Metropolitan Transportation Planning Organization
for the Gainesville Urbanized Area
Gainesville Urbanized Area Transportation Study

Year 2045 Long-Range Transportation Plan Update

Technical Report 5: 2045 Needs Plan

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Metropolitan Transportation Planning Organization

For the Gainesville Urbanized Area

YEAR 2045 LONG-RANGE TRANSPORTATION PLAN UPDATE

Technical Report 5

Year 2045 Needs Plan

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Introduction

The Year 2045 Long-Range Transportation Plan Update identifies mobility projects needed over the coming 20 years. These projects will help shape not only the future transportation system, but the community's vision for the future as well. The development of a list of mobility needs without regard to funding availability is an important step in preparing a financially constrained long-range transportation plan. The community can visualize and evaluate possible transportation solutions to anticipated travel demand in the Needs Plan. Later the community can select alternatives that work most effectively for funding. It also allows them to include the types of transportation projects that will help shape their community and fulfill their vision for the future.

The rationale for developing a Needs Plan is twofold. First, transportation revenue allocations could change in future years, affecting the amount of financial resources available to fund needed modifications. Second, the Needs Plan allows the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area's partners to develop a future transportation vision that reflects social, environmental, and economic policy objectives and helps local governments see the effects of land use decisions.

The process followed in the development of the Year 2045 Needs Plan included public involvement, coordination with the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area and its advisory committees, and evaluation of various roadway and transit alternatives. This process included identifying potentially constrained corridors, committed mobility projects, 2045 mobility deficiencies, and mobility alternatives.

The first step in developing the Year 2045 Needs Plan was to assess projected traffic conditions based on the completion of currently funded projects and growth in population and employment throughout Alachua County and in surrounding parts of the region through the year 2045. In addition, the 2040 Long-Range Transportation Plan Adopted Needs Plan projects were reviewed for the most congested roadway projects. This list of projects was considered as basis for developing 2045 potential needs plan projects. In addition, the roadway or transit capacity improvement project list from Alachua County and the 2020-2029 City of Gainesville Regional Transit System Transit Development Plan were considered in the 2045 potential needs plan projects.

5.1 Network Coding, Editing and Debugging

In order to evaluate the 2045 forecasted conditions of the Existing-plus-Committed transportation network, those projects were coded into the Gainesville Urban Area Transportation Study travel demand model and run as the initial 2045 scenario. This effort included coding any capacity projects or new roadways built since 2015 plus any projects that would change roadway or transit capacity through the addition of travel lanes or additional service expected to be completed by 2025.

Three transportation network alternatives were developed and tested in the development of the Year 2045 Needs Plan: one that focused on roadway projects, one that focused on transit corridors, and a hybrid alternative. The hybrid alternative sought to include the elements of the first two alternatives and create a balanced multimodal scenario. As each of these model scenarios was developed and coded, testing was done to ensure there were no issues and the model ran correctly. Any issues or problems found were addressed before moving forward. The following sections present additional detail on each of the scenarios.

5.2 Development of Existing plus Committed Network

Existing plus Committed Network

The Existing-plus-Committed Network consists of projects funded for construction through the Year 2019 in the Florida Department of Transportation Five-Year Work Program, the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area's Transportation Improvement Program, the City of Gainesville and Alachua County current budgets/Capital Improvements Programs, and other sources of programmed construction funding, such as developer commitments. The committed projects have funding in place and that are scheduled to be constructed by the year 2025. Discussions were held with the Florida Department of Transportation and Public Works Directors and/or City and County staff respectively to determine which projects should be considered committed.

The Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area's Transportation Improvement Program and the Florida Department of Transportation's Five-Year Work Program were also reviewed for capacity projects meeting the prescribed criteria to be considered committed. A comprehensive list of the projects that are considered committed are shown in Table 1. The committed projects for the Year 2045 Long-Range Transportation Plan Update are depicted in Figure 1.

In order to evaluate the projected performance of the Existing-plus-Committed Network in the year 2045, the network was coded into the Gainesville Urbanized Area Transportation Study regional travel demand model and run as a transportation scenario. This entailed adding any capacity projects or new roadways built since the 2015 base

year of the countywide model used in the validation process, plus those locations in the network where funding commitments would increase roadway capacity through the addition of travel lanes. Projected socioeconomic data for the year 2045 was also input into the model. Development of the socioeconomic data is described in the next section.

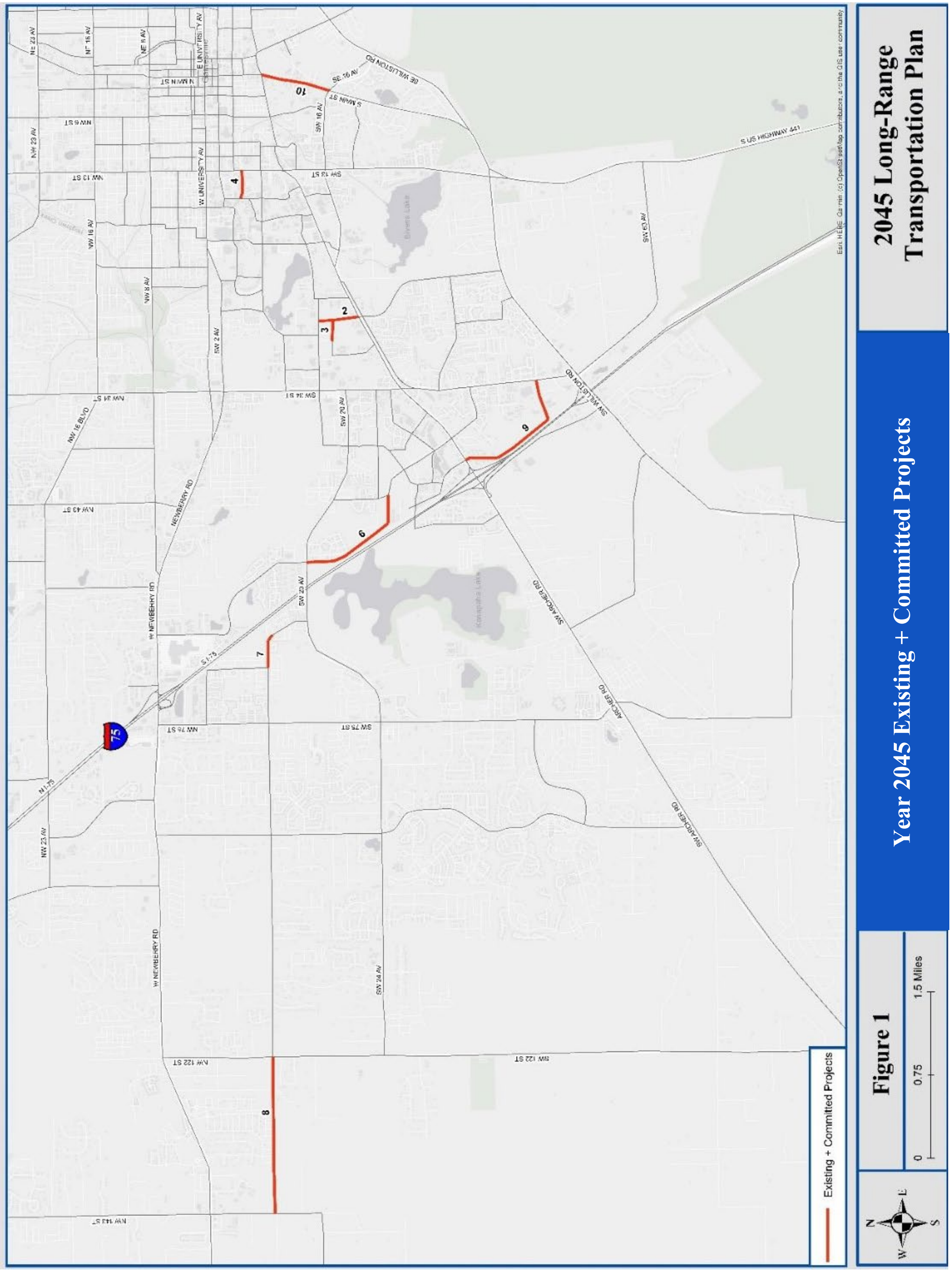
Table 1: Existing Plus Committed Projects

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 2nd 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	Union Road - University of Florida Campus Bicycle/Pedestrian only conversion	Parking Garage at NW 13th Street (US 441)	Buckman Drive	Coded transit only link
	Newell Drive - University of Florida Campus Bicycle/Pedestrian only conversion	Inner Road	Union Road	Coded transit only link
6	SW 62 Boulevard Connector Project, Development and Environment Study (Interim Project - 2-Lane New Construction)	Clark Butler Boulevard	SW 20th Avenue	Coded
7	New Road Construction SW 8 Avenue Connector	SW 20th Avenue	Tower Road	Coded 2 lanes
8	New Road Construction SW 8 Avenue Extension	SW 143rd Street (CR 241)	SW 122nd Street	Coded 2 lanes
9	New Road Construction SW 40 Boulevard Connector	SW 34th Street (SR 121)	Archer Road (SR 24)	Coded 2 lanes
10	2-Lane Reduction; Add On street Parking South Main Street	S 16th Avenue (SR 226)	Depot Avenue	Coded
11	New Road Construction Hull Road Extension	SW 34th Street (SR 121)	SW 38th Terrace	Coded in existing conditions
12	New Road Construction SW 38 Terrace Extension	Plaza Boulevard	Hull Road	Coded in existing conditions
13	SW 45 Street Extension	Archer Road (SR 24)	Bass Pro Shop	Coded in existing conditions
14	Celebration Pointe Avenue and Bridge - 2-Lane Celebration Pointe Avenue	SW 45th Street Extension	SW 42nd Way	Coded in existing conditions

Project ID	Existing Plus Committed Projects	From	To	TCG Comments
15	Clark Butler Boulevard Extension - 4-Lane Divided Clark Butler Boulevard	Archer Road (SR 24)	SW 43rd Street	Coded in existing conditions
16	Plaza Boulevard - 2-Lane Divided Plaza Boulevard	SW 42nd Street	SW 24th Avenue	Coded in existing conditions
17	SW 30 Avenue - 2-Lane SW 30 Avenue	SW 40th Boulevard	SW 42nd Street	Coded in existing conditions
18	Regional Transit System Transfer Station Park-and-Ride Facility	SW 42nd Way	SW 42nd Street	Coded
19	SW 42 Street Realignment SW 42 Street	SW 40th Boulevard	Clark Butler Boulevard	Coded in existing conditions
20	SW 30 Boulevard Extension – 2-Lane SW 30 Boulevard	SW 42nd Way	Windmeadows Boulevard	Coded in existing conditions
21	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SE 7th Avenue	At SE 4th Street	Roundabouts are not required to be coded in the network
22	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SW 6th Street		Roundabouts are not required to be coded in the network
23	Depot Avenue Intersection Realignment Depot Avenue Roundabouts	At SW 11th Street	At SW 9th Road	Roundabouts are not required to be coded in the network

CR = County Road
IFAS = Institute of Food and Agricultural Sciences
S = South
SE = Southeast
SR = State Road
SW = Southwest
TCG = The Corradino Group
W = West

Figure 1: Year 2045 Existing Plus Committed Projects



5.3 Development of the Year 2045 Needs Plan

Vision Statement, Principles and Strategies

As with previous long-range transportation plans, the vision statement and the supporting principles and strategies serve as the cornerstone and building blocks of the 2045 Needs Plan and 2045 Cost Feasible Plan. The Vision Statement, Principles and Strategies are the policy statements of the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area and helped to guide the development of the plan update.

The Vision Statement for this plan update reads as follows: A transportation system that is safe and efficient, serves the mobility needs of people and freight, and fosters economic prosperity while minimizing transportation-related fuel consumption and air pollution. This vision is supported by the following Principles and Strategies:

Principle 1: Support economic vitality

Strategy 1.1: Support transportation projects that promote economic development and tourism.

Strategy 1.2: Consider capacity enhancement projects that allow for the expansion of existing commercial centers.

Strategy 1.3: Support projects that improve connectivity to existing or planned economic centers.

Principle 2: Increase safety and security for motorized and non-motorized users

Strategy 2.1: Support projects that address safety performance targets and increase safety for all users.

Strategy 2.2: Implement techniques and road design to reduce fatalities and serious injuries.

Strategy 2.3: Support projects that increase safety and security for all users of the nonmotorized transportation system.

Strategy 2.4: Encourage development of alternative fuel sources and multimodal infrastructure to provide continuing transportation services.

Strategy 2.5: Coordinate with appropriate agencies to accommodate incident management and emergency management.

Principle 3: Increase the accessibility and mobility of people and freight

Strategy 3.1: Improve the level of service for roads using transportation system management strategies (such as computerized traffic signal systems, motorist information systems and incident management systems) and transportation demand management strategies (such as carpools, transit, bicycling, walking, telecommuting and flexible work schedules).

Strategy 3.2: Encourage the construction of bus bays (turnouts) where possible.

Strategy 3.3: Preserve the intended function of roads on the Florida Strategic Intermodal System for intercity travel and freight movement.

Strategy 3.4: Expand mobility options, including transit, to improve accessibility, availability and competitiveness of transit as a viable travel option.

Strategy 3.5: Support projects that will improve the resiliency and reliability of the transportation system.

Strategy 3.6: Support innovative technologies projects that will enhance the efficiency of the transportation system, such as automated and connected vehicles, shared-use vehicles and alternative-fueled vehicles.

Principle 4: Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns

Strategy 4.1: Support land use designations and encourage development plans that reduce vehicle miles traveled and are transit-supportive.

Strategy 4.2: Develop and expand a network that provides for safe and convenient opportunities for bicyclists and pedestrians.

Strategy 4.3: Reduce adverse impacts of transportation on the environment, including habitat and ecosystem fragmentation, wildlife collisions and non-point source pollution.

Strategy 4.4: Coordinate transportation and future land use decisions to promote efficient development patterns and a choice of transportation modes, consistent with local comprehensive plans.

Strategy 4.5: Support projects that will reduce or mitigate stormwater impacts of surface transportation.

Principle 5: Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight

Strategy 5.1: Develop mobility hubs and freight intermodal centers at appropriate locations.

Strategy 5.2: Provide adequate sidewalks to all bus stops and bicycle racks on all buses.

Principle 6: Promote efficient system management and operation

Strategy 6.1: Develop a transportation system that disperses traffic throughout the local transportation grid rather than concentrating traffic on a few major roads.

Strategy 6.2: Encourage the development and location of employment and service centers that reduce travel distances from residential areas and to transit services.

Strategy 6.3: Continue to implement a coordinated traffic signal system plan to improve road efficiency and to maintain traffic flow.

Principle 7: Emphasize the preservation of the existing transportation system

Strategy 7.1: Direct sufficient resources to preserve existing transportation infrastructure.

Strategy 7.2: Protect existing and future road rights-of-way from development encroachment.

Strategy 7.3: Support projects that address bridge, pavement and system performance targets on the National Highway System.

Strategy 7.4: Support projects that address transit asset management (state-of-good repair) targets.

Long-Range Transportation Plan Planning Factors

The Year 2045 Long-Range Transportation Plan is required by Fixing America's Surface Transportation Act, the current federal transportation legislation, to reflect consideration of the following planning areas:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the safety of the transportation system for motorized and non-motorized users.

- Increase the security of the transportation system for motorized and non-motorized users.
- Increase the accessibility and mobility of people and for freight.
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operation.
- Emphasize the preservation of the existing transportation system.
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- Enhance travel and tourism.

These ten planning areas, along with an increased emphasis on safety, security, and performance-based planning were used in developing the adopted Principles and Strategies for this plan update.

Year 2045 Growth Forecasts

Land use and transportation are inextricably linked. How communities develop over time greatly influences transportation choices as well as the efficiency and the livability of transportation systems. Where and how the region grows sets the foundation for the type and location of future transportation investments. The base year for the Long-Range Transportation Plan is 2015 and all base year data, including socioeconomic data and traffic counts, for the Year 2045 Long-Range Transportation Plan is based on conditions on the ground in 2015. Forecast data for the year 2045 were developed for this plan update at the traffic analysis zone level by the consultant in coordination with the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area staff and their local government partners and serves as inputs to the regional travel demand model. The data is used in the model to forecast mobility deficiencies expected by the year 2045, a key component used in development of the Year 2045 Needs Plan.

Population and Employment Control Totals

The Data Development task focused on socioeconomic data for the model and use in preparing the Long-Range Transportation Plan. The Year 2015 and Year 2045 population and employment datasets were prepared in coordination with the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area staff, Alachua County staff, City of Gainesville staff, and University of Florida staff using Bureau of Economic and Business Research population forecasts and extrapolated Florida Department of Economic Opportunity employment forecasts. Table 2 shows the

socioeconomic data summary. The growth trends between 2015 and 2045 are reasonable and are consistent with the historic growth trends in the county.

Table 2: 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 Dormitory 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%

HMDU = Hotel-Motel Dwelling Unit
MFDU = Multi-Family Dwelling Unit
MFPOP = Multi-Family Population
SCHENR = School Enrollment
SFDU = Single-Family Dwelling Unit
SPOP = Single-Family Population
TOTEMP = Total Employment
TOTPOP =Total Population
UF = University of Florida
UF DORM ST = University of Florida Dormitory Students
UF EMP = University of Florida Employment
UF OC ST = University of Florida Off-Campus Students

Figures 2 through 7, on the following pages, depict population and employment numbers for the base Year 2015 and the forecast Year, 2045. They also show growth in population and employment by traffic analysis zone. As described in Technical Memorandum 2.3, Internal/External and External/External trips were estimated for the Year 2015 using Year 2010 percent split and Year 2015 traffic counts. Those trips were then projected for the forecast Year 2045 as part of the Year 2045 model development.

Figure 2: Year 2015 Population by Traffic Analysis Zone

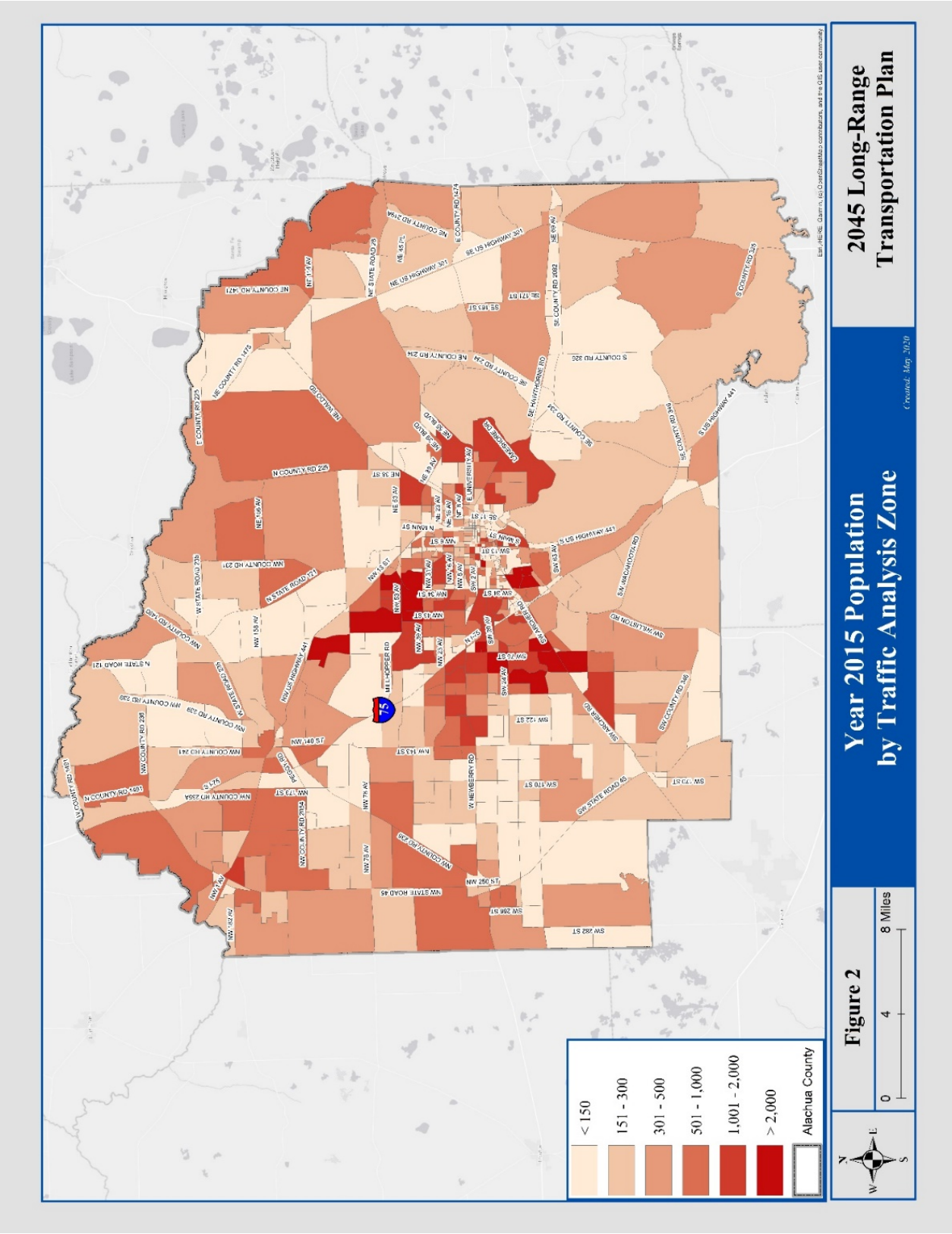


Figure 3: Year 2045 Population by 2045 Traffic Analysis Zone

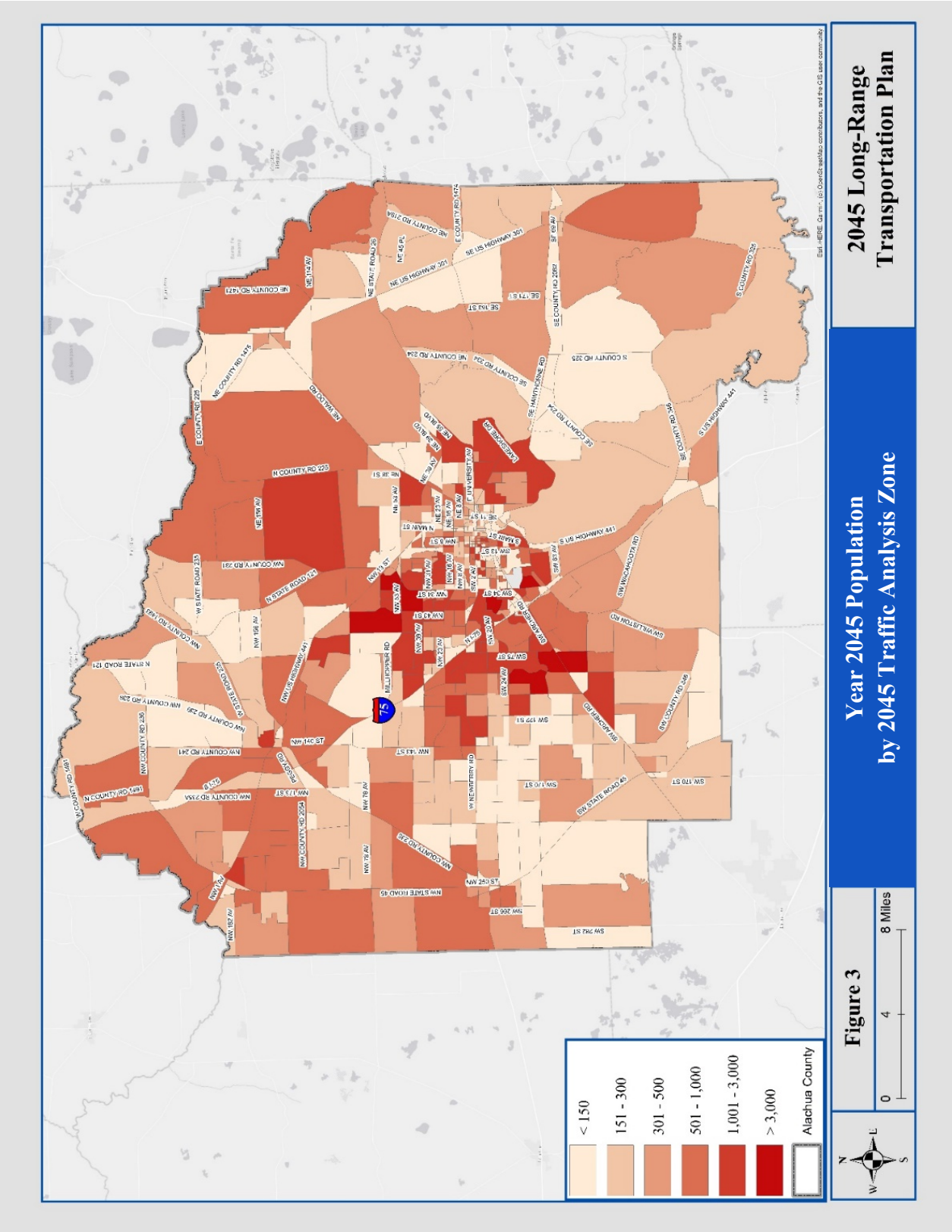


Figure 4: Population Growth between 2015 – 2045 by Traffic Analysis Zone

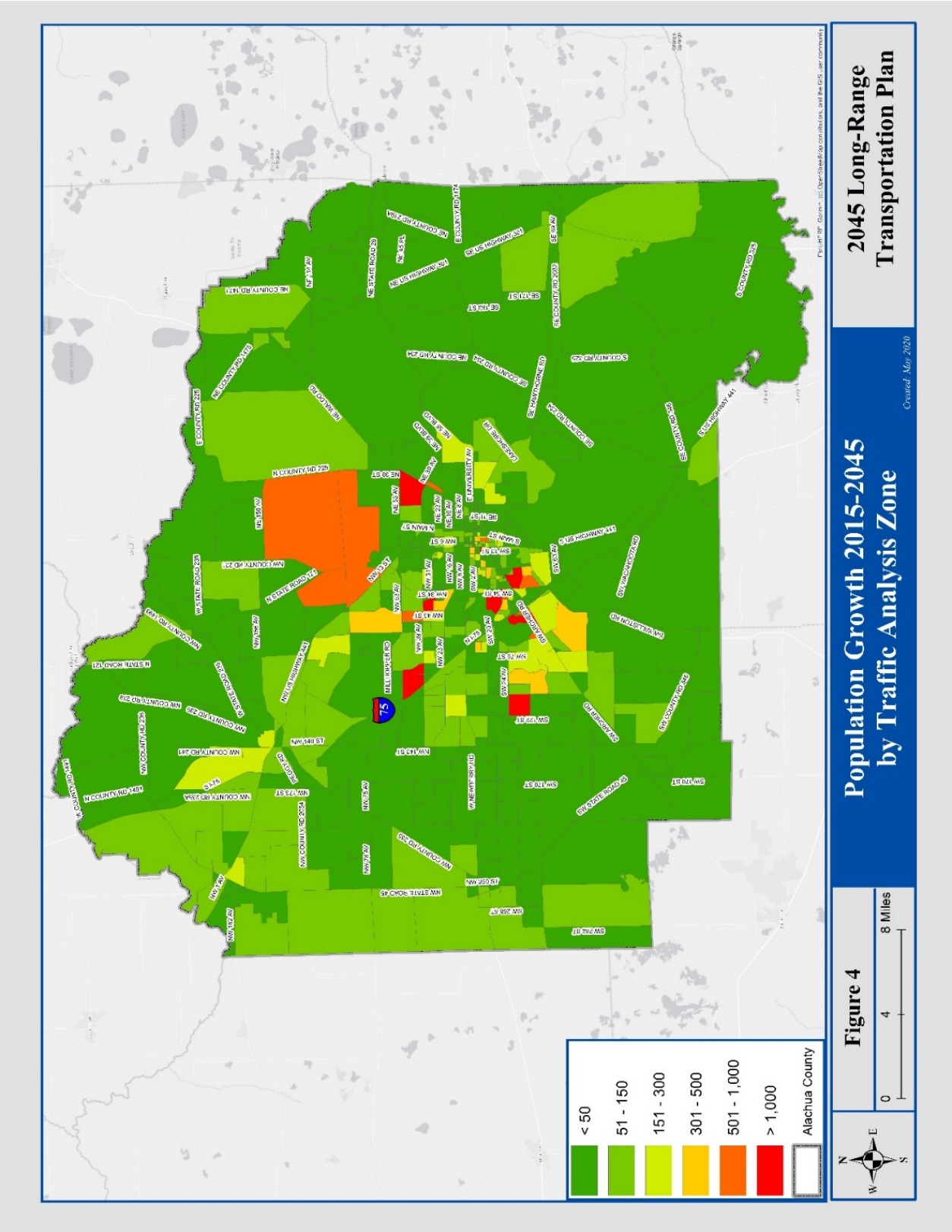


Figure 5: Year 2015 Employment by Traffic Analysis Zone

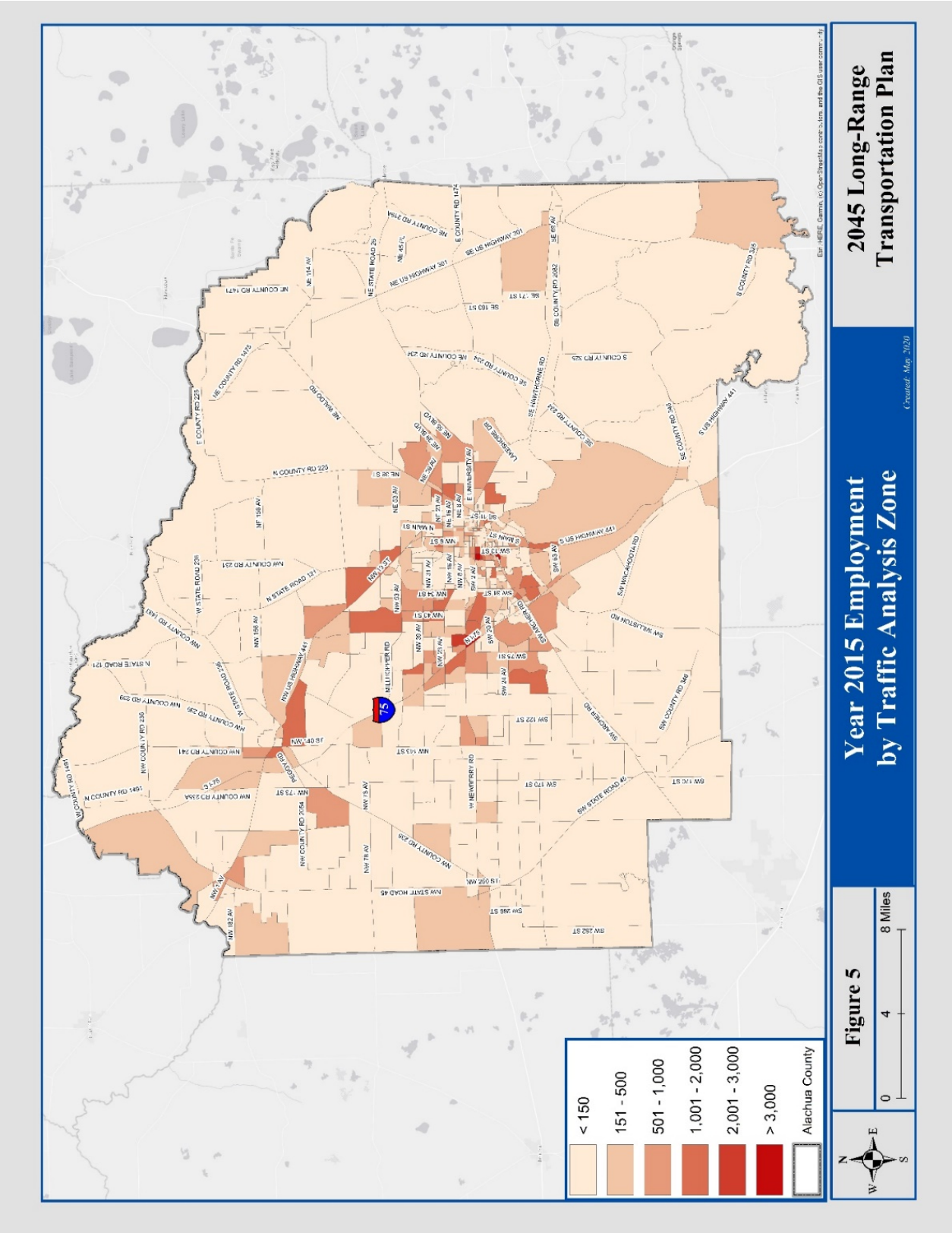


Figure 6: Year 2045 Employment by Traffic Analysis Zone

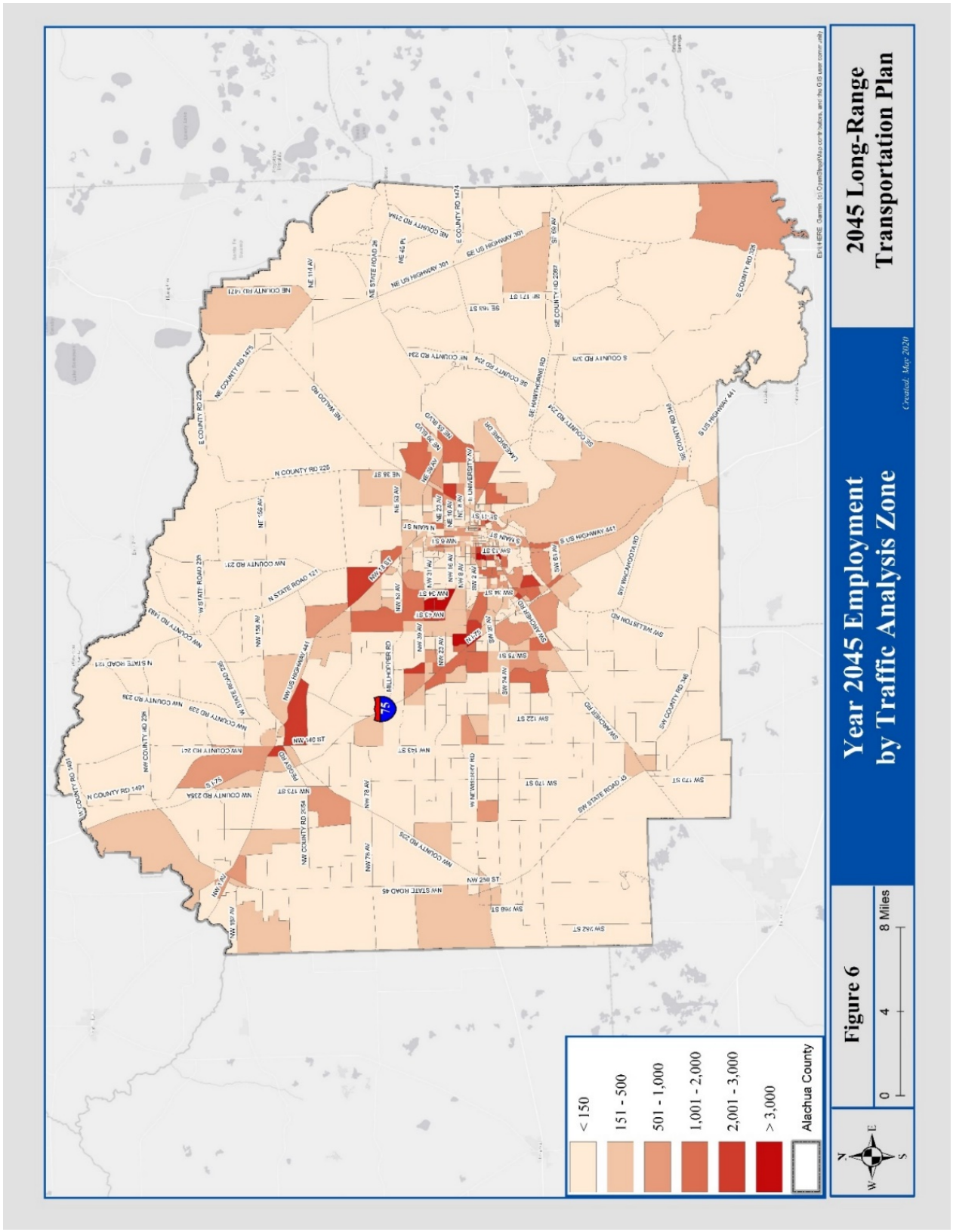
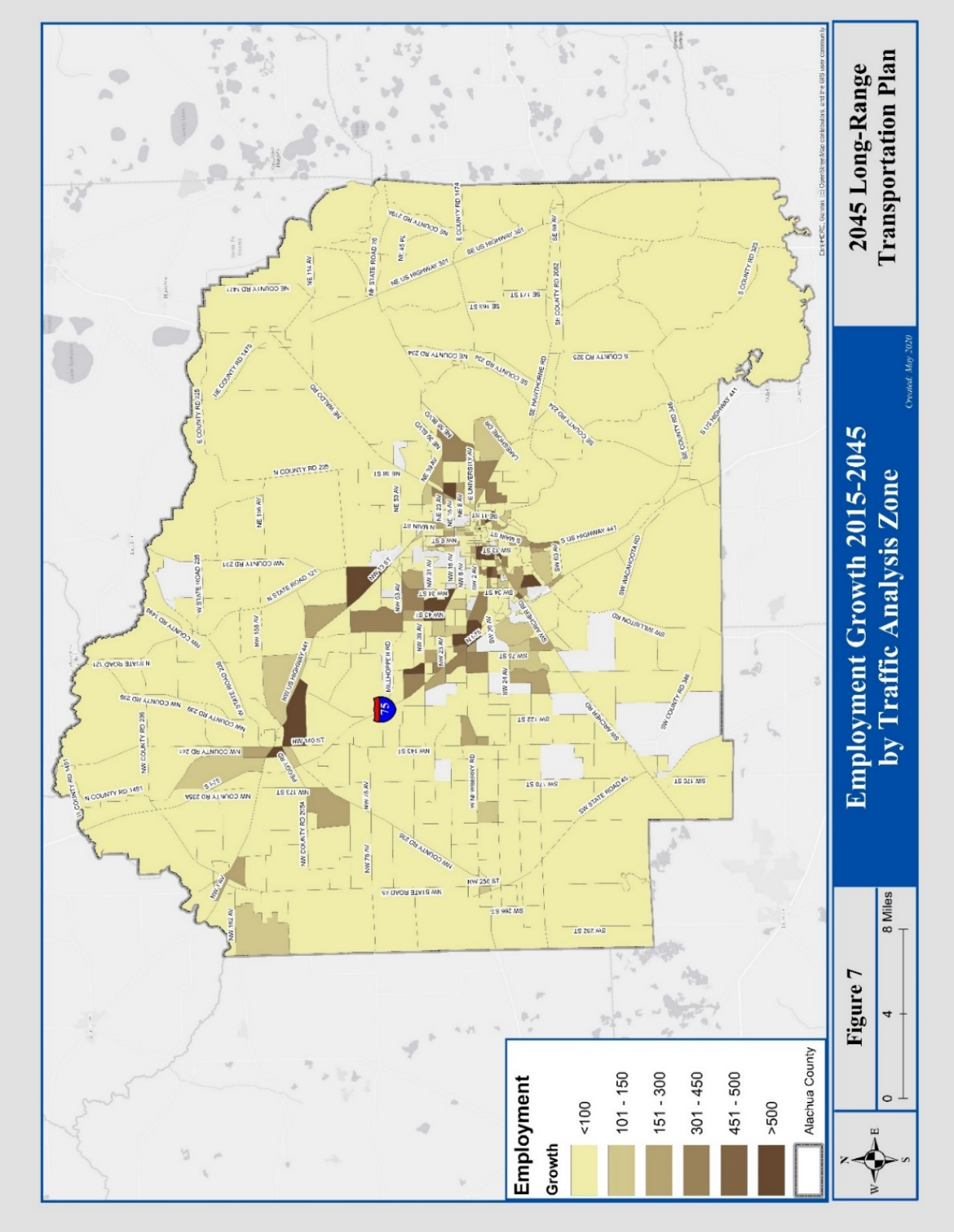


Figure 7: Employment Growth between 2015-2045 by Traffic Analysis Zone



Year 2045 Existing-plus-Committed Link-level Analysis

The forecasted Year 2045 socioeconomic data for the Gainesville Urbanized Area and the Existing-plus-Committed network were coded into the travel demand model in order to complete the deficiency analysis. The results of the Year 2045 deficiency analysis were ultimately used to develop the Year 2045 mobility needs alternatives.

The Year 2045 Existing-plus-Committed future year highway network edits were made using the project list shown earlier in Table 1. Many of the projects were minor changes to the network focusing on congestion relief. In addition, there were several new roadways added; most being an extension of an existing road.

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 network 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 the basis for identifying the unconstrained needs of the roadway 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 2045 Long-Range Transportation Plan, roadway segments having volume-to-capacity in between 0.9 and 1.1 were flagged as borderline congested, while roadway segments having a volume-to-capacity of greater than 1.3 were flagged as very congested. The roadway segments having volume-to-capacity in between 1.1 and 1.3 were flagged as congested facilities.

Segmentation for congested roadways of the existing plus committed network

Since the model network contains numerous roadway links separated by nodes and intersections, the model volume and capacity data come at granular link-level. Thus, the congested roadway identification analysis was conducted by grouping the model network links into segments. Logical roadway segments were identified using break points in the network, and unique map identification numbers were assigned to the congested roadway segments. There were two identification numbers criteria to identify the break points within each congested roadway.

1. All congested links that are generally adjacent to each other are grouped under the same segment (and were assigned with a unique map identification number).
2. Break point was identified if the number of lanes within the congested roadway changed at a network node.

Finally, the volume-to-capacity ratio of each segment was identified by the average measure of all the roadway links within the segment.

2045 Unconstrained Roadway Needs Identification

The Year 2045 deficiency analysis yielded several roadways expected to experience some degree of congestion. Table 4 presents the list of roadway segments experiencing congestion within the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area boundary. The needed lanes under the unconstrained conditions, were identified to improve the roadway volume-to-capacity ratio to be within 1.0. Within each segment, if different links resulted in different number of needed lanes, the needed lanes of majority of the links was selected as the unconstrained needed lanes for the entire segment. Note that Table 4 presents the comprehensive list of issues identified by the existing-plus-committed analysis that will lead to the 2045 Needs Plan. This list of issues is termed as the unconstrained needs projects.

Through extensive coordination with the Technical Advisory Committee Working Group, including the Florida Department of Transportation, City of Gainesville staff, Alachua County staff and the University of Florida staff, additional reasonableness checks were performed on the list of projects presented in Table 2. The reasonableness checks from the Technical Advisory Committee Working Group including but not limited to the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area policies and right of way constraints at a high-level, were considered. Based on these reasonableness checks, the potential for the project to move forward to the 2045 Needs Plan roadway component was determined. It was also understood that additional new roadway projects may be added to this list, by the City of Gainesville staff, Alachua County staff and University of Florida staff, based on their planning activities, and the 2045 Needs Plan roadway project list being consistent with local planning projects.

Table 5 presents congested roadway projects list outside the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area boundary. Figure 8 presents the congested roadway segments maps for the Existing-plus-Committed Network in Year 2045. This analysis provided a baseline for developing and testing of the three scenarios during the next phase of Needs Plan development.

Table 4: Year 2045 Forecasted Existing Plus Committed Congested Roadways within Gainesville Metropolitan Area

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 for future reference only
*	Agencies (County/City/University of Florida) might consider adding additional new roadway projects to the 2045 Needs Plan.

Jurisdiction	Segment ID	Map ID	Facility name	From	To	Level of Congestion	Existing - plus - Committed Lanes	Total Lanes needed to reduce Volume/Capacity ratio below 1.0 (Unconstrained)	Existing - plus - Committed Volume -to-Capacity	Volume -to-Capacity after adding Needed Lanes	Moves forward to 2045 Needs Plan (Yes/No) *
MTPO	1001	29	Archer Road (SR 24)	SW 173rd Court	SW 75th Street/Tower Road	Congested	2	4	1.28	0.64	Yes
MTPO	1002	86	Archer Road (SR 24)	SW 75th Street/Tower Road	I-75	Congested	4	6	1.17	0.78	Yes
MTPO	1003	85	Archer Road (SR 24)	I-75	SW 16th Avenue	Congested	6	8	1.24	0.93	Yes
MTPO	1004	30	Archer Road (SR 24)	SW 16th Avenue	SW 13th Street	Very Congested	4	6	1.62	1.08	Yes
MTPO	2002	47	NW 17th Street	University Avenue	NW 8th Avenue	Congested	2	4	1.24	0.62	No
MTPO	5001	99	Depot Avenue	SW 13th Street	SE 11th Street	Very Congested	2	4	1.36	0.68	No
MTPO	7001	4	Ft. Clark Boulevard	Newberry Road	NW 23rd Avenue	Congested	2	4	1.25	0.63	Yes
MTPO	10001	26	Hull Rd Extension	SW 38th Terrace	SW 34th Street	Borderline Congested	2	4	0.90	0.45	No
MTPO	11001	83	I-75 (Entire corridor)	Countyline/ External Station	CR 234	Borderline Congested	6	8	1.03	0.67	Yes
MTPO	13001	60	Main Street (SR 329)	SW 4th Avenue	NW 16th Avenue	Congested	2	4	1.13	0.56	No
MTPO	13002	98	Main Street (SR 329)	NW 16th Avenue	NW 23rd Avenue	Borderline Congested	4	6	0.92	0.61	No
MTPO	16001	119	NE 6th Terrace	NE 8th Avenue	NE 16th Avenue	Borderline Congested	2	4	0.95	0.48	No
MTPO	17001	13	NW 8th Avenue	Newberry Road	NW 34th Street	Congested	4	6	1.17	0.78	Yes
MTPO	17002	102	NW 8th Avenue	NW 34th Street	NW 6th Street	Very Congested	2	4	1.33	0.66	No
MTPO	17003	103	NW 8th Avenue	NW 6th Street	Main Street	Borderline Congested	4	6	0.99	0.66	No
MTPO	17004	104	NW 8th Avenue	Main Street	NE 2nd Street	Borderline Congested	2	4	0.98	0.49	No
MTPO	17005	14	NE 8th Avenue	NE 9th Street	NE 15th Street	Congested	2	4	1.12	0.56	No
MTPO	18001	63	NE 9th Street	W University Avenue	NE 28th Avenue	Borderline Congested	2	4	1.00	0.50	No
MTPO	19001	126	NE Boulevard	NE 2nd Avenue	NE 5th Avenue	Borderline Congested	2	4	1.02	0.51	No
MTPO	21001	19	Newberry Road (SR 26)	NW 170th Street	I-75	Borderline Congested	4	6	1.09	0.72	No
MTPO	21002	84	Newberry Road (SR 26)	I-75	NW 8th Avenue	Borderline Congested	6	8	1.10	0.82	Yes
MTPO	21003	20	Newberry Road (SR 26)	NW 8th Avenue	SW 2nd Avenue	Congested	4	6	1.28	0.85	Yes
MTPO	23001	118	NW 11th Avenue	NW 18th Street	NW 13th Street	Borderline Congested	2	4	0.96	0.48	No
MTPO	24001	57	SW/NW 6th Street	SW 4th Avenue	NW 8th Avenue	Very Congested	2	4	1.47	0.74	No
MTPO	24002	58	NW 6th Street	NW 8th Avenue	NW 13th Street	Borderline Congested	4	6	1.00	0.67	No
MTPO	24003	54	NW 13th Street (US 441)	NW 6th Street	NW 93rd Avenue	Borderline Congested	4	6	1.00	0.67	No
MTPO	24004	108	US 441 S	Progress Boulevard	NW 43rd Street	Borderline Congested	4	6	1.03	0.69	No

Jurisdiction	Segment ID	Map ID	Facility name	From	To	Level of Congestion	Existing - plus - Committed Lanes	Total Lanes needed to reduce Volume/Capacity (V/C) ratio below 1.0 (Unconstrained)	Existing - plus - Committed Volume -to-Capacity (V/C)	Volume -to-Capacity (V/C) after adding Needed Lanes	Moves forward to 2045 Needs Plan (Yes/No) *
MTPO	26001	7	NW 23rd Avenue	NW 98th Street	NW 55th Street	Very Congested	2	4	1.35	0.68	Yes
MTPO	26002	8	NW 16th Boulevard	NW 55th Street	NW 34th Street	Borderline Congested	4	6	1.08	0.72	No
MTPO	26003	44	NW 16th Avenue	NW 34th Street	NW 13th Street	Congested	4	6	1.14	0.76	Yes
MTPO	26004	93	NW 16th Avenue	NW 13th Street	NE 2nd Street	Borderline Congested	2	4	1.08	0.54	No
MTPO	27001	43	NW 16th Terrace	NW 16th Avenue	NW 23rd Avenue	Very Congested	2	4	1.39	0.70	No
MTPO	28001	117	NW 18th Street	NW 7th Avenue	NW 16th Avenue	Very Congested	2	4	1.49	0.75	No
MTPO	29001	122	NW 19th Street	NW 7th Avenue	W University Dr	Very Congested	2	4	1.32	0.66	No
MTPO	30001	46	NW 22nd Street	University Avenue	NW 16th Avenue	Very Congested	2	4	1.42	0.71	No
MTPO	31001	42	NW 23rd Boulevard	NW 22nd Street	NW 13th Street	Congested	2	4	1.12	0.56	Yes
MTPO	31002	82	NW 23rd Boulevard	NW 6th Street	NW 2nd Street	Borderline Congested	4	6	0.97	0.65	No
MTPO	32001	45	NW 23rd Street	University Avenue	NW 8th Avenue	Congested	2	4	1.15	0.57	No
MTPO	33001	114	NW 2nd Avenue	NW 5th Street	NE 2nd Street	Borderline Congested	2	4	1.00	0.50	No
MTPO	34001	59	NW 2nd Street	NW 8th Avenue	NW 19th Avenue	Borderline Congested	2	4	1.02	0.51	No
MTPO	35001	38	SW 34th Street (SR 121)	Archer Road	W University Avenue	Congested	6	8	1.11	0.83	No
MTPO	35002	39	NW 34th Street (SR 121)	W University Avenue	NW 31st Boulevard	Very Congested	2	4	1.51	0.76	Yes
MTPO	35003	40	NW 34th Street (SR 121)	NW 31st Boulevard	NW 53rd Avenue	Very Congested	2	4	1.36	0.68	Yes
MTPO	35004	95	NW 34th Boulevard / SR 121	NW 53rd Avenue	NW 77 Avenue	Very Congested	2	4	1.33	0.66	Yes
MTPO	36001	12	NW 38th Street	NW 8th Avenue	NW 16th Boulevard	Congested	2	4	1.17	0.58	No
MTPO	37001	1	NW 39th Avenue	SW 143rd Street	NW 105th Street	Very Congested	2	4	1.44	0.72	Yes
MTPO	37002	81	NW 39th Avenue	NW 105th Street	NW 34th Street	Borderline Congested	4	6	1.09	0.73	No
MTPO	37003	41	NW 39th Avenue	NW 34th Street	NW 6th Street	Congested	4	6	1.11	0.74	No
MTPO	37004	113	NW 3rd Avenue	NW 13th Street	NW 6th Street	Borderline Congested	2	4	0.99	0.49	No
MTPO	38002	51	SW 2nd Avenue	SW 12th Street	SE 3rd Street	Congested	2	4	1.12	0.56	No
MTPO	39001	11	NW 43rd Street	Newberry Road	NW 13th Street (US 441)	Congested	4	6	1.23	0.82	Yes
MTPO	40001	10	NW 51st Street	NW 23rd Avenue	NW 39th Avenue	Very Congested	2	4	1.44	0.72	No
MTPO	41001	94	NW 53rd Avenue	NW 52nd Terrace	NE 151st Street	Congested	2	4	1.17	0.59	Yes
MTPO	42001	9	NW 55th Street	Newberry Road	NW 23rd Avenue	Very Congested	2	4	1.43	0.72	No
MTPO	43001	48	NW 5th Avenue	NW 22nd Street	NW 13th Street	Congested	2	4	1.22	0.61	No
MTPO	44001	5	NW 83rd Street	NW 23rd Avenue	NW 39th Avenue	Very Congested	2	4	1.32	0.66	Yes
MTPO	45001	3	NW 98th Street	Newberry Road	NW 39th Avenue	Very Congested	2	4	1.51	0.76	Yes
MTPO	46001	129	Old Archer Road	SW 23rd Terrace	SW 23rd Street	Borderline Congested	2	4	0.91	0.45	No
MTPO	49001	62	SE 4th Street	Depot Avenue	Williston Road	Borderline Congested	2	4	1.01	0.50	No
MTPO	49002	61	SE 3rd Street	Depot Avenue	NE 2nd Avenue	Borderline Congested	2	4	1.03	0.51	No
MTPO	50001	116	SE 4th Avenue/ SE 3rd Avenue	SE 11th Street	Hawthorne Road	Borderline Congested	2	4	0.92	0.46	No
MTPO	51001	66	SE 8th Avenue	SE 15th Street	Hawthorne Road	Borderline Congested	2	4	1.01	0.51	No

Jurisdiction	Segment ID	Map ID	Facility name	From	To	Level of Congestion	Existing - plus - Committed Lanes	Total Lanes needed to reduce Volume/Capacity (V/C) ratio below 1.0 (Unconstrained)	Existing - plus - Committed Volume -to- Capacity (V/C)	Volume -to- Capacity (V/C) after adding Needed Lanes	Moves forward to 2045 Needs Plan (Yes/No) *
MTPO	52001	125	SE/ NE 1st Street	NE 2nd Avenue	SE 2nd Avenue	Borderline Congested	2	4	0.99	0.49	No
MTPO	53001	65	SE/NE 15th Street	Hawthorne Road	NE 8th Avenue	Borderline Congested	2	4	1.03	0.52	No
MTPO	56001	56	SW/NW 10th Street	SW 8th Avenue	NW 16th Avenue	Congested	2	4	1.20	0.60	No
MTPO	57001	55	SW 12th Street	SW 8th Avenue	NW 8th Avenue	Congested	2	4	1.27	0.64	No
MTPO	58001	2	NW 143rd Street	Newberry Road	NW 46th Avenue	Congested	2	4	1.16	0.58	Yes
MTPO	59001	31	SW 16th Avenue (SR 226)	Shealy Drive	Main Street	Very Congested	4	6	1.31	0.87	Yes
MTPO	60001	32	SW 16th Street	SW 16th Avenue	Archer Road	Very Congested	2	4	1.43	0.72	No
MTPO	61001	22	SW 24th Avenue	SW 103rd Street	SW 61st Street	Borderline Congested	2	4	1.08	0.54	No
MTPO	61002	23	SW 20th Avenue	SW 62nd Boulevard	SW 34th Street	Very Congested	2	4	1.59	0.79	Yes
MTPO	63001	50	SW 2nd Avenue	NW 34th Street	W University Avenue	Very Congested	2	4	1.60	0.80	No
MTPO	63002	97	SW 2nd Avenue	Newberry Road/ University Avenue	NW 34th Street	Congested	4	6	1.15	0.76	No
MTPO	64001	35	SW 23rd Terrace	Williston Road	Hull Road	Congested	2	4	1.23	0.62	Yes
MTPO	65001	27	SW 24th Avenue	SW 43rd Street	SW 34th Street	Congested	2	4	1.20	0.60	Yes
MTPO	66001	36	SW 35th Place	SW 34th Street	SW 27th Street	Congested	2	4	1.15	0.58	Yes
MTPO	67001	37	SW 39th Boulevard	Archer Road	SW 34th Street	Very Congested	2	4	1.33	0.66	Yes
MTPO	68001	124	SW 3rd Street	W University Dr	SW 4th Avenue	Borderline Congested	2	4	1.07	0.54	No
MTPO	69001	24	SW 43rd Street	SW 24th Avenue	SW 20th Avenue	Borderline Congested	2	4	0.94	0.47	No
MTPO	70001	16	SW 46th Boulevard	SW 91st Street	SW 75th Street/Tower Road	Borderline Congested	2	4	0.95	0.47	No
MTPO	71001	52	SW 4th Avenue	SW 13th Street	SE 3rd Street	Congested	2	4	1.15	0.57	Yes
MTPO	72001	21	SW 62nd Boulevard	Newberry Road	Clark Butler Boulevard	Very Congested	2	4	1.45	0.73	Yes
MTPO	73001	17	SW 75th Street/Tower Road	SW 75th Court	SW 8th Avenue	Very Congested	2	4	1.32	0.66	Yes
MTPO	73002	18	SW 75th Street/Tower Road	W University Avenue	Newberry Road	Borderline Congested	4	6	1.03	0.69	No
MTPO	74001	88	SW 8th Avenue	SW 91st Street	SW 20th Avenue	Congested	2	4	1.14	0.57	Yes
MTPO	75001	87	SW 91st Street	SW 24th Avenue	SW 1st Place	Borderline Congested	2	4	1.00	0.50	No
MTPO	76002	33	Williston Road (SR 331)	SW 40th Street	SW 41 Boulevard	Very Congested	2	4	1.59	0.79	Yes
MTPO	76003	34	Williston Road (SR 331)	SW 41 Boulevard	SW 13th Street	Congested	4	6	1.17	0.78	Yes
MTPO	77002	53	SW/NW 13th Street (US 441)	NW 16th Avenue	NW 39th Avenue	Very Congested	4	6	1.56	1.04	Yes
MTPO	81001	64	Waldo Road	University Avenue	NE 39th Avenue	Borderline Congested	4	6	1.09	0.73	No
MTPO	84001	100	University Avenue (SR 26)	Newberry Road	NW 34th Street	Congested	4	6	1.15	0.77	No
MTPO	84002	49	University Avenue (SR 26) Eastbound only	NW 34th Street	Waldo Road	Very Congested	3	4	1.73	0.86	No
MTPO	84003	80	University Avenue (SR 26)	SW 2nd Avenue/ NW 21st Terrace	Waldo Road	Congested	4	6	1.18	0.78	No
MTPO/ UF	2001	76	Buckman Drive	Stadium Road	University Avenue	Very Congested	2	4	1.76	0.88	No
MTPO/ UF	3001	72	Center Drive	Archer Road	Museum Road	Very Congested	2	4	1.63	0.82	No
MTPO/UF	6001	120	Fraternity Drive	Stadium Road	Museum Road	Borderline Congested	2	4	1.02	0.51	No

Jurisdiction	Segment ID	Map ID	Facility name	From	To	Level of Congestion	Existing - plus - Committed Lanes	Total Lanes needed to reduce Volume/Capacity (V/C) ratio below 1.0 (Unconstrained)	Existing - plus - Committed Volume -to-Capacity (V/C)	Volume -to-Capacity (V/C) after adding Needed Lanes	Moves forward to 2045 Needs Plan (Yes/No) *
MTPO/ UF	8001	115	Gale Lemerand Drive	SW 16th Avenue	Archer Road	Very Congested	2	4	1.58	0.79	No
MTPO/ UF	8002	79	Gale Lemerand Drive	Archer Road	Museum Road	Very Congested	4	6	1.65	1.10	No
MTPO/ UF	8003	101	Gale Lemerand Drive	Museum Road	University Avenue	Very Congested	2	4	1.88	0.94	No
MTPO/ UF	10002	69	Hull Road	SW 34th Street	Mowry Road	Very Congested	2	4	1.66	0.83	No
MTPO/UF	12001	112	Inner Road	Newell Drive	NW 13th Street	Very Congested	2	4	1.47	0.73	No
MTPO/ UF	14001	71	Mowry Road	Hull Road	Center Drive	Very Congested	2	4	1.51	0.76	No
MTPO/UF	15001	68	Museum Road	Hull Road	SW 12th Street	Very Congested	2	4	1.74	0.87	No
MTPO/ UF	22001	78	Newell Drive	Archer Road	Union Road	Very Congested	2	4	1.41	0.71	No
MTPO/ UF	38001	77	Union Road	Parking Garage	SW 13th Street	Very Congested	2	4	1.32	0.66	No
MTPO/UF	47001	67	Radio Road	SW 34th Street	Museum Road	Very Congested	2	4	1.68	0.84	No
MTPO/ UF	48001	133	SE 13th Avenue	Williston Road (SR 331)	SE 15th Street	Borderline Congested	2	4	1.08	0.54	No
MTPO/ UF	54001	75	Stadium Road	Gale Lemerand	Buckman Drive	Very Congested	2	4	1.96	0.98	No
MTPO/ UF	55001	131	Surge Drive	Archer Road	Natural Area Dr	Borderline Congested	2	4	1.07	0.53	No
MTPO/ UF	62001	70	SW 23rd Drive	Archer Road	Hull Road	Borderline Congested	2	4	0.95	0.48	No
MTPO/UF	77001	53	SW/NW 13th Street (US 441)	SW 16th Avenue	NW 16th Avenue	Very Congested	4	6	1.56	1.04	No
MTPO/ UF	80001	73	Village Drive	Museum Road	SW 2nd Avenue	Very Congested	2	4	1.38	0.69	No
MTPO/ UF	83001	74	Woodlawn Drive	Museum Road	SW 2nd Avenue	Congested	2	4	1.26	0.63	No

CR = County Road
I = Interstate
ID = Identification
NE = Northeast
NW = Northwest
SE = Southeast
SR = State Road
SW = Southwest
US = United States
W = West

Table 5: Year 2045 Forecasted Existing Plus Committed Congested Roadways outside Gainesville Metropolitan Area

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

Jurisdiction	Project ID	Map ID	Facility Name	From	To	Level of Congestion	Existing - plus - Committed Lanes	Existing - plus -Committed Volume -to- Capacity (V/C)
County	4001	142	CR 234 /SE 175 Avenue	I-75	NW Seminary Avenue	Borderline Congested	2	4
County	9001	91	High Springs Main Street	NW Santa Fe Boulevard	NW 182nd Avenue	Borderline Congested	2	4
County	20001	110	Newberry Avenue	SW 266 Street	SW 250 Street	Very Congested	2	4
County	24005	90	US 27	NW 15th Street	Santa Fe Boulevard	Borderline Congested	2	4
County	24006	89	US 27	Santa Fe Boulevard	I-75	Borderline Congested	4	6
County	25001	92	NW 140th Street	CR 235	NW 155th Avenue	Congested	2	4
County	76001	105	SW Williston Road	SW 137th Avenue	SW 62 Avenue	Very Congested	2	4
County	78001	137	US 27/41	Archer Road	SW 132nd Avenue	Borderline Congested	2	4
County	79001	138	US 27/41	NW 9th Road	SW 18th Road	Borderline Congested	2	4
County	82001	109	Waldo Road / US 301	NE 150th Avenue	SW County Road 18	Borderline Congested	4	6
County	82002	96	Waldo Road	NE 140th Lane	US 301	Very Congested	2	4

CR = County Road
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NE = Northeast
NW = Northwest
SE = Southeast
SW = Southwest
US = United States

Figure 8: Year 2045 Existing-plus-Committed Network Congestion

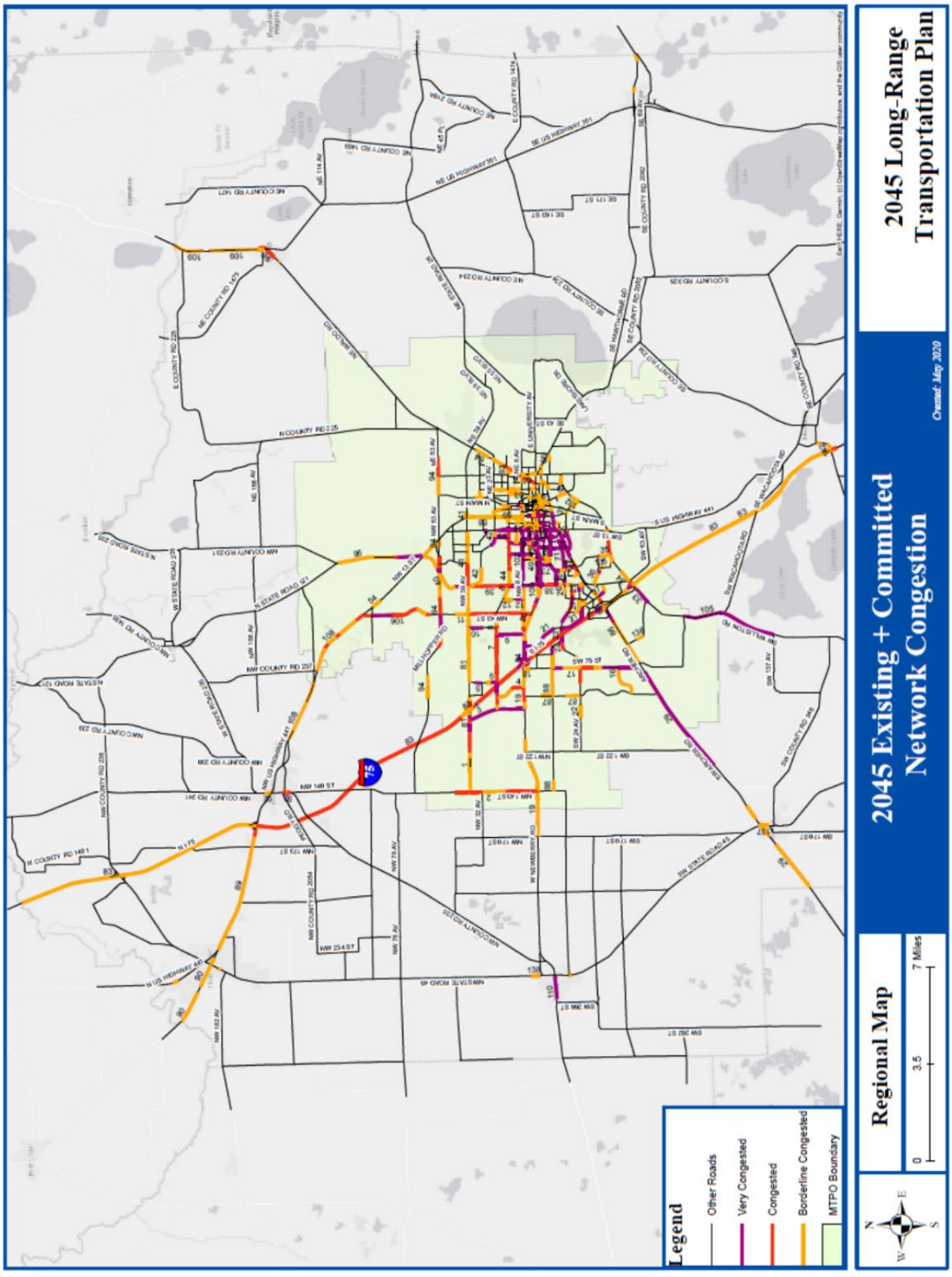


Table 6: System Wide Model Performance Measures

Model Evaluation Statistics	2015	E+C (EC)
Total Number of Links	4,974	5,019
Total Lane Miles	2,167.15	2,175.31
Total Directional Miles	1,664.88	1,675.35
Total Volumes All Links	25,865,834	35,993,540
Total Vehicle Miles Traveled All Links	7,741,868	10,932,634
Total Vehicle Hours Traveled All Links	191,192	313,992
Original Speed (miles per hour)	40.03	40
Congested Speed (miles per hour)	38.76	36.79
Transit Boardings - Local bus	49,612	52,581
Transit Boardings - Express		
Transit Boardings – Bus Rapid Transit		
Total Boarding	49,612	52,581
Commute Mode Share - Drive Alone	537,596	778,494
Commute Mode Share - Car Pool	450,458	473,309
Commute Mode Share – Transit	31,019	32,515
Commute Mode Share - Non-Motorized	87,373	93,194

E + C = Existing Plus Committed

Year 2045 Needs Plan Alternatives

The Year 2045 Long-Range Transportation Plan strived to create a balanced multi-modal plan similar to the previous 2040 Long-Range Transportation Plan. The vision was to create a Needs Plan where roadway projects supported the transit projects and vice versa. In addition, projects from the 2020-2030 University of Florida Campus Master Plan, 2020-2029 City of Gainesville Regional Transit System Transit Development Plan and other regional plans were incorporated into the Year 2045 Needs Plan alternatives.

Due to the COVID-19 Public Health Emergency, the Year 2045 Long-Range Transportation Plan public workshops were conducted virtually via communications media technology, advertised as such to the general public, and with additional opportunities provided for feedback via email, telephone, and an online survey. The public workshops were conducted via communications media technology as permitted by Florida Governor's Executive Order No. 2020-69. The public could submit comments to the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area through email to escalante@ncfrpc.org.

The advisory committees considered noted deficiencies and opportunities identified in the analysis at several meetings in early 2020. Based on their feedback, adjustments were made to the project list prior to presenting the draft Year 2045 Needs Plan to the public at a virtual public workshop on June 9, 2020 and July 7, 2020. The public workshops yielded support for many of the proposed roadway, transit and bicycle/pedestrian projects. In general, projects that supported transit opportunities received higher marks and more support from the public workshop participants.

Based on the feedback received, a series of network alternatives were developed and tested to determine how the future transportation network might function under various scenarios reflecting different strategies for improving mobility. Three transportation network alternatives were developed for the Year 2045 Needs Plan, as follows:

Alternative 1: Roadway Scenario with roadway widening and new corridors emphasis, that were identified from local government comprehensive plans, public input, the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area advisory committees and the initial analysis of the Existing-plus-Committed network. It was an iterative process. The City of Gainesville and Alachua County policies to not widen to more than four lanes (two-way) dictated the selection of projects for Alternative 1. The final list of projects for Alternative 1 were developed in-coordination with Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area staff and local agencies staff.

Alternative 2: Transit Scenario with service enhancements, new Express bus and Bus Rapid Transit route emphasis, that were identified from the 2020-2029 City of Gainesville Transit Development Plan, local government comprehensive plans, the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area advisory committees. The new roadway projects supporting the transit dedicated lanes were coded on top of baseline network (Existing-plus-Committed Network).

Alternative 3: Hybrid Needs Scenario with a mix of roadway and transit projects that were identified from local government comprehensive plans, public input, the Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area advisory committees and the initial analysis of the Existing-plus-Committed network. The network alternatives provided a set of realistic options for relieving congestion and providing improved mobility and accessibility in the Gainesville Metropolitan Area. Alternative 3, described in Technical Report No.6, combined elements from Alternatives 1 and 2, and served as the basis for evaluation and selection of the final Year 2045 Needs Plan.

Year 2045 Needs Plan Alternative 1: Roadway Emphasis

Alternative 1 includes a mix of road widening and new corridors, but primarily focuses on new roadways. This includes modifications that expand the grid network of roadways to

the west and northwest portions of the study area. Below is a list of the projects included in Alternative 1 and Figures 9 and 10 depict these projects graphically. Table 7 shows the roadway emphasis needs project list from the Existing-plus-Committed deficiency analysis and local government comprehensive plans, coded as part of this alternative.

Figure 9: Roadway Emphasis 2045 Needs Plan

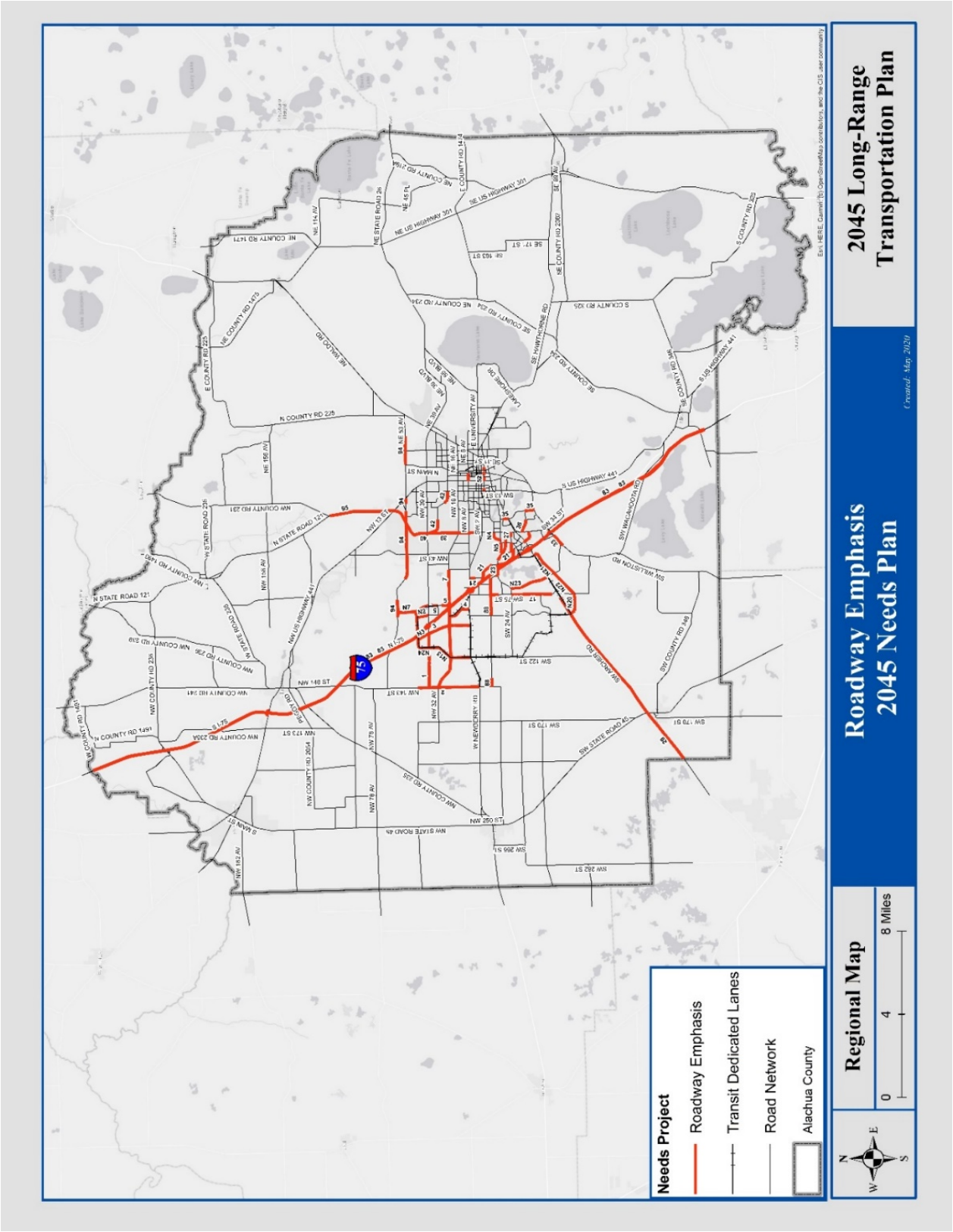


Figure 10: Roadway Emphasis 2045 Needs Plan (Inset)

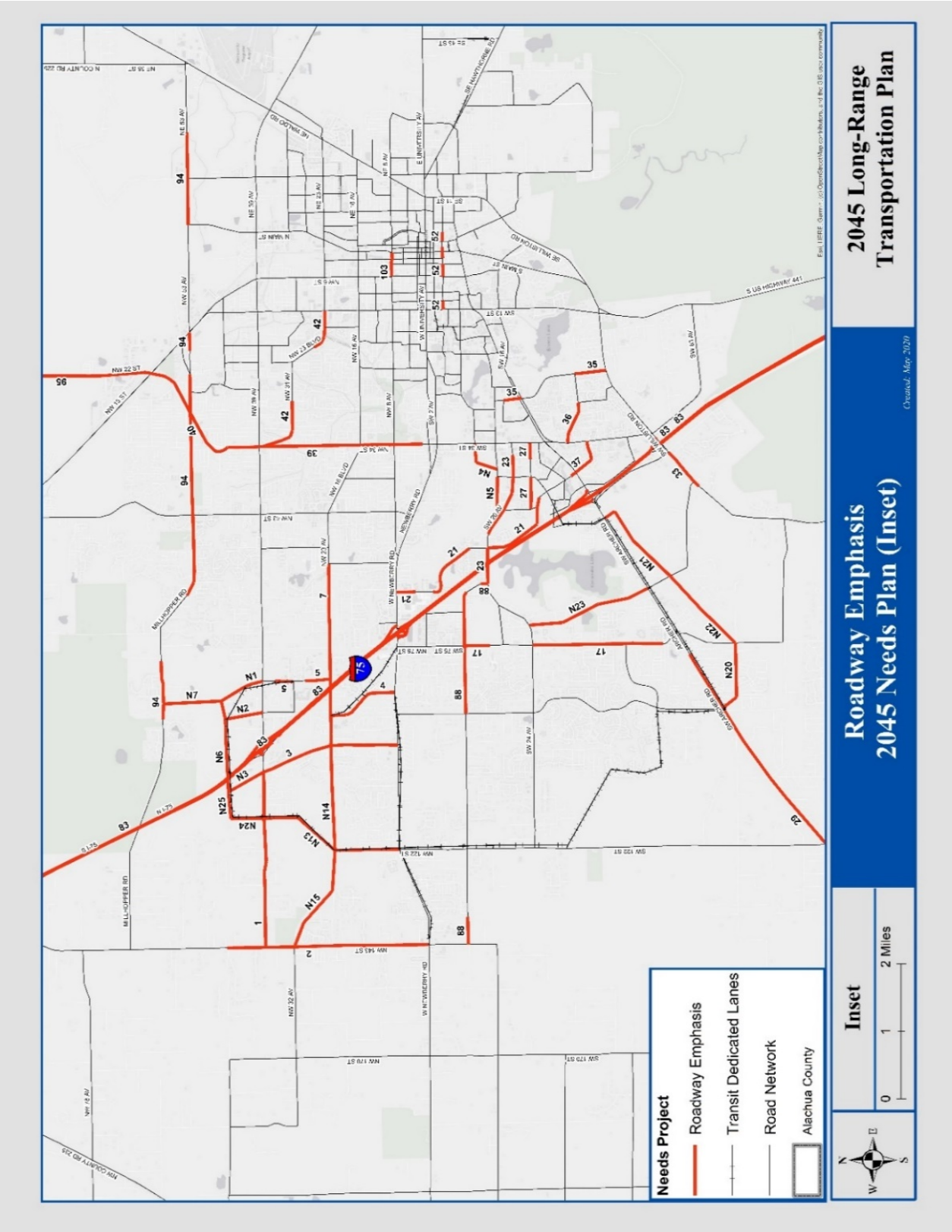


Table 7: Needs Plan Transit Projects – Roadway Emphasis

Facility name	From	To	Level of Congestion	Existing - plus -Committed Lanes	Total Lanes needed to reduce Volume/ Capacity (V/C) ratio below 1.0 (Unconstrained)	MAP _ID	NEEDS _ID
NW 83rd Street	NW 39th Avenue	SpringHills Boulevard				0	N1
NW 91st Street	4100 Block	SpringHills Boulevard				0	N2
NW 98th Street	NW 39th Avenue	SpringHills Boulevard				0	N3
Radio Road	Hull Road	SW 34th Street (SR 121)				0	N4
Hull Road	SW 20th Avenue	SW 38th Terrace				0	N5
SpringHills Boulevard	NW 122nd Street	NW 83rd Street				0	N6
SpringHills Connector	SpringHills Boulevard	Millhopper Road				0	N7
NW 122nd Street/ NW 115th Street (New Construction, 2 lanes + Dedicated Transit Lane)	Newberry Road	NW 39th Avenue				0	N13
NW 23rd Avenue Extension	NW 98th Street	NW 122nd Street Extension				0	N14
NW 23rd Avenue Extension	NW 122nd Street	NW 143rd Street				0	N15
SW 91st Street / SW 73rd Avenue Extension	Archer Road	SW 88th Street				0	N20
New Road South and Parallel to Archer Road	SW 63rd Boulevard	Archer Road				0	N21
SW 57th Road	SW 75th Street	SW 63rd Boulevard				0	N22
SW 63rd Boulevard/ SW 67th Avenue	SW 24th Avenue	Archer Road				0	N23
NW 115th Street	NW 39th Avenue	NW 46th Avenue				0	N24
NW 46th Avenue	NW 98th Street Extension	NW 115th Street Extension				0	N25
NW 39th Avenue	SW 143rd Street	NW 105th Street	Congested	2	4	1	
NW 143rd Street	Newberry Road	NW 46th Avenue	Borderline Congested	2	4	2	

Facility name	From	To	Level of Congestion	Existing - plus -Committed Lanes	Total Lanes needed to reduce Volume/ Capacity (V/C) ratio below 1.0 (Unconstrained)	MAP _ID	NEEDS _ID
NW 98th Street	Newberry Road	NW 39th Avenue	Very Congested	2	4	3	
Ft. Clark Boulevard	Newberry Road	NW 23rd Avenue	Congested	2	4	4	
NW 83rd Street	NW 23rd Avenue	NW 39th Avenue	Congested	2	4	5	
NW 23rd Avenue	NW 98th Street	NW 55th Street	Very Congested	2	4	7	
SW 75th Street/Tower Road	SW 75th Court	SW 8th Avenue	Very Congested	2	4	17	
SW 62nd Boulevard	Newberry Road	Clark Butler Boulevard	Very Congested	2	4	21	
SW 20th Avenue	SW 62nd Boulevard	SW 34th Street	Very Congested	2	4	23	
SW 24th Avenue	SW 43rd Street	SW 34th Street	Congested	2	4	27	
Archer Road (SR 24)	SW 173rd Court	SW 75th Street/Tower Road	Very Congested	2	4	29	
Williston Road (SR 331)	SW 40th Street	SW 41st Boulevard	Very Congested	2	4	33	
SW 23rd Terrace	Williston Road	Hull Road	Congested	2	4	35	
SW 35th Place	SW 34th Street	SW 27th Street	Borderline Congested	2	4	36	
SW 39th Boulevard	Archer Road	SW 34th Street	Congested	2	4	37	
NW 34th Street (SR 121)	W University Avenue	NW 31st Boulevard	Very Congested	2	4	39	
NW 34th Street (SR 121)	NW 31st Boulevard	NW 53rd Avenue	Very Congested	2	4	40	
NW 23rd Boulevard	NW 22nd Street	NW 13th Street	Borderline Congested	2	4	42	
SW 4th Avenue	SW 13th Street	SE 3rd Street	Borderline Congested	2	4	52	
I-75 (Entire corridor)	Countyline/ External Station	CR 234	Borderline Congested	2	8	83	
SW 8th Avenue	SW 91st Street	SW 20th Avenue	Congested	2	4	88	
NW 53rd Avenue	NW 52nd Terrace	NE 151st Street	Borderline Congested	2	4	94	

Facility name	From	To	Level of Congestion	Existing - plus -Committed Lanes	Total Lanes needed to reduce Volume/ Capacity (V/C) ratio below 1.0 (Unconstrained)	MAP _ID	NEEDS _ID
NW 34th Boulevard / SR 121	NW 53rd Avenue	NW 77th Avenue	Very Congested	2	4	95	
NW 8th Avenue	NW 6th Street	Main Street	Borderline Congested	4	6	103	N9

I = Interstate
NE = Northeast
NW = Northwest
SE = Southeast
SR = State Road
SW = Southwest

Year 2045 Needs Plan Alternative 2: Transit Corridors Emphasis

Alternative 2 includes a mix of transit solutions, but primarily focuses on enhancing the existing transit routes, New Express and Bus Rapid Transit routes. Below is a list of the projects included in Alternative 2 and Figure 11 depicts these projects graphically. Table 8 shows the New Express and Bus Rapid Transit routes, coded as part of this alternative. In addition, the recommendations from the 2020-2029 City of Gainesville Regional Transit System Transit Development Plan were adopted. It includes New Express routes, route elimination, route realignment and headway improvements. Appendix A shows the excerpt from 2020-2029 City of Gainesville Transit Development Plan.

Table 8: Needs Transit Projects – New Express and Bus Rapid Transit Routes

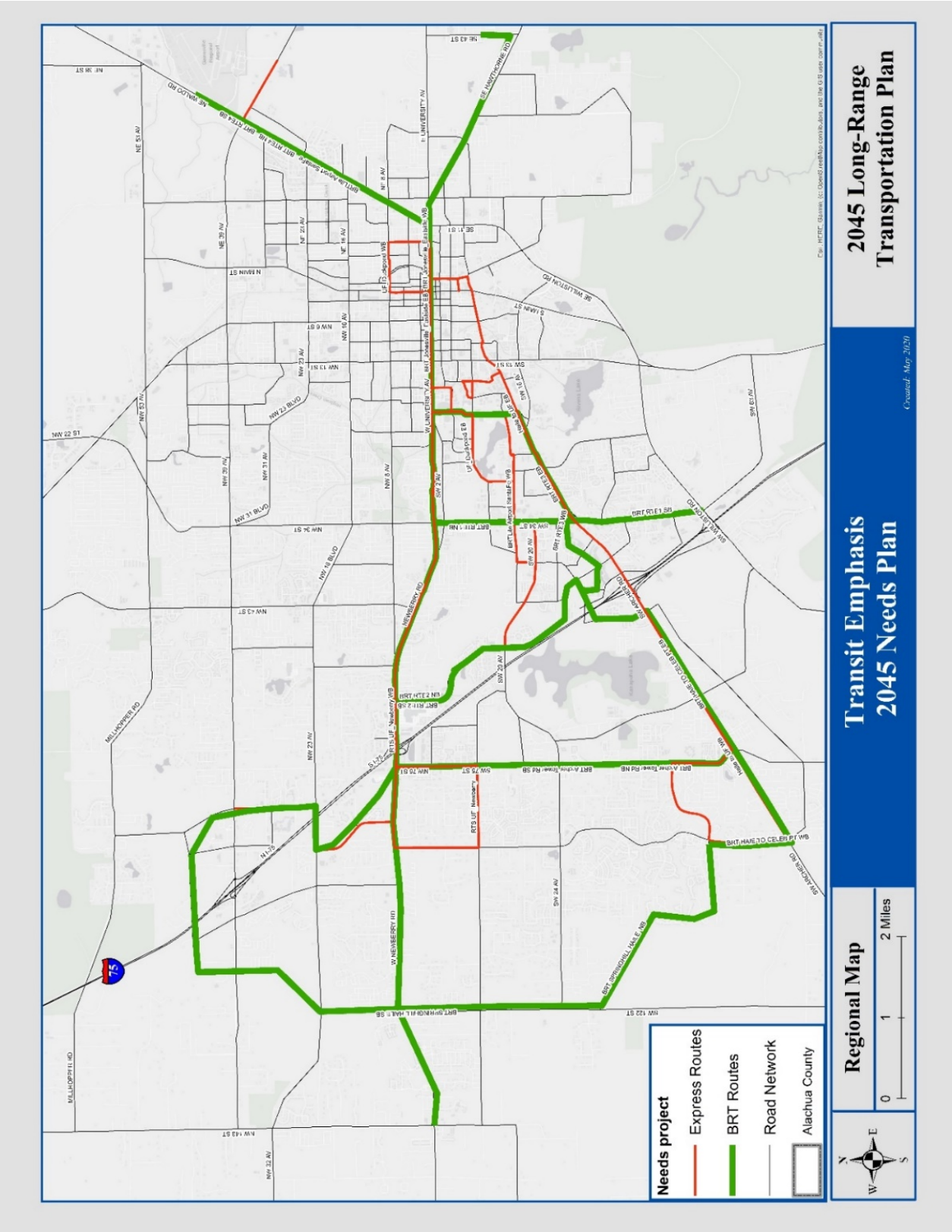
Route Name	Mode	From	To	Source
BRTLite Airport SantaFe EB	BRTLite in Mixed Traffic	Santa Fe College Parking	Airport Via UF Campus	MPTO/RTS Transit Development Plan
BRTLite Airport SantaFe WB	BRTLite in Mixed Traffic	Santa Fe College Parking	Airport Via UF Campus	MPTO/RTS Transit Development Plan
Haile to UF EB	Express Bus in Mixed Traffic (Replaces Route 150)	SW 91st Street and SW 46th Boulevard	UF Campus	MPTO/RTS Transit Development Plan

Route Name	Mode	From	To	Source
Haile to UF WB	Express Bus in Mixed Traffic (Replaces Route 150)	UF Campus	SW 91st Street and SW 46th Boulevard	MPTO/RTS Transit Development Plan
RTS UF_Newberry EB	Express Bus in Mixed Traffic	W Newberry Road and Tower Road	UF Campus	MPTO/RTS Transit Development Plan
RTS UF_Newberry WB	Express Bus in Mixed Traffic	UF Campus	W Newberry Road and Tower Road	MPTO/RTS Transit Development Plan
UF_Duckpond EB	Express Bus in Mixed Traffic	SW 34th Street PNR Lot	NE 9th Street & NE 8th Avenue	MPTO/RTS Transit Development Plan
UF_Duckpond WB	Express Bus in Mixed Traffic	NE 9th Street & NE 8th Avenue	SW 34th Street PNR Lot	MPTO/RTS Transit Development Plan
BRT Archer Tower Road NB	BRT - Partial segment on Dedicated Lanes	PNR lot Springhills Boulevard	PNR lot Springhills Boulevard	County Comprehensive Plan
BRT Archer Tower Road SB	BRT - Partial segment on Dedicated Lanes	Springhills Boulevard	Archer Road	County Comprehensive Plan
BRT Haile to Celebration Point EB	BRT on Dedicated Lanes	SW 91st Street and SW 46th Boulevard	Celebration Point PNR	County Comprehensive Plan
BRT Haile to Celebration Point WB	BRT on Dedicated Lanes	Celebration Point PNR	SW 91st Street and SW 46th Boulevard	County Comprehensive Plan
BRT Jonesville to Eastside EB	BRT - Partial segment on Dedicated Lanes	W Newberry Road and NW 143rd Street (CR 241)	SE 43rd Street & State Road 20/SE Hawthorne Road	County Comprehensive Plan
BRT Jonesville to Eastside WB	BRT - Partial segment on Dedicated Lanes	SE 43rd Street & State Road 20/SE Hawthorne Road	W Newberry Road and NW 143rd Street	County Comprehensive Plan
BRT Route 1 NB	BRT in Mixed Traffic	SW Williston Road and SW 34th Street	University Avenue and SW 34th Street	County Comprehensive Plan
BRT Route 1 SB	BRT in Mixed Traffic	University Avenue and SW 34th Street	SW Williston Road and SW 34th Street	County Comprehensive Plan
BRT Route 2 NB	BRT in Mixed Traffic	Celebration Point PNR	Newberry Road and SW 62nd Street	County Comprehensive Plan
BRT Route 2SB	BRT in Mixed Traffic	Newberry Road and SW 62nd Street	Celebration Point PNR	County Comprehensive Plan

Route Name	Mode	From	To	Source
BRT Route 3 EB	BRT in Mixed Traffic	Celebration Point PNR	University Avenue and Gale Lemerand Drive	County Comprehensive Plan
BRT Route 3 WB	BRT in Mixed Traffic	University Avenue and Gale Lemerand Drive	Celebration Point PNR	County Comprehensive Plan
BRT Route 4 NB	BRT in Mixed Traffic	Waldo Road and Airport	Waldo Road and University Avenue	County Comprehensive Plan
BRT Route 4 SB	BRT in Mixed Traffic	Waldo Road and University Ave	Waldo Road and Airport	County Comprehensive Plan
BRT Springhill Haile NB	BRT on Dedicated Lanes	SW 91st Street and SW 46th Boulevard	PNR lot Springhills Boulevard (via SW 122nd Street)	County Comprehensive Plan
BRT Springhill Haile SB	BRT on Dedicated Lanes	PNR lot Springhills Boulevard (via SW 122nd Street)	SW 91st Street and SW 46 Boulevard	County Comprehensive Plan

BRT = Bus Rapid Transit
EB = Eastbound
MTPO = Metropolitan Transportation Planning Organization for the Gainesville Urbanized Area
NB = Northbound
NW = Northwest
PNR = Park and Ride
RTS = Regional Transit System
SB = Southbound
SE =-Southeast
SW = Southwest
UF = University of Florida
W = West
WB = Westbound

Figure 11: Transit Emphasis 2045 Needs Plan



A summary of modeling results of Alternatives 1, 2 and 3 in comparison with the Year 2045 Existing-plus-Committed and Year 2015 base validation model networks is presented in Table 9. Table 9 provides an overall summary of how each alternative network was projected to perform in the year 2045.

Table 9: Year 2045 Needs Alternatives Network Comparisons

	2015	E+C (NB)	Highway Needs Plan (Alt1)	Transit Needs Plan (Alt2)	Hybrid Needs Plan (Alt3)	Highway only Impact (Alt1-NB)	Transit only Impact (Alt2-NB)	Hybrid Impact (Alt3-NB)
Total Number of Links	4,974	5,019	5,099	5,187	5,227	80	168	208
Total Lane Miles	2,167.15	2,175.31	2,384.76	2,255.72	2,433.25	209	80	258
Total Directional Miles	1,664.88	1,675.35	1,710.05	1,744.79	1,758.55	35	69	83
Total Volumes All Links	25,865,834	35,993,540	35,293,498	35,776,564	35,220,266	-700,042	-216,976	-773,274
Total Vehicle Miles Traveled All Links	7,741,868	10,932,634	10,888,142	10,899,653	10,876,006	-44,492	**-32,981**	**-56,628**
Total Vehicle Hours Traveled All Links	191,192	313,992	281,990	309,938	281,316	-32,002	-4,054	-32,676
Original Speed (miles per hour)	40.03	40	39.88	39.57	39.54	-0.12	-0.43	-0.46
Congested Speed (miles per hour)	38.76	36.79	37.9	36.55	37.62	1.11	-0.24	0.83
Transit Boardings - Local bus	49,612	52,581	52,895	47,317	47,644	314	-5,264	-4,937
Transit Boardings - Express				1,028	1,041	0	1,028	1,041
Transit Boardings – Bus Rapid Transit				10,439	10,256	0	10,439	10,256
Total Boarding	49,612	52,581	52,895	58,784	58,941	314	6,203	6,360
Commute Mode Share - Drive Alone	537,596	778,494	778,963	776,251	776,433	469	-2,243	-2,061
Commute Mode Share - Car Pool	450,458	473,309	472,863	472,234	472,131	-446	-1,075	-1,178
Commute Mode Share – Transit	31,019	32,515	32,712	36,510	36,728	197	3,995	4,213
Commute Mode Share - Non-Motorized	87,373	93,194	92,978	92,520	92,221	-216	-674	-973

Alt = Alternative
E+C = Existing plus Committed
NB = Northbound

Appendix A – Figure excerpt from 2020-2029 City of Gainesville Regional Transit System Transit Development Plan

Map 8-7: Final Alternatives Results, Realignments