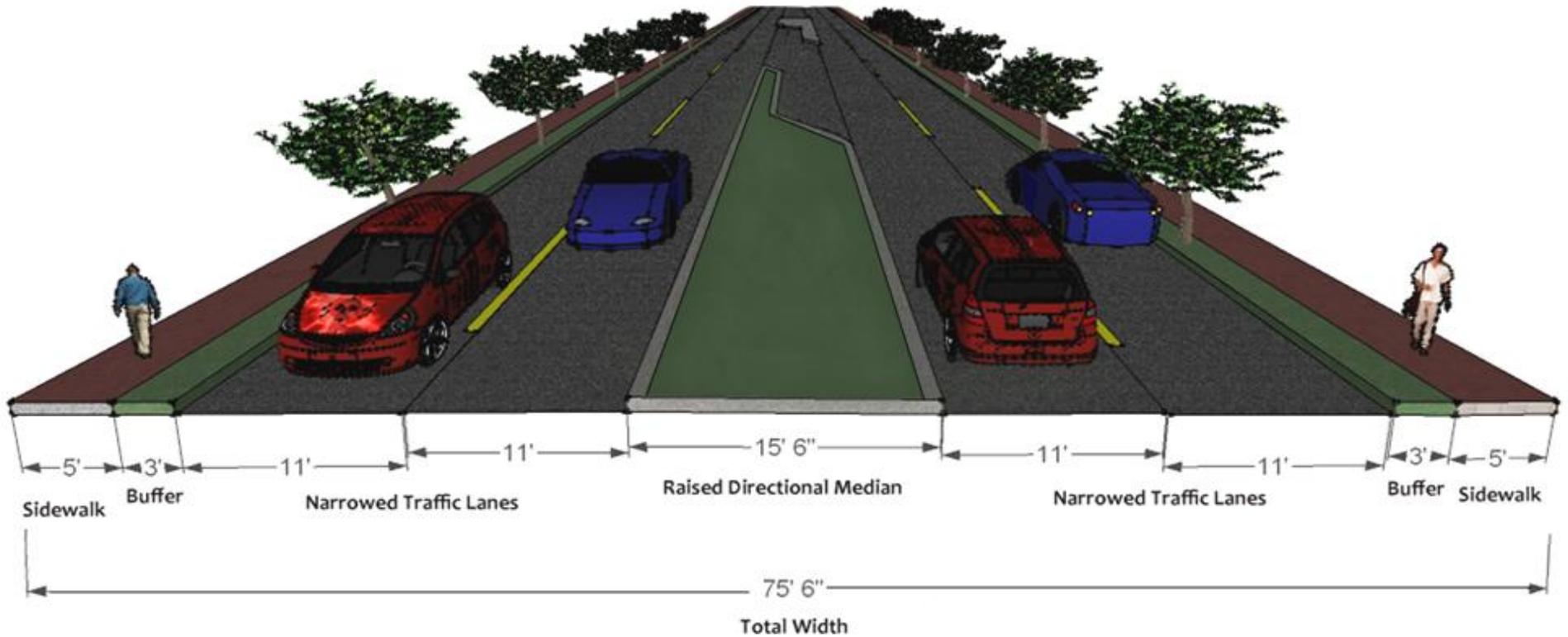


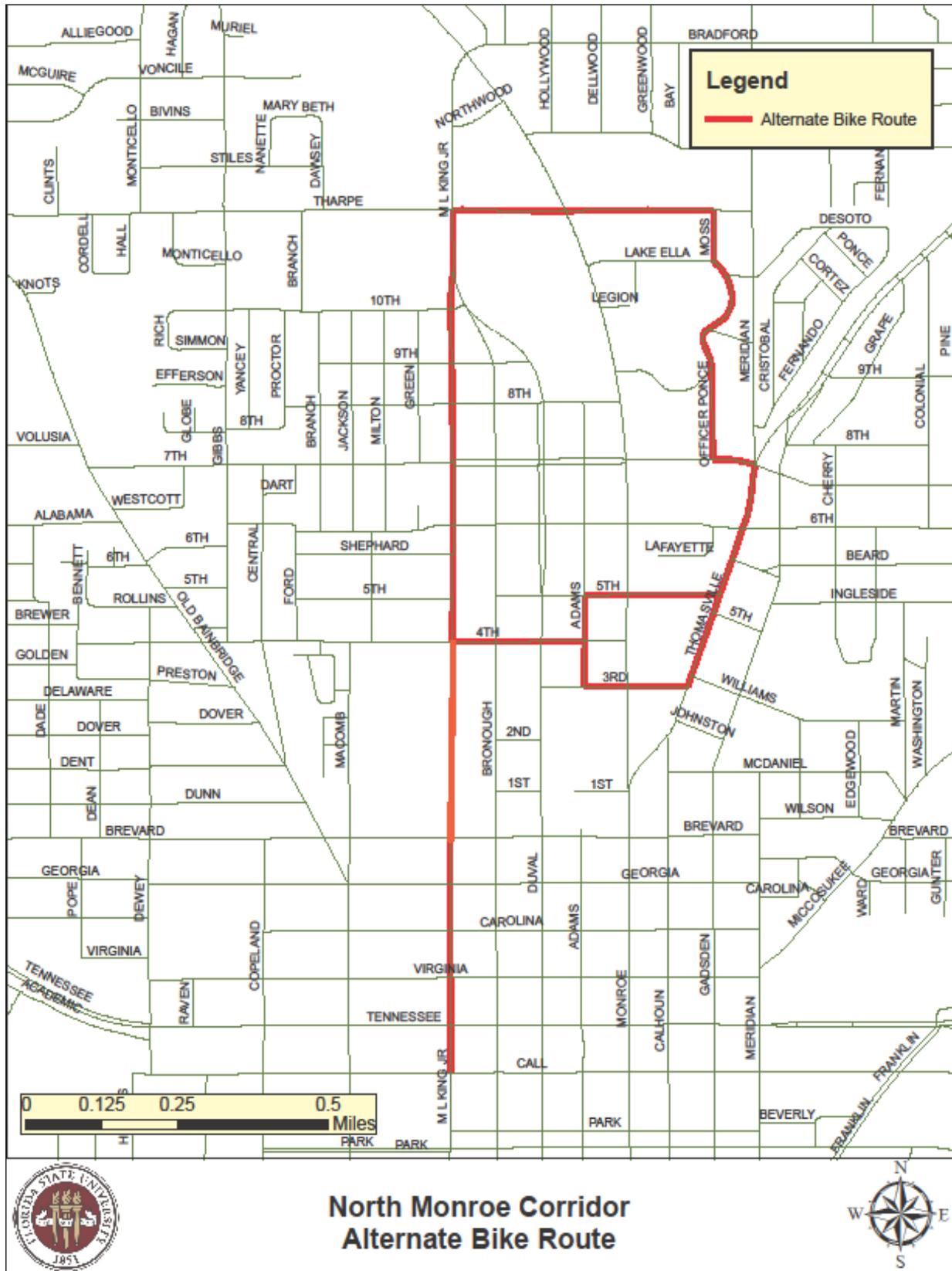
Figure 5.14: Proposed Typical Cross-Section for North Monroe Street

Created by Jessica Ubieta

Alternate Bicycle Route

The North Monroe corridor consists of high traffic volume, relatively fast road speeds, and a limited public right-of-way. The American Association of State Highway and Transportation Officials (AASHTO) notes that roadway width allowing for vehicles and bicycles to both safely travel at safe speeds is imperative, as is sight distances, smooth pavement, well maintained grates, storm drains, and signal timers (American Association of State Highway and Transportation Officials , 1999). Due to a combination of these concerns for the North Monroe corridor study, it is recommended that an alternate route be implemented instead of a bicycle lane that would surround the North Monroe corridor. Map 5.1 shows the proposed alternate bicycle route.





Map 5.1: Alternate Bicycle Route for the North Monroe Corridor

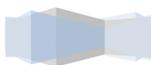
This alternate route would make use of existing bicycle lanes on Tharpe Street, which is the northern boundary of the corridor, a connecting route via Martin Luther King, Jr. Boulevard, and an existing bicycle lane, six blocks south of the southern boundary of the North Monroe corridor on Call Street. Martin Luther King, Jr. Boulevard is an ideal street to use for the alternate route due to the width and low traffic volume. Additionally, it runs parallel to Monroe Street connecting to two existing bicycle lanes. The proposed alternate bicycle route would cut through the city-owned Oakland Cemetery where an existing paved trail is currently located. The trail is currently in good condition and the only improvements necessary would be a curb ramp at the north and south access points. Additionally, in order to make the connection feasible, improvements to curb ramps at Brevard Street and at 4th Avenue would be necessary.

From 4th Avenue, heading east, the alternate route would split at 3rd Avenue as well as 5th Avenue to provide access to Thomasville Road. This access to Thomasville Road is an important connection to not only Midtown, but also Lafayette Park. Improvements to Thomasville Road would be necessary to provide a safe alternative route, but with the low speed limits and increasing pedestrian accessibility it has potential to provide a successful alternate route. At the intersection of 7th Avenue, the route will cut west traveling along Officer Ponce Road providing access through Lake Ella to Tharpe Street, where an existing bicycle route is located. In order to provide for a safe crossing, improvements would be necessary at the 7th Avenue and Thomasville Road intersection.

Additional linkages within this alternate route provide for bicycle access to businesses along the North Monroe corridor on calm quiet streets with low traffic. Additionally, three blocks south of Brevard Street, Virginia Street is a designated a shared roadway with “Sharrow” pavement markings that inform drivers of this designation. A “Sharrow” is defined by the FHWA as any “shared-use path that or path that permits more than one type of user at a time”

Public Input about the Bicycle Route Alternative

Meeting participants who advocated strongly for bicycle lanes along the North Monroe corridor agreed that such an alternative would not be feasible unless traffic lanes were reduced by at least one. Particularly, stakeholders representing the Committee for a Bikeable Community (www.cccylists.org/cbc) were disappointed “ no new bicycle facilities were incorporated. This area is quite bicycle unfriendly, especially in the north-south direction where besides N. Monroe, also the closest parallel streets (Duval, Bronough, Thomasville, Meridian, etc.) are challenging



especially for beginning riders.” In addition to the bicycle lane alternative proposed in this plan, public advocates also recommended a bicycle circulation plan be developed for this area, which is located within the multimodal district.



5.2 Lake Ella District Alternatives

Mid-Block Crossing Alternatives

A mid-block crossing in the Lake Ella District has been identified as one of the most important improvements desired in the entire corridor by city/county officials as well as the public. Findings and recommendations from the RSA report also support the awareness of a need for a mid-block crossing in the district, as this immediate area is highly populated and utilized by pedestrians accessing the park. Due to the lengthy distance between the closest crosswalks (about a half-mile between 7th Avenue and Tharpe Street), people have been observed by both the studio group and the RSA team unsafely crossing Monroe Street in this area. A lack of adequate public parking is also evident as Lake Ella Park patrons frequently park their vehicle at the Golden Corral parking lot and dangerously cross North Monroe Street to visit the park. Several possible locations and types of crosswalks have been considered for the addition of a mid-block crossing in the Lake Ella district. An image of current conditions and a rendering of a potential crossing is shown in Figure 5.15, as well as median placement, entrance sign to Lake Ella, wider sidewalks, and underground utilities.





Figure 5.15: Before and potential after rendering of Mid-Block crossing near Lake Ella



Crossing Locations

Several locations have been identified as practical locations for a crosswalk, described as Options A to C. Option A extends from Legion Street to the parking lot entrance near On the Border; Option B extends from the furthest east point of Lake Ella to just across from Golden Corral; and Option C extends from the parking lot adjacent to the South Lake Ella Drive, across to the sidewalk on the west side of Monroe Street. Figure 5.16 is an aerial of the existing conditions. Figure 5.17 shows a rendered image of the recommended Option B, due to its central proximity between Tharpe Street and 7th Avenue; ease of visibility due to absence of trees or landscaping in the immediate area; clear access to the large parking lot between Golden Coral and On the Border; and the negligible impact on vehicular level of service.





Figure 5.16: Existing conditions: No Mid-block Crossing



Figure 5.17: Mid-block Crossing Option B

Crossing Types

Various types of crosswalks have been considered for the Lake Ella District based on low, medium and high-cost features. The low-cost alternative consists of a flashing yellow light on a mast-arm pole, seen in Figure 5.18 that warns drivers of the pedestrian crosswalk below it, which is proposed to be either painted with a reflective white paint, made of faux brick material, or brick inlay.



Figure 5.18: Low-Alternative Pedestrian Crosswalk

The medium-cost alternative includes a pedestrian activated signalized traffic light with a similar type crosswalk as previously discussed. The signalized crosswalk light will only turn red to stop traffic when activated by pedestrians. The high-cost alternative for a mid-block pedestrian crossing is proposed as a pedestrian bridge, as illustrated in Figure 5.19. The bridge could span from the parking lot of On the Border/Golden Corral to the cottages at Lake Ella. This alternative would be feasible if there was a fear in decreasing the vehicular level of service, or in forecasting for increased traffic levels. The over-road alternative would prevent any congestion in traffic due to additional signalized stops. It would be recommended to assess the feasibility of



a pedestrian bridge in the Department of Transportation guidelines before pursuing this alternative.

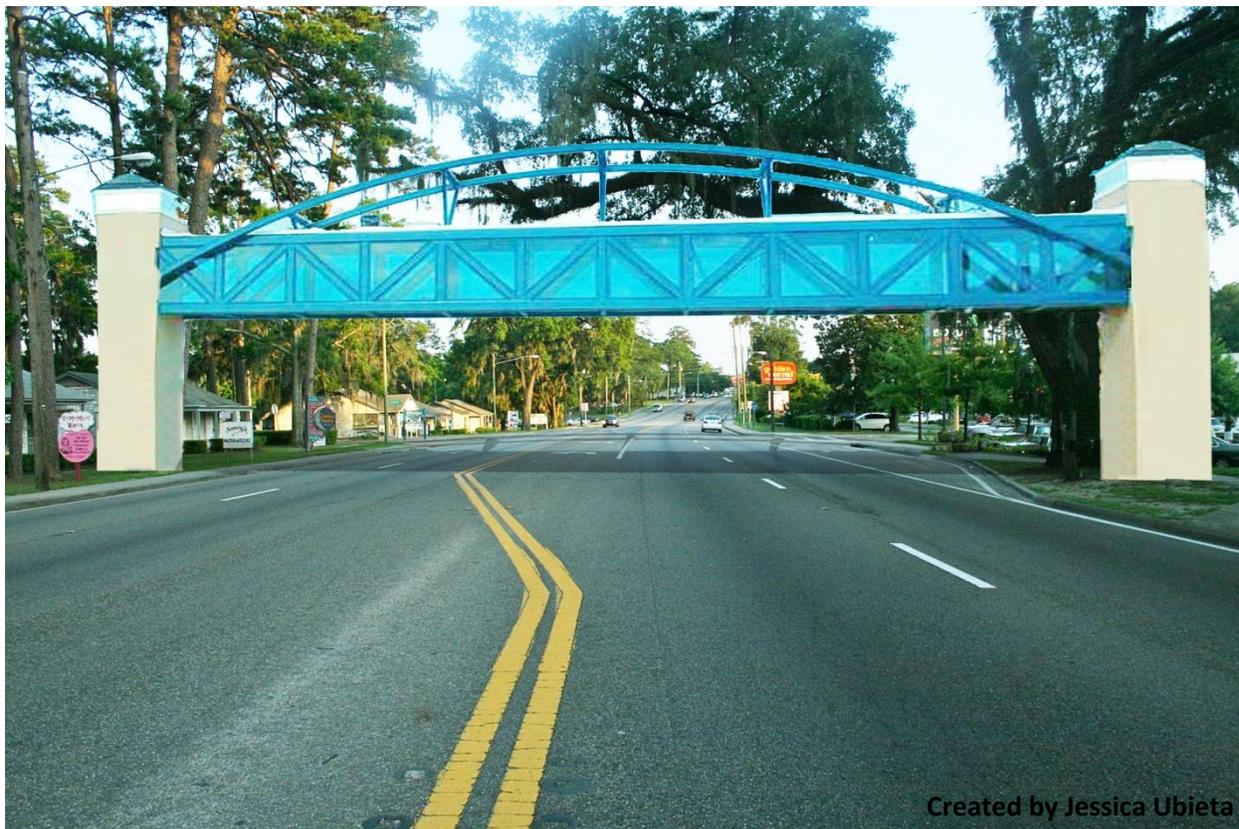


Figure 5.19: Pedestrian Bridge High-Cost Alternative for Mid-Block Crossing

Texture and paint on the roadway is also suggested as a way to inform drivers ahead of time that they are approaching the mid-block crossing. Signage is also suggested with any of the alternatives to properly warn drivers and pedestrians alike of the mid-block crossing.

Power Lines & Utilities Alternatives

The power lines and utilities throughout the North Monroe corridor are located underground excluding the utility lines within the Lake Ella District. This study recommends that these utility and power lines within the Lake Ella District be converted to underground utilities to create a cohesive environment throughout the corridor. The current lines hinder the aesthetics of the natural environment within the district, and during times of severe weather can be considered safety hazards. According to the *US Department of Transportation Federal Highway Administration* a case can be made for moving any poles that may be found to pose a threat to



motorists, and one of the alternatives is removal or placing these poles underground (The United States Department of Transportation). Figure 5.20 shows what the removal of the utilities would look like.

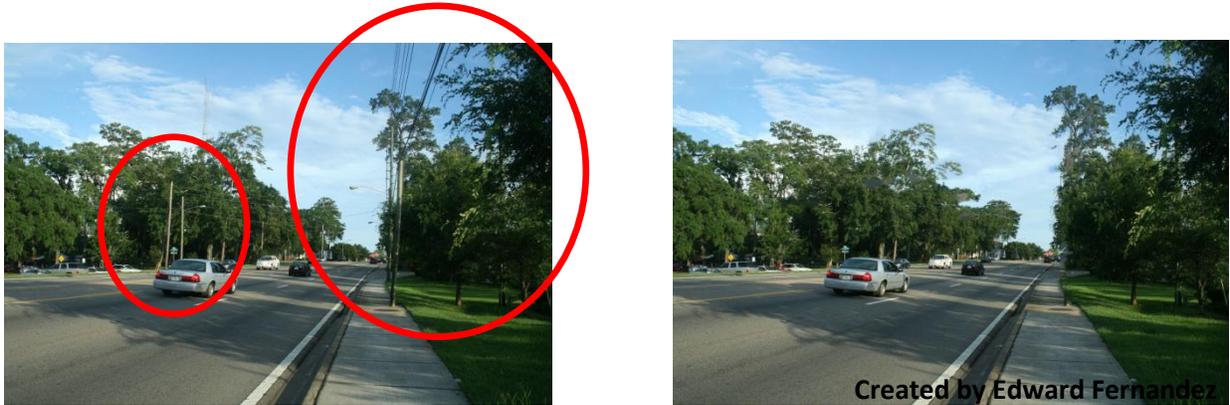
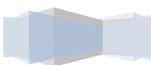


Figure 5.20: Lake Ella District Before and After Removal of Power and Utility Poles

Intersection Alternatives

Several improvements to Tharpe Street, the sole signalized intersection in this district, would enhance the functionality and aesthetics of the North Monroe corridor that serves as a gateway to Florida's State Capital. One such improvement would be to reduce the curb radius on the northwest corner of the intersection, which currently measures 63 feet, almost twice as large as the next largest radius on the corridor. According to PEDSAFE, a Federal Highway Administration sponsored project, a reduction to 15 to 25 feet should be appropriate for this and all curb radii throughout the corridor (PEDSAFE). This reduction would yield several advantages including:

- Reducing crossing distances, thereby decreasing pedestrian time in roadway crossings on north and west portions of the intersection
- Slowing right-turning vehicles traveling from southbound Monroe to westbound Tharpe Street
- Increasing northwest pedestrian landing area with opportunities for aesthetically pleasing landscaping
- Potentially improving signal timing due to more efficient pedestrian crossing (PEDSAFE)



Another improvement for the Tharpe Street intersection is to move the stop-lines back on the western portion of the intersection, in order to square-off the crosswalk to a 90 degree angle to the roadway. This treatment could also be performed on the northern portion of the intersection. This alternative would provide for shorter pedestrian crossing distances and would reduce the amount of time pedestrians are vulnerable to oncoming traffic. Figure 5.21 shows the existing conditions and Figure 5.22 illustrates, via aerial photograph, how these suggested improvements would impact the intersection's geometry. These improvements would decrease the crossing distance on the western crossing from 102.42 feet to 70.5 feet, which is 31.92 feet less and equivalent to almost three lanes of traffic. These alternatives would also decrease the northern crossing distance from 109.58 feet to 66 feet which is a drastic difference of 43.58 feet. With these reductions in crosswalk distance in place, the current pedestrian signal timing for the eastern/western crossing is now appropriate and the southern/northern crossing pedestrian signal timing is well below what it would need to be. This could then be adjusted to allow for more efficient vehicular traffic flow if the signal timing engineer deemed it necessary.



Figure 5.21: Tharpe Street exiting conditions

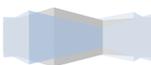




Figure 5.22: Tharpe Street with Proposed Alternatives

Also visible in Figure 5.22 is the alternative of faux brick crosswalks, which is being suggested for all of intersections along the corridor, both existing and proposed. The benefits of this treatment are functional as well as aesthetic. They provide a visual and audible reminder to vehicular traffic that they are sharing the roadway with pedestrians, while creating a more aesthetically pleasing crossing. Real brick inlay is another alternative that can increase the aesthetic quality of the crosswalks and although more expensive, would provide the same effect as faux brick. The third and cheapest option for the crosswalks is thermoplastic striping, which is a reflective material that can be fashioned in a number of different patterns to alert oncoming traffic of a pedestrian presence.

Another possible alternative for this intersection would be to prohibit right turns on red on the northern part of the intersection turning west. This would provide an extra level of safety for pedestrians traveling across the western crossing, as they would not have unexpected traffic turning during the pedestrian crossing cycle.

Tharpe Street currently includes “count down” pedestrian signals that are not present anywhere else along the corridor. These types of signals would be a good alternative to improve



safety throughout the corridor. Seeing the length of time that pedestrians have to cross will help them to make a more informed decision as to whether they should cross or not. Pedestrians do not always follow the ‘Walk’ and ‘Don’t Walk’ directives, so this added measure could be installed at all existing and proposed signalized crosswalks in each district to keep pedestrians informed.

Other alternatives are also necessary within this district to improve the level of pedestrian safety and functionality. As noted in the existing conditions report, the Lake Ella District has the highest level of pedestrian traffic along the corridor; however, it also has the least number of crosswalk facilities. Therefore, installing crosswalks on the intersections of Lake Ella Drive, Legion Street, South Lake Ella Drive, and 8th Avenue, which currently lack crossing facilities, is appropriate and would provide additional safety for pedestrians in this highly traveled district. Each of these side streets, with the exception of 8th Avenue, directly adjoins Lake Ella Park and enhancing these intersections will improve the park’s overall safety.

Two of the four side-street intersections mentioned also have curb radii that are on the high end of what is acceptable for pedestrian friendly intersections according to the PEDSAFE project (PEDSAFE). Legion Street has curb radii of 23 feet and 29 feet, 7 inches and the curb is not well defined. Were the curb reconstructed with a harder edge and a smaller curb radius closer to 15 feet, the intersection would be significantly safer for the patrons of the Lake Ella Cottages and Lake Ella Park.

8th Avenue is the other side-street in this district with surprisingly large curb radii, measuring close to 25 feet each. These wide turning radii are not appropriate for a side street of this pedestrian character and could be decreased to decrease the crossing distance and to slow down right-turning traffic onto Monroe Street.



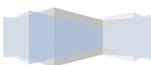
5.3 Midtown Connector District Alternatives

Sidewalk Alternatives

It is suggested to improve the sidewalk on 6th Avenue from Monroe Street to connect the Midtown Connector District to Midtown Proper on Thomasville Road. This connection from 6th Street would serve to unite the existing as well as the upcoming bars and restaurants on North Monroe, including Krewe de Gras and the Crepe Vine, to the Leon Pub on 6th Avenue and continue on to the commercial district in Midtown along Thomasville Road. Improving the lighting and sidewalks along 6th Avenue would improve the accessibility between the Midtown District on Thomasville and the corresponding area on North Monroe that continues to grow and see increasing aesthetic and safety improvements. Additionally, the eastern Side of Thomasville along Gadsden Street coincides with Lafayette Park, allowing another connection to the Chain of Parks within the City of Tallahassee. Increasing these linkages between existing parks and frequently visited areas along Thomasville and North Monroe can improve and increase pedestrian accessibility during the day and night time hours.

Intersection Alternatives

As previously mentioned the Midtown Connector District is a rapidly growing area of Tallahassee and is home to many restaurants and pedestrian destinations. Intersection alternatives for this district will primarily concentrate on pedestrian safety. The 7th Avenue intersection is the entrance to this district from the north and is the subject of most of the alternatives proposed. Here, only three crosswalks exist, as there is not one present on the southern portion of the intersection. As mentioned in the existing conditions, and found in Figure 5.23, the distance traveled from the southwestern portion of the intersection to the southeastern, or vice versa, is currently 197 feet and 12 lanes of traffic. The first recommendation is to install a crosswalk with proper pedestrian signalization at this location oriented at a 90 degree angle to the roadway. This would reduce the travel distance from 197 feet to 71 feet, 4 inches, and from 12 lanes of traffic, to 5 as seen in Figure 5.24. Reducing the crossing distance will reduce the amount of time pedestrians are vulnerable to traffic, thereby making the intersection safer. This is particularly important due to the Tallahassee Senior Center's location on the northwestern corner of Monroe Street and 7th Avenue. These elderly citizens in many cases require additional time to cross. The less distance they have to cover exposed to traffic, the safer their journey will be.



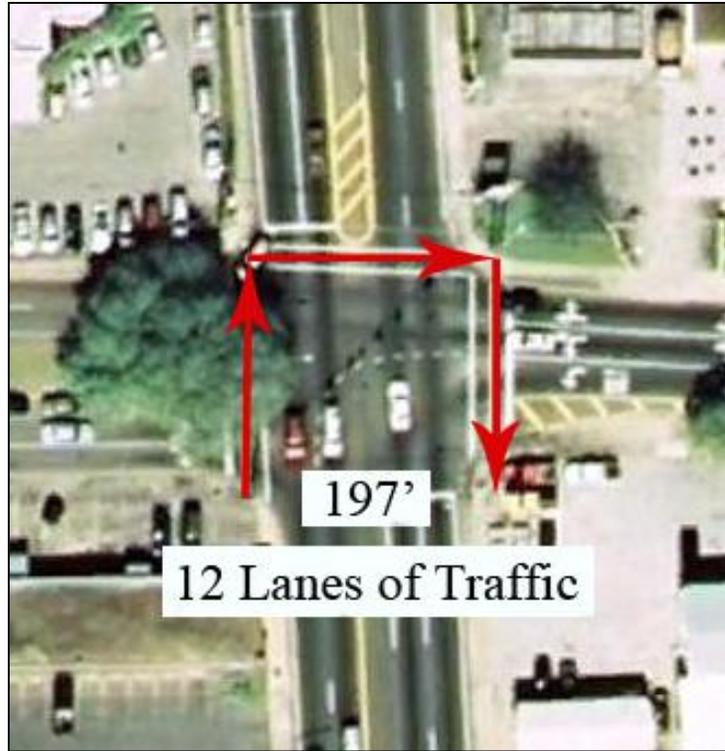


Figure 5.23: 7th Avenue Existing Conditions



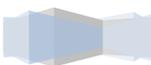
Figure 5.24: 7th Avenue with Proposed Crosswalk



Another factor contributing to the unnecessarily long pedestrian crossing distances at this intersection is the large curb radius on the southeastern corner. This curb radius measures 34 feet and a painted section is located between the left turn lane and the curb. This painted section prohibits traffic, but does not decrease the crossing distance for pedestrians along the eastern crossing. An alternative solution would be to extend the curb over the painted section and reduce the curb radius at this point to diminish the crossing distance. Figure 5.25 illustrates the existing conditions and Figure 5.26 presents how the proposed alternatives would affect the geometry of the intersection.



Figure 5.25: 7th Avenue Existing Conditions



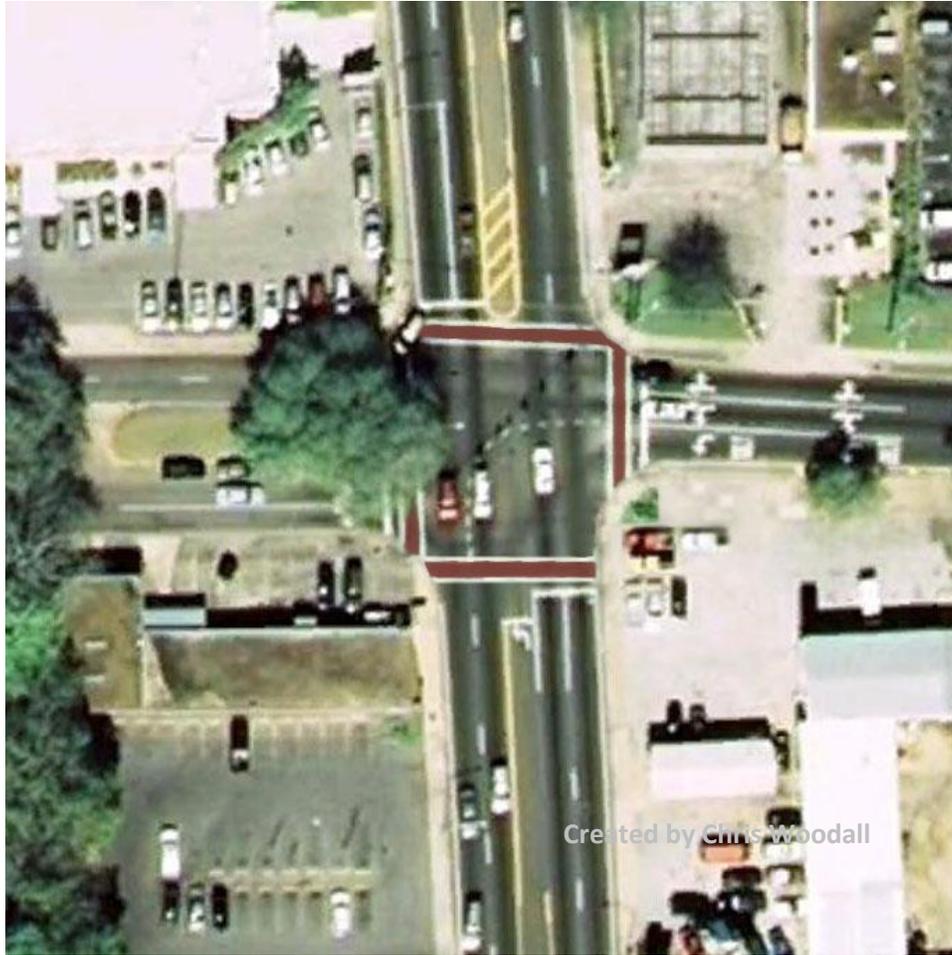


Figure 5.26: 7th Avenue with Proposed Changes

An additional alternative for this intersection would be to reduce the curb radii of the southwest and northwest corners, as they are on the high end of the 15 to 25 foot recommended scale. This would reduce the speed of right turning traffic and would provide more safety for pedestrians.



In contrast to 7th Avenue, 6th Avenue does not require many alterations from an intersection standpoint. The curb radii are appropriate for this type of intersection and therefore do not require any changes. The only alternative suggested for this intersection is to square-off the northern and southern crosswalks to 90 degrees to minimize the distance pedestrians must cross to traverse North Monroe at this location. An aerial shot of 6th Avenue, Figure 5.27 shows the skewed crossings. This alternative would require expanding the pedestrian landings to the new sidewalk entry locations and could be constructed as the crosswalks are being resurfaced with one of the three options listed at the beginning of this section.



Figure 5.27: 6th Avenue Existing Conditions

Like 6th Avenue, 5th Avenue does not require many changes to the geometry of the intersection, with the exception of the western crosswalk. Figure 5.28 illustrates the skewed angle for this crossing and the alternative suggestion mirrors that of 6th Avenue. Squaring-off this

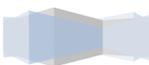


crosswalk to a 90 degree angle will slightly reduce the walking distance for pedestrians and thereby reduce their exposure to traffic. This alternative could also require extending the pedestrian landings to meet the new crosswalk location, and is the single geometric change recommended.



Figure 5.28: 5th Avenue Existing Conditions

There is, however, an additional and more important alternative suggestion for this intersection. As reviewed in the existing conditions of this intersection, there are three pedestrian signals that are not functioning. It is imperative for the pedestrian safety of this intersection to correct this issue. Ensuring that all pedestrian signals are functioning properly is a very important aspect of safety along the entire corridor. Replacing these existing signals with new “count-down” signals could ensure that they are all current and functioning properly.



Another recommendation for this intersection is to increase the pedestrian signal timing for the southern/northern crossings. The current signal timing allows a walk speed of 4.3 ft/sec which is .8 ft/sec over the recommended industry standard of 3.5 ft/sec. Meeting this guideline would require an increase from 15.3 seconds of allowable crossing time to 18.9 seconds; a difference of 3.5 seconds. This would permit an acceptable walking rate for people of all ages and abilities and would allow enough time to safely cross this intersection. All pedestrian signal timing calculations and methodology can be found in Appendix H.

The last intersection in the Midtown Connector District is the stop-controlled intersection of 4th Avenue, as seen in Figure 5.29. This is a smaller side street, but it is located in close proximity to several popular local restaurants, which are destination locations for the corridor. This T-intersection does not currently have a crosswalk installed to inform incoming traffic that this is a pedestrian traveled area. An alternative for this would be installing one at this location, complete with brick, or faux brick material to give the vehicular traffic visible and audible cues that pedestrian traffic may be present. This would also improve the aesthetics of the intersection, and tie it in to the rest of the corridor’s sense of place.



Figure 5.29: 4th Avenue Existing Conditions



5.4 Commercial-Office District Alternatives

Sidewalk Alternatives

It is suggested that improvements be made to the 3rd Avenue connection to Thomasville in order to increase pedestrian access between the districts. There are currently no sidewalks on 3rd Avenue, and additional lighting improvements for nighttime access would be recommended as well. Currently on North Monroe at this intersection is El Tapatio, Decent Pizza and Café Cabernet, which could connect to Cool Beanz and other restaurants in Midtown on Thomasville.

Intersection Alternatives

The intersection at 3rd Avenue is the best example of good intersection geometry of any on the corridor. It includes tight angles and the shortest available crossing distances, as seen in Figure 5.30.



Figure 5.30: 3rd Avenue Existing Conditions



The intersections of 5th Avenue and 6th Avenue should be modeled after this intersection. The only physical change here would be to include the brick, faux brick, or Thermoplastic striping surface on all of the crossings to match the rest of the corridor. However, a pedestrian signal timing change is necessary in order to meet the 3.5 ft/sec walk rate recommended by the City of Tallahassee Signal Timing Engineer. Currently the southern/northern crossing allows 4.2 ft/sec with a crossing time of 15.6 seconds. To reach the appropriate walk rate the crossing time must be increased by 3.1 seconds, making the total crossing time 18.7 seconds. This improvement would allow adequate time for most individuals to safely cross the intersection.

Thomasville Road, the second signalized intersection in this district, is the only intersection along the corridor that does not include any pedestrian amenities. There are no provisions for pedestrians to cross Monroe Street or Thomasville Road. This creates an issue for those traveling north or south on the east side of Monroe Street as they cannot access the rest of the corridor or downtown, depending on which way they are traveling. This cut-off is detrimental to pedestrian mobility between these two areas and alternatives are necessary to correct the issue. The existing conditions are reiterated in Figure 5.31.

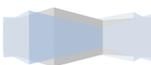




Figure 5.31: Thomasville Road Existing Conditions

One alternative to correct this issue would be eliminating the free-flowing right turn-lane from Monroe Street onto northbound Thomasville Road, and signaling it with a pedestrian activated signal. This would allow pedestrians to concentrate only on the incoming traffic from one direction, and would permit the addition of crosswalks connecting the two islands that currently exist between the Monroe Street sidewalks and Thomasville Road. This would require moving the stop-lines back on Thomasville Road to allow more space for proper crosswalks. Prohibiting right turns on red here would also provide for more pedestrian safety while crossing at this location by removing an unexpected traffic movement. Pedestrian signals would also need to be included to ensure the safety of those crossing at this intersection. This alternative would be the least costly, but as expressed in a corridor public input meeting, it could potentially cause traffic to back up to Brevard. Having the signal only activated when pedestrians are present should make these issues occur very infrequently.



Another high cost and long-term alternative for this intersection would be to acquire right-of-way directly north of the intersection where the Bank & Morris attorney's office and parking lot is located and create a standard T-intersection at this location, as seen in Figure 5.32. This would eliminate the free-flowing right-turn traffic, but would allow more space for the turn traffic to queue, keeping the intersections south of Thomasville Road free of obstruction during peak hours. This option is preferable because it would remove all unexpected traffic movements and would create a standard crossing that both pedestrians and motorists are familiar with. This option would require greater investment and more public and political will, but would provide the safest option for this intersection. It would also include more landscaping opportunities to improve the aesthetic qualities of the corridor. This alternative would also create a crossing for Monroe Street where one does not currently exist providing for even more pedestrian mobility along the corridor.



Figure 5.32: Thomasville Road: High Alternative



Another alternative exists for creating a crossing traversing Monroe Street at this location without implementing this T-intersection. Moving the stop-line back on southbound Monroe Street here would allow enough space to create a crosswalk at a 90 degree angle to the roadway. This option would require also moving the stoplight northward and installing pedestrian signals to regulate the pedestrian traffic. This alternative would not alter the current traffic-flow pattern greatly, as the current traffic signal cycle should provide enough time to cross. This could be combined with the alternative to regulate the free-flowing turn-lane and install crosswalks across Thomasville Road shown in Figure 5.33.



Figure 5.33: Thomasville Road: Low Alternative



1st Avenue is the beginning of the corridor from the south and is a small stop-controlled side-street intersection. This intersection is the only stop-controlled T-intersection along the corridor with a crosswalk. The only recommendation for 1st Avenue is to resurface the crosswalk with the chosen material to tie it into the rest of the corridor and inform visitors that they have entered the North Monroe Street corridor.

5.5 Level of Service Impacts

It is important to understand how the design recommendations presented in this study will affect the level of service along the corridor. To have a complete multimodal infrastructure, maintaining an acceptable vehicle LOS while improving bicycle and pedestrian LOS is essential. A LOS analysis was performed with the following roadway modifications:

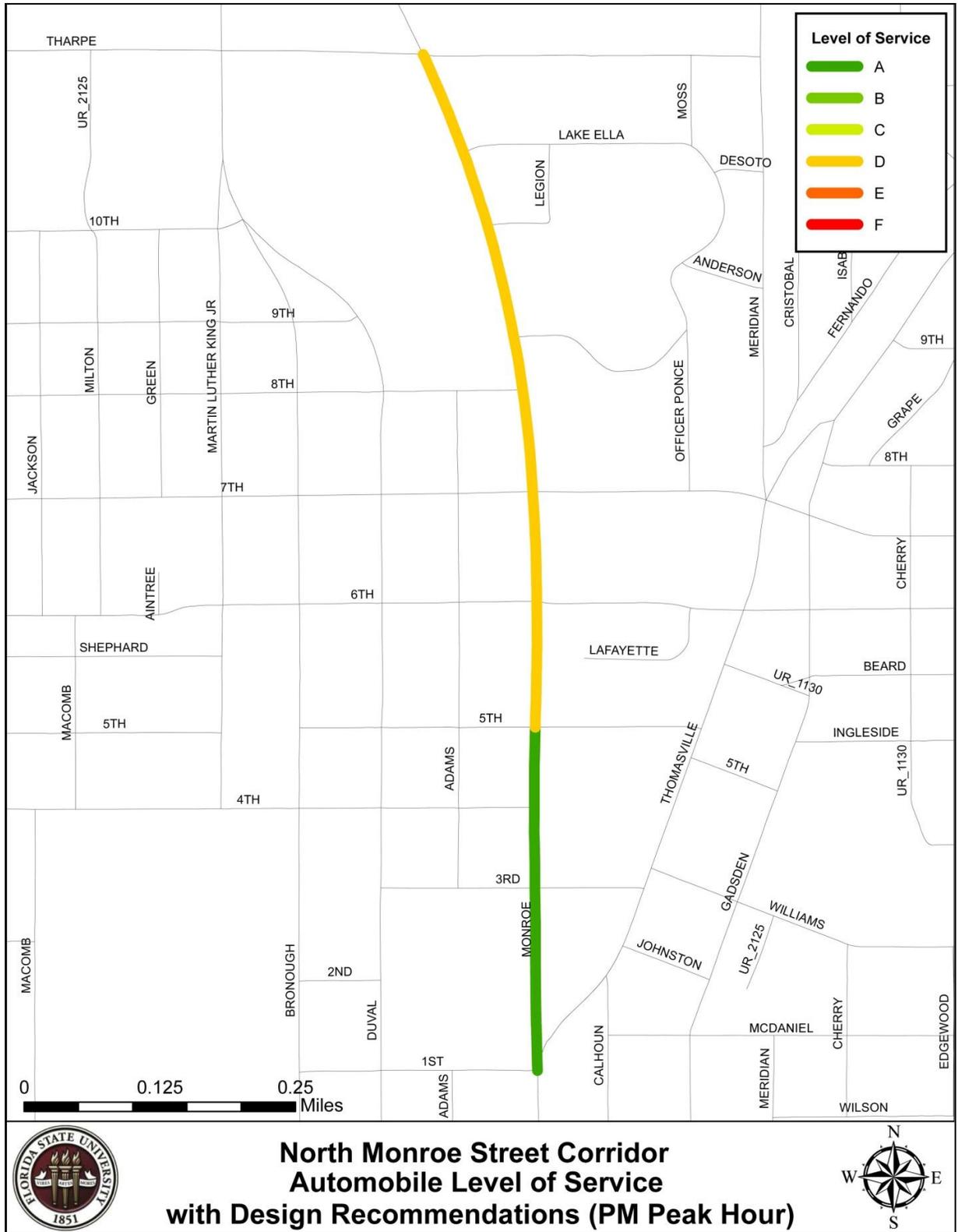
- Widened sidewalks to at least 8 feet along the entire length of the corridor
- Sidewalk protective barriers along the entire length of the corridor
- A reduction of the automobile outside lane width to 11 feet
- An actuated mid-block crossing at Lake Ella - 950 feet from 7th Avenue
- A restrictive median from 7th Avenue to Tharpe Street
- A restrictive median from Thomasville Road to 5th Avenue.

In order to be consistent with the process followed Section 3.3, this analysis was performed under the operating conditions of the peak direction, 100th highest volume hour of the year (k100). 2009 FDOT traffic volumes were utilized for this analysis.

Automobile Level of Service with Design Recommendations

Map 5.2 shows the LOS for automobile traffic along the North Monroe Street corridor study area. From Thomasville Road to 5th Avenue the LOS remains an “A.” During the peak hour in this segment, traffic is free flowing at average speeds with minimal delays. The design recommendations of a decreased automobile outside lane, a restrictive median, a sidewalk barrier and widened sidewalks to this segment had no effect on the LOS. From 5th Avenue to 7th Avenue the LOS remained a “D.” The design recommendations of a decreased automobile outside lane, a sidewalk barrier and widened sidewalks to this segment had no effect on the LOS. From 7th Avenue to Tharpe Street the LOS changed from a “C” to a “D.” This is primarily due to the addition of a signalized mid-block crossing, which increases delay and decreases traffic speeds in this higher traffic volume segment. Even with the design recommendations implemented, all segments of the North Monroe Street corridor will operate within the statewide minimum LOS standards adopted by the FDOT, the City of Tallahassee, and Leon County.





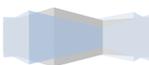
Map 5.2: North Monroe Street Automobile LOS with Design Recommendations (PM Peak Hour)

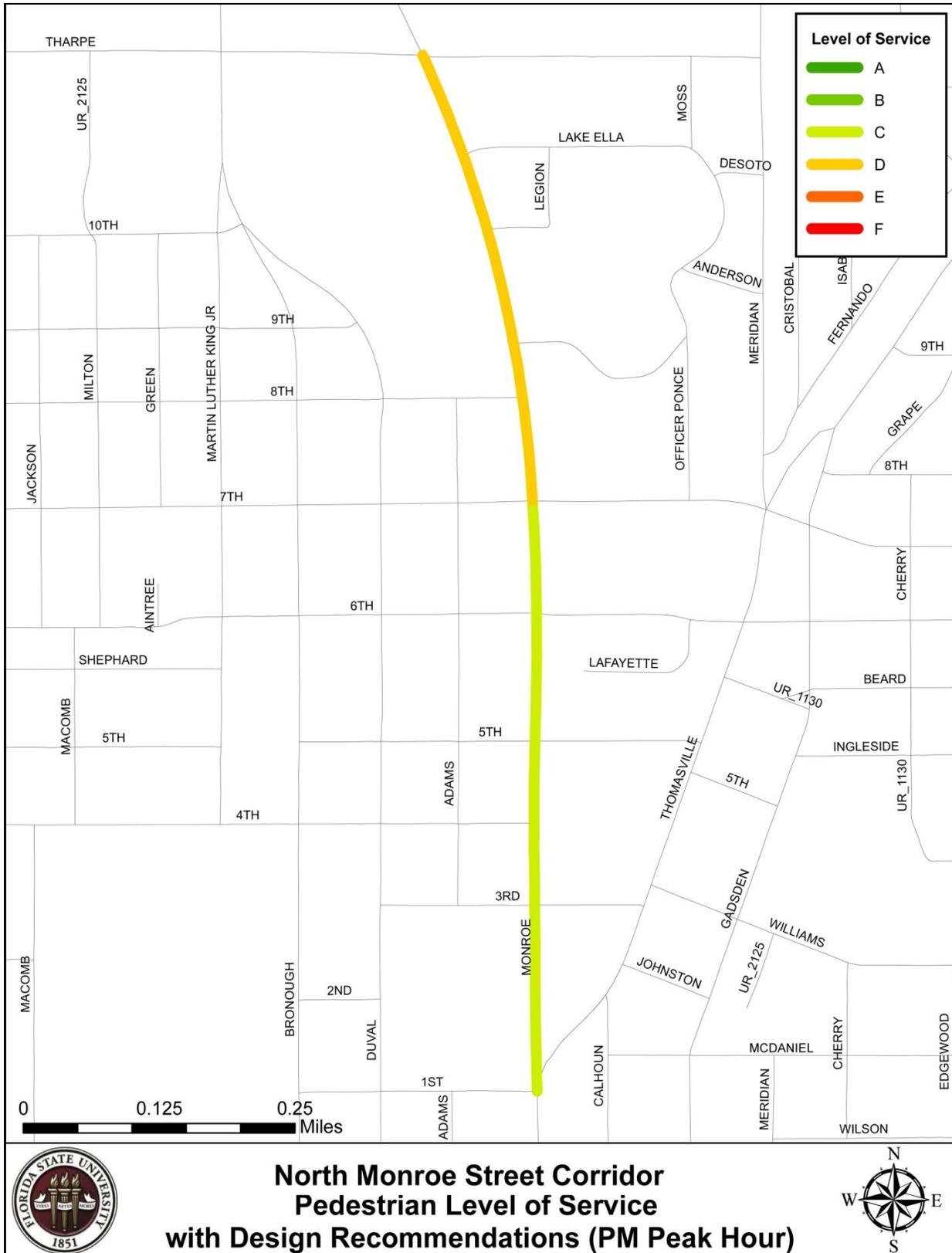


Pedestrian and Bicycle Level of Service with Design Recommendations

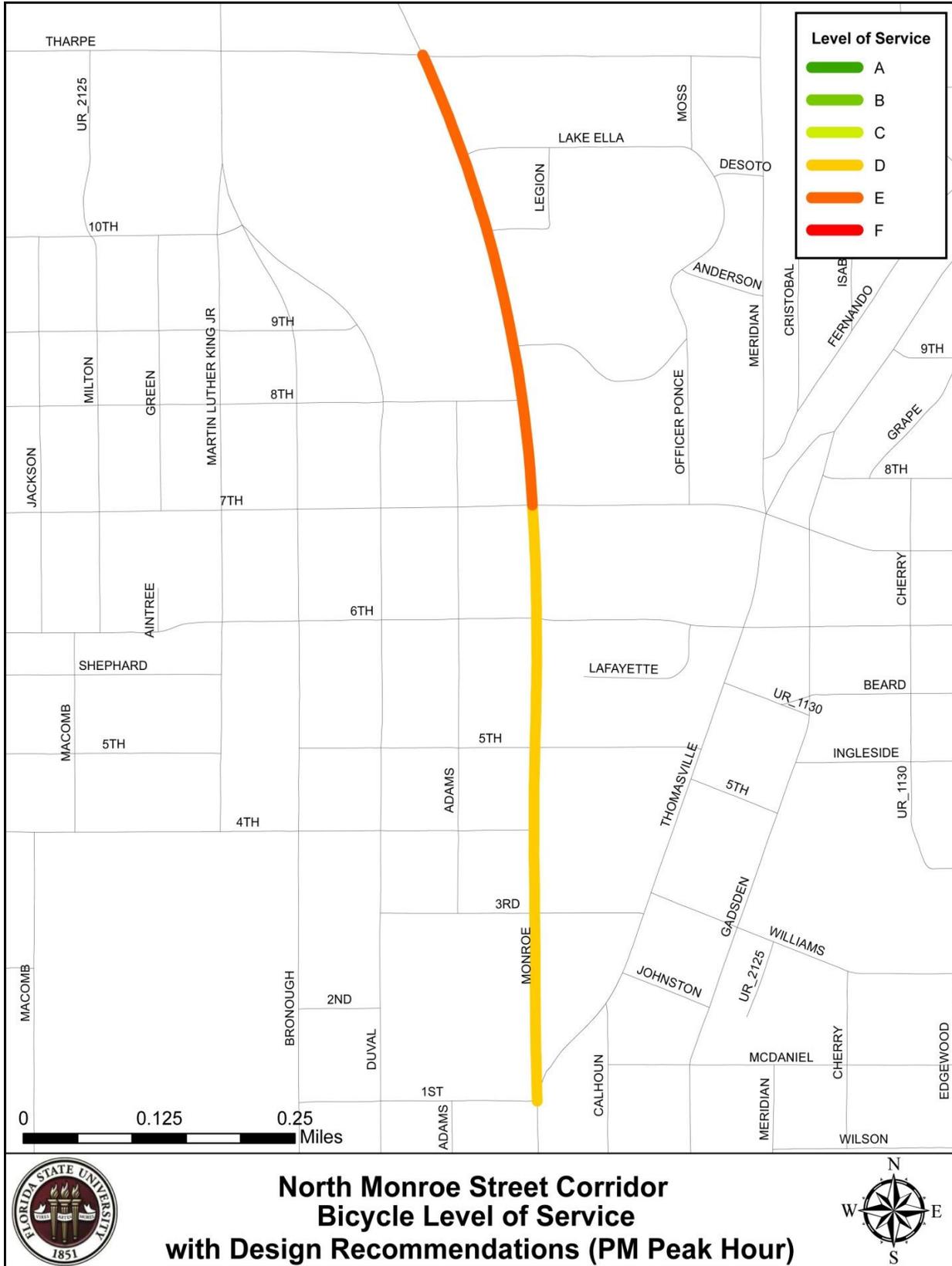
Map 5.3 shows the LOS for pedestrian use along the North Monroe Street corridor study area. Designing the corridor to be multimodal in nature places pedestrian LOS in high priority. From Thomasville Road to 7th Avenue with the design recommendations in place the LOS was improved from a “D” to “C.” Pedestrian interaction with motor vehicles has been reduced from moderate-high to moderate. From 7th Avenue to Tharpe Street, with the design recommendations in place the LOS was improved from an “E” to a “D.” Pedestrian interaction with motor vehicles has been reduced from high to moderate-high. Throughout the entire corridor the LOS has been improved a letter grade, which is the intent of this study.

Map 5.4 shows the LOS for bicycle use along the North Monroe Street corridor study area. Due to the inability for the corridor to include a safe bicycle lane (see Section 5.1), the LOS for bicycle use remains unchanged.





Map 5.3: North Monroe Street Pedestrian LOS with Design Recommendations (PM Peak Hour)

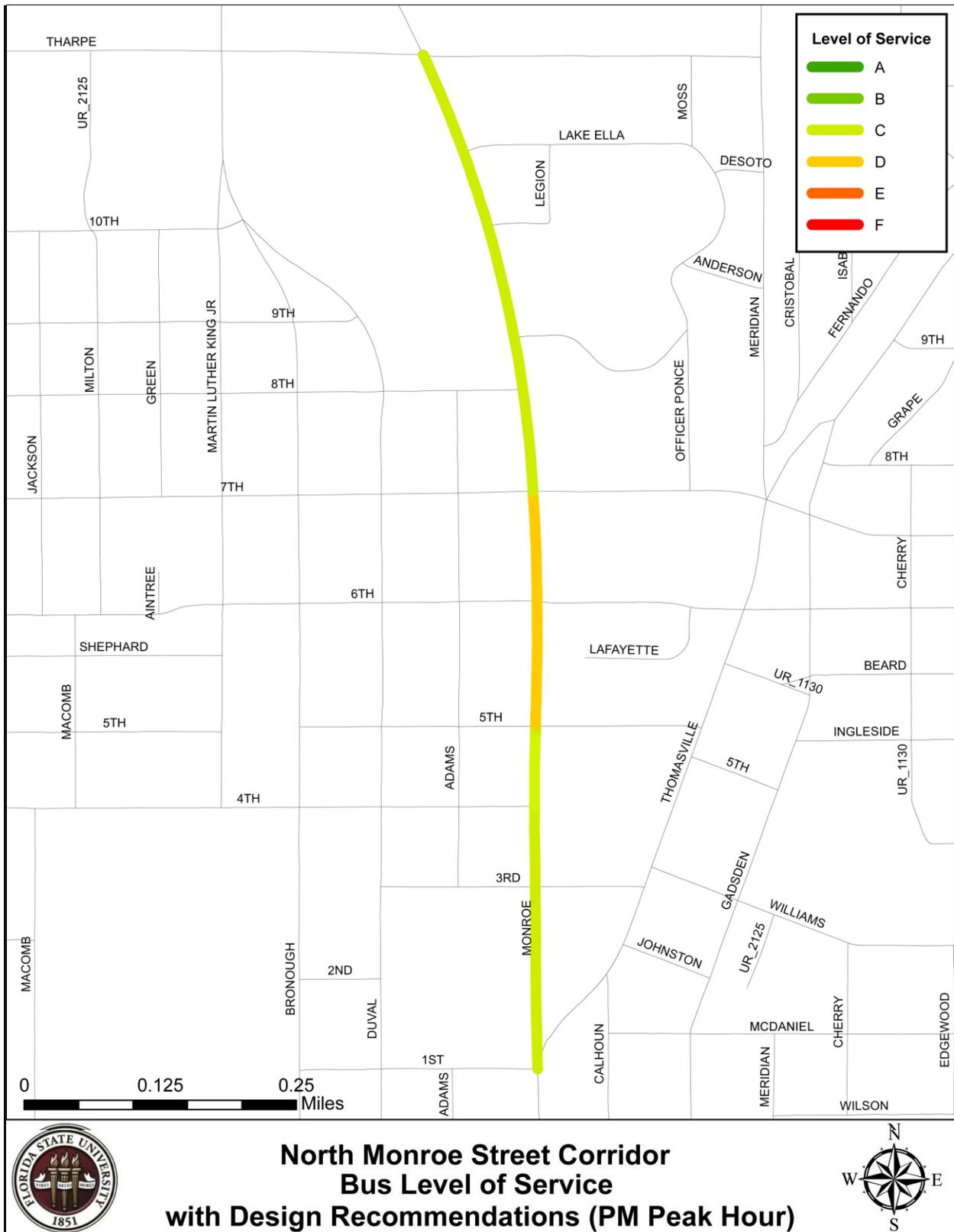


Map 5.4: North Monroe Street Bicycle LOS with Design Recommendations (PM Peak Hour)

Bus Level of Service with Design Recommendations

Map 5.5 shows the LOS for bus use along the North Monroe Street corridor study area. From Thomasville Road to 5th Avenue the LOS remains a “C.” From 5th Avenue to 7th Avenue the LOS is a “D.” From 7th Avenue the LOS was improved from a “D” to a “C.” Since bus LOS is primarily determined on the frequency in which the bus operates, there was few design recommendations suggested that would improve the LOS. However, the LOS from 7th Avenue to Tharpe Street was improved as a result of the pedestrian LOS in this segment of the corridor of the corridor improving. The ability for pedestrians to access bus stops has improved, thus bus LOS has improved. It is noted with the adoption of StarMetro’s NOVA2010 new bus scheduling that the bus LOS along the corridor might be altered.





Map 5.5: North Monroe Street Bus LOS with Design Recommendations (PM Peak Hour)

5.6 Forecasting Traffic Volumes: A Five Year LOS Projection

Automobile, pedestrian and bus LOS have each been affected with the design recommendations implemented along the corridor. All segments of the North Monroe Street corridor will continue to operate within the statewide minimum LOS standards, and pedestrian and bus automobile LOS have been improved. However the question remains: *How will the corridor operate in the near future with an expected increase in traffic volume?*

A linear regression projection will be used to determine traffic volumes along the corridor 5 years into the future to answer this question. A LOS analysis will then be performed using these projected values. A linear regression projection is one of the simplest methods used to determine traffic volumes as it is determined solely on historical data. Linear regression projections plot a linear curve based on the formula $Y = ax + bX$. Essentially, it fits a straight line to the historical traffic volume data and extends this line for each year passed based on the trend. FDOT historical AADT data was collected for the past 10 years, see Appendix I. for this projection.

Figure 5.34 and Table 5.2 show the projected AADT from Thomasville Road to 7th Avenue 5 years into the future by year. Based on these projections the AADT from Thomasville Road to 7th Avenue by 2014 will be 36, 014. Figure 5.35 and Table 5.3 show the projected AADT from 7th Avenue to Tharpe Street 5 years into the future by year. Based on these projections the AADT from 7th Avenue to Tharpe Street by 2014 will be 45,339.



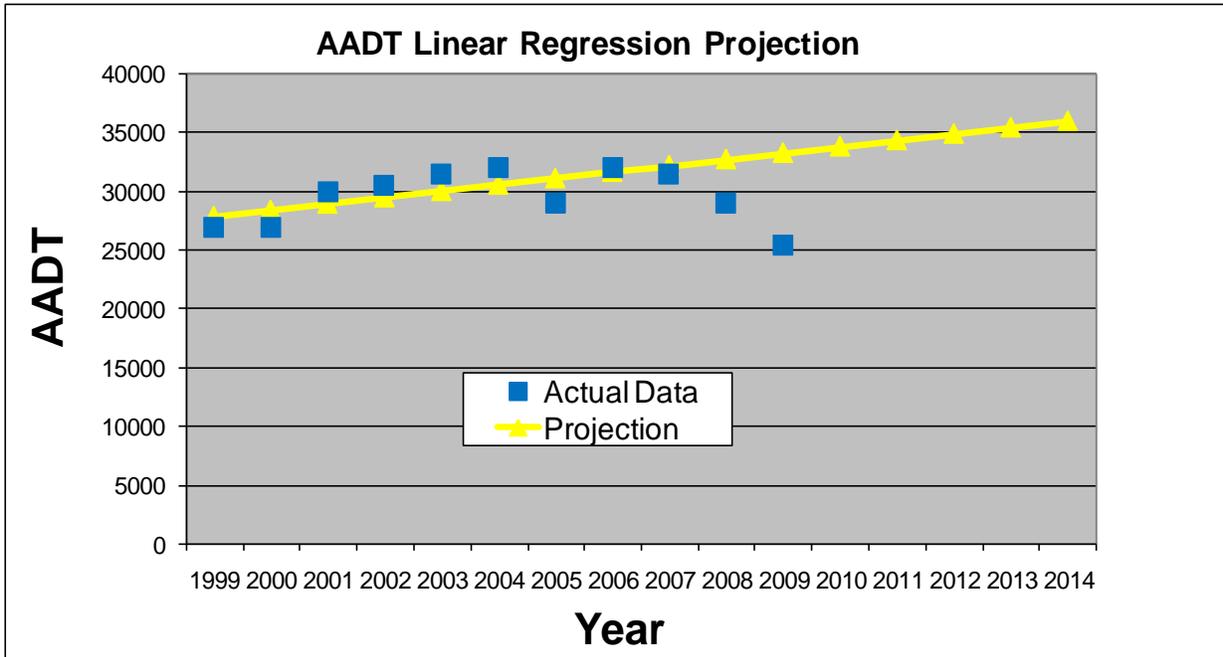


Figure 5.34: Average annual daily traffic projection, Thomasville Road to 7th Avenue, 2014

Source: FDOT Traffic Information

Table 5.2: Average annual daily traffic projection, Thomasville Road to 7th Avenue, 2014

| <i>Year</i> | <i>Actual Data</i> | <i>Projection</i> |
|-------------|--------------------|-------------------|
| 1999 | 27,000 | 27,889 |
| 2000 | 27,000 | 28,431 |
| 2001 | 30,000 | 28,972 |
| 2002 | 30,500 | 29,514 |
| 2003 | 31,500 | 30,056 |
| 2004 | 32,000 | 30,597 |
| 2005 | 29,000 | 31,139 |
| 2006 | 32,000 | 31,681 |
| 2007 | 31,500 | 32,222 |
| 2008 | 29,000 | 32,764 |
| 2009 | 25,500 | 33,306 |
| 2010 | | 33,847 |
| 2011 | | 34,389 |
| 2012 | | 34,931 |
| 2013 | | 35,472 |
| 2014 | | 36,014 |

Source: FDOT Traffic Information



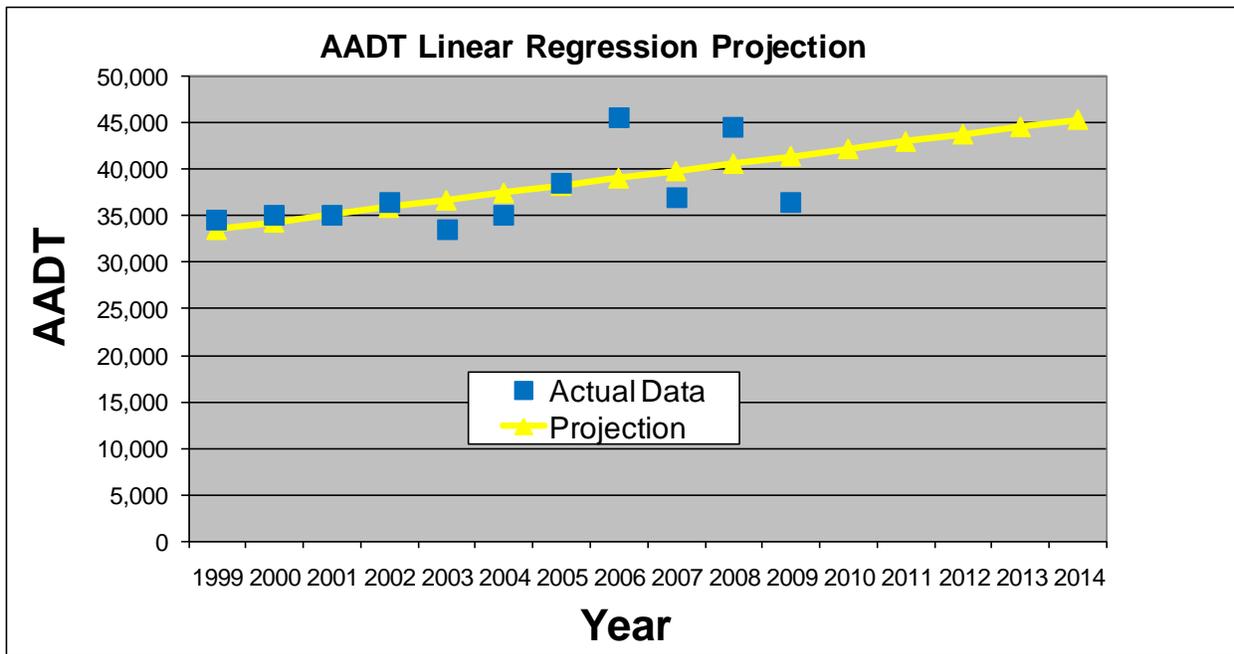


Figure 5.35: Average annual daily traffic projection, 7th Avenue to Tharpe Street, 2014

Source: FDOT Traffic Information

Table 5.3: Average annual daily traffic projection, 7th Avenue to Tharpe Street, 2014

| <i>Year</i> | <i>Actual Data</i> | <i>Projection</i> |
|-------------|--------------------|-------------------|
| 1999 | 34,500 | 33,589 |
| 2000 | 35,000 | 34,372 |
| 2001 | 35,000 | 35,156 |
| 2002 | 36,500 | 35,939 |
| 2003 | 33,500 | 36,722 |
| 2004 | 35,000 | 37,506 |
| 2005 | 38,500 | 38,289 |
| 2006 | 45,500 | 39,072 |
| 2007 | 37,000 | 39,856 |
| 2008 | 44,500 | 40,639 |
| 2009 | 36,500 | 41,422 |
| 2010 | | 42,206 |
| 2011 | | 42,989 |
| 2012 | | 43,772 |
| 2013 | | 44,556 |
| 2014 | | 45,339 |

Source: FDOT Traffic Information



Table 5.4 shows the projected 2014 LOS for the corridor with the existing conditions in place. In 5 years without any design changes and an increase in traffic volumes, the automobile use along the corridor will begin to experience high levels of congestion at signalized locations. Traffic flow will be characterized by extremely low speeds and high delays. Pedestrians and bicyclist will have a high level of interaction with motor vehicles. Bus service will be unattractive to choice riders.

Table 5.5 shows the projected 2014 LOS for the corridor with the design recommendations implemented. In 5 years with an increase in traffic volumes, the automobile use along the corridor will begin to experience high levels of congestion at signalized locations. This degradation will not result from the impacts of the design recommendations, but rather attributed to increased traffic volumes as the LOS remains identical to Table 5.3. Pedestrians will have a moderate-high to high level of interactions with motor vehicles. However, the effects due to an increase in traffic volume will not be as significant from Thomasville to 7th with the design recommendations implemented. Bicyclists will continue to have a high level of interaction with motor vehicles. Bus service from Thomasville to 5th will not be as adversely affected with the design recommendation implemented. However, bus service from 5th to Tharpe will be unattractive to choice riders.

Table 5.4: LOS for North Monroe Street with 2014 Projected Traffic Volumes, Existing Conditions

| Segment | Existing Conditions with Projected Traffic Volumes | | | |
|----------------------------------|--|------------|----------------|------------|
| | <i>Auto</i> | <i>Ped</i> | <i>Bicycle</i> | <i>Bus</i> |
| Thomasville-3rd | B | E | E | D |
| 3 rd -5 th | B | E | E | D |
| 5 th -6 th | F | E | E | D |
| 6 th -7 th | D | E | E | D |
| 7 th -Tharpe | F | E | E | D |

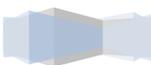
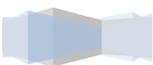


Table 5.5: LOS for North Monroe Street with 2014 Projected Traffic Volumes, Design Recommendations

| Segment | Design Recommendations with Projected Traffic Volumes | | | |
|----------------------------------|---|------------|----------------|------------|
| | <i>Auto</i> | <i>Ped</i> | <i>Bicycle</i> | <i>Bus</i> |
| Thomasville-3rd | B | D | E | C |
| 3 rd -5 th | B | D | E | C |
| 5 th -6 th | F | D | E | D |
| 6 th -7 th | D | D | E | D |
| 7 th -Midblock | D | E | E | D |
| Midblock-Tharpe | F | E | E | D |

This forecast must be thought of as a “high-end projection,” and it is important to realize that no projection is 100 percent accurate. However, these projections have incorporated traffic volume data over the past few years; so it is likely that these traffic volume projections are reflective of the current development trends in the midtown area. As the midtown area continues to develop, the character of the corridor will also change with changing land development patterns and an anticipated growth of business traffic. The roadway changes may show that the traffic volumes along the corridor will likely increase. In contrast, with the promotion of other modes of transportation and an increase in pedestrian traffic along the corridor, it is also possible that future traffic volumes will decrease or remain the same as the directness of the route to and from downtown is decreased.

The design recommendations set forth in this study should delay the North Monroe Street Corridor from failing as a complete multimodal infrastructure for the near future, but it is not permanent fix. Alternative forms of transportation need to be promoted and alternative routes from the central business district should be constructed for traffic volumes to not increase as forecasted.



6 Economic Development and Funding Alternatives

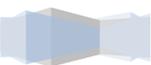
Many of the proposed alternatives for the corridor will involve safety, mobility and/or sustainable ideas that may be eligible for funding through existing grants or yet-untapped sources. Some of the existing mechanisms will require authority from a local, state or federal agency while others will require business and homeowners to exercise programs especially available to them. Much of the funding for the proposed alternatives needs to come from the commissioning agency, the CRTPA; however an effective public-public-private partnership, one with multiple public agencies acting with the public, will allow for aesthetic enhancements that will promote further business growth. There are also some regulatory adjustments the City of Tallahassee and Leon County can make to facilitate proposed plans. With limited funds and funding sources it is important to create an interagency network that will support safety, mobility and sustainable ideas while supporting economic progress for the corridor.

6.1 Introduction

There are numerous stakeholders who already have public and private interests within the corridor such as StarMetro, the City of Tallahassee, Leon County and individual business owners. The CRTPA has partnership opportunities that can be exercised for example the area is part of some City of Tallahassee and Leon County development and redevelopment areas; additionally business owners have opportunities to use public funds and tax incentives to augment their businesses. Additionally, federal and state programs that can be utilized for implemented plans. Finally, some administrative modifications may give this corridor and surrounding business communities the opportunity to grow. Though large, single-source funding is more difficult to establish given the current political and economic climate, however, corridor investment opportunities still exist.

6.2 Existing Funding Mechanisms

The CRTPA can exercise support beyond general funds due to the corridor being within existing regulatory areas. The agency in addition to the City of Tallahassee and Leon County all provide options to finance projects at the public level while the latter two agencies offer private-level options. By using multiple funding sources from several agencies, strong partnerships can be enabled due to multiple stakeholders having financial interests and motivation for a positive implementation process.



CRTPA Options

Because the CRTPA identified the Lake Ella mid-block crossing as their first planning priority, the agency is the primary source of public funding. On September 21, 2009 this project was listed first on their TSM Project Priority List for FY 2011- FY 2015 (2009, p. 2). This document additionally identifies an annual \$1,000,000 set-aside from FDOT specifically for “Bicycle and Pedestrian Projects” (2009, p. 1). The Priority List along with the Bicycle and Pedestrian set-aside will be main funding options for the implemented plan.

The corridor is not presently scheduled for repaving; however, based on recommendations outlined in the RSA, the road surface needs to be milled and this type of roadwork could provide an opportunity to bury the utilities in the Lake Ella District with City of Tallahassee support. Such backing will need to be in the form of a comprehensive plan update because large projects such as this study need to be planned and approved by citizens and elected officials. Projects will also need further CIP justification for the infrastructure improvements so project spending is both accounted for and allocated. Especially for the high-cost options the City of Tallahassee and Leon County will require further study just to allocate sufficient funding while remaining accountable to citizens.

The CRTPA has further access to more traditional federal funding sources from the Federal Transit Administration (FTA). Because this is an urban area and improvements will benefit both the elderly and disabled while supporting multimodal transportation initiatives the CRTPA can, with a justifiable project proposal, draw from the Mass Transit Account (MTA) which can provide up to 20% of matching funds. MTA funds will need to come through the federalized process and first through the FDOT.

The CRTPA can also support other local efforts, like those of the Leon County School Board. Through the FDOT and subsequently the CRTPA, the school board has further funding options available. One program, Safe Route to Schools, is one that promotes safety through multimodal means. Some of the desired outcomes, many of which reinforce the purpose of this document, include the following:

- Increased bicycle, pedestrian, and traffic safety
- More children walking and bicycling to and from schools
- Decreased traffic congestion
- Improved childhood health
- Reduced childhood obesity
- Encouragement of healthy and active lifestyles



- Improved air quality
- Improved community safety
- Reduced fuel consumption
- Increased community security
- Enhanced community accessibility
- Increased community involvement
- Improvements to the physical environment that increase the ability to walk and bicycle to and from schools
- Increased interest in bicycle and pedestrian accommodations throughout a community
- Improved partnerships among schools, local municipalities, parents, and other community groups, including non-profit organizations (Florida Department of Transportation, 2009).

Considering the corridor is both a high priority for the city and is within two miles of both Ruediger Elementary School and Raa Middle School, the Safe Routes to Schools is an appropriate funding source. Such project opportunities will also require an application from the Leon County School district to be administered by the CRTPA because according to FDOT, Safe Route improvements fall within the regional planning agency's authority. When capital improvements are required beyond Safe Routes to Schools, projects can be funded in part by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, Public Law 109-59). Likewise, SAFETEA-LU is a federally sponsored program that in part supports Safe Routes to School projects, among others. Given the nature of potential corridor plans, its location within the Tallahassee/Leon County Multimodal Transportation District (MMTD), and through the city and county's designation the CRTPA has opportunities to realize the federal source.

Further realization of SAFETEA_LU funds can be through the Highway Safety Improvement Program (HSIP). An important characteristic and federal requirement for funding is that projects promote safety. The sub-program of HSIP, State Strategic Highway Safety Plans (SHSP), provides funding explicitly for performance-based programs that maintain LOS standards while improving safety. RSA identified needs and opportunities at minimum be funded from this funding source. The Surface Transportation Program (STP) is another SAFETEA-LU program the CRTPA can exercise. STP is a funding source established to help relieve problematic intersections, among other problematic areas. Because some of the corridor's intersections are unsafe and could benefit from better alignment, STP funds are appropriate for

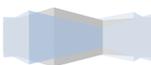


parts of the study corridor. An additional goal of STP is to help control invasive plant species and establish native landscaping. Funding landscaping elements from this source is a possibility. As previously stated, landscaping will provide needed shade, from the report's RSA, while giving the corridor some character both in proposed buffers and the proposed median. SAFETEA-LU funds are excellent options for the CRTPA. The agency will need to draft funding proposals that appeal to both the FDOT but also the Federal DOT.

Federalized programs will have to be both justified to the FDOT and in turn to the Federal government. However, the CRTPA remains the appropriate agency to acquire most project funding. Some general funds will be needed but the agency has opportunities, specifically through SAFETEA-LU to procure federal support. To truly implement a safe, functional and aesthetically pleasing project, the CRTPA needs assistance and administrative and financial support from local agencies as well state and federal agencies.

City of Tallahassee/Leon County options

The entire corridor is part of the Tallahassee/Leon County Transportation Multimodal District (MMTD). As seen in Figure 6.1, the entire corridor is within the pre-defined boundaries.



MULTIMODAL TRANSPORTATION DISTRICT

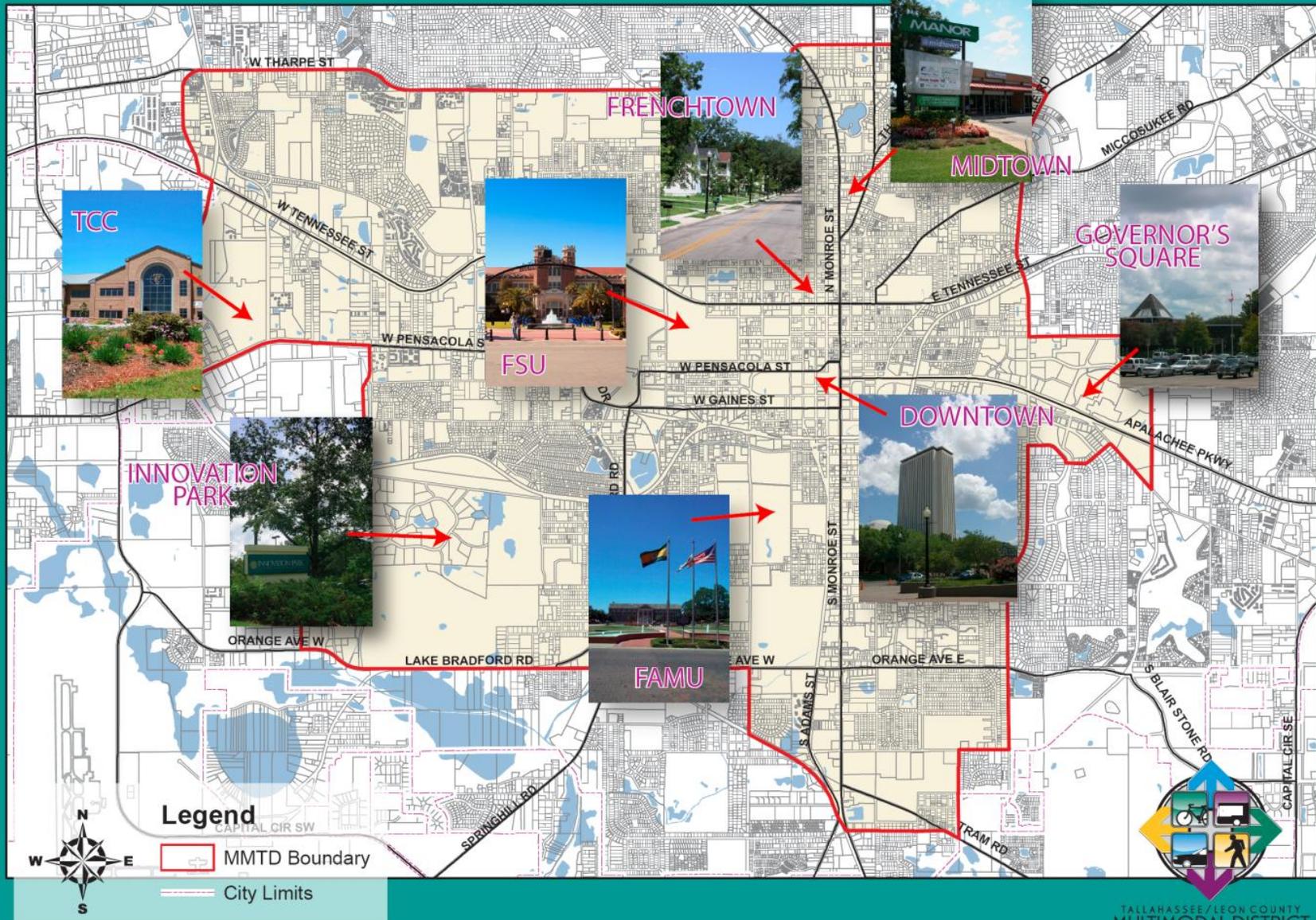


Figure 6.1: Tallahassee/Leon County Multimodal Transportation District, Adopted 2008

According to the City of Tallahassee’s website, the purpose of the MMTD is:

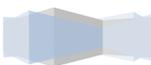
This Multimodal District is a vibrant, multifaceted city within a city supporting a life style that frees the individual from the automobile for completing the activities of daily living. Within it, you will be able to go to work or school, shop, meet health care needs, have a choice in housing and entertainment - without an automobile - because the pedestrian, bicycle and transit facilities will meet your mobility needs. Walking or cycling down a major thoroughfare to the coffee shop, you feel safe sharing the street with cars, and are pleased by the shops, offices, and dwellings opening onto the sidewalks. Whether you live in a single-family neighborhood or in a high-rise apartment building, you can quickly access all the services and products you need. Because many uses and dwellings are located close together generating many people coming and going, transit comes frequently and you can reach any other part of the District with ease (Capital Legacy Project, 2008).

Because the city and county have identified the MMTD as a high-priority area for redevelopment, projects that support multimodal lifestyles are given strong consideration. The proposed plan has elements that support pedestrian and transit improvements as well as limited bicycle improvements. StarMetro’s administration has also realized the importance of the area in its Nova 2010 plan, the forthcoming new route and decentralized transfer system. They have identified the corner of North Monroe Street and Seventh Avenue as a transfer station in the agency’s Nova 2010 plan; furthermore, they classified this transfer point as a heavily-used yet still dangerous area. Nova 2010’s purpose includes the following objectives:

- Reduce Downtown Transfers
- Reduce Redundancy
- Reduce Travel Time
- Reduce Carbon Footprint
- Increase On-Time Performance
- Increase Ridership
- Increase Frequency (less wait between buses)
- Increase Opportunities for Regional Travel (StarMetro, 2010)
-

This agency realizes the importance of safety and mobility and should be considered a potential partner.

The City of Tallahassee/Leon County initiatives further support urban density, mobility and redevelopment that are advised within the corridor. The Western side of the corridor



between 3rd avenue and Tharpe Street is part of Tallahassee's Frenchtown/Southside Community Redevelopment Area (CRA). The purpose of this defined area is stated:

CRA projects must serve a public purpose and must address concerns raised in the adopted redevelopment plans for each area. Typical CRA projects include parking lots and garages, new buildings, new parks or parks improvements, streetscape improvements, and sidewalks. CRA projects are funded by "tax increment financing" which works as follows: the value of real property in a redevelopment area is determined on a fixed date; as the value of the real property appreciates, the tax revenue on the appreciated portion of the value (the increment) is set aside for CRA projects; the City and County continue to collect the tax revenue on the original real property value (City of Tallahassee, 2010).

A key funding feature with CRAs is tax increment financing (TIF) which allows the administering agency to fund projects and incentivizes businesses and homeowners to reinvest their money in a given area; TIF financing is a valuable finance tool because the property values are expected to yield an ultimate return. Improvements to the corridor will support the philosophies of park, streetscape, and sidewalk improvements as defined by the city. A limitation of currently designated areas is that the entire corridor is not covered within the Frenchtown/Southside Community Redevelopment Area (CRA). Figure 6.2 shows the combined CRAs for both the Downtown area and the aforementioned Frenchtown/Southside CRA. The locally designated areas also afford local home and business owners the opportunity to actively participate in the given area's revitalization. Such designations help build partnerships among stakeholders beyond the public agencies.



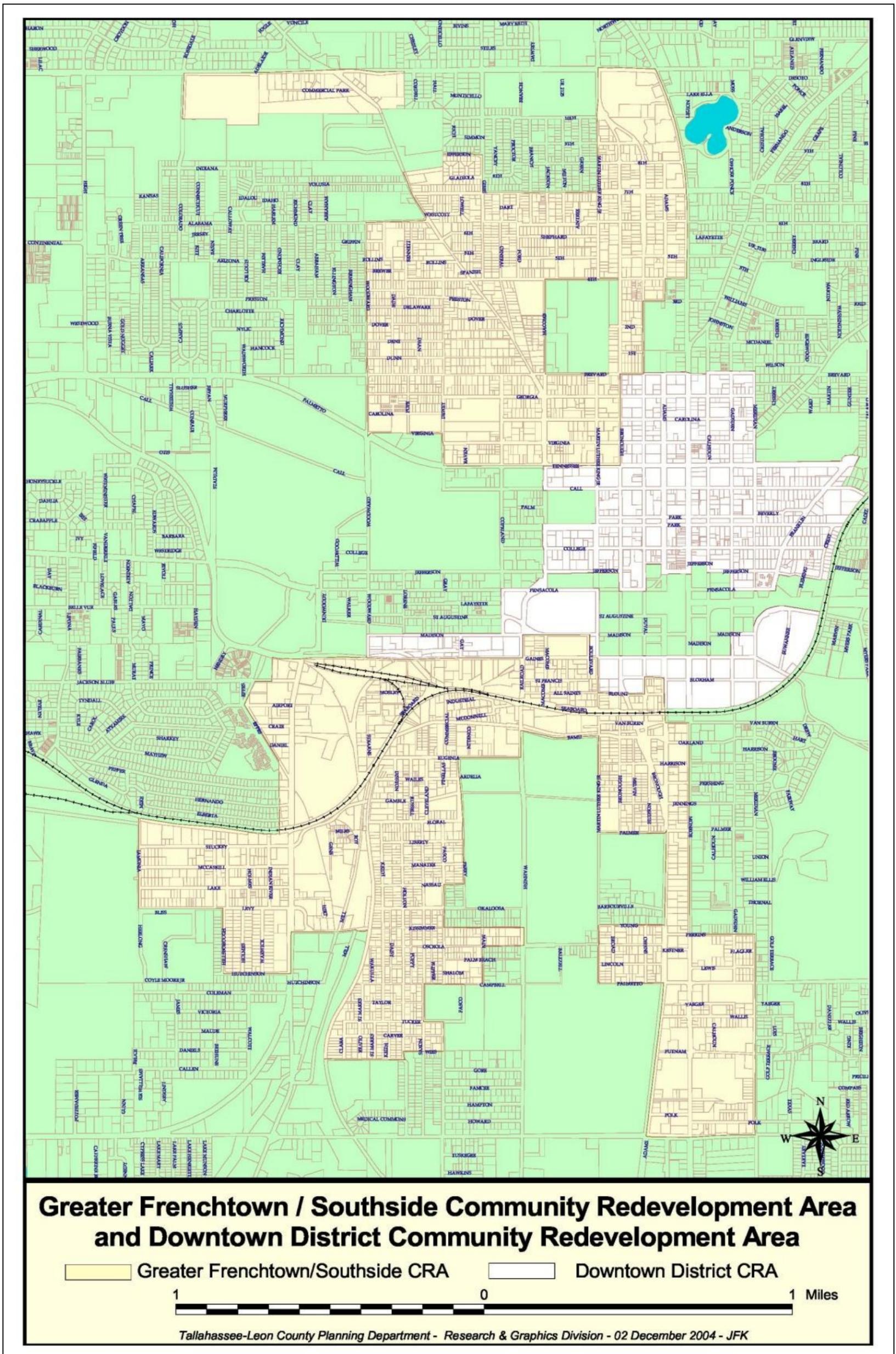


Figure 6.2: Combined Tallahassee/ Leon County Community Redevelopment Areas, 2004

Business Owner Opportunities

The city and county's CRAs allow business owners opportunities for improvements with partially subsidized funds so long as they serve a public need. Like many business incentives, existing available programs are optional to owners while offering potential for economic growth. Additional opportunities for business owners outside the CRA and available to all corridor businesses are the Enterprise Zone, Hubzone and Historical Property Grant for qualifying facilities. The first two programs are tax incentives for business owners while the latter is an architectural program aimed at preserving historic facilities. There are many existing mechanisms for owners to take an active role in the area's revitalization.

Perhaps the most common opportunity for both the city/county and business owners is through the Frenchtown/Southside CRA. This agency not only supports city and planning agencies but also some programs that are directed specifically toward economic development. A commonly exercised program is the Commercial Façade Improvement Program, which allocates an up to \$50,000 matching grant while providing 60 month zero percent interest loans. The conditions of funding are for commercial and retail façade improvements within eligible areas. This program is available to all business owners within the Frenchtown/Southside CRA and can dynamically increase business equity and aesthetics throughout the corridor.

In addition to physical capital improvement opportunities, human capital investment opportunities exist as well. The CRA allows for an Urban Job Tax Credit Program (UJTPC); this is a \$1,000-\$1,500 per employee tax incentive for target businesses who "locate or expand operations within the designated area" (City of Tallahassee, 2010). Further tax incentives include the Targeted Business Pilot Program. This joint program with the county and city afford property tax rebates proportional amounts based on the nature of the business, its growth, and its benefactors. Eleven areas that can benefit are as follows:

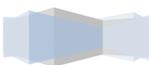
- Advanced Transportation Systems
- Associations and Corporate Headquarters
- Distribution
- Healthcare Delivery and Related Products/Services
- Financial and Insurance Services
- Information Technology
- Light Manufacturing of Electronics



- Local Expansions of Targeted Industries
- Magnetic Research Commercialization
- Advanced Technology
- Research and Development (McCraw, 2010)

By promoting these business classes to the area, the CRA hopes to mitigate a business void for the area. Promoting UJTPC jobs will attract new businesses to the area and foster greater economic growth through new jobs while strengthening businesses that support these business classes. Façade improvements and tax credits are just some of the benefits allowed within the Frenchtown/Southside CRA for business owners.

All businesses in the corridor, not just CRA-designated ones, can benefit from existing programs as well. The State Enterprise Zone (EZ) is a federally supported area that provides state-level tax credits to businesses for expansion in or relocation to the area. The desired result from EZ designation is an economic core that supports local, dense business growth. Tallahassee's Enterprise Zone designation is EZ3701 and encompasses the area shown in Figure 6.3 (City of Tallahassee, 2010 and Enterprise Florida, 2010).



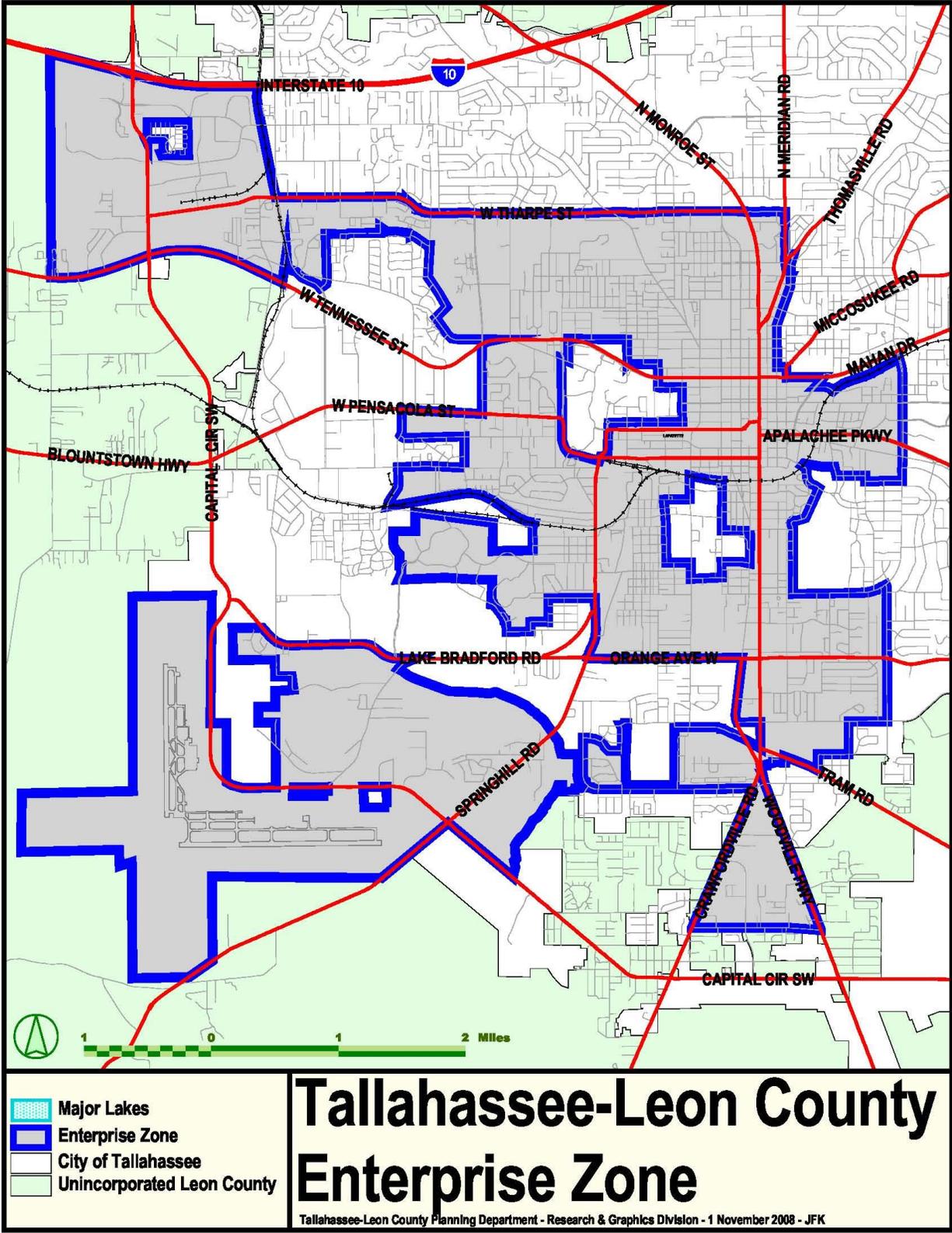
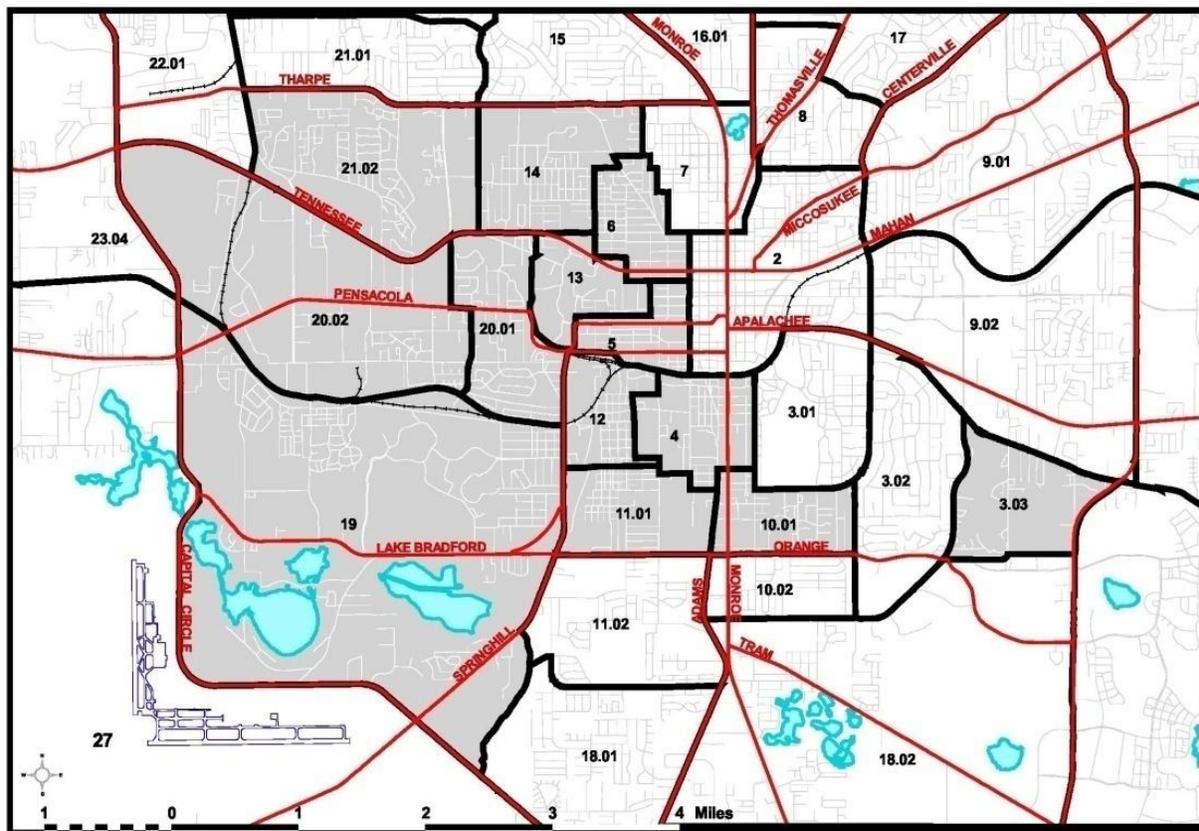


Figure 6.3: Tallahassee/Leon County Enterprise Zone, 2008

The given zone encompasses the entire corridor and all business owners can therefore realize the tax credit benefits. The primary condition of tax credits requires business owners to spend funds on capital purchases that the agency deems as “value-added projects” (Enterprise Florida, 2010).

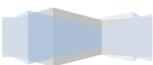
Enterprise zones are not the only tax-credit programs available. Tallahassee/Leon County has partnered with the Small Business Administration to create HUBZones. The corridor area is part of HUBZone 7, as shown in Figure 6.4 (City of Tallahassee, 2010). This program allows small business owners the opportunity to compete for the 3% federal set-aside for Federal contracts explicit for this class of businesses. The application process is not through the city or county but rather directly through the Federal Government.



Tallahassee-Leon County HUBZones

Map prepared by: Tallahassee-Leon County Planning Department - Research & Graphics Division - 13 July 2009 - JFK

Figure 6.4: Tallahassee/Leon County HUBZone Map, 2009



Additional programs at the federal and state level target business growth. A problem business owners face with disseminated funding programs is they typically give applicants limited guidance. Notoriously, the Historic Property Grant and Loan Program, sponsored by the Federal Government, have proven to be a difficult process to navigate due to vast legal issues (Bell & Parchomovsky, 2005, pp. 72-74). Especially at the federal-level, business owners face difficulty because there are often a lot of strings attached and the application itself is difficult to complete (Hall, 1983, pp. 80-84). A more comprehensive support system would facilitate the application and implementation processes; currently there are 18 properties in the corridor eligible by age alone.

6.3 Existing Mechanism Findings

The CRTPA has a substantial funding infrastructure to build viable partnerships. Already identified as invested stakeholders are the CRTPA, the City of Tallahassee, Leon County, StarMetro, Leon County School Board and business owners; these groups could form a coalition for corridor projects. Without extensive redevelopment plans, the corridor cannot capitalize from developer exactions or other offsets. Instead the area will need to rely on less-conventional and creative mechanisms to administer both tax and aesthetic benefits that the established formal agencies cannot.

6.4 Modifiable Mechanisms

Modifications can be made to existing structures that allow stakeholders to make aesthetic improvements while being active participants in the development process. The City of Tallahassee's CRAs have funding and administrative infrastructures in place for projects to benefit the area. Furthermore, a more unified form-based code would help regulate the business appearances and allow for future dense building. The latter will promote both mobility and economic development. According to Parolek et al., (2008) densely populated businesses provide a walkable area for shoppers. Consumers can therefore decrease their store to store travel; the existing overlay zone can also help facilitate this cause. The city and county can facilitate both these areas from small adjustments from how boundaries are currently drawn. For instance an expansion to the West side of the corridor will include all businesses in the Southside/Frenchtown CRA. An additional modification can be to the aforementioned Downtown Overlay. The form-based pro-density zoning sponsored by the Capital Legacy project



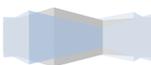
can further encourage walkability in the area and further promote dense growth. With some small changes, dense growth, walkability and urban density can be encouraged.

Because CRA benefits can be realized by business owners and because the corridor already benefits from its programs, the agency has applied infrastructure that may benefit corridor businesses. As mentioned in Section 6.2, much of the corridor's west side already benefits from some of Southside/Frenchtown CRA's benefits. The lack of continuity, however, leaves a shortfall for the rest of the corridor because businesses on the corridor's east side cannot capitalize from the agency's programs. Likewise, CRA expansion, creation or realignment can benefit the city's profile to visitors. As mentioned in Section 4.1 the corridor has high profile areas because of both its feature and location. The connection from downtown to I-10 means it is a highly traveled route and gives visitor the impression of type of place Tallahassee is.

Both CRAs can benefit the corridor by modifying boundaries. Evaluating the area's needs and goals will help determine which CRA should administer the corridor's improvements. According to the Southside/Frenchtown CRA's website, this agency's mission is in part to, "...revitalize the areas to the north and south of downtown, the City of Tallahassee Commission established the Frenchtown/Southside Community Redevelopment Area (F/S CRA) and the Community Redevelopment Agency (CRA) in 1998" (City of Tallahassee, 2010). Given the need for façade improvements and other aesthetic suggestions, this mission complements the corridor's needs very well. The Southside/Frenchtown CRA will help remove the blight through the TIF funding programs, offering business owner opportunities to reinvest in the area.

The study area can also benefit from the Downtown CRA as well. According to the CRA's website, "...the downtown area of Tallahassee has witnessed a change away from retail and residential to an area dominated by office space, with little activity after 5:00 PM. In an attempt to revitalize the downtown into an 18-hour destination..." (City of Tallahassee, 2010). Because the corridor offers 18-hour options, it can both be a connection into the downtown CRA while still benefiting from some its programs like streetscape, lighting, flood prevention, access and use issues as shown in the Downtown CRA's Redevelopment Plan (pp. 9-12). The corridor shares many of the same characteristics as the CRA's sub-area #1 – North Monroe, not just in proximity but in the following:

- Strip commercial development patterns
- Need for joint access parking
- Ability to attract new investment



- Gateway treatment to the downtown area
- Need for shade
- High traffic volume
- Under-utilized lots
- “Unsightly conditions”
- Physical barriers
- Insufficient pedestrian lighting
- Northern gateway to I-10 (Downtown CRA Plan, 2004, pp. 9-12)

Many of these items are suggested improvement areas for the purpose of this report and the independent observations suggest that that the corridor could benefit from unification of these two areas. A unified streetscape, lighting, traffic management and landscape policy would give the greater area a consistent aesthetic and management style.

Inclusion of the whole corridor in either existing CRA would be a justifiable decision. The area needs façade improvements and could benefit from dense building. Each of these two objectives are important to corridor improvement yet exclusive to each of the existing CRAs. However the corridor does not need community gardens, afforded from the Southside/Frenchtown CRA, or from the Downtown Getdown, a Downtown CRA program. The corridor’s unique needs make reallocation decisions complex.

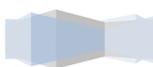
An alternative suggestion is that a new, independent CRA could be formed that uses elements from both existing CRAs to create a multi-stage TIF zone for the city. Some of the benefits of a new CRA is an autonomous administration and corridor specific programs. For instance, a CRA could manage a parking authority to promote shared parking option, the agency could further manage signage standards and median improvements so the city is not expected to accept the upkeep burdens. Further management at a lower-level will help make certain stakeholders are personal level. Map 6.1 shows a proposed scope for a new area CRA:



The newly defined area encompasses the North Monroe Street corridor, the Midtown area and land for the alternative bicycle route. The purpose for including the Thomasville corridor is to also give the area the same economic opportunities as the study area. The Thomasville Midtown area is presently experiencing economic growth and the CRA could help forward the area's progress. Furthermore, because the middle segment of the study corridor and the Thomasville midtown share many of the same characteristics and there is opportunity to physically connect the areas and administrative connection like the proposed CRA will help facilitate area connectivity. An important consideration is to make certain the official boundaries are drawn so whole corridors are included so the lack of inclusion problem previously stated with the Frenchtown/Southside CRA is not repeated. The proposed land areas are only suggested and deviate from the corridor to serve both economic and bicyclist needs; otherwise, the given area is confined to the corridor study area.

As previously mentioned, the mobility of this corridor is impeded by the lack of bicycle access. A newly defined CRA could support the CRTPA 2004 Bicycle and Pedestrian Master Plan, which identifies the one-way pairs of Duval Street and Bronough Street as suitable North-South Bicycle routes (Bicycle Ped Plan pp. 24-36). Though the North Monroe corridor cannot support bicycle LOS better than E-Level, surrounding areas can support bicycle travel and the administration of such area improvements could fall within one managing agency. The branded Midtown area, adjacent to the study area, is experiencing economic success and may benefit from similar lighting, streetscape and façade improvements. Combining the two areas into one economic zone will create a broader tax base and create aesthetic unity within the area while supporting all mobility needs. Because the Midtown area and the suggested bicycle route fall outside the study area yet still benefit the corridor consideration may be made to create a larger unified economic area.

Aesthetic unity can also be supported through a zoning change in a form-based iteration, similar to the City's Downtown Overlay as shown in Figure 6.5:



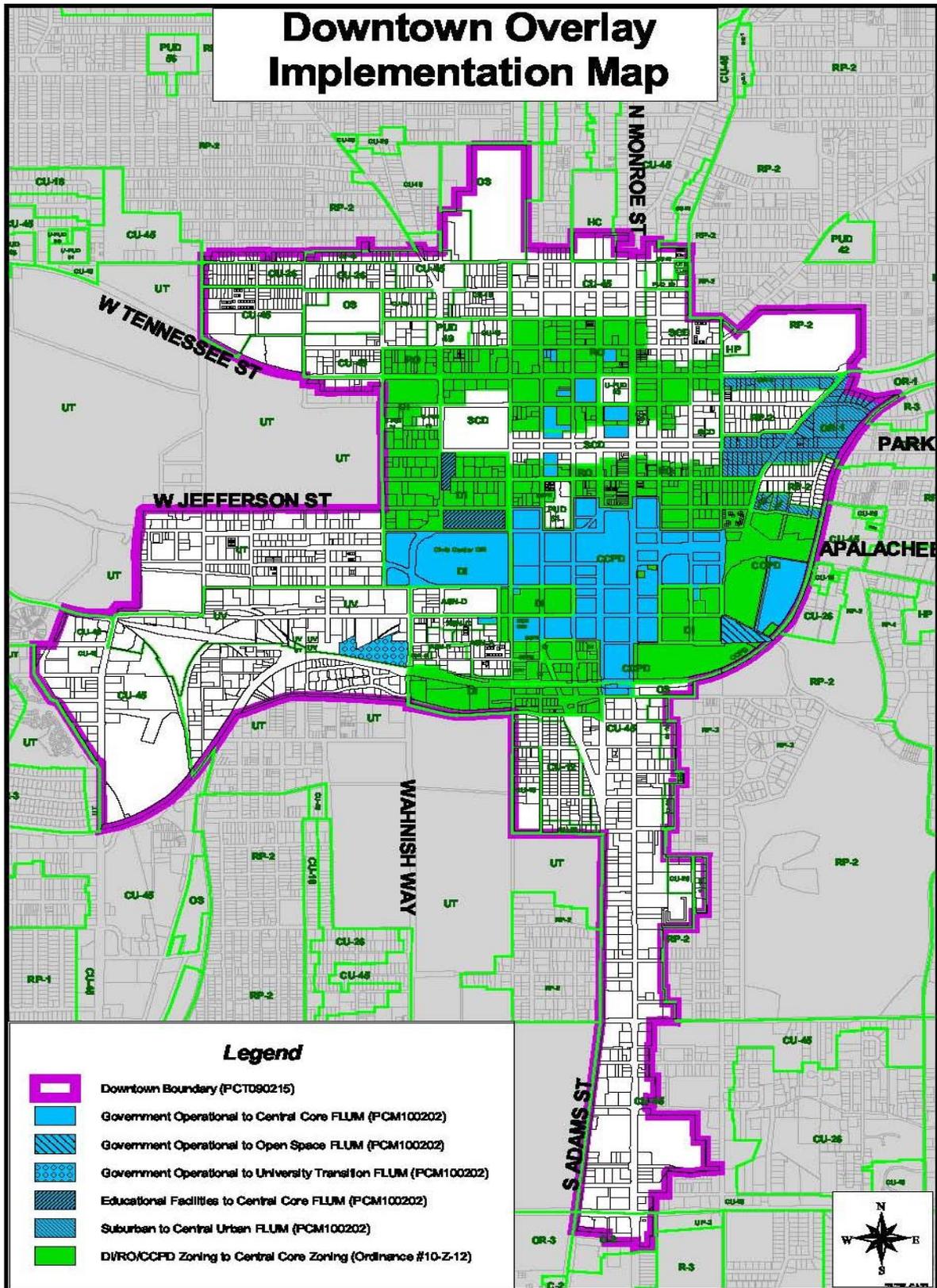


Figure 6.5: City of Tallahassee's Downtown Overlay Implementation Map, 2008

The Overlay Zone is a relaxed zoning standard where shared parking and dense building promote walking and economic development. According to Parolek, Parolek, and Crawford (2008), similar code-types create a sense of neighborhood while improving economic opportunities because consumers and residents are now within convenient distances of multiple destinations. The study and surrounding areas can be easily amended to the city’s designated area or such provisions can be added to a new CRA’s scope.

Further encouragement for densification can be facilitated by inclusion of the corridor in the Capital Legacy Project, which helped implement the Downtown Overlay. The Project’s Community Code is one framework that could help corridor plans achieve a “sense of place” designation while encouraging economic growth. The Capital Legacy Project’s Community Code goals are stated:

Community Code will employ many tenets of New Urbanism and form-based codes. Emphasis will focus on the built environment, thus removing the uncertainty neighbors feel over proposed adjacent projects.

- Setbacks will be reduced so buildings line the streets.
- Parking areas shall be placed internal to the block and on-street parking will be promoted.
- Streets will be designed as the equal domain of pedestrian, cyclist, and driver alike.
- Trees will line the street, buffering pedestrians and offering shade on hot days.
- Wider sidewalks, on both sides of the street, will be an asset to local business owners (Capital Legacy Project, 2008).

The aforementioned goals align with corridor recommendations with the addition of setbacks. Parking, street and landscaping recommendations are similar to the Legacy Project and partnering with the Capital Legacy Project could facilitate implementation; the corridor is already experiencing the benefits of the Project’s MMTD.

6.5 Conclusion

The aforementioned alternatives have numerous funding options, both traditional and unconventional. By creating a partnership network, stakeholders have the opportunity to create a project that facilitates economic development, a sense of neighborhood and an overall desirable place. The CRTPA’s authority and control of the project will be the leading agency in any adopted plan, but by involving a greater range of the public and private interests, the proposed



“extra” features such as pedestrian-scale lighting and landscaping can also be included. According to Blakely and Bradshaw (2002) 'townscaping' is an important element in local economic development in that it creates opportunities for repeat business by making local citizens feel good about repeating visits to the area (pp. 191-193). Furthermore, Blakely and Bradshaw articulate how redevelopment of a high-profile area allows local citizens to experience the transformation and witness the positive trajectory the community is undertaking (pp. 375-379). By adopting pedestrian-level alternatives plans proposed projects will be more attractive to citizen as supported by the public input. Partnerships with the community will increase the area's use as well as its functionality.

A good way to encourage local economic growth and redevelopment is through community programs that use tax increment financing. This readily available funding is important to sustain emerging growth and redevelopment. The physical environment and economic infrastructure in an established area can easily be revitalized through beautification (pp. 52-67). When funds originate from multiple sources, the governance and administration of projects ought to be managed through a mutually agreed partnership (Grimsey and Lewis, 2004, pp. 2-8 and pp. 196-209), further encouraging the need to build successful partnerships. Community-based partnerships like the City and County's CRAs, are a proven method within the subject of managing funding and administrative needs. This is a similar method that the City of Plainfield Michigan used to redevelop that city's park and economic commercial area. (Plainfield Report, pp. 2-19). This community built a centrally located park and supported the project through a business district similar to the CRAs. The governing bodies' ultimate economic strategy and goals for the corridor will ultimately decide the administrative mechanism and the CRTPA should consider the CRA model as one possible administrative source.

Regardless of administrative decisions, low-level and high-level plan options for the area will need to be generated from public funding. The CRTPA is a primary funding source and area plans will rely heavily on the state and federal funding that the agency disperses. The CRTPA has access to numerous ADA and SAFETEA-LU programs from which they can draw funding and create opportunities to partner with the City and County. The City of Tallahassee and Leon County have numerous programs including the existing CRA and the Enterprise Zone. Furthermore the local governments can use general funds or CIP funds to support corridor redevelopment. Additional modifications to the CRAs and the Overlay Zone could support



existing and future success. With success partnerships and multiple funding sources the CRTPA could lead a successful redevelopment project in this corridor.



7 Implementation Plan

The implementation plan identifies the major corridor investments, new features, intersection upgrades and pedestrian improvements for the study area. This plan will accommodate existing needs while improving the area's safety and mobility and concurrently improving the aesthetics, access to the Lake Ella Park and area economic development opportunities.

In order for the plan to be successful, major agency partners, like the CRTPA, the City of Tallahassee, Leon County and StarMetro all need to coordinate efforts. The planning team identified many low-cost to high-cost items from which the partners can select the most suitable options for the community. Some low-cost items include repairing broken pedestrian signals, repaving broken sidewalks and adding new, safer crosswalk options. Some of the high-cost items include constructing a pedestrian bridge across the corridor in the Lake Ella area and creating landscaped medians and brick-paved sidewalks with ample roadway buffers.

7.1 Approach

The implementation plan is based on analysis of existing conditions and identifying safety and mobility barriers. Further understanding of how business owners, citizens and elected officials wish to experience the corridor was considered to support, alter and negate initial findings.

A major analytical tool is the Road Safety Audit (RSA) and the audit team's professional opinions about what the biggest obstacles are and how they can be feasibly solved. As each individual team member completed the RSA, their notes, findings and recommendations were sent to the graduate planning team and were compiled to create the final RSA report in Section 2.0 of this study. The general findings from the RSA showed many issues affecting the safety of the North Monroe corridor. First, many of the sidewalks and intersections lacked curb ramps, affecting ADA accessibility and causing a problem for people crossing the street. Secondly, the steep drop-off between the roadway and sidewalk is a major issue as it can be hazardous to bicyclists and other road users. Front-in parking spaces along some of the businesses also represent a major issue, especially when vehicles are backing out over sidewalks into oncoming traffic, increasing the chance for accidents while also making pedestrians walk in the roadway. In addition, obstacles in the sidewalks such as signal boxes, manholes, and light poles, impede the mobility of pedestrians and create a major challenge for people in wheelchairs. All of the



findings and recommendations provided by the RSA team have been considered by the graduate planning team and are supported through the design improvements suggested in this study.

A second method was to identify how the corridor serves the public through a Level of Service transportation analysis. This approach looked at current traffic, transit, pedestrian and bicycle uses. A multimodal level of service (LOS) analysis revealed that the majority of the North Monroe Street corridor study area was operating under conditions that were favorable to automobile traffic at high volume and speeds. The corridor is characterized by free flowing traffic and minimal delays. Pedestrian and bicycle LOS reaffirmed these conditions. Other modes of transportation were experiencing a moderate to high level of interaction with motor vehicles due to high traffic volumes, high traffic speeds, lack of a bicycle lane and no buffer between the road and pedestrians. Bus LOS along the corridor revealed that transit operates at an acceptable LOS, but may be unattractive to choice riders, primarily due the frequency in which the bus service operates along the corridor. A poor pedestrian LOS also affected the Bus LOS due to pedestrian accessibility to bus stops.

Once the design recommendations were finalized, a multimodal LOS analysis was once again utilized to measure how well the North Monroe Street corridor would operate under these conditions. With the design recommendation implemented, automobile LOS was largely unaffected. The only segment in which a decrease in automobile LOS was recorded was at the location of the proposed mid-block crossing. This decrease in the LOS was primarily due to the mid-block crossing increasing delay and lowering traffic speeds in the higher volume segment. However, even with these roadway modifications the corridor still operates at an acceptable automobile LOS. With the design recommendations implemented, pedestrian LOS was improved throughout the entire corridor. Pedestrian interaction was reduced from moderate-high to moderate from Thomasville Road to 7th Avenue, and from high to moderate-high from 7th Avenue to Tharpe Street. Bicycle LOS remained unchanged and this was primarily due to the inability to for the corridor to include a safe bicycle lane.

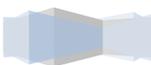
To further evaluate how well the North Monroe Street corridor would operate with these design recommendations, the graduate planning team performed a five year LOS projection. In five years without any design changes and a projected increase in traffic volume, the corridor will begin to experience high levels of congestion at signalized locations. Pedestrians and bicyclists will have a high level of interaction with motor vehicles and bus service will continue



to be unattractive to choice riders. With the design recommendations implemented, automobile use will remain congested. Pedestrians and bicyclists would have a moderate-high to high level of interaction with motor vehicles and bus service will be unattractive to choice riders. This projected LOS analysis suggests that the design alternatives are not a long term fix. Other forms of transportation and alternative routes need to be explored to keep traffic volumes under control along the corridor.

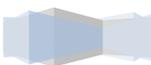
A third analytical method is the project team's GIS (geographic information system) analysis of the sidewalk, road and landscape conditions. After documenting the existing conditions along the North Monroe corridor via a portable Trimble GPS unit and uploading the data through Office Pathfinder, maps were created in order to visually assess the conditions and prioritize areas in need of the most repairs. This allowed for a thorough analysis of sidewalks, curb ramps, crosswalks, signage and landscaping. Various alternatives were then developed and rated as high, medium, and low in terms of cost and time frame for implementation.

One goal of this implementation process is to enhance the pedestrian experience through consistent and safe sidewalks. This will be implemented through replacing areas that have inconsistent surfacing, potholes, and cracks. Additionally, safety will be enhanced by creating a buffer between the sidewalk and the street, effectively providing some protection to pedestrians from oncoming traffic. The pedestrian experience can also be enhanced by providing shade from the intense heat that is experienced in Tallahassee during the summer months. This can be implemented through landscaping along the sidewalks, as well as covered benches in areas with high pedestrian activity, such as bus stops. Additional streetscape, such as trash receptacles, benches, bicycle racks, and drinking fountains could further provide for and encourage pedestrian use. Replacing the large light posts that currently obstruct many sidewalks along the corridor with smaller human scale lights can encourage pedestrian use at night, additionally providing increased safety through well-lit streets. Another issue for sidewalks and pedestrian accessibility is in some of the parking issues, particularly along the Midtown Connector District. In order to improve this issue, ideally the parking spaces would be eliminated and public parking would be provided. This would be implemented by the city buying vacant lots and additional parking lots that already exist throughout the corridor, but are underutilized in order to provide shared public parking space.



Another goal in this implementation process is to create a “sense of place”. This begins by improving the pedestrian experience and encouraging an increased use by providing safer and more accessible sidewalks. Another step in this process is through including larger and more signage that can help indicate to drivers and pedestrians the area that they are in and its unique characteristics. Improved and consistent signage can also help improve the aesthetics and indicate what businesses are in the area. Additional signage, such as a welcome sign to Tallahassee or an identifying historical sign at Lake Ella, could further create a “sense of place” and indicate the important elements that make Tallahassee what it is today. Another step in improving the aesthetics and creating a “sense of place” is in providing a landscaped median that would further encourage drivers to slow down and enjoy the landscaping. Additionally, making use of large and deteriorating wall space through murals or other artistic depictions can help to tell the story of Tallahassee through art, and will not only get local community members involved in the process, but uniquely improve the aesthetics as well.

The suggestion of improving bicycle accessibility along this corridor is problematic due to the limited right-of-way, high traffic volume, and high speeds traveled. It has been determined that the *safety* of bicyclists would be at risk if a bicycle lane existed along the corridor, therefore an alternate plan is being suggested. The implementation of this plan would be through creating an alternate bicycle route that runs along Martin Luther King, Jr. Boulevard from Tharpe Street to Call Street. It would additionally connect to Thomasville Road up to Tharpe Street, effectively creating access to all points along the North Monroe corridor. In order to implement this section of the alternate bicycle route, there would have to be improvements made along Thomasville Road. The lower speed limits and lower volume of traffic provide an ideal area for bicycle activity, but either space for a shared roadway with bicycle shoulder or bicycle lane would have to be created. Additionally, the intersection at 7th Street and Thomasville Road would need some improvements in order for bicyclists to cross safely. Another step in this implementation process is in public outreach and education. Ideally, notices would be mailed out to residents identifying the available alternate bicycle routes that are available for their safety. It is also important to educate drivers and bicyclists about the bicycle laws and safety measures that should be taken to ensure safety for all users of the roadways. This could be required through driving classes when someone gets a new license, renewal, or



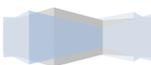
defensive driving classes. Additional classes could be offered for bicyclists and notices could be mailed out as well.

A fourth evaluation tool was to look at the existing conditions of the corridor's intersections and base recommendations on these findings. Many concerns were found at various intersections within the one mile stretch of North Monroe Street during this extensive process. Issues of excessive curb radii, a lack of crosswalks, skewed crossings, and malfunctioning pedestrian signals arose throughout the corridor, but each defined district had one significant intersection with major problems to be addressed.

The Tharpe Street intersection in the Lake Ella District possessed an excessively large curb radius, skewed intersection geometry, and therefore, lengthy crosswalks. Addressing these issues at this intersection and elsewhere along the corridor will reduce the amount of time pedestrians are exposed to oncoming traffic; increasing pedestrian safety at these points.

Within the Midtown Connector District, the 7th Avenue intersection was an area of concern due to its proximity to the Tallahassee Senior Center. The analysis of existing conditions illuminated the fact that there was no southern crosswalk at this intersection, creating a situation where pedestrians wishing to cross this segment would be forced to travel through an extra seven lanes of traffic to reach their destination. Given the limitations of some patrons of the Tallahassee Senior Center, this is not preferable. This intersection also had several curb radii that did not fit the recommendations for roadways of this character, adding to the safety concerns associated with this location. Tackling these issues would improve the safety for the residents of this area who regularly use these crossings.

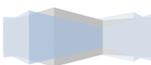
The Commercial-Office District also contains an intersection of concern in Thomasville Road. This intersection is the most difficult to address because of the traffic constraints associated with the area, but the existing conditions show a lack of any pedestrian amenities. No crossing exists between either sides of North Monroe Street or Thomasville Road. The alternatives suggested for this area include either a complete overhaul of the intersection from a Y-intersection to a standard T-intersection, or simply moving back the stop-line to accommodate a North Monroe Street crosswalk and creating a pedestrian activated signal to regulate the free flowing right turn lane. Either of these alternatives would provide some pedestrian acknowledgement where there previously was none.



The overall reason for analyzing the intersections along this corridor is because those are the specific points for pedestrian-vehicle interaction. If pedestrians do not believe that these conflict positions are safely designed and functional, they will not use the corridor for those activities. Increasing the safety of these intersections should increase pedestrian movement throughout this corridor and bring a more aesthetically pleasing atmosphere that would benefit the city and the businesses in the area. The more foot traffic that passes the storefronts, the more potential customers could be reached. Economic stimulation and development is a byproduct of the improvements recommended in this report.

A fifth analytical tool was to capture a cross-section of the public will. As part of the public input plans, the study group has worked at creating a collaborative of neighborhood association members from the Midtown Neighborhood Association, the Midtown Merchants Association and the Tallahassee Senior Center. Each of these stakeholder groups can continue to play a significant role during the plan implementation process. Below is a description of each partner's roles:

- **Midtown Merchants Association-** plays a key role in identifying the market strategies for attracting people to the Midtown area, which has a spillover effect on the Lake Ella area and vice-versa. Because of the recognized importance of the Midtown Connector district on the North Monroe corridor study area, the association could be useful in identifying and supporting strategies to provide safe routes to pedestrians that travel from Thomasville Rd. to North Monroe – and vice versa – during peak business hours (e.g. weekends). Creating safeways for customers is a key priority for the merchants association, but their collaboration might be able to grow into creating the type of shared parking that is recommended in the alternatives.
- **Midtown Neighborhood Association** - has prioritized their sense of place and identify as a key factor for their involvement in this project. The association is also engaged for the safety aspect of the project. Therefore, their input and collaboration will be key during the implementation phase of the plan to advocate for the best alternatives that prioritize pedestrian safety and a sense of place for the Midtown area. Nonetheless, the association recognizes the historic and current significance of the Lake Ella area to Tallahassee and its continued place as a major destination in the community. Therefore,



the association could take the lead in advocating for alternatives that also benefit the Lake Ella district, such as sidewalks and crosswalk improvements.

- **Tallahassee Senior Center-** is a historic landmark on the North Monroe corridor study area and has a mission to collaborate with other community groups and initiatives. The improvements articulated in the North Monroe study are a priority for the center and for the senior citizens they serve. Improving safety along the corridor helps to improve the center's accessibility for its clients and visitors. The center, therefore, has developed some ownership over this project and should continue to serve as the meeting place for future public meetings during the implementation phase. Their endorsement of the project and recommendations are critical to the successful implementation of the desired alternatives.

After evaluating the information obtained from the research, plan recommendations were then linked to funding options and sources available to local agencies and some partnership opportunities. The CRTPA can access several existing mechanisms available like state and federal options and the two local governments. The agency can also partner with business owners and CRAs to fund both necessary and cosmetic needs. Implementation suggestions are not only geared at improving safety and mobility, but also aesthetics that will continue positive economic momentum in the corridor.

Partnerships will help programming projects in a number of ways. For instance, scheduling roadway projects together such as resurfacing, utility burying, median improvements, sidewalk repaving and crosswalk reconfiguration will help alleviate overall costs but will require extensive partnering among all involved agencies. The aforementioned examples could be programmed as separate projects but will add to the overall implementation cost.

7.2 Construction Costs

The graduate planning team used a careful approach to estimate construction costs. Average costs were based on Florida Department of Transportation published estimates for FY 2008-09, the agency's latest available data. Construction cost estimates include known needs and physical improvements but do not include additional easements or right of way purchases. Table



7.1 shows the summarized estimated costs for the recommended design improvements based on low, medium and high-cost alternatives.

A North Monroe Corridor improvement will require relative substantial funding. Using the 2009 FDOT item average unit historic cost guide (FDOT 2009) the planning team developed estimates based on what agencies typically paid over the past year for similar items. Line items not included in the cost guide were estimated based on industry trends. Though the CRTPA may choose different materials than this report estimates, the end cost should be similar. Further cost engineering is needed to generate a truly accurate projection.

The estimates do not include pricing for any right of way purchases. If the high-cost alternative is chosen by the CRTPA, the agency will need to survey, appraise and purchase necessary land. Because these costs vary by location, use and acquisition method the CRTPA would need further study. Further aesthetic item costs such as artwork and unique signage are not considered below and the CRTPA might consider design guidelines for the corridor. A more comprehensive cost estimate should be generated in the design phase.

Table 7.1 reflects estimated project costs according to the FDOT average costs. The costs are in table form and sorted by cost ranges so rather than implementing only a one-level plan the CRTPA can choose elements that suit best available funding and aesthetic goals for the corridor.



Table 7.1. Summary of estimated costs for low, medium and high-cost alternatives

| District | Item | Item Component | Item Number | Weighted Average Cost | Unit Measure | Units Required | Low Option Cost | Medium Option Cost | High Option Cost |
|--|---------------------------|-----------------------------------|-------------|-----------------------|--------------|----------------|-----------------|--------------------|------------------|
| Whole Corridor | | | | | | | | | |
| | Road Remilling | | | | | | | | |
| | | Mobilization | 0101 1 | \$ 9,940.07 | | 10 | | \$ 99,400.74 | \$ 99,400.74 |
| | | Traffic Maintenance | 0102 1 | \$ 9,036.43 | | 10 | | \$ 90,364.31 | \$ 90,364.31 |
| | | Milling | 0327 70 4 | \$ 1.83 | SY | 39893.33 | | \$ 73,004.79 | \$ 73,004.79 |
| | | Superpave PG76-22 | 0334 1 24 | \$ 96.86 | TN | 3291.2 | | \$ 318,785.63 | \$ 318,785.63 |
| | | Asphalt Concrete FC-12.5 | 0337 7 20 | \$ 140.75 | TN | 3191.47 | | \$ 449,199.40 | \$ 449,199.40 |
| | | Desilting Pipe <24" | 0430 94 1 | \$ 4.36 | LF | 800 | | \$ 3,488.00 | \$ 3,488.00 |
| | | Desilting Pipe 24"-36" | 0430 94 2 | \$ 6.33 | LF | 168 | | \$ 1,063.44 | \$ 1,063.44 |
| | | Performance Turf Sod | 0570 1 2 | \$ 1.78 | SY | 3132.8 | | | \$ 5,576.38 |
| | | Single Post Sign <12SF | 0700 20 11 | \$ 275.96 | AS | 10 | | \$ 2,759.60 | \$ 2,759.60 |
| | | Single Post Sign 12-20SF | 0700 20 12 | \$ 746.43 | AS | 14 | | \$ 10,450.02 | \$ 10,450.02 |
| | | Singlepost Sign Relocate | 0700 20 40 | \$ 141.47 | AS | 2 | | \$ 282.94 | \$ 282.94 |
| | | Single Post Sign Remove | 0700 20 60 | \$ 20.65 | AS | 12 | | \$ 247.80 | \$ 247.80 |
| | | Multipost Sign <50SF | 0700 21 11 | \$ 3,247.61 | AS | 2 | | \$ 6,495.22 | \$ 6,495.22 |
| | | Multipost Sign Remove | 0700 21 60 | \$ 419.67 | AS | 2 | | \$ 839.34 | \$ 839.34 |
| | | Retro-Reflective Pavement Markers | 0706 3 | \$ 3.83 | EA | 810 | | \$ 3,102.30 | \$ 3,102.30 |
| | | White Solid Painted Markers Solid | 0710 11111 | \$ 899.73 | NM | 8 | \$ 7,197.84 | \$ 7,197.84 | \$ 7,197.84 |
| | | White Solid Painted Markers Skip | 0710 11131 | \$ 395.16 | GM | 8 | \$ 3,161.28 | \$ 3,161.28 | \$ 3,161.28 |
| | | Directional Arrows-Theromoplastic | 0711 4 | \$ 71.33 | EA | 18 | \$ 1,283.94 | \$ 1,283.94 | \$ 1,283.94 |
| | | White Theromoplastic Solid | 0711 11111 | \$ 3,151.61 | NM | 4 | \$ 12,606.44 | \$ 12,606.44 | \$ 12,606.44 |
| | | White Theromoplastic Skip | 0711 11131 | \$ 1,024.68 | GM | 4 | \$ 4,098.72 | \$ 4,098.72 | \$ 4,098.72 |
| | | Contingency Amount | 0999 25 | \$ 50,000.00 | LS | 1 | | \$ 50,000.00 | \$ 50,000.00 |
| | Lighting | | | | | | | | |
| | | Poll Removal | 0690 33 2 | \$ 122.94 | EA | 50 | | | \$ 6,147.00 |
| | | Pedestrian Luninaries | 0715 11119 | \$ 865.25 | EA | 150 | | | \$ 129,787.50 |
| | Streetscaping | | | | | | | | |
| | | New Benches | 0722 75 1 | \$ 1,183.00 | EA | 5 | | \$ 5,915.00 | \$ 5,915.00 |
| | | New Trash Receptacles | 0721 74 1 | \$ 947.00 | EA | 5 | | \$ 4,735.00 | \$ 4,735.00 |
| | | Bus Shelter | * | \$ 10,000.00 | EA | 5 | | \$ 50,000.00 | \$ 50,000.00 |
| | Landscaping | | | | | | | | |
| | | Large Plants | 0580 1 2 | \$ 67,868.73 | LS | 1 | | \$ 67,868.73 | |
| | | Small Plants | 0580 1 1 | \$ 72,628.31 | LS | 1 | | | \$ 72,628.31 |
| | | Irrigation | 0590 70 | \$ 89,691.36 | LS | 1 | | \$ 89,691.36 | \$ 89,691.36 |
| | Sidewalks | | | | | | | | |
| | | Pavement Removal | 0110 4 | \$ 8.37 | SY | 7040 | \$ 58,924.80 | \$ 58,924.80 | \$ 58,924.80 |
| | | Concrete 6" | 0350 1 1 | \$ 48.88 | SY | 7040 | \$ 344,115.20 | | |
| | | Brick Sidewalk | * | \$ 88.88 | SY | 7040 | | | \$ 625,715.20 |
| | | Mix Brick and Concrete | * | \$ 68.88 | SY | 7040 | | \$ 484,915.20 | |
| | Median | | | | | | | | |
| | | Curb Type A | 0520 2 1 | \$ 20.34 | LF | 10560 | | \$ 214,790.40 | \$ 214,790.40 |
| | | Concrete 6" | 0350 1 1 | \$ 48.88 | SY | 7040 | | \$ 344,115.20 | |
| | | Large Plants | 0580 1 2 | \$ 67,868.73 | LS | 1 | | | \$ 67,868.73 |
| | | Small Plants | 0580 1 1 | \$ 72,628.31 | LS | 1 | | | \$ 72,628.31 |
| | | Irrigation | 0590 70 | \$ 89,691.36 | LS | 1 | | | \$ 89,691.36 |
| | Crosswalks | | | | | | | | |
| | | Thermoplastic Striping | 0711 11125 | \$ 4.06 | LF | 2176 | \$ 208,834.56 | | |
| | | Faux Brick | * | \$ 97.27 | SY | 725.33 | | \$ 70,553.17 | |
| | | Real Brick | * | \$ 128.88 | SY | 725.33 | | | \$ 93,480.96 |
| | | Curbcuts | 0425 1311 | \$ 4,120.68 | EA | 3.00 | \$ 12,362.04 | | |
| | | Curbcuts | 0425 1311 | \$ 4,120.68 | EA | 46.00 | | \$ 189,551.28 | \$ 189,551.28 |
| | | Truncated Domes | * | \$ 250.00 | EA | 46.00 | \$ 11,500.00 | \$ 11,500.00 | \$ 11,500.00 |
| Lake Ella District | | | | | | | | | |
| | Mid-Block Crossing | | | | | | | | |
| | | Theromoplastic Striping | 0711 11125 | \$ 4.06 | LF | 154 | \$ 625.24 | | |
| | | Faux Brick | * | \$ 97.27 | SY | 231 | | \$ 22,469.37 | |
| | | Signage | 0700 20 12 | 746.43 | AS | 2 | \$ 1,492.86 | \$ 1,492.86 | \$ 1,492.86 |
| | | Flashing Indicators | | | | | | | |
| | | Mast Arm | 0649 31203 | \$ 19,131.20 | EA | 1 | | \$ 19,131.20 | |
| | | Traffic Signal | 0650 51121 | \$ 5,491.02 | EA | 1 | | \$ 5,491.02 | |
| | | Pedestrian Bridge | * | \$ 1,500,000.00 | EA | 1 | | | \$ 1,500,000.00 |
| | Utility Relocation | | | | | | | | |
| | | Excavation | 0120 1 | \$ 3.56 | CY | 880 | | | \$ 3,132.80 |
| | | Pipe Installation | 1050 13004 | \$ 35.00 | LF | 2640 | | | \$ 92,400.00 |
| | | Utility Relocation | 1060 16 | \$ 606.58 | FL | 2640 | | | \$ 1,601,371.20 |
| | | Poll Removal | 0690 33 1 | \$ 67.26 | EA | 14 | | | \$ 941.64 |
| | | | | | | | \$ 466,202.92 | \$ 2,778,976.35 | \$ 6,125,801.85 |
| *Market Industry Estimates | | | | | | | | | |
| Source: Florida Department of Transportation | | | | | | | | | |

7.3 Responsible Party

The party most responsible for implementation is the CRTPA due to the North Monroe corridor's designation as a state highway. Generally, the agency will be the leader for initiating the design of the roadway, median, streetscape, intersection and curb improvements. The agency will need to coordinate with StarMetro for transit needs and the City of Tallahassee for sidewalk, buffer and utility alterations, as both agencies have service areas within the study area.

7.4 Project Development

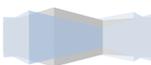
Additional assessments are needed for all project recommendations. The planning cost-estimates are not complete, but rather are approximations of the traditional costs associated with the improvements suggested. The CRTPA should consult design and construction professionals for more complete cost estimates. There are six additional steps that are required for successful implementation:

1. Refine the project concept to include aesthetic, functional and LOS goals including cost limits and extent of supporting area objectives.
2. Coordination of agencies and determination of the extent of funding contributions from supporting and affected partners.
3. Conduct a required environmental impact analysis.
4. Project design including drainage, ADA compliance, and future right-of-way purchases.
5. Project, future maintenance and economic administration costs and goals.
6. Corridor project construction.

Because the CRTPA has identified this area as one needed for study, and because of the corridor's mobility impact, it is eligible for a portion of the annual \$1,000,000 set-aside from FDOT specifically for "Bicycle and Pedestrian Projects." Additional identifiable funding is needed, however, and the CRTPA's financial commitment to the area is one last consideration.

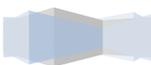
7.5 Conclusion

The corridor's relative lows costs, ADA needs, public good and location make it a beneficial project for public good and economic welfare. The numerous options will allow for flexibility for a varying degree of commitment and still allow for project and aesthetic creativity. The numerous successful businesses and the importance of Lake Ella to the community further increase the implementation benefits. Finally, the many partnership opportunities allow for interagency collaboration and public relations.

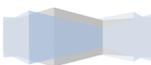


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List of Figures

| | |
|--|-----|
| Figure ES.1: North Monroe Street study area districts | ii |
| Figure 1.1: Lake Ella, c.1926 and 2010, Photo Credits Tallahassee magazine and Ashley Monroe | 2 |
| Figure 1.2: An example of a corridor façade, 2010 | 3 |
| Figure 1.3: First Avenue, North Monroe Street and Thomasville Road, 2010..... | 4 |
| Figure 3.1. Multimodal Flow Chart | 56 |
| Figure 3.2: Level of Service by Mode of Transportation | 60 |
| Figure 4.1: A portion of the Northwest sidewalk conditions within the Lake Ella District | 73 |
| Figure 4.2: Existing poor condition curb ramp within the Lake Ella District | 75 |
| Figure 4.3: Existing wall located on North Monroe Street in front of the Senior Center..... | 77 |
| Figure 4.4: Poorly maintained landscaping | 78 |
| Figure 4.5: Example of poorly placed light pole impeding pedestrian traffic-flow | 79 |
| Figure 4.6: Decorated human scale lighting in downtown Tallahassee..... | 80 |
| Figure 4.7: Tallahassee Downtown Connectivity Plan: vertical lighting and sign combinations | 81 |
| Figure 4.8: North Monroe Street at Tharpe Street | 84 |
| Figure 4.9: North Monroe Street at Tharpe Street | 84 |
| Figure 4.10: North Monroe Street at Lake Ella Drive | 86 |
| Figure 4.11: North Monroe Street at Legion Street | 87 |
| Figure 4.12: North Monroe Street at South Lake Ella Drive | 88 |
| Figure 4.13: North Monroe Street at 8th Avenue | 89 |
| Figure 4.13: North Monroe Street at 8 th Avenue | 89 |
| Figure 4.14: 6 th Avenue connection between Midtown Connector District and “Midtown Proper” | 93 |
| Figure 4.15: Privately owned and well maintained landscaping in the Midtown Connector District..... | 95 |
| Figure 4.16: North Monroe Street at 7 th Avenue | 98 |
| Figure 4.17: North Monroe Street at 7 th Avenue | 99 |
| Figure 4.18: North Monroe Street at 6 th Avenue | 101 |
| Figure 4.19: North Monroe Street at 6th Avenue | 101 |
| Figure 4.20: North Monroe Street at 5 th Avenue | 103 |
| Figure 4.21: North Monroe Street at 5 th Avenue | 103 |
| Figure 4.22: North Monroe at 4 th Avenue..... | 104 |
| Figure 4.23: North Monroe Street at 3rd Avenue | 111 |
| Figure 4.24: North Monroe Street at 3rd Avenue | 112 |
| Figure 4.25: North Monroe Street at Thomasville Road (SR 61)..... | 114 |
| Figure 4.26: North Monroe Street at Thomasville Road (SR 61)..... | 115 |
| Figure 4.27: North Monroe Street at 1st Avenue..... | 116 |
| Figure 4.28: North Monroe Street at 1st Avenue..... | 117 |



| | |
|---|-----|
| Figure 5.1: Before and potential after image of improved sidewalks and curb ramps | 120 |
| Figure 5.2: Projected ideal streetscape..... | 121 |
| Figure 5.3: Blank wall suggested for mural within the Midtown Connector District at Durra Quick Print..... | 122 |
| Figure 5.4: Music Masters’ art and potential location for a mural near the Senior Center | 123 |
| Figure 5.5: Rendering of potential façade improvements at 5th Avenue and Monroe Street | 124 |
| Figure 5.6: Median Landscaping Alternative as seen in the Gaines Street Redevelopment Plan | 125 |
| Figure 5.7: Before and potential after renderings of landscaped median alternatives..... | 126 |
| Figure 5.8: Proposed vertical human scale lighting and signage..... | 127 |
| Figure 5.9: Depicts a uniform light box to better illuminate street names | 128 |
| Figure 5.10: Proposed Directional Medians for the Lake Ella District | 130 |
| Figure 5.11: Proposed Directional Medians for the Midtown Connector District | 131 |
| Figure 5.12: Proposed Directional Medians for the Commercial-Office District | 132 |
| Figure 5.13: Methods to accommodate u-turns | 133 |
| Figure 5.14: Proposed Typical Cross-Section for North Monroe Street | 135 |
| Figure 5.15: Before and potential after rendering of Mid-Block crossing near Lake Ella | 141 |
| Figure 5.16: Existing conditions: No Mid-block Crossing..... | 143 |
| Figure 5.17: Mid-block Crossing Option B | 143 |
| Figure 5.18: Low-Alternative Pedestrian Crosswalk..... | 144 |
| Figure 5.19: Pedestrian Bridge High-Cost Alternative for Mid-Block Crossing | 145 |
| Figure 5.20: Lake Ella District Before and After Removal of Power and Utility Poles..... | 146 |
| Figure 5.21: Tharpe Street exiting conditions..... | 147 |
| Figure 5.22: Tharpe Street with Proposed Alternatives..... | 148 |
| Figure 5.23: 7 th Avenue Existing Conditions..... | 151 |
| Figure 5.24: 7 th Avenue with Proposed Crosswalk..... | 151 |
| Figure 5.25: 7 th Avenue Existing Conditions..... | 152 |
| Figure 5.26: 7 th Avenue with Proposed Changes..... | 153 |
| Figure 5.27: 6 th Avenue Existing Conditions..... | 154 |
| Figure 5.28: 5 th Avenue Existing Conditions..... | 155 |
| Figure 5.29: 4th Avenue Existing Conditions..... | 156 |
| Figure 5.30: 3 rd Avenue Existing Conditions | 157 |
| Figure 5.31: Thomasville Road Existing Conditions..... | 159 |
| Figure 5.32: Thomasville Road: High Alternative | 160 |
| Figure 5.33: Thomasville Road: Low Alternative | 161 |
| Figure 5.34: Average annual daily traffic projection, Thomasville Road to 7 th Avenue, 2014.. | 170 |
| Figure 5.35: Average annual daily traffic projection, 7 th Avenue to Tharpe Street, 2014 | 171 |
| Figure 6.1: Tallahassee/Leon County Multimodal Transportation District, Adopted 2008..... | 178 |
| Figure 6.2 Combined Tallahassee/ Leon County Community Redevelopment Areas, 2004 | 181 |
| Figure 6.3: Tallahassee/Leon County Enterprise Zone, 2008..... | 184 |



| | |
|---|-----|
| Figure 6.4: Tallahassee/Leon County HUBZone Map, 2009 | 185 |
| Figure 6.5: City of Tallahassee's Downtown Overlay Implementation Map, 2008 | 191 |

List of Tables

| | |
|--|-----|
| Table 2.1: TPD Crashes with no injuries | 14 |
| Table 2.2: TPD Crashes with injuries | 14 |
| Table 2.3: TPD Hit & run crashes | 14 |
| Table 3.1: ARTPLAN Input Variables | 57 |
| Table 3.2: Automobile Level of Service Descriptions..... | 58 |
| Table 3.3: Pedestrian and Bicycle Level of Service Descriptions | 58 |
| Table 3.4: Bus Level of Service Descriptions | 59 |
| Table 3.5: FDOT Statewide Minimum LOS Standards..... | 61 |
| Table 3.6: Annual Average Daily Traffic for the Monroe Street Corridor Study Area, 2009..... | 61 |
| Table 4.1: Tharpe Street Curb Radii | 83 |
| Table 4.2: Tharpe Street Pedestrian Signal Timing Data | 85 |
| Table 4.3: Lake Ella Drive Curb Radii | 85 |
| Table 4.4: Legion Street Curb Radii | 87 |
| Table 4.5: South Lake Ella Drive Curb Radius | 88 |
| Table 4.6: 8 th Avenue Curb Radii | 89 |
| Table 4.7: 7 th Avenue Curb Radii | 97 |
| Table 4.8: 7 th Avenue Pedestrian Signal Timing Data..... | 100 |
| Table 4.9: 6 th Avenue Curb Radii | 100 |
| Table 4.10: 6th Avenue Pedestrian Signal Timing Data..... | 102 |
| Table 4.11: 5 th Avenue Curb Radii | 102 |
| Table 4.12: 5 th Avenue Pedestrian Signal Timing Data..... | 104 |
| Table 4.13: 4 th Avenue Curb Radii | 104 |
| Table 4.14: 3 rd Avenue Curb Radii | 110 |
| Table 4.15: 3 rd Avenue Pedestrian Signal Timing Data | 112 |
| Table 4.16: 1 st Avenue Curb Radii | 116 |
| Table 5.1: Various roadway standards..... | 129 |
| Table 5.2: Average annual daily traffic projection, Thomasville Road to 7 th Avenue, 2014..... | 170 |
| Table 5.3: Average annual daily traffic projection, 7 th Avenue to Tharpe Street, 2014..... | 171 |
| Table 5.4: LOS for North Monroe Street with 2014 Projected Traffic Volumes, Existing Conditions..... | 172 |
| Table 5.5: LOS for North Monroe Street with 2014 Projected Traffic Volumes, Design Recommendations..... | 173 |
| Table 7.1. Summary of estimated costs for low, medium and high-cost alternatives | 203 |



List of Original Maps

| | |
|---|-----|
| Map 3.1: North Monroe Street Current Automobile Level of Service (PM Peak Hour)..... | 63 |
| Map 3.2 North Monroe Street Current Pedestrian Level of Service (PM Peak Hour) | 65 |
| Map 3.3: North Monroe Street Current Level of Service (PM Peak Hour)..... | 66 |
| Map 3.4: North Monroe Street Current Bus Level of Service (PM Peak Hour) | 68 |
| Map 4.1: Lake Ella District Existing Conditions..... | 71 |
| Map 4.2: Lake Ella District Existing Obstacles..... | 74 |
| Map 4.3 Curb Ramps Providing ADA Accessibility..... | 76 |
| Map 4.4: Midtown Connector Existing Conditions..... | 90 |
| Map 4.5: Midtown Connector Existing Pedestrian Obstacles | 92 |
| Map 4.6: Midtown Connector Curb Ramps Providing ADA Accessibility | 94 |
| Map 4.7: Commercial-Office District Existing Conditions..... | 105 |
| Map 4.8: Commercial- Office District Existing Obstacles..... | 107 |
| Map 4.9: Commercial- Office District Curbs Ramps Providing ADA Accessibility..... | 108 |
| Map 5.1: Alternate Bicycle Route for the North Monroe Corridor | 137 |
| Map 5.2: North Monroe Street Automobile LOS with Design Recommendations (PM Peak Hour)..... | 163 |
| Map 5.3: North Monroe Street Pedestrian LOS with Design Recommendations (PM Peak Hour) | 165 |
| Map 5.4: North Monroe Street Bicycle LOS with Design Recommendations (PM Peak Hour) | 166 |
| Map 5.5: North Monroe Street Bus LOS with Design Recommendations (PM Peak Hour) | 168 |
| Map 6.1: Proposed Midtown CRA boundaries..... | 189 |

