RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION

RESOLUTION 2014-22

RESOLUTION OF THE RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION AMENDING THE 2035 LONG RANGE TRANSPORTATION PLAN (LRTP) TO ADDRESS TRANSPORTATION NEEDS IN THE EXPANDED METROPOLITAN PLANNING AREA

WHEREAS Florida Statutes 339.175; 23 U.S.C. 134; and 49 U.S.C. 5303 require that the urbanized area, as a condition to the receipt of federal capital or operating assistance, have a continuing, cooperative, and comprehensive transportation planning process that results in plans and programs consistent with the comprehensively planned development of the urbanized area; and

WHEREAS the River to Transportation Planning Organization (TPO) is the duly designated and constituted body responsible for carrying out the urban transportation planning and programming process for designated Metropolitan Planning Area (MPA) that includes the Deltona Urbanized Area and the Palm Coast – Daytona Beach – Port Orange Urbanized Area; and

WHEREAS 23 C.F.R. 450.300 through 450.324 provides that the River to Sea TPO shall annually endorse, and amend as appropriate, the plans and programs required, among which is the Long Range Transportation Plan (LRTP); and

WHEREAS, on June 25, 2014, the TPO's Metropolitan Planning Area was expanded to add portions of the cities of Palm Coast and Bunnell, as well as portions of unincorporated Flagler County, to the TPO's Metropolitan Planning Area; and

WHEREAS, the River to Sea TPO's adopted LRTP must now be amended to address transportation needs within the area newly added to the TPO's Metropolitan Planning Area; and

WHEREAS the River to Sea TPO Board has solicited public comment during an open public hearing on June 25, 2014 regarding the proposal to amend its 2035 LRTP as prescribed herein; and

WHEREAS, after due consideration of the recommendations of its staff and advisory committees and input from the public, the board has determined that approval of these amendments is necessary and/or appropriate.

NOW, THEREFORE, BE IT RESOLVED, by the River to Sea TPO that:

1. The River to Sea TPO's 2035 LRTP is hereby amended to incorporate "Attachment A" as an addendum.

2. The Chairperson of the River to Sea TPO (or her designee) is hereby authorized and directed to submit the 2035 LRTP as amended to the:

   a. Florida Department of Transportation;
   b. Federal Transit Administration (FTA) (through the Florida Department of Transportation); and the
   c. Federal Highway Administration (FHWA) (through the Florida Department of Transportation).

DONE AND RESOLVED at the regular meeting of the River to Sea TPO held on the **25th** day of **June 2014**.

RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION

Nancy Long

CITY OF SOUTH DAYTONA, VICE MAYOR NANCY LONG
CHAIRPERSON, RIVER TO SEA TPO

CERTIFICATE:

The undersigned, duly qualified and acting Recording Secretary of the River to Sea TPO, certifies that the foregoing is a true and correct copy of a resolution adopted at a legally convened meeting of the River to Sea TPO held on June 25, 2014.

ATTEST:

Pamela C. Blankenship

PAMELA C. BLANKENSHIP, RECORDING SECRETARY
RIVER TO SEA TRANSPORTATION PLANNING ORGANIZATION

ADDENDUM #1 to 2035 LONG RANGE TRANSPORTATION PLAN

Adopted 06-25-14

Introduction

On June 25, 2014, the representatives of the River to Sea Transportation Planning Organization's[1] (TPO) member governments, Flagler County, the city of Bunnell, the city of Palm Coast, and the Florida Department of Transportation entered into an interlocal agreement to establish the River to Sea Transportation Planning Organization (R2CTPO). The R2CTPO represents an expansion of the River to Sea TPO's metropolitan planning area (MPA) to include the entire 2010 Census-designated Palm Coast – Daytona Beach – Port Orange Urbanized Area. The expanded area, shown in Figure 1, includes the urbanized areas of the city of Bunnell, the city of Palm Coast and Flagler County.

In addressing its mandate to carry out the metropolitan transportation planning process[2] the River to Sea TPO adopted a 2035 Long Range Transportation Plan. This addendum amends that plan for the purpose of addressing transportation needs in the expanded metropolitan planning area. It addresses only the area added to the TPO's metropolitan planning area within Flagler County, not the entire MPA.

This amendment was developed in a manner consistent with the 2035 LRTP. The assumptions used to develop the revenue forecasts, project cost estimates, and cost inflation rates for this amendment are consistent with those used for the existing LRTP. The identification of transportation needs for the expanded MPA addressed by this amendment was developed with consideration of the traffic modeling that was undertaken by FDOT District Five in support of the efforts by MPOs/TPOs throughout the district to develop their 2035 LRTPs.

Background

The area added to the existing TPO is approximately 82 square miles and is generally bounded by Volusia County on the south, SR 5 (US 1) on the west, St. Johns County on the north, and the Atlantic Ocean on the east. The 2010 population of this area totaled 82,834.

The city of Bunnell is the historic urban center of the county and the county seat. However, most of the county's urban development lies east of SR 5 (US 1), having occurred after 1970 as part of the planned Palm Coast Development. In 1999, this area was incorporated as the city of Palm Coast. Between 2000 and 2005, Flagler County was recognized by the US Census Bureau as the fastest growing county in the nation with a 53% population increase.

Figure 2 on page 5 shows the area's existing roadways by number of lanes, other transportation facilities (airport), major water features, and conservation/recreation areas. Principal north-south transportation facilities extending through the area are (from east to west) SR A1A, I-95, and SR 5 (US 1). The Florida East

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[1] On April 23, 2014, the "Volusia Transportation Planning Organization" adopted Resolution 2014-15 formally changing its name to "River to Sea Transportation Planning Organization". This was done in anticipation of the further expansion of the TPO into Flagler County incorporating and a recognition that the "Volusia" name did not reflect this greater area of responsibility.

[2] An MPO is required to carry out the metropolitan planning process pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303, 5304, 5305, 5306, 5307, 5309, 5310, 5311, 5316, 5317 and 5339; 23 CFR 420 and 450, and 49 CFR Part 613, Subpart A: and consistent with Chapter 339.175, Florida Statutes, and other applicable state and local laws.

Coast (FEC) Railway runs north and south just outside the area and generally parallel with SR 5 (US 1). Principal east-west transportation facilities extending through the area include only SR 100 and Palm Coast Parkway. There are three interchanges on I-95 at Palm Coast Parkway, SR 100, and Old Dixie Highway.

The functional classification of roadways in the expanded metropolitan planning area is shown in Figure 3, below. However, it should be noted a review is currently underway and revisions may be forthcoming.

Transportation facilities on the Florida Strategic Intermodal System (SIS) include I-95 (SIS highway), SR 100 from I-95 to the Flagler/Putnam County Line (emerging SIS highway), and the Intracoastal Waterway (SIS waterway).

Flagler County operates a pre-scheduled, demand response transit system offering service to Flagler County residents with priority given to those who are disabled, elderly, low income, or transportation disadvantaged. Normal hours of operation are 6:00 a.m. to 6:00 p.m., Monday through Friday.

Flagler County, Bunnell, and Palm Coast have developed, and continue to extend, an extensive network of greenways and trails for walking and bicycling. The focus is on accommodating non-motorized traffic along all arterial and collector roadways and providing connections to active and passive recreation areas and between neighborhoods.

There is one public use airport in the area – the Flagler County Airport – located on the south side of SR 100 between SR 5 (US 1) and I-95. It is operated by Flagler County, and serves corporate and general aviation activity. The airfield consists of two 5,000-ft long runways and a 3,000-ft water runway for seaplanes.

Population, Age, Race, and Ethnicity – 2010

Flagler County's 2010 population was 95,696 of which approximately 90% resided within the R2CTPO's metropolitan planning area. The population of Palm Coast alone accounted for over 78% of the county population. Flagler Beach was next in population size, though considerably smaller with just 4,424 residents (not including the 60 residents in Volusia County). Bunnell's population was 2,676 and Beverly Beach's was just 338.

The median age for Flagler County's residents was slightly higher than Volusia County's at 47.5 and 45.3 years, respectively. Beverly Beach had the most senior population with a median age of 68.9 years, followed by Flagler Beach with a median age of 56.3 years. Bunnell's population was youngest with a median age of 40.4 years.

As in Volusia County, the Flagler County population is predominantly White with persons of Black or African American Race representing just over 11% of the total population. Bunnell's population reflected the highest percentage of Black or African Americans with nearly 32% of the total population. No other race accounted for more than 3% of the population of Flagler County or any of its cities.

Persons of Hispanic or Latino origin accounted for only 8.6% of the county's population compared to just over 11% in Volusia County.

Figure 1 – River to Sea TPO Metropolitan Planning Area

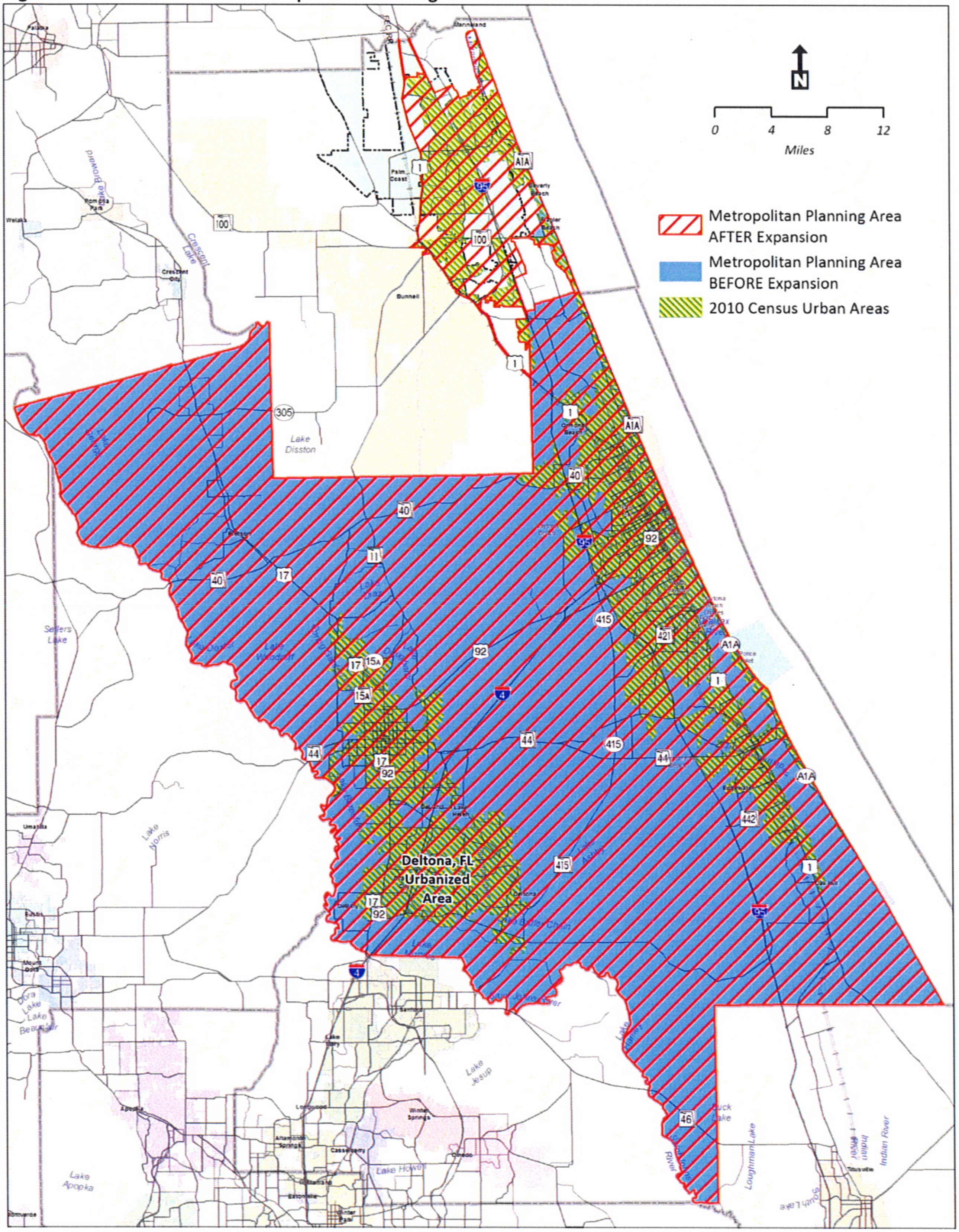
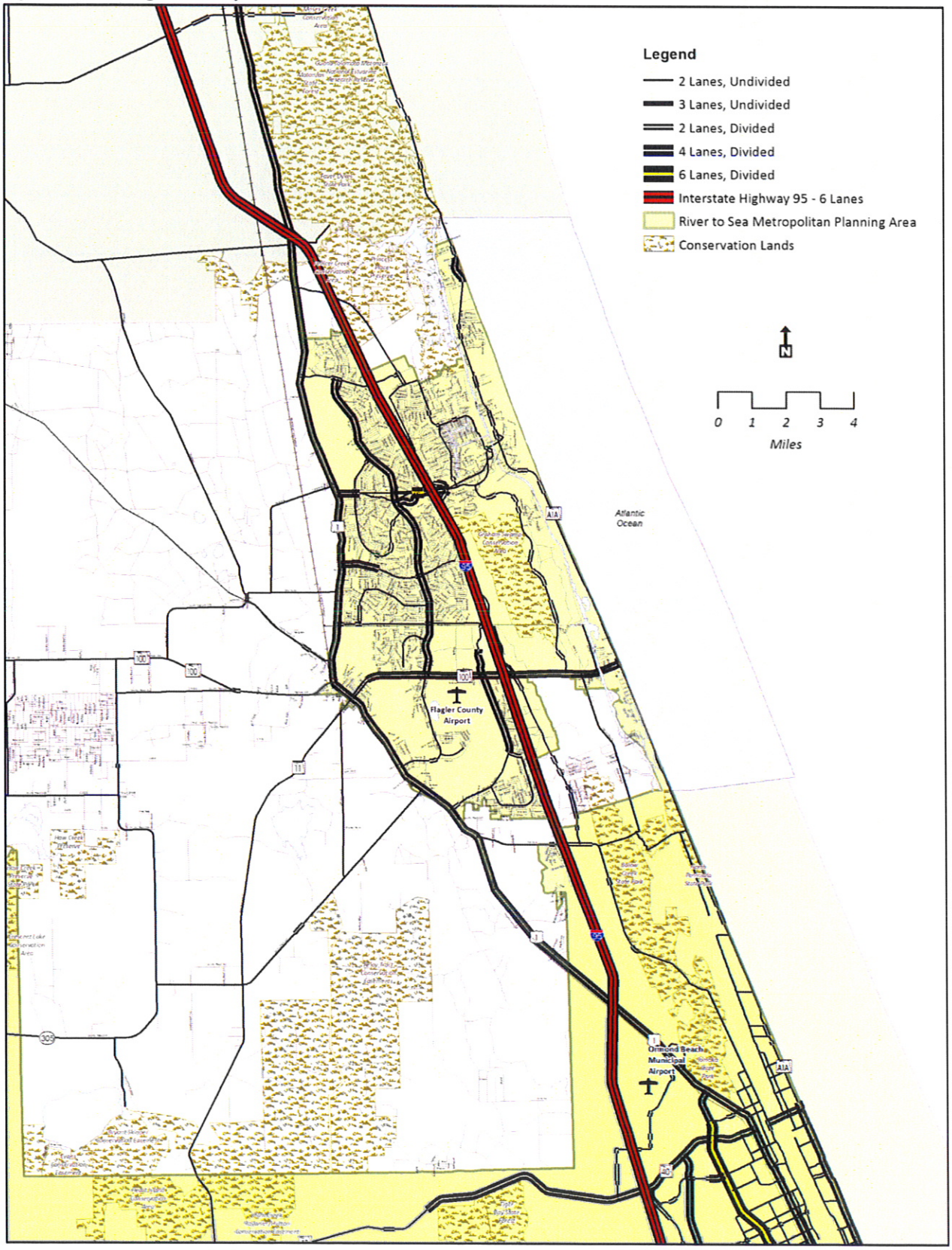


Table 1 - Age, Race and Ethnicity - 2010

	Volusia County		Flagler County		Palm Coast		Bunnell		Beverly Beach		Flagler Beach [3]	
Population	494,593		95,696		75,180		2,676		338		4,424	
Median Age	45.3		47.5		45.1		40.4		68.9		56.3	
Race		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**
White alone	408,256	82.54%	78,710	82.25%	60,063	79.89%	1,688	63.08%	337	99.70%	4,294	97.06%
Black or African American alone	51,791	10.47%	10,884	11.37%	9,585	12.75%	854	31.91%	0	0.00%	34	0.77%
American Indian and Alaska Native alone	1,778	0.36%	267	0.28%	191	0.25%	15	0.56%	0	0.00%	14	0.32%
Asian alone	7,567	1.53%	2,046	2.14%	1,902	2.53%	7	0.26%	0	0.00%	29	0.66%
Native Hawaiian and Other Pacific Islander alone	204	0.04%	59	0.06%	56	0.07%	0	0.00%	0	0.00%	0	0.00%
Some Other Race alone	14,487	2.93%	1,544	1.61%	1,469	1.95%	29	1.08%	0	0.00%	6	0.14%
Two or More Races	10,510	2.12%	2,186	2.28%	1,914	2.55%	83	3.10%	1	0.30%	47	1.06%
Hispanic or Latino	55,217	11.16%	8,251	8.62%	7,552	10.05%	145	5.42%	2	0.59%	109	2.46%

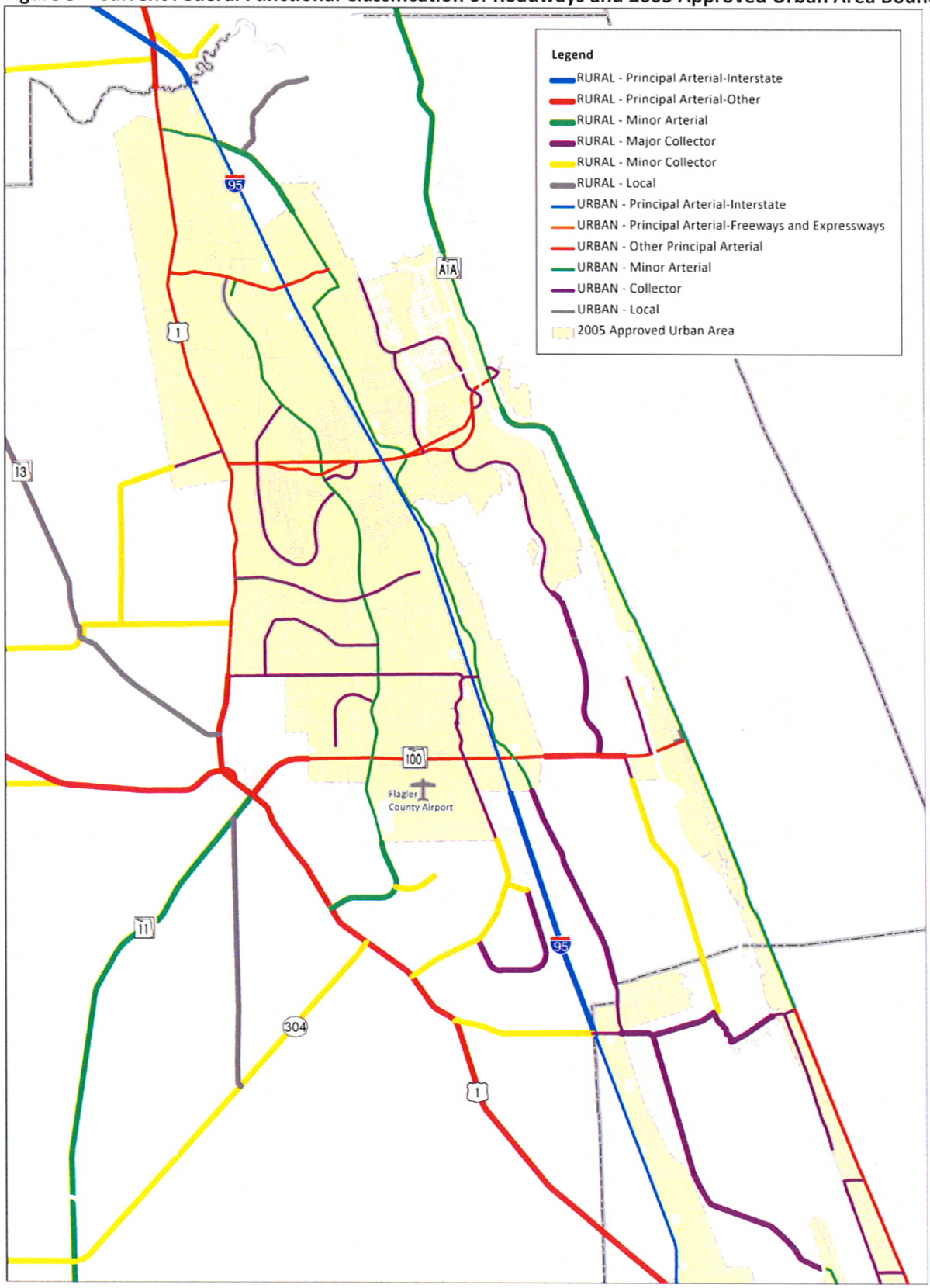
[3] A portion of Flagler Beach extends into Volusia County and the figures reported for Volusia County include the Flagler Beach population residing in Volusia County. The figures reported for Flagler Beach pertain only to the city's population residing in Flagler County.

Figure 2 - Existing Roadway and Number of Lanes



Source: FDOT Transportation Statistics Office, http://www.dot.state.fl.us/planning/statistics/gis/road.shtm

Figure 3 – Current Federal Functional Classification of Roadways and 2005 Approved Urban Area Boundary



Source: FDOT Transportation Statistics Office, http://www.dot.state.fl.us/planning/statistics/gis/road.shtm, December 4, 2013.

FUTURE CONDITIONS

Population and Employment

The 2035 population and employment projections and distributions for Flagler County were developed in 2010 for the Central Florida Regional Planning Model Version 5.0 (CFRPM 5.0) in the same manner as the projections for Volusia County. The 2035 BEBR medium projection for the county was used as a control total. Flagler County's preferred dataset is presented in Table 2.

Table 2 - Population and Employment Projections – Flagler County

Dwelling Units and Population									
Single Family Residential Units					Single Family Population				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
50,488	66,631	76,536	85,949	93,691	99,964	133,076	153,401	172,702	188,722

Multi-Family Dwelling Units					Multi-Family Population				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
7,715	7,715	13,059	14,975	17,796	14,736	14,736	24,404	27,889	32,523

Employment									
Industrial Employment					Commercial Employment				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
5,242	6,250	7,235	8,232	9,225	10,658	12,511	14,342	16,182	18,017

Service Employment					Total Employment				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
19,241	22,846	26,408	30,002	33,584	37,156	43,627	50,010	56,446	62,861

Hotel/Motel Rooms				
2015	2020	2025	2030	2035
785	845	894	947	998

Single Family Dwelling Units			Single Family Population			Multi-Family Dwelling Units			Multi-Family Population			Hotel Rooms		
2005	2035	Change	2005	2035	Change	2005	2035	Change	2005	2035	Change	2005	2035	Change
34,628	93,691	170.6%	72,332	188,722	160.9%	4,869	17,796	265.5%	9,737	32,523	234.0%	681	998	46.6%

Table 3 provides a comparison of 2005 estimates and 2035 projections for population, employment, and automobile ownership. These figures reflect a continuation of the high rate of growth experienced over the past decade, but will need to be tempered in light of the nation's recent economic slowdown that has led to a reduction in forecasted growth.

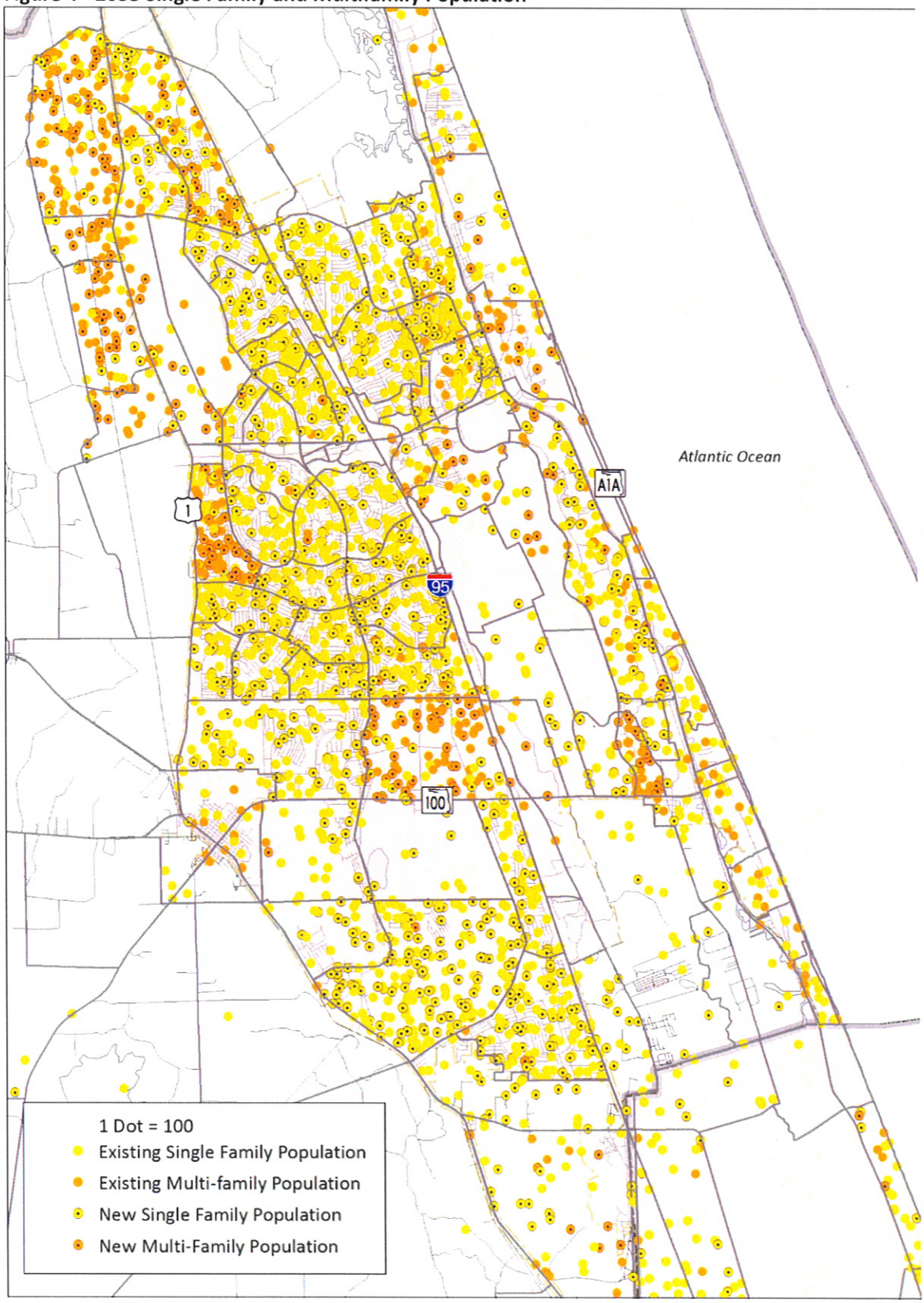
Table 3 - Comparison of the Base- and Future-Year Socioeconomic Data – Flagler County

Category	2005	2035	Change
Population			
Single Family Population	72,332	188,722	160.9%
Multi-Family Population	9,737	32,523	234.0%
Total Population	82,069	221,245	169.6%
Dwelling Units			
Single Family Dwelling Units	34,628	93,691	168.1%
Multi-Family Dwelling Units	4,869	17,796	265.5%
Total Dwelling Units	39,497	111,487	182.3%
Permanently Occupied Dwelling Units			
Single Family 0 Auto	877	2,148	144.9%
Single Family 1 Auto	11,775	29,216	148.1
Single Family 2+ Auto	17,884	47,465	165.4
Multiple Family 0 Auto	372	997	168.0
Multiple Family 1 Auto	2,028	6,259	208.6
Multiple Family 2+ Auto	1,634	6,681	308.9
Total Permanently Occupied Dwelling Units	34,571	92,745	168.3
Employment & School Enrollment			
Industrial Employees	3,398	9,225	171.5%
Commercial Employees	6,528	18,017	176.0%
Service Employees	12,369	33,584	171.5%
Total Employees	22,297	60,826	172.8%
School Enrollment	10,646	33,835	217.8%
Ratio Statistics			
Permanent Population / Occupied DU	2.37	2.39	-7.8%
Industrial Employment / Total Employment	15.24%	15.17%	-0.5%
Commercial Employment / Total Employment	29.28%	29.62%	1.2%
Service Employment / Total Employment	55.47%	55.21%	-0.5%

Source: Florida Department of Transportation, District 5, ECFRPM 5.0.

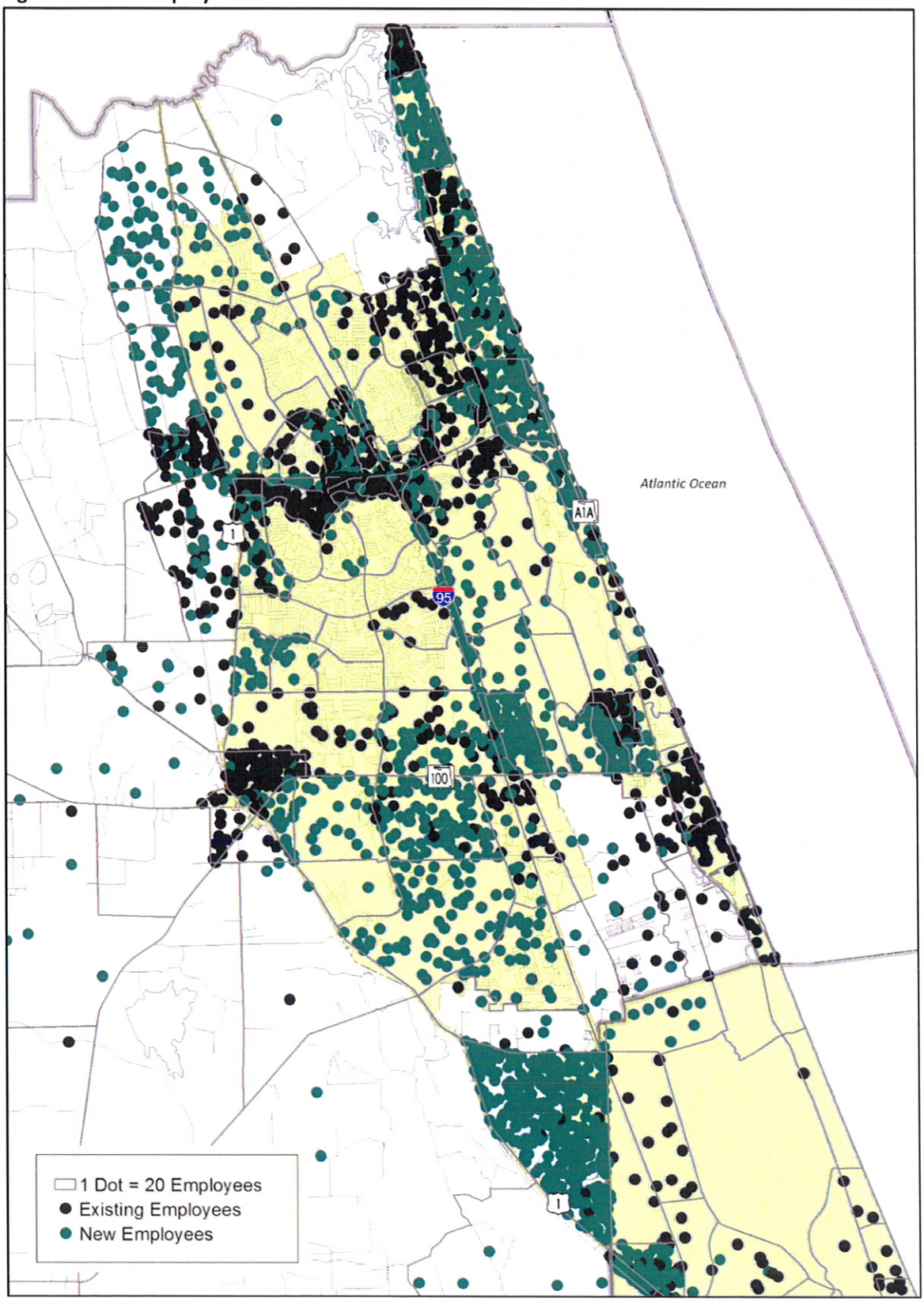
Figure 4 and Figure 5, pages 9 and 10, show the density and distribution of projected 2035 single family and multifamily population and employment. As indicated there, even in 2035, most new development is expected to fall within the metropolitan planning area boundary. However, significant new population and employment is expected to occur along the west side of SR 5 (US 1) in the north part of the county where three developments of regional impact (DRIs) have been approved.

Figure 4 - 2035 Single Family and Multifamily Population



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Figure 5 - 2035 Employment



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Travel Needs/System Deficiencies

In 2009 and 2010, the Florida Department of Transportation (FDOT) developed the Central Florida Regional Planning Model Version 5.0 (CFRPM 5.0) in support of the 2035 long range transportation plans (LRTPs) for the Volusia TPO (now the River to Sea TPO) and other MPOs/TPOs in District 5. Flagler County and other non-MPO areas in the district were included in order to make the model "whole". The model was used to develop trip projections based on the preferred 2035 residential and employment data[4]. It then assigned these trips to the Existing plus Committed (E+C) Roadway Network. The E+C roadway network represents both existing and committed highway projects. Existing projects are those projects that had been constructed between the model base year (2005) and 2010. Committed projects (in the case of the CFRPM E+C model) are those that had been programmed for construction between 2009 and 2013 in an adopted transportation improvement program (TIP), capital improvement program (CIP), or the FDOT 5-Year Work Program. A complete list of the existing and committed projects as identified in the CFRPM for Flagler County is provided below.

Table 4- CFRPM 5.0 E+C Transportation Improvements – Flagler County

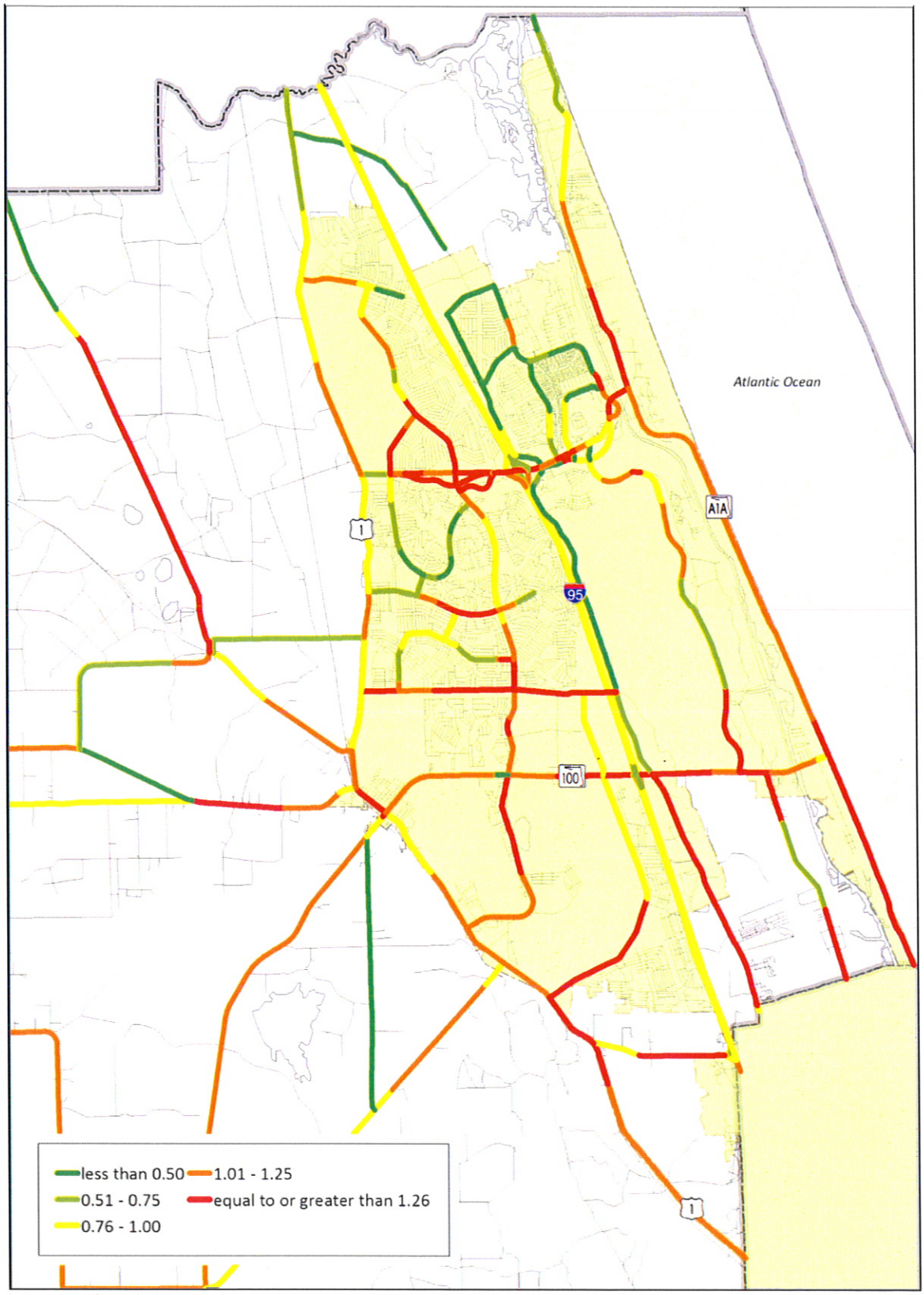
Improvement Number	Roadway Project	From	To	Improvement
Existing Projects [5]				
1	I-95	Volusia County Line	St. Johns County Line	Widen to 6 Lanes
2	Matanzas Woods Ext.	Birds of Paradise	Old Kings Rd.	New 2 Lane Road
3	Royal Palms Parkway	Point Pleasant Rd.	Town Center Blvd.	New 2 Lane Road
4	SR 100	0.25 Mile West of Belle Terre	Belle Terre	Widen to 4 Lanes
5	SR 100	I-95	Belle Terre	Widen to 4 Lanes
6	Town Center Blvd.	SR 100	Old Kings Rd.	New 2 Lane Road
Committed Projects				
7	Old Kings Rd. [6]	SR 100	Palm Coast Pkwy.	Widen to 4 Lanes
8	Palm Coast Pkwy.	Boulder Rock	Florida Park Dr.	Widen to 6 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation District 5, November 2011.

The ratio of trip volume to roadway capacity was determined segment by segment to identify where congestion might occur. A ratio greater than 1.0 indicated that the trip volume would exceed the roadway capacity and congestion would likely occur. The results, shown in Figure 6, helped to identify what measures would need to be taken to satisfy future travel demand.

[4] See Chapter 3 for more information regarding the CFRPM 5.0.
[5] The 4-laning of Belle Terre Parkway from Palm Coast Parkway to Matanzas Woods Parkway was completed in 2010, but was not included in the E+C transportation model network.
[6] The 4-laning of Old Kings Road between SR 100 and Town Center Boulevard was completed in 2010.

Figure 6 - Volume to Capacity Ratio: 2035 Trip Volume on Existing Plus Committed Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

EVALUATION OF ALTERNATIVE TRANSPORTATION SYSTEM IMPROVEMENTS

Following the development of the E+C roadway network and the identification of network performance deficiencies, two alternatives were developed for the region and run in the model to test the impact of different improvement combinations.

Alternative One is considered a 'needs' alternative and is meant to include the known priority transportation projects that are necessary to accommodate the anticipated socioeconomic growth and the network deficiencies identified in the E+C scenario. However, Alternative One does not include all of the needed improvements that would be required to accommodate the region's growth, but is rather a grouping of likely projects that could feasibly be implemented in the future.

For Flagler County, FDOT and Flagler County staff identified the Alternative One projects that might improve network performance. This alternative incorporated many of the priority transportation projects for Flagler County, Bunnell and Palm Coast. A complete list of these projects is presented in Table 5.

Using the performance results for the Alternative One projects, an Alternative Two network was developed for the region. However, the Alternative Two project list for Flagler County was identical to the Alternative One project list. In this alternative, different improvement combinations were used as compared to Alternative One. Alternative Two is also considered a 'needs' alternative, and like Alternative One, it is meant to consist of likely projects that could feasibly be implemented in the future. These projects are necessary to accommodate the anticipated socioeconomic growth and the network deficiencies identified in the E+C scenario, but will not be sufficient to entirely eliminate congestion on the region's transportation system.

Each MPO/county then applied financial constraints due to funding realities to its needs project list to develop their cost-feasible projects lists. These cost-feasible transportation improvements, both highway and transit, comprise a Cost-Feasible Plan for the Central Florida region. For Flagler County, the Cost-Feasible Plan was developed through coordination with Flagler County staff and FDOT.[7] It includes the E+C projects and the preferred combination of highway projects from Alternative One and Alternative Two. One additional project, the 4-laning of Matanzas Woods Parkway from US 1 to Old Kings Road, was included. For Flagler County, no transit improvements were considered.

For the region, the performance of the Cost-Feasible Plan is better than the E+C network, addressing many of the region's transportation needs.[8] The Cost-Feasible Plan adds an additional 14.8% (2,945) of lane miles, resulting in a 1.1% decrease in vehicle miles traveled as compared to the E+C scenario. In addition, the Cost-Feasible Plan's impact is evident in that it reduces delay due to congestion by 49.1% and increases the congested speed on the network by 11.3% as compared to the E+C scenario. However, due to the application of funding constraints, all the projects identified in the needs alternatives could not be included in the cost-feasible transportation improvements list, thus the benefits to the region are not as extensive as might be possible if funding was increased.

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[7] CENTRAL FLORIDA REGIONAL PLANNING MODEL (CFRPM) v5.0, Technical Memorandum Number 2 - CFRPM 5.0 Future Year Alternatives, Prepared for Florida Department of Transportation – District 5 by HNTB Corporation, 610 Crescent Executive Court, Suite 400, Lake Mary, Florida 32746, November 2011, pg. 89.

[8] Ibid, pg. 111.

Figure 7, page 15, shows the 2035 trip volume to capacity ratio on the Alternative One network. Although congestion is reduced, many of the roadways would still be operating at an unacceptable level of service.

Figure 8, page 16, shows the 2035 trip volume to capacity ratio on the Cost-Feasible Network alternative.

Table 5 - CFRPM 5.0 Alternatives One and Two Transportation Improvements – Flagler County

Improvement Number	Roadway Project	From	To	Improvement
1	Belle Terre Pkwy	Palm Coast Pkwy	Pine Lakes Pkwy	Widen to 6 Lanes
2	Belle Terre Pkwy [9]	Palm Coast Pkwy	Matanzas Woods Pkwy	Widen to 4 Lanes
3	Flagler Central Commerce Pkwy	SR 100	US 1	New 2 Lane Roadway
4	Grand Reserve Blvd/Travis Walker Trail	SR 100	US 1	New 2 Lane Roadway
5	I-95 Interchange	@ Matanzas Woods Pkwy		New Interchange
6	Old Kings Rd	Farragut	Forest Grove	Widen to 4 Lanes
7	Old Kings Rd	Palm Coast Pkwy	SR 100	Widen to 4 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

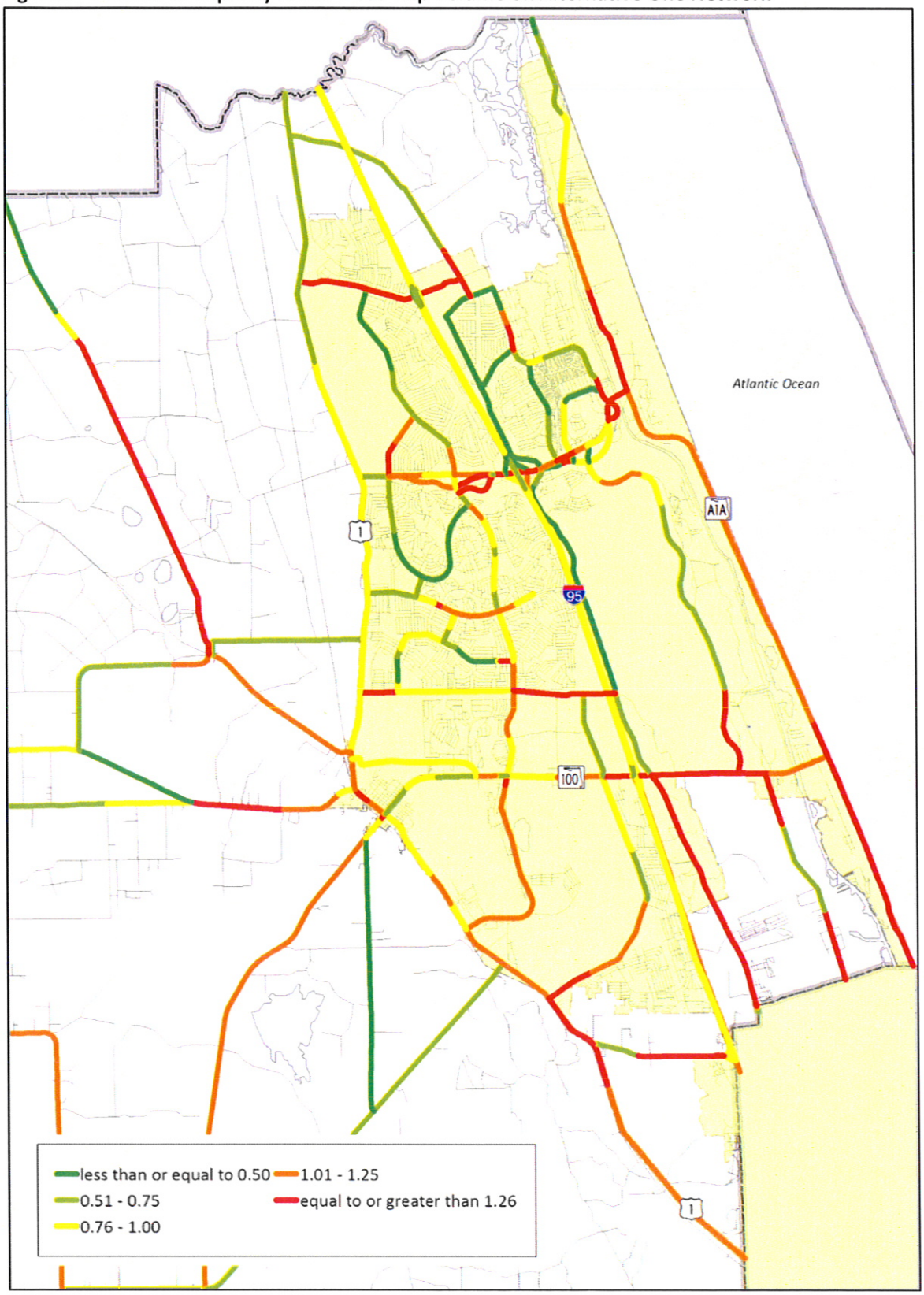
Table 6 - CFRPM 5.0 Cost-Feasible Transportation Improvements - Flagler County

Improvement Number	Roadway Project	From	To	Improvement
1	Belle Terre Pkwy	Palm Coast Pkwy	Pine Lakes Pkwy	Widen to 6 Lanes
2	Belle Terre Pkwy [9]	Palm Coast Pkwy	Matanzas Woods Pkwy	Widen to 4 Lanes
3	Flagler Central Commerce Pkwy	SR 100	US 1	New 2 Lane Roadway
4	Grand Reserve Blvd/Travis Walker Trail	SR 100	US 1	New 2 Lane Roadway
5	I-95 Interchange	@ Matanzas Woods Pkwy	-	New Interchange
6	Matanzas Woods Pkwy	US 1	Old Kings Rd	Widen to 4 Lanes
7	Old Kings Rd	Farragut	Forest Grove	Widen to 4 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation District 5, November 2011.

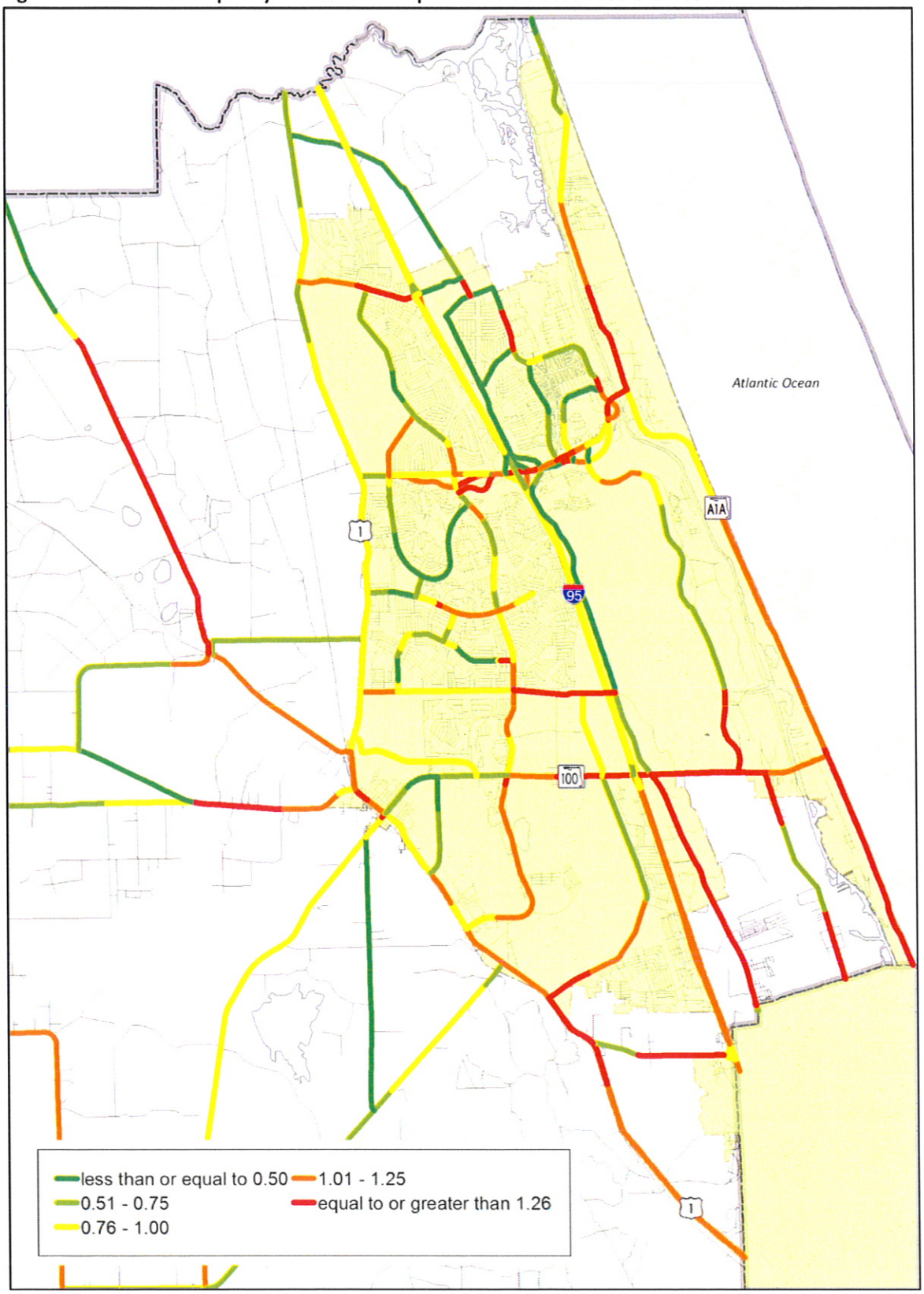
[9] The 4-laning of Belle Terre Parkway from Palm Coast Parkway to Matanzas Woods Parkway was completed in 2010 and should have been recognized as an "existing facility" for transportation network modeling purposes.

Figure 7 - Volume to Capacity Ratio: 2035 Trip Volume on Alternative One Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Figure 8 - Volume to Capacity Ratio: 2035 Trip Volume on Cost-Feasible Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Committed Projects

Table 7 lists projects that are fully-funded in FDOT's adopted FY 2013/14 to FY 2017/18 Work Program or in a local government's capital budget. These projects are considered "committed" and are not dependent on revenues identified in Table 8.

Table 7 - COMMITTED PROJECTS

STRATEGIC INTERMODAL SYSTEM PROJECTS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
A	I-95 Interchange	@ Matanzas Woods Pkwy	interchange	2015	$7.50	New interchange
				Total	**$7.50**	

STATE AND FEDERAL – OTHER ROADS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
B	Palm Coast Pkwy – widen to 6 lanes	Boulder Rock Dr to Florida Park Dr	road	2013	$10.76	Add 2 thru lanes
C	Old Kings Rd Extension - Phase I [10]	Forest Grove Dr to Matanzas Woods Pkwy	road	2018	$4.30	New 2-lane road
				Total	**$15.06**	

LOCALLY-FUNDED ROADS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	Cost Estimate *(Y.O.E. in millions)*	PROJECT DESCRIPTION
D	Pine Lakes Pkwy Turn-Lane		intersection	2013	$1.10	Add turn lanes
E	Palm Harbor Pkwy Extension	Palm Harbor Pkwy to Old Kings Rd	road	2014	$2.34	New 2-lane road
F	Royal Palm Pkwy Paved Shoulders & Left Turn Lanes	Rymfire Dr to Belle Terre Pkwy	intersection	2014	$1.00	Add paved shoulders & left turn lanes
G	Bulldog Dr/SR 100 Intersection Improvements		intersection	2014	n/a	Intersection improvements
				Total	**$4.44**	

Revenue Forecast

The FDOT provided a forecast of state and federal funds expected to be available for transportation projects in the expanded metropolitan planning area. These funds are presented below in Table 8. The funds can be broadly categorized as "formula" funds or "competitive" funds. Formula funds are allocations based on population and other factors. Eligible recipients can develop cost-feasible plans based on these funds. Competitive funds, as the name suggests, are allocated through a competitive award process. Receipt of competitive funds cannot be expected with any degree of certainty. Therefore, projects that are expected to

[10] Palm Coast hopes to advance the construction of Old Kings Rd Extension – Phase I as a 4-lane facility to coincide with the construction of the I-95 Interchange @ Matanzas Woods. The additional cost is estimated to be $1,000,000.

be funded with competitive funds may not be included in the plan as "cost-feasible" projects. However, they may be included as "illustrative" projects.

In cases where formula funds are allocated on a county by county basis, it is assumed that the share of total funds available for projects within the metropolitan planning area boundary will be proportionate to the area's share of total county population. In this case, the portion of the MPA within Flagler County equals 90% of the county population. The numbers shown in Table 8 have been adjusted on that basis.

Not shown in Table 8 is a $2,000,000 federal earmark for the construction of the SR 100/SR 5 (US 1) connector (SAFETEA-LU High Priority Project Number HPP 738). Other local funds available to fund transportation projects which are not shown in Table 8 include state imposed gas taxes distributed to local governments, local option gas taxes, transportation impact fees and other developer contributions, property taxes, and special district assessments. Projects that are to be funded with these local funds only are identified in Table 10 as "Locally-Funded Road Projects".

Table 8 - Summary of Revenue Estimates for the Expanded Metropolitan Planning Area in Flagler County (in millions)

Formula Funding [11]

Road Construction						
	FYs 2014-18	FYs 2019-20	FYs 2021-25	FYs 2026-30	FYs 2031-35	17 Year Total [12]
TPO Portion of Flagler County	T.I.P.	4.3	12.1	13.1	14.3	43.8

Transit						
	FYs 2014-18	FYs 2019-20	FYs 2021-25	FYs 2026-30	FYs 2031-35	17 Year
Flagler	T.I.P.	6.8	7.6	8.5	9.3	34.6

Competitive Funding [13]

Transportation Regional Incentive Program (TRIP) Funds						
District	FYs 2014-18	FYs 2019-20	FYs 2021-25	FYs 2026-30	FYs20 31-35	22 Year
District 5	T.I.P.	48.2	116.6	116.6	116.6	525.1

New Starts Transit Program Funds						
Statewide	FYs 2014-18	FYs 2019-20	FYs 2021-25	FYs 2026-30	FYs 2031-35	22 Year
(Entire State)	Subtotal	Subtotal	Subtotal	Subtotal	Subtotal	Total
Statewide	T.I.P.	116.7	270.9	270.9	270.9	1,254.3

ENVIRONMENTAL IMPACTS AND MITIGATION

FDOT's Efficient Transportation Decision Making (ETDM) process allows resource and regulatory agencies, as well as the public, an opportunity to review and comment on potential environmental impacts of proposed

[11] Road Construction and Transit fund estimates for all of Flagler County were factored to 90%, consistent with the share of total county population in the expanded MPA.
[12] Rows may not sum to columns because of rounding.
[13] Projects funded through this category are "illustrative" only.

major transportation projects. Based on the feedback provided through the Planning Screen of this process, planners may adjust project concepts to avoid or minimize adverse impacts, consider mitigation alternatives, and improve project cost estimates. Issues addressed through the ETDM Planning Screen include social, economic, land use, mobility, historical and archaeological, aesthetics, and natural systems.

Table 9 is included to document the level of agency consultation that occurred through development of the projects that are included in this LRTP addendum. All major projects included in the Cost-Feasible element of this addendum are listed and noted as having been reviewed through the ETDM planning screen process and/or having been subject of a PD&E study.

Table 9 - Projects Screened through the ETDM Screening Process - Expanded Metropolitan Planning Area

PROJECT	FROM	TO	COMMENT
I-95/Matanzas Woods Pkwy Interchange			ETDM Planning Level Summary Report published on 3/9/10; PD&E completed
Old Kings Rd - widen to 4 lanes	Palm Coast Pkwy	Forest Grove Dr	ETDM Planning Level Summary Report published on 10/8/09: PD&E completed
Old Kings Rd Extension – Phases I	Forest Grove Dr	Matanzas Woods Pkwy	ETDM Planning Level Summary Report published on 9/25/09: PD&E completed
Old Kings Rd Extension – Phases II	Matanzas Woods Pkwy	Old Kings Rd	ETDM Planning Level Summary Report published on 9/25/09; PD&E completed
Commerce Pkwy Connector Rd	SR 100	SR 5 (US 1)	ETDM Planning Level Summary Report published on 6/12/09; PD&E completed
Matanzas Woods Pkwy west – widen to 4 lanes	SR 5 (US 1)	Southbound I-95 Ramps	PD&E for I-95/Matanzas Woods Pkwy Interchange included the widening of Matanzas Woods Pkwy between SR 5 (US 1) and Old Kings Rd
Matanzas Woods Pkwy east – widen to 4-Lanes	Northbound I-95 Ramps	Old Kings Rd	
Palm Coast Pkwy – Add Through Lanes	Boulder Rock Dr	Florida Park Dr	ETDM Planning Level Summary Report published on 5/2/08; PD&E completed
SR 100 6-Laning	I-95	Belle Terre Pkwy	ETDM Planning Level review not completed

COST FEASIBLE PROJECTS

The cost-feasible list of projects for the expanded metropolitan planning area is presented in Table 10. The list is derived from the list of cost-feasible transportation improvements identified and evaluated as part of the district-wide transportation modeling activity conducted by FDOT to support the MPOs/TPOs in developing their 2035 long-range transportation plans. Additional projects were identified through the formal, cooperative city/county project prioritization process.

Financial constraints were applied to arrive at the final cost-feasible project lists shown in Table 10. Note that the 17 year total for formula funding ($43.8 M) shown in Table 8 is approximately equal to the total cost of state- and federal-funded projects listed in Table 10 ($45.16 M). Also with respect to the financial constraints, projects were assigned to one of four time periods (2019-20, 2021-25, 2026-30, 2031-35), as shown in Table 10, depending on the anticipated availability of funding.

Improvements to Old Kings Road are the top priority for the area. These projects are staged over time in the LRTP to coincide with the availability of projected funding. However, Palm Coast and Flagler County have requested that they be advanced so that the increased roadway capacity and connectivity will be in place to support the I-95 interchange at Matanzas Woods Parkway (programmed for construction in FY 2015).

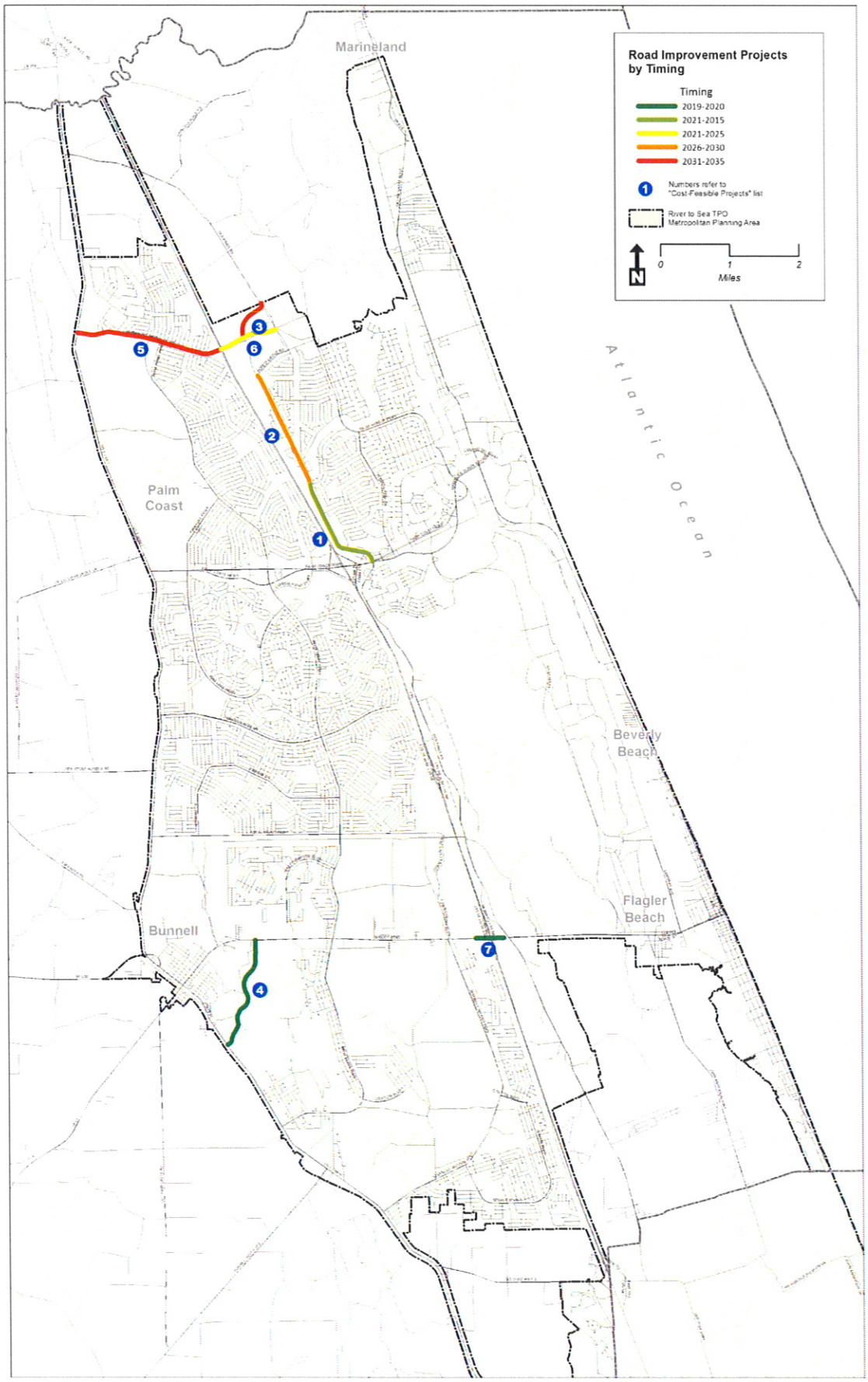
Currently, public transit service in Flagler County is a pre-scheduled, demand-response system. Local officials recognize the importance of quality public transit service and hope to provide enhanced transit service county-wide when it becomes financially feasible and warranted by service demand. At that time, the LRTP will be updated as necessary to provide for appropriate transit improvements.

The draft cost-feasible list of projects was reviewed by the TPO advisory committees and board and a draft plan was provided for public review and comment. Upon completion of the public comment period, the final plan was submitted for approval to all of the TPO advisory committees and the TPO Board.

In addition to the cost-feasible proposed project list included in this addendum, it is intended that the general provisions of the 2035 Long Range Transportation Plan shall apply to the expanded metropolitan planning area. In particular, this will include the vision, goals, and objectives set out in Chapter 2.

Table 11 on page 23 lists additional road improvement projects that have been identified as "needed", but are not funded at this time.

Figure 9 – Cost-Feasible Projects[14]



Source: River to Sea Transportation Planning Organization, June 2014.

Table 10 - Cost-Feasible Projects [15]

Strategic Intermodal System (SIS) Projects

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
	[NO PROJECTS IDENTIFIED]					
				Total	**$0.00**	

State and Federal – Other Projects (Federal-Aid Eligible)

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
1	Old Kings Rd - widen to 4 lanes	Palm Coast Pkwy to Farnum Ln	road	2021-25	$10.07	Add 2 thru lanes
2	Old Kings Rd - widen to 4 lanes	Farnum Ln to Forest Grove Dr	road	2026-30	$13.12	Add 2 thru lanes
3	Old Kings Rd Extension - Phase II	Matanzas Woods Pkwy to Old Kings Rd	road	2031-35	$11.07	New 4-lane roadway
4	Commerce Pkwy Connector Rd	SR 100 to SR 5 (US 1)	road	2021-25	$1.91	New 2-lane roadway; cost has been offset by a $2.0 M federal earmark
5	Matanzas Woods Pkwy west – widen to 4 lanes	SR 5 (US 1) to Southbound I-95 Ramps	road	2031-35	$5.14	Add 2 thru lanes; will require additional $23.34 M (Y.O.E.) developer contribution
6	Matanzas Woods Pkwy east – widen to 4 lanes	Southbound I-95 Ramps to Old Kings Rd	road	2019-20	$3.28	Add 2 thru lanes; will require additional $12.9 M (Y.O.E.) developer contribution
7	SR 100/I-95 Interchange Ramp Improvements	@ SR 100	road	2019-20	$0.57	Interchange ramp improvements
				Total	**$45.16** [16]	

Transit Projects

	PROJECT	LIMITS	TYPE	START YEAR	COST ESTIMATE		PROJECT DESCRIPTION
					CAPITAL	OPERAT-ING	
	[NO PROJECTS IDENTIFIED]						
					Total	**$**	

[15] Cost feasible projects include those which are anticipated to be funded within the LRTP planning horizon (2035), but are not yet programmed through construction in FDOT's Work Program.

[16] Total does not include $1,000,000 needed to advance Old Kings Rd Extension – Phase I as a 4-lane facility. Construction as a 2-lane facility is currently programmed in FY 2018. Additional funds will have to be available in FY 2018 or earlier.

Table 11 – Unfunded Projects

Strategic Intermodal System (SIS) Projects *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	SR 100 – widen to 6 lanes	I-95 to Belle Terre Pkwy	Unfunded	$32.00	Add 2 thru lanes
			Total	**$32.00**	

State and Federal – Other Projects (Federal-Aid Eligible) *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	Old Kings Rd - widen to 4 lanes	From Town Center Blvd to Palm Coast Pkwy		$16.64	Add 2 thru lanes
2	Old Kings Rd south – widen to 4 lanes	From SR 100 to Flagler/Volusia County Line		$5.70	Add 2 thru lanes
3	John Anderson Hwy – widen to 4 lanes	From SR 100 to Flagler/Volusia County Line		$4.70	Add 2 thru lanes
4	Railroad Depot	At Woodland Av and Railroad Street		$1.20	New passenger railroad depot
5	Palm Coast Pkwy – widen to 6 lanes	From SR 5 (US 1) to Belle Terre Pkwy		$9.36	Add 2 thru lanes
			Total	**$37.60**	

Bridge Projects (Federal-Aid Eligible) *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	Colorado Dr Bridge #73064 over College Waterway	Colorado Dr @ College Waterway		$1.15	Bridge rehabilitation
2	Bridge #734063 - Colechester @ College Waterway	Colechester Ln @ College Waterway		$1.15	Bridge rehabilitation
3	Bridge Rehab -735503, Secretary @ Seminole Waterway	Secretary Trail @ Seminole Waterway		$1.15	Bridge rehabilitation
4	Bridge Rehab - 734066, Wellington @ Wynfield Waterway	Wellington Dr @ Wynfield Waterway		$1.15	Bridge rehabilitation
5	Bridge #734067, Palm Harbor @ Mulberry Creek	Palm Harbor Pkwy @ Mulberry Creek		$1.15	Bridge rehabilitation
			Total	**$5.75**	

ADDENDUM #1 to 2035 LONG RANGE TRANSPORTATION PLAN

Adopted June 25, 2014

Introduction

On June 25, 2014, the representatives of the River to Sea Transportation Planning Organization's[1] (TPO) member governments, Flagler County, the city of Bunnell, the city of Palm Coast, and the Florida Department of Transportation entered into an interlocal agreement to establish the River to Sea Transportation Planning Organization (R2CTPO). The R2CTPO represents an expansion of the River to Sea TPO's metropolitan planning area (MPA) to include the entire 2010 Census-designated Palm Coast – Daytona Beach – Port Orange Urbanized Area. The expanded area, shown in Figure 1, includes the urbanized areas of the city of Bunnell, the city of Palm Coast and Flagler County.

In addressing its mandate to carry out the metropolitan transportation planning process[2] the River to Sea TPO adopted a 2035 Long Range Transportation Plan. This addendum amends that plan for the purpose of addressing transportation needs in the expanded metropolitan planning area. It addresses only the area added to the TPO's metropolitan planning area within Flagler County, not the entire MPA.

This amendment was developed in a manner consistent with the 2035 LRTP. The assumptions used to develop the revenue forecasts, project cost estimates, and cost inflation rates for this amendment are consistent with those used for the existing LRTP. The identification of transportation needs for the expanded MPA addressed by this amendment was developed with consideration of the traffic modeling that was undertaken by FDOT District Five in support of the efforts by MPOs/TPOs throughout the district to develop their 2035 LRTPs.

Background

The area added to the existing TPO is approximately 82 square miles and is generally bounded by Volusia County on the south, SR 5 (US 1) on the west, St. Johns County on the north, and the Atlantic Ocean on the east. The 2010 population of this area totaled 82,834.

The city of Bunnell is the historic urban center of the county and the county seat. However, most of the county's urban development lies east of SR 5 (US 1), having occurred after 1970 as part of the planned Palm Coast Development. In 1999, this area was incorporated as the city of Palm Coast. Between 2000 and 2005, Flagler County was recognized by the US Census Bureau as the fastest growing county in the nation with a 53% population increase.

Figure 2 on page 5 shows the area's existing roadways by number of lanes, other transportation facilities (airport), major water features, and conservation/recreation areas. Principal north-south transportation

[1] On April 23, 2014, the "Volusia Transportation Planning Organization" adopted Resolution 2014-15 formally changing its name to "River to Sea Transportation Planning Organization". This was done in anticipation of the further expansion of the TPO into Flagler County incorporating parts of Bunnell, Palm Coast, and unincorporated Flagler County, and a recognition that the "Volusia" name did not reflect this greater area of responsibility.

[2] An MPO is required to carry out the metropolitan planning process pursuant to 23 U.S.C. 134 and 49 U.S.C. 5303, 5304, 5305, 5306, 5307, 5309, 5310, 5311, 5316, 5317 and 5339; 23 CFR 420 and 450, and 49 CFR Part 613, Subpart A: and consistent with Chapter 339.175, Florida Statutes, and other applicable state and local laws.

facilities extending through the area are (from east to west) SR A1A, I-95, and SR 5 (US 1). The Florida East Coast (FEC) Railway runs north and south just outside the area and generally parallel with SR 5 (US 1). Principal east-west transportation facilities extending through the area include only SR 100 and Palm Coast Parkway. There are three interchanges on I-95 at Palm Coast Parkway, SR 100, and Old Dixie Highway.

The functional classification of roadways in the expanded metropolitan planning area is shown in Figure 3, below. However, it should be noted a review is currently underway and revisions may be forthcoming.

Transportation facilities on the Florida Strategic Intermodal System (SIS) include I-95 (SIS highway), SR 100 from I-95 to the Flagler/Putnam County Line (emerging SIS highway), and the Intracoastal Waterway (SIS waterway).

Flagler County operates a pre-scheduled, demand response transit system offering service to Flagler County residents with priority given to those who are disabled, elderly, low income, or transportation disadvantaged. Normal hours of operation are 6:00 a.m. to 6:00 p.m., Monday through Friday.

Flagler County, Bunnell, and Palm Coast have developed, and continue to extend, an extensive network of greenways and trails for walking and bicycling. The focus is on accommodating non-motorized traffic along all arterial and collector roadways and providing connections to active and passive recreation areas and between neighborhoods.

There is one public use airport in the area – the Flagler County Airport – located on the south side of SR 100 between SR 5 (US 1) and I-95. It is operated by Flagler County, and serves corporate and general aviation activity. The airfield consists of two 5,000-ft long runways and a 3,000-ft water runway for seaplanes.

Population, Age, Race, and Ethnicity – 2010

Flagler County's 2010 population was 95,696 of which approximately 90% resided within the R2CTPO's metropolitan planning area. The population of Palm Coast alone accounted for over 78% of the county population. Flagler Beach was next in population size, though considerably smaller with just 4,424 residents (not including the 60 residents in Volusia County). Bunnell's population was 2,676 and Beverly Beach's was just 338.

The median age for Flagler County's residents was slightly higher than Volusia County's at 47.5 and 45.3 years, respectively. Beverly Beach had the most senior population with a median age of 68.9 years, followed by Flagler Beach with a median age of 56.3 years. Bunnell's population was youngest with a median age of 40.4 years.

As in Volusia County, the Flagler County population is predominantly White with persons of Black or African American Race representing just over 11% of the total population. Bunnell's population reflected the highest percentage of Black or African Americans with nearly 32% of the total population. No other race accounted for more than 3% of the population of Flagler County or any of its cities.

Persons of Hispanic or Latino origin accounted for only 8.6% of the county's population compared to just over 11% in Volusia County.

Figure 1 – River to Sea TPO Metropolitan Planning Area

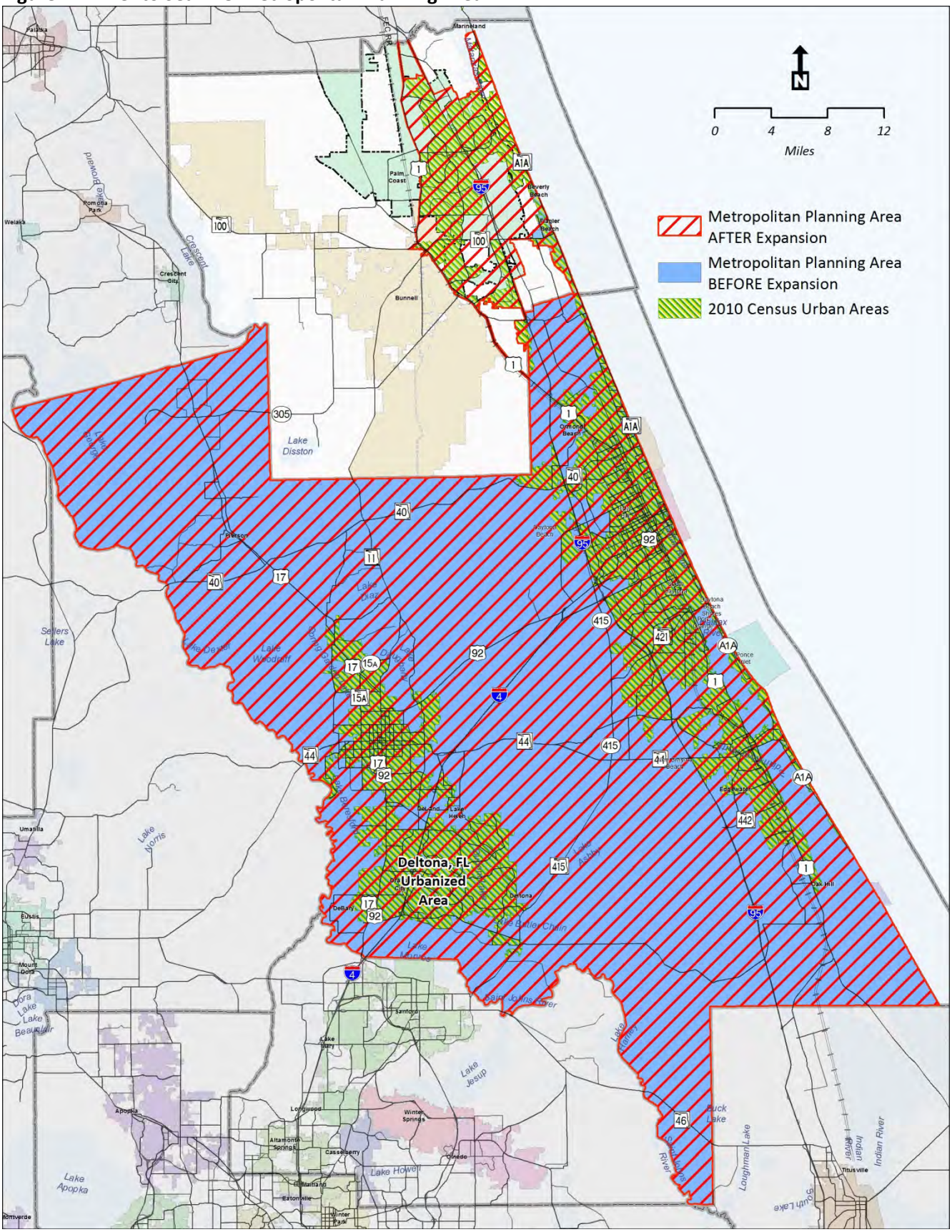
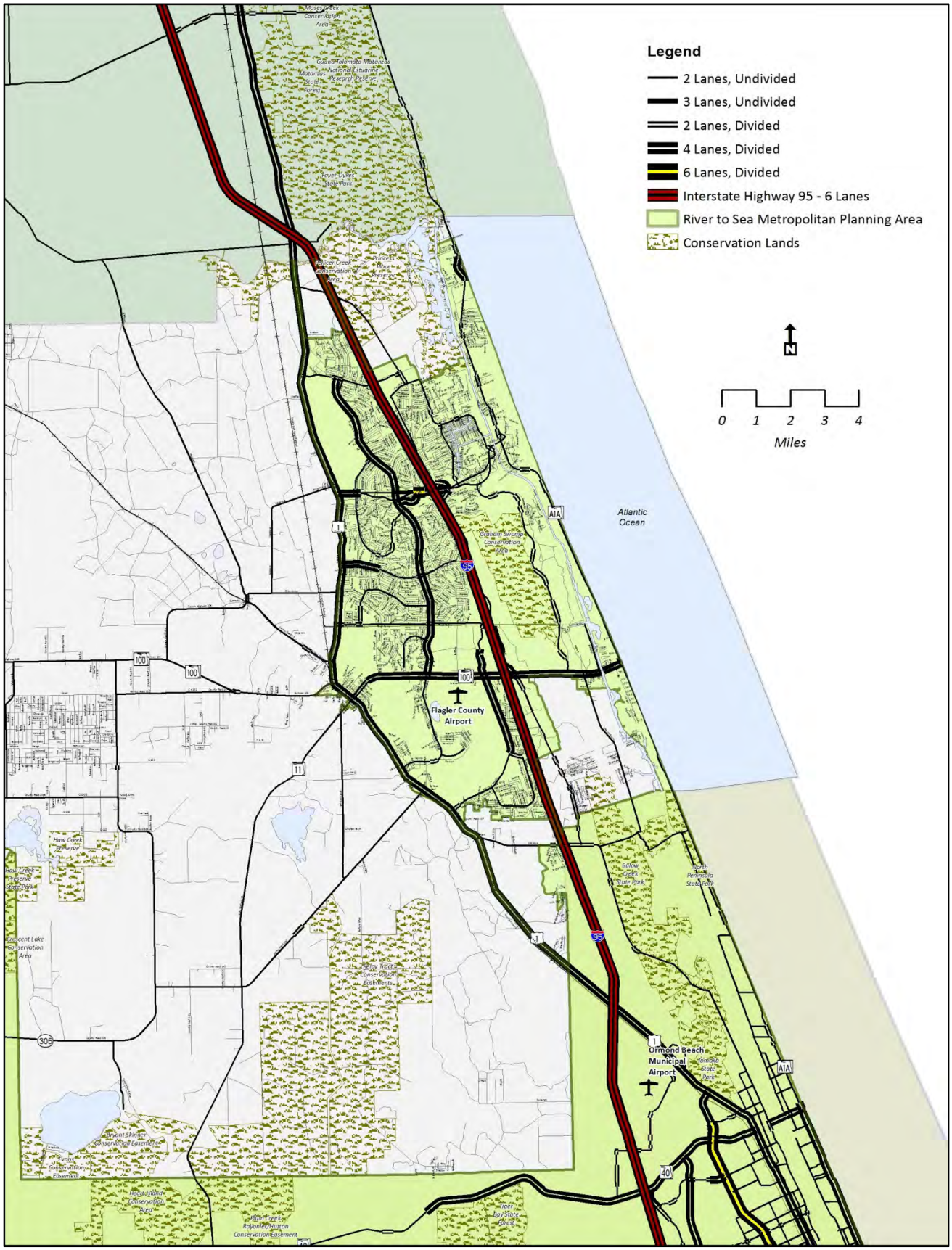


Table 1 - Age, Race and Ethnicity - 2010

	Volusia County		Flagler County		Palm Coast		Bunnell		Beverly Beach		Flagler Beach [3]	
Population	494,593		95,696		75,180		2,676		338		4,424	
Median Age	45.3		47.5		45.1		40.4		68.9		56.3	
Race		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**		**% of Total Population**
White alone	408,256	82.54%	78,710	82.25%	60,063	79.89%	1,688	63.08%	337	99.70%	4,294	97.06%
Black or African American alone	51,791	10.47%	10,884	11.37%	9,585	12.75%	854	31.91%	0	0.00%	34	0.77%
American Indian and Alaska Native alone	1,778	0.36%	267	0.28%	191	0.25%	15	0.56%	0	0.00%	14	0.32%
Asian alone	7,567	1.53%	2,046	2.14%	1,902	2.53%	7	0.26%	0	0.00%	29	0.66%
Native Hawaiian and Other Pacific Islander alone	204	0.04%	59	0.06%	56	0.07%	0	0.00%	0	0.00%	0	0.00%
Some Other Race alone	14,487	2.93%	1,544	1.61%	1,469	1.95%	29	1.08%	0	0.00%	6	0.14%
Two or More Races	10,510	2.12%	2,186	2.28%	1,914	2.55%	83	3.10%	1	0.30%	47	1.06%
Hispanic or Latino	55,217	11.16%	8,251	8.62%	7,552	10.05%	145	5.42%	2	0.59%	109	2.46%

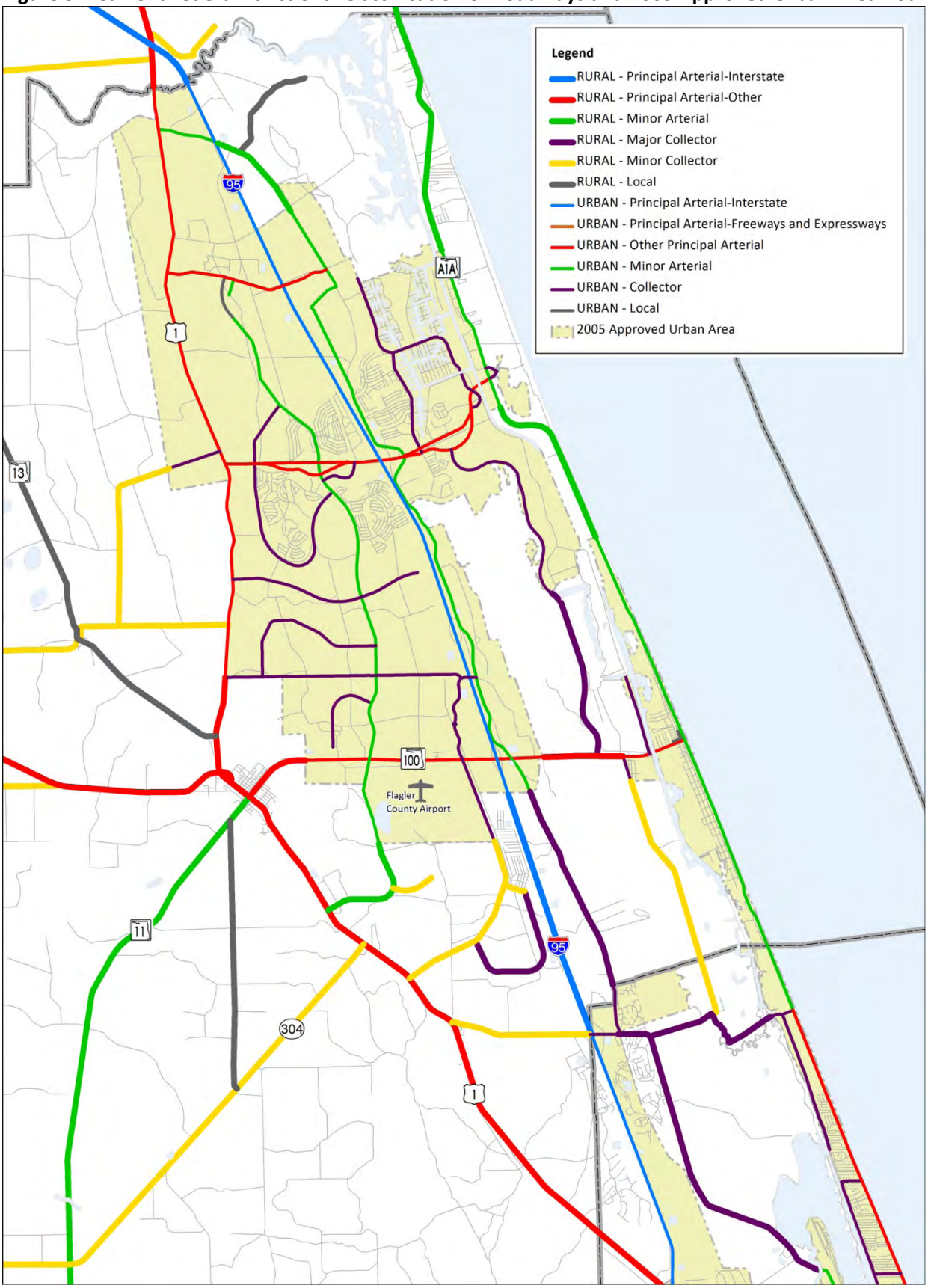
[3] A portion of Flagler Beach extends into Volusia County and the figures reported for Volusia County include the Flagler Beach population residing in Volusia County. The figures reported for Flagler Beach pertain only to the city's population residing in Flagler County.

Figure 2 - Existing Roadway and Number of Lanes



Source: FDOT Transportation Statistics Office, http://www.dot.state.fl.us/planning/statistics/gis/road.shtm

Figure 3 – Current Federal Functional Classification of Roadways and 2005 Approved Urban Area Boundary



Source: FDOT Transportation Statistics Office, http://www.dot.state.fl.us/planning/statistics/gis/road.shtm, December 4, 2013.

FUTURE CONDITIONS

Population and Employment

The 2035 population and employment projections and distributions for Flagler County were developed in 2010 for the Central Florida Regional Planning Model Version 5.0 (CFRPM 5.0) in the same manner as the projections for Volusia County. The 2035 BEBR medium projection for the county was used as a control total. Flagler County's preferred dataset is presented in Table 2.

Table 2 - Population and Employment Projections – Flagler County

Dwelling Units and Population									
Single Family Residential Units					Single Family Population				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
50,488	66,631	76,536	85,949	93,691	99,964	133,076	153,401	172,702	188,722

Multi-Family Dwelling Units					Multi-Family Population				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
7,715	7,715	13,059	14,975	17,796	14,736	14,736	24,404	27,889	32,523

Employment									
Industrial Employment					Commercial Employment				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
5,242	6,250	7,235	8,232	9,225	10,658	12,511	14,342	16,182	18,017

Service Employment					Total Employment				
2015	2020	2025	2030	2035	2015	2020	2025	2030	2035
19,241	22,846	26,408	30,002	33,584	37,156	43,627	50,010	56,446	62,861

Hotel/Motel Rooms				
2015	2020	2025	2030	2035
785	845	894	947	998

Single Family Dwelling Units			Single Family Population			Multi-Family Dwelling Units			Multi-Family Population			Hotel Rooms		
2005	2035	Change	2005	2035	Change	2005	2035	Change	2005	2035	Change	2005	2035	Change
34,628	93,691	170.6%	72,332	188,722	160.9%	4,869	17,796	265.5%	9,737	32,523	234.0%	681	998	46.6%

Table 3 provides a comparison of 2005 estimates and 2035 projections for population, employment, and automobile ownership. These figures reflect a continuation of the high rate of growth experienced over the past decade, but will need to be tempered in light of the nation's recent economic slowdown that has led to a reduction in forecasted growth.

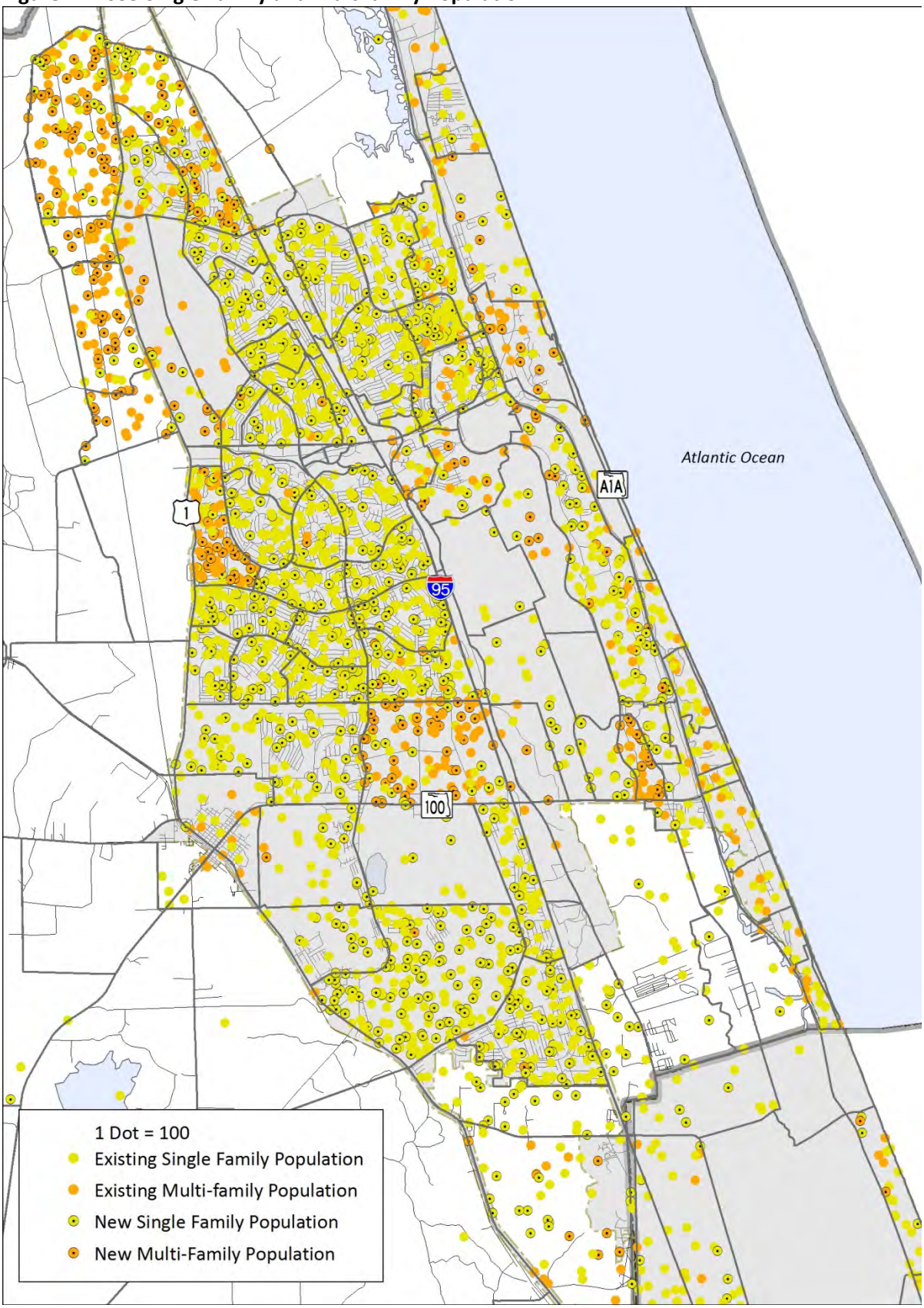
Table 3 - Comparison of the Base- and Future-Year Socioeconomic Data – Flagler County

Category	2005	2035	Change
Population			
Single Family Population	72,332	188,722	160.9%
Multi-Family Population	9,737	32,523	234.0%
Total Population	82,069	221,245	169.6%
Dwelling Units			
Single Family Dwelling Units	34,628	93,691	168.1%
Multi-Family Dwelling Units	4,869	17,796	265.5%
Total Dwelling Units	39,497	111,487	182.3%
Permanently Occupied Dwelling Units			
Single Family 0 Auto	877	2,148	144.9%
Single Family 1 Auto	11,775	29,216	148.1
Single Family 2+ Auto	17,884	47,465	165.4
Multiple Family 0 Auto	372	997	168.0
Multiple Family 1 Auto	2,028	6,259	208.6
Multiple Family 2+ Auto	1,634	6,681	308.9
Total Permanently Occupied Dwelling Units	34,571	92,745	168.3
Employment & School Enrollment			
Industrial Employees	3,398	9,225	171.5%
Commercial Employees	6,528	18,017	176.0%
Service Employees	12,369	33,584	171.5%
Total Employees	22,297	60,826	172.8%
School Enrollment	10,646	33,835	217.8%
Ratio Statistics			
Permanent Population / Occupied DU	2.37	2.39	-7.8%
Industrial Employment / Total Employment	15.24%	15.17%	-0.5%
Commercial Employment / Total Employment	29.28%	29.62%	1.2%
Service Employment / Total Employment	55.47%	55.21%	-0.5%

Source: Florida Department of Transportation, District 5, ECFRPM 5.0.

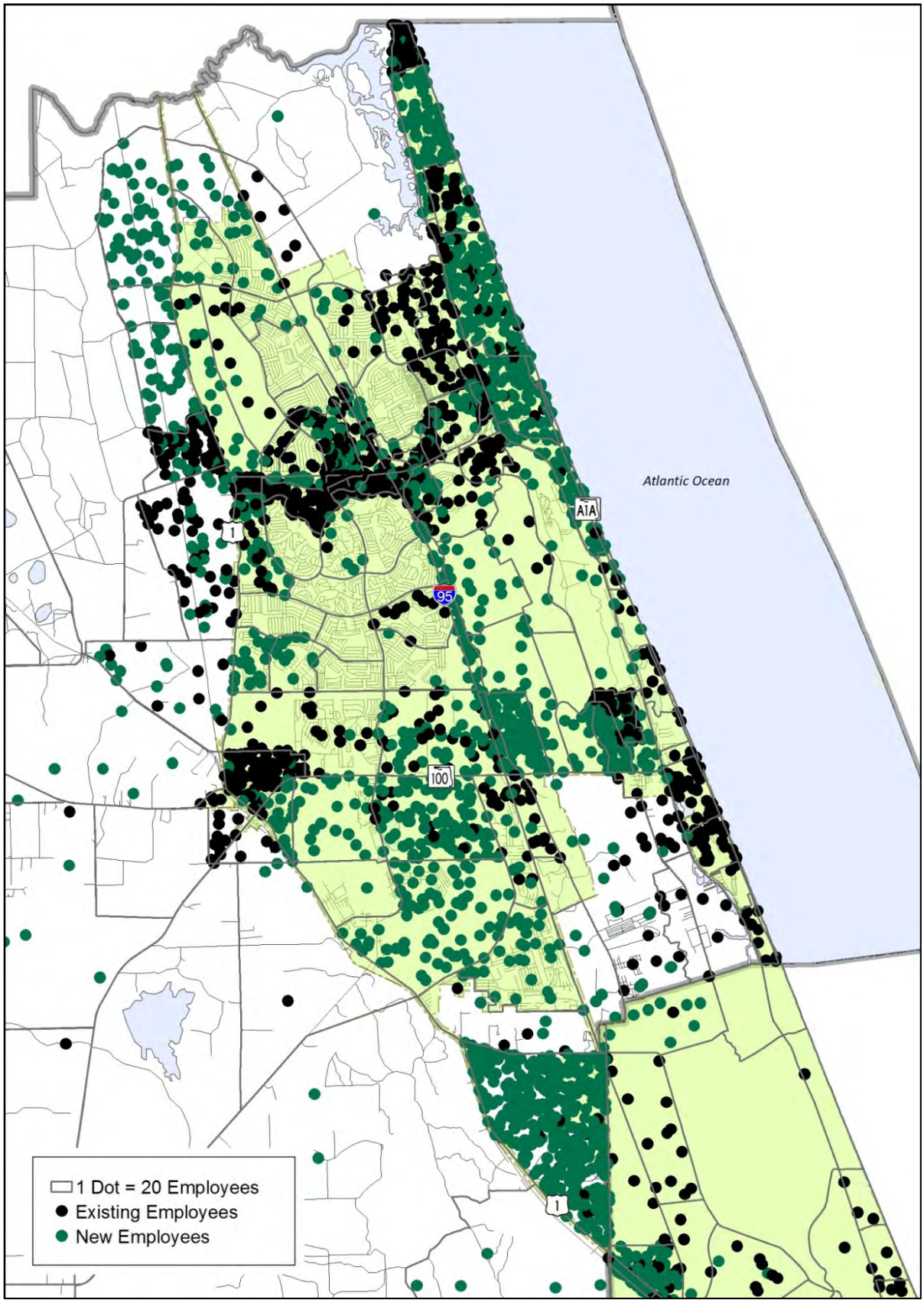
Figure 4 and Figure 5, pages 9 and 10, show the density and distribution of projected 2035 single family and multifamily population and employment. As indicated there, even in 2035, most new development is expected to fall within the metropolitan planning area boundary. However, significant new population and employment is expected to occur along the west side of SR 5 (US 1) in the north part of the county where three developments of regional impact (DRIs) have been approved.

Figure 4 - 2035 Single Family and Multifamily Population



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Figure 5 - 2035 Employment



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Travel Needs/System Deficiencies

In 2009 and 2010, the Florida Department of Transportation (FDOT) developed the Central Florida Regional Planning Model Version 5.0 (CFRPM 5.0) in support of the 2035 long range transportation plans (LRTPs) for the Volusia TPO (now the River to Sea TPO) and other MPOs/TPOs in District 5. Flagler County and other non-MPO areas in the district were included in order to make the model "whole". The model was used to develop trip projections based on the preferred 2035 residential and employment data[4]. It then assigned these trips to the Existing plus Committed (E+C) Roadway Network. The E+C roadway network represents both existing and committed highway projects. Existing projects are those projects that had been constructed between the model base year (2005) and 2010. Committed projects (in the case of the CFRPM E+C model) are those that had been programmed for construction between 2009 and 2013 in an adopted transportation improvement program (TIP), capital improvement program (CIP), or the FDOT 5-Year Work Program. A complete list of the existing and committed projects as identified in the CFRPM for Flagler County is provided below.

Table 4- CFRPM 5.0 E+C Transportation Improvements – Flagler County

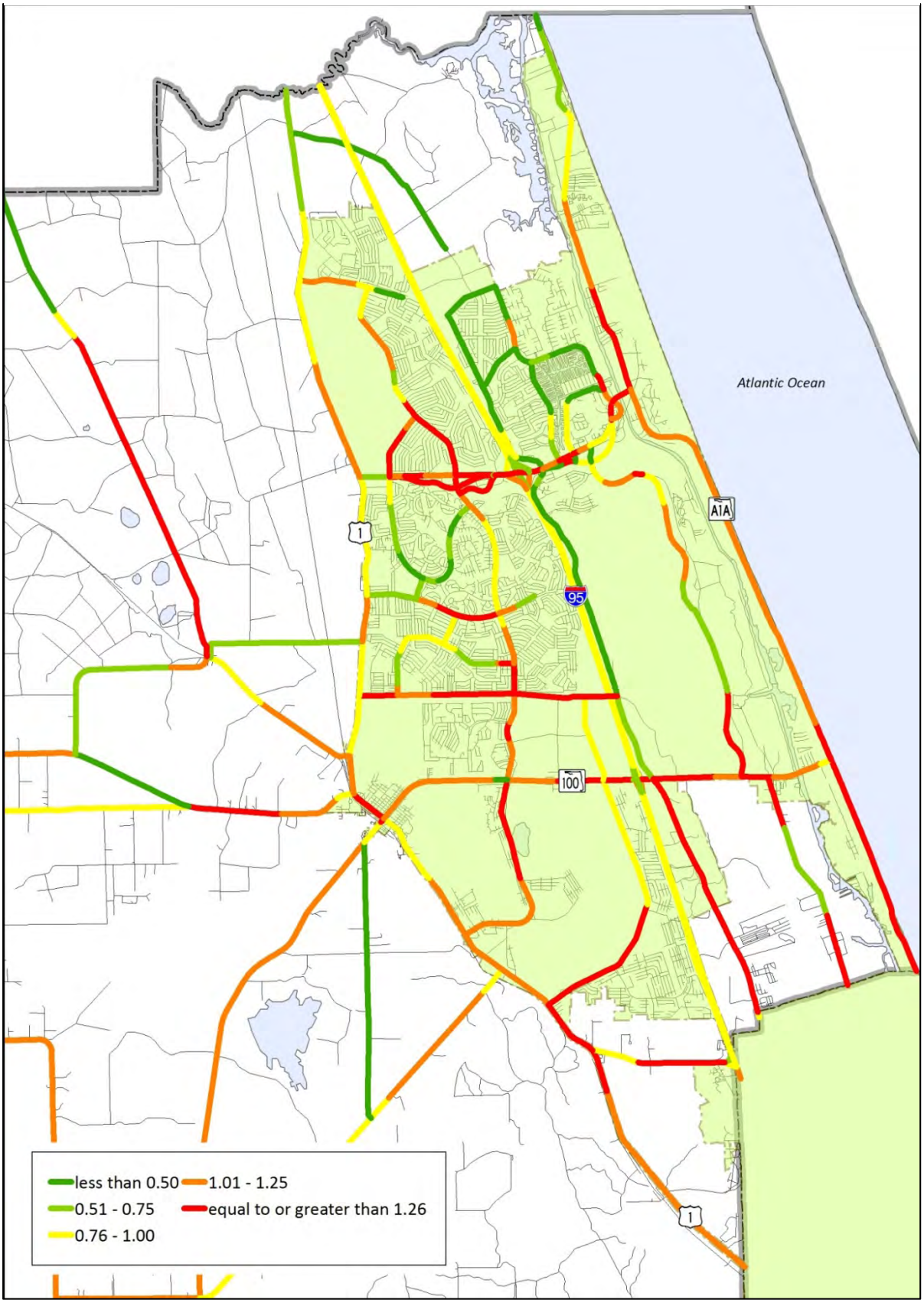
Improvement Number	Roadway Project	From	To	Improvement
Existing Projects [5]				
1	I-95	Volusia County Line	St. Johns County Line	Widen to 6 Lanes
2	Matanzas Woods Ext.	Birds of Paradise	Old Kings Rd.	New 2 Lane Road
3	Royal Palms Parkway	Point Pleasant Rd.	Town Center Blvd.	New 2 Lane Road
4	SR 100	0.25 Mile West of Belle Terre	Belle Terre	Widen to 4 Lanes
5	SR 100	I-95	Belle Terre	Widen to 4 Lanes
6	Town Center Blvd.	SR 100	Old Kings Rd.	New 2 Lane Road
Committed Projects				
7	Old Kings Rd. [6]	SR 100	Palm Coast Pkwy.	Widen to 4 Lanes
8	Palm Coast Pkwy.	Boulder Rock	Florida Park Dr.	Widen to 6 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation District 5, November 2011.

The ratio of trip volume to roadway capacity was determined segment by segment to identify where congestion might occur. A ratio greater than 1.0 indicated that the trip volume would exceed the roadway capacity and congestion would likely occur. The results, shown in Figure 6, helped to identify what measures would need to be taken to satisfy future travel demand.

[4] See Chapter 3 for more information regarding the CFRPM 5.0.
[5] The 4-laning of Belle Terre Parkway from Palm Coast Parkway to Matanzas Woods Parkway was completed in 2010, but was not included in the E+C transportation model network.
[6] The 4-laning of Old Kings Road between SR 100 and Town Center Boulevard was completed in 2010.

Figure 6 - Volume to Capacity Ratio: 2035 Trip Volume on Existing Plus Committed Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

EVALUATION OF ALTERNATIVE TRANSPORTATION SYSTEM IMPROVEMENTS

Following the development of the E+C roadway network and the identification of network performance deficiencies, two alternatives were developed for the region and run in the model to test the impact of different improvement combinations.

Alternative One is considered a 'needs' alternative and is meant to include the known priority transportation projects that are necessary to accommodate the anticipated socioeconomic growth and the network deficiencies identified in the E+C scenario. However, Alternative One does not include all of the needed improvements that would be required to accommodate the region's growth, but is rather a grouping of likely projects that could feasibly be implemented in the future.

For Flagler County, FDOT and Flagler County staff identified the Alternative One projects that might improve network performance. This alternative incorporated many of the priority transportation projects for Flagler County, Bunnell and Palm Coast. A complete list of these projects is presented in Table 5.

Using the performance results for the Alternative One projects, an Alternative Two network was developed for the region. However, the Alternative Two project list for Flagler County was identical to the Alternative One project list. In this alternative, different improvement combinations were used as compared to Alternative One. Alternative Two is also considered a 'needs' alternative, and like Alternative One, it is meant to consist of likely projects that could feasibly be implemented in the future. These projects are necessary to accommodate the anticipated socioeconomic growth and the network deficiencies identified in the E+C scenario, but will not be sufficient to entirely eliminate congestion on the region's transportation system.

Each MPO/county then applied financial constraints due to funding realities to its needs project list to develop their cost-feasible projects lists. These cost-feasible transportation improvements, both highway and transit, comprise a Cost-Feasible Plan for the Central Florida region. For Flagler County, the Cost-Feasible Plan was developed through coordination with Flagler County staff and FDOT.[7] It includes the E+C projects and the preferred combination of highway projects from Alternative One and Alternative Two. One additional project, the 4-laning of Matanzas Woods Parkway from US 1 to Old Kings Road, was included. For Flagler County, no transit improvements were considered.

For the region, the performance of the Cost-Feasible Plan is better than the E+C network, addressing many of the region's transportation needs.[8] The Cost-Feasible Plan adds an additional 14.8% (2,945) of lane miles, resulting in a 1.1% decrease in vehicle miles traveled as compared to the E+C scenario. In addition, the Cost-Feasible Plan's impact is evident in that it reduces delay due to congestion by 49.1% and increases the congested speed on the network by 11.3% as compared to the E+C scenario. However, due to the application of funding constraints, all the projects identified in the needs alternatives could not be included in the cost-feasible transportation improvements list, thus the benefits to the region are not as extensive as might be possible if funding was increased.

[7] CENTRAL FLORIDA REGIONAL PLANNING MODEL (CFRPM) v5.0, Technical Memorandum Number 2 - CFRPM 5.0 Future Year Alternatives, Prepared for Florida Department of Transportation – District 5 by HNTB Corporation, 610 Crescent Executive Court, Suite 400, Lake Mary, Florida 32746, November 2011, pg. 89.
[8] Ibid, pg. 111.

Figure 7, page 15, shows the 2035 trip volume to capacity ratio on the Alternative One network. Although congestion is reduced, many of the roadways would still be operating at an unacceptable level of service.

Figure 8, page 16, shows the 2035 trip volume to capacity ratio on the Cost-Feasible Network alternative.

Table 5 - CFRPM 5.0 Alternatives One and Two Transportation Improvements – Flagler County

Improvement Number	Roadway Project	From	To	Improvement
1	Belle Terre Pkwy	Palm Coast Pkwy	Pine Lakes Pkwy	Widen to 6 Lanes
2	Belle Terre Pkwy [9]	Palm Coast Pkwy	Matanzas Woods Pkwy	Widen to 4 Lanes
3	Flagler Central Commerce Pkwy	SR 100	US 1	New 2 Lane Roadway
4	Grand Reserve Blvd/Travis Walker Trail	SR 100	US 1	New 2 Lane Roadway
5	I-95 Interchange	@ Matanzas Woods Pkwy		New Interchange
6	Old Kings Rd	Farragut	Forest Grove	Widen to 4 Lanes
7	Old Kings Rd	Palm Coast Pkwy	SR 100	Widen to 4 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

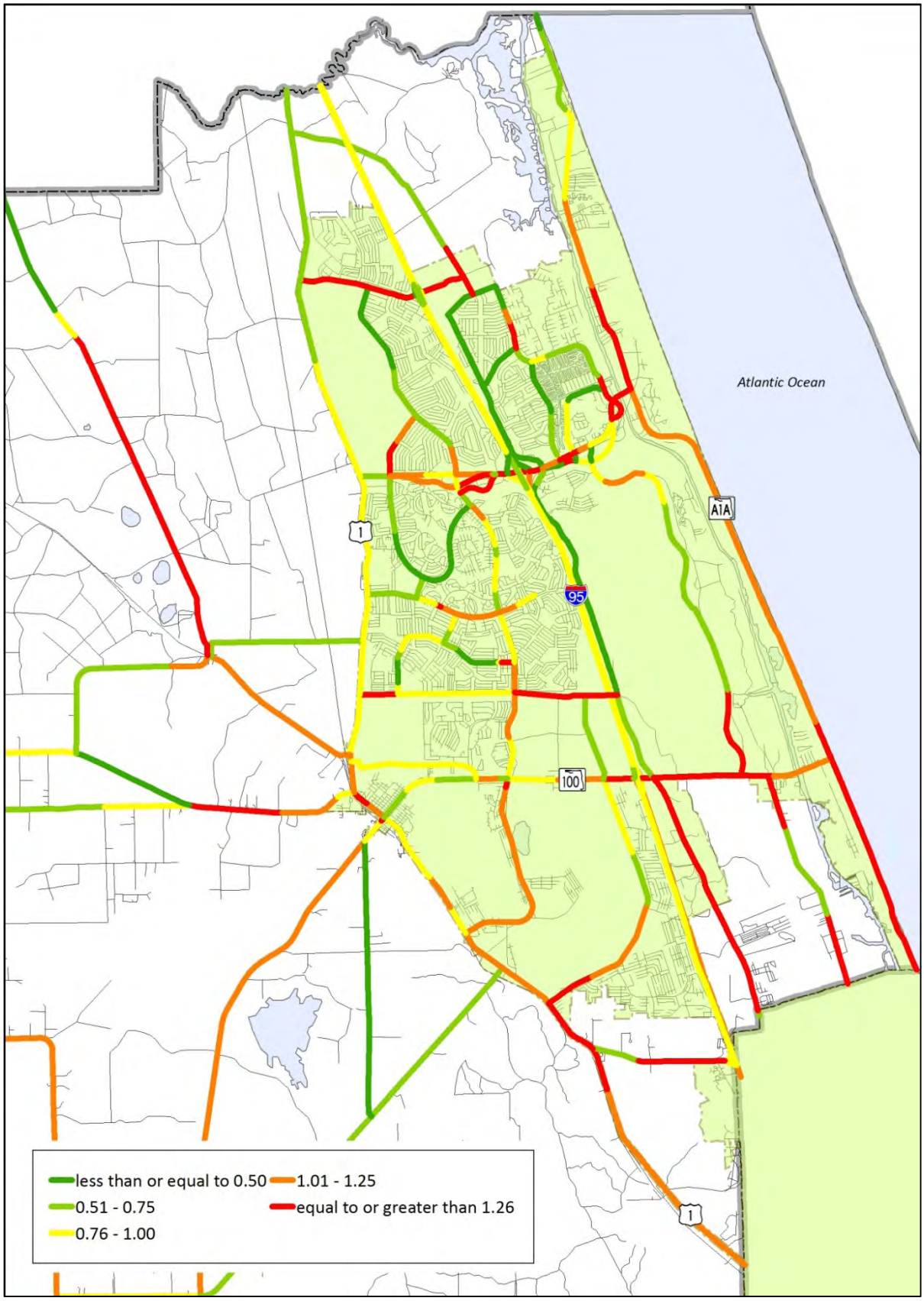
Table 6 - CFRPM 5.0 Cost-Feasible Transportation Improvements - Flagler County

Improvement Number	Roadway Project	From	To	Improvement
1	Belle Terre Pkwy	Palm Coast Pkwy	Pine Lakes Pkwy	Widen to 6 Lanes
2	Belle Terre Pkwy [9]	Palm Coast Pkwy	Matanzas Woods Pkwy	Widen to 4 Lanes
3	Flagler Central Commerce Pkwy	SR 100	US 1	New 2 Lane Roadway
4	Grand Reserve Blvd/Travis Walker Trail	SR 100	US 1	New 2 Lane Roadway
5	I-95 Interchange	@ Matanzas Woods Pkwy	-	New Interchange
6	Matanzas Woods Pkwy	US 1	Old Kings Rd	Widen to 4 Lanes
7	Old Kings Rd	Farragut	Forest Grove	Widen to 4 Lanes

Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation District 5, November 2011.

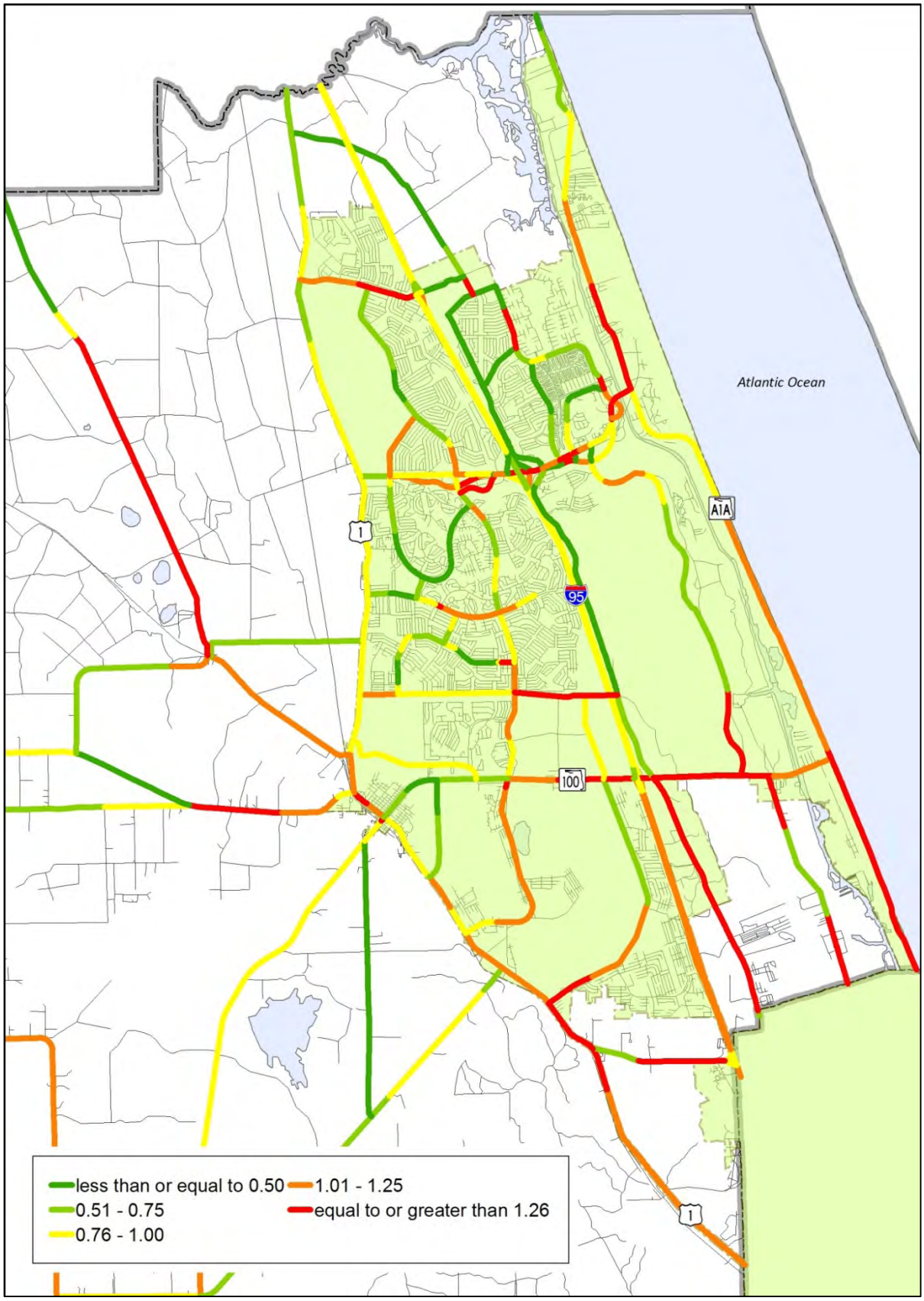
[9] The 4-laning of Belle Terre Parkway from Palm Coast Parkway to Matanzas Woods Parkway was completed in 2010 and should have been recognized as an "existing facility" for transportation network modeling purposes.

Figure 7 - Volume to Capacity Ratio: 2035 Trip Volume on Alternative One Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Figure 8 - Volume to Capacity Ratio: 2035 Trip Volume on Cost-Feasible Network



Source: Technical Memorandum 2035 Cost-Feasible Model Development, Florida Department of Transportation, District 5, November 2011.

Committed Projects

Table 7 lists projects that are fully-funded in FDOT's adopted FY 2013/14 to FY 2017/18 Work Program or in a local government's capital budget. These projects are considered "committed" and are not dependent on revenues identified in Table 8.

Table 7 - COMMITTED PROJECTS

STRATEGIC INTERMODAL SYSTEM PROJECTS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
A	I-95 Interchange	@ Matanzas Woods Pkwy	interchange	2015	$7.50	New interchange
				Total	**$7.50**	

STATE AND FEDERAL – OTHER ROADS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
B	Palm Coast Pkwy – widen to 6 lanes	Boulder Rock Dr to Florida Park Dr	road	2013	$10.76	Add 2 thru lanes
C	Old Kings Rd Extension - Phase I [10]	Forest Grove Dr to Matanzas Woods Pkwy	road	2018	$4.30	New 2-lane road
				Total	**$15.06**	

LOCALLY-FUNDED ROADS

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	Cost Estimate *(Y.O.E. in millions)*	PROJECT DESCRIPTION
D	Pine Lakes Pkwy Turn-Lane		intersection	2013	$1.10	Add turn lanes
E	Palm Harbor Pkwy Extension	Palm Harbor Pkwy to Old Kings Rd	road	2014	$2.34	New 2-lane road
F	Royal Palm Pkwy Paved Shoulders & Left Turn Lanes	Rymfire Dr to Belle Terre Pkwy	intersection	2014	$1.00	Add paved shoulders & left turn lanes
G	Bulldog Dr/SR 100 Intersection Improvements		intersection	2014	n/a	Intersection improvements
				Total	**$4.44**	

Revenue Forecast

The FDOT provided a forecast of state and federal funds expected to be available for transportation projects in the expanded metropolitan planning area. These funds are presented below in Table 8. The funds can be broadly categorized as "formula" funds or "competitive" funds. Formula funds are allocations based on population and other factors. Eligible recipients can develop cost-feasible plans based on these funds. Competitive funds, as the name suggests, are allocated through a competitive award process. Receipt of competitive funds cannot be expected with any degree of certainty. Therefore, projects that are expected to

[10] Palm Coast hopes to advance the construction of Old Kings Rd Extension – Phase I as a 4-lane facility to coincide with the construction of the I-95 Interchange @ Matanzas Woods. The additional cost is estimated to be $1,000,000.

be funded with competitive funds may not be included in the plan as "cost-feasible" projects. However, they may be included as "illustrative" projects.

In cases where formula funds are allocated on a county by county basis, it is assumed that the share of total funds available for projects within the metropolitan planning area boundary will be proportionate to the area's share of total county population. In this case, the portion of the MPA within Flagler County equals 90% of the county population. The numbers shown in Table 8 have been adjusted on that basis.

Not shown in Table 8 is a $2,000,000 federal earmark for the construction of the SR 100/SR 5 (US 1) connector (SAFETEA-LU High Priority Project Number HPP 738). Other local funds available to fund transportation projects which are not shown in Table 8 include state imposed gas taxes distributed to local governments, local option gas taxes, transportation impact fees and other developer contributions, property taxes, and special district assessments. Projects that are to be funded with these local funds only are identified in Table 10 as "Locally-Funded Road Projects".

Table 8 - Summary of Revenue Estimates for the Expanded Metropolitan Planning Area in Flagler County (in millions)

Formula Funding [11]						
Road Construction						
	FYs 2014-18	**FYs 2019-20**	**FYs 2021-25**	**FYs 2026-30**	**FYs 2031-35**	**17 Year Total** [12]
TPO Portion of Flagler County	T.I.P.	4.3	12.1	13.1	14.3	43.8

Transit						
	FYs 2014-18	**FYs 2019-20**	**FYs 2021-25**	**FYs 2026-30**	**FYs 2031-35**	**17 Year**
Flagler	T.I.P.	6.8	7.6	8.5	9.3	34.6

Competitive Funding [13]						
Transportation Regional Incentive Program (TRIP) Funds						
District	**FYs 2014-18**	**FYs 2019-20**	**FYs 2021-25**	**FYs 2026-30**	**FYs20 31-35**	**22 Year**
District 5	T.I.P.	48.2	116.6	116.6	116.6	525.1

New Starts Transit Program Funds						
Statewide	**FYs 2014-18**	**FYs 2019-20**	**FYs 2021-25**	**FYs 2026-30**	**FYs 2031-35**	**22 Year**
(Entire State)	**Subtotal**	**Subtotal**	**Subtotal**	**Subtotal**	**Subtotal**	**Total**
Statewide	T.I.P.	116.7	270.9	270.9	270.9	1,254.3

ENVIRONMENTAL IMPACTS AND MITIGATION

FDOT's Efficient Transportation Decision Making (ETDM) process allows resource and regulatory agencies, as well as the public, an opportunity to review and comment on potential environmental impacts of proposed

[11] Road Construction and Transit fund estimates for all of Flagler County were factored to 90%, consistent with the share of total county population in the expanded MPA.
[12] Rows may not sum to columns because of rounding.
[13] Projects funded through this category are "illustrative" only.

major transportation projects. Based on the feedback provided through the Planning Screen of this process, planners may adjust project concepts to avoid or minimize adverse impacts, consider mitigation alternatives, and improve project cost estimates. Issues addressed through the ETDM Planning Screen include social, economic, land use, mobility, historical and archaeological, aesthetics, and natural systems.

Table 9 is included to document the level of agency consultation that occurred through development of the projects that are included in this LRTP addendum. All major projects included in the Cost-Feasible element of this addendum are listed and noted as having been reviewed through the ETDM planning screen process and/or having been subject of a PD&E study.

Table 9 - Projects Screened through the ETDM Screening Process - Expanded Metropolitan Planning Area

PROJECT	FROM	TO	COMMENT
I-95/Matanzas Woods Pkwy Interchange			ETDM Planning Level Summary Report published on 3/9/10; PD&E completed
Old Kings Rd - widen to 4 lanes	Palm Coast Pkwy	Forest Grove Dr	ETDM Planning Level Summary Report published on 10/8/09: PD&E completed
Old Kings Rd Extension – Phases I	Forest Grove Dr	Matanzas Woods Pkwy	ETDM Planning Level Summary Report published on 9/25/09: PD&E completed
Old Kings Rd Extension – Phases II	Matanzas Woods Pkwy	Old Kings Rd	ETDM Planning Level Summary Report published on 9/25/09; PD&E completed
Commerce Pkwy Connector Rd	SR 100	SR 5 (US 1)	ETDM Planning Level Summary Report published on 6/12/09; PD&E completed
Matanzas Woods Pkwy west – widen to 4 lanes	SR 5 (US 1)	Southbound I-95 Ramps	PD&E for I-95/Matanzas Woods Pkwy Interchange included the widening of Matanzas Woods Pkwy between SR 5 (US 1) and Old Kings Rd
Matanzas Woods Pkwy east – widen to 4-Lanes	Northbound I-95 Ramps	Old Kings Rd	
Palm Coast Pkwy – Add Through Lanes	Boulder Rock Dr	Florida Park Dr	ETDM Planning Level Summary Report published on 5/2/08; PD&E completed
SR 100 6-Laning	I-95	Belle Terre Pkwy	ETDM Planning Level review not completed

COST FEASIBLE PROJECTS

The cost-feasible list of projects for the expanded metropolitan planning area is presented in Table 10. The list is derived from the list of cost-feasible transportation improvements identified and evaluated as part of the district-wide transportation modeling activity conducted by FDOT to support the MPOs/TPOs in developing their 2035 long-range transportation plans. Additional projects were identified through the formal, cooperative city/county project prioritization process.

Financial constraints were applied to arrive at the final cost-feasible project lists shown in Table 10. Note that the 17 year total for formula funding ($43.8 M) shown in Table 8 is approximately equal to the total cost of state- and federal-funded projects listed in Table 10 ($45.16 M). Also with respect to the financial constraints, projects were assigned to one of four time periods (2019-20, 2021-25, 2026-30, 2031-35), as shown in Table 10, depending on the anticipated availability of funding.

Improvements to Old Kings Road are the top priority for the area. These projects are staged over time in the LRTP to coincide with the availability of projected funding. However, Palm Coast and Flagler County have requested that they be advanced so that the increased roadway capacity and connectivity will be in place to support the I-95 interchange at Matanzas Woods Parkway (programmed for construction in FY 2015).

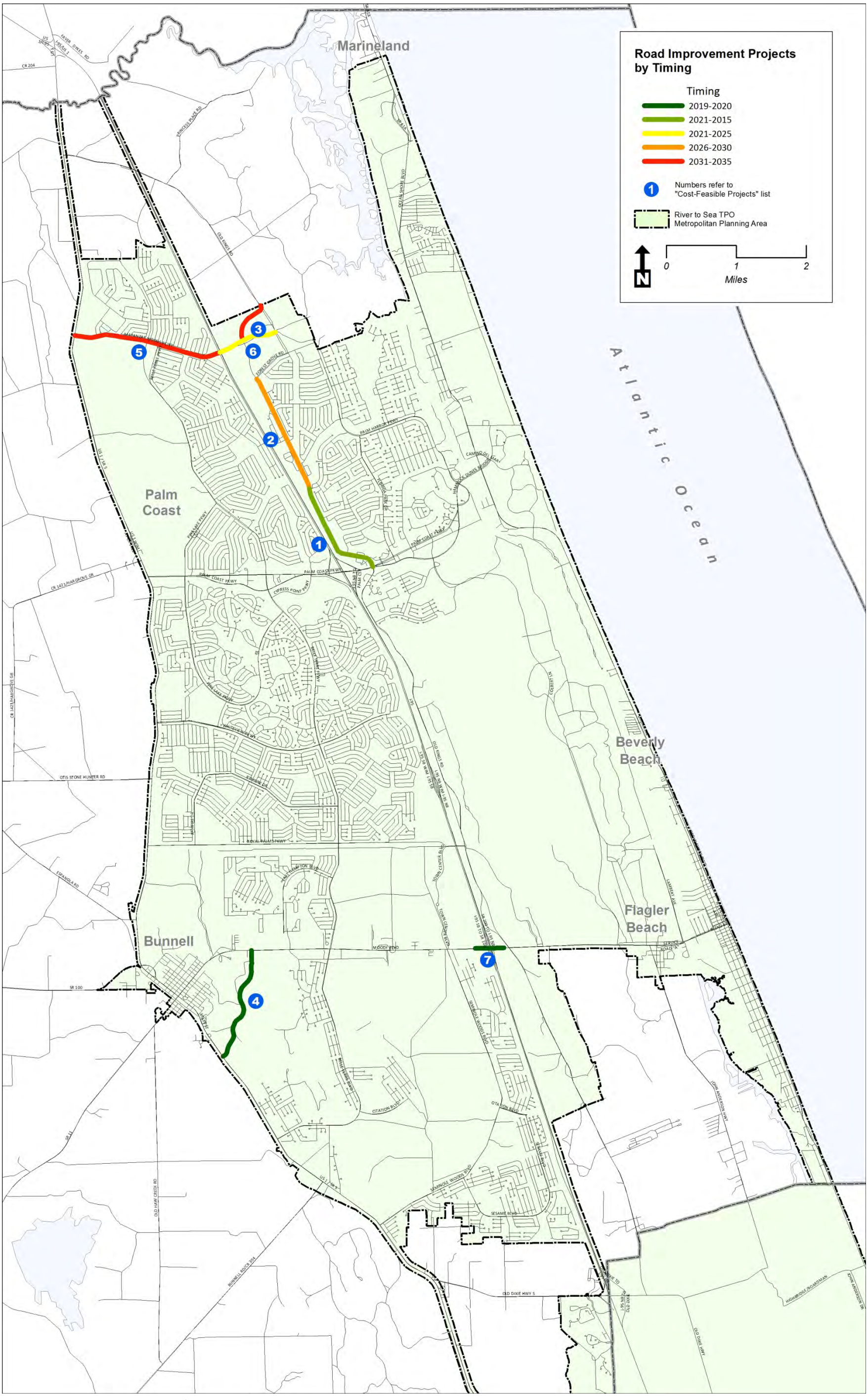
Currently, public transit service in Flagler County is a pre-scheduled, demand-response system. Local officials recognize the importance of quality public transit service and hope to provide enhanced transit service county-wide when it becomes financially feasible and warranted by service demand. At that time, the LRTP will be updated as necessary to provide for appropriate transit improvements.

The draft cost-feasible list of projects was reviewed by the TPO advisory committees and board and a draft plan was provided for public review and comment. Upon completion of the public comment period, the final plan was submitted for approval to all of the TPO advisory committees and the TPO Board.

In addition to the cost-feasible proposed project list included in this addendum, it is intended that the general provisions of the 2035 Long Range Transportation Plan shall apply to the expanded metropolitan planning area. In particular, this will include the vision, goals, and objectives set out in Chapter 2.

Table 11 on page 23 lists additional road improvement projects that have been identified as "needed", but are not funded at this time.

Figure 9 – Cost-Feasible Projects[14]



Source: River to Sea Transportation Planning Organization, June 2014.

Table 10 - Cost-Feasible Projects [15]

Strategic Intermodal System (SIS) Projects

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
	[NO PROJECTS IDENTIFIED]					
				Total	**$0.00**	

State and Federal – Other Projects (Federal-Aid Eligible)

	PROJECT	LIMITS	TYPE	YEAR OF CONSTRUC-TION	COST ESTIMATE *(Y.O.E. in millions)*	PROJECT DESCRIPTION
1	Old Kings Rd - widen to 4 lanes	Palm Coast Pkwy to Farnum Ln	road	2021-25	$10.07	Add 2 thru lanes
2	Old Kings Rd - widen to 4 lanes	Farnum Ln to Forest Grove Dr	road	2026-30	$13.12	Add 2 thru lanes
3	Old Kings Rd Extension - Phase II	Matanzas Woods Pkwy to Old Kings Rd	road	2031-35	$11.07	New 4-lane roadway
4	Commerce Pkwy Connector Rd	SR 100 to SR 5 (US 1)	road	2021-25	$1.91	New 2-lane roadway; cost has been offset by a $2.0 M federal earmark
5	Matanzas Woods Pkwy west – widen to 4 lanes	SR 5 (US 1) to Southbound I-95 Ramps	road	2031-35	$5.14	Add 2 thru lanes; will require additional $23.34 M (Y.O.E.) developer contribution
6	Matanzas Woods Pkwy east – widen to 4 lanes	Southbound I-95 Ramps to Old Kings Rd	road	2019-20	$3.28	Add 2 thru lanes; will require additional $12.9 M (Y.O.E.) developer contribution
7	SR 100/I-95 Interchange Ramp Improvements	@ SR 100	road	2019-20	$0.57	Interchange ramp improvements
				Total	**$45.16** [16]	

Transit Projects

	PROJECT	LIMITS	TYPE	START YEAR	COST ESTIMATE		PROJECT DESCRIPTION
					CAPITAL	OPERAT-ING	
	[NO PROJECTS IDENTIFIED]						
					Total	**$**	

[15] Cost feasible projects include those which are anticipated to be funded within the LRTP planning horizon (2035), but are not yet programmed through construction in FDOT's Work Program.

[16] Total does not include $1,000,000 needed to advance Old Kings Rd Extension – Phase I as a 4-lane facility. Construction as a 2-lane facility is currently programmed in FY 2018. Additional funds will have to be available in FY 2018 or earlier.

Table 11 – Unfunded Projects

Strategic Intermodal System (SIS) Projects *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	SR 100 – widen to 6 lanes	I-95 to Belle Terre Pkwy	Unfunded	$32.00	Add 2 thru lanes
			Total	**$32.00**	

State and Federal – Other Projects (Federal-Aid Eligible) *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	Old Kings Rd - widen to 4 lanes	From Town Center Blvd to Palm Coast Pkwy		$16.64	Add 2 thru lanes
2	Old Kings Rd south – widen to 4 lanes	From SR 100 to Flagler/Volusia County Line		$5.70	Add 2 thru lanes
3	John Anderson Hwy – widen to 4 lanes	From SR 100 to Flagler/Volusia County Line		$4.70	Add 2 thru lanes
4	Railroad Depot	At Woodland Av and Railroad Street		$1.20	New passenger railroad depot
5	Palm Coast Pkwy – widen to 6 lanes	From SR 5 (US 1) to Belle Terre Pkwy		$9.36	Add 2 thru lanes
			Total	**$37.60**	

Bridge Projects (Federal-Aid Eligible) *UNFUNDED*

	PROJECT	LIMITS	TIMING	COST *(P.D.C. in millions)*	PROJECT DESCRIPTION
1	Colorado Dr Bridge #73064 over College Waterway	Colorado Dr @ College Waterway		$1.15	Bridge rehabilitation
2	Bridge #734063 - Colechester @ College Waterway	Colechester Ln @ College Waterway		$1.15	Bridge rehabilitation
3	Bridge Rehab -735503, Secretary @ Seminole Waterway	Secretary Trail @ Seminole Waterway		$1.15	Bridge rehabilitation
4	Bridge Rehab - 734066, Wellington @ Wynfield Waterway	Wellington Dr @ Wynfield Waterway		$1.15	Bridge rehabilitation
5	Bridge #734067, Palm Harbor @ Mulberry Creek	Palm Harbor Pkwy @ Mulberry Creek		$1.15	Bridge rehabilitation
			Total	**$5.75**	