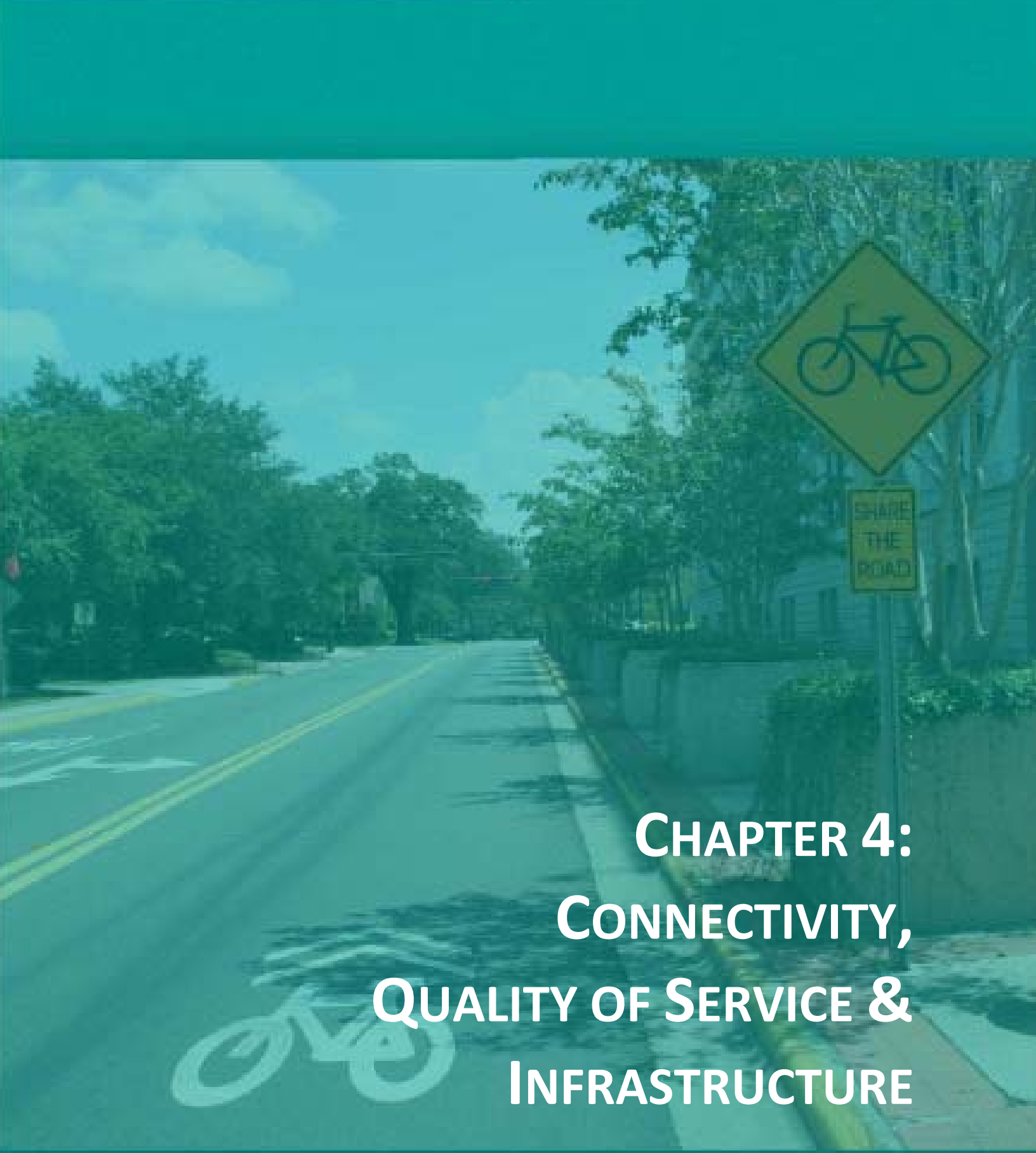


Chapter 4: Connectivity, Quality of Service & Infrastructure

"An interconnected, multimodal transportation network designed to meet the needs of the transportation user, as well as to encourage and facilitate walking, bicycling and transit usage, is essential for a multimodal transportation district. This transportation network must provide a convenient, connected transportation system within the district, connectivity between modes and to regional intermodal facilities, as well as minimum desirable levels of service for bicyclists, pedestrians and transit riders."

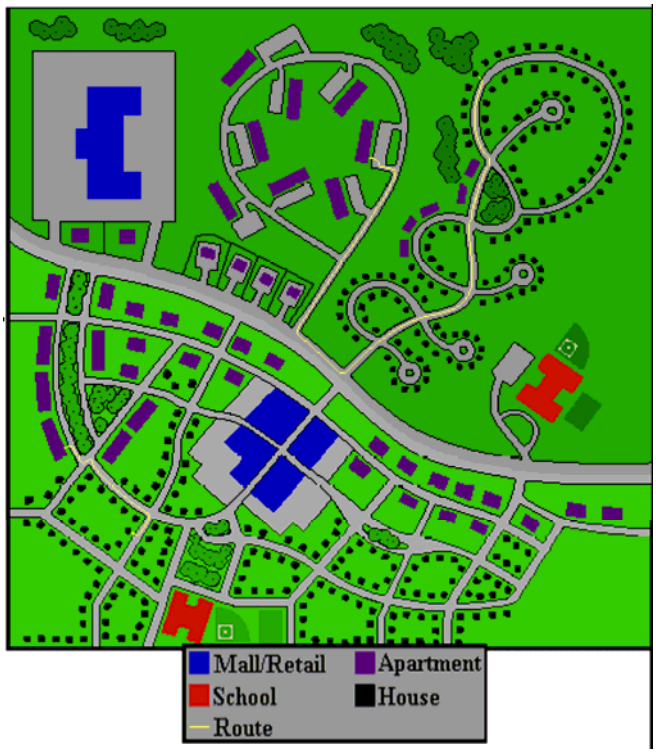
FDOT Multimodal Transportation Districts and Areawide Quality of Service Handbook

WHAT IS CONNECTIVITY & QUALITY OF SERVICE AND WHY ARE THEY SO IMPORTANT?

Connectivity

The concept of connectivity is simple – to truly encourage people to walk, bike, or use transit, then there must be logical pathways to and from destinations. This means block lengths will be short and streets will interconnected to one another so that the pedestrian or cyclist can take the shortest, most direct route.

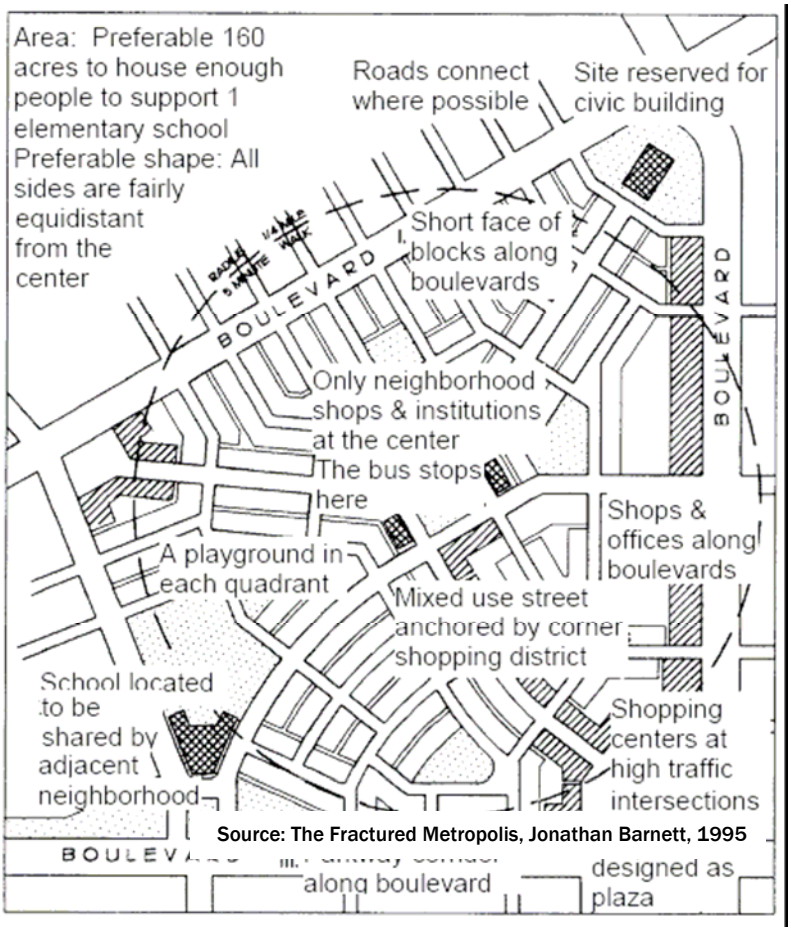
In contrast, many developments of recent decades use long blocks, often ending in cul-de-sacs, so that roads connect to the rest of the transportation system only at one entry/exit point. This almost forces the residents of those subdivisions to drive, even if where they want to go isn't that far away as the crow flies. For instance, in the drawing below, the bottom street network provides various, short routes to get to the various uses, whereas separated uses in the top drawing making walking impractical or dangerous.



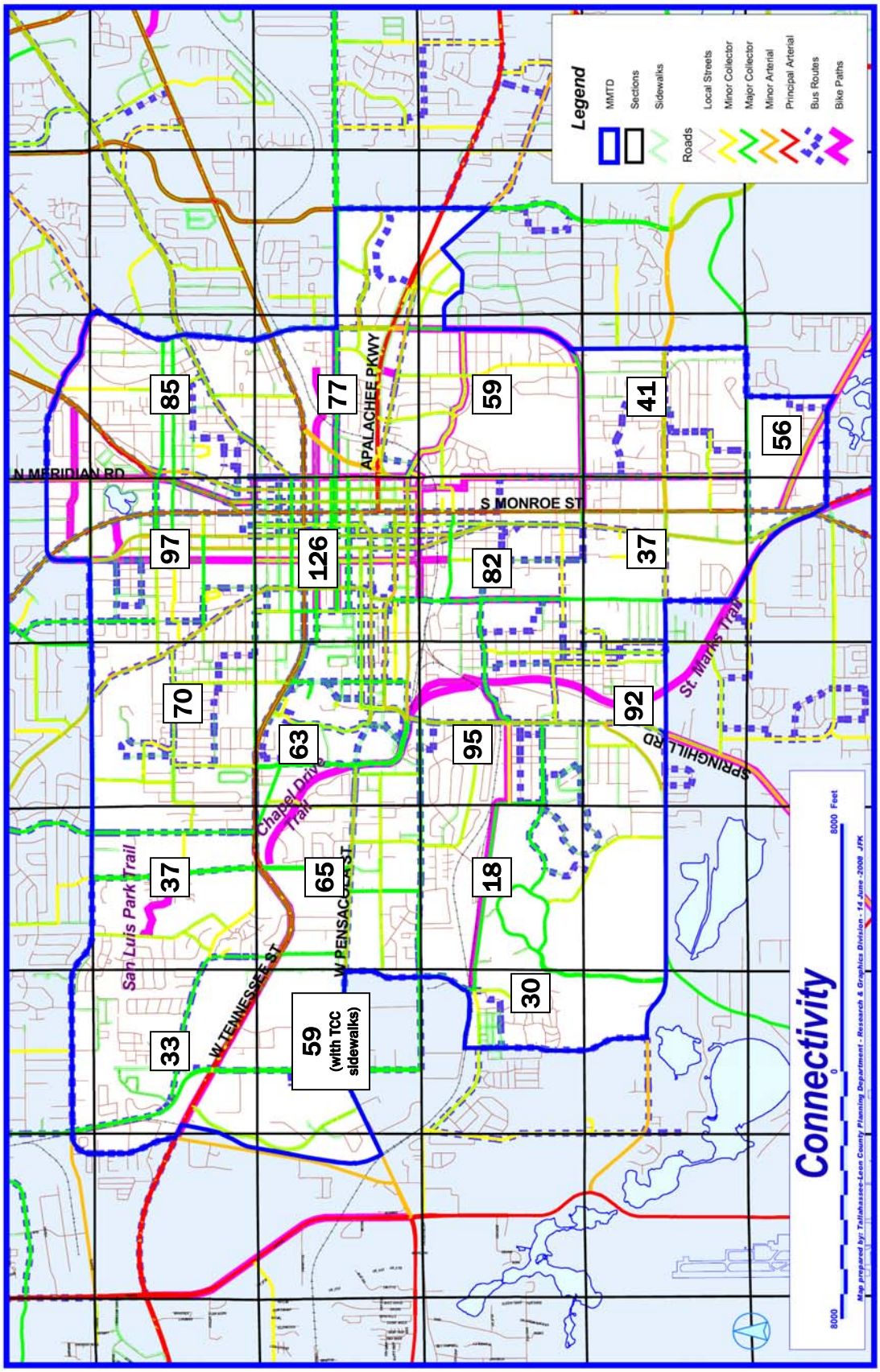
Neotraditional vs. Conventional Suburban Style Development

Consistent with the Handbook's recommendations, a polygon analysis was performed by overlaying the street, bike, and pedestrian network and counting the number of polygons per square mile. The Handbook recommends at least 50 polygons per square mile. The proposed district has an average of 70.6 polygons per square mile. The map below shows the network on which this calculation was based. Due to the size of this district, specific calculations for each square mile are shown below in order to pinpoint those areas in greatest need of new connections. In some cases, large parcels actually have more internal sidewalk connections, but are privately owned apartment complexes. This was not factored into the connectivity analysis.

Example of Proper Pattern of Streets to Promote Pedestrian, Bicycle and Transit Mobility



Source: The Fractured Metropolis, Jonathan Barnett, 1995


Legend
MMTD
Sections
Sidewalks
Roads
Local Streets
Minor Collector
Major Collector
Minor Arterial
Principal Arterial
Bus Routes
Bike Paths
N MERIDIAN RD
S MONROE ST
APALACHEE PKWY
SPRINGHILL RD
St. Marks Trail
Chapel Drive Trail
San Luis Park Trail
W TENNESSEE ST
W PENSACOLA ST
85
77
59
41
56
97
126
82
37
70
63
95
92
37
65
18
33
59 (with TCC sidewalks)
30
Connectivity
8000 Feet
8000
0

"In addition to convenient connections within the network and between modes, the network must also provide a desirable minimum level of service for bicycles, pedestrians, and transit. Level of service is a term that is commonly used in the analysis of highway systems. This term has been used interchangeably with quality of service and performance measurement.

According to the Transit Capacity and Quality of Service Manual (Transportation Research Board, 1999), the terms are defined as:

- Level of Service (LOS) - the system of six designated ranges of values for a particular aspect of service, graded from "A" (best) to "F" (worst) based on a user's perception.
- Quality of Service - the overall measures or perceived performance of service from the user's point of view."

FDOT Multimodal Transportation Districts and Areawide Quality of Service Handbook

What is Level of Service & Quality of Service?

Essentially, Level of Service and Quality of Service are ways of measuring how well our transportation network is functioning, and a tool for determining what the impacts of new development will be on that network. Level of Service is the specific grade each mode is assigned, while Quality of Service is the overall measure. Using a high school class as an analogy, Level of Service would be the grades you receive on individual tests, whereas Quality of Service would be the grade you receive for the whole class.

A Note on the Limits of Level of Service Measures: Level of Service measures are an important tool in evaluating the quality of bicycle, pedestrian, and transit, but the LOS models are limited and paint only part of the picture. They do not, for example, address pavement markings, curb ramps, or shade trees. Therefore, in addition to establishing Level of Service standards for bicycle, pedestrian, and transit service, performance standards have also been created. These are discussed more fully in the following section on the Infrastructure Plan.

How is Multimodal Level of Service Defined?

The Florida Department of Transportation has developed methodologies and software to determine pedestrian, bicycle, and transit Levels of Service. The methodology considers the following:

Pedestrian Level of Service

- Lateral separation elements between the pedestrian and motor vehicle traffic, such as:
  - Presence of sidewalk
  - Buffers between sidewalk and motor vehicle travel lanes, such as grass strips
  - Presence of protective barriers, such as trees or swales within the buffer area, or on-street parking
  - Width of outside travel lanes and bicycle lanes
- Motor vehicle traffic volume
- Motor vehicle speed

Bicycle Level of Service

- Total width of pavement
- Traffic volume in the outside lane
- Motor vehicle speed
- Percentage and number of trucks
- Pavement surface condition
- Availability of a designated bike lane or paved shoulder.

Transit Level of Service

- Transit service frequency
- Pedestrian level of service
- Transit hours of service (span of service)
- Obstacles between sidewalks and bus stops
- Pedestrian crossing difficulty

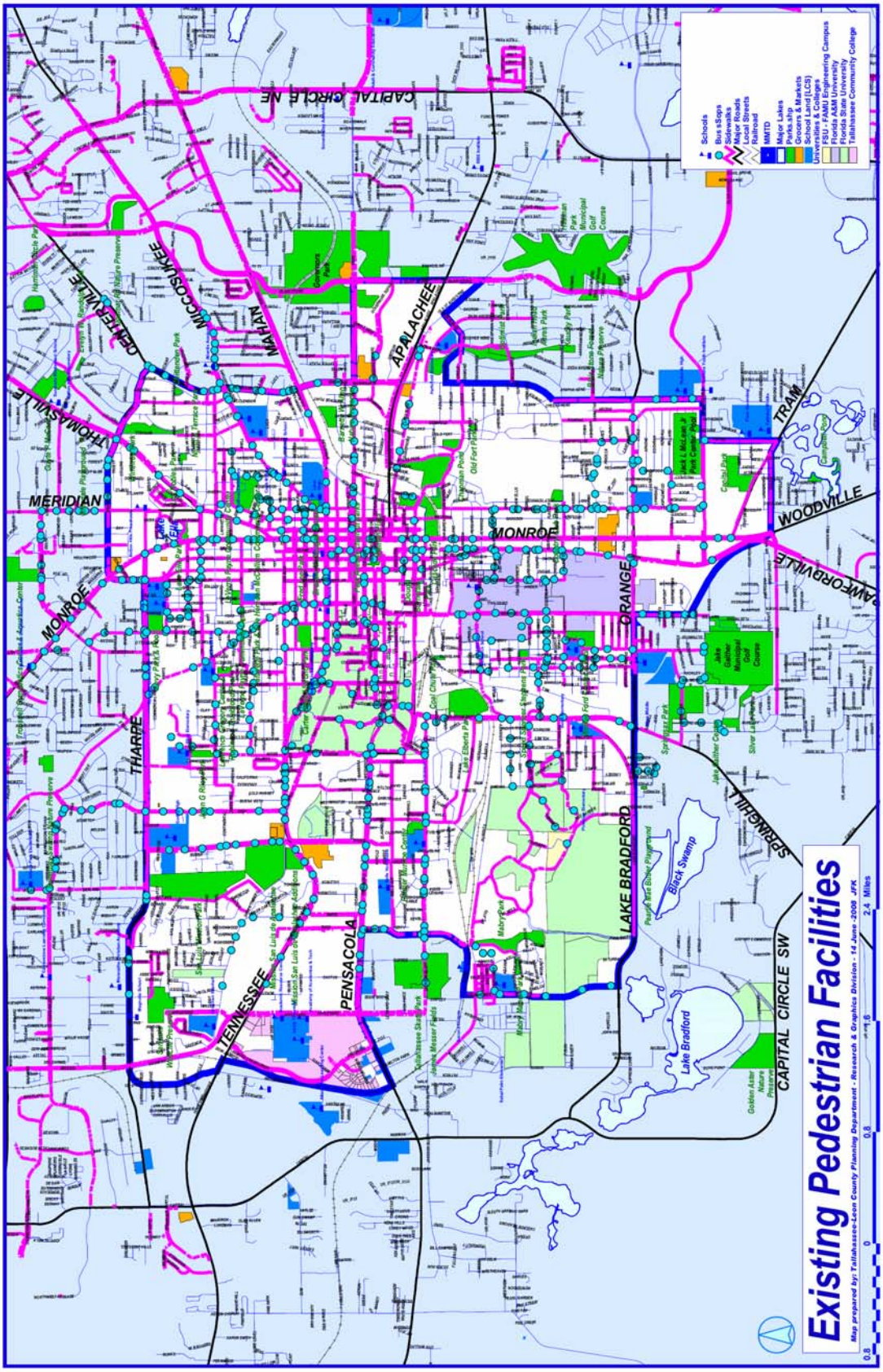
Formulas are then used to calculate a grade, A through F, for each mode.

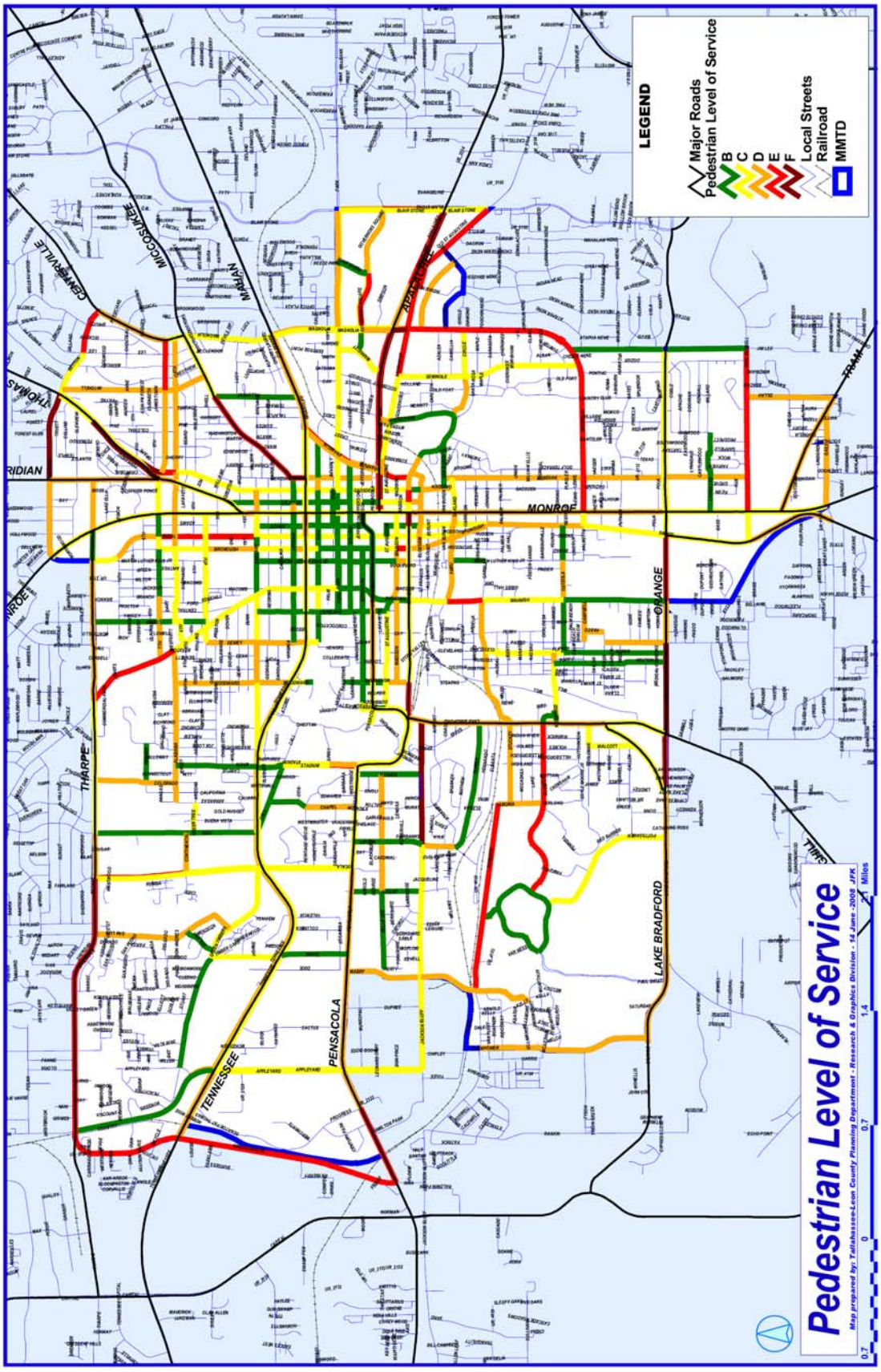
Staff spent quite few days gathering this data, several more days inputting it into the Tallahassee's Concurrency System, and then applying the FDOT formulas. The initial estimate for the areawide Levels of Service is shown below. By entering the data into the existing concurrency system, the City is creating a framework for monitoring impacts on the system from each development.

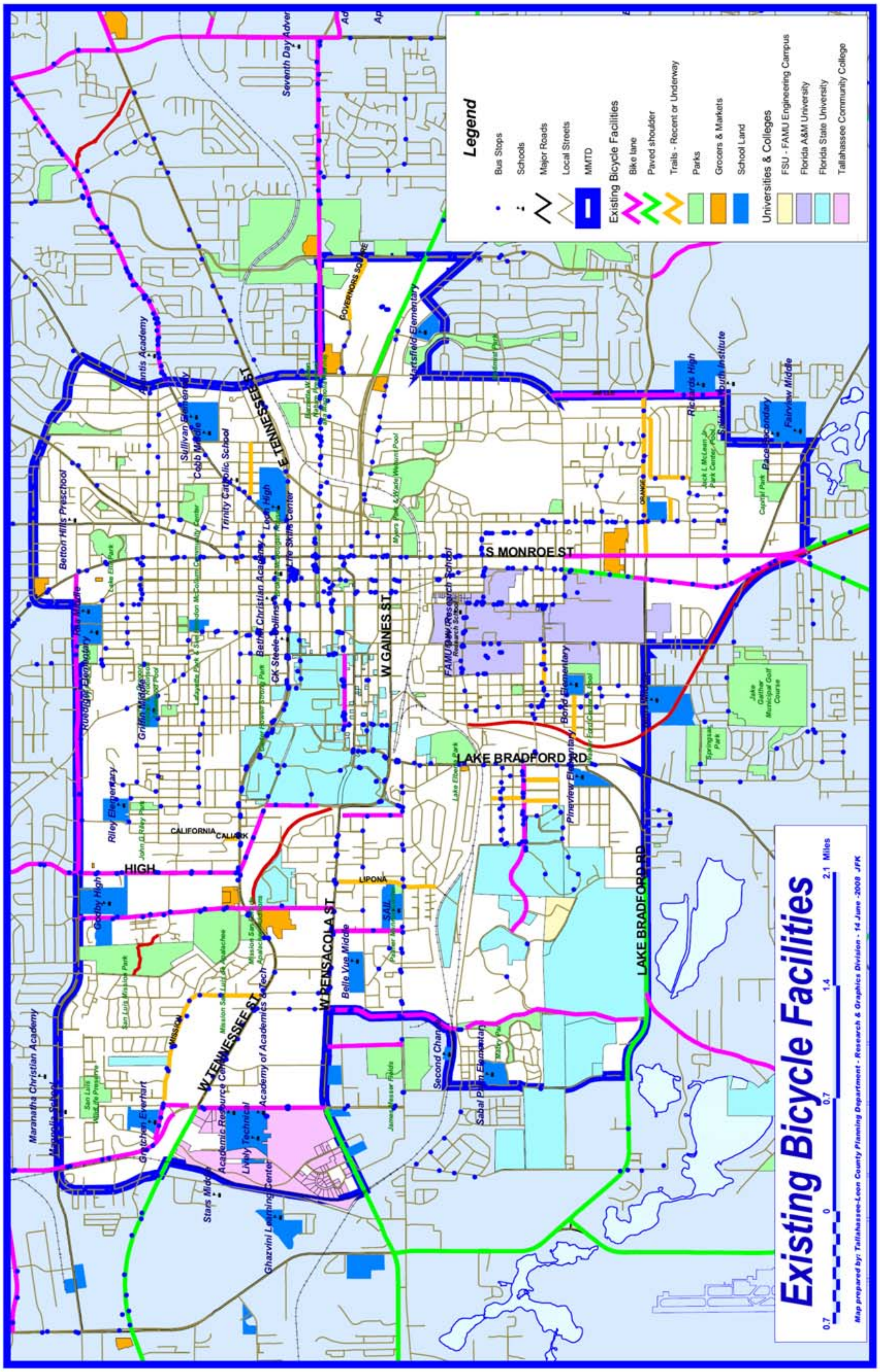
Areawide Levels of Service for Each Mode	
Pedestrian	C
Bicycle	D
Transit	E

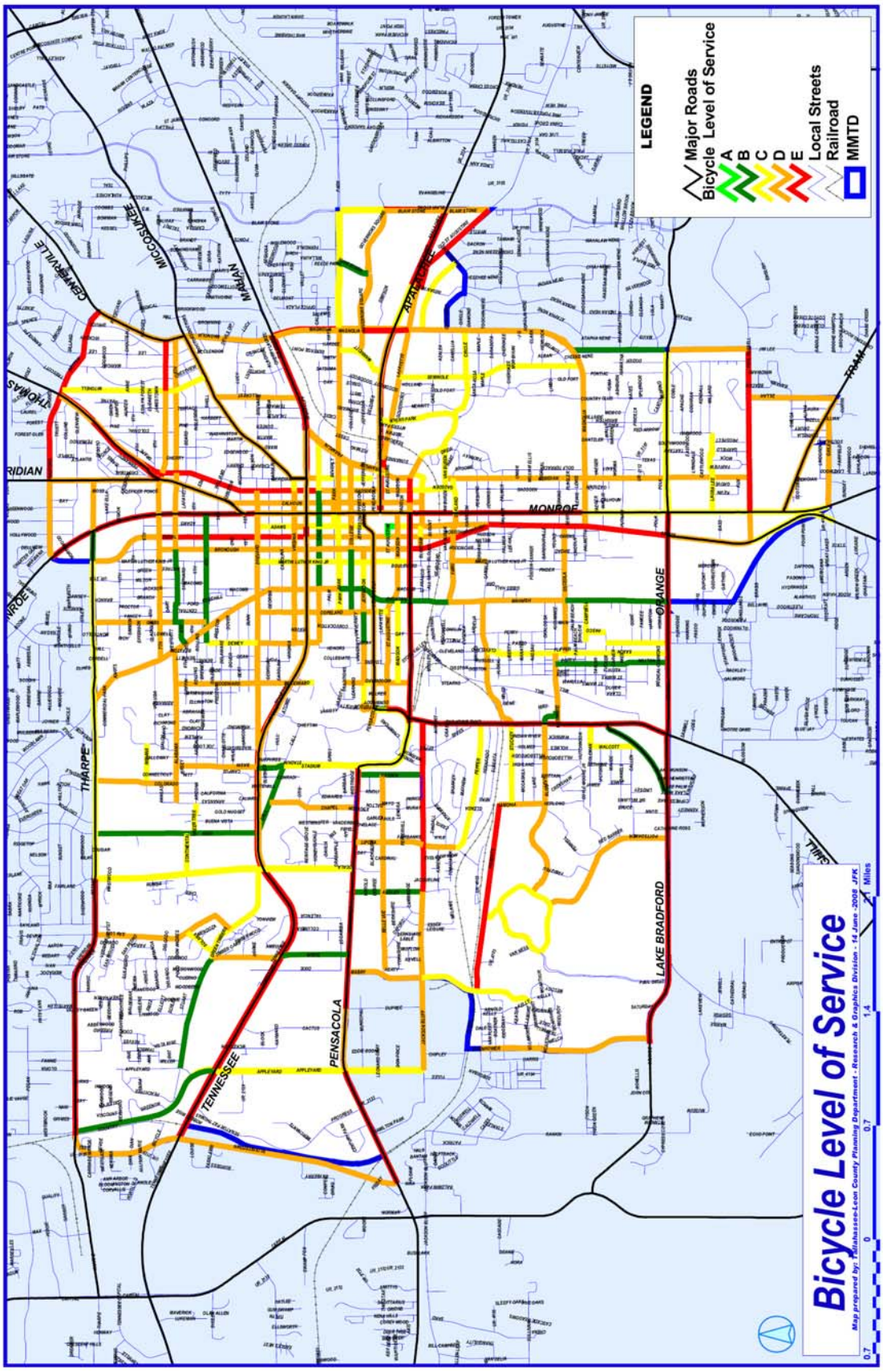
Following this section are maps to graphically show the status of each mode.

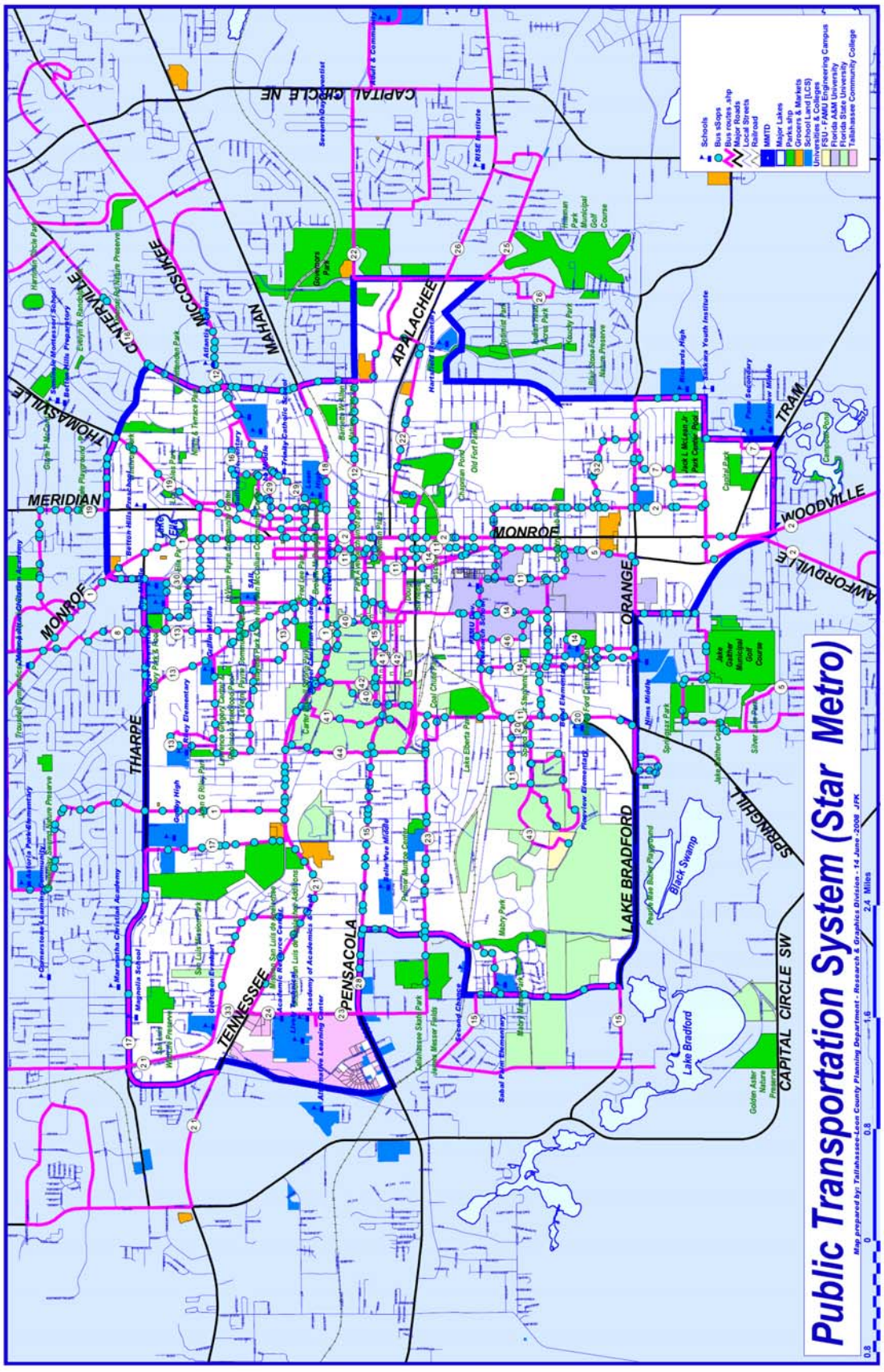
- Pedestrian Facilities
- Pedestrian Level of Service
- Bicycle Facilities
- Bicycle Level of Service
- Transit Facilities
- Transit Level of Service
- Roadway Level of Service

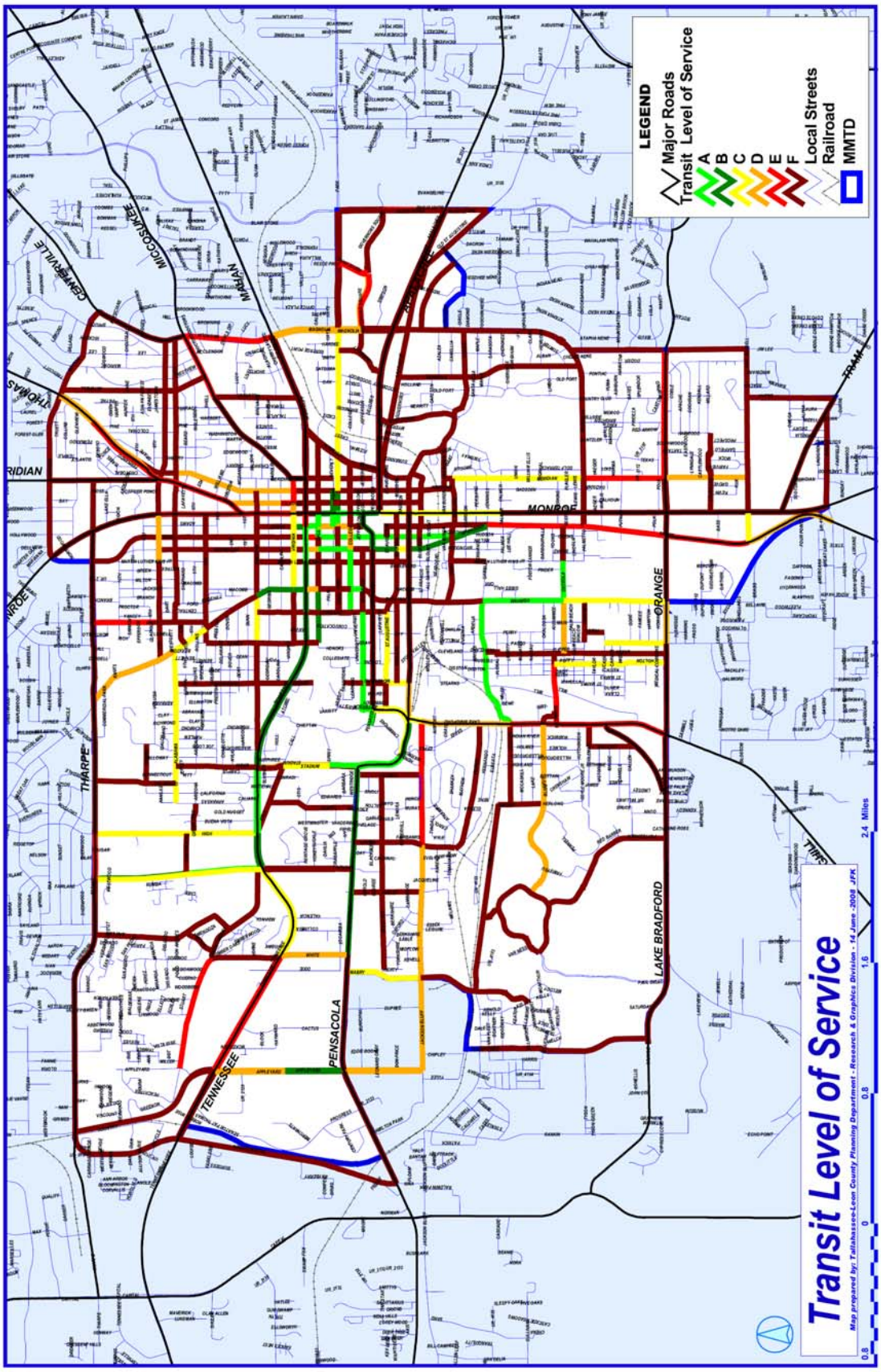

Existing Pedestrian Facilities
Schools
Bus stops
Sidewalks
Major Roads
Local Streets
Railroad
MMTD
Major Lakes
Parks
Grocers & Markets
School Land (LCS)
Universities & Colleges
FSU & FAMU Engineering Campus
Florida A&M University
Florida State University
Tallahassee Community College
CAPITAL CIRCLE NE
CAPITAL CIRCLE SW
APALACHEE
MONROE
ORANGE
LAKE BRADFORD
PENSACOLA
TENNESSEE
THARPE
MERIDIAN
THOMASVILLE
CENTERVILLE
MICCOSUKEE
WOODVILLE
TRAM
SPRINGHILL
Lake Bradford
Black Swamp

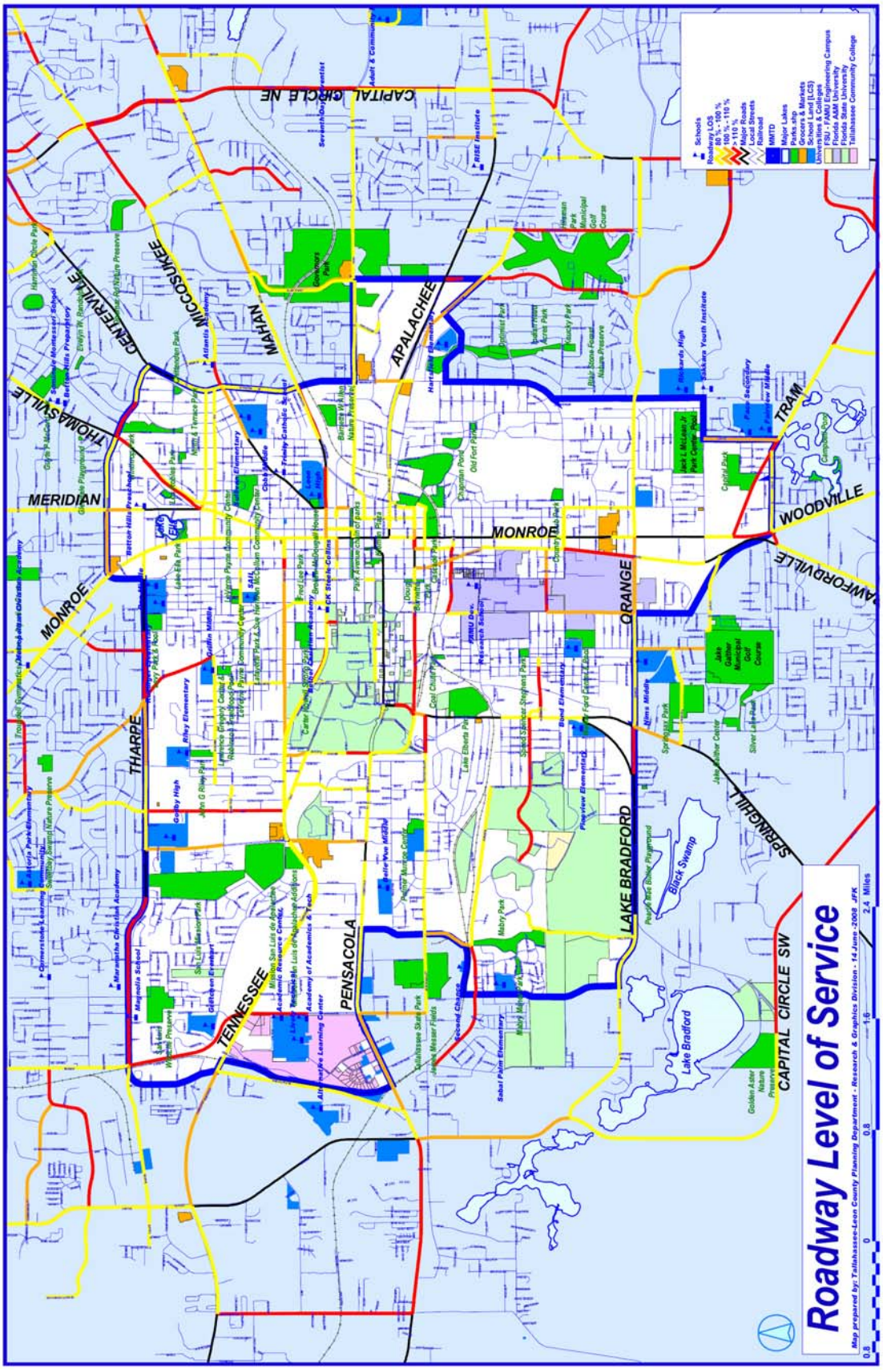

LEGEND
Major Roads
Pedestrian Level of Service
B
C
D
E
F
Local Streets
Railroad
MMTD
MONROE
ORANGE
THARPE
TENNESSEE
PENSACOLA
LAKE BRADFORD
MIDDLESEX
MAHAN
CENTERVILLE
APALACHEE
TRAM
Pedestrian Level of Service
Map prepared by: Tallahassee-Leon County Planning Department - Research & Graphics Division - 14 June 2006 JFK
0 0.7 1.4 2.8 Miles


Existing Bicycle Facilities
Legend
Bus Stops
Schools
Major Roads
Local Streets
MMTD
Existing Bicycle Facilities
Bike lane
Paved shoulder
Trails - Recent or Underway
Parks
Grocers & Markets
School Land
Universities & Colleges
FSU - FAMU Engineering Campus
Florida A&M University
Florida State University
Tallahassee Community College
0.7
0
0.7
1.4
2.1 Miles
Map prepared by: Tallahassee-Leon County Planning Department - Research & Graphics Division - 14 June -2008 JFK
S MONROE ST
W GAINES ST
E TENNESSEE ST
W TENNESSEE ST
W PENSACOLA ST
LAKE BRADFORD RD
HIGH
CALIFORNIA
LIPONA
GOVERNORS SQUARE


LEGEND
Major Roads
Bicycle Level of Service
A
B
C
D
E
Local Streets
Railroad
MMTD
MONROE
ORANGE
THARPE
TENNESSEE
PENSACOLA
LAKE BRADFORD
APALACHEE
MAHAN
MICCOSUKEE
Bicycle Level of Service
Miles


Public Transportation System (Star Metro)
CAPITAL CIRCLE NE
CAPITAL CIRCLE SW
MAHAN
APALACHEE
MCCOSKIE
CENTERVILLE
THOMASVILLE
MERIDIAN
MONROE
THARPE
TENNESSEE
PENSACOLA
LAKE BRADFORD
ORANGE
SPRINGHILL
WOODVILLE
AWFORDVILLE
TRAM
Lake Bradford
Black Swamp
Schools
Bus stops
Bus routes
Major Roads
Local Streets
Railroad
Major Lakes
Parks
Grocers & Markets
Universities & Colleges
FSU - FAMU Engineering Campus
Florida A&M University
Florida State University
Tallahassee Community College


LEGEND
Major Roads
Transit Level of Service
A
B
C
D
E
F
Local Streets
Railroad
MMTD
Transit Level of Service
Map prepared by: Tallahassee-Leon County Planning Department - Research & Graphics Division - 14 June 2008 JFK
0.8 0 0.8 1.6 2.4 Miles
MONROE
ORANGE
LAKE BRADFORD
PENSACOLA
TENNESSEE
THARPE
MIDDLESEX
MAHAN
CENTERVILLE
THOMAS
RIDIAN
TRAM


Roadway Level of Service
CAPITAL CIRCLE SW
CAPITAL CIRCLE NE
MERIDIAN
MONROE
THARPE
TENNESSEE
PENSACOLA
LAKE BRADFORD
ORANGE
SPRINGHILL
WOODVILLE
TRAM
APALACHEE
MAHAN
MICCOSUKEE
CENTERVILLE
THOMASVILLE
Lake Bradford
Black Swamp

"Every potential MMTD is composed of a network of facilities serving bicyclists, pedestrians, transit and motorists. Within this network, the transportation facilities exhibit an operational hierarchy in which certain modes are preferred. For example, freeways provide a high level of mobility for motorists, but pedestrian and bicycle usage is generally prohibited, and conversely a pedestrian friendly downtown business district with many signals and a 25 mph speed limit, provides poor mobility for intercity truck traffic."

FDOT Multimodal Transportation Districts and Areawide Quality of Service Handbook

Calculating Areawide Quality of Service

FDOT's methodology for 'grading' the entire district integrates techniques for assessing both the land use and the transportation components needed for a successful district. The land use evaluation criteria discussed in earlier chapters include the mix of land uses, density, intensity and organization of land use, and appropriate community design elements. The transportation criteria include the use of level of service performance measures, network connectivity, and regional connections.

The steps for determining Areawide Quality of Service, as explained in the Multimodal Handbook, are listed below. Italics represent the process used specifically in the case of the Tallahassee/Leon County Multimodal District.

1) Define major modal facilities.

"Identify the primary facilities that serve each mode within the area. The identification of these facilities defines each modal network, which may be different for modes or may overlap on certain facilities. Each mode should be considered independently in defining the facilities. The following criteria are used in the definition of the modal network.

- Roadways classified as arterials, and freeways or toll roads are included.
- Neighborhood streets or shared use paths that serve attractions are considered as the major pedestrian and bicycle facilities.
- Major bicycle facilities typically have lower vehicular speeds of 35 mph or less.
- Transit facilities are based on the location of bus routes and it is essential to include pedestrian access to transit stops."

2) Establish user service areas by mode.

There are generally accepted standards of the practical distances that pedestrians, bicyclists and transit riders are willing to travel. The user ranges for the typical pedestrian and transit user is ¼ mile and for the bicycle mode the typical distance is ½ mile. This ½ mile is applicable to typical riders for home-based social and other nonwork trips. These distances are used to establish the service areas for each facility. A "buffer zone" or service area line is drawn on each side of the facility.

As shown in the map following this section, the proposed Multimodal District boundaries are such that virtually all parcels are within ¼ mile of an arterial or collector. Therefore, the "service area" is defined as the entire district.

3) Determine the percentage of households and employment within the user service area by modal facility.

"This data can often be found in a development master plan or sector plan. If these types of plans containing specific data are unavailable, census tract level or traffic zone level information can be used to estimate the percent of population and households."

Based on the answer to #2, 99% of households and employment are within the user service area.

4) Determine the LOS for each mode on each facility.

"FDOT's 2000 version of ARTPLAN, the software used for computing multimodal arterial level of service at a conceptual planning level, is utilized for assessing the LOS for the different modes on each facility. While all of the facilities on each defined modal network are used in the connectivity analysis, the LOS analysis is conducted only on those facilities that are classified as connectors and above, or are major bicycle/pedestrian through routes."

These individual measures are too numerous to reproduce here, but have been incorporated into Tallahassee's Concurrency Management Database.

5) Determine each modal LOS or Quality of Service (QOS) within the district.

The modal LOS or QOS is determined as a length weighted average, by facility.

As stated in the previous subsection, the following are the Modal Quality of Service:
Pedestrian: C
Bike: D
Transit : E

6) Compare the Quality of Service for each mode with the LOS based on the percentage of households and employment located within the user service area.

"The areawide QOS is determined by comparing the average modal QOS with the LOS based on the percentage of households and employment located within the user service area. The LOS based on households and employment measures the multimodal potential within the user service area. The higher the percentage of households and employment located within a service area, the higher the multimodal potential, and the average modal QOS is adjusted to reflect that potential."

The following table from the Multimodal Handbook demonstrates how these two measures are weighted.

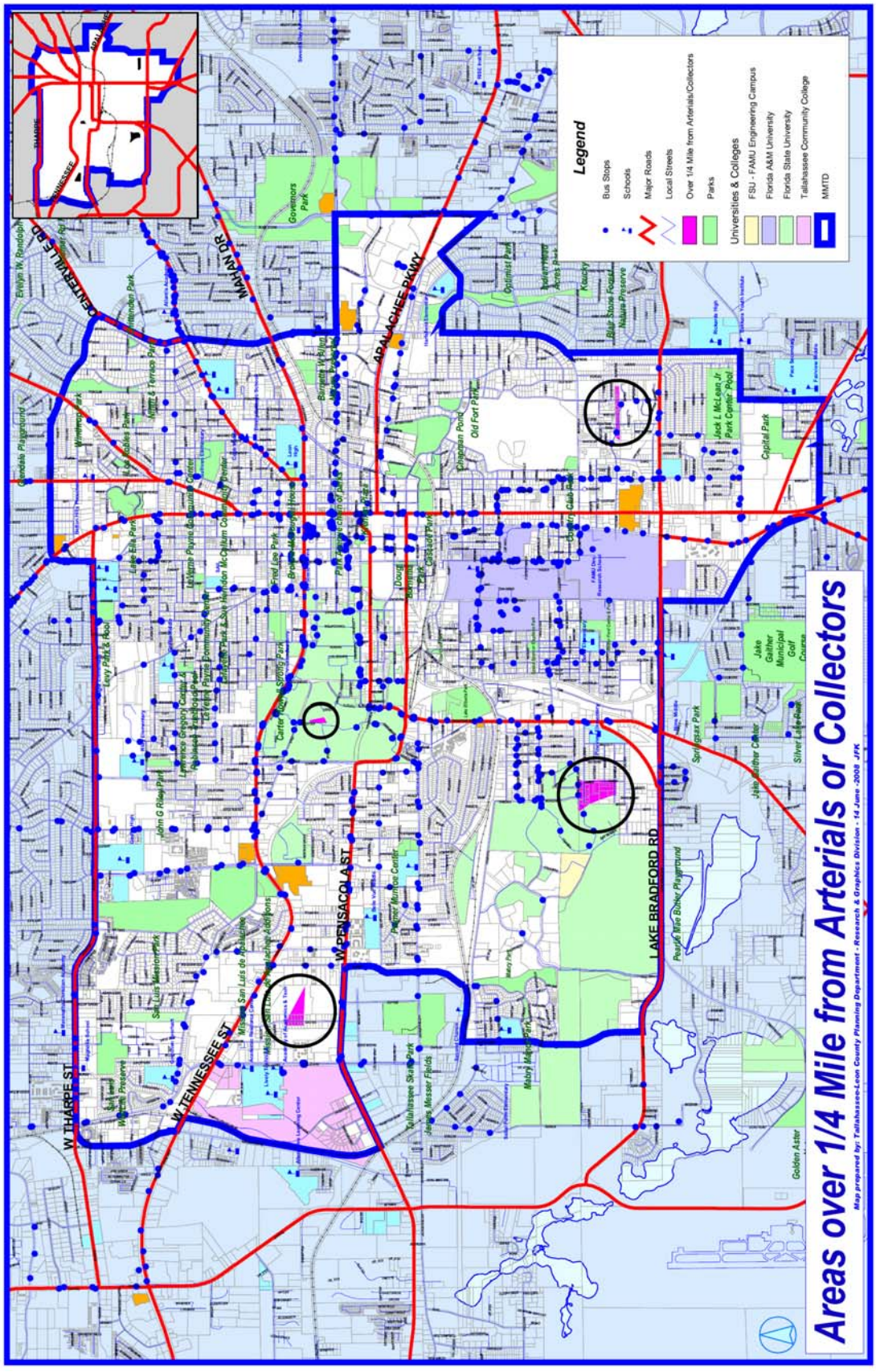
Comparison of Modal QOS & Areawide LOS Based on Percentage of Households and Employment Within Service Area

% Households and Jobs Within Service Area	Areawide Quality of Service
90% - 99%	Modal QOS or LOS A, whichever is worse
80% - 89%	Modal QOS or LOS B, whichever is worse
70% - 79%	Modal QOS or LOS C, whichever is worse
60% - 69%	Modal QOS or LOS D, whichever is worse
50% - 59%	Modal QOS or LOS E, whichever is worse
1% - 49%	LOS F

7) Report the adjusted Areawide QOS for each mode.

Because the methodology requires that we take the lower of the two scores, the Areawide Quality of Service will be the same as the original modal level of service, even though virtually all the population and jobs are within the service area.

Areawide Quality of Service	
Pedestrian	**C**
Bicycle	**D**
Transit	**E**


Areas over 1/4 Mile from Arterials or Collectors
Legend
Bus Stops
Schools
Major Roads
Local Streets
Over 1/4 Mile from Arterials/Collectors
Parks
Universities & Colleges
FSU - FAMU Engineering Campus
Florida A&M University
Florida State University
Tallahassee Community College
MMTD
W TENNESSEE ST
W THARPE ST
W PENSACOLA ST
LAKE BRADFORD RD
APALACHEE PKWY
CENTERVILLE RD
MAHAN DR

WHAT HAS BEEN DONE RECENTLY?

The Tallahassee-Leon County Comprehensive Plan has long included policies to support pedestrian, bicycle, and transit mobility. Reflecting that commitment, Tallahassee and Leon County have already made many significant investments in the Multimodal District. Before reviewing infrastructure plans for the future, it is important first to see what has already been done or what is in progress.

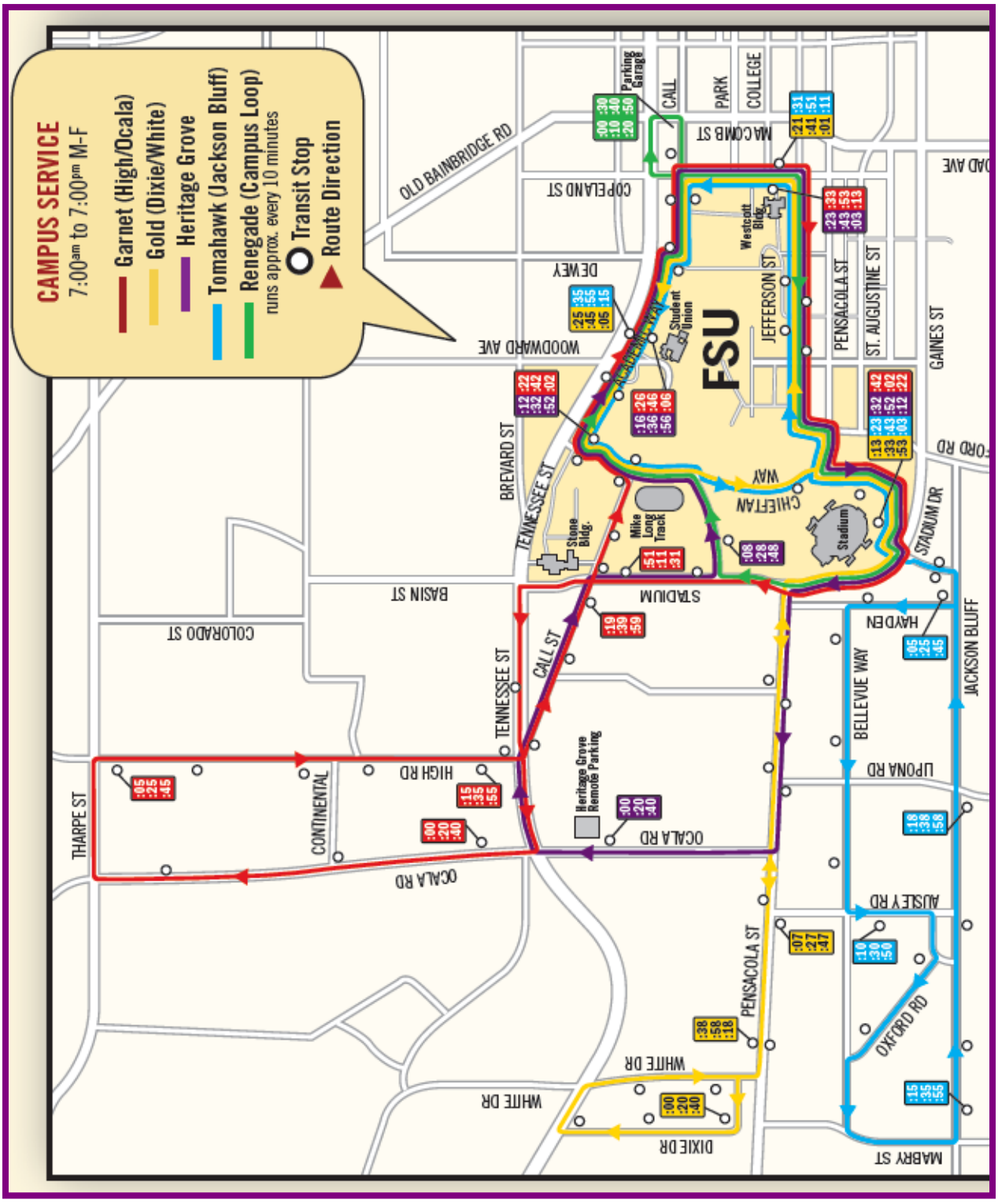
Recent & Current Investments That Support Multimodalism

Project	Description
StarMetro Seminole Express Routes	Five new routes were added starting August 2007 that circulate through the FSU Campus and surrounding off campus student housing sites, so that no transfer is needed. Headways off campus are 20 minutes, and overlapping routes result in 10 minute headways on campus. Every student at FSU is given an FSU identification card, and for the class beginning last fall, the card holder was a foldout map showing the new FSU routes. The first year of the expanded Seminole Express Routes was highly successful, with 30% increase in student ridership and an estimated 700-1000 fewer cars driven to campus each day. The new routes have been so successful that Florida State University has negotiated with StarMetro to expand the service further, and this fall (August 2008), the Osceola Route will be introduced. It is expected that ridership will continue to increase as new classes arrive each year and are oriented to the Seminole Routes from their very first day on campus.
80x Express Route plus Park & Ride (PARC – Park & Ride Community)	This route started in September as a trial, and was timed perfectly to provide commuting options in light of rising gas prices. The route starts at the Bradfordville Target, goes into Downtown, and then to the Southwood Town Center. In cooperation with local property owners, a certain number of parking spaces at selected destinations are dedicated to people who want to park & ride transit to their final destination.
Smart Fareboxes	These boxes allow easier use for and tracking of riders, and include Global Position System (GPS) devices so a bus can be tracked on its route. With future technology investments, this will allow StarMetro to alert riders when the bus will be at a particular stop, either by a display device at the stop or via cell

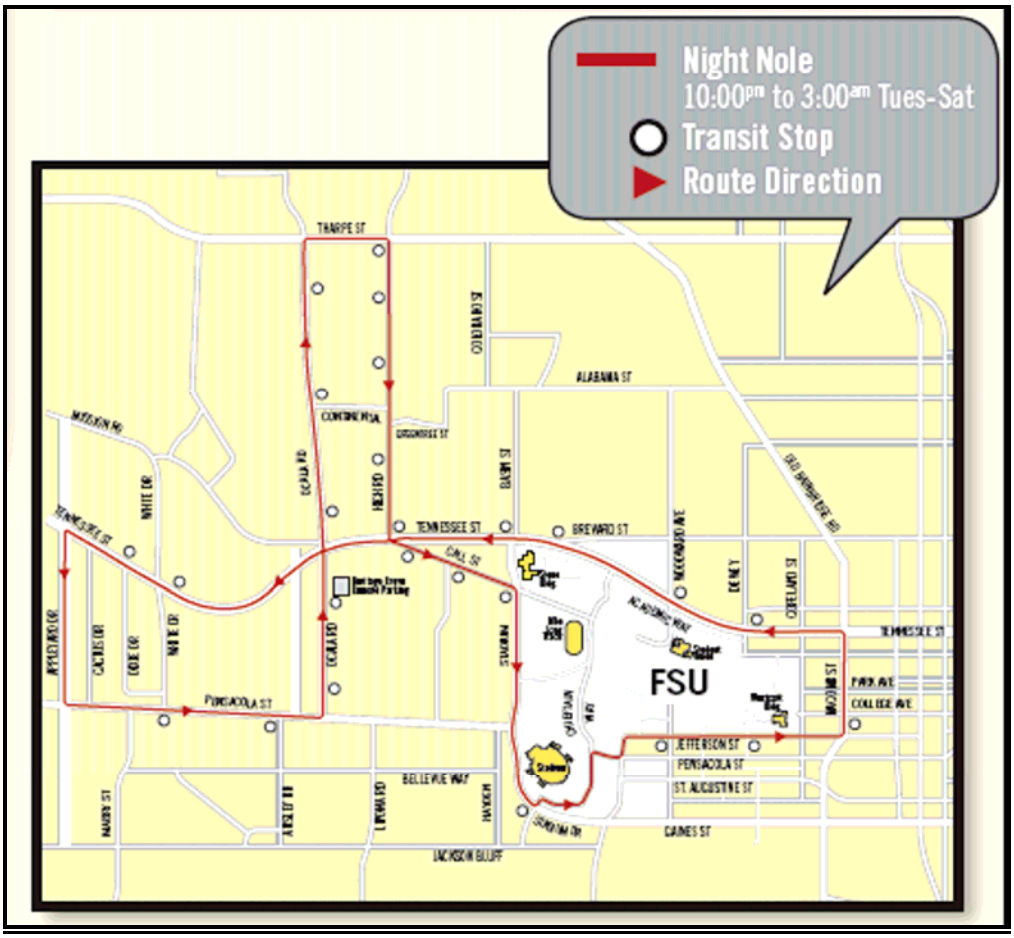
	phone for registered users.
Regional Transfer Station at Southwood	This new transfer station is being developed and will support new routes that will connect Southwood & the Capital Circle Office Complex to Downtown and other locations.
Capital Cascades / BluePrint 2000	Funds from the voter approved ½ penny sales tax are being used to develop a premier urban park around stormwater treatment ponds along Franklin Boulevard, and connecting Apalachee Parkway and Monroe Street. Substantial design on the park has been done, and cleanup of contaminated soils has been completed.
Neighborhood Infrastructure	$50,000,000 in bond money is dedicated toward improving roads and sidewalks in historically neglected neighborhoods. To date, seven projects have been completed.
Gaines Street	Maintenance of this road has been passed from the State to the City of Tallahassee as a preliminary step in the Gaines Street Revitalization effort. The Road will be redesigned from a 4-lane facility to a 2-lane facility with parking on either side to support pedestrian comfort and active uses at the street level. Zoning & design standards have already been put in place, and new development is reviewed by the Urban Design Commission. A new hotel has opened, and several new projects are underway or in design.
FAMU Way Extension	This will connect FAMU Way, which currently ends at Railroad Avenue, to Lake Bradford Road. This will also help accommodate overflow east/west traffic from narrowing Gaines Street. Bicycle and pedestrian trails will be included with this extension. Design is underway and a final alignment decision is expected in the summer of 2008.
Greenways Master Plan Implementation	Great progress has been made on land acquisitions throughout the County to create offroad trails. See Appendix G for a comprehensive history.
Infrastructure Investments In the Multimodal District Over the Past 5 Years	- **Orange Avenue** (S. Monroe to Blair Stone) Bike lanes, sidewalks, added 2 lanes - $40,720,000 - **Osceola Street** (Pasco to Wahnish Way) Sidewalks - $610,000 - **Caliark & California Streets** Sidewalks, Bike lanes on Caliark - $2,000,000 - **Mission Road** (White to Peachtree) Bike lanes, sidewalks - $2,750,000 - **White Drive** (W. Tennessee to Mission) Bike lanes, sidewalks - $2,750,000 - **Governor's Square Blvd.** (Reece to Blair Stone) Bike lanes, sidewalks - $1,500,000 - **Wahnish Way/Orange Intersection** Bike lanes, sidewalks - $1,100,000 - **Lipona** (Pensacola to Pepper) (includes stormwater) Bike lanes, sidewalks - $6,500,000 - **10th Avenue/Bronough Intersection** Traffic signal, curb ramps - $150,000 - **Lynndale Street** (Meridian to Tartary) Sidewalks - $114,000 - **Hillsborough Street** (Stuckey to Hutchinson) Sidewalks - $220,000 - **Coble Drive & Harwood Street**

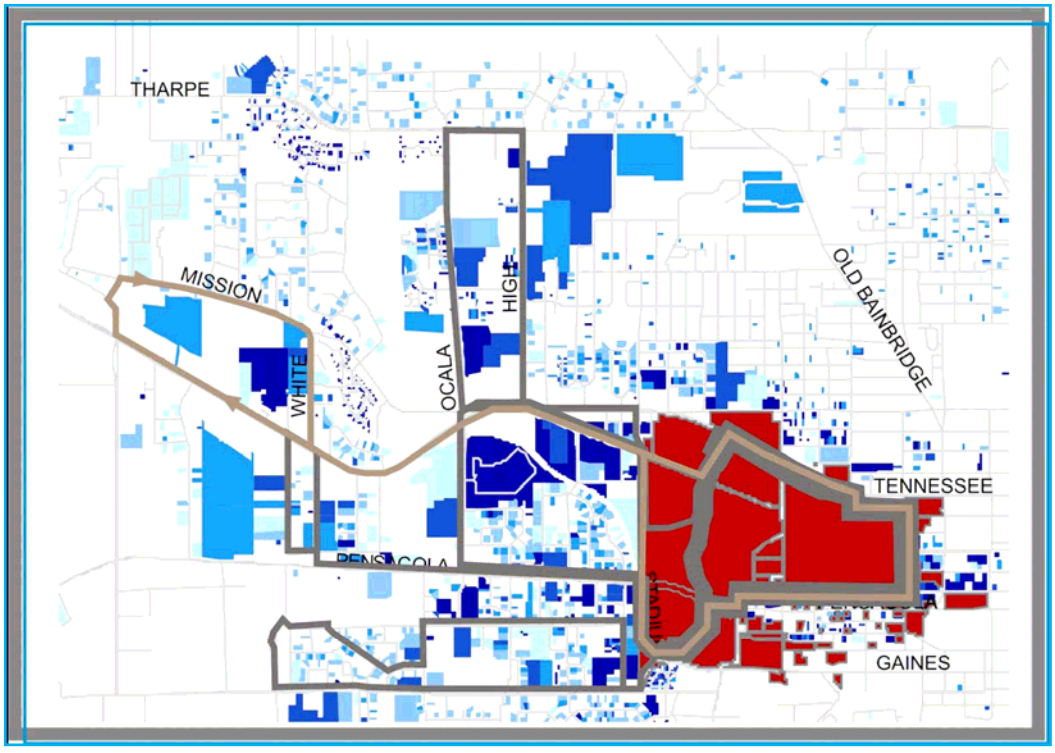
	Sidewalks - $318,000 - **Warwick Street** (Levy to Hutchinson) Sidewalks - $145,000 - **ADA Handicapped Accessibility** (Various - Citywide) Sidewalk Rehabilitation - $9,000,000 - **Bond Community** (Taylor, Campbell, Tucker) Sidewalks - $2,000,000 - **Tallahassee Junction** (connects GFA & St. Marks Trails) Trailhead - $60,000

Expanded Seminole Express Routes



New Night Routes Serving Off-campus Housing





Osceola Route with Student Densities Shown (existing routes in gray)

THE INFRASTRUCTURE PLAN

The goal of the Multimodal District is to create a comfortable, safe environment for pedestrians and cyclists with access to transit. One major element that creates that environment is zoning and urban design, which will be discussed in the following chapter. The other element is capital investment in bicycle, pedestrian, and transit facilities. In order to guide that infrastructure investment, the City of Tallahassee and Leon County propose the following Level of Service (LOS) targets as recommended in the Multimodal Handbook. These LOS targets are also included in the Comprehensive Plan language creating the Multimodal District (Appendix A).

Recommended Level of Service Standards			
Pedestrian	Transit	Bicycle	Automobile
C	D	D	E+50%

Because statutes do not entirely relieve local government from the requirement of measuring the LOS at which the roadway system operates, a LOS of E plus 50% of the roadway capacity is included, rather than simply having no LOS standard or a standard of F.

As stated in the previous section, transportation models are useful tools, but they do not fully reflect all factors involved in creating a safe, inviting pedestrian environment. For example, the model created by the Florida Department of Transportation does not account for special intersection treatments such as pavement marking or bulb-outs. Nor does it account for building setbacks or trees. Therefore, in addition to establishing LOS standards for bicycle, pedestrian, and transit service, the following performance standards have been included in the Comprehensive Plan amendment. As with the LOS standards, future updates to the Multimodal Infrastructure Plan will be evaluated for their support of these performance standards.

Proposed Performance Targets

a. Areawide modal split:

i. For trips that both originate & end within the district:
   1. 40% of trips via transit
   2. 30% of trips via bike or pedestrian
   3. 30% of trips via automobile

ii. For trips originating or ending outside the district (not including pass through trips):
   1. 25% of trips via transit
   2. 10% of trips via bike or pedestrian
   3. 65% of trips via automobile

b. Bicycle & Pedestrian Mobility:

i. Formally designated north/south & east/west bicycle routes functioning at LOS C or better are provided at 1½ mile intervals;
ii. All buses are equipped with bicycle racks;
iii. All sidewalk and bicycle facilities within ½ mile of superstops function at LOS C or better; (see proposed definition of "superstop" at end of new text)
iv. All superstops are equipped with bicycle parking;
v. All intersections within ½ mile of transit superstops incorporate features to support safe and comfortable crossing for pedestrians and cyclists.

c. Transit Mobility:

i. All employees and dwelling units are within ¼ mile of a transit stop;
ii. 80% of transit routes operate with 20 minute headways or less;
iii. 80% of employees and dwelling units are served by routes operating at least 16 hours a day;
iv. 40% of transit stops include benches, signage, lights, and covered or enclosed waiting areas;
v. 80% of employees and dwelling units are within 1 mile of a transit superstop;

d. In Relation to Educational Uses:

i. All pedestrian and bicycle facilities within 2 miles of primary schools function at LOS C or better;
ii. 50% of students at Florida State University (FSU), Florida A&M University (FAMU), and Tallahassee Community College (TCC) commute to campus via non-auto modes;
iii. At least three satellite parking facilities for students are located outside of the MMTD but within a 20 minute transit ride of FSU, FAMU, or TCC.

These standards will be used to prioritize projects in the next update to the Bicycle and Pedestrian Master Plan, to be completed as part of the Regional Mobility Plan.

The following pages summarize the financially feasible bike, pedestrian, and transit programs proposed within the Multimodal District. These projects were derived from the adopted Bicycle and

Pedestrian Master Plan, the StarMetro Renaissance Plan, the Greenways Master Plan, and other projects currently included in the City and County Capital Improvement Program and State of Florida Transportation Improvement Program. This list will be officially reviewed during the public hearing process for the 2008 Capital Improvement Program in the fall of this year (2008) and incorporated into that document. The priority list will also be updated concurrent with any updates to the Regional Mobility Plan, the next of which will to be completed in 2010. Maps of the projects immediately follow the project listing.

Please note that one of the most important pieces of the Tallahassee-Leon County Multimodal District will be the creation of six Superstops at key points connected to surrounding land uses by good pedestrian and bicycle facilities.

Proposed 20-Year Project List			
Bicycle and Pedestrian			
Joe Louis Street from Indiana Street to Preston	Sidewalk	Access to Schools: To fund sidewalks that directly connect neighborhoods with public schools (Riley, Griffin, Godby); Infrastructure Enhancement	$1,800,000
Ingleside Avenue at end of sidewalk E of Martin Street to Terrace Street	Sidewalk	Access to Schools: To fund sidewalks that directly connect neighborhoods with public schools (Kate Sullivan, Cobb)	$357,500
Dale Street from Ridgeway Street to McElroy Street	Sidewalk	Access to Schools: To fund sidewalks that directly connect neighborhoods with public schools (Sabal Palm)	$475,475
Mabry Street and RR track and Roberts Avenue	Sidewalk	Access to Schools: To fund sidewalks that directly connect neighborhoods with public schools (Belle Vue)	$71,500
Bradford Road from North Monroe to Rhodes	Reconstruction with curb, gutter, sidewalk	Access to Schools: To fund sidewalks that directly connect neighborhoods with public schools (Raa)	$5,746,000
St. Marks Trail Extension (5)	Shared-use path	To connect fragments of trail and provide better connections to FSU, FAMU, and TCC	$250,000
MLK Jr. Blvd. from North Monroe Street to FAMU Way (6)	Bicycle Route Pedestrian overpass bridge at CSX RR Bicycle signals @Tennessee @Pensacola @Brevard	To facilitate north-south bicycle traffic; provide a parallel route on a street with lighter traffic than Monroe Street; improve access to FAMU	$1,100,000
Apalachee Parkway from Magnolia to Blair Stone (7)	Sidewalks Restripe for Bikelanes Pedestrian Emphasis Intersections @Magnolia @Blair Stone Pedestrian Supportive Intersections @Governor's Square Mall	To create an attractive gateway to the downtown; to balance the needs of all modes	$1,850,000

Tennessee Street from Ocala to Magnolia (8)	Feasibility study for enhancements & possible lane reductions	To evaluate the costs and traffic impacts of substantial changes to the Tennessee Street corridor	$80,000
Duval/Bronough & Gadsden/Calhoun One Way Pairs (9)	Feasibility study for most desirable cross section	To balance bicycle, pedestrian, & auto traffic; to improve traffic circulation; to slow traffic & allow safer pedestrian crossing	$80,000
Tennessee Street from Dewey to Franklin (10)	Mill/surface/restripe & add sidewalks Pedestrian Emphasis Intersections @Copeland @MLK @Adams @Monroe @Meridian Pedestrian Supportive Intersections @Bronough @Duval	To accommodate the heavy pedestrian traffic generated by downtown, FSU, and Leon High School	$3,815,852
Orange Avenue from Lake Bradford Road to South Monroe Street (11)	Sidewalks & bikelanes Pedestrian Emphasis Intersections: @ Monroe Street Pedestrian Supportive Intersections: @ Adams	To expand the planned Orange Avenue improvements on the east side of Monroe Street; to provide east-west connectivity to the Tallahassee Regional Airport and Innovation Park	$2,400,000
Park Avenue from Copeland to Blair Stone (12)	Bicycle Route Pedestrian Emphasis Intersections: @ Duval @ Adams @ Monroe @ Capital Circle Pedestrian Supportive Intersections: @ Bronough @ MLK @ Meridian @ Franklin	To provide bicycle connectivity from the neighborhoods in east Tallahassee to downtown on a parallel route to Apalachee Parkway	$375,300
Betton Road from Rhodes Way to Centerville Road (13)	Bicycle Route	To continue planned Bradford Road improvements; to improve access to	$1,000

		Winthrop Park; to provide easy east-west connectivity	
Lake Bradford Road from Orange Avenue to Springhill (14)	Mill/resurface/restripe for bikelanes	To improve access to Pineview Elementary, downtown Tallahassee, and FSU	$892,544
Magnolia Drive from South Monroe Street to Apalachee Parkway (15)	PASS Pedestrian Supportive Intersections: @ Monroe Street @ Circle Drive	To improve access between shopping centers and from neighborhoods; to improve access to FAMU from the east and southeast	$15,028,000
Brevard Street from Tennessee Street to Meridian Street and Wilson Street from Meridian Street to Miccosukee Road (17)	Mill/resurface/restripe for bikelanes	To create route for cyclists to bypass downtown that is parallel to Tennessee Street	$1,057,000
Magnolia Drive from 7th Avenue to Apalachee Parkway (18)	Mill/resurface/restripe for bikelanes	To provide a link from the projects on 6th and 7th Avenues to the commercial center around Governors Square Mall	$803,000
Tharpe Street from Ocala Road to North Monroe Street (19)	Medians Pedestrian Emphasis Intersections @ Ocala Road @ Old Bainbridge Road @ MLK Jr. Boulevard @ Monroe Street Pedestrian Supportive Intersection: @ Dawsey	To extend the planned Tharpe Street Improvements to connect to Monroe Street, a major north-south corridor; to improve access to schools, parks, and shopping	$2,630,000
Paul Russell from South Adams to South Monroe (22)	PASS (sidewalks & bikelanes) Pedestrian Emphasis Intersections: @ Monroe Street	To complete the planned projects on Paul Russell Road	$740,960
MLK Jr. Blvd. from FAMU Way to Palmetto (23)	PASS (sidewalks & bikelanes)	To facilitate access to and from FAMU; to extend the MLK bicycle route into FAMU campus	$5,590,000
Pensacola Street from Appleyard Drive to Stadium Drive (26)	Mill/resurface/restripe for bikelanes Pedestrian Emphasis Intersections: @ Appleyard @ Ocala	To improve safety and circulation from downtown to the west, including FSU, Innovation Park and TCC	$1,144,000

Glenview Drive from North Monroe Street to Thomasville (27)	Bicycle Route Pedestrian Supportive Intersections @Monroe Street @Meridian Street @Thomasville Road	To provide a comfortable alternative to Bradford Road; to provide better east-west connectivity	$1,155,000
Sixth Ave. and Seventh Ave. from Old Bainbridge Rd. to Centerville Rd. (28)	Mill/resurface/restripe for bikelanes Pedestrian Emphasis Intersections: @ Monroe (2) @ Meridian (2)	To narrow and balance this one-way pair; to improve bicycle and pedestrian access to the hospital	$2,285,000
Thomasville Road from Betton to Seventh Street (32)	Restripe for bikelanes and add sidewalks Pedestrian Supportive Intersections @Glenview @Betton	To improve crossing and commuter traffic on this important spoke road.	$532,700
Tennessee Street from Appleyard to Ocala (33)	Bicycle lanes	To improve access to TCC and neighborhoods in northwest Tallahassee and Leon County	$792,400
Tennessee Street from Ocala to Dewey	Mill/resurface/restripe Pedestrian Emphasis Intersections @Ocala @Woodward Pedestrian Supportive Intersections @Dewey	To improve safety by reducing auto-pedestrian conflicts along the northern boundary of FSU; to reduce Tennessee Street's status as a barrier for pedestrians and cyclists; to improve LOS for all modes; to increase safety at intersections with a high incidence of bicycle and pedestrian crashes, such as Copeland and Macomb	$1,051,822
FAMU Way/Oakland Avenue (36)	Sidewalks Pedestrian Supp. Int.: Meridian @ Van Buren Oakland @ Monroe Jennings @ Bronough Palmer @ Adams Palmer @ Monroe Palmer @ Meridian	To improve east-west connectivity from neighborhoods to surrounding land uses, FAMU, and the St. Marks Trail; to tie southern neighborhoods into the regional bicycle/pedestrian network; to support the South Monroe Sector Plan	$1,020,000
Coleman from Walcott to Lake Bradford and Walcott from Coleman to Lake Bradford (37)	Sidewalks	To improve access to Pineview Elementary	$840,000

Jackson Bluff Road from Appleyard to Lake Bradford (38)	Sidewalks	To improve access to schools, churches, TCC and universities; to complete gaps in areas where sidewalks are missing	$1,660,000
North Monroe Street from Virginia to Apalachee Parkway (39)	Mill/resurface/restripe for bikelanes	To calm downtown traffic and improve pedestrian and bicycle access to the capitol and the rest of downtown; to facilitate north-south traffic; and to improve connections to Apalachee Parkway and its commercial district	$291,000
Pensacola Street from Stadium to MLK Jr. Boulevard (40)	Mill/resurface/restripe for bikelanes	To facilitate traffic from FSU and TCC to downtown	$497,000
St. Augustine Street from Stadium Drive to Meridian Street (41)	Mill/resurface/restripe for bikelanes	To facilitate traffic from FSU to downtown	$676,000
Innovation Park Trail along Roberts Rd, Iamonia St, Stuckey Ave, Gamble St (42)	Shared-use path	To create an alternate route to Innovation Park and the planned intramural fields	$104,000
Call Street from Copeland Street to Satsuma Street (43)	Bicycle Route Pedestrian Supportive Intersection: @ Meridian	To provide east-west connectivity on a roadway with lower traffic volumes and less topography than Park Avenue and Tennessee Street; to create a safer walking environment among downtown destinations including FSU, the public library, and the C.K. Steele	$42,500
Bloxham Street from Railroad to Myers Park Drive (44)	Bicycle Route		$5,000
Pensacola Street from MLK Jr. Boulevard to South Monroe Street (45)	Mill/resurface/restripe for bikelanes Pedestrian Supportive Intersections: @ MLK @ Monroe	To improve safety and circulation for pedestrians and automobiles around Kleman Plaza, City Hall, and the State Capitol Complex; to improve connections from the west to the primary north-south arteries	$258,000
Old St. Augustine Road from Indian Head to Capital Circle (46)	Sidewalks	To provide an alternate route to Apalachee Parkway; to improve commuter access to the Koger Office Center	$1,520,000
South Belle Vue Way from Mabry Street to Hayden Road (50)	PASS	To provide connectivity to student housing areas	$8,450,000
Palmetto Street from MLK Jr. Boulevard to South Monroe Street (51)	PASS	To facilitate access to FAMU from the east and southeast (via Magnolia Drive)	$2,020,000

Monroe Street from Apalachee Parkway to Magnolia Drive (53)	Reconstruct Mill/resurface/restripe for bike lanes	To create an inviting 'gateway' and support mobility from the south side of Tallahassee and Leon County into downtown; to bolster economic development	$697,000
Miccosukee Road from Meridian Street to Magnolia Drive (54)	Mill/resurface/restripe for bikelanes Pedestrian Emphasis Intersection: @ Magnolia Pedestrian Supportive Intersection: @ Mitchell	To improve connectivity for commuters between downtown and the residential areas in the northeast	$1,940,000
Wahnish Way from FAMU Way to Osceola Avenue (56)	Bicycle Lanes	To create a bicycle-friendly corridor through FAMU	$4,300
Adams Street from North 1st Street to Pensacola Street (57)	Mill/resurface/restripe for bike lanes	To create easy connections from the C.K. Steele Transit Plaza to other areas of downtown	$370,000
Adams Street from Gaines Street to Magnolia Drive (58)	Mill/resurface/restripe for bike lanes	To provide an alternate north-south route from the south side to downtown	$602,000
Blair Stone Road from Governors Square Boulevard to Old St. Augustine (59)	Mill/resurface/restripe for bike lanes Add sidewalks	To continue the excellent bicycle and pedestrian facilities on the new segments of Blair Stone Road; and to create a north-south corridor on the east side of Tallahassee that serves neighborhoods, parks and shopping areas	$539,600
Apalachee Parkway from Monroe Street to Frontage roads (60)	Sidewalks Pedestrian Supportive Intersections: @ Monroe @ Broward @ Marriott	To create a walkable connection from downtown to the commercial area around the Governors Square Mall; to create highly visible crossings to reduce Apalachee Parkway's reputation as a barrier for pedestrians	$717,000
Tennessee Street from Franklin to Magnolia (66)	Mill/resurface/restripe for bike lanes Pedestrian Emphasis Intersection: @ Magnolia	To continue the east-west continuity between downtown and the commercial and residential development in northeast Tallahassee and Leon County	$401,000
Apalachee Parkway at Marriott Dr to Seminole Dr at Lafayette St (by Parkway Center) (68)	Shared-use path	To create a connection from the Myers Park neighborhood to shopping areas on Apalachee Parkway	$1,000

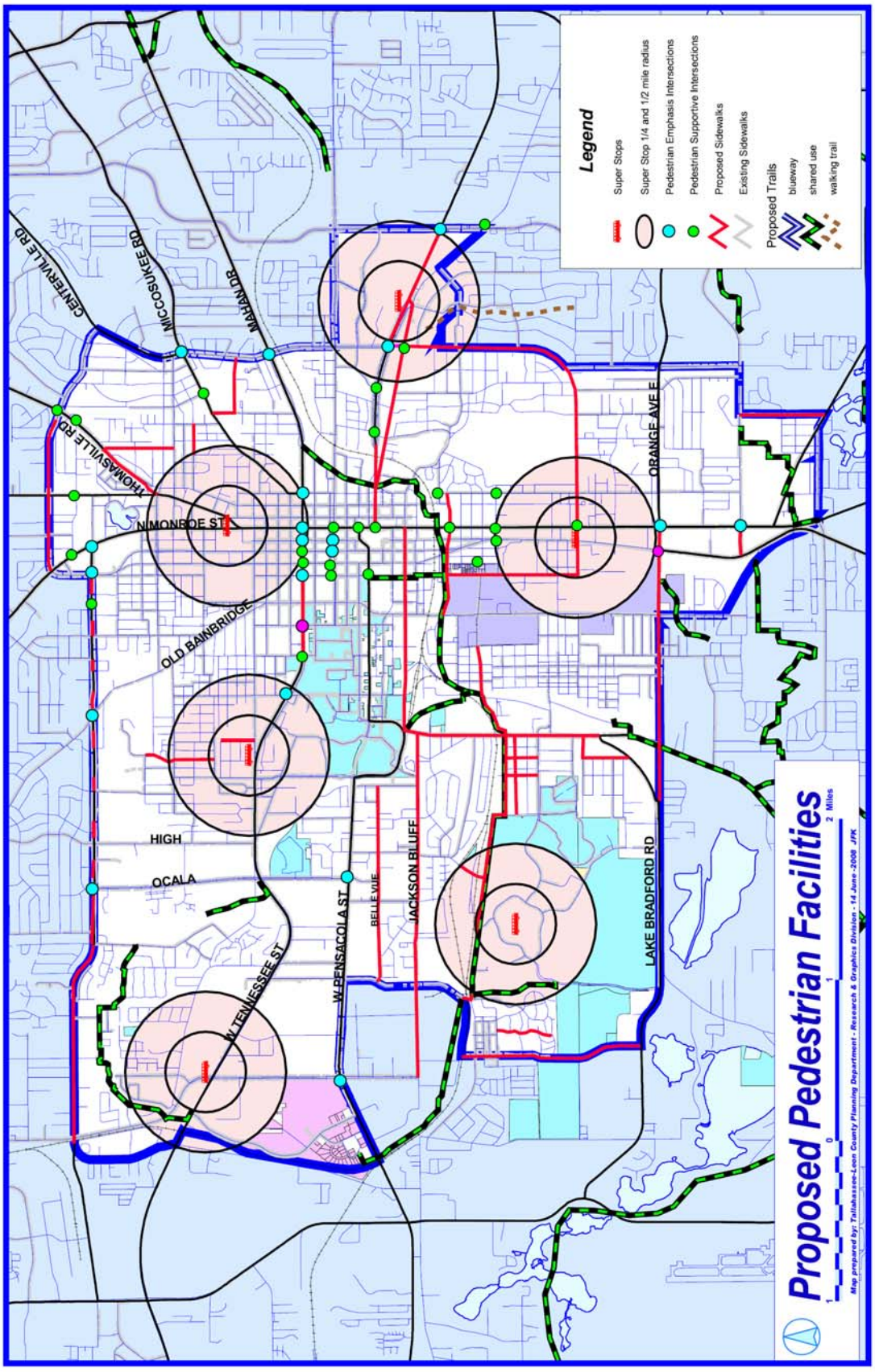
Ocala Road from end of Ocala Road Trail to Tennessee Street (72)	Sidewalk widening, median, signage	To connect the end of the Ocala Road Trail to the Fort San Luis Mission	$65,000
Central 10th Avenue at Duval Street to North Monroe Street at Legion Street (74)	Shared-use path	To create a connection to Lake Ella from the Oak Hill neighborhood	$125,000
South Zillah Street from Paul Russell Road to Tram Road (75)	Sidewalks	To improve access to Pace Secondary School and Fairview Middle School	$560,000
Gaines Street Corridor/Myers Park Drive/Circle Dr from Meridian St to Magnolia Dr (79)	Bicycle route (may be on parallel street to Gaines)	To improve access from downtown to neighborhoods in east Tallahassee and to Myers Park and Old Fort Park; to serve as a commuter alternative to Apalachee Parkway	$6,000
Colonial Drive from Thomasville to 6th Avenue (82)	Sidewalks	To provide an alternate route to Thomasville Road; to improve access to neighborhood parks	$880,000
Lucy from Hillcrest to Magnolia & Hillcrest from Miccosukee to Lucy (84)	Sidewalks	To improve access to Cobb Middle School and Kate Sullivan Elementary	$760,000
Campbell Connector Trail	Multiuse Trail		$700,000
FAMU Way Extension	Multiuse Trails	Additional east-west connectivity	$2,000,000
Four Points Bikeway Trailhead	Trailhead along St. Marks Trail	Implements Greenways Master Plan	$40,000
Lipona PASS	Curb& gutter with sidewalks and bikelanes	In City CIP	$500,000
Tallahassee Junction Bikeway Trail Head	Trail head at intersection of St. Marks & proposed Gopher Frog Alligator Trail	Design mostly complete ($60 K already expended)	$280,000
Blair Stone & Old St. Augustine	Intersection & Safety Improvements	In County CIP	$500,000
Magnolia Drive & Lafayette	Intersction improvements and pedestrian amenities	In County CIP; $205,125 expended to date	$697,137
Providence Neighborhood Rennaisance	Sidewalks McCaskill (Iamonia to Lake Bradford) Stuckey (Iamonia to Lake Bradford) Highland (Levy to Stuckey) Holmes (Levy to Stuckey)	Neighborhood Rennaissance Implementation; Neighborhood Infrastructure Enhancement Program	$10,700,000
Lipona Extension to Roberts	Shared Use Path	To provide north-south connectivity to Innovation Park	$125,000
Richmond Street from Preston to Alabama	Sidewalks	Neighborhood Infrastructure Enhancement Program	$400,000

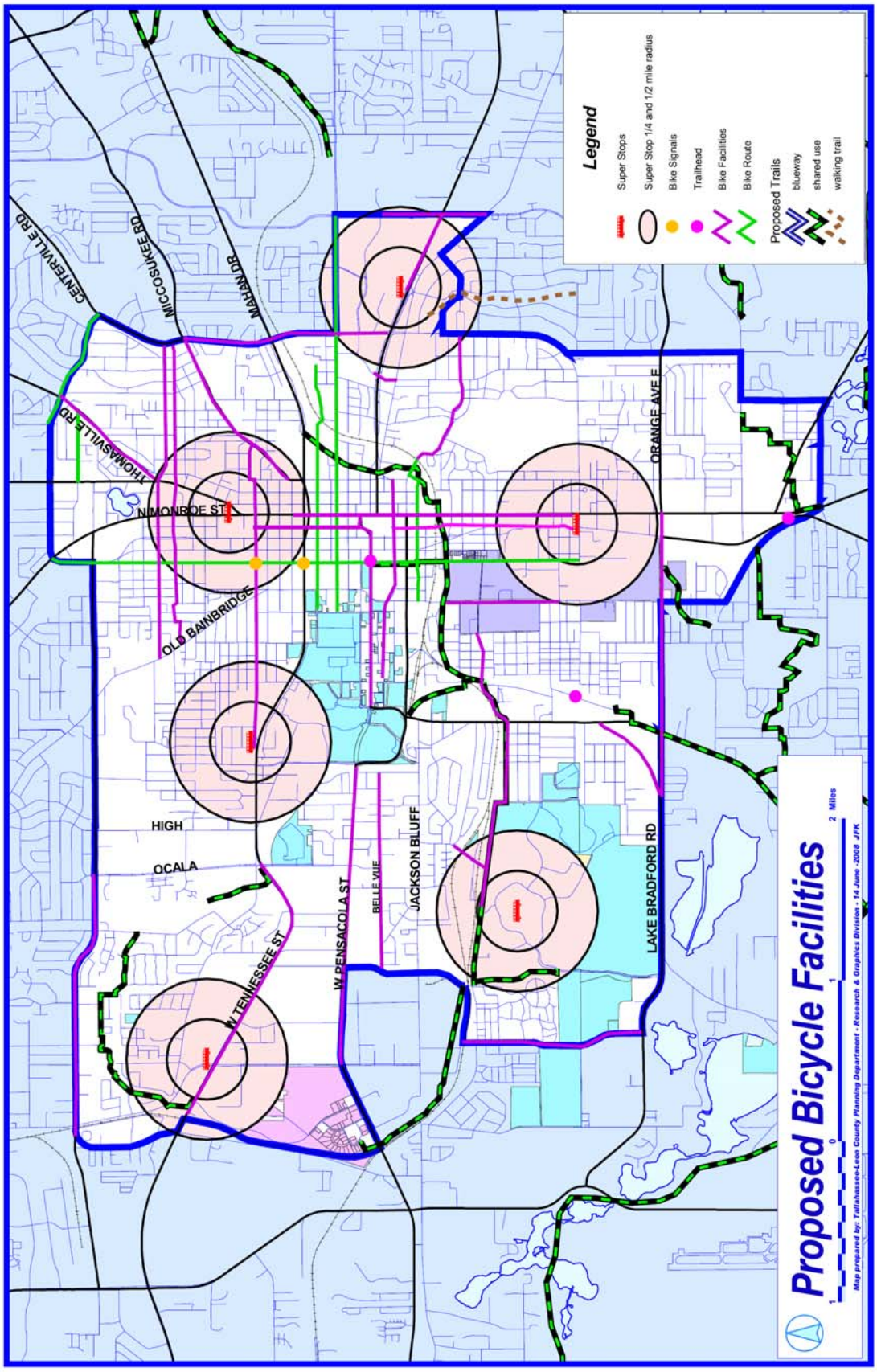
Gaines Street from South Monroe to Lake Bradford	Reduce to 2 lanes, replace curb & gutter, replacement sidewalks, restripe for onstreet parking	To implement the Gaines Street Vitalization Plan	$4,000,000
Lafayette Streetscape Construction	Sidewalks and streetscaping	To implement the recommendations of the Lafayette Streetscape Study	$2,100,000
Cascades Park Trail	Shared Use Path	As part of the overall Cascades Park $148,081,000 investment	$14,801,000
San Luis Greenway	Shared Use Path	Greenways Master Plan	$500,000
FAMU Pedestrian Trail	Shared Use Path	Greenways Master Plan	$250,000
FAMU / St. Marks Connector	Shared Use Path	Greenways Master Plan	$125,000
Mabry Greenway	Shared Use Path	Greenways Master Plan	$500,000
TCC/FSU/FAMU Connector	Shared Use Path	Greenways Master Plan	$1,000,000
Lake Bradford Road Gateway Enhancment (Stadium Drive to Pineview Elementary)	Enhanced pedestrian, bicycle, and transit facilities	Currently in CIP	$2,816,800
		Subtotal	**$119,191,390**

Transit	
New service bus purchase & intelligent transit (automatic vehicle locator, GPS, real time information), wireless internet, advanced farebox, etc. (2010-2015)	$5,850,000
Superstop at Apalachee Parkway/Old St. Augustine/Governorn's Square Mall	$400,000
Superstop at Midtown	$220,000
Superstop at Florida State on Tennessee Street	$170,000
Superstop at Florida A&M Adams Street	$220,000
C.K. Steele Reconstruction Preliminary Design and Engineering	$500,000
C.K. Steele Demolition	$500,000
Streetcar (preliminary design & engineering)	$500,000
Downtown Circulator Buses (4)	$1,560,000
Stop amenities (signage, solar lighting, etc.), shelters, benches for Downtown Circulator	$300,000
New service bus purchase & intelligent transit (automatic vehicle locator, GPS, real time information), wireless internet, advanced farebox, etc. (2016-2020)	$6,025,500
Superstop at Appleyard and Tennessee	$220,000
Superstop at Innovation Park	$220,000

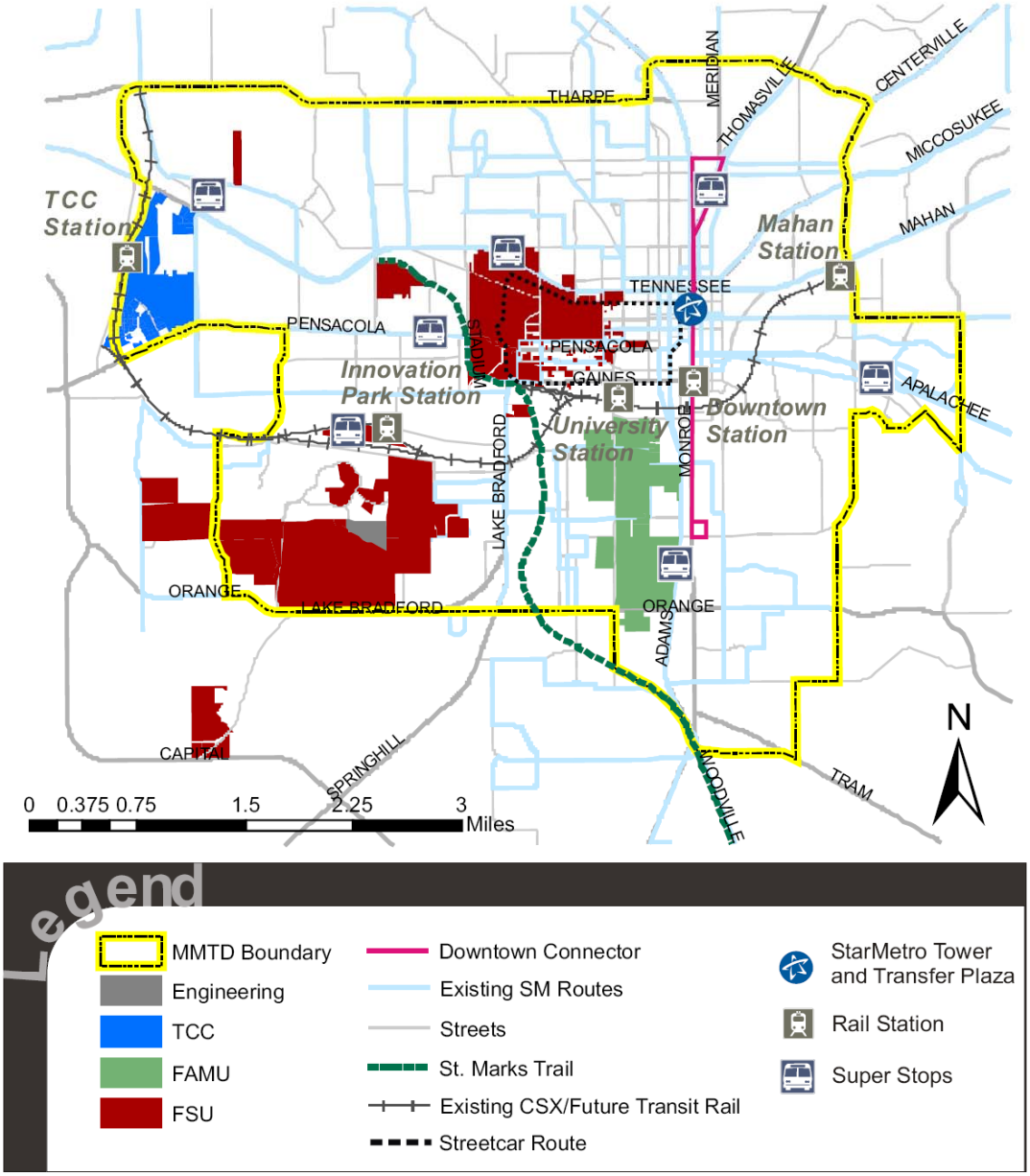
Streetcar - purchase cars and construct facilities	$45,000,000
Purchase cars and construct facilities	
C.K. Steele Reconstruction - Construction	$27,000,000
New service bus purchase & intelligent transit (automatic vehicle locator, GPS, real time information), wireless internet, advanced farebox, etc. (2021-2025)	$6,206,265
Dedicated bus lane, Tennessee St, Ocala to Adams (curbs & resurfacing)	$1,100,000
New streetcar purchase	$1,000,000
New service bus purchase & intelligent transit (automatic vehicle locator, GPS, real time information), wireless internet, advanced farebox, etc. (2026-2030)	$6,392,453
Adams Street/Cascades Park Rail Station	$3,000,000
Tallahassee Community College Rail Station	$3,000,000
Transit Subtotal	**$109,384,218**
TOTAL	**$228,575,608**

* Note: Bicycle and Pedestrian Master Plan project #36 listed several projects on neighborhood streets surrounding Florida A&M University. Over the past three years, City Public Works staff began planning the construction of these sidewalks through the Neighborhood Infrastructure Enhancement Program. However, in several cases right of way issues and concerns by the University about loss of street parking prohibited the construction. These streets are therefore not shown in the priority list below, but will be revisited during the update to the Regional Mobility Plan.


Legend
Super Stops
Super Stop 1/4 and 1/2 mile radius
Pedestrian Emphasis Intersections
Pedestrian Supportive Intersections
Proposed Sidewalks
Existing Sidewalks
Proposed Trails
blueway
shared use
walking trail
Proposed Pedestrian Facilities
2 Miles
CENTERVILLE RD
MICCOSUKEE RD
MAHAN DR
THOMASVILLE RD
N MONROE ST
OLD BAINBRIDGE
ORANGE AVE E
HIGH
OCALA
W TENNESSEE ST
W PENSACOLA ST
BELLEVUE
JACKSON BLUFF
LAKE BRADFORD RD


Legend
Super Stops
Super Stop 1/4 and 1/2 mile radius
Bike Signals
Trailhead
Bike Facilities
Bike Route
Proposed Trails
blueway
shared use
walking trail
Proposed Bicycle Facilities
2 Miles
Map prepared by: Tallahassee-Leon County Planning Department - Research & Graphics Division - 14 June -2008 JPK
CENTERVILLE RD
MICCOSUKEE RD
MAHAN DR
THOMASVILLE RD
N MONROE ST
OLD BAINBRIDGE
ORANGE AVE E
HIGH
OCALA
W TENNESSEE ST
W PENSACOLA ST
BELLE VUE
JACKSON BLUFF
LAKE BRADFORD RD

StarMetro 20-year Facilities Inside the Multimodal Transportation District, 2008



"Financial feasibility" means that sufficient revenues are currently available or will be available from committed funding sources for the first 3 years, or will be available from committed or planned funding sources for years 4 and 5, of a 5-year capital improvement schedule for financing capital improvements, such as ad valorem taxes, bonds, state and federal funds, tax revenues, impact fees, and developer contributions, which are adequate to fund the projected costs of the capital improvements identified in the comprehensive plan necessary to ensure that adopted level-of-service standards are achieved and maintained within the period covered by the 5-year schedule of capital improvements. A comprehensive plan shall be deemed financially feasible for transportation and school facilities throughout the planning period addressed by the capital improvements schedule if it can be demonstrated that the level-of-service standards will be achieved and maintained by the end of the planning period even if in a particular year such improvements are not concurrent as required by s. 163.3180.

Chapter 163.3164(32)
Florida Statutes

FUNDING THE INFRASTRUCTURE PLAN: THE MOBILITY FEE AS PROPORTIONATE FAIR-SHARE

In a Multimodal District, roadway standards are relaxed to allow greater development and redevelopment at a truly urban scale. However, Florida Statutes require a Multimodal District have a financially feasible plan to fund the mobility infrastructure necessary to create the desired pedestrian, bicycle and transit friendly environment. The Mobility Fee methodology on the following page is proposed as a financially feasible solution to funding the Infrastructure Plan.

Figures are provided as an example only. *Estimates and calculations will be finalized during the next Capital Improvement Program update.*

1. Calculate the total projected cost of the multimodal projects over the 20-year planning period:

Total Estimated Cost of the Infrastructure Plan: **$228,575,608**

2. Deduct expected revenues over the same 20-year planning period:

Source of Expected Revenues	Amount
County Sales Tax / General Revenue	$8,236,471
County Special Projects	$10,700,000
City Sales Tax / General Revenue (Bike/Ped)	$50,000,000
City Special Projects	$4,000,000
Federal	$4,140,708
Federal Transit Authority (Section 5307)	$25,542,215
Federal Transit Authority (Section 5309)	$6,110,000
Florida Department of Transportation	$4,700,905
BP 2000 / Cascades Park	$14,801,000
CRTPA / Urban Attributable Funds (Bike/Ped)	$10,000,000
20-YEAR TOTAL EXPECTED REVENUES	**$138,231,299**

Remaining Balance of Infrastructure: **$90,344,309**

3. Calculate the automobile trips in 2030 based on the Future Land Use Designations in the Comprehensive Plan:

Estimated: 607,488

4. Multiply the automobile trips by a factor of 1.25 to calculate the number of person trips (the 1.25 is based on the national average of persons per automobile):

2030 Automobile Trips	x	1.25	=	Person Trips
607,488	x	1.25	=	759,360

5. **Divide Total Projected Cost of Multimodal Projects by Automobile Trips to determine a *Cost Per Trip*.**

Projected Cost of Multimodal Projects		
$90,344,309		Cost Per Trip
----------	=	$119
Person Trips in 2030		
759,360		

6. **When a new development comes in, concurrency staff determines the number of trips it will generate and multiplies that by the *Cost Per Trip* to determine the development's proportionate fair share.**

For example: a 400-unit student housing development, using an average daily trip generation of 4 automobile trips for mid-rise apartments

Average Daily Automobile Trips Created: 1,600

X 1.25

Person Trips Created: 2000

X $119

Proportionate Fair-Share: $238,000

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