II

North Central Florida Regional Planning Council

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May 14, 2020

TO: Year 2045 Long-Range Transportation Plan Technical Working Group

FROM: Scott R. Koons, AICP, Executive Director SRK

SUBJECT: Meeting Announcement and Agenda

Due to the COVID-19 Public Health Emergency, the Metropolitan Transportation Planning Organization Year 2045 Long-Range Transportation Plan Technical Working Group will meet virtually on May 21, 2020 at **3:00 p.m.** The meeting will be conducted via communications media technology at the following formats:

https://global.gotomeeting.com/join/399118645

1.571.317.3122 Access Code: 399-118-645

STAFF RECOMMENDATION

Call to Order

I. Introductions (if needed)*

Page #1 **II. Approval of Meeting Agenda** — **APPROVE AGENDA**

Page #3 **III. Year 2045 Long-Range Transportation Plan Update Draft Needs Plan Development** — **DEVELOP DRAFT NEEDS PLAN**

The Corradino Group, Inc. has analyzed the congested road network for development of the Year 2045 Needs Plan.

Page #67 **IV. Year 2045 Long-Range Transportation Plan Update - Next Steps** — **NO ACTION REQUIRED**

The Corradino Group, Inc. and staff will discuss the next steps in the long-term transportation plan update process.

Adjournment

* No materials are provided for these agenda items

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May 14, 2020

TO: Year 2045 Long-Range Transportation Plan Technical Working Group

FROM: Scott R. Koons, AICP, Executive Director SRK

SUBJECT: Year 2045 Long-Range Transportation Plan Update - Draft Year 2045 Needs Plan

STAFF RECOMMENDATION

Develop draft Year 2045 Needs Plan for consideration and recommendation by the Metropolitan Transportation Planning Organization Advisory Committees.

BACKGROUND

For review by the Working Group, the Corradino Group, Inc. has completed transportation system travel demand analysis of the Year 2045 Long-Range Transportation Plan Gainesville Urbanized Area Transportation Study model, Year 2045 congested corridors have been identified and the consultant has developed a preliminary draft Year 2045 Needs Plan,

Exhibit 1 includes Year 2040 Needs Plan and congested corridor information. Exhibit 2 includes draft Year 2045 Needs Plan and congested corridor information developed by the consultant.

Attachments

EXHIBIT 1

Table 1: Adopted Year 2040 Needs Plan

Roadway Projects

R-A	Archer Road (State Road 24) – Widen to 4 lanes from Tower Road to SW 122nd Street (Metropolitan Transportation Planning Organization boundary)
R-B	Hull Road – Two-lane extension from SW 38th Terrace to SW 43rd Street
R-C	Intelligent Transportation Systems Program -Miscellaneous Intelligent Transportation Systems Projects
R-D	NW 23rd Avenue – Widen to 4 lanes from NW 58th Boulevard to NW 83rd Street
R-E	NW 23rd Avenue – Widen to 4 lanes from NW 83rd Street to NW 98th Street
R-F	NW 23rd Avenue – Two-lane extension from NW 98th Street to NW 122nd Street
R-G	NW 23rd Avenue – Two-lane extension from NW 122nd Street to NW 143rd Street
R-H	NW 34th Street (State Road 121) – Widen to 4 lanes from University Avenue (State Road 26) to NW 16th Avenue
R-I	NW 34th Street (State Road 121) – Widen to 4 lanes from NW 16th Avenue to NW 39th Avenue (State Road 222)
R-J	NW 34th Street (State Road 121) – Widen to 4 lanes from NW 39th Avenue (State Road 222) to US 441
R-K	NW 76th Boulevard – Two-lane extension from terminus to NW 83rd Street Extension
R-L	NW 83rd Street – Two-lane extension from Newberry Road (State Road 26) to NW 15th Place
R-M	NW 83rd Street – Two-lane extension from NW 15th Place to NW 23rd Avenue
R-N	NW 83rd Street – Widen to 4 lanes from NW 23rd Avenue to NW 39th Avenue (State Road 222)
R-O	NW 83rd Street – Two-lane extension from NW 39th Avenue (State Road 222) to Springhills Boulevard
R-P	NW 91st Street – Two-lane extension from terminus to Springhills Boulevard
R-Q	NW 98th Street – Two-lane extension from NW 39th Avenue (State Road 222) to Springhills Boulevard
R-R	NW 122nd Street – Two-lane extension from Newberry Road (State Road 26) to NW 39th Avenue (State Road 222)
R-S	Radio Road – Two-lane extension from SW 34th Street (State Road 121) to Hull Road
R-T	SE 6th Street – New two-lane roadway from SE Depot Avenue to SE 4th/5th Avenue
R-U	SE 21st Street – Two-lane extension from SE 8th Avenue to SE Hawthorne Road (State Road 20)
R-V	Springhills Boulevard – New two-lane roadway from NW 39th Avenue (State Road 222) to NW 83rd Street

R-W Springhills Connector – New two-lane roadway from Springhills Boulevard to Millhopper Road

R-X SW 20th/SW 24th Avenue – Widen to 4 lanes from SW 61st Street to SW 62nd Boulevard

R-Y SW 20th Avenue – Widen to 4 lanes from SW 62nd Boulevard to SW 43rd Street

R-Z SW 23rd Terrace Extension – Two-lane extension from Archer Road (State Road 24) to Hull Road

R-AA SW 24th Avenue – Two-lane extension from SW 40th Boulevard to SW 43rd Street

R-BB SW 47th Avenue – Two-lane extension from SW 34th Street to Williston Road (State Road 331)

R-CC SW 62nd Boulevard – Four-lane extension from Butler Plaza to SW 20th Avenue

R-DD SW 62nd Boulevard – Widen to 4 lanes from SW 20th Avenue to Newberry Road (State Road 26)

R-EE SW 63rd Boulevard – Two-lane extension from Archer Road (State Road 24) to SW 24th Avenue

R-FF Williston Road (State Road 331) – Widen to 4 lanes from SW 62nd Avenue to I-75

R-GG Resurfacing Program – Miscellaneous Roadway Maintenance Projects

Transit Projects

T-A	Archer Park and Ride Facility
T-B	Celebration Pointe Park and Ride Facility
T-C	Eastside Activity Center Park and Ride Facility (near SE 43rd Street and Hawthorne Road/State Road 20 intersection)
T-D	Expand weekend service on City routes (minimum 60 minute frequency and 10 hours service)
T-E	Extend regular transit service through Celebration Pointe
T-F	Extend regular transit service through Springhills
T-G	Extend regular service in southwest Gainesville (SW 40th Boulevard and SW 47th Avenue area)
T-H	Extend regular service in south Gainesville (South Main Street / State Road 329 and Williston Road / State Road 331 area)
T-I	Five Points Transfer Station
T-J	Hawthorne Park and Ride Facility
T-K	Increase weekday frequencies on City routes (minimum 30 minute frequency)
T-L	Increase weekday operating hours on City routes (minimum 14 hours service)
T-M	Intercity Weekday Commuter Service to/from Archer
T-N	Intercity Weekday Commuter Service to/from Hawthorne
T-O	Intercity Weekday Commuter Service to/from High Springs and Alachua
T-P	Intercity Weekday Commuter Service to/from Newberry
T-Q	Intercity Weekday Commuter Service to/from Waldo
T-R	Newberry Village Park and Ride Facility (Newberry Road / State Road 26 just east of Ft. Clarke Boulevard)
T-S	Oaks Mall Transit Center / Park and Ride Facility
T-T	Santa Fe College Transit Center
T-U	Springhills Area Park and Ride Facility (North of NW 39th Avenue / State Road 222)
T-V	Transit Program – Miscellaneous transit facilities and amenities, including bus purchases
T-W	University of Florida Transit Center
T-X	Waldo Park and Ride Facility

Note - These transit projects are associated with the previous Transit Development Plan

Bicycle and Pedestrian Projects

BP-A Archer Braid – Construct overpass at Hull Road / SW 34th Street (State Road 121) intersection

BP-B Bicycle Program – Miscellaneous bicycle lanes and facilities

BP-C Bivens Braid – Construct shared use path on SW 23rd Street from SW 23rd Terrace to Archer Road (State Road 24)

BP-D Glen Springs Braid – Construct shared use path on Glen Springs Road corridor from NW 34th Street (State Road 121) to NW 16th Terrace

BP-E Glen Springs Braid – Construct bicycle facility on NW 19th Lane from NW 16th Terrace to NW 13th Street (US 441)

BP-F Hawthorne Braid – Extend CSX trail from NW 16th Avenue to NW 39th Avenue (State Road 222)

BP-G Millhopper Braid – Construct bike lanes on NW 16th Avenue from NW 13th Street to N Main Street

BP-H Multimodal Emphasis Corridor (Safety Study) on NE/SE Waldo Road (State Roads 24/331 from SE 16th Avenue/State Road 24A to NE 39th Avenue/State Road 222

BP-I Multimodal Emphasis Corridor on NW/SW 13th Street (US 441) from NW 33rd Avenue to Archer Road (State Road 24)

BP-J Multimodal Emphasis Corridor on University Avenue (State Road 26) from Gale Lemerand Drive to Waldo Road (State Road 24)

BP-K Pedestrian Program – Miscellaneous sidewalk and pedestrian projects, including auditory signals at crossings

BP-L SW 40th Boulevard – Construct trail from SW 34th Street (State Road 121) to Archer Braid at SW 30th Avenue

BP-M University Braid – New trail on University Avenue (State Road 26) from Waldo Road (State Road 24) to NE 55th Boulevard

BP-N Williston Road (State Road 331) – Construct bicycle/pedestrian trail from I-75 to Waldo Road (State Road 24)

Aspirational Projects (beyond 2040)

A-A Archer Road (State Road 24) – Provide dedicated transit lanes from Celebration Pointe to SW 91st Street

A-B Celebration Pointe Boulevard – Provide dedicated transit lanes from SW 62nd Boulevard to Archer Road (State Road 24)

A-C Fort Clarke Boulevard – Provide dedicated transit lanes from NW 23rd Avenue to NW 15th Place

A-D Hawthorne Road (State Road 20) – Provide dedicated transit lanes from SE 27th Street to SE 43rd Street

A-E Newberry Road (State Road 26) – Provide dedicated transit lanes from I-75 to NW 143rd Street

A-F NW 15th Place – Provide dedicated transit lanes from Fort Clarke Boulevard to NW 76th Boulevard

A-G NW 76th Boulevard – Provide dedicated transit lanes from NW 15th Place to Newberry Road (State Road 26)

A-H NW 83rd Street – Provide dedicated transit lanes from NW 23rd Avenue to NW 39th Avenue (State Road 222)

A-I NW 122nd Street – Provide dedicated transit lanes from Newberry Road (State Road 26) to Springhills Boulevard

A-J Springhills Boulevard – Provide dedicated transit lanes from NW 122nd Street to NW 83rd Street

A-K SW 91st Street – Provide dedicated transit lanes from Archer Road (State Road 24) to SW 46th Boulevard

A-L SW 122nd Street – Provide dedicated transit lanes from SW 46th Boulevard to SW 24th Avenue (partial new corridor)

A-M SW 122nd Street – Provide dedicated transit lanes from SW 24th Avenue to Newberry Road (State Road 26)

Note - Red text projects are associated with a proposed Gainesville Metropolitan Area Bus Rapid Transit system from the previous Transit Development Plan that was not pursued.

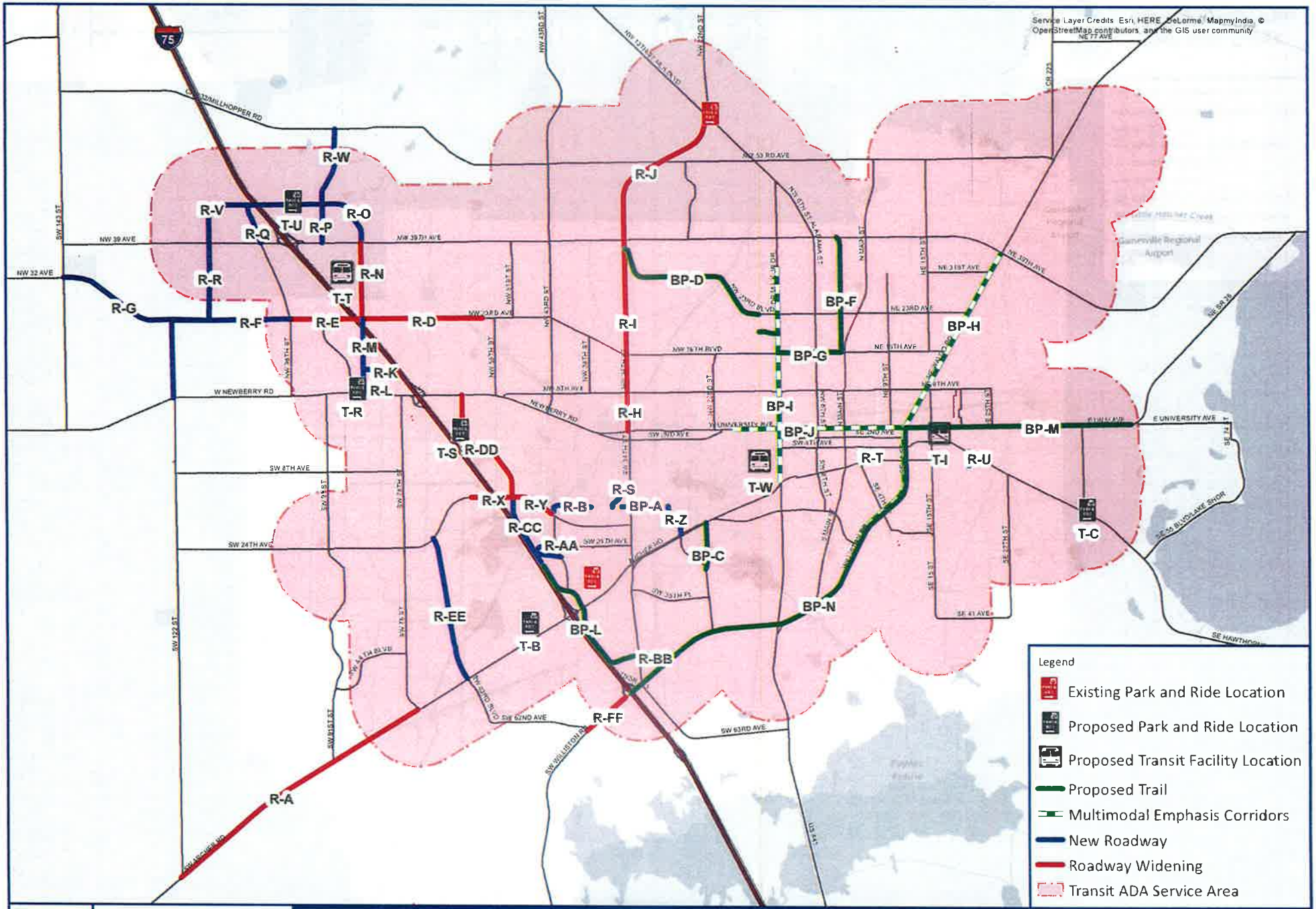


Figure 3

0 0.5 1 Miles

Adopted 2040 Needs Plan

2040 Long Range Transportation Plan

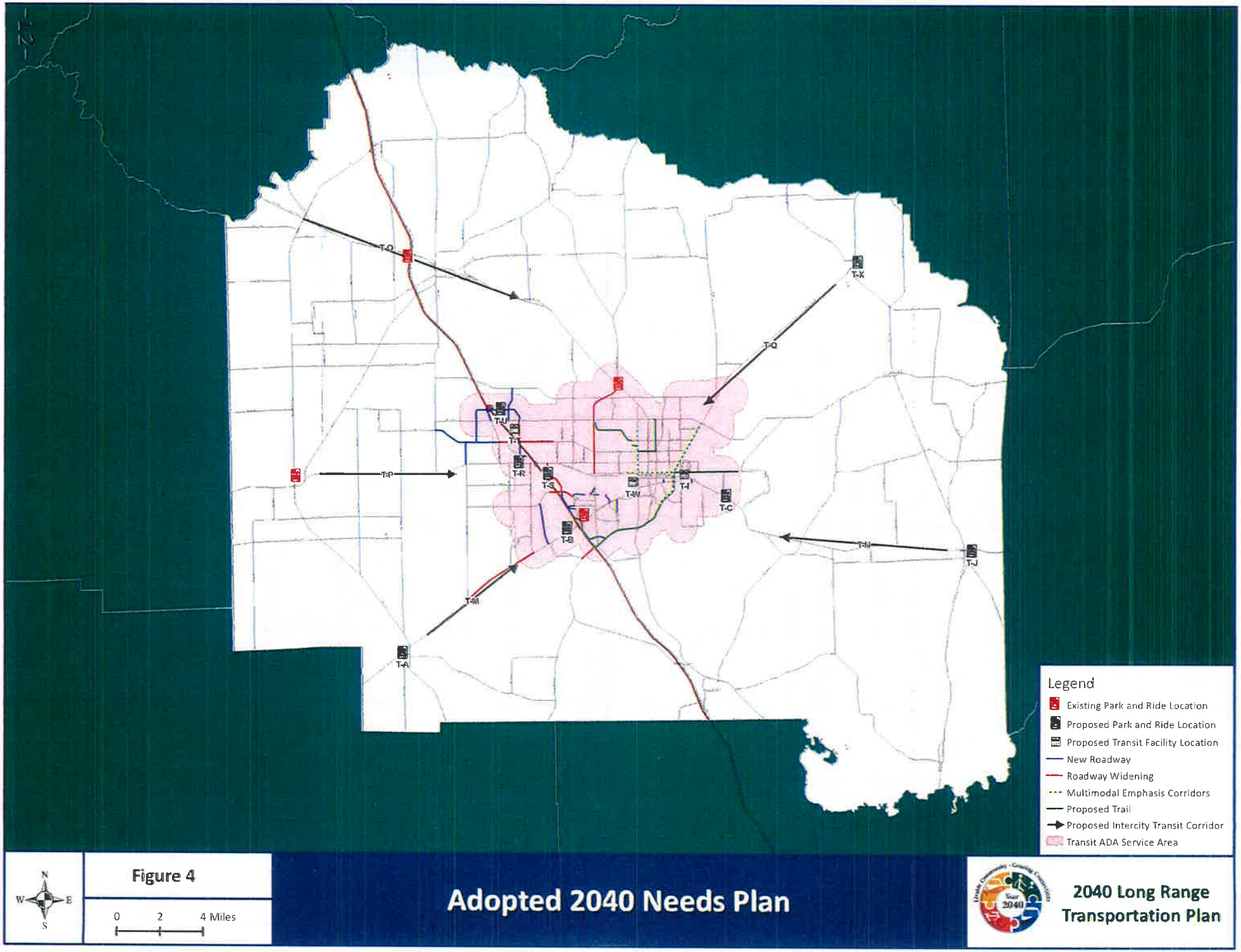


Figure 4

Adopted 2040 Needs Plan

2040 Long Range Transportation Plan

Table 2: Relationship between Volume-to-Capacity Ratios and Congestion Levels

Daily Volume-to-Capacity Ratio	Congestion Level
0.9- 1.1	Borderline Congested
1.1 to 1.3	Congested
Higher than 1.3	Very Congested

The segment volume-to-capacity ratios were used as a basis for evaluating Needs Plan projects. A volume-to-capacity of 1.0 or above generally indicates a congested condition in which projected volume exceeds available capacity. For purposes of this Long Range Transportation Plan, roadways with a 0.9 to 1.1 volume-to-capacity were flagged as borderline congested, while roads having a volume-to-capacity of greater than 1.3 indicate a severe level of congestion.

The Year 2040 deficiency analysis yielded a number of roadways expected to experience some degree of congestion if no additional modifications are made through the year 2040. Below is a list of the roadways expected to experience some levels of congestion in the year 2040 based on the travel demand model.

Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area Year 2040 Long Range Transportation Plan – Year 2040 Forecasted Congested Roadways (based on Existing-plus-Committed Network)

NW 39th Ave – SW 143rd Street to NW 91st Street
SW 143rd Street – Newberry Road to NW 46th Avenue
NW 98th Street – Newberry Road to NW 39th Avenue
Ft. Clark Boulevard – Newberry Road to NW 23rd Avenue
NW 83rd Street – NW 23rd Avenue to SW 39th Avenue
NW 91st Street/N Road – NW 83rd Street to NW 39th Avenue
NW 23rd Avenue – NW 98th Street to NW 43rd Street
NW 16th Boulevard – NW 43rd Street to NW 34th Street
NW 55th Street – Newberry Road to NW 23rd Avenue
NW 51st Street – NW 23rd Avenue to NW 39th Avenue
NW 43rd Street – Newberry Road to NW 39th Avenue
NW 38th Street – NW 8th Avenue to NW 16th Boulevard
NW 8th Avenue – Newberry Road to NW 6th Street
NE 8th Avenue – NE 9th Street to Waldo Road

SW 91st Street – SW 46th Boulevard to Newberry Road
SW 46th Boulevard – SW 91st Street to SW 75th Street/Tower Road
SW 75th Street/Tower Road – SW 75th Court to SW 24th Avenue
SW 75th Street/Tower Road – University Avenue to Newberry Road
Newberry Road (SR 26) – NW 98th Street to NW 60th Street
Newberry Road (SR 26) – NW 39th Road to SW 2nd Avenue
SW 62nd Boulevard – Newberry Road to SW 24th Avenue
SW 24th Avenue – SW 91st Street to SW 62nd Boulevard
SW 20th Avenue – SW 62nd Boulevard to SW 34th Street
SW 43rd Street – SW 62nd Boulevard (new) to SW 20th Avenue
SW 38th Terrace Extension – SW 42nd St to Hull Road Extension
Hull Rd Extension – SW 38th Terrace to SW 34th Street
SW 24th Avenue – SW 38th Terrace to SW 34th Street
Windmeadows Boulevard – Lowe's to SW 34th Street
Archer Road (SR 24) – SW 122nd Street to SW 75th Street
Archer Road (SR 24) – I-75 to SW 13th Street
SW 16th Avenue (SR 226) – Shealy Drive to Main Street
SW 16th Street – SW 16th Avenue to Archer Road
Williston Road (SR 331) – SW 63rd Boulevard to SW 34th Street
Williston Road (SR 331) – SW 23rd Terrace to SW 13th Street
SW 23rd Terrace – Williston Road to Archer Road
SW 35th Place – SW 34th Street to SW 23rd Terrace
SW 39th Boulevard – Archer Road to SW 34th Street
SW 34th Street (SR 121) – SW 35th Place to SW 2nd Avenue
NW 34th Street (SR 121) – NW 1st Court to NW 16th Avenue
NW 34th Street (SR 121) – NW 31st Boulevard to NW 73rd Place
NW 39th Avenue – NW 34th Street to NW 13th Street
NW 23rd Boulevard – NW 22nd Street to NW 13th Street
NW 16th Terrace – NW 16th Avenue to NW 23rd Avenue
NW 16th Avenue – NW 34th Street to Main Street
NW 23rd Street – University Avenue to NW 8th Avenue
NW 22nd Street – University Avenue to NW 16th Avenue
NW 17th Street – University Avenue to NW 5th Avenue
NW 5th Avenue – NW 22nd Street to NW 13th Street
University Avenue (SR 26) – NW 34th Street to Waldo Road
SW 2nd Avenue – SW 34th Street to University Avenue
SW 2nd Avenue – SW 13th Street to SE 3rd Street
SW 4th Avenue – SW 13th Street to SE 3rd Street
SW/NW 13th Street (US 441) – SW 16th Avenue to NW 39th Avenue
NW 13th Street (US 441) – NW 6th Street to NW 34th Street
SW 12th Street – SW 8th Avenue to University Avenue
SW/NW 10th Street – SW 8th Avenue to NW 16th Avenue
SW/NW 6th Street – SW 4th Avenue to NW 19th Avenue
NW 6th Street – NW 39th Avenue to NW 13th Street

NW 2nd Street – NW 8th Avenue to NW 19th Avenue
Main Street (SR 329) – Depot Avenue to NE 16th Avenue
SE 3rd Street – Depot Avenue to University Avenue
SE 4th Street – Depot Avenue to Williston Road
NE 9th Street – NE 8th Avenue to NE 16th Avenue
Waldo Road – University Avenue to NE 16th Avenue
SE/NE 15th Street – SE 8th Avenue to NE 8th Avenue
SE 8th Avenue – SE 15th Street to Hawthorne Road

In addition, many of the roadways on the University of Florida campus are projected to be congested in the future. These include:

University of Florida Campus Roads
Radio Road – SW 34th Street to Museum Road
Museum Road – Hull Road to SW 13th Street
Hull Road – SW 34th Street to Mowry Road
SW 23rd Drive – Archer Road to Hull Road
Mowry Road – Hull Road to Center Drive
Center Drive – Archer Road to Museum Road
Village Drive – Museum Road to SW 2nd Avenue
Woodlawn Drive – Museum Road to Stadium Road
Stadium Road – Woodlawn Drive to Buckman Drive
Buckman Drive – Stadium Road to University Avenue
Union Road – Buckman Drive to SW 13th Street
Newell Drive – Archer Road to Union Road
Gale Lemerand Drive – Archer Road to University Avenue

Figure 8 depicts the projected congestion for the Existing-plus-Committed Network in the year 2040. Roadways with a volume to capacity ratio greater than 1.3 were considered to be "very congested." Much of the congestion is projected in the area north and west of downtown along the major corridors leading to the University of Florida and downtown Gainesville, such as US 441/W. 13th Street, Newberry Road, SW 20th Avenue, Archer Road, and NW 34th Street. Table 3 provides a model output summary of how the Existing-plus-Committed Network is projected to perform in the year 2040. This analysis provided a baseline for developing and testing of the three network alternatives during the next phase of Needs Plan development.

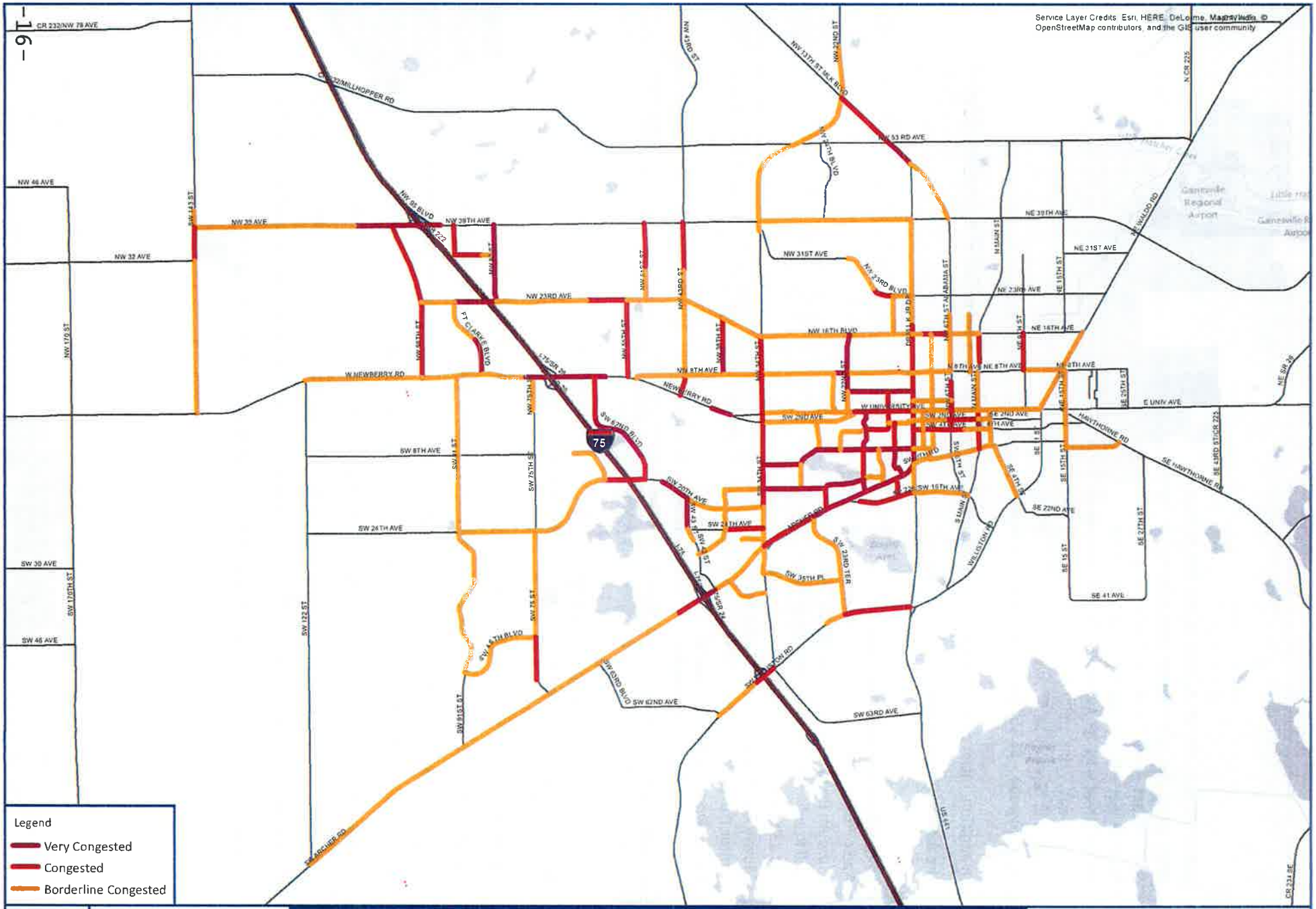


Figure 8

2040 Exiting + Committed Network Congestion

2040 Long Range Transportation Plan

EXHIBIT 2

Year 2045 Long-Range Transportation Plan

Needs Plan Project List Development

As part of the 2045 Long-Range Transportation Plan, Needs Plan project list development, the following technical analysis was conducted using the updated Gainesville/Alachua County Model.

1) The adopted Existing Plus Committed projects list was obtained from the Metropolitan Transportation Planning Organization.
2) Existing Plus Committed projects were coded using the updated model 2015 base year network.
3) 2045 socio economic data was developed using 2040 approved data and 5-year growth was added to match the Bureau of Economics & Business Research population estimate.
4) University of Florida estimates of student enrollments, university employment, parking spaces and classroom seats were obtained from the university staff.

Appendix 1 shows the Existing Plus Committed projects list. Table 1 shows the socioeconomic data summary

Table 1: 2015 - 2045 Socioeconomic Data Summary

Variable	Description	2015	2045	Growth
TOTPOP	Total Population	253,317	309,800	0.74%
SFDU	Single-family Dwelling Units	62,365	71,614	0.49%
SPOP	Single-family Population	148,609	170,649	0.49%
MFDU	Multi-family Dwelling Units	53,414	70,985	1.10%
MFPOP	Multi-family Population	104,707	139,151	1.10%
HMDU	Hotel-Motel Dwelling Units	4,806	5,931	0.78%
SCHENR	School Enrollment	34,978	43,163	0.78%
TOTEMP	Total Employment	154,646	215,886	1.32%
UF_EMP	UF Employment	25,525	25,944	0.05%
UF_DORM_ST	UF Dorm Students	10,509	11,790	0.32%
UF_OC_ST	UF off-campus Students	33,063	34,556	0.00%
UF_PARKING	UF Parking	15,957	19,564	0.75%
SEATS (UF)	Capacity	28,336	28,336	0.00%

2045 Existing Plus Committed Model Run and Results

The 2045 Existing Plus Committed model run was performed using the Existing Plus Committed project list and the 2045 socioeconomic data. Table 2 compares the system-wide performance measures of the 2015 base year model and 2045 Existing Plus Committed model.

Table 2: System-wide Model Performance Measures Comparison

Model Performance Measure	2015 Base Year Model Output Summary	2045 Existing Plus Committed Model Output Summary	Percent Annual Growth Rate
Total Number of Links	4,972	5,013	0.03%
Total Lane Miles	2,169.69	2,177.76	0.01%
Total Directional Miles	1,664.83	1,674.13	0.02%
Total Volumes All Links	26,432,032	37,146,552	1.35%
Total VMT All Links	7,869,116	11,164,720	1.40%
Total VHT All Links	197,326	328,140	2.21%
Original Speed (MPH)	40.03	40	0.00%
Congested Speed (MPH)	38.68	36.66	-0.17%

The comparison of Table 1 and Table 2 indicates that the total Vehicle Miles Travelled (VMT) increased at reasonable rate and is in line with the population/employment growth within the region.

Link-level Congestion Analysis

A planning level congestion analysis was performed using the existing plus committed network link-level model volumes and their corresponding daily capacities. Table 3 shows the assumed relationship between the model Volume-to-Capacity Ratios and Congestion Levels

Table 3: Relationship between Volume-to-Capacity Ratios and Congestion Levels

Daily Volume-to-Capacity Ratio	Congestion Level
0.9- 1.1	Borderline Congested
1.1 to 1.3	Congested
Higher than 1.3	Very Congested

The link-level volume-to-capacity ratios were used as a basis for evaluating Needs Plan projects. A volume-to-capacity of 1.0 or above generally indicates a congested condition in which projected volume exceeds available capacity. For purposes of this Long-Range Transportation Plan, roadways with a 0.9 to 1.1 volume-to-capacity were flagged as borderline congested, while roads having a volume-to-capacity of greater than 1.3 indicate a severe level of

congestion. The Year 2045 deficiency analysis yielded several roadways expected to experience some degree of congestion, if no additional improvements are made through the year 2045. Appendix 2 presents a list of the roadways expected to experience some levels of congestion in the year 2045 based on the travel demand model results. In addition, the needed capacity improvements were identified for the congested roadway segments under unconstrained conditions and policy constrained conditions. The Metropolitan Transportation Planning Organization policy is to not add any more six-lane roadways than what currently exist in the region.

Appendix 3 presents the congested roadway segments maps for the Existing-plus-Committed Network in the year 2045. Much of the congestion is projected in the Gainesville urban area.

Appendix 1: Adopted Existing Plus Committed projects list

Project ID	Existing Plus Committed Projects	From	To	TCG Comments
1	Turn lane Realignment - 2 Through Lanes North-South SW 34 Street (SR 121)	SW 2 Avenue (SR 26A)	W University Avenue (SR 26)	Network coding 6 lanes
2	Construct Roadway Extension; Modify Intersection IFAS Research Drive/ SW 23 Terrace	Archer Road [SR 24]	Hull Road	Coded
3	Realign Roadway - Convert Roadway to Parking Adjacent to Lacrosse Field; extend Roadway to Research Drive Natural Area Drive	Surge Area Drive	Hull Road	Coded
4	Reconfigure Roadway - Eliminate Parking; 2-Way Traffic Inner Road	Newell Drive	SW 13 Street (US 441)	Coded
5	University of Florida Campus Bicycle/Pedestrian Exclusive Area Boundaries			
	SW 13 Street (US 441)	Inner Road	W University Avenue (SR 26)	Coded
	W University Avenue (SR 26)	Buckman Drive	SW 13 Street (US 441)	Coded
	Inner Road	Newell Drive	SW 13 Street (US 441)	Coded
	Buckman Drive	Stadium Road	W University Avenue (SR 26)	Coded
6	SW 62 Boulevard Connector PDE			
	SR 24 to SR 26 - 4-Lane Divided;	Archer Road (SR 24)	Newberry Road (SR 26)	
	Interim Project - 2-Lane New Construction			Coded
	Clark Butler Boulevard to SW 20 Avenue			Coded in existing conditions
	SW 62 Boulevard			
7	New Road Construction SW 8 Avenue Connector	SW 20 Avenue	Tower Road	Coded 2 lanes
8	New Road Construction SW 8 Avenue Extension	SW 143 Street	SW 122 Street	Coded 2 lanes
9	New Road Construction SW 40 Blvd Connector	SW 34 Street (SR 121)	Archer Road (SR 24)	Coded 2 lanes
10	2-Lane Reduction; Add On street Parking South Main Street	S 16 Avenue [SR 226]	Depot Avenue	Coded
11	New Road Construction Hull Road Extension	SW 34 Street (SR 121)	Archer Road (SR 24)	Coded in existing conditions
12	New Road Construction SW 38 Terrace Extension	Plaza Boulevard	Hull Road	Coded in existing conditions
	Celebration Pointe Transportation Facilities			
	SW 45 Street Extension			
13	SW 45 Street	Archer Road [SR 24]	Bass Pro Shop	Coded in existing conditions
14	Celebration Pointe Avenue and Bridge - 2-Lane Celebration Pointe Avenue	SW 45 Street Extension	SW 42 Way	Coded in existing conditions
	Butler Plaza Expansion Transportation Facilities			

15	Clark Butler Boulevard Extension - 4-Lane Divided Clark Butler Boulevard	Archer Road [SR 24]	SW 43 Street	Coded in existing conditions
16	Plaza Boulevard - 2-Lane Divided Plaza Boulevard	SW 42 Street	SW 24 Avenue	Coded in existing conditions
17	SW 30 Avenue - 2-Lane SW 30 Avenue	SW 40 Boulevard	SW 42 Street	Coded in existing conditions
18	Regional Transit System Transfer Station Park-and-Ride Facility	SW 42 Way	SW 42 Street	
19	SW 42 Street Realignment SW 42 Street	SW 40 Boulevard	Clark Butler Boulevard	Coded in existing conditions
20	SW 30 Boulevard Extension - 2-Lane SW 30 Boulevard	SW 42 Way	Windmeadows Boulevard	Coded in existing conditions
21	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SE 7 Avenue	At SE 4 Street	Roundabouts are not required in the network
22	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SW 6 Street		Roundabouts are not required in the network
23	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SW 11 Street	At SW 9 Road	Roundabouts are not required in the network

Appendix 2: Existing Plus Committed Congested Roadways

X -> Indicates congested projects identified in Year 2045 and in Year 2040 Long-Range Transportation Plan Update

X -> Indicates additional congested projects identified in Year 2045 Long-Range Transportation Plan Update

X -> Congested facilities with policy constraint

Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area Year 2045 Long Range Transportation Plan
Year 2045 Forecasted Congested Roadways (based on Existing-plus-Committed Network)

Project ID	Map ID	Facility name	From	To	Level of Congestion	Existing - plus - committed Lanes	Total Recommended Lanes (Unconstrainted)	Recommended Lanes with Policy constraints (Constrained)
1001	29	Archer Road (SR 24)	SW 173rd Court	SW 75th Street/Tower Road	Congested	2	4	4
1002	86	Archer Road (SR 24)	SW 75th Street/Tower Road	I-75	Congested	4	6	4
1003	85	Archer Road (SR 24)	I-75	SW 16th Avenue	Congested	6	8	6
1004	30	Archer Road (SR 24)	SW 16th Avenue	SW 13th Street	Very Congested	4	6	4
2001	76	Buckman Drive	Stadium Road	University Avenue	Very Congested	2	4	4
2002	47	NW 17th Street	University Avenue	NW 8th Avenue	Congested	2	4	4
3001	72	Center Drive	Archer Road	Museum Road	Very Congested	2	4	4
4001	142	CR 234 / SE 175 Avenue	I-75	NW Seminary Avenue	Borderline Congested	2	4	4
5001	99	Depot Avenue	SW 13th Street	SE 11th Street	Congested	2	4	4
6001	120	Fraternity Drive	Stadium Road	Museum Road	Borderline Congested	2	4	4
7001	4	Ft. Clark Boulevard	Newberry Road	NW 23rd Avenue	Congested	2	4	4
8001	115	Gale Lemerand Drive	SW 16th Avenue	Archer Road	Very Congested	2	4	4
8002	79	Gale Lemerand Drive	Archer Road	Museum Road	Very Congested	4	6	4
8003	101	Gale Lemerand Drive	Museum Road	University Avenue	Very Congested	2	4	4
9001	91	High Springs Main Street	NW Santa Fe Boulevard	NW 182nd Avenue	Borderline Congested	2	4	4
10001	26	Hull Rd Extension	SW 38th Terrace	SW 34th Street	Borderline Congested	2	4	4
10002	69	Hull Road	SW 34th Street	Mowry Road	Very Congested	2	4	4

11001	83	I-75	Countyline/ External Station	CR 234	Congested	6	8	8
12001	112	Inner Road	Newell Drive	NW 13th Street	Very Congested	2	4	4
13001	60	Main Street (SR 329)	NW 16th Avenue	NW 23rd Avenue	Congested	2	4	4
13002	98	Main Street (SR 329)	NW 23rd Avenue	NE 16th Avenue	Borderline Congested	4	6	4
14001	71	Mowry Road	Hull Road	Center Drive	Very Congested	2	4	4
15001	68	Museum Road	Hull Road	SW 12th Street	Very Congested	2	4	4
16001	119	NE 6th Street	NE 8th Avenue	NE 16th Avenue	Borderline Congested	2	4	4
17001	13	NW 8th Avenue	Newberry Road	NW 34th Street	Congested	4	6	4
17002	102	NW 8th Avenue	NW 34th Street	NW 6th Street	Congested	2	4	4
17003	103	NW 8th Avenue	NW 6th Street	Main Street	Borderline Congested	4	6	4
17004	104	NW 8th Avenue	Main Street	NE 2nd Street	Borderline Congested	2	4	4
17005	14	NE 8th Avenue	NE 9th Street	NE 15th Street	Congested	2	4	4
18001	63	NE 9th Street	W University Avenue	NE 28th Avenue	Borderline Congested	2	4	4
19001	126	NE Boulevard	NE 2nd Avenue	NE 5th Avenue	Borderline Congested	2	4	4
20001	110	Newberry Avenue	SW 266 Street	SW 250 Street	Very Congested	2	4	4
21001	19	Newberry Road (SR 26)	NW 170th Street	I-75	Borderline Congested	4	6	4
21002	84	Newberry Road (SR 26)	I-75	NW 8th Avenue	Very Congested	6	10	6
21003	20	Newberry Road (SR 26)	NW 8th Avenue	SW 2nd Avenue	Congested	4	6	4
22001	78	Newell Drive	Archer Road	Union Road	Very Congested	2	4	4
23001	118	NW 11th Avenue	NW 18th Street	NW 13th Street	Borderline Congested	2	4	4
24001	57	SW/NW 6th Street	SW 4th Avenue	NW 8th Avenue	Very Congested	2	4	4
24002	58	NW 6th Street	NW 8th Avenue	NW 13th Street	Borderline Congested	4	6	4
24003	54	NW 13th Street (US 441)	NW 6th Street	NW 93rd Avenue	Borderline Congested	4	6	4
24004	108	US 441 S	Progress Boulevard	NW 43rd Street	Borderline Congested	4	6	4
24005	90	US27	NW 15th Street	Santa Fe Boulevard	Borderline Congested	2	4	4
24006	89	US27	Santa Fe Boulevard	I-75	Borderline Congested	4	6	4
25001	92	NW 140th Street	CR 235	NW 155th Avenue	Congested	2	4	4
26001	7	NW 23rd Avenue	NW 98th Street	NW 55th Street	Congested	2	4	4
26002	8	NW 16th Boulevard	NW 55th Street	NW 34th Street	Borderline Congested	4	6	4

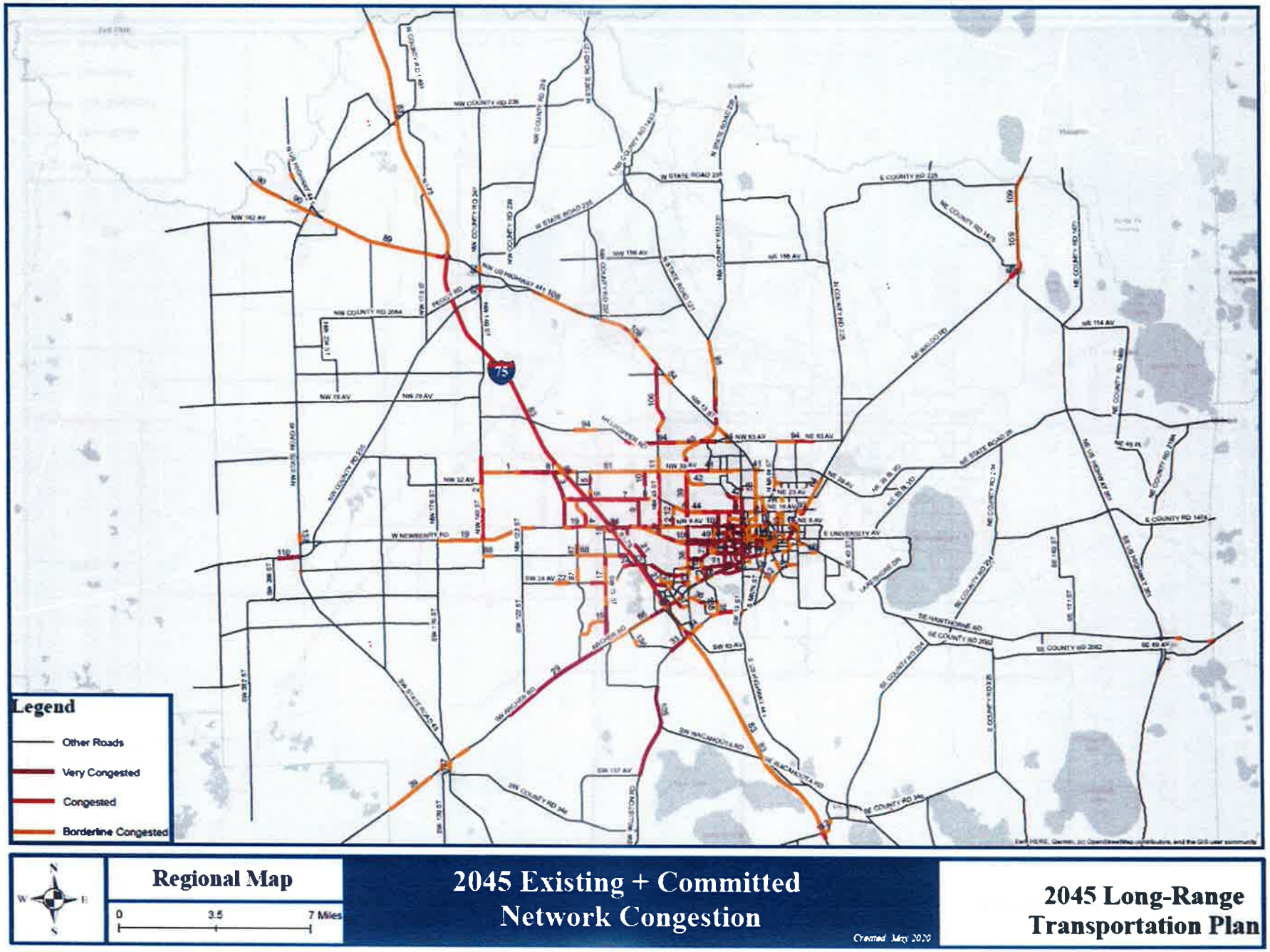
26003	44	NW 16th Avenue	NW 34th Street	NW 13th Street	Congested	4	6	4
26004	93	NW 16th Avenue	NW 13th Street	to NE 2nd Street	Borderline Congested	2	4	4
27001	43	NW 16th Terrace	NW 16th Avenue	NW 23rd Avenue	Very Congested	2	4	4
28001	117	NW 18th Street	NW 7th Avenue	NW 16th Avenue	Very Congested	2	4	4
29001	122	NW 19th Street	NW 7th Avenue	W University Dr	Congested	2	4	4
30001	46	NW 22nd Street	University Avenue	NW 16th Avenue	Very Congested	2	4	4
31001	42	NW 23rd Boulevard	NW 22nd Street	NW 13th Street	Congested	2	4	4
31002	82	NW 23rd Boulevard	NW 6th Street	NW 2nd Street	Borderline Congested	4	6	4
32001	45	NW 23rd Street	University Avenue	NW 8th Avenue	Congested	2	4	4
33001	114	NW 2nd Avenue	NW 5th Street	NE 2nd Street	Borderline Congested	2	4	4
34001	59	NW 2nd Street	NW 8th Avenue	NW 19th Avenue	Borderline Congested	2	4	4
35001	38	SW 34th Street (SR 121)	Archer Road	W University Avenue	Borderline Congested	6	8	6
35002	39	NW 34th Street (SR 121)	W University Avenue	NW 31st Boulevard	Very Congested	2	4	4
35003	40	NW 34th Street (SR 121)	NW 31st Boulevard	NW 53rd Avenue	Congested	2	4	4
35004	95	NW 34th Boulevard / SR 121	NW 53rd Avenue	NW 77 Avenue	Congested	2	4	4
36001	12	NW 38th Street	NW 8th Avenue	NW 16th Boulevard	Congested	2	4	4
37001	1	NW 39th Avenue	SW 143rd Street	NW 105th Street	Congested	2	4	4
37002	81	NW 39th Avenue	NW 105th Street	NW 34th Street	Borderline Congested	4	6	4
37003	41	NW 39th Avenue	NW 34th Street	NW 6th Street	Borderline Congested	4	6	4
37004	113	NW 3rd Avenue	NW 13th Street	NW 6th Street	Borderline Congested	2	4	4
38001	77	Union Road	Parking Garage	SW 13th Street	Very Congested	2	4	4
38002	51	SW 2nd Avenue	SW 12th Street	SE 3rd Street	Congested	2	4	4
39001	11	NW 43rd Street	Newberry Road	NW 13th Street / NW 93rd Avenue	Congested	4	6	4
40001	10	NW 51st Street	NW 23rd Avenue	NW 39th Avenue	Very Congested	2	4	4
41001	94	NW 53rd Avenue	NW 52nd Terrace	NE 151th Street	Congested	2	4	4
42001	9	NW 55th Street	Newberry Road	NW 23rd Avenue	Very Congested	2	4	4
43001	48	NW 5th Avenue	NW 22nd Street	NW 13th Street	Congested	2	4	4
44001	5	NW 83rd Street	NW 23rd Avenue	SW 39th Avenue	Congested	2	4	4
45001	3	NW 98th Street	Newberry Road	NW 39th Avenue	Very Congested	2	4	4

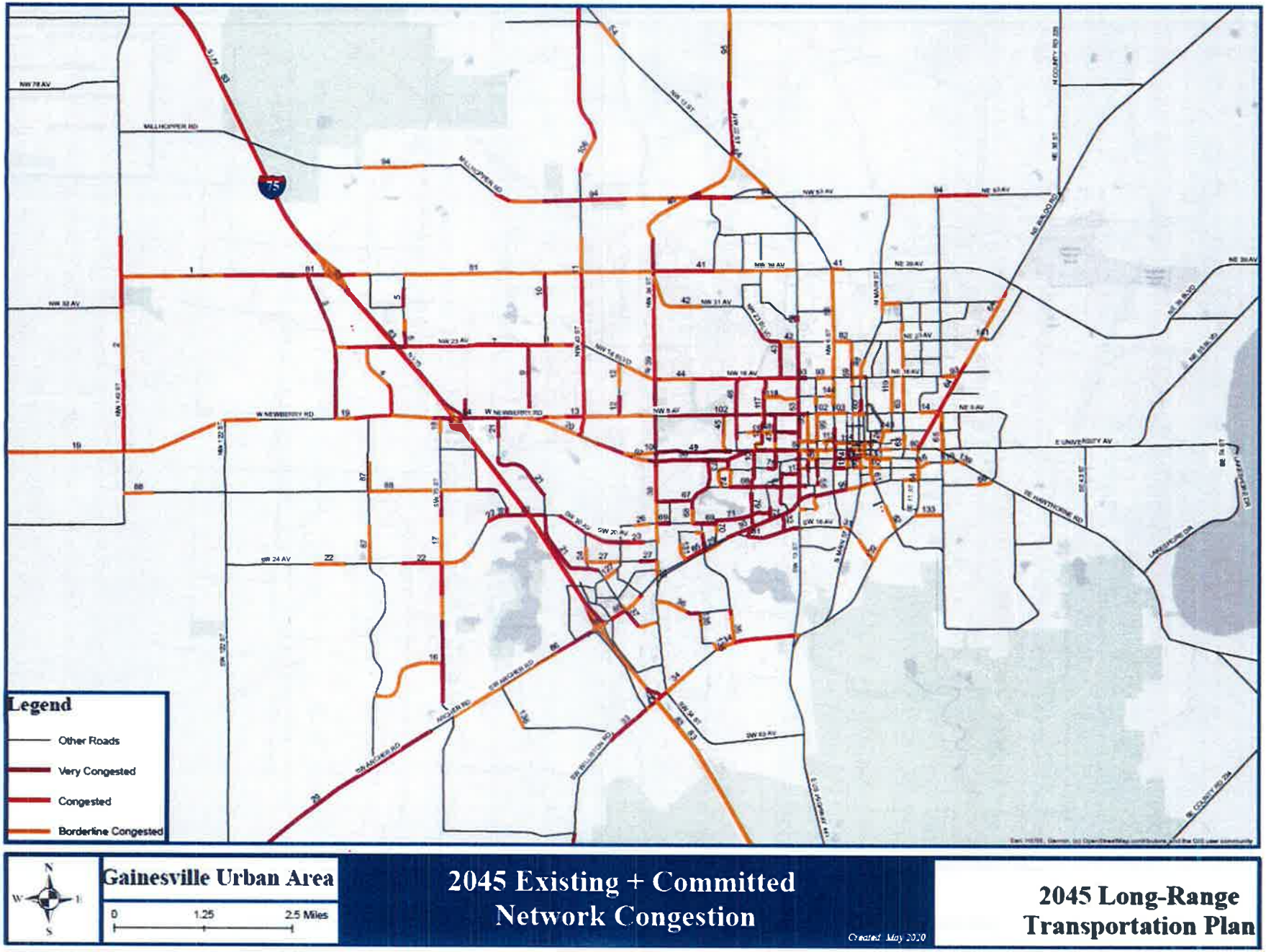
46001	129	Old Archer Road	SW 23rd Terrace	SW 23rd Street	Borderline Congested	2	4	4
47001	67	Radio Road	SW 34th Street	Museum Road	Very Congested	2	4	4
48001	133	SE 13th Avenue	Williston Road (SR 331)	SE 15th Street	Borderline Congested	2	4	4
49001	62	SE 4th Street	Depot Avenue	Williston Road	Borderline Congested	2	4	4
49002	61	SE 3rd Street	Depot Avenue	NE 2nd Avenue	Borderline Congested	2	4	4
50001	116	SE 4 Avenue/ SE 3rd Avenue	SE 11th Street	Hawthorne Road	Borderline Congested	2	4	4
51001	66	SE 8th Avenue	SE 15th Street	Hawthorne Road	Borderline Congested	2	4	4
52001	125	SE/ NE 1st Street	NE 2nd Avenue	SE 2nd Avenue	Borderline Congested	2	4	4
53001	65	SE/NE 15th Street	Hawthorne Road	NE 8th Avenue	Borderline Congested	2	4	4
54001	75	Stadium Road	Gale Lemerand	Buckman Drive	Very Congested	2	4	4
55001	131	Surge Dr	Archer Road	Natural Area Dr	Borderline Congested	2	4	4
56001	56	SW/NW 10th Street	SW 8th Avenue	NW 16th Avenue	Congested	2	4	4
57001	55	SW 12th Street	SW 8th Avenue	NW 8th Avenue	Congested	2	4	4
58001	2	SW 143rd Street	Newberry Road	NW 46th Avenue	Congested	2	4	4
59001	31	SW 16th Avenue (SR 226)	Shealy Drive	Main Street	Congested	4	6	4
60001	32	SW 16th Street	SW 16th Avenue	Archer Road	Very Congested	2	4	4
61001	22	SW 24th Avenue	SW 103rd Street	SW 61st Street	Borderline Congested	2	4	4
61002	23	SW 20th Avenue	SW 62nd Boulevard	SW 34th Street	Very Congested	2	4	4
62001	70	SW 23rd Drive	Archer Road	Hull Road	Borderline Congested	2	4	4
63001	50	SW 2nd Avenue	NW 34th Street	W University Avenue	Very Congested	2	4	4
63002	97	SW 2nd Avenue	Newberry Road/ University Avenue	NW 34th Street	Very Congested	4	6	4
64001	35	SW 23rd Terrace	Williston Road	Hull Road	Congested	2	4	4
65001	27	SW 24th Avenue	SW 43rd Street	SW 34th Street	Congested	2	4	4
66001	36	SW 35th Place	SW 34th Street	SW 27th Street	Congested	2	4	4
67001	37	SW 39th Boulevard	Archer Road	SW 34th Street	Congested	2	4	4
68001	124	SW 3rd Street	W University Dr	SW 4th Avenue	Congested	2	4	4
69001	24	SW 43rd Street	SW 24th Avenue	SW 20th Avenue	Borderline Congested	2	4	4
70001	16	SW 46th Boulevard	SW 91st Street	SW 75th Street/Tower Road	Borderline Congested	2	4	4
71001	52	SW 4th Avenue	SW 13th Street	SE 3rd Street	Congested	2	4	4
72001	21	SW 62nd Boulevard	Newberry Road	Clark Butler Boulevard	Very Congested	2	4	4

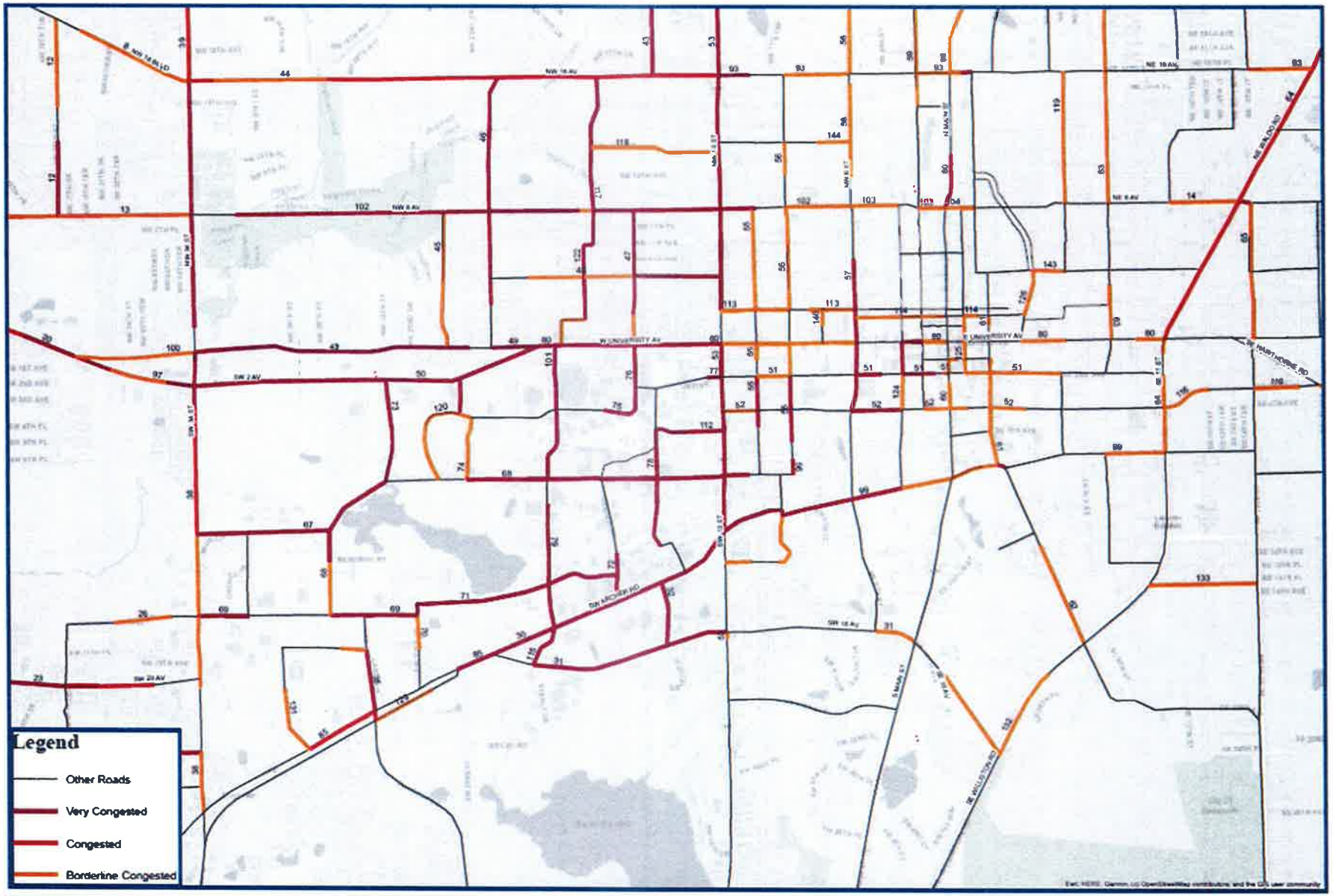
73001	17	SW 75th Street/ Tower Road	SW 75th Court	SW 8th Avenue	Congested	2	4	4
73002	18	SW 75th Street/Tower Road	W University Avenue	Newberry Road	Borderline Congested	4	6	4
74001	88	SW 8th Avenue	SW 91st Street	SW 20th Avenue	Congested	2	4	4
75001	87	SW 91st Street	SW 24th Avenue	SW 1st Place	Borderline Congested	2	4	4
76001	105	SW Williston Road	SW 137th Avenue	SW 62 Avenue	Very Congested	2	4	4
76002	33	Williston Road (SR 331)	SW 63rd Boulevard	SW 35th Street	Very Congested	2	4	4
76003	34	Williston Road (SR 331)	SW 35th Street	SW 13th Street	Congested	4	6	4
77001	53	SW/NW 13th Street (US 441)	SW 16th Avenue	NW 39th Avenue	Very Congested	4	6	4
78001	137	US 27/41	Archer Road	SW 132nd Avenue	Borderline Congested	2	4	4
79001	138	US 27/41	NW 9th Road	SW 18th Road	Borderline Congested	2	4	4
80001	73	Village Drive	Museum Road	SW 2nd Avenue	Very Congested	2	4	4
81001	64	Waldo Road	University Avenue	NE 39th Avenue	Borderline Congested	4	6	4
82001	109	Waldo Road / US 301	NE 150th Avenue	SW County Road 18	Borderline Congested	4	6	4
82002	96	Waldo Road	NE 140th Lane	US 301	Congested	2	4	4
83001	74	Woodlawn Drive	Museum Road	SW 2nd Avenue	Congested	2	4	4
84001	100	University Avenue (SR 26)	Newberry Road	NW 34th Street	Congested	4	6	4
84002	49	University Avenue (SR 26) Eastbound only	NW 34th Street	Waldo Road	Very Congested	3	4	4
84003	80	University Avenue (SR 26)	SW 2nd Avenue/ NW 21st Terrace	Waldo Road	Congested	4	6	4

Appendix 3: 2045 projected congestion for the Existing-plus-Committed Network

(Note: High resolution maps will be provided in PDF format




Legend
Other Roads
Very Congested
Congested
Borderline Congested
N
W
E
S
Gainesville Urban Area
0
1.25
2.5 Miles
2045 Existing + Committed
Network Congestion
Created: May 2020
2045 Long-Range
Transportation Plan


Legend
Other Roads
Very Congested
Congested
Borderline Congested
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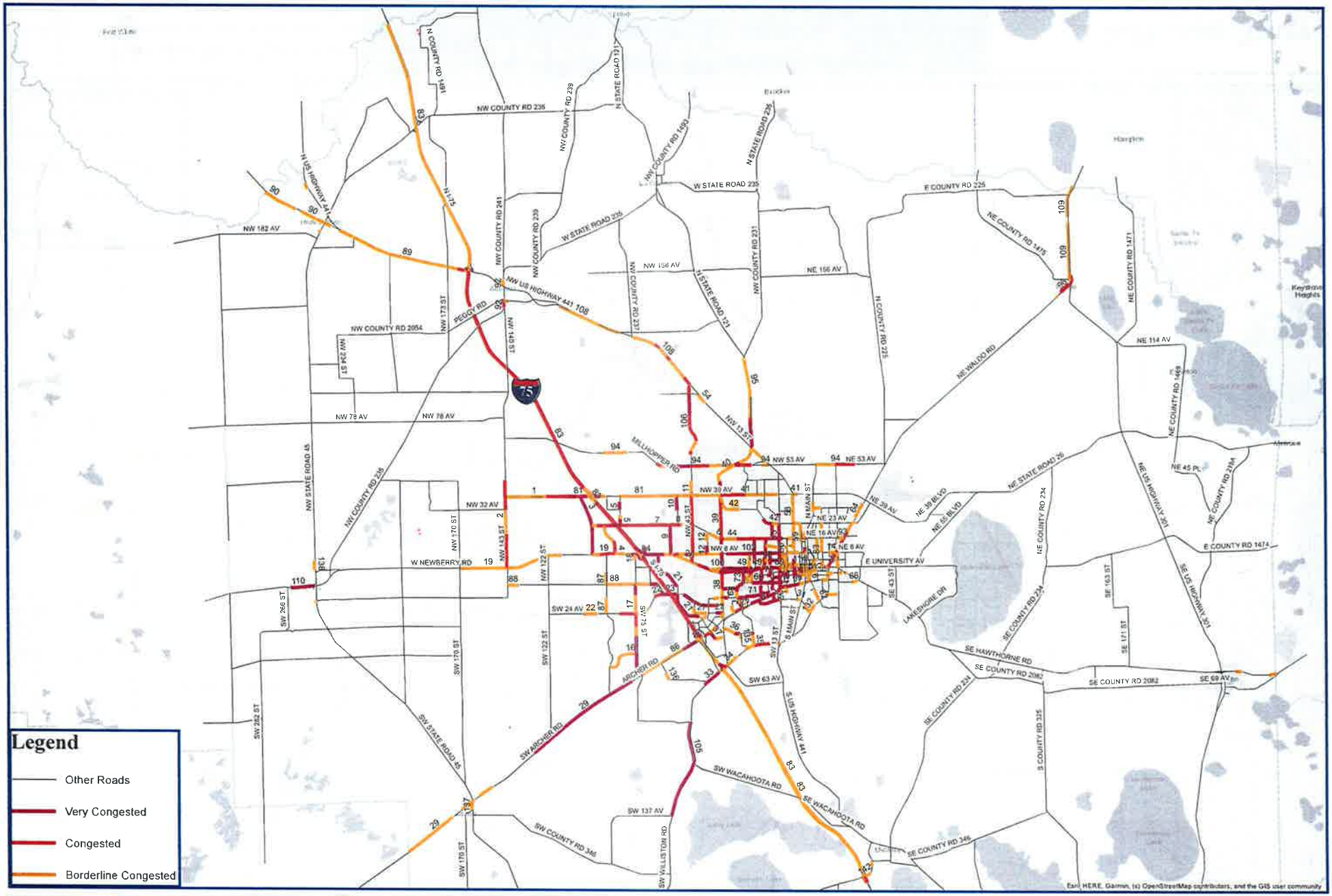
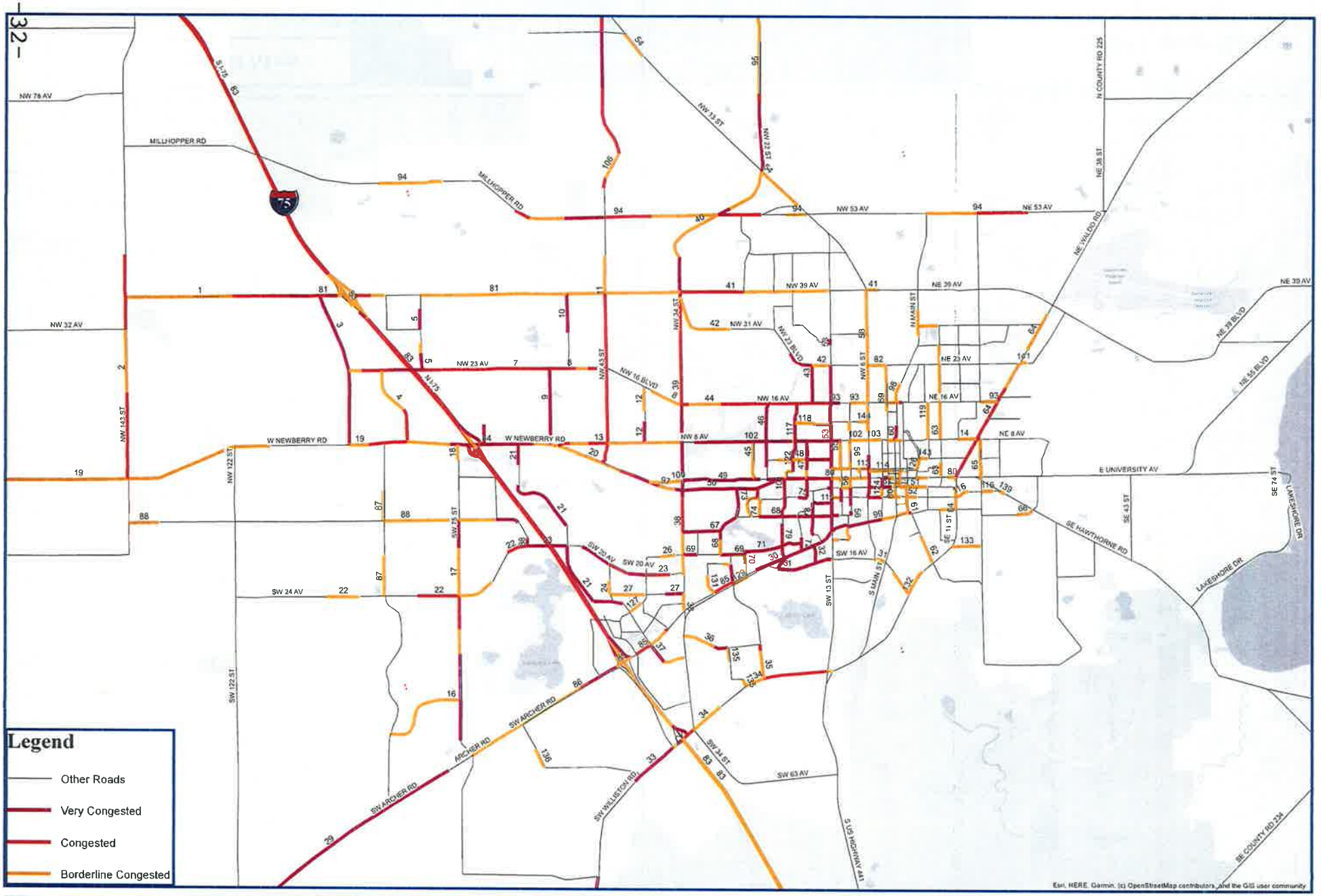
UF and Downtown
0
0.35
0.7 Miles
2045 Existing + Committed
Network Congestion
Created: May 2020
2045 Long-Range
Transportation Plan


Legend
Other Roads
Very Congested
Congested
Borderline Congested
N
E
S
W
0
3.5
7 Miles
Regional Map
2045 Existing + Committed Network Congestion
Created: May 2020
2045 Long-Range Transportation Plan
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community



N
W E
S

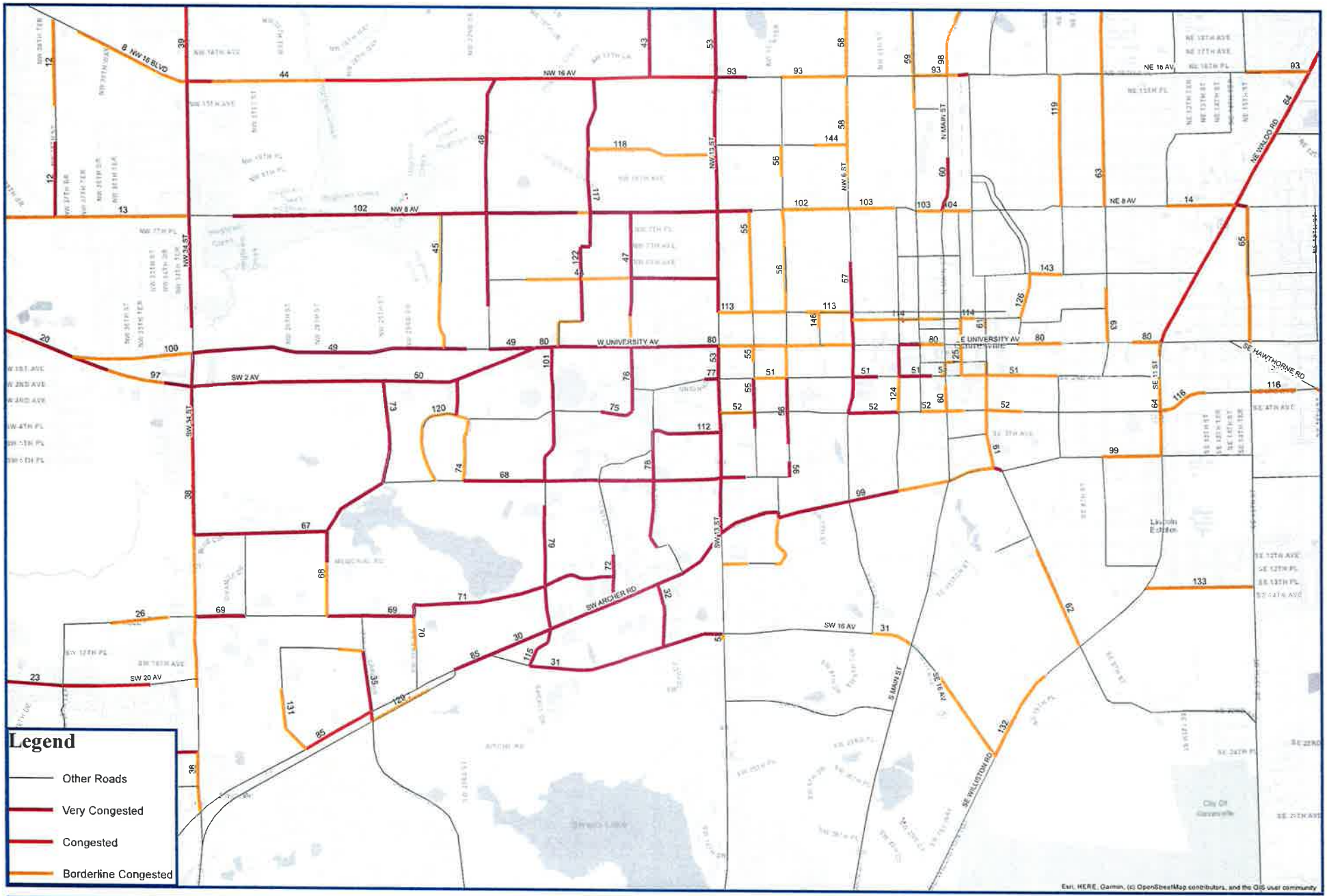
Gainesville Urban Area

0 1.25 2.5 Miles

2045 Existing + Committed Network Congestion

Created: May 2020

2045 Long-Range Transportation Plan



N
W E
S

UF and Downtown

0 0.35 0.7 Miles

2045 Existing + Committed Network Congestion

Created: May 2020

2045 Long-Range Transportation Plan

A.1 Methodology Bike Network Gap Analysis

The needs assessment measures where and what types of bike facilities are most needed. For the purposes of the 2045 Long Range Plan, our team began the needs assessment by developing a recommended grid of the ideal bicycle network for the Gainesville Urbanized Area MTPO. To create the grid, we used the existing street network as a base to overlay the future land use map, existing parks and schools. The recommended bicycle grid connects recreational attractions, residential neighborhoods, employment centers, the downtown and the University of Florida. It shows the ideal bicycle network and is the foundation of the needs assessment.

A second grid was mapped to illustrate existing and planned bike facilities, including bike lanes, bike boulevards and multi-use paths which are shared paths and typically separated from traffic and unpaved multi-use trails. Planned facilities are those that are either funded or unfunded but in the MTPO Long Range Transportation Plan Tier 1 Priority Projects. They include projects from the Florida Department of Transportation, the City of Gainesville and Alachua County. By comparing the two grids- the ideal network and the existing/planned network- we were able to analyze the network gaps and deficiencies and create a table of missing links.

To determine what types of facilities were needed, we further evaluated crash data and connections to existing facilities. Facilities with high number of crashes, for example, NW 39th Street, are recommended for conversions from bike lanes to multi-use paths or protected bike lanes. In some cases, new off-road trails are recommended through existing neighborhoods which did not have good bicycle connectivity. These include a continuation of SW 46th Boulevard and connecting SW 42nd Avenue, SW 41st Avenue and SW 40th Avenue. Some missing links to existing facilities were recommended to match the connecting facility type- either bike lane or multi-use path. Crash data was also reviewed.

The Florida Department of Transportation classifies bike infrastructure according the typologies listed below. The gap analysis will use these typologies to recommend additional bicycle facilities.

- **Bike boulevards** are shared use bike lanes in a low-stress environment.
- **Bike lanes** are a stripe-separated portion of the roadway alongside automobile traffic. These dedicated lanes are designated by pavement markings and/or signs for the preferential use of bicycles. They can also be painted with green paint for greater visibility. They are a minimum four feet wide. These features of the roadway will not break at intersections or on bridges.
- **Protected bike lanes** can be separated from car traffic with a physical barrier.
- **Multi-use paths** are paved facilities which are wider than bike lanes.

A.2 Recommended New Bike Facilities

The table below lists all the recommended bike facilities based on the gap analysis. The map provides a visual overview of the recommendations.

Recommendations for New Bicycle Facilities				
	FACILITY TYPE	**ROADWAY**	**FROM**	**TO**
	Trail	NW 122nd Street	NW 53rd Avenue	NW 39th Avenue
	Bike lane	NW 51st Street	NW 39th Avenue	NW 23rd Avenue
	Trail	NW 98th Street	NW 23rd Avenue	Newberry
	Trail	NW 75th Street	Newberry	SW 8th Avenue
	Bike lane	Newberry	NW 10th Drive	NW 51st Street
	Bike lane	SW 44th Street	University	SW 20th Avenue
	Bike lane	SW 67th Street	SW 24th Avenue	W. Archer
	New Facility-Trail	SW 42nd Avenue, 40th Avenue, 41st Avenue	SW 75th Street	Western city limits
	New Facility-Trail	SW 46th Boulevard	NW 122nd Street	NW 91st Street
	Bike lane	NW 22nd Street	NW 39th Avenue	University
	Bike lane	13th Street	NW 23rd Avenue	SW 9th Avenue
	Bike lane	SW 13th Street	SW 11th Avenue	SW 25th Place
	Bike lane	NW 6th Street	SR 121	NW 8th Avenue
	Bike lane	N. Main Street	NW 53rd Avenue	NW 39th Avenue
	Bike lane	N. Main Street	NW 23rd Avenue	NW 8th Avenue
	Bike lane	S. Main Street	SW 15th Avenue	Williston
	Bike lane	NE 15th Street	NE 16th Avenue	NE 8th Avenue
	Bike lane	SE 11th Street	E University	SE Williston
	Trail	SE Williston	E University	SE 16th Avenue
	Trail	S Williston	SW 5th Court	SW 13th Street
	Bike lane	NE 25th Street	NE 39th Street	SE Hawthorne
	Bike lane	NE 43rd Street	NE 39th Boulevard	SE Hawthorne
	Trail	NE 53rd Avenue	NE 15th Street	NE Waldo
	Trail	NE 23rd Avenue	NW 13th Street	Eastern city limits
	Bike lane	NW 16th Avenue	N. Main Street	NW 13th Street
	Bike lane	NW 8th Avenue	N. Main Street	NE 25th Street
	Bike lane	University	SE Hawthorne	Eastern city limits
	Bike lane	SW 63rd Avenue	SW Williston	SW 13th Street
	Bike lane	SW 35th Avenue	SW 25th Street	SW 13th Street
	Trail	SE 44th Avenue	SE 25th Street	Paynes Prarie
	Convert bike lane to multi-use trail	NW 39th Avenue	NW 143rd Street	NE 23rd Avenue
	Convert bike lane to multi-use trail	SW 34th Street	SW Williston	W University

	Convert bike lane to multi-use trail	SW 20th Avenue	SW 34th Street	I-75

B.1 Methodology for Sidewalk Gap Analysis

A similar approach was used to develop the gap analysis for the sidewalk network. Initially, our team mapped out the ideal sidewalk network for all arterials and collectors on the perimeters of each neighborhood, the downtown and the University of Florida. Next, we mapped all existing and planned sidewalks and multi-use paths and overlaid the two maps for the gap analysis.

The gap analysis was conducted at two levels. The first level was inclusive of the entire MTPO area and limited to the arterials and collectors. The first level analysis also evaluated crash data and missing sidewalks along transit stops and to schools. The biggest gap in sidewalks occurs on SW 3rd Street south of Williston and SW 63rd Boulevard which connects to Kanapaha Botanical Gardens. There is limited connectivity to Idylwild Elementary School, as well as Buckholtz High School, Green Tree Park, Clear Lake Park and John Mahon Park. The remaining gaps are scattered throughout the MTPO area, primarily outside the downtown Gainesville area. New sidewalks are recommended for all of these areas and noted in the table below.

The second level gap analysis focused specifically on the downtown area and University of Florida and evaluated missing links in the sidewalk network. This was an extensive analysis and included the area from East 11th Street to West 22nd Street, South 10th Avenue to North 23rd Avenue. The analysis considered need based on connectivity to and within existing and future residential areas shown as mixed-use high density and urban core on the Future Land Use Map and considered connectivity to neighborhoods shown as low density and single family on the Future Land Use Map. The majority of missing sidewalks were found south of University in the neighborhood south of 5th Avenue between SW 6th Street and SW 3rd Street and north of University between NW 6th Street and NW 22nd Street, as well as the neighborhood between NW 19th Avenue and NW 23rd Avenue, NW 6th Street to NW 2nd Avenue. Crash data showed a high instance of crashes from crossings at University to UF campus and especially, the football stadium. Recommended sidewalks for the downtown and UF area are noted in the table below.

The Needs Assessment does not evaluate the type of sidewalk needed. This process happens during local design and implementation processes. The Florida Department of Transportation classifies pedestrian infrastructure according the typologies listed below.

- **Sidewalk width & separation** provides spatial information on sidewalk width & separation distance from the roadway. The sidewalk separation is an important safety measure. The greater the distance the sidewalk is from the roadway, the less chance there is for conflict between pedestrians and vehicles.

- **Sidewalk barriers** are physical barriers that separate motorized vehicle lanes from sidewalks or shared paths. The barrier can be of several types, such as areas for vehicular parking, physical traffic barriers, guardrail, trees, etc.

- **A shared path** is an asphalt-paved way, within the highway right of way, at least ten feet wide, separated from the shoulder or back of curb by an open space at least five feet wide or by a barrier, not signed as closed to bicycle use, designation as a shared path not required. It is restricted from motor vehicle usage. The shared path separation is an important safety measure. The greater the distance the shared path is from the roadway, the less chance there is for conflict between pedestrians/bicycles and vehicles.

B.2 Recommended New Sidewalk Facilities

The following set of tables describe the recommended locations for new sidewalks according to the level one and level two analysis.

Recommended New Sidewalk Facilities Level One Analysis- MTPO Areawide			
	ROADWAY	**FROM**	**TO**
Transit Stops Missing Sidewalks			
	SW 13th Street	Williston Road	SW 66th Place
	SE 21st Avenue	SE 27th Street	SE 35th Street
	SE 35th Street	Hawthorne	SE 21st Avenue
	NW 4th Blvd	NW 75th Street	I-75
	W. University	NW 75th Street	I-75
	NW 23rd Terrace between	NW 34th Boulevard	NW 56th Place
	NW 45th Avenue	441	NW 6th Street
Greentree Park	NW 36th Avenue	NW 21st Street	NW 19th Street
Greentree Park	NW 21st Street	NW 36th Avenue	NW 23rd Avenue
Shopping center	NE 1st Boulevard	N. Main Street	N. Main Street
Lincoln Estates	NE 19th Terrace	NE 17th Avenue	SE 8th Avenue
	SE 4th Avenue from	SE 7th Street	SE 9th Street midblock
	SE 10th Ave	SE 4th Street	SE Veitch Street
Future multi-use path	SW 27th Street to -	SW 35th Place	SW 40th Place
Future multi-use path	SW 40th Place	SW 27th Street	SW 25th Terrace
Future multi-use path	SW 25th Terrace	SW 40th Place	Williston Road
Windmeadows	Windmeadows Boulevard	SW 30th Place	SW 34th Street
	SW 87th Drive	SW 91st Street	SW 25th Lane
Parks Missing Sidewalks			
John Mahon	NW 46th Street	NW 1st Avenue	Newberry
	NW 44th Street	NW 1st Avenue	Newberry
	NW 1st Avenue	NW 46th Street	John Mahon Park
	NW 43rd Terrace	Clearlake Drive	W. University
	W. University	NW 44th Street	SW 43rd Terrace
Clear Lake	NW 54th Terrace	Newberry Rd	NW 4th Place
	NW 53rd Street	Newberry Rd	NW 4th Place
	NW 4th Place	NW 53rd Terrace	NW 59th Street
	NW 55th Street	NW 4th Place	Clearlake Park
	West University/Clearlake Drive	Clearlake Park	SW 43rd Terrace
Kanapaha Botanical Gardens	63rd Boulevard	Archer	SW 20th Avenue
Schools Missing Sidewalks			
Buchholz HS	NW 58th Boulevard	NW 23rd Avenue	NW 33rd Avenue
Idylwild Elementary	SW 21st St	Williston Road	SW 44th Avenue

	SW 20th Terrace	SW 44th Avenue	SW 19th Way
	SW 17th Terrace	Williston Road	SW 49th Place
	SW 19th Way	SW 20th Terrace	SW 49th Place
	SW 49th Place	SW 19th Way	SW 17th Terrace
	SW 44th Avenue	SW 21st Street	ST 17th Terrace

Recommended New Sidewalks Level Two Downtown Gainesville

	GEOGRAPHIC AREA	ROADWAY	TO	FROM
	North 16th Ave	NW 22nd Ave	NW 6th Street	NW 3rd Terrace
		NW 21st Lane	NW 6th Street	NW 3rd Terrace
		NW 21st Avenue	NW 4th Street	NW 2nd Street
		NW 20th Avenue	NW 4th Street	NW 2nd Street
		NW 19th Lane	NW 6th Street	NW 2nd Street
		NW 19th Avenue	NW 6th Street	NW 2nd Street
		NW 3rd Terrace	NW 21st Avenue	NW 23rd Avenue
		NW 4th Street	NW 19th Lane	NW 21st Avenue
		NW 3rd Street	NW 20th Avenue	NW 19th Lane
	North of 8th Ave	NW 12th Road	NW 13th Street	NW 13th Terrace
		NW 11th Road	NW 13th Street	NW 13th Terrace
		NW 12th Avenue	NW 13th Street	NW 12th Street
		NW 9th Avenue	NW 13th Street	NW 12th Street
		NW 13th Avenue	NW 4th Street	NW 2nd Street
		NW 9th Avenue	NW 2nd Street	N. Main Street
	North of University	NW 21st Street	W. University	NW 5th Avenue
		NW 20th Terrace	W. University	NW 3rd Avenue
		NW 3rd Avenue	NW 21st Street	NW 18th Street
		NW 4th Avenue	NW 17th Street	NW 15th Street
		NW 3rd Place	NW 17th Street	NW 16th Street
		NW 3rd Avenue	NW 17th Street	NW 16th Street
		NW 3rd Avenue	NW 15th Terrace	NW 15th Street
		NW 1st Lane	NW 15th Terrace	NW 15th Street
		NW 6th Avenue	NW 15th Street	NW 13th Street
		NW 4th Lane	NW 14th Street	NW 13th Street
		NW 4th Place	NW 14th Street	NW 13th Street
		NW 3rd Place	NW 14th Street	NW 13th Street
		NW 1st Avenue	NW 15th Street	NW 14th Street
		NW 14th Terrace	NW 6th Avenue	NW 7th Avenue
		NW 13th Terrace	NW 5th Avenue	NW 7th Avenue
		NW 12th Drive	NW 4th Avenue	NW 5th Avenue
		NW 11th Street	NW 4th Avenue	Midbock south of 4th Avenue

		NW 4th Avenue	NW 12th Drive	NW 10th Street
		NW 3 Avenue	Midblock east of NW 13th Street	NW 12th Street
		NW 6th Avenue	Midblock east of NW 8th Street	NW 6th Street
		NW 4th Place	NW 10th Street	NW 8th Street
		NW 4th Avenue	NW 9th Street	NW 6th Street
		NW 3rd Avenue	NW 10th Street	Midblock west of NW 8th Street
		NW 3rd Avenue	NW 8th Street	NW 6th Street
		NW 9th Terrace	W. University	NW 3rd Avenue
		NW 9th Street	W. University	NW 5th Avenue
		NW 7th Terrace	NW 3rd Avenue	NW 4th Avenue
	South University	SW 5th Terrace	SW 5th Avenue	SW Depot Avenue
		SW 5th Street	SW 5th Avenue	SW Depot Avenue
		SW 4th Street	SW 5th Avenue	SW 7th Avenue
		SW 2nd Street	SW 5th Avenue	SW 4th Avenue
		SW 1st Street	SW 5th Avenue	SW 4th Avenue
		SW 6th Avenue	SW 6th Street	SW 5th Street
		SW 6th Place	SW 6th Street	SW 5th Street
		SW 7th Avenue	SW 6th Street	SW 3rd Street
		SW 7th Place	SW 6th Street	SW 3rd Street
		SW 8th Avenue	SW 6th Street	SW 3rd Street
		SW 8th Place	SW 5th Terrace	SW 5th Street
		SE 6th Avenue	S. Main Street	SE 2nd Street
		SE 1st Street	SE 6th Avenue	SE 5th Avenue
		SE 10th Avenue	SE 4th Street	Multi-use path
		SE 6th Street	SE 4th Avenue	SE 2nd Place
		SE 6th Street	SE 2nd Avenue	SE 1st Avenue
		SE 8th Street	SE 2nd Avenue	SE 1st Avenue
		SE 10th Street	SE 2nd Avenue	E. University
		SE 1st Avenue	SE 7th Street	SE 12th Street
		SE 3rd Avenue	Multi-use path	Dead end
		SE 4th Avenue	SE 6th Terrace	SE 4th Avenue

In addition to the gap analysis described above, our team analyzed substandard sidewalks which are less than five feet wide or only on one side of the street. The table below provides a list of all substandard sidewalks which are recommended to be improved.

Recommended Improvements to Substandard Sidewalks less than 5 Feet						
	STREET	**FROM**	**TO**	**SIDEWALK WIDTH**	**STREET SIDE**	**LENGTH**
	NE 23rd Avenue	NE Waldo	NW 6th Street	4'	Right and Left	
	SE 4th Street	Depot Park	SE Williston Road	3'	Right (no data on left)	
	SE 22nd Avenue	SE Williston Road	SE 13th Street	4'	Right (no data on left)	
	S. Main Street	SW Williston Road	SW 21st Avenue	4'	Right and Left	
	226	24	441	4'	Right only	
	SE 15th Street	SE 32nd Place	SE 41st Avenue	4'	Right and Left	
	SW 4th Avenue	SW 3rd Street	S. Main Street	4'	Right and Left	

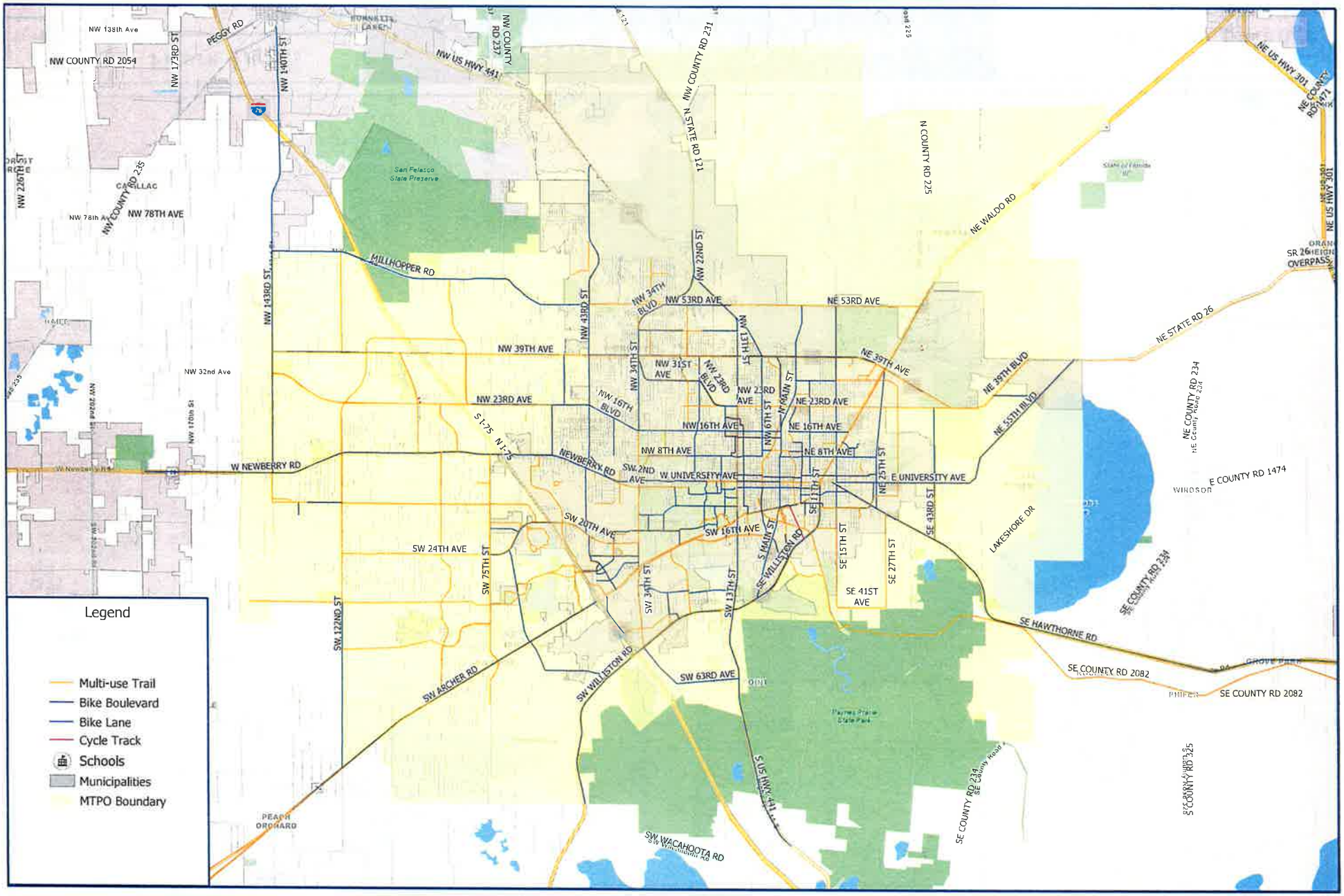
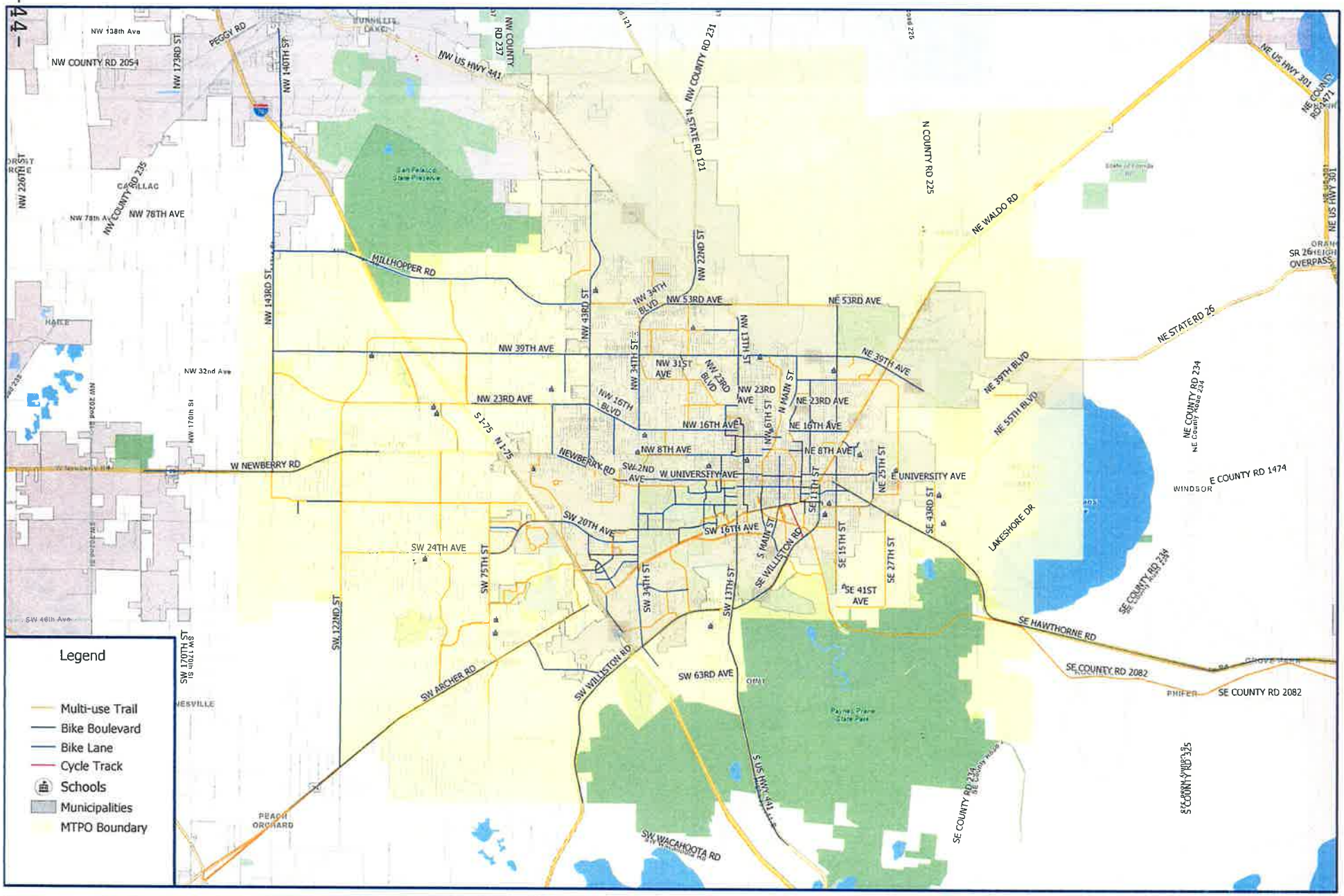


Figure Draft

Complete Proposed Bicycle Network

2045 Long Range Transportation Plan



N W E S

Figure **Draft**

0 2.5 5 Miles

Existing Bicycle Network

2045 Long Range Transportation Plan

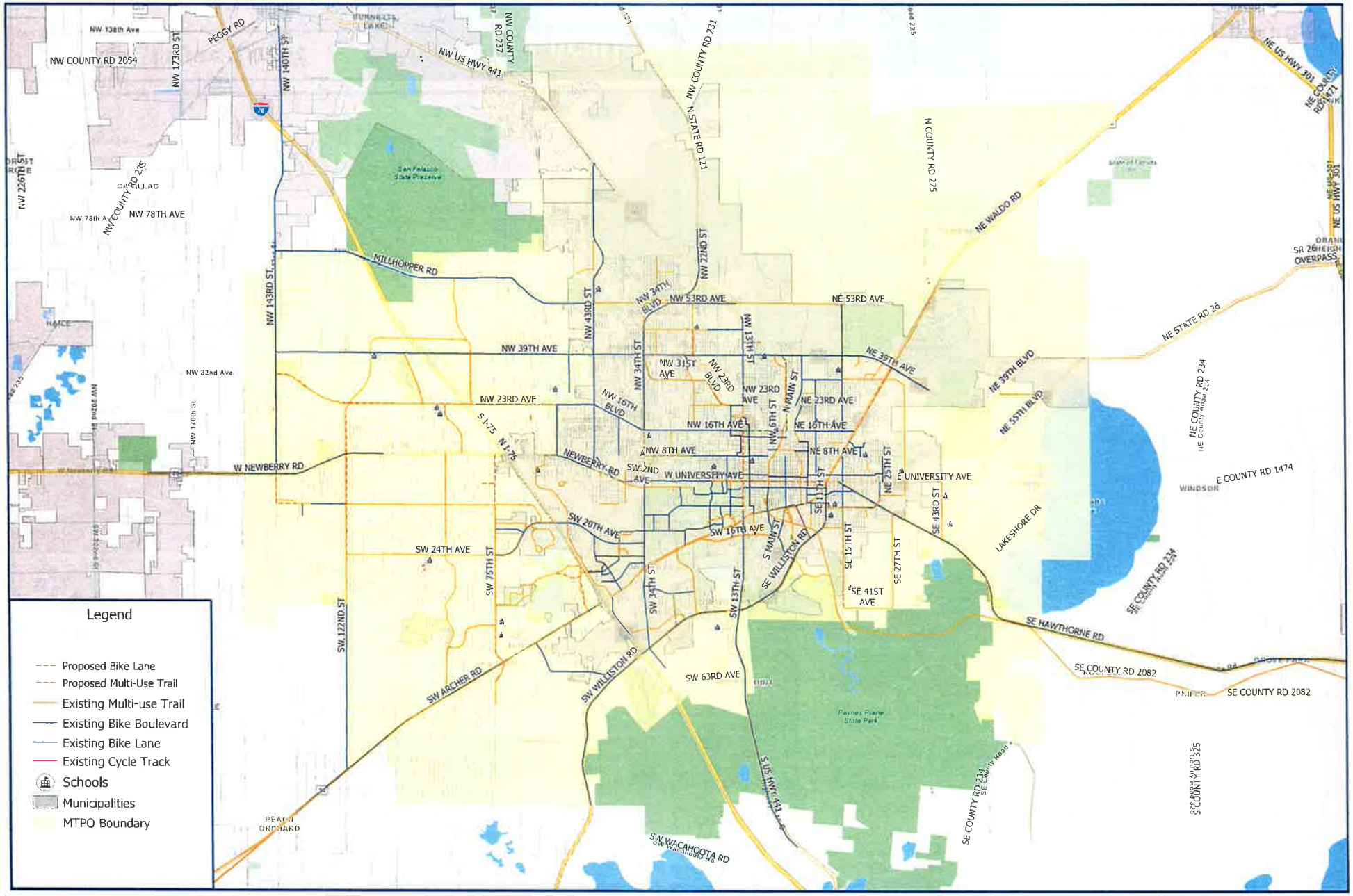


Figure Draft

0 2.5 5 Miles

Planned Bicycle Improvements

2045 Long Range Transportation Plan

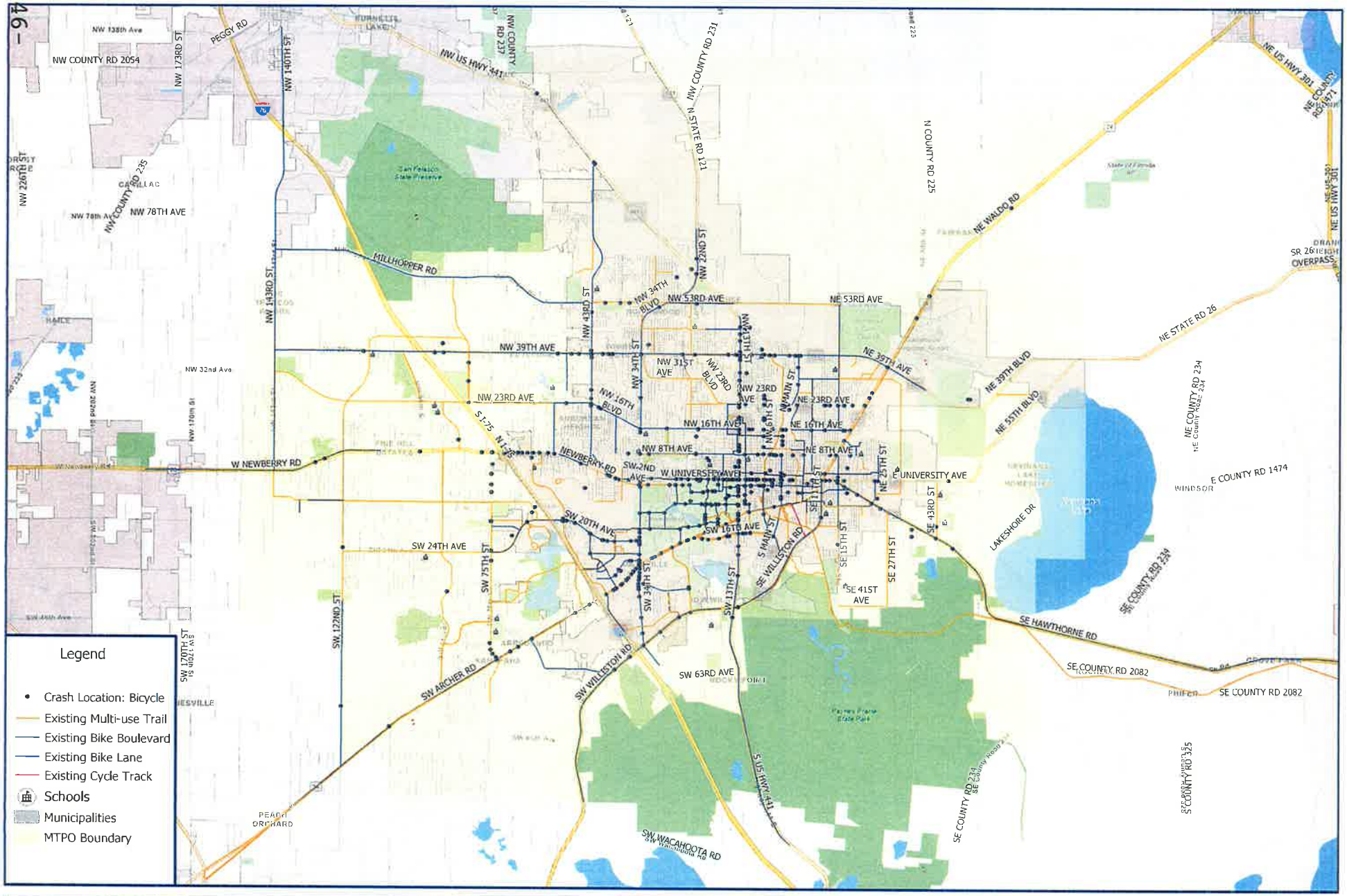


Figure Draft

Locations of Crashes Involving Bicyclists

2045 Long Range Transportation Plan

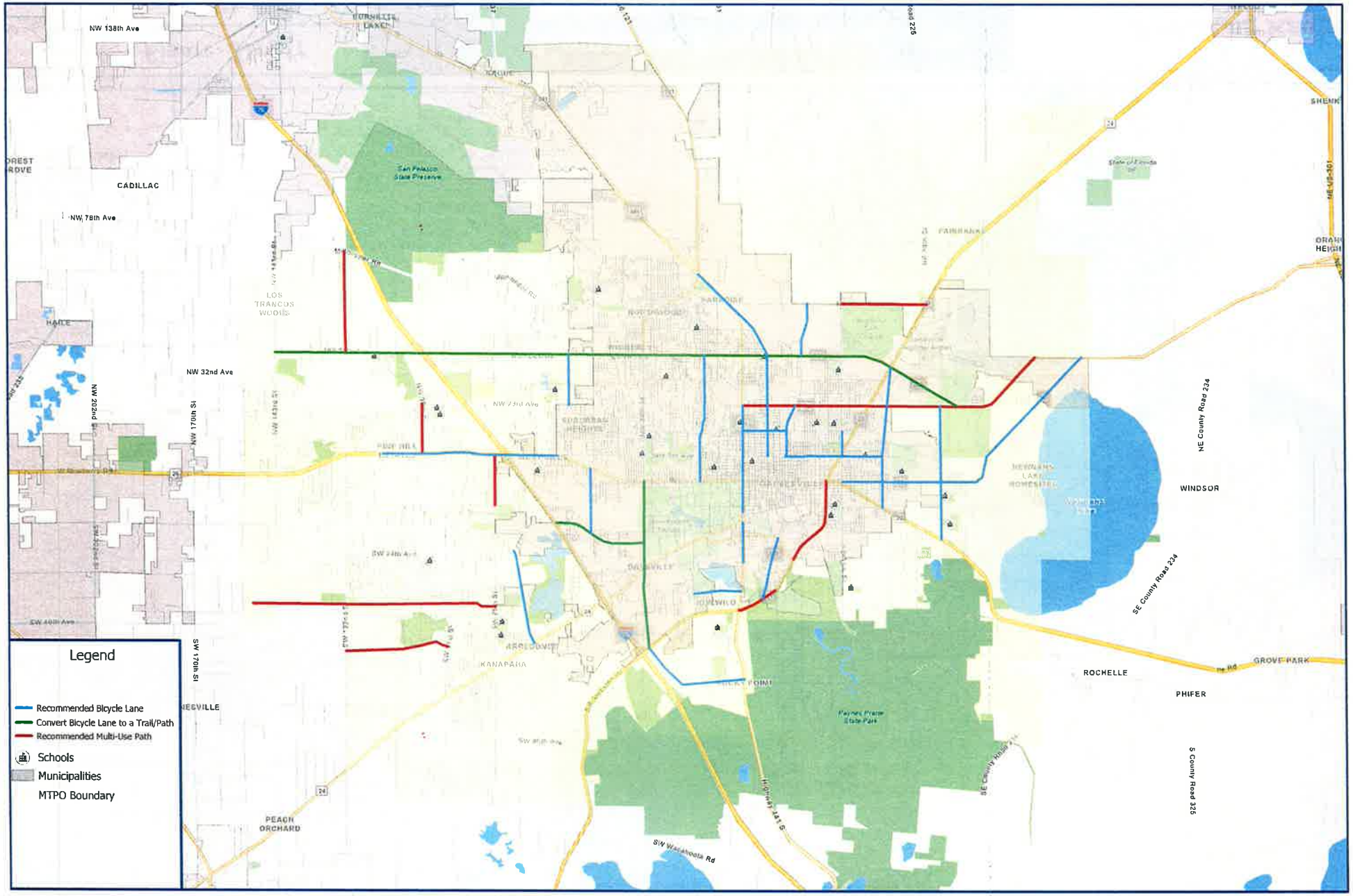


Figure Draft

Recommended Bicycle Projects

2045 Long Range Transportation Plan

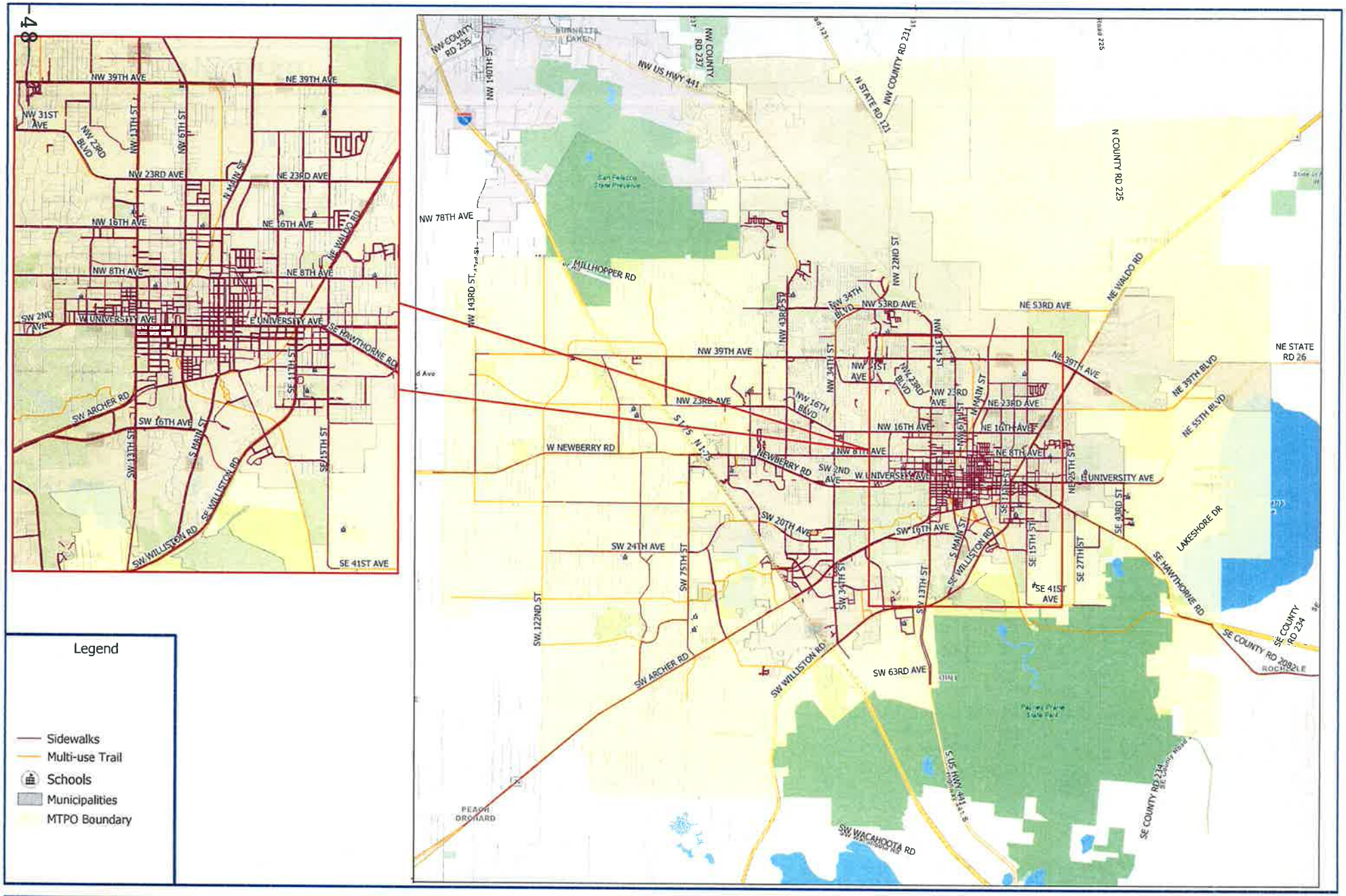


Figure Draft

Complete Proposed Pedestrian Network

2045 Long Range Transportation Plan

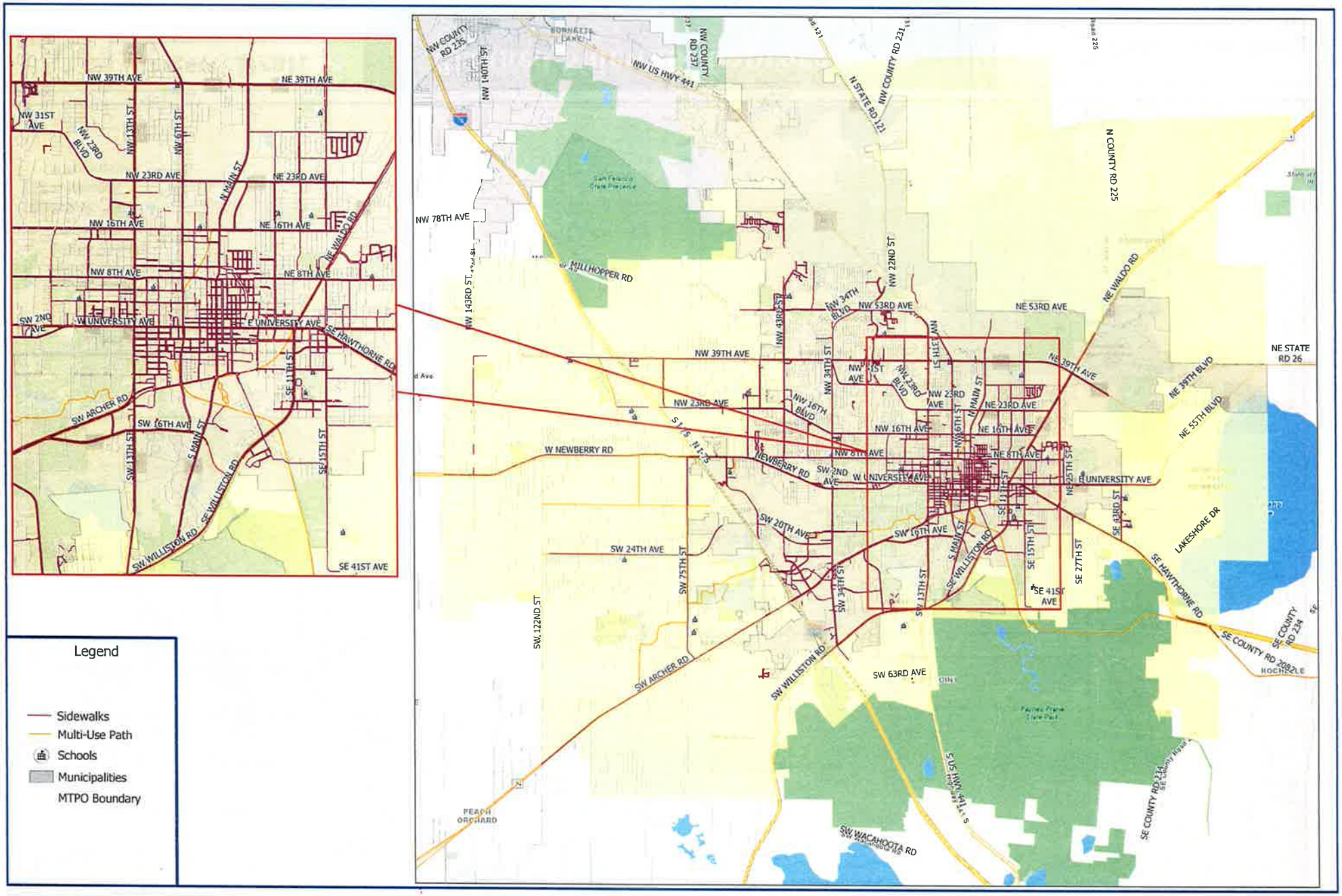


Figure **Draft**

Existing Sidewalk Infrastructure

2045 Long Range Transportation Plan

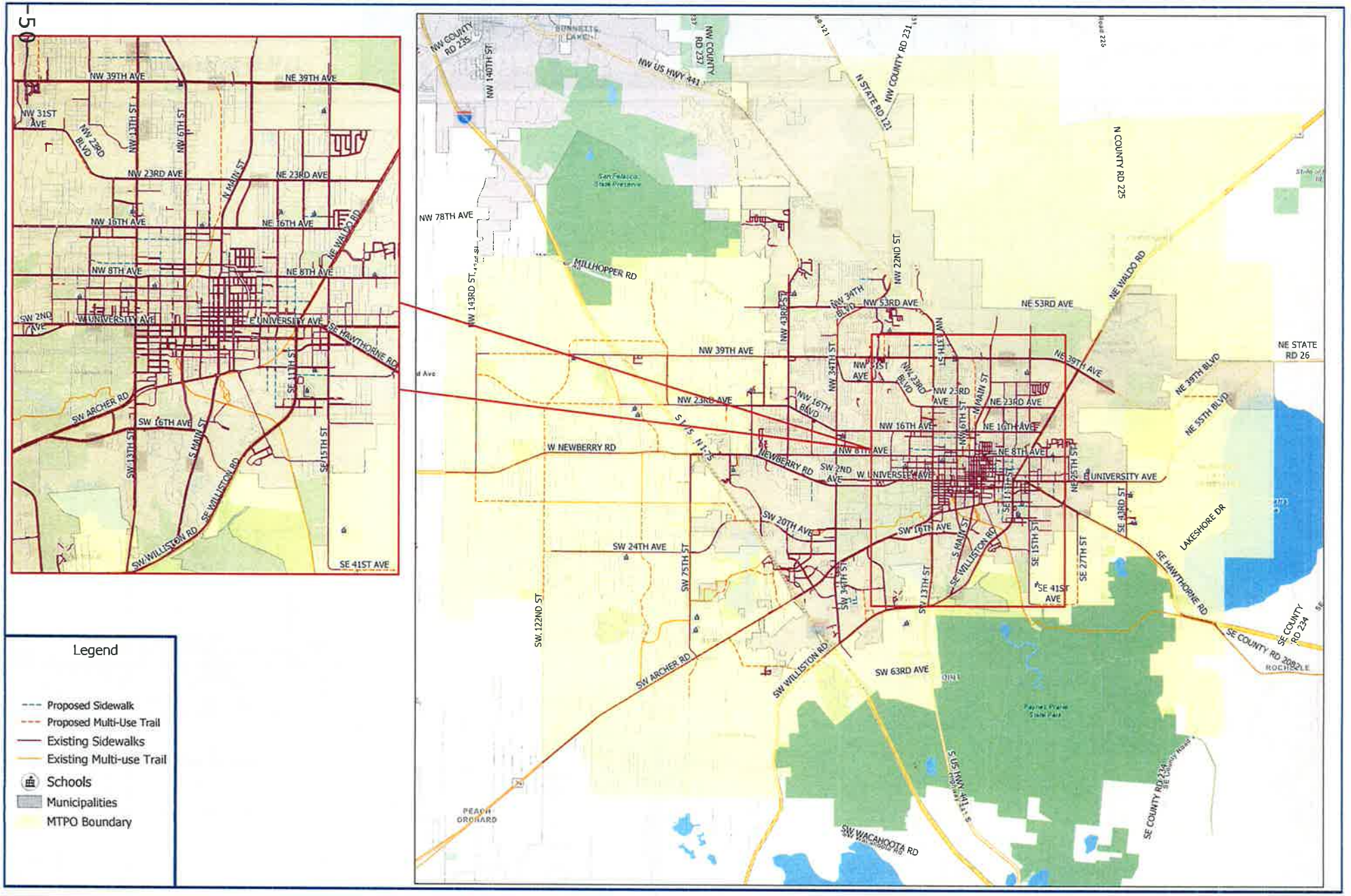


Figure Draft

Planned Sidewalk Improvements

2045 Long Range Transportation Plan

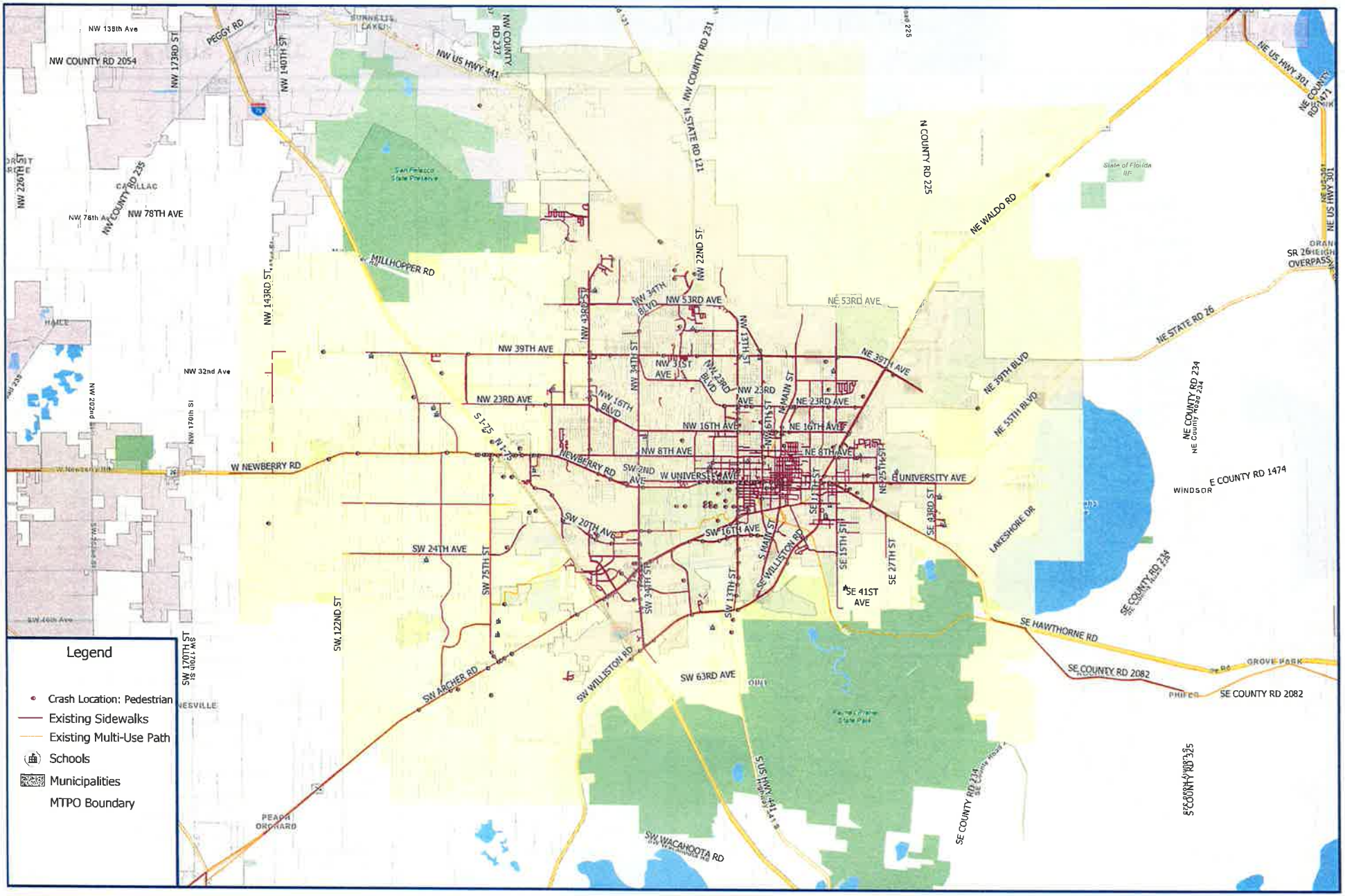


Figure Draft

Location of Crashes Involving Pedestrians

2045 Long Range Transportation Plan

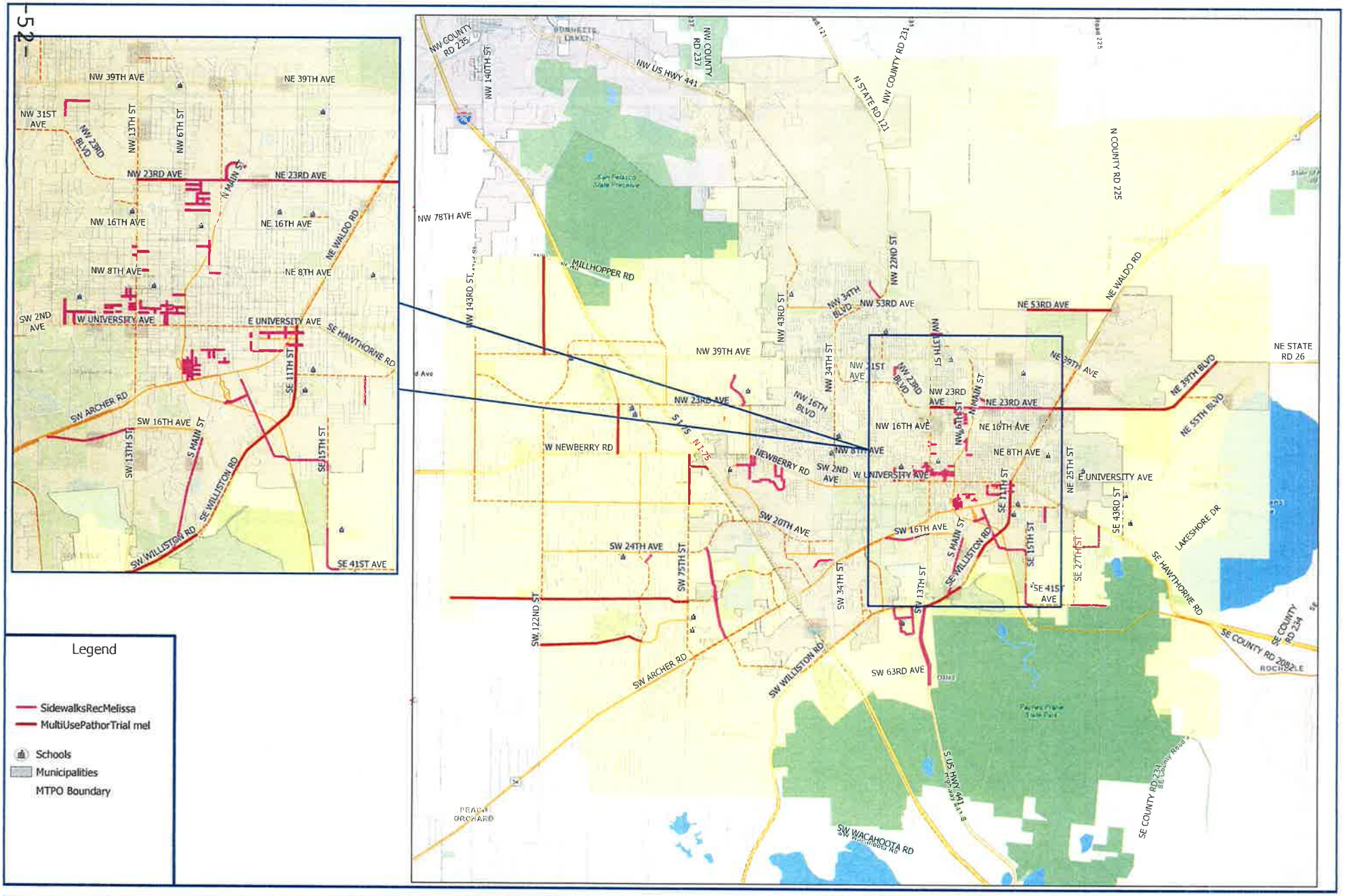


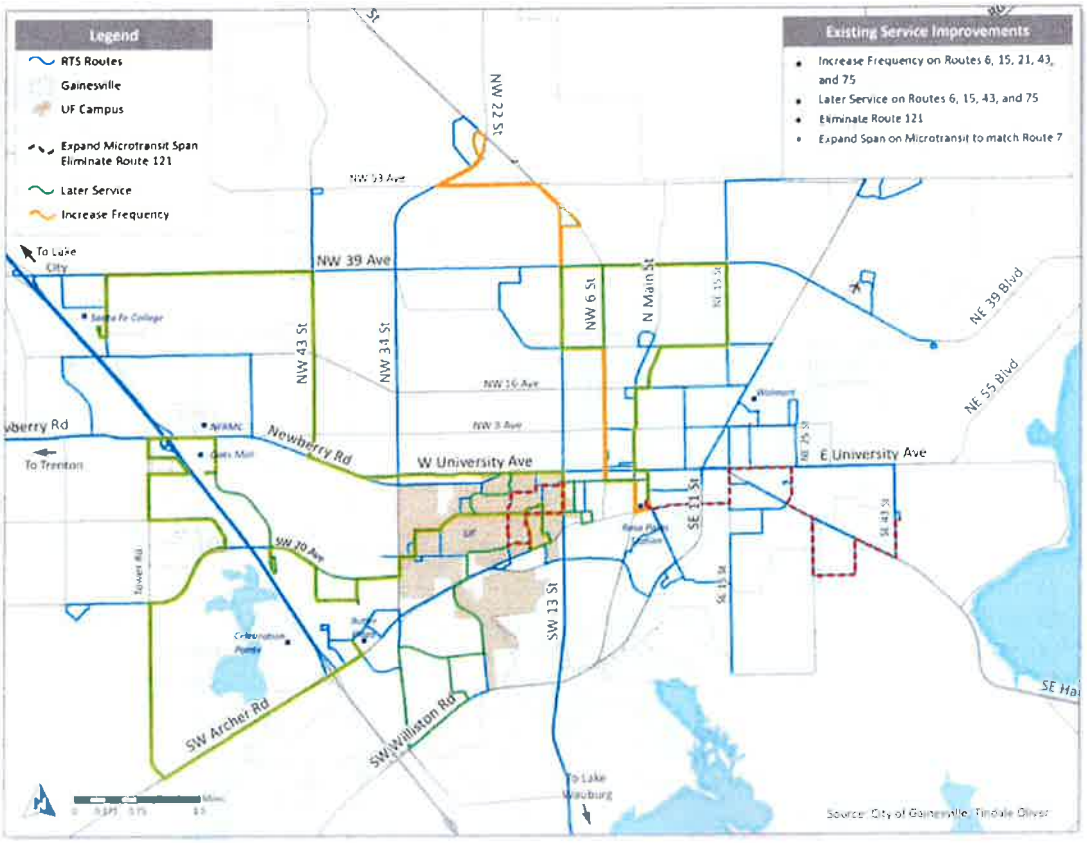
Figure **Draft**

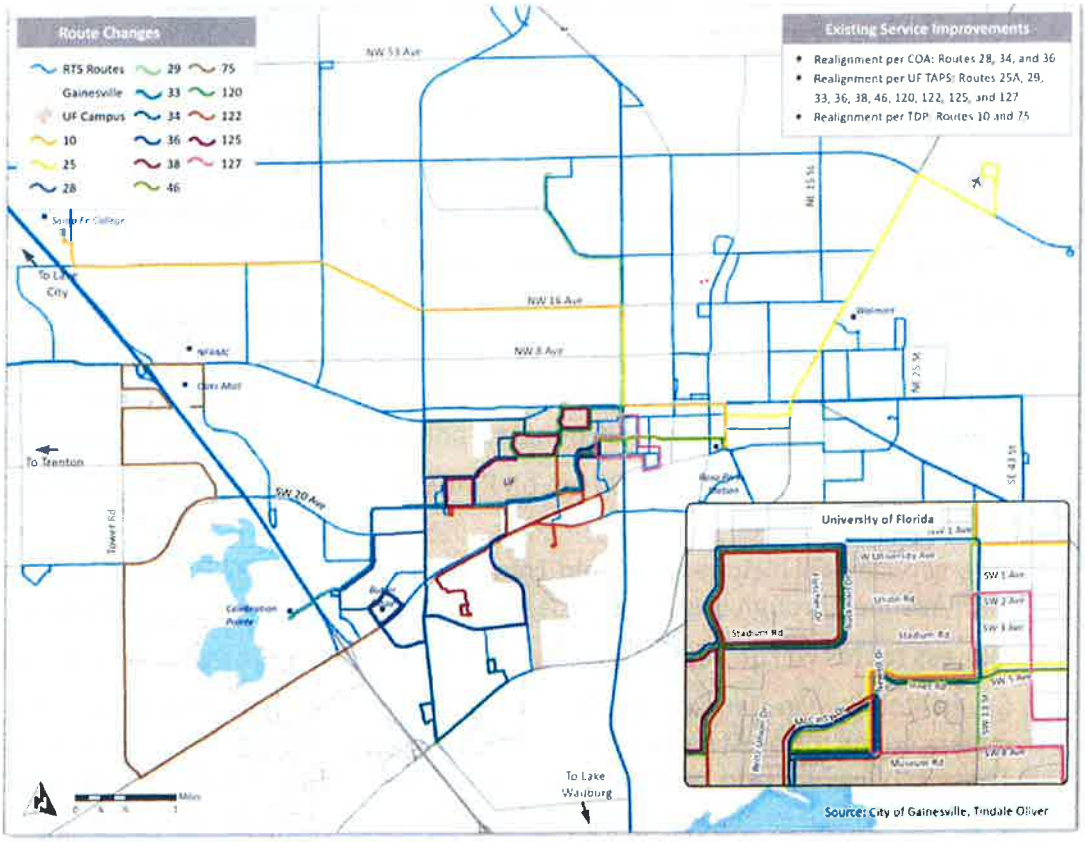
Recommended Pedestrian Projects

2045 Long Range Transportation Plan

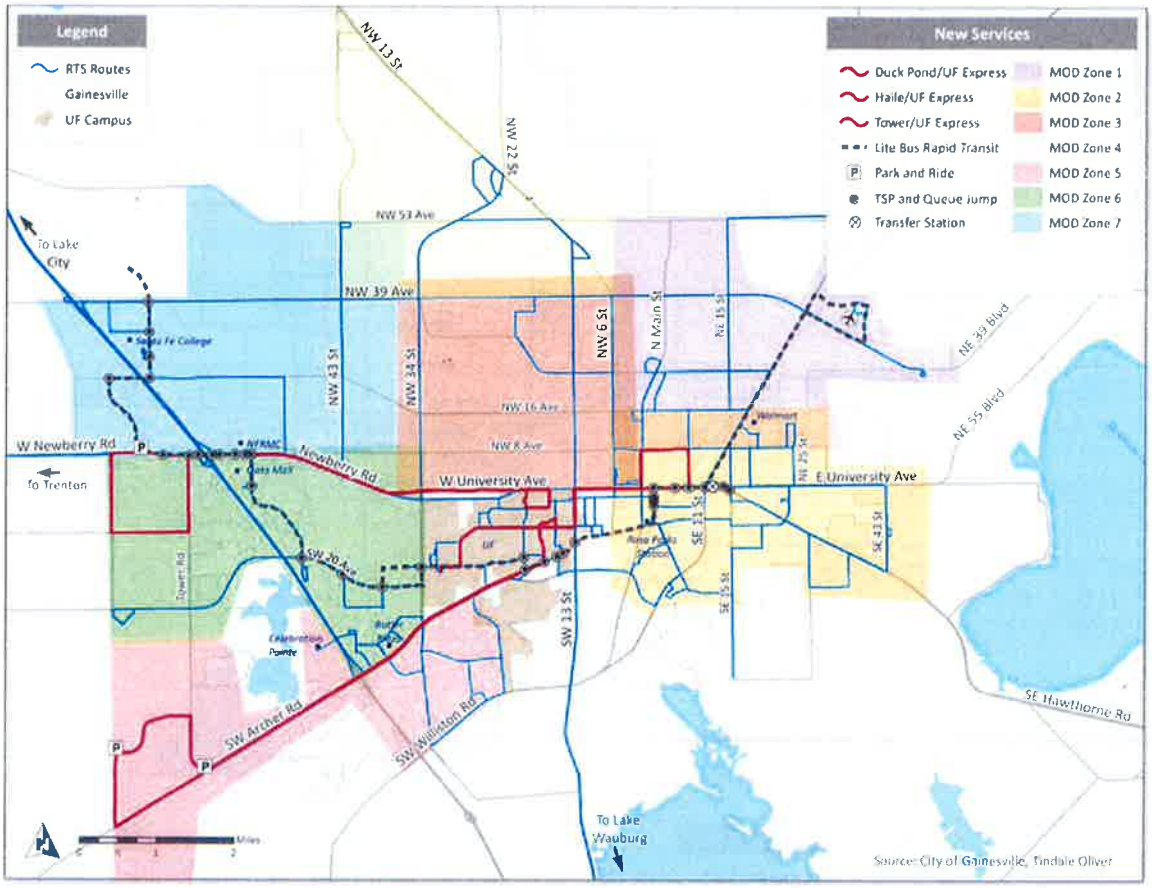
RTS 10-Year Transit Needs

Improvements to Existing Service





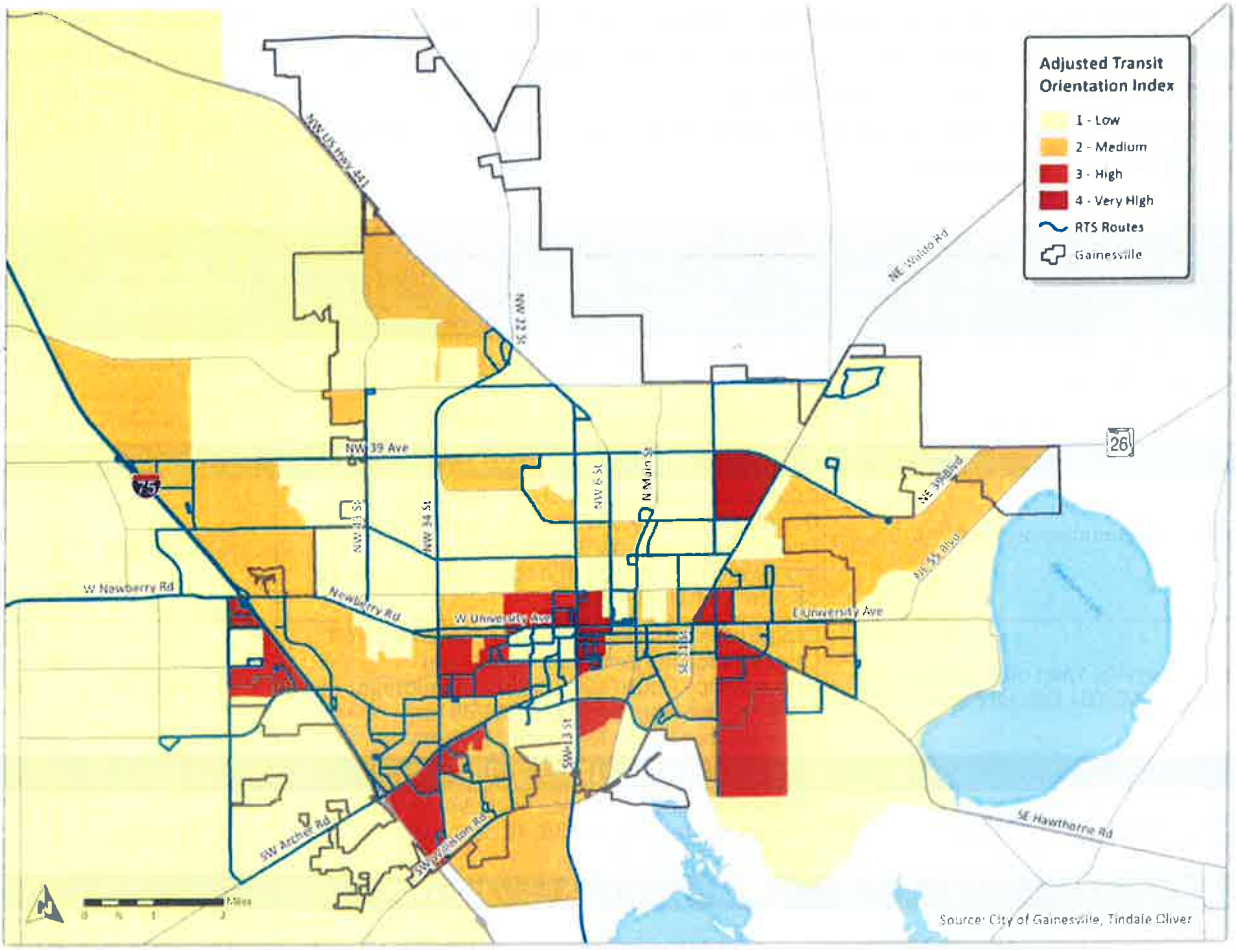
New Services



Service Improvements and New Services

- The Haile/UF Express Route was implemented with the Fall 2019 service changes.
- The Streetcar project, shown in the above map, was determined to not be a priority in the next 10 years.
- TSP/queue jumps will be programmed as funding becomes available.
- Park-and-ride locations will be developed in conjunction with Express services.
- Service improvements to current routes include doubling frequency on Route 21, on Route 6 on weekdays, and on Route 15 after 6:00 pm. Other frequency improvements change Route 43 to 20-minute frequency, run Route 75 every 30 minutes, and extend microtransit span to match Route 7.
- Service will be extended to 10:00 pm on Routes 6 and 43, to 11:00 pm on Route 75, and to 12:00 midnight on Route 15.
- New services will include Bus Rapid Transit (BRT) Lite using TSP/queue jumps along Newberry Road, 20th Avenue, through the UF campus, and Waldo Road to the Gainesville Regional Airport.
- Express routes will be added to connect Tower Road and the Duck Pond areas to the UF campus.
- Seven Mobility-On-Demand (MOD) zones will be implemented throughout greater Gainesville as enhanced microtransit services accessible through real-time phone, web application and calling RTS. These services will add local mobility and first/last-mile connection to the fixed route network and will augment service to meet growing ADA demand with an on-demand general public service.

Recommended 10-Year Plan Strategy and Highlights



- Gainesville has large student and low-income populations and a growing older adult population; combined with county population growth (23.5% by 2040), high demand for transit is expected.
- The cost of paratransit services is increasing faster than peer services, and demand for paratransit service to maintain mobility for lifeline trips such as work, shopping, and medical is growing.
- The need for improved mobility for work, school, healthcare, and shopping is growing, especially in East Gainesville and along key corridors such as Archer Road and Newberry Road/University and west of I-75.
- Continuing and strengthening regional partnerships is an important strategy to provide high-quality transit and multimodal solutions to serve current riders and attract new riders.
- Proposed route improvements will add coverage, improve service frequencies, and reduce travel times.
- Premium transit will provide reliable travel times and improve on-time service along congested corridors.
- MOD services will improve access to mobility for local travel and connections to fixed-route and will support growing paratransit demand.
- Extending the span of microtransit to match Route 7 to improve access to downtown and East Gainesville.

10-Year Implementation Plan

The implementation plan shown below outlines service improvements included in the recommended transit plan from 2020 through 2029 as well as unfunded needs. It is important to emphasize that the schedule shown does not preclude the opportunity to delay or advance any improvements. This project implementation schedule should be adjusted as priorities change, funding allocations change, or more funding becomes available.

	Description	10-Year Operating Cost	10-Year Capital Cost
Maintain Existing Fixed-Route Service	Maintain existing fixed-route service	$266,390,435	$77,334,006
Maintain Existing Paratransit Service	Maintain existing paratransit service	$21,713,299	$4,493,369
Phase 1 (2020–2024)			
Increase frequencies on Routes 6, 15, 21, 43, 75	Double frequency on Route 6 – weekday Double frequency on Route 15 – evening Double frequency on Route 21 Increase frequency 30 min to 20 min – Route 43 30-min frequency – Route 75	$19,283,899	$1,448,286
Increase service span on Routes 6, 15, 21, 43, 75, 600/601 (Microtransit)	Expand span on Microtransit to match Route 7 Later service Route 6 – until 10:00 pm Later service Route 15 – until 12:00 midnight Later service Route 43 – until 10:00 pm Later service Route 75 – until 11:00 pm	$9,058,740	$1,448,286
Phase 2 (2025–2029)			
Replace Route 121, realign routes per UF TAPS, realign routes per TDP/COA	Replace with other service improvements Realign Routes 25A, 29, 38, 46, 120, 122, 125, 127, 10, 28, 33, 34, 36, 75	$371,326	$0
Other/Capital Projects (2020–2029)			
TSP/Queue Jump	Projects enhance service throughout service area		$16,050,000
East Side Transfer Station			$4,006,925
Bus Stop Infrastructure			$5,861,000
ADA Improvements			$5,000,000
Technology Projects			$10,723,000
Recurring Facilities Upgrades			$1,567,615
Unfunded Needs (2020–2029)			
MOD Service (Phase 1)	MOD zones (7) overlay fixed route network to add on-demand local mobility, first/last-mile connections, for general public and paratransit demand	$7,565,194	$645,496
BRT– Lite Service (Phase 2)	BRT light service along Newberry, Archer, West University with TSP/queue jump treatments	$13,692,629	$5,315,356
Express Service (Phase 2)	Duck Pond/UF Express and Tower/UF Express	$5,569,883	$2,319,387
Paratransit Service (Phase 2)	Expanded ADA to cover new service/demand	$919,081	$2,078,687

Costs and Revenue Summary	10-Year Cost	10-Year Revenue	Unfunded
Operating Needs	$349,184,682	$293,466,577	$55,718,106
Capital Needs	$138,291,411	$94,531,600	$45,533,958

10.0 10-Year Transit Plan

This section presents the recommended 10-year transit plan, including financial and implementation plans for RTS. Existing and proposed improvements to transit services, capital and infrastructure, technology, and policy improvements are summarized first. Following, a summary of the assumptions for capital and operating costs and revenues used in developing the TDP are explicated, with an accompanying financial plan for the 10-year horizon period. Finally, the 10-year implementation plan program is defined.

10.1 The 10-Year Plan

The recommended improvements included in the 10-year TDP are the result of an extensive public outreach program that included stakeholder workshops, public meetings, on-board and user surveys, and a variety of other elements as well as data evaluation and processing. The improvements identified fall into the categories of Service Improvements, Capital and Infrastructure Improvements, Technology Improvements, and Policy Improvements. These are described in further detail below.

10.1.1 Service Improvements

10.1.1.1: Existing Services

- Double Frequency Route 6 - Weekday only
  - Recommendations for frequency improvements came from extensive public outreach, particularly on-board survey results.
- Double Frequency Route 15 after 6 PM
  - Recommendations for frequency improvements came from extensive public outreach, particularly on-board survey results.
- Double Frequency Route 21
  - Recommendations for frequency improvements came from extensive public outreach, particularly on-board survey results.
- Improve Route 43 frequency from every 30 minutes to every 20 minutes
  - Recommendations for frequency improvements came from extensive public outreach, particularly on-board survey results.
- Provide consistent 30 minute frequency on Route 75
- 600 extend service span to match Route 7
  - Extending the service span for Route 600 to match Route 7 will facilitate ease of transfers and create a reliable link between local and express services.
- 601 extend service span to match Route 7
  - Extending the service span for Route 601 to match Route 7 will facilitate ease of transfers and create a reliable link between local and express services.
- Later Service Route 6 (until 10 pm)
  - Later service on this Route will allow transit users who work or attend school late to reach their final destinations.
- Later Service Route 15 (until midnight)

  - Later service on this Route will allow transit users who work or attend school late to reach their final destinations.
- Later Service Route 43 (until 10 pm)
  - Later service on this Route will allow transit users who work or attend school late to reach their final destinations.
- Later Service Route 75 (until 11pm)
  - Later service on this Route will allow transit users who work or attend school late to reach their final destinations.
- Eliminate Route 121
  - It was recommended this route be eliminated coincident with improvements identified in the UF TAPS Transportation and Parking Strategic Plan Report. With proposed changes associated with the UF TAPS plan, Route 121 becomes redundant.
- Realign routes per COA and TDP
  - The most recent Comprehensive Operations Analysis recommended the following route realignments: Route 28, Route 34, Route 36.
  - The last TDP recommended the following route realignments: Route 10, Route 75.
- Realign routes per UF TAPS Transportation and Parking Strategic Plan
  - The University of Florida's Transportation and Parking Services Transportation and Parking Strategic Plan recommended the following route realignments: Routes 25A, 29, 33, 36, 38, 46, 120, 122, 125, 127. The realignment of these routes in the long-term will facilitate the creation of a bicycle and pedestrian only zone on the UF Campus.

10.1.1.2: Add New Services

- BRT Light
  - Various versions and alignments of a Bus Rapid Transit (BRT) line in the greater Gainesville area have been proposed over the past decade. The recommended alternative proposed in the Go Enhance RTS Study includes a TSM alternative phased in two parts. The system relies on queue jumps and transit signal priority technology to ensure reliable travel times.
- Duck Pond/UF Express
  - This route, proposed in the UF TAPS Transportation and Parking Strategic Plan, is intended to serve UF employees and students in the Duck Pond area. As an express route, it will provide reliable travel times through limited stops.
- Haile/UF Express
  - This route, proposed in the UF TAPS Transportation and Parking Strategic Plan, was implemented with the Fall 2019 service change and is intended to serve UF employees and students in the Haile Plantation area to provide reliable travel times through limited stops.
- Tower/UF Express
  - This route, proposed in the UF TAPS Transportation and Parking Strategic Plan, is intended to serve UF employees and students along Tower Road. As an express route, it will provide reliable travel times through limited stops.

- MOD Services
    - Seven Mobility-on-Demand zones are proposed for the greater Gainesville area. These services are designed to be a continuation and enhancement of the existing microtransit service and to expand the concept to additional areas to allow persons to request door-to-door local mobility (e.g.: home to Publix) and door-to-bus stop (e.g.: home to fixed route for longer trips) services and increase overall access to transit. The services are available to all and will augment ADA paratransit service as demand continues to grow. The MOD services are accessed in real-time via phone and web app or by calling RTS. Rides can be requested for immediate service and can be scheduled for a future time and date.

10.1.2 Capital and Infrastructure Improvements

- Vehicle Replacement
    - The existing average age of the RTS fleet is high compared to best practices and FTA guidelines for vehicle replacement. Investing in replacement vehicles will reduce the age of the fleet, improve service reliability, and reduce vehicle maintenance costs.
- Queue Jumps
    - The implementation of queue jump lanes along the proposed BRT-Lite Route and the UF Express routes will facilitate reliable travel times and provide for a truly premium bus service along majorly congested corridors. The benefits will derive to all transit in corridors where queue jumps are deployed at key intersections. Queue jumps should be implemented in conjunction with transit signal priority technology.
- East Side Transfer Station
    - The East Side Transfer Station was proposed during the BRT-Lite GO Enhance RTS Report. The new transfer center will provide an important transportation mobility hub to serve East Gainesville. Funds have been programmed for the design/construction of the facility in past financial plans, but revenues have not been allocated.
- Bus Stop Infrastructure
    - Bus stop infrastructure improvements are included in the TDP Financial Plan based upon the existing annual allocation for such improvements. Many comments received during the public outreach process focused on improved bus stop amenities and facilities, particularly shelters.
- ADA Improvements
    - ADA improvements are an essential component of facilitating transit accessibility. The TDP Financial Plan includes the existing annual allocation for such improvements.
- Recurring Facilities Upgrades
    - Funding for ongoing facilities maintenance and upgrades are included in the financial plan as is consistent with state of good repair requirements.
- Microtransit Service Development
    - This line item in the TDP Financial Plan allocates continuing service development funds (operations) for the existing microtransit service (Routes 600 and 601) through

2021. Funds are also requested in the TDP to continue microtransit development and enhancement through the proposed Mobility-on-Demand service and zones.

10.1.3 Technology Improvements

- Transit Signal Priority
  - The implementation of transit signal priority (TSP) along the proposed BRT-Lite Route will facilitate reliable travel times for the BRT-Lite service as well as UF Express services and local bus routes that use traverse the major roadways along the BRT corridor. TSP interacts with the phasing of traffic signals at designated intersections to allow transit vehicles to advance through the intersection (with an extended green phase as the vehicle approaches the intersection) and permit transit vehicles an advanced green (a green light for the transit vehicles in a queue jump lane to provide a few seconds lead time for the transit vehicles to clear the intersection before the general purpose lanes). TSP in combination with queue jump lanes will significantly improve transit reliability, reduce travel times for transit, and increase throughput along the corridor. TSP offers premium bus service along majorly congested corridors.
- Technology Projects
  - RTS continues to investigate and assess the benefits of technology to improve existing services, operations, and processes. Projects involving improvements to fare collection, enhancing real time service information, app based systems to support mobility-on-demand and more robust data collection, and scheduling systems are included in this list.
- Technology Projects – Recurring
  - RTS has existing legacy systems that require maintenance and upgrades. Funding for systems maintenance and upgrades in included in the TDP.

10.1.4 Policy Improvements

The following describe the policy related considerations recommended for RTS and the City to pursue help improve mobility and access to mobility over the next ten years.

- **Fare Policy Study** – RTS is exploring the implementation of a free fare policy for older adults over the age of 65 and youth under age 17. RTS will need to study the impacts of the fare policy change to revenue streams and potential environmental justice impacts and ensure Title VI compliance. Review of this proposed policy suggests that a Title VI disproportionate burden will be triggered and need to be mitigated.

- **Improved Access to Mobility** – RTS is experiencing a growth in paratransit demand due to natural aging of the population, particularly the effect of the Baby Boomer generation as this cohort ages beyond the point of 65 years old. This is a national trend that is coupled with a high percentage of this cohort who reside in and are aging in place in suburban locations. To address the growth in paratransit demand, and to provide easy access to mobility for all residents, RTS should consider developing a Mobility-on-Demand (MOD) service strategy. The

MOD concept is a modern, real-time version of general public dial-a-ride services and will introduce a strategy for RTS to more cost-effectively serve ADA paratransit demand as well as connecting a larger segment of the population to transit, thus reducing the need for reliance on the private automobile.

- **Regional Priority Corridor Improvements** – RTS has an opportunity to partner with Alachua County, the MTPO, Florida Department of Transportation, the University of Florida, and other major businesses and institutions to program traffic engineering solutions to congestion along key travel corridors. Targeting and implementing transit signal priority with queue jump lanes at key intersections along these travel corridors will afford significant improvements in transit reliability, travel time reductions, and operating cost savings while providing a real incentive for commuters to use transit.

10.2 10-Year TDP Finance Plan

A finance plan was developed to facilitate the implementation of the proposed RTS TDP Improvements. Cost, revenue, and policy assumption used to develop the financial plan are presented followed by a summary of costs and revenue projections for RTS over the horizon year of the TDP. The summary includes annual costs for the proposed service improvements, as well as technology, capital, and policy improvements within the next 10 years with supporting revenues that are reasonable expected to be available for such improvements.

10.2.1 Operating Cost Assumptions

Numerous assumptions were made to forecast transit operating costs from 2019 through 2028. Service performance data from RTS, discussion with RTS staff, other Florida TDPs, and other factors contributed to the assumptions that were used as the base of the Financial Plan. The key operating cost assumptions are summarized below:

- Fixed-Route Operating Costs per Revenue Hour was $78.58 based on 2017 NTD Data – and inflated to 2019 dollars for the Finance Plan. The inflated Operating Cost per Trip was assumed to be $81.05
- Paratransit Operating Cost per Trip for Contracted Services was $34.55 based on 2017 NTD Data – and inflated to 2019 dollars for the Finance Plan. The inflated Operating Cost per Trip was assumed to be $35.63
- Microtransit Operating Cost per Trip was assumed to be $35.63 based on inflated Paratransit Operating Costs per Trip.
- An annual inflation rate of 1.6% for operating costs was assumed based on a 10-year average of the Consumer Price Index (CPI).
- Annual Fixed Route Operating Costs were assumed to be the 2017 operating costs inflated to 2019 dollars. The same methodology was applied for Paratransit ($1,992,480).

10.2.2 Capital Cost Assumptions

Similarly, several assumptions were made to support the cost projections for the capital, infrastructure, and technology needed to support the implementation of the TDP. These capital cost assumptions are summarized below

- Fixed Route Vehicle Costs are assumed at $500,000 per vehicle based on RTS' FY18/19 Budget.
- Paratransit and Cutaway Microtransit vehicle unit costs were assumed to be $85,000 based on RTS' FY18/19 Budget.
- BRT-Lite Vehicle Unit Costs were assumed to cost $580,000 based upon the Fixed Route Vehicle Costs with an adjustment for premium technology and branding.
- Support and Relief Vehicle Costs were assumed to be $45,000 per unit based upon RTS' FY18/19 Budget.
- The Capital Costs Inflation Rate is assumed to be 2.5% while the Capital Revenue Inflation Rate is assumed to be 1.5%
- A 15-year useful life assumption was applied to fixed-route busses for the bus replacement plan – with a maximum of 10 busses replaced per year. Vehicle life-cycle assumptions were based on input from staff. The buses replaced under this program are intended for the existing fixed route system. The existing finance plan calls for replacement of 100 buses, 45 paratransit vans, and 53 support vehicles.
- The plan also includes the purchase of 8 buses for BRT-Lite, 6 buses for Express services, and 7 cutaways for Mobility of Demand Services.
- Funds are allocated annually to improve bus stop infrastructure for transit services and to upgrade existing facilities to meet ADA accessibility requirements, where appropriate, based on estimates from RTS staff.

10.2.3 Revenue Assumptions

Basic revenue base assumptions were made to be consistent with a continuation of funding levels, escalated for inflation (using the CPI), based on RTS' most recent budget (2019) which includes FDOT and FTA grants for operating and capital expenses, farebox revenues, city and county funds, and funding from the University of Florida and Santa Fe College.

10.2.4 10-Year Cost/Revenue Summary

Table 10-1 summarizes the annual operating costs and supporting revenues for the RTS TDP. As shown, it would cost $349,184,682 to operate the RTS TDP over the next 10 years (FY2020-FY2029). The estimated revenues over the same period amount to $293,466,577 for an operating revenue deficit of $55,718,106 (unfunded services).

The operating costs would continue to be funded with a mix of local, state, and federal sources and fare revenues generated by existing and new transit services. The TDP operating plan assumes continuation of existing funding levels plus consumer price index. The operating revenues expected over the 10-year period are as follows:

- Federal Formula and Grants $ 19,888,163
- State Funds $ 34,031,044

- Fares $ 13,087,631
- Local sources $226,459,739
- Unfunded Needs $ 55,718,106

The unfunded operating needs represents service costs in excess for estimated growth in existing operating revenue sources. Additional operations will not be approved unless adequate funding sources are available for the additional services. RTS annual budget is subject to approval by the City Commission.

Table 10-2 summarizes the annual capital costs and supporting revenues for the projects included in the TDP. The 10-year capital cost estimate is $138,291,411 to support the necessary fleet and capital infrastructure investments. The estimated 10-year revenue estimated needed to fund capital is $94,531,600. The cumulative unfunded capital need is estimated to be $45,533,958. This amount includes an estimated unfunded rollover of $1,774,147 from 2019.

10-year capital needs are estimated as follows:

- New and Replacement Vehicles $ 95,082,871
- TSP/Queue Jump Facilities $ 16,050,000
- East Side Transfer Center $ 4,006,925
- Bus Stop Infrastructure $ 5,861,000
- ADA Improvements $ 5,000,000
- Technology Projects $ 10,723,000
- Recurring Facilities Upgrades $ 1,567,615
- Total Capital Costs $138,291,411

The capital costs would continue to be funded with a mix of local, state, and federal sources generated by existing and new transit services. The TDP operating plan assumes continuation of existing funding levels plus consumer price index. The capital revenues expected over the 10-year period are as follows:

- Federal Grants $ 80,058,345
- State Funds $ 8,155,898
- Local Sources $ 6,317,356
- Total Sources $ 94,531,600
- Unfunded Needs $ 45,533,958

RTS capital projects are approved by the City Commission subject to available funding from federal, state, and other sources.

Table 10-1: RTS Projected 10-Year Operating Costs, Revenues, Unfunded Needs

Operating Cost/Revenue	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-Year Total
Operating Costs												
Maintain Existing Fixed-Route	$24,444,820	$24,825,425	$25,211,957	$25,604,507	$26,003,170	$26,408,039	$26,819,212	$27,236,787	$27,660,864	$28,091,544	$28,528,929	$266,390,435
Maintain Existing Service - Paratransit	$1,992,480	$2,023,503	$2,055,009	$2,087,006	$2,119,500	$2,152,501	$2,186,015	$2,220,052	$2,254,618	$2,289,722	$2,325,373	$21,713,299
Improvements to Existing Routes	$0	$2,641,304	$2,682,429	$2,724,194	$2,766,610	$2,809,686	$2,781,445	$2,824,752	$2,868,733	$2,913,399	$2,958,761	$27,971,314
New Services	$492,111	$499,774	$507,555	$817,639	$1,137,256	$1,466,628	$5,382,111	$5,465,911	$5,551,015	$5,637,444	$5,725,219	$32,190,552
Complementary ADA Paratransit for New Services	$0	$0	$0	$0	$0	$0	$178,181	$180,955	$183,772	$186,634	$189,540	$919,081
Total Operating Cost	**$26,929,411**	**$29,990,006**	**$30,456,951**	**$31,233,347**	**$32,026,536**	**$32,836,854**	**$37,346,964**	**$37,928,456**	**$38,519,002**	**$39,118,743**	**$39,727,822**	**$349,184,682**
Operating Revenues												
Federal 5307	$1,800,000	$1,828,026	$1,856,488	$1,885,394	$1,914,749	$1,944,562	$1,974,839	$2,005,587	$2,036,814	$2,068,527	$2,100,734	$19,615,722
Federal 5310	$25,000	$25,389	$25,785	$26,186	$26,594	$27,008	$27,428	$27,855	$28,289	$28,730	$29,177	$272,441
FDOT Grants (5310, 5311, 5316, 5317)	$1,292,610	$1,312,736	$1,333,175	$1,353,933	$1,375,014	$1,396,422	$1,418,165	$1,440,246	$1,462,670	$1,485,444	$1,508,572	$14,086,377
FDOT Block Grant Funds	$1,830,185	$1,858,681	$1,887,621	$1,917,011	$1,946,859	$1,977,171	$2,007,956	$2,039,220	$2,070,970	$2,103,215	$2,135,963	$19,944,667
Existing Paratransit Fare Revenue	$165,464	$168,040	$170,657	$173,314	$176,012	$178,753	$181,536	$184,362	$187,233	$190,148	$193,109	$1,803,164
Alachua County Contribution	$873,121	$886,715	$900,522	$914,543	$928,782	$943,243	$957,930	$972,845	$987,992	$1,003,375	$1,018,997	$9,514,944
City of Gainesville Contribution	$3,035,107	$3,082,364	$3,130,356	$3,179,096	$3,228,594	$3,278,863	$3,329,915	$3,381,762	$3,434,416	$3,487,890	$3,542,196	$33,075,453
University of Florida Contribution	$13,936,785	$14,153,781	$14,374,155	$14,597,961	$14,825,251	$15,056,080	$15,290,503	$15,528,576	$15,770,356	$16,015,901	$16,265,268	$151,877,833
Santa Fe College Contribution	$1,049,892	$1,066,239	$1,082,840	$1,099,700	$1,116,822	$1,134,211	$1,151,871	$1,169,806	$1,188,019	$1,206,517	$1,225,302	$11,441,328
Fare Revenue from Existing Services	$1,035,498	$1,051,621	$1,067,994	$1,084,623	$1,101,511	$1,118,661	$1,136,079	$1,153,768	$1,171,732	$1,189,976	$1,208,503	$11,284,467
Other Local Revenues	$1,885,749	$1,915,110	$1,944,928	$1,975,211	$2,005,965	$2,037,198	$2,068,917	$2,101,130	$2,133,845	$2,167,069	$2,200,810	$20,550,182
Total Operating Revenue	**$26,929,411**	**$27,348,702**	**$27,774,521**	**$28,206,971**	**$28,646,153**	**$29,092,174**	**$29,545,139**	**$30,005,157**	**$30,472,337**	**$30,946,791**	**$31,428,633**	**$293,466,577**
Annual Revenues Minus Costs	**($0)**	**($2,641,304)**	**($2,682,429)**	**($3,026,376)**	**($3,380,383)**	**($3,744,681)**	**($7,801,825)**	**($7,923,300)**	**($8,046,665)**	**($8,171,952)**	**($8,299,189)**	**($55,718,106)**
Rollover from Previous Year	**$0**	**($0)**	**($2,641,305)**	**($5,323,734)**	**($8,350,110)**	**($11,730,494)**	**($15,475,174)**	**($23,277,000)**	**($31,200,299)**	**($39,246,965)**	**($47,418,917)**	
Operating Surplus/Shortfall (Cumulative)	($0)	($2,641,305)	($5,323,734)	($8,350,110)	($11,730,494)	($15,475,174)	($23,277,000)	($31,200,299)	($39,246,965)	($47,418,917)	($55,718,106)	($55,718,106)

Table 10-2: RTS Projected 10-Year Capital Costs, Revenues, Unfunded Needs

Capital Costs/Revenue	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	10-Year Total
Capital Costs												
Vehicles	***$7,190,000***	***$7,298,000***	***$8,347,216***	***$8,448,207***	***$9,443,119***	***$11,647,848***	***$14,472,974***	***$8,142,497***	***$8,553,188***	***$8,873,171***	***$9,856,651***	***$95,082,871***
Replacement Fixed Route Buses	$5,000,000	$5,125,000	$5,253,125	$5,384,453	$5,519,064	$5,657,041	$5,798,467	$5,943,429	$6,092,014	$6,244,315	$6,400,423	$57,417,332
Replacement Vans – Paratransit	$510,000	$0	$178,606	$457,679	$1,125,889	$96,170	$591,444	$0	$207,128	$530,767	$1,305,686	$4,493,369
Replacement of Support Vehicles	$180,000	$461,250	$189,113	$193,840	$546,387	$203,653	$208,745	$213,963	$219,313	$224,795	$230,415	$2,691,475
Preventative Maintenance	$1,500,000	$1,537,500	$1,575,938	$1,615,336	$1,655,719	$1,697,112	$1,739,540	$1,783,029	$1,827,604	$1,873,294	$1,920,127	$17,225,199
New and Expanded Services	$0	$0	$703,919	$613,828	$408,411	$3,513,023	$5,937,630	$0	$0	$0	$0	$11,176,810
New and Expanded Paratransit	$0	$174,250	$446,516	$183,071	$187,648	$480,848	$197,148	$202,077	$207,128	$0	$0	$2,078,687
Other Capital/Infrastructure	***$3,286,100***	***$7,002,325***	***$6,777,800***	***$7,250,100***	***$3,730,100***	***$3,730,100***	***$3,730,100***	***$3,730,100***	***$3,730,100***	***$1,730,100***	***$1,797,715***	***$43,208,540***
TSP/Queue Jump Treatments	$2,050,000	$2,050,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$0	$0	$16,050,000
East Side Transfer Station	$0	$330,725	$156,200	$3,520,000	$0	$0	$0	$0	$0	$0	$0	$4,006,925
Bus Stop Infrastructure	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$586,100	$5,861,000
ADA Improvements	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$5,000,000
Technology Projects	$0	$3,385,500	$3,385,500	$0	$0	$0	$0	$0	$0	$0	$0	$6,771,000
Recurring Facilities Upgrades	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$217,615	$1,567,615
Technology Projects - Recurring	$0	$0	$0	$494,000	$494,000	$494,000	$494,000	$494,000	$494,000	$494,000	$494,000	$3,952,000
Total Costs	**$10,476,100**	**$14,300,325**	**$15,125,016**	**$15,698,307**	**$13,173,219**	**$15,377,948**	**$18,203,074**	**$11,872,597**	**$12,283,288**	**$10,603,271**	**$11,654,366**	**$138,291,411**
Capital Revenues												
FL-90-X889 (5307)	$80,856	$82,069	$83,300	$84,549	$85,818	$87,105	$88,411	$89,738	$91,084	$92,450	$93,837	$878,360
FL-2017-008 (STP FLEX)	$83,916	$85,175	$86,452	$87,749	$89,065	$90,401	$91,757	$93,134	$94,531	$95,949	$97,388	$911,602
FL-2018-041-00 (5339)	$945,000	$959,175	$973,563	$988,166	$1,002,989	$1,018,033	$1,033,304	$1,048,803	$1,064,535	$1,080,504	$1,096,711	$10,265,783
FL-2018-073-00 (5339)	$240,196	$243,799	$247,456	$251,168	$254,935	$258,759	$262,641	$266,580	$270,579	$274,638	$278,757	$2,609,312
FL-2018-094-00 (5339)	$4,038,013	$4,098,583	$4,160,062	$4,222,463	$4,285,800	$4,350,087	$4,415,338	$4,481,568	$4,548,792	$4,617,024	$4,686,279	$43,865,995
FDOT Capital Grants	$750,778	$762,040	$773,470	$785,072	$796,848	$808,801	$820,933	$833,247	$845,746	$858,432	$871,309	$8,155,898
Local Capital Match	$581,534	$590,257	$599,111	$608,098	$617,219	$626,477	$635,874	$645,413	$655,094	$664,920	$674,894	$6,317,356
Total Capital Revenues	**$8,701,953**	**$8,832,482**	**$8,964,970**	**$9,099,444**	**$9,235,936**	**$9,374,475**	**$9,515,092**	**$9,657,818**	**$9,802,686**	**$9,949,726**	**$10,098,972**	**$94,531,600**
Annual Revenues Minus Costs	**($1,774,147)**	**($5,467,843)**	**($6,160,046)**	**($6,598,863)**	**($3,937,284)**	**($6,003,473)**	**($8,687,982)**	**($2,214,779)**	**($2,480,603)**	**($653,546)**	**($1,555,394)**	**($43,759,811)**
Rollover from Previous Year	**$0**	**($1,774,147)**	**($7,241,990)**	**($13,402,036)**	**($20,000,899)**	**($23,938,182)**	**($29,941,655)**	**($38,629,637)**	**($40,844,416)**	**($43,325,019)**	**($43,978,564)**	
Capital Surplus/Shortfall (Cumulative)	($1,774,147)	($7,241,990)	($13,402,036)	($20,000,899)	($23,938,182)	($29,941,655)	($38,629,637)	($40,844,416)	($43,325,019)	($43,978,564)	($45,533,958)	($45,533,958)

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May 14, 2020

TO: Year 2045 Long-Range Transportation Plan Technical Working Group

FROM: Scott R. Koons, AICP, Executive Director

SUBJECT: Year 2045 Long-Range Transportation Plan Update - Next Steps

STAFF RECOMMENDATION

No Action Required.

BACKGROUND

The Corradino Group, Inc. and staff will provide an overview of the next steps for the Year 2045 Long-Range Transportation Plan update.

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