Florida's Turnpike Enterprise

Annual Inspection Report

for the Fiscal Year ending June 30, 2021

FDOT

Contents

List of Figures

List of Tables

List of Acronyms and Abbreviations

AET .....All-Electronic Toll
FDOT .....Florida Department of Transportation
FTE .....Florida's Turnpike Enterprise
FTS ..... Florida's Turnpike Services
FY ..... Fiscal Year
HMLT ..... High Mast Light Tower
LNQC ..... Large Non-Qualifying Culverts
MRP .....Maintenance Rating Program
NBI .....National Bridge Inspection
PCS .....Pavement Condition Survey
RRP .....Roadway Rating Procedure

Executive Summary

As General Consultants to the Florida Department of Transportation, Florida's Turnpike Enterprise (FTE) and in accordance with Section 5.13 of the Turnpike Enterprise Bond Resolution, Atkins and HNTB are pleased to submit the annual independent inspection asset condition report of the FTE System for the fiscal year (FY) ending June 30, 2021.

This year's inspection results confirm the success of FTE's ongoing, aggressive, and comprehensive maintenance efforts. The overall condition of the FTE system is good. The system's primary feature, 498 centerline miles of roadway is comprised of 46 characteristics. Overall, no roadway characteristic was found greater than 20% unsatisfactory, as shown on Table 13. For this report, roadway characteristics reported as unsatisfactory are defined as rated four (4) or below in the Roadway Rating Procedure (RRP), as described in Table 4.

The FY 2021 annual inspection revealed that several buildings were determined to be in overall good condition; however, there were some with unsatisfactory characteristics. Most of these unsatisfactory characteristics are cosmetic in nature and none pose structural concerns. Structures are inspected on a biennial basis by two (2) separate independent engineering consultants contracted to FDOT. The most recent inspection was conducted in FY 2020-2021. Bridges were reported in good condition. Other structures inspected during the biennial inspection are included in this report.

FTE programmed $82.38 million for periodic and routine maintenance in FY 2021. These funds are used for maintenance of all highway and structure assets, routine building maintenance, roof replacement/restoration, building renovation, toll plaza tunnel sealing, drainage improvements and safety related upgrades. As a part of its Renewal and Replacement Program, FTE programmed $79.25 million in FY 2021 for roadway resurfacing; roadway, bridge, and facility construction; toll equipment enhancement; and bridge repair work.

This report presents an analysis of inspection findings, the current status of the FTE system with respect to the Roadway Rating Procedure (RRP) and the programmed maintenance funding level commitments through FY 2025. Based on prioritization of specific unsatisfactory characteristics identified by FTE's Maintenance Office and coordination of funding-related issues with FTE's Finance Office, recommendations are made for the initiation of conceptual studies and funding for several improvement projects. FTE's commitment to system improvement and preservation is apparent based on the emphasis placed on its Maintenance and Renewal and Replacement programs. By continually monitoring system conditions and ensuring that its facilities are maintained in good condition, FTE is better able to provide for the safety and convenience of its customers while also maintaining a secure investment for bondholders.

1. Introduction

1.1. Purpose

FTE is required by Section 5.13 of the Turnpike Enterprise Bond Resolution and Statement 34 of the Governmental Accounting Standards Board (GASB) to perform an independent review of the overall condition of all bonded assets. FTE's Engineering Consultants, Atkins and HNTB, perform a comprehensive annual inspection of all roadways (not including mainline pavement) and facilities. Updates of the inspection findings are provided to FTE's Facilities and Roadway Maintenance departments every 30-business days during the inspection cycle.

1.2. General Description and Inspection Procedure

The FTE system is comprised of multi-lane, limited-access toll facilities. Components of the system included in the FY 2021 inspection cycle are 498 centerline miles, 327 buildings at 202 facility locations and 713 bridges. Bridge inspection reports are not disclosed in this report based on FDOT policy regarding disclosure of structure details. The system's mainline roadway segments are summarized in Table 1.

Table 1: FTE System Segments

Segment	Length (centerline miles)
Florida's Turnpike – SR 91 & SR 408 to SR 91 Ramps	265
Homestead Extension of Florida's Turnpike (HEFT) – SR 821	47
Sawgrass Expressway – SR 869	23
Beachline West Expressway – SR 528	8
Beachline East Expressway – SR 528 & SR 407	22
Seminole Expressway – SR 417	18
Veterans Expressway – SR 589 & Veterans Expressway Spur SR 568	15
I-4 Connector (ramps)	1
Southern Connector Extension – SR 417	6
Polk Parkway – SR 570	25
Suncoast Parkway – SR 589	42
Western Beltway – SR 429 (1 mi ramp not included)	11
First Coast Expressway – SR 23	15
Total	498

1.2.1. FTE Inspection Zones

Geographic zones were established by the Consultant team to describe the primary FTE system components relative to all regions of the state. The roadway and structure inspections are based on five zones and the building inspections are based on 10 zones. The system components, or portions thereof, included in each of the inspection zones are described in Table 2 and illustrated in Appendix A: Maps of System Components and Inspection Zones.

Table 2: Maintenance Inspection Zones

Roadways and Structures	
Zone I	Florida's Turnpike – Milepost 0X through 100 - SR 91
	Homestead Extension of Florida's Turnpike (HEFT) - SR 821
	Sawgrass Expressway - SR 869
Zone II	Florida's Turnpike - Milepost 100 through 200 - SR 91
Zone III	Florida's Turnpike - Milepost 200 through 309 - SR 91
	Beachline West Expressway - SR 528
	Beachline East Expressway - SR 528
	Challenger Memorial Parkway - SR 407
	Florida's Turnpike Connection to East-West Expressway - SR 408
	Southern Connector Extension - SR 417
	Seminole Expressway - SR 417
	Western Beltway - SR 429
Zone IV	Veterans Expressway - SR 589 Spur SR 569
	Polk Parkway - SR 570
	Suncoast Parkway - SR 589
Zone V	First Coast Expressway – SR 23
Building - Facilities and Communications	
HEFT	Homestead Extension of Florida's Turnpike (HEFT) - SR 821
Southern	Florida's Turnpike - Milepost 0X - MP 88, & Sawgrass Expressway – SR 91 & SR 869
Central	Florida's Turnpike - Milepost 88 through 236 - SR 91
Northern	Florida's Turnpike - Milepost 236 through 309 - SR 91
	Beachline West Expressway - SR 528
	Beachline East Expressway – SR 528
	Southern Connector Extension – SR 417
	Western Beltway – SR 429
Seminole	Seminole Expressway – SR 417
I-4 Crosstown Conn.	I-4 Connector. NB/SB Gantry Structure
Veterans	Veterans Expressway - SR 589
Polk	Polk Parkway - SR 570
Suncoast	Suncoast Parkway - SR 589
First Coast	First Coast Expressway – SR 23

Inspection Categories

To efficiently inspect the FTE system, all assets have been placed into three major categories: roadways, buildings, and structures. The Atkins – HNTB team inspects roadways and buildings on an annual basis while structures are inspected on a biennial basis by a separate group of consultants (see Section 1.2.4.3).

Table 3 summarizes the three inspection categories by listing the five general elements for roadways, the 14 general elements for buildings and the four general elements for structures.

Table 3: 2021 Inspection Categories and Elements

Category	Element
Roadway	Roadway
	Roadside
	Traffic Services
	Drainage
	Vegetation - Aesthetics
Building	Architecture
	Building HVAC
	Domestic Plumbing
	Building Electrical
	Communications, Fire Alarm, Monitoring Devices
	Concrete Pavement & Sidewalks
	Sewer / Septic Tanks, Lift Stations & Wells
	Islands
	Booths
	Canopy
	Plaza Concrete Aprons
	Site Grounds
	Stand-By Power
	Structural
Structure	Bridges
	Large Non-Qualifying Culverts
	High Mast Light Towers
	Overhead Sign Structures

1.2.2. Roadway Rating Procedure (RRP)

FTE and Atkins developed an RRP to assess FTE's assets. The RRP was developed based on the principles of the MRP Handbook, State Materials Office and FDOT Standard Index criteria as the baseline criteria for the roadway inspections. The RRP is not intended to mimic or compare itself to the MRP process. The RRP is to be an independent assessment. The RRP uses a 10-point rating scale with percentage of characteristics rated "4 or below" as presented on the Tables 8 thru 13.

The RRP expands on the 35 MRP characteristics to include concrete barrier, riprap, and rutting, stripping, cracking in asphalt ramp pavement locations. Based on the RRP procedure, mainline roadway elements are visually inspected and documented in one-mile increments. On and off ramps are visually inspected and documented for their entire length. The FTE mainline, other facilities as documented in this annual inspection report, and ramps are all assigned a rating based on the RRP ten-point scale.

RRP mainline inspections include all characteristics outside of the travel way such as paved and unpaved shoulders, fencing, guardrail, etc. RRP ramp inspections include all paved portions of ramps in addition to the same elements included with the mainline inspections.

Mainline travel way pavement is inspected by the State Materials Office (SMO) and these results are published annually in the Pavement Condition Survey (PCS). Beginning and ending mileposts of active construction zones are recorded during inspections and the roadway characteristics for these areas are not inspected or used in developing ratings in this report."

For efficiency, GPS-enabled tablets are utilized to enter ratings and recommendations into an Atkins-developed database as the field inspections are performed. The database is maintained throughout the duration of the inspection process and utilized to generate each roadway report. Inspection results are identified in the worksheets by roadway/ramp segment and lane direction.

RRP ratings may be used by FTE in formulating general recommendations for system repair and improvement.

1.2.2.1. Roadway Rating Procedure Inspection Rating Scales

The following tables provide a description of ratings used by the RRP.

Table 4: Roadway Inspection Rating Scale

Grade	Rating	Description
10	Excellent	Characteristic appearance and functionality/operability are in like-new condition.
9-8	Good	Characteristic appearance and functionality/operability are in acceptable condition or above average condition.
7-5	Degraded	Characteristic appearance and functionality/operability are below average.
4-2	Unsatisfactory	Characteristic appearance and functionality/operability are unsatisfactory.
1	Emergency	Characteristic appearance and functionality/operability are far below average, and immediate attention appears necessary to protect public or system asset.

Table 5: Building Inspection Rating Scale

Grade	Rating	Description
10	Excellent	No action necessary
9	Very Good	No unsatisfactory characteristics noted
8	Good	Some minor unsatisfactory characteristics noted; minor maintenance may be required
7	Satisfactory	Characteristic shows some minor deterioration; maintenance may be required
6	Fair	Characteristic is sound but may have minor loss of function; minor rehabilitation may be required
5	Degraded	Characteristic shows partial function loss; rehabilitation may be required
4	Serious	Loss of function has seriously affected this Characteristic; repair or rehabilitation is required soon to maintain functionality
3	Critical	Advanced loss of function is present, and it may be necessary to stop the function until corrective action can be taken
2	Imminent Failure	Characteristic is not functioning; immediate corrective action may forestall the complete failure
1	Failed	The Characteristic is out of service and beyond corrective action

Structures, unlike roadways and buildings, are rated using modified federal and state standards as reflected in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures, Section B - Structures Rating Procedure.

1.2.3. Inspection Procedure

All inspections are conducted according to standard procedures developed by the Federal Highway Administration (FHWA) and/or FDOT and involve an extensive visual examination of all elements relative to the category of inspection. A detailed tabulation of the conditions observed on the date of the field inspection is prepared in the form of inspection worksheets developed from the inspection database.

Due to the time duration between field inspection activities and publication of this report, certain characteristics identified in this report as requiring remedial action may have already been corrected through ongoing maintenance and construction activities. Repairs and improvements are typically funded through FTE's Maintenance Program, periodic or routine maintenance contracts or through FTE's Renewal and Replacement Program. Serious conditions that demand immediate attention (characteristics rated as a "1") are reported by the inspection team via email and phone call to the appropriate FTE office immediately upon their discovery in the field.

1.2.3.1. Roadway Inspection

The inspection team performs a visual inspection of 40 characteristics within the ROW limits. Mainline pavement is not included as part of the inspection of roadway characteristics as that inspection data is secured from other sources as detailed in the Annual Inspection report. However, the ramp pavement is inspected, and all other 40 characteristics are inspected along each of the ramps throughout the system. A sample of the characteristics included are illustrated below in Figure 1.

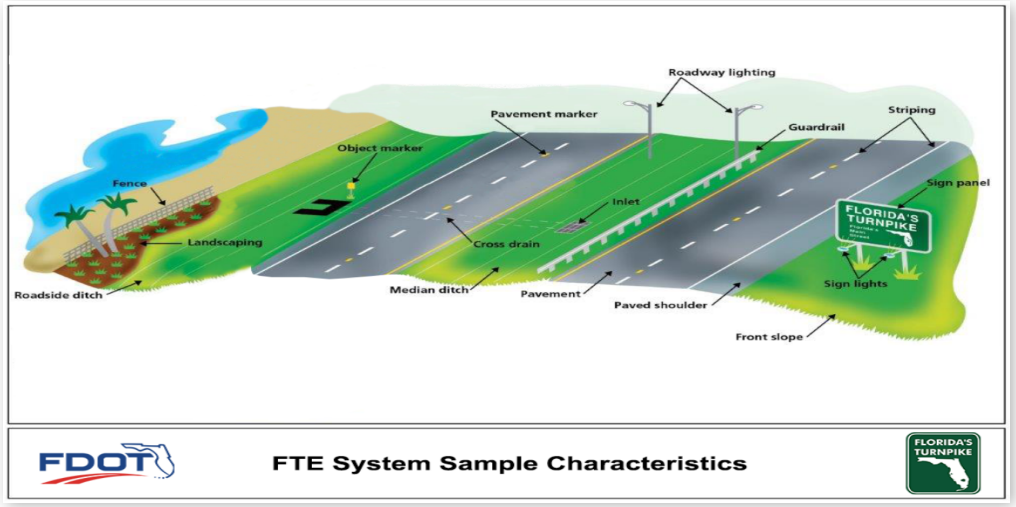


Figure 1: FTE System Sample Characteristics

1.2.3.2. Building Inspection

The annual maintenance inspection of FTE's building facilities is based on a condition assessment and inventory of 97 facility characteristics in 14 general elements. As part of the inspection process, all relevant characteristics are visually inspected, and ratings are assigned based on the conditions observed. A complete list of all buildings, elements and characteristics is included in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures.

The building facilities inspection is based on five general building types:

1. Toll plaza administration buildings and canopies
2. Combination buildings
3. All-Electronic Toll (AET) equipment buildings
4. Communication tower buildings
5. Miscellaneous-use buildings

A total of 327 buildings located within ten maintenance inspection zones were inspected during the FY 2021 inspection.

Table 6 shows the number of each building type by inspections zone.

Table 6: Building Quantities

Building	Inspection Zones										
Type	Turnpike Mainline	Southern Coin	Ticket System	Northern Coin	Seminole Expressway	I-4 Crosstown Conn.	Veterans	Polk	Suncoast	First Coast Expressway	Totals
Mainline Toll Plazas / AET	7	5	2	4	1	1	2	3	3	7	35
Off-Line Ramp Plazas / AET	32	37	17	32	13	0	9	16	12	0	168
Other	25	28	29	25	3	0	4	6	4	0	124
Totals	**64**	**70**	**48**	**61**	**17**	**1**	**15**	**25**	**19**	**7**	**327**

The inspection team performed room-by-room inventories and floor-to-ceiling visual condition evaluations for all 97 facility characteristics in every building within the FTE system.

1.2.3.3. Structure Inspection

The biennial structures inspection is based on four elements of major structures:

1. Bridges (including owned but not maintained)
2. Large non-qualifying culverts (LNQC)
3. High mast light towers (HMLT)
4. Overhead sign structures

The FTE system includes 2,414 individual structures. Table 7 shows the total quantities of all structures with respect to each of the five maintenance zones.

Table 7: Major Structure Quantities

Category	Zone I	Zone II	Zone III	Zone IV	Zone V	Totals
Bridges	237	102	204	159	15	717
Large Non-Qualifying Culverts	29	97	75	27	14	242
High Mast Light Towers	175	22	74	102	-	373
Overhead Sign Structures	517	56	257	216	36	1,082
Totals	958	277	610	504	65	2,414

The structures inspection for fiscal year (FY) 2020 - 2021 was divided into two contracts. Zones 1 and 2 are performed by TranSystems Corporation Consultants; Zones 3, 4 and 5 are performed by Consor Engineers, LLC.

1.3. Information Sharing

In previous years, the Turnpike Enterprise Asset Management System (TEAMS) was used to assist in evaluating and identifying renewal and replacement needs for the Turnpike system on a per-fiscal-year basis. TEAMS has been replaced by the Enterprise Data Repository (EDR) system and historical TEAMS data has been incorporated into the current EDR platform.

The initial EDR module for pavement data is operational with additional modules being made available in the near future. FTE's SharePoint system is a secondary platform where the raw inspection data is stored, and where 30-business day work periods of unsatisfactory rating reports are deposited for both roadway maintenance and facilities. This new system will allow password-access to data by bondholders.

2. Rating Procedure Findings

The findings included in this report are based on an extensive evaluation of the roadway, building and structures inspection worksheets prepared by a team of independent engineering consultants. This report summarizes the data included in the inspection worksheets, bridge inspection reports and PCS, which reflect the condition of the characteristics at the time of inspection. Complete listings of characteristics typically inspected in each of the three major categories of facilities are included in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures.

2.1. Roadways

Roadway characteristic conditions found during the RRP inspection for each of the maintenance zones are summarized in Tables 8 through 13. Each table contains only characteristics listed in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures that are present and inventoried in the particular zone. A rating of four or below on the field inspection worksheets indicates that the portion of the characteristic is in less than fair (unsatisfactory) condition.

Each unsatisfactory characteristic is discussed in Section 3 Inspection Results. RRP inspection results reported in Tables 8 through 13 are derived from the Atkins - HNTB Roadway Rating Procedure.

Table 8: Condition of Roadway Characteristics − Zone I (Turnpike Mainline, Mainline 0X-100, Sawgrass)

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or Below
Roadway	Pothole	81	Ramp Miles	1	0.87%
	Joint	1037	Each	11	1.06%
	Pavement Void	81	Ramp Miles	0	0.00%
	Edge Ravel	295	Miles	0	0.14%
	Rutting	81	Ramp Miles	0	0.00%
	Cracking	81	Ramp Miles	0	0.21%
	Depression	295	Miles	0	0.00%
	Stripping	81	Ramp Miles	0	0.00%
	Shoving	81	Ramp Miles	0	0.00%
	Paved Shoulder	295	Miles	0	0.00%
Roadside	Soil Shoulder	295	Miles	1	0.42%
	Front Slope	295	Miles	0	0.00%
	Sidew alk	42768000	SF	0	0.00%
	Slope Protection	124315	SY	0	0.00%
	Fence	295	Miles	3	1.03%
Traffic Services	Pavement Marker	125001	Each	0	0.00%
	Striping	295	Miles	1	0.42%
	Pavement Symbol	374474	SF	0	0.00%
	Guardrail	235	Miles	6	2.39%
	Attenuator	195	Each	0	0.00%
	Concrete Barrier	133	Miles	0	0.00%
	Signs Less Than 30 SF	7362	Each	2	0.03%
	Signs Greater Than 30 SF	6708	Each	0	0.00%
	Object Marker	5040	Each	206	4.09%
	Sign Light	8049	Each	0	0.00%
	Highw ay Light	7270	Each	11	0.15%
Drainage	Cross Drain	598	Each	0	0.00%
	Roadside Ditch	295	Miles	0	0.00%
	Median Ditch	202	Miles	0	0.00%
	Outfall Ditch	14246	Feet	0	0.00%
	Curb Inlet	3260	Each	16	0.49%
	Riprap	53130	SY	0	0.00%
	Misc. Inlet	195	Each	2	1.03%
	Roadw ay Sw eep	295	Miles	1	0.47%
Vegetation/ Aesthetics	Roadw ay Mow ing	2654	Acres	0	0.00%
	Slope Mow ing	436	Acres	0	0.00%
	Landscape	21	Acres	0	0.00%
	Tree Trim	295	Miles	0	0.05%
	Litter Removal	295	Miles	0	0.00%
	Turf Condition	295	Miles	0	0.00%

Table 9: Condition of Roadway Characteristics − Zone II (Mainline 100-200)

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or Below
Roadway	Pothole	15	Ramp Miles	0	0.00%
	Joint	526	Each	0	0.00%
	Pavement Void	15	Ramp Miles	0	0.00%
	Edge Ravel	218	Miles	3	1.38%
	Rutting	15	Ramp Miles	0	0.00%
	Cracking	15	Ramp Miles	0	0.00%
	Depression	218	Miles	0	0.00%
	Stripping	15	Ramp Miles	0	0.00%
	Shoving	15	Ramp Miles	0	0.00%
	Paved Shoulder	218	Miles	8	3.90%
Roadside	Soil Shoulder	218	Miles	0	0.05%
	Front Slope	218	Miles	0	0.00%
	Sidew alk	7920000	SF	0	0.00%
	Slope Protection	12041	SY	0	0.00%
	Fence	218	Miles	0	0.01%
Traffic Services	Pavement Marker	35324	Each	0	0.00%
	Striping	218	Miles	0	0.00%
	Pavement Symbol	102144	SF	0	0.00%
	Guardrail	218	Miles	13	5.92%
	Attenuator	116	Each	0	0.00%
	Concrete Barrier	218	Miles	0	0.00%
	Signs Less Than 30 SF	1751	Each	0	0.00%
	Signs Greater Than 30 SF	1316	Each	4	0.30%
	Regulatory Sign	4434	Each	149	3.36%
	Sign Light	946	Each	0	0.00%
	Highw ay Light	799	Each	2	0.25%
Drainage	Cross Drain	395	Each	0	0.00%
	Roadside Ditch	218	Miles	0	0.00%
	Median Ditch	193	Miles	0	0.00%
	Outfall Ditch	9141	Feet	0	0.00%
	Curb Inlet	734	Each	0	0.00%
	Riprap	10140	SY	0	0.00%
	Misc. Inlet	47	Each	0	0.00%
	Roadw ay Sw eep	218	Miles	0	0.00%
Vegetation/ Aesthetics	Roadw ay Mow ing	1736	Acres	0	0.00%
	Slope Mow ing	164	Acres	0	0.00%
	Landscape	18	Acres	0	0.00%
	Tree Trim	218	Miles	0	0.00%
	Litter Removal	218	Miles	0	0.00%
	Turf Condition	218	Miles	0	0.00%

Table 10: Condition of Roadway Characteristics − Zone III (Mainline 200-309, Beachline E&W, SR 407, SR 408, SR 417, SR 429)

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or Below
Roadway	Pothole	65	Ramp Miles	0	0.00%
	Joint	943	Each	5	0.53%
	Pavement Void	65	Ramp Miles	0	0.38%
	Edge Ravel	408	Miles	0	0.06%
	Rutting	65	Ramp Miles	0	0.00%
	Cracking	65	Ramp Miles	0	0.00%
	Depression	408	Miles	0	0.00%
	Stripping	65	Ramp Miles	0	0.00%
	Shoving	65	Ramp Miles	0	0.00%
	Paved Shoulder	408	Miles	1	0.15%
Roadside	Soil Shoulder	408	Miles	19	4.59%
	Front Slope	408	Miles	2	0.50%
	Sidew alk	34320000	SF	0	0.00%
	Slope Protection	52243	SY	0	0.00%
	Fence	408	Miles	15	3.71%
Traffic Services	Pavement Marker	84876	Each	0	0.00%
	Striping	408	Miles	0	0.05%
	Pavement Symbol	324376	SF	0	0.00%
	Guardrail	408	Miles	7	1.62%
	Attenuator	187	Each	0	0.00%
	Concrete Barrier	408	Miles	0	0.00%
	Signs Less Than 30 SF	4778	Each	12	0.25%
	Signs Greater Than 30SF	5417	Each	7	0.13%
	Object Marker	3323	Each	721	21.70%
	Sign Light	5677	Each	0	0.00%
	Highw ay Light	5168	Each	7	0.14%
Drainage	Cross Drain	996	Each	9	0.90%
	Roadside Ditch	408	Miles	0	0.04%
	Median Ditch	325	Miles	0	0.00%
	Outfall Ditch	22808	Feet	0	0.00%
	Curb Inlet	2838	Each	1	0.04%
	Riprap	22685	SY	0	0.00%
	Misc. Inlet	228	Each	53	23.25%
	Roadw ay Sw eep	408	Miles	0	0.00%
Vegetation/ Aesthetics	Roadw ay Mow ing	2863	Acres	5	0.17%
	Slope Mow ing	455	Acres	30	6.66%
	Landscape	92	Acres	2	2.11%
	Tree Trim	408	Miles	19	4.55%
	Litter Removal	408	Miles	0	0.05%
	Turf Condition	408	Miles	0	0.00%

Table 11: Condition of Roadway Characteristics − Zone IV (Veterans, Polk & Suncoast)

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or Below
Roadway	Pothole	42	Ramp Miles	0	0.00%
	Joint	642	Each	0	0.00%
	Pavement Void	42	Ramp Miles	0	0.00%
	Edge Ravel	235	Miles	0	0.00%
	Rutting	42	Ramp Miles	0	0.00%
	Cracking	42	Ramp Miles	0	0.00%
	Depression	235	Miles	0	0.00%
	Stripping	42	Ramp Miles	0	0.00%
	Shoving	42	Ramp Miles	0	0.00%
	Paved Shoulder	235	Miles	1	0.41%
Roadside	Soil Shoulder	235	Miles	8	3.58%
	Front Slope	235	Miles	2	0.77%
	Sidew alk	22176000	SF	0	0.00%
	Slope Protection	23590	SY	0	0.00%
	Fence	235	Miles	6	2.52%
Traffic Services	Pavement Marker	57500	Each	0	0.00%
	Striping	235	Miles	0	0.03%
	Pavement Symbol	308853	SF	1471	0.48%
	Guardrail	235	Miles	1	0.26%
	Attenuator	56	Each	0	0.00%
	Concrete Barrier	235	Miles	0	0.00%
	Signs Less Than 30 SF	3267	Each	2	0.06%
	Signs Greater Than 30 SF	4147	Each	0	0.00%
	Object Marker	19357	Each	256	1.32%
	Sign Light	4952	Each	0	0.00%
	Highw ay Light	4045	Each	12	0.30%
Drainage	Cross Drain	755	Each	1	0.13%
	Roadside Ditch	235	Miles	0	0.00%
	Median Ditch	183	Miles	0	0.00%
	Outfall Ditch	10180	Feet	0	0.00%
	Curb Inlet	1371	Each	0	0.00%
	Riprap	4019	SY	0	0.00%
	Misc. Inlet	88	Each	19	21.59%
	Roadw ay Sw eep	235	Miles	0	0.12%
Vegetation/ Aesthetics	Roadw ay Mow ing	1939	Acres	0	0.00%
	Slope Mow ing	340	Acres	7	2.12%
	Landscaping	30	Acres	0	0.00%
	Tree Trim	235	Miles	6	2.37%
	Litter Removal	235	Miles	0	0.00%
	Turf Condition	235	Miles	3	1.10%

Table 12: Condition of Roadway Characteristics − Zone V (First Coast Expressway)

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or Below
Roadway	Pothole	8	Ramp Miles	0	0.00%
	Joint	52	Each	0	0.00%
	Pavement Void	8	Ramp Miles	0	0.00%
	Edge Ravel	37	Miles	0	0.00%
	Rutting	8	Ramp Miles	0	0.00%
	Cracking	8	Ramp Miles	0	0.00%
	Depression	37	Miles	0	0.00%
	Stripping	8	Ramp Miles	0	0.00%
	Shoving	8	Ramp Miles	0	0.00%
	Paved Shoulder	37	Miles	0	0.00%
Roadside	Soil Shoulder	37	Miles	1	2.98%
	Front Slope	37	Miles	0	0.00%
	Sidew alk	4224000	SF	0	0.00%
	Slope Protection	0	SY	0	0.00%
	Fence	37	Miles	0	0.15%
Traffic Services	Pavement Marker	6716	Each	0	0.00%
	Striping	37	Miles	0	0.00%
	Pavement Symbol	30733	SF	0	0.00%
	Guardrail	37	Miles	0	0.00%
	Attenuator	0	Each	0	0.00%
	Concrete Barrier	37	Miles	0	0.00%
	Signs Less Than 30 SF	421	Each	0	0.00%
	Signs Greater Than 30 SF	809	Each	0	0.00%
	Object Marker	319	Each	6	1.88%
	Sign Light	830	Each	0	0.00%
	Highw ay Light	893	Each	0	0.00%
Drainage	Cross Drain	91	Each	0	0.00%
	Roadside Ditch	37	Miles	0	0.00%
	Median Ditch	28	Miles	0	0.65%
	Outfall Ditch	3643	Feet	0	0.00%
	Curb Inlet	87	Each	0	0.00%
	Riprap	0	SY	0	0.00%
	Misc. Inlet	18	Each	0	0.00%
	Roadw ay Sw eep	37	Miles	0	0.00%
Vegetation/ Aesthetics	Roadw ay Mow ing	444	Acres	0	0.00%
	Slope Mow ing	62	Acres	0	0.00%
	Landscaping	0	Acres	0	0.00%
	Tree Trim	37	Miles	0	0.00%
	Litter Removal	37	Miles	0	0.00%
	Turf Condition	37	Miles	0	0.00%

Table 13: Condition of Roadway Characteristics – Summary of All Zones

Element	Characteristic	Quantity Inspected	Units	Quantity Rated Four or Below	Percent Rated Four or below
Roadway	Pothole	211	Ramp Miles	1	0.34%
	Joint	3200	Each	16	0.50%
	Pavement Void	211	Ramp Miles	0	0.12%
	Edge Ravel	1193	Miles	4	0.31%
	Rutting	211	Ramp Miles	0	0.00%
	Cracking	211	Ramp Miles	0	0.08%
	Depression	1193	Miles	0	0.00%
	Stripping	211	Ramp Miles	0	0.00%
	Shoving	211	Ramp Miles	0	0.00%
	Paved Shoulder	1193	Miles	10	0.85%
Roadside	Soil Shoulder	1193	Miles	30	2.48%
	Front Slope	1193	Miles	4	0.32%
	Sidew alk	111408000	SF	0	0.00%
	Slope Protection	212189	SY	0	0.00%
	Fence	1194	Miles	24	2.03%
Traffic Services	Pavement Marker	309417	Each	0	0.00%
	Striping	1193	Miles	2	0.13%
	Pavement Symbol	1140579	SF	1471	0.13%
	Guardrail	1134	Miles	26	2.27%
	Attenuator	553	Each	0	0.00%
	Concrete Barrier	1032	Miles	0	0.00%
	Signs Less Than 30 SF	17580	Each	16	0.09%
	Signs Greater Than 30 SF	18396	Each	11	0.06%
	Object Marker	32473	Each	1338	4.12%
	Sign Light	20454	Each	0	0.00%
	Highw ay Light	18174	Each	32	0.18%
Drainage	Cross Drain	2835	Each	10	0.35%
	Roadside Ditch	1194	Miles	0	0.01%
	Median Ditch	933	Miles	0	0.02%
	Outfall Ditch	60018	Feet	0	0.00%
	Curb Inlet	8291	Each	17	0.21%
	Riprap	89974	SY	0	0.00%
	Misc. Drain	576	Each	74	12.85%
	Roadw ay Sw eep	1193	Miles	2	0.14%
Vegetation/ Aesthetics	Roadw ay Mow ing	9636	Acres	5	0.05%
	Slope Mow ing	1457	Acres	37	2.57%
	Landscape	162	Acres	2	1.20%
	Tree Trim	1193	Miles	24	2.04%
	Litter Removal	1193	Miles	0	0.02%
	Turf Condition	1193	Miles	3	0.22%

2.2. Buildings

2.2.1. Toll Plaza Mainline and Ramp Facilities

Toll plaza administration buildings and canopies are located either as part of a mainline toll plaza or ramp toll plaza facility. The canopies typically extend from the administration buildings outward over the tollbooths or toll collection equipment located between the travel lanes.

Mainline plazas are typically connected to the toll collection booths/equipment by an underground tunnel, which facilitates transport of personnel, toll collection data and supplies. Figure 2 identifies the major elements of a toll plaza.

Figure 2: Major Toll Plaza Elements (Non-AET, Staffed)

Some toll plaza buildings have been replaced with AET plazas, which consist of toll equipment buildings, generators, fuel tanks and overhead gantry structures (accessible and non-accessible). These are mainly on the Turnpike Mainline section. Others can be found on the Sawgrass Expressway, Veterans Expressway, Southern Coin section, some off ramps, "SunPass Only" lanes along the Turnpike Mainline and elsewhere along the system. AET plazas are currently under construction in other areas of the FTE system. Figure 3 provides a sketch of a typical AET plaza.

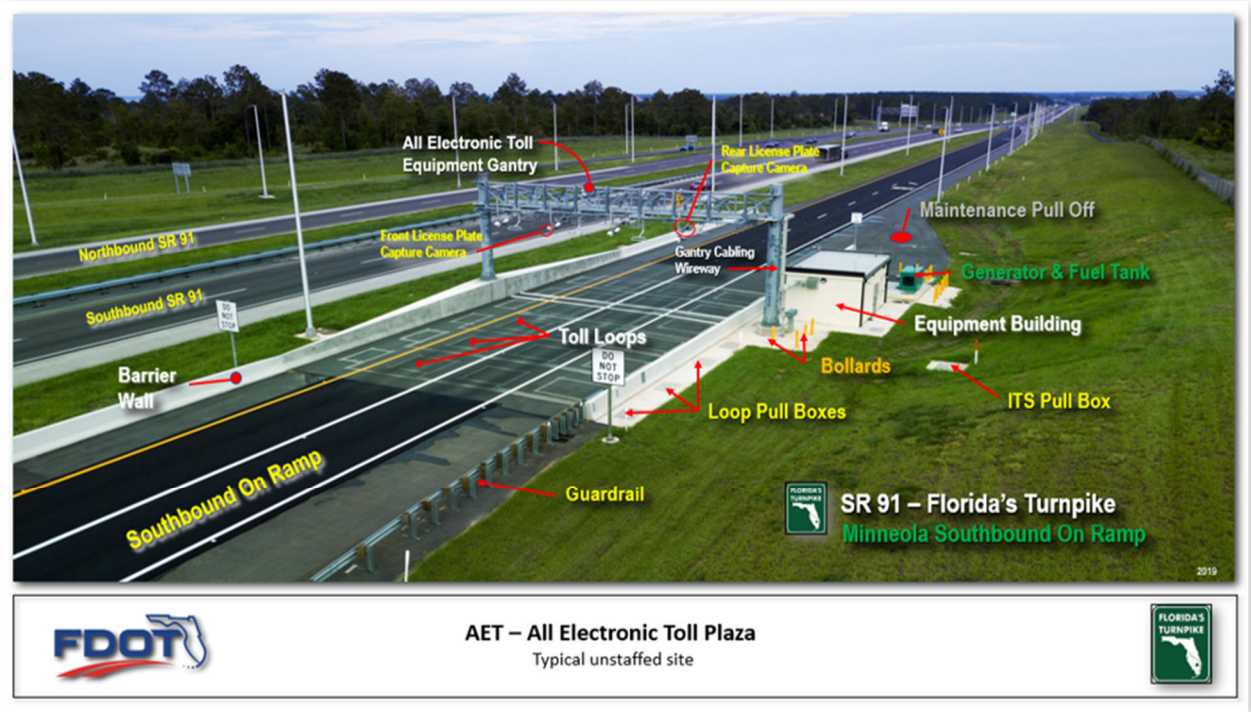


Figure 3: Typical Unstaffed AET

2.2.2. Administration and Miscellaneous Buildings

FTE's administrative buildings are used by a variety of FDOT functional areas and other Florida agencies, including: the Florida Highway Patrol Troops K and L, Motor Carrier Compliance Office, FDOT Districts 4 and 6, FTE's Office of Toll Operations and FTE's Operations and Concession Management and Marketing Offices. See Figure 4 and Figure 5 for examples.

Figure 4: Lake Worth Florida Highway Patrol Dispatch Building – SR 91

Figure 5: Snapper Creek Florida Highway Patrol Troop K Building – SR 821

2.2.3. Communication Tower Buildings

FTE communication tower buildings are typically small structures constructed of concrete and block. These structures house the electronic circuitry and equipment that supports the microwave radio communications system, which is relied upon by the FTE Operations Offices. Figure 6 provides an exterior example; Figure 7 is an interior example.

Figure 6: Communications Building Exterior – Wildwood

Figure 7: Communications Building Interior – Leesburg US-27

2.2.4. Water/Wastewater Treatment Plants

The water/wastewater treatment plant provides water to and receives wastewater from the service plaza restaurant, common areas and service station. The only water/wastewater plant on the FTE is at the Fort Drum Service Plaza. In 2010, it was replaced with a new treatment plant and effluent pond under the Areas USA, Inc. contract and is operational.

2.2.5. Service Plaza Restaurants and Service Stations

There are 8 service plazas located throughout the Turnpike system. Each plaza location is accompanied by a service station (Convenience (C)-Store). The plazas are operated and maintained by Areas USA through a concessions contract with FTE. Figure 8 shows a typical service plaza restaurant building.

Figure 8: Port St. Lucie/Fort Pierce Service Plaza

The Snapper Creek Service Plaza has two separate facilities that are maintained by the FTE and are currently being used for FDOT/FTE administrative construction / maintenance office spaces, FHP Troop K offices / operations, and for the SunPass Customer Service Center.

The facilities also include eight service stations that are leased to Areas USA, Inc., and operated by FTS. Renovation of all eight Convenience (C)-Stores was completed in 2018. The service plazas are scheduled for biennial inspections with the initial inspection beginning in late 2021. The results of that inspection will be forthcoming in early 2022 with a separate inspection report.

Table 14 summarizes findings of the FTE on-system inspections performed at all 10 facility zones combined for the 14 facility elements, broken down by their respective characteristics.

Table 14: Condition of Buildings – All Zones

Element	Characteristics	Number Inspected	Number Rated Four or Below	Percent Rated Four or Below
Architecture	Caulking	53	0	0.00%
	Ceiling	544	1	0.18%
	Ceilings and Ceiling Grids	616	1	0.16%
	Counters/Cabinets and Drawers	278	0	0.00%
	Doors / Frames (Interior and Exterior)	1700	4	0.24%
	Elevator	25	0	0.00%
	Elevator Certification	25	0	0.00%
	Flooring (Interior and Accessories)	1063	1	0.09%
	Handrail	89	3	3.37%
	Joint Sealants	561	0	0.00%
	Lockers	57	0	0.00%
	Paint - Interior and Exterior	1394	0	0.00%
	Restroom Appurtenances	161	0	0.00%
	Roof Drain	66	0	0.00%
	Shelves	117	2	1.71%
	Site Signs	261	0	0.00%
	Walls (Concrete Block, Brick, Stucco or EIFS)	540	0	0.00%
	Walls (Exterior)	348	7	2.01%
	Walls (Interior)	1162	0	0.00%
	Windows and Storefronts	425	3	0.71%
Domestic Plumbing Fixtures	Faucets / Sinks	319	0	0.00%
	Piping / Valves	272	0	0.00%
	Toilets / Urinals	169	0	0.00%
	Water Heater	82	0	0.00%

Element	Characteristics	Number Inspected	Number Rated Four or Below	Percent Rated Four or Below
Building Electrical	Canopy lighting	81	0	0.00%
	Conduits / Junction Box	338	2	0.59%
	Grounding	273	3	1.10%
	Light Switches	1429	0	0.00%
	Lighting (Exterior)	324	0	0.00%
	Lighting (Interior)	1409	1	0.07%
	Lightning Protection	164	0	0.00%
	Motor Control Center	12	0	0.00%
	Nose Flasher	154	0	0.00%
	Panelboards	478	2	0.42%
	Receptacle	1677	57	3.40%
	Sign Lighting	88	0	0.00%
	Site Lighting	45	1	2.22%
	Switchboards and Breakers	443	14	3.16%
	Toll Indicator	245	0	0.00%
	Traffic Red / Green Lighting	94	0	0.00%
	Transformers	43	0	0.00%
	TVSS (Transient Voltage Surge Suppressor)	378	0	0.00%
	Wiring	1443	4	0.28%
Building HVAC	Air Cooled Chiller and Piping	13	0	0.00%
	Air Handlers	682	1	0.15%
	Condensing Units	447	3	0.67%
	Ductwork and Insulation	530	0	0.00%
	Exhaust Fans	319	4	1.25%
	HVAC Control Systems	438	0	0.00%
	Package Unit	409	0	0.00%
	Supply and Outside Air FANS	52	0	0.00%
	Ventilation Outlets	1083	1	0.09%
Structural	Concrete (Precast/Cast-in Place)	39	0	0.00%
	Masonry	78	0	0.00%
	Steel Framing	65	0	0.00%
Sewer/Septic Tanks, Lift stations & Wells	Lift stations and Wells	40	1	2.50%
	Sewer/Septic Tanks	17	0	0.00%
Site Grounds	Landscape	28	0	0.00%
	Parking Area	263	0	0.00%
	Site Grounds	264	0	0.00%
	Turf Condition	130	0	0.00%

Element	Characteristics	Number Inspected	Number Rated Four or Below	Percent Rated Four or Below
Canopy	Canopy Columns	149	0	0.00%
	Canopy Fascia	81	0	0.00%
	Canopy Signs	320	0	0.00%
	Canopy Underside	83	0	0.00%
	Sign Structure	164	0	0.00%
	Variable Message Signs	17	0	0.00%
Communications, Fire Alarm and Monitoring Devices	CCTV (Close Circuit TV)	158	0	0.00%
	Fire Alarm	10	0	0.00%
	Fire Extinguisher	929	4	0.43%
	Fire Pump System	3	0	0.00%
	Intercom System	6	0	0.00%
	Security	311	0	0.00%
	Telephone System	498	2	0.40%
Concrete Pavement & Sidewalks	Concrete Pavement	328	1	0.30%
	Sidewalk and Curb	79	0	0.00%
Booth	Booth Ceiling	185	0	0.00%
	Counters/Cabinets and Drawers (Booth)	185	0	0.00%
	Doors / Splash Door (Booth)	185	0	0.00%
	Flooring (Booth)	185	0	0.00%
	Toll Booth Windows/Glazing	185	0	0.00%
Island	ACM	81	0	0.00%
	Attenuator	239	0	0.00%
	Bollards	368	0	0.00%
	Island Concrete	256	0	0.00%
	Island Signs	242	2	0.83%
Plaza Concrete Apron	Apron Sweep	150	0	0.00%
	Cracking	150	0	0.00%
	Joints	197	1	0.51%
	Pavement Voids	174	0	0.00%
	Striping	261	1	0.38%
Stand-By Power	Fuel Line	207	1	0.48%
	Fuel Tank	207	28	13.53%
	Gauges	116	0	0.00%
	LP Tank	30	0	0.00%
	Stand-By Generator	234	5	2.14%
	UPS (Uninterrupted Power Supply)	439	0	0.00%

2.3. Structures

2.3.1. Bridges

The Federal National Bridge Inspection (NBI) is performed in accordance with the National Bridge Inspection guidelines. Safety concerns prohibit publishing details related to the bridge inspection. Bondholders may contact individual FDOT Maintenance Districts to request the latest reports detailing any concerns. It should be noted that the 2021 Comprehensive Annual Financial Report shows a total of 716 bridges, which is the total number of bridges owned but not necessarily inspected by FTE. FTE structures maintenance data query from July 1, 2021, indicates a total of 716 bridges maintained and inspected by FTE and noted that seven are rated as five or in "Fair Condition".

2.3.2. Large Non-Qualifying Culverts (LNQC)

An independent structures consultant inspects all LNQCs once every six years (1/3 of the total per cycle) throughout the FTE system and noted that of 242 existing culvert structures, 10 are rated as five or in "Fair Condition". The majority of LNCQs (172) are in Zones II and III of the five roadway and structure inspection zones.

2.3.3. High Mast Light Towers (HMLT)

The Federal NBI guidelines do not address HMLTs; however, at the direction of FDOT, an independent structures consultant uses the same ten-point scale of the NBI to rate the condition of HMLTs in the biennial inspection report.

The most current report indicates that of the 373 HMLTs currently in operation within the FTE system, 53 are rated as five, or in "Fair Condition". The HMLT rating and corresponding rating scale are summarized in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures.

2.3.4. Overhead Sign Structures

The independent structures consultant noted that of 1,082 existing overhead sign structures, 54 are rated as five or in "Fair Condition". Table 15 summarizes the overhead sign structures inspected and those rated in fair condition by inspection zone for this reporting period.

Table 15: Condition of Overhead Sign Structures

Zone	Number Inspected	Number Rated Five or Below	Percent Rated Five or Below
I	517	16	3.09%
II	56	3	5.36%
III	257	26	10.12%
IV	216	8	3.70%
V	36	1	2.78%
TOTALS	**1082**	**54**	**4.99%**

The biennial inspection of the FTE's overhead sign structures is based on a visual inspection of three individual sign characteristics, horizontal and vertical members, and structure foundations. These characteristics, along with the sign rating scale, are listed in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures.

3. Inspection Results

Element characteristics rated four or below (equal to or greater than 20 percent) in each of the three categories are identified in this report. As mentioned previously in this report, it is possible that repairs/improvements have addressed some of the items identified as below standard in this report due to the lag-time between inspections and issuance of the report. The numbers of construction and maintenance contracts for each category that were either in effect or advertised during the fiscal year are summarized in Tables 16 – 18 to give some indication of the work effort already in-place. Many of the contracts listed on tables 16 – 18 will likely extend over several fiscal years.

NONE OF THE DEFICIENCIES OBSERVED BY THE INSPECTION TEAMS, POSE A SAFETY CONCERN TO FTE CUSTOMERS.

The determinations provided in this report do not consider the criticality of characteristics in relationship to each other. When reviewing below standard characteristics, several considerations influence the desired level of service. These include safety, protection of private and public investment, comfort, economics, environmental impact, aesthetics, and funding constraints. A pavement void, for example, would receive priority over litter removal because it may have an immediate impact on the driving experience of the customer. Standard procedures for rating system facilities are explained in Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures.

3.1. Roadways

No major roadway characteristics were identified by FTE's annual inspection team as being unsatisfactory. However, according to the 2021 PCS Pavement Cracking rating, there are currently 105.55 lane miles reported deficient, of which 48.62 lane miles, or 46.06 percent, are located on SR 91 in Lake County.

Roadway improvement projects are scheduled for Lake County in FY 2021 and 2022 to address the Lake County section. The first 17.67 miles are scheduled for FY 2021 with the remaining 30.95 miles of improvement scheduled for FY 2022.

The overall RRP rating was 93.77 for all elements combined across the system. The RRP results indicate that FTE's aggressive and comprehensive Maintenance and Renewal and Replacement programs continue to be effective.

THE RESULTS OF THIS YEAR'S ANNUAL INSPECTION INDICATE THAT FTE'S ROADWAY FACILITIES ARE MAINTAINED IN AN OVERALL GOOD CONDITION.

3.1.1. Roadway

The roadway element, which is comprised of all characteristics of the pavement, has achieved an RRP overall rating of 92.63 on all ramp sections. no major below standard characteristics were identified in any of the maintenance zones reported by the annual inspection. These positive ratings are indicative of FTE's ongoing pavement resurfacing efforts along several portions of the system and an active preventive maintenance program. Table 16 represents construction and maintenance contracts in effect or let during FY 2020.

Table 16: Roadway Contracts in Effect or Advertised During FY 2021

Type	Zone	Construction		Maintenance		Total Roadway & Maintenance Dollars
		Total per Zone	No. of Contracts	Total per Zone	No. of Contracts	
Contracts in Effect or Advertised in Single Zones	Zone I	$1,246,911,836	19	$22,822,359	49	$1,269,734,195
	Zone II	$119,722,492	6	$25,181,834	7	$144,904,326
	Zone III	$555,239,610	14	$60,911,613	12	$616,151,223
	Zone IV	$413,396,794	7	$26,355,814	8	$439,752,608
	Zone V	$0	0	$21,081,285	6	$21,081,285
Contracts in Effect or Advertised Across Multiple Zones	Zones I & II	$7,377,355	2	$1,365,151	7	$8,742,506
	Zones II & III	$7,559,000	1	$0	0	$7,559,000
	Zones I, II & III	$106,952,365	1	$0	0	$106,952,365
	Zones I, II & IV	$0	0	$2,589,651	3	$2,589,651
	Zones III & IV	$0	0	$4,183,066	2	$4,183,066
	Zones III, IV & V	$0	0	$41,956	1	$41,956
	Zones I to V	$1,875,029	1	$0	0	$1,875,029
Totals	**All Zones**	**$2,459,034,481**	**51**	**$164,532,729**	**95**	$2,623,567,210

3.1.2. Roadside

The determination of an RRP rating for roadside characteristics is generally based upon the consideration of all fencing, shoulder, slopes, and other characteristics located outside of the paved travel way (Figure 1). The overall RRP rating for Roadside for this FY is 90.23 no major below standard characteristics of more than 2.48 percent were noted for the five characteristics of this element on FY 2021. Figure 9 shows a typical paved and soil shoulder section on FTE's system.

Figure 9: Typical Paved and Soil Shoulder Section

3.1.3. Traffic Services

The Traffic Services element rating is based on the condition of all characteristics that guide, protect, and assist the customer while traveling FTE's roadways, interchanges, and service areas. The overall RRP rating for Traffic Services is 94.42 for FY 2021. Zone three is the only zone with the characteristic of Object Marker with a below standard rating of 21.70 percent. Typical object marker example on the FTE system is shown in Figure 10.

Figure 10: Typical Object Marker

3.1.4. Drainage

The rating for this element is based on the overall condition of all structures that collect, treat and convey stormwater run-off. The overall RRP rating for drainage is 97.09 for FY 2021. Zones three and four are the only zones with the characteristic of Object Marker with a below standard rating of 23.23 and 21.59 percent, respectively. Figure 11 shows a typical paved shoulder and shoulder gutter on the FTE system.

Figure 11: Typical Paved Shoulder / Shoulder Gutter

3.1.5. Vegetation – Aesthetics

According to its comprehensive Turf Management Plan, FTE continually monitors the condition of vegetation and the need for mowing, trimming, re-landscaping, and litter removal. The overall RRP rating for Vegetation and Aesthetics is 93.94 for FY 2021. Overall, no below standard ratings of more than 2.04 percent were noted for the six characteristics of this element in FY 2021. Figure 12 shows an example of landscape in FTE's system.

Figure 12: Typical Landscaping

3.2. Buildings

Overall, 31,754 comments were made of building elements inspected, of which, 161 were rated as being in condition four or below, for a below standard characteristic rating of 3.40 percent. The majority of reported four or below ratings were not structural or safety related concerns.

FTE toll plaza administration buildings, canopies, and adjacent areas, which include parking and drainage areas, are generally in good condition. The following bullet points lists several building characteristics reported with ratings at the high end of the scale and a brief description about the rating (See Table 14: Condition of Buildings – All Zones).

- **Fuel Tank** (13.53 percent) – This characteristic refers to tanks supplying fuel to the stand-by generators. Most of the unsatisfactory ratings reported for this characteristic are missing tie-down straps and ID tags; more focus is needed on completion of the program to assure all tanks are tied down.
- **Receptacle** (3.40 percent) – The majority of unsatisfactory ratings reported for this characteristic were ground fault interrupt (GFI) receptacles that were not functioning as intended; more focus is needed on maintenance of this characteristic.

- **Handrail** (3.37 percent) – The unsatisfactory ratings reported for this characteristic were missing on slope transition, gate latch not operating correctly, and broken hinges.
- **Switchboards and Breakers** (3.16 percent) - The majority of unsatisfactory ratings reported for this characteristic are labeling / incorrect directory, incomplete or missing in panels, and the clip-forced switches.
- **Lift Stations and Wells** (2.50 percent) – Unsatisfactory ratings for this characteristic included vent piping damaged or out of position.

During FY 2021, 28 facility construction projects included the continued implementation of open road tolling, gantries and AET buildings. In addition, 34 facility routine maintenance contracts are in effect or advertised as indicated in **Error! Reference source not found.**.

Table 17: Facilities & Communication Contracts in Effect or Advertised During FY 2021

Category	No of Contracts	Activity	Cost
Maintenance			
Electrical	2	Maintenance, Repair, Testing and Verification of Electrical Services	$658,158
Elevator	1	Elevator, Maintenance, Adjustment, Repair, and Replacement Services	$51,620
General	10	Routine Facilities Maintenance, Emer. Repair, Janitorial, Mowing & Security Services	$6,406,442
HVAC	4	Heating, Ventilation and Air-conditioning Equipment Maintenance, Repair	$356,201
Painting	1	Concrete, Waterproofing, Sealing, Paint & General Facilities Svc	$345,100
PCARD Services	5	PCARD Services	$315,000
Plumbing	1	Plumbing and Lift Stations	$180,340
Roofing	1	Roof Replacement, Building Management System & Equipment Controllers	$218,850
Standby Power	3	Generator, UPS & ATS Maintenance Services - North Region (YEAR 4)	$307,273
Telecommunication	1	Maintenance of Statewide Telecommunications Network (YEAR 1)	$2,176,464
Tollbooth	1	Tollbooth Repair Services - North Region	$87,750
Water Treatment	1	Maintenance of Water Treatment Systems	$21,885
Electrical	2	Maintenance, Repair, Testing and Verification of Electrical Services	$658,158
34 Maintenance Contracts - Totals			**$ 11,125,083.00**

Category	No of Contracts	Activity	Cost
Construction			
Add Lanes and Reconstruction	1	Widen HEFT North of Bird Rd. to North of SR 836 (D/B)	$111,500,000
New Road Construction	1	Suncoast Parkway 2	$134,599,795
Interchange Improvement	1	Turnpike Mainline at I-4: MP 259 to Direct Connect Ramps (D/B)	$84,939,000
Add Lanes and Reconstruction	1	Widen HEFT I-75 to NW 57th Ave: MP 38 to MP 43	$143,269,821
Add Lanes and Reconstruction	1	Widen TPK (SR91) Boynton Beach Blvd. - Lake Worth	$167,808,460
Resurfacing	1	Resurface Polk Parkway, MP 0 to MP 8	$13,519,194
Resurfacing	1	Resurface TPK Mainline in Martin Cnty, MP 117 - 138	$33,928,239
Toll Plaza	1	AET Northern Coin Conversion MP 236 - 309	$17,604,432
Toll Plaza	1	All Electronic Tolling (AET) Phase 8 Ticket Sys. MP 88-236	$106,952,365
Add Lanes and Reconstruction	1	Widen Turnpike (SR 821) NW 106 St to I-75 (MP 34 - 39)	$368,767,091
Toll Plaza	1	AET 5C, N. of Sawgrass Xway to S. of Lantana Toll Plaza	$19,557,418
Flexible Pavement Reconstruction	1	Reconstruct Mainline MP 138.13 to MP 153.23	$31,832,323
Add Lanes and Reconstruction	1	Widen HEFT from SR 836 to NW 106th St. (MP 26-34)	$244,979,349
Add Lanes and Reconstruction	1	Widen Polk Parkway from MP 18 to MP 22 (D/B)	$61,180,000
Miscellaneous Construction	1	Suntrax Connected/Auto Vehicle Testing Facility	$139,979,406
Drainage Improvements	1	Veterans Expressway Drainage Facility Improvements	$2,536,426
Resurfacing	1	Resurface Seminole Expressway (MP 38 - MP 44.5)	$12,956,998
Resurfacing	1	Resurface HEFT MP 0 - MP 5.1 & Ramps MP 5.1 - MP 9.2	$9,095,686
ITS Surveillance System	1	DMS Signs at Service Plazas (MP 18 - MP 185.5)	$3,263,898
Resurfacing	1	Resurface Turnpike Mainline MP 260.2 to MP 265.3	$18,857,000
Dynamic Message Sign	1	DMS Signs at Service Plazas (MP 185.5 - MP 301)	$7,559,000
Toll Plaza	1	All Electronic Tolling (AET) - Polk Pkwy (MP 0 - MP 18)	$31,637,485
Resurfacing	1	Resurface Turnpike Mainline (MP 190.5 - MP 198.5)	$16,707,654
Interchange Improvement	1	Lyons Rd Interchange Improvements	$281,612
Rest Area	1	Lighting Renovations to FHP Parking Lot at Snapper Creek	$650,221
Flexible Pavement Reconstruction	1	Reconstruct TPK Mainline Sumter Cnty (MP 297.9 - 308.9)	$11,716,022
Bridge – Painting	1	HEFT (SR 821) Bridge Painting - NB Over SR 874	$842,202
28 Construction Contracts - Totals			**$ 1,800,634,555**
62 Construction & Maintenance Contracts – Facilities & Communications – Total			**$1,811,759,638**

3.3. Structures

3.3.1. Bridges

During FY 2021, several bridge construction contracts were in effect or advertised. Bridge improvement contracts are included within the total cost of several roadway construction projects either in effect, advertised or completed during the fiscal year. A summary of bridge construction costs was provided by the FTE Estimates Manager and is shown in Table 18.

Table 18: Bridge Contracts in Effect or Advertised During FY 2021

Location	Construction Cost
Zone I	$145,959,199.00
Zone II	$2,747,683.00
Zone III	$100,931,222.00
Zone IV	$24,671,603.00
Zone V	$0.00
Zone I & II	$3,574,190.00
Totals	$277,883,897.00

The State Maintenance Office Bridge Inventory 2021 – Annual Report, which uses the NBI guidelines, reported seven bridges in fair condition. FTE Maintenance directed a portion of its Periodic and Routine Maintenance funding in FY 2021 to rehabilitation and repair projects. Figure 13 shows an example of a bridge on the FTE system.

Figure 13: Bridge 750622 – SR 429 NB at MP 10.9

3.3.2. Overhead Sign Structures

Overhead sign structures are inspected separately from those signs in the traffic services element due to being suspended above the travel way by large support structures, but the sign panel condition (retro-reflectivity, peeling, etc.) is documented in the RRP inspection. These signs provide critical directional information, guiding the customer throughout the FTE system. The overhead sign structures inspection reported no structures in poor condition. Figure 14 shows an example of a span sign in the FTE system.

Figure 14: Typical Overhead Sign Structure

3.3.3. High Mast Light Towers

Similar to overhead sign structures, HMLTs are included in the structure's inspection. These structures provide illumination for improved nighttime visibility at various locations along the turnpike systems, such as interchanges, service plazas and toll facilities. The HMLTs inspection noted no structures in poor condition for the 2021 inspection period.

3.3.4. Large Non-Qualifying Culverts

An LNQC is a structure that does not meet the statutory definition of a bridge. LNQCs are defined as a circular, elliptical arch or box type of culvert with a height greater than four feet, or clear span of ten feet or greater, but less than 20 feet.

Figure 15: Typical Culvert

LNQCs are inspected once every six years. Each cycle is a two-year period with 1/3 of the total LNQCs inspected during the cycle. It takes three cycles for the entire LNQC inventory to be inspected. The LNQCs are in good condition with minor repairs ongoing as part of the routine maintenance contracts. The LNQCs inspection noted no structures in poor condition for the 2021 inspection period. Figure 15 shows an example of a culvert in the FTE system.

4. Commitments and Recommendations

4.1. Commitments

Analysis of data collected during the 2021 asset evaluation cycle indicates that FTE's Renewal and Replacement, Periodic, and Routine Maintenance programs are effective at maintaining the system at an optimal level. Programmed funding for physical improvements committed to these programs are indicated in Table 19.

Table 19: FY 2021 through 2025 Program Commitments ($M)

Fiscal Year	Renewal & Replacement Contracts [1]	Periodic Maintenance [2]	Routine Maintenance [3]	Total	Gross Revenue [4]	Percentage of Gross Revenue
2021	$79.25	$6.66	$75.72	$161.63	$991.63	16.30%
2022	$113.66	$9.64	$74.62	$197.92	$1,032.83	19.16%
2023	$127.34	$15.64	$71.22	$214.20	$1,090.42	19.64%
2024	$122.68	$19.20	$81.18	$223.06	$1,135.40	19.65%
2025	$82.62	$7.23	$71.78	$161.63	$1,174.70	13.76%

The 17.70% 5-year average of gross revenue allocated to maintaining the system is evidence of FTE's commitment to protect the system's assets and bondholder's investments. Programmed commitments between FY 2021 and FY 2025 range from 13.76 to 19.65 percent of gross revenue with the upper limit of this range occurring in FY 2024.

New construction and improvement projects are valued at $79.25 million for renewal and replacement work (PKYR) in FY 2021, and include roadway resurfacing; bridge, roadway, and facility construction; toll equipment enhancement; and bridge repair.

The amount of $82.38 million programmed for periodic (PEMT) and routine maintenance (Phase 72) work in FY 2021 includes maintenance of all highway assets, building maintenance, building. renovation, building demolition, roof replacement, toll plaza tunnel sealing, drainage improvements and safety upgrades.

[1] Renewal and Replacement data captures all projects/phases using PKYR funding, excluding those PKYR projects that are in the Periodic Maintenance category.

[2] Periodic Maintenance data captures all projects/phases using Item Group PEMT.

[3] Routine Maintenance data captures all phase 72 projects.

[4] Gross Revenue data was taken from the Traffic Engineer's Annual Report, Traffic Engineer's Annual Letter Report, Table 6 (Summary of Florida's Turnpike Enterprise System Toll and Concession Revenue Forecast ($000) FY 2022 through FY 2032).

4.2. Recommendations

The 2021 annual inspection and asset analysis clearly indicates that the system is in an overall - GOOD condition. To maintain the excellent level of service provided to the system's customers well into the future, the Atkins – HNTB team recommends:

- Unsatisfactory ratings noted in the FY 2021 report should be addressed as resources allow.
- Critical or emergency items identified during all annual inspections should continue to be addressed at the time they are discovered.
- Future annual inspection characteristics reported below standard should be reviewed by the appropriate FTE personnel on a 30-business day schedule to determine priority levels for possible inclusion into existing maintenance or future construction projects.
- Continued review of consultant-recommended below-standard characteristics correction options and coordination of funding-related issues with FTE's Maintenance, Finance and Production Offices.
- Characteristics that continue to be reported with higher-than-average unsatisfactory ratings should be evaluated to determine if creation of a new projects may resolve the issues. Being proactive will ensure that unsatisfactory characteristics are addressed promptly and that items that are approaching this condition are resolved before they become unsatisfactory.
- **Error! Reference source not found.** provides a description of current projects with funding source, priority, and current funding status.

Table 20: Improvements, Current Funding Status, and Recommendations – Highway Operations

Priority Level	Description	Funding Source	OPS ID #	Current Funding Status and Recommendations
1	Bridge 890083 Deck Reconstruction	PKYR	OPS2020-2	FPID 448524-1 (Construction funding in FY 2025)
2	Traffic Signal Replacement	PKYR	OPS2021-1	FPID 449334-1 (Construction funding in FY 2023)
3	First Coast Expressway Safety Enhancements	PKYI	OPS2019-2	FPID 449711-1 (Construction not yet funded)
4	Improve Bridge Approaches 930215	TBD	OPS2021-9	TBD
5	CCTV Gap Project	TBD	OPS2021-6	TBD
6	Traffic Signal Infrastructure Installation	PKYR/PKYI	OPS2021-2	FPID 435786-2 & 449334-2

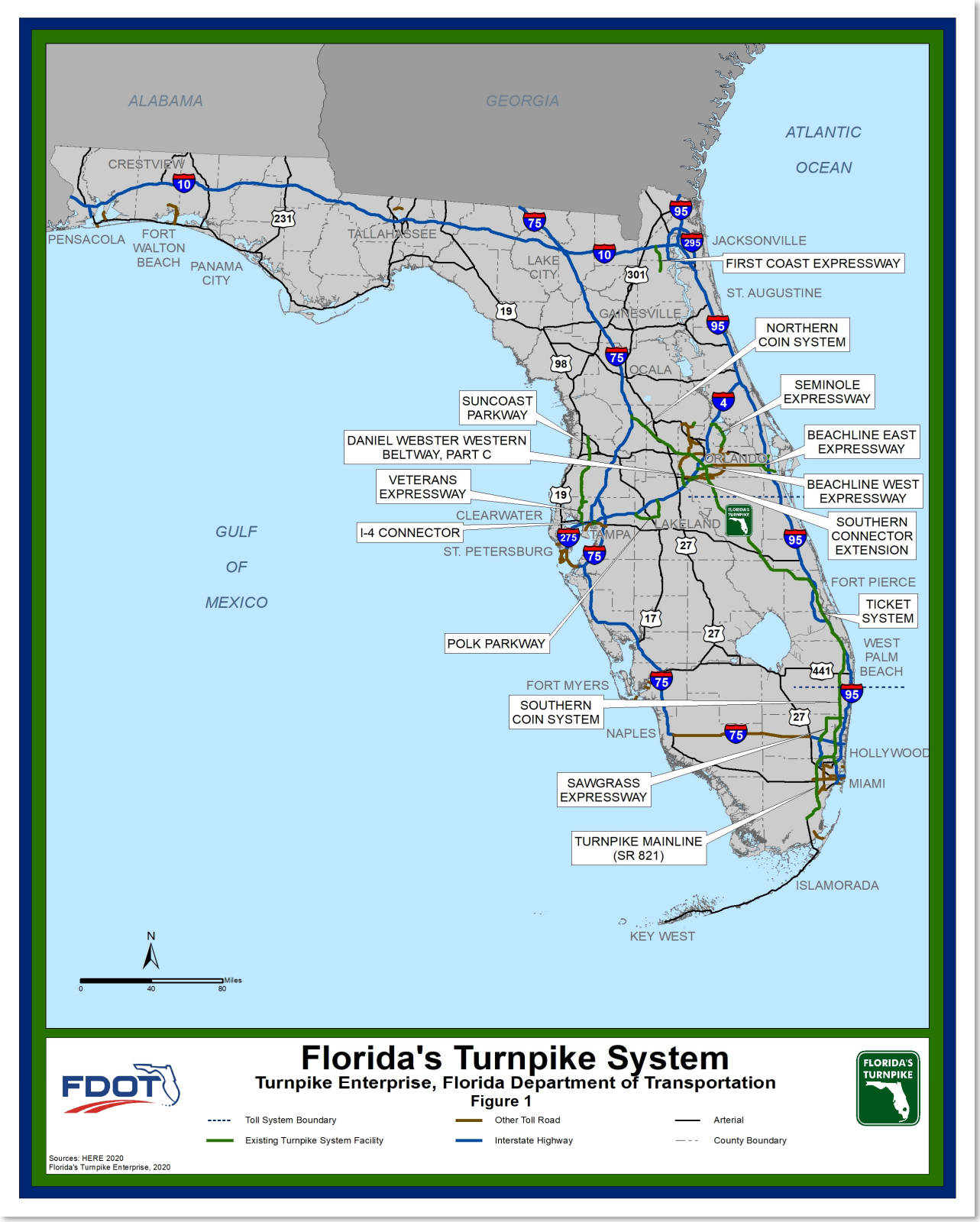
Priority Level	Description	Funding Source	OPS ID #	Current Funding Status and Recommendations
7	Paved Shoulder Cracks at Barrier and MSE Walls	TBD	OPS2021-4	TBD
8	Bridge Approach Slab Rideability	PKYR	OPS2020-4	FPID 449340-1 (Construction funding in FY 2023)
9	Signing and Pavement Marking Review	TBD	OPS2021-10	FPID 449391-1 (Construction not yet funded)
10	Improve Access to Bridge 870930	TBD	OPS2021-3	TBD
11	DMS Color Upgrades & Retrofits	PKYR	OPS2021-8	FPID 449423-1 & 449423-2 (Construction funding in FY 2023)
12	Palm Beach and Boynton Canal Embankment Stabilization	TBD	NF-1	TBD
13	Median Shoulder Improvements	TBD	OPS2019-7	FPID 449466-1
14	Connected Vehicle (Long-Term Evolution) at SunTrax	TBD	OPS2021-5	FPID 449420-1
15	Emergency Back-up Generators	TBD	OPS2020-8	FPID 449420-1
16	Arterial DMS Installations	TBD	OPS2021-7	TBD
17	Pompano Beach TMC & Annex Renovations	TBD	NF-2	TBD
18	Sawgrass Expressway Directional Signage			
19	Buried Foundation for Ancillary Structures - Sawgrass	TBD	NF-7	
20	Access Gates on Noise Walls	TBD	OPS2020-9	

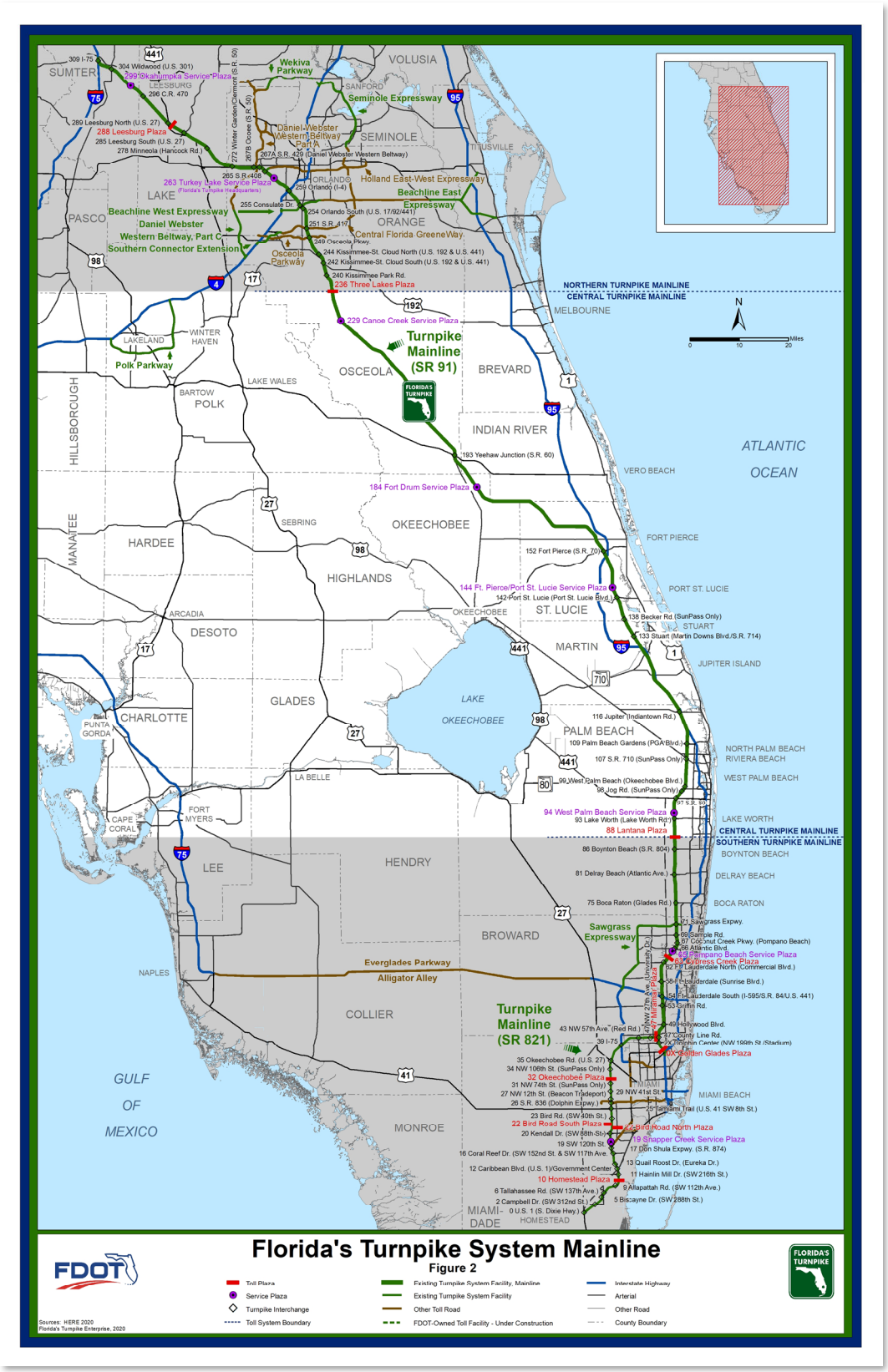
THE RESULTS OF THE 2021 ANNUAL INSPECTION CONFIRM FTE'S COMMITMENT TO MAINTAIN THE QUALITY AND SAFETY OF THE SYSTEM AND PROVIDE VALUE TO THE BONDHOLDERS' INVESTMENT.

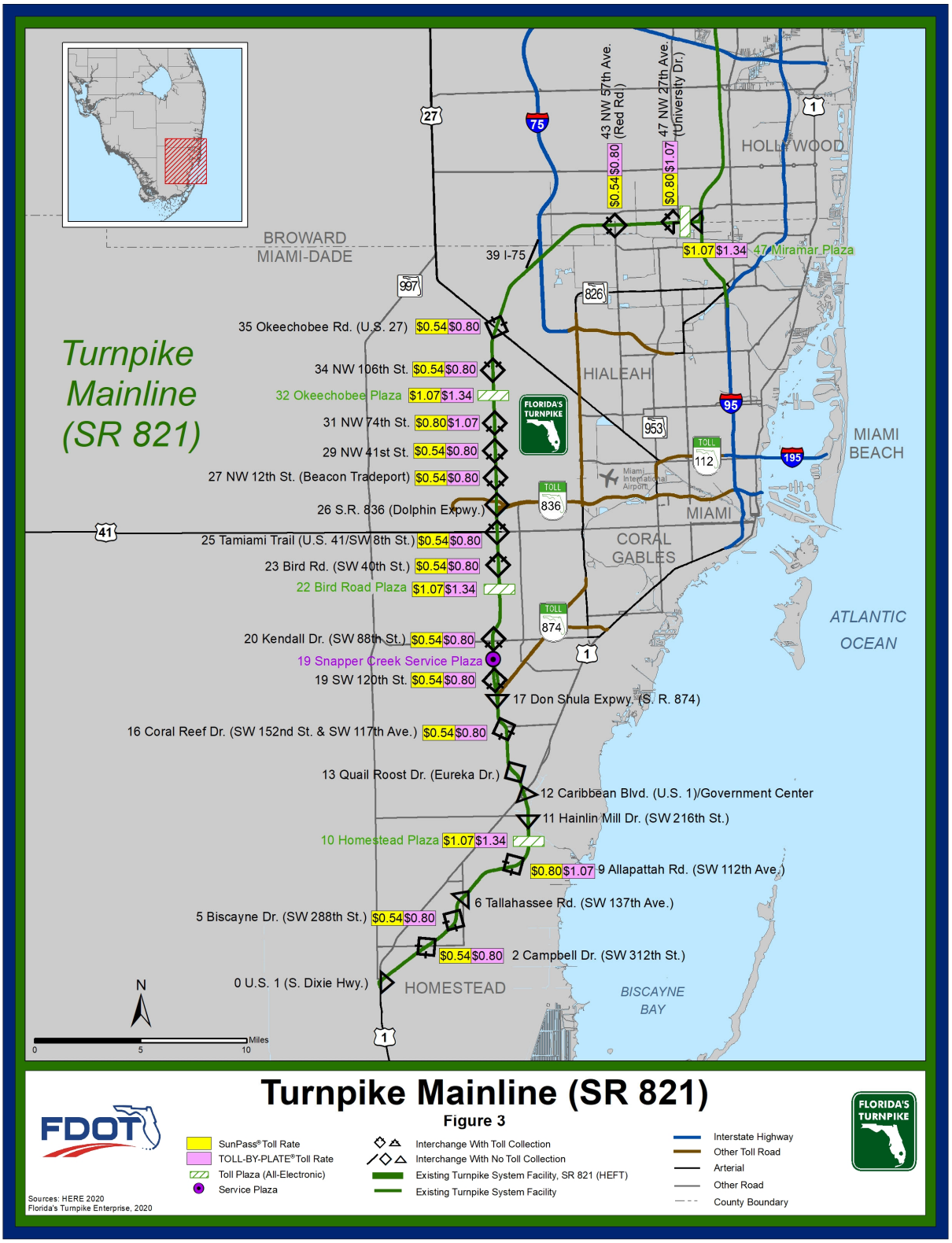
While it is recommended that funds are appropriated for improvements identified in the annual inspection, the requirements for other projects funded through the Renewal and Replacement Program should be evaluated with particular emphasis on the need to resurface the system mainline and ramp facilities. In addition to pavement resurfacing, the Renewal and Replacement Program includes other FTE system assets such as bridges, buildings, and communications facilities; toll equipment; and utilities. Given the magnitude to which these assets affect overall FTE system operations, a significant level of emphasis should continue to be placed on FTE's Renewal and Replacement Program and related funding levels.

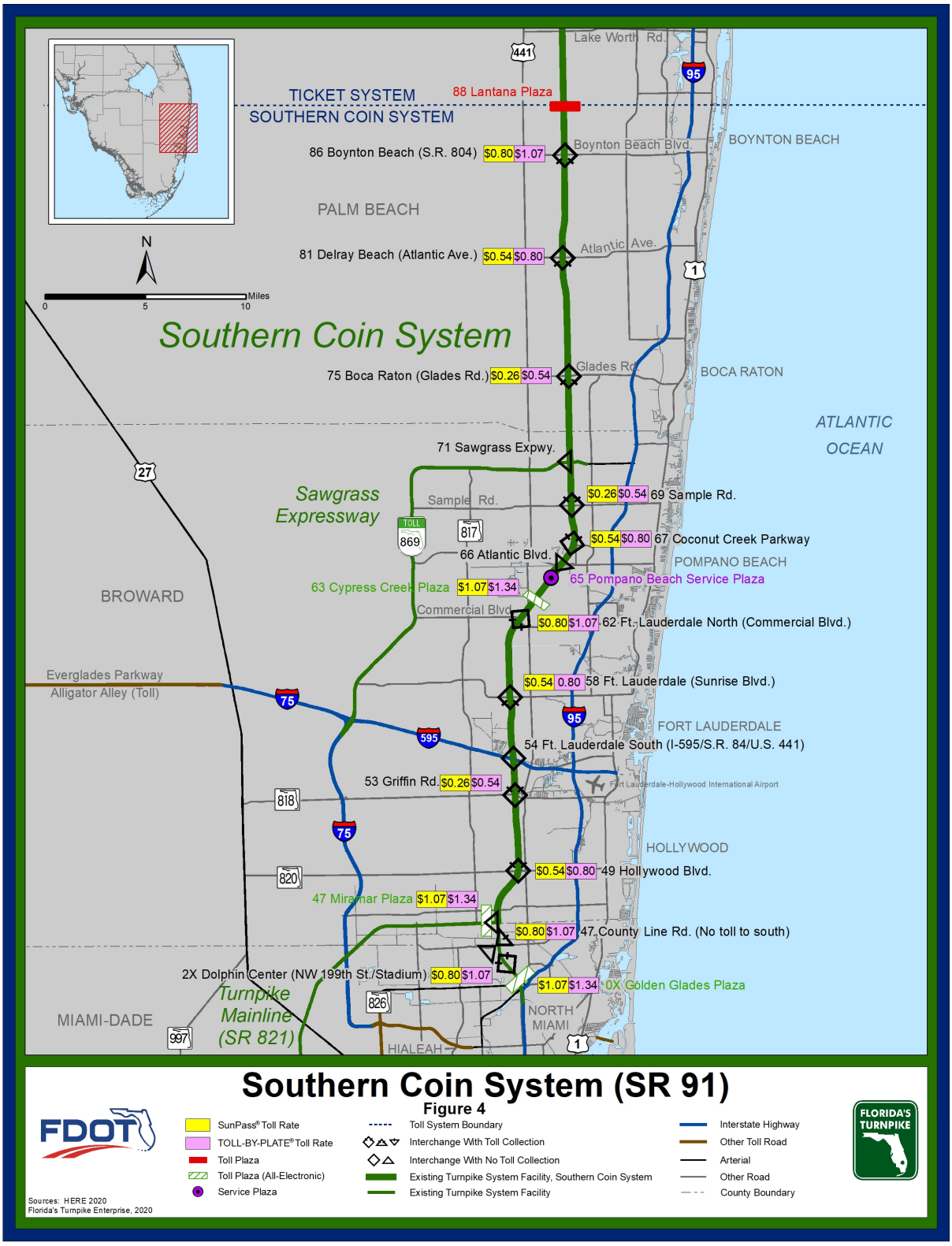
Appendices

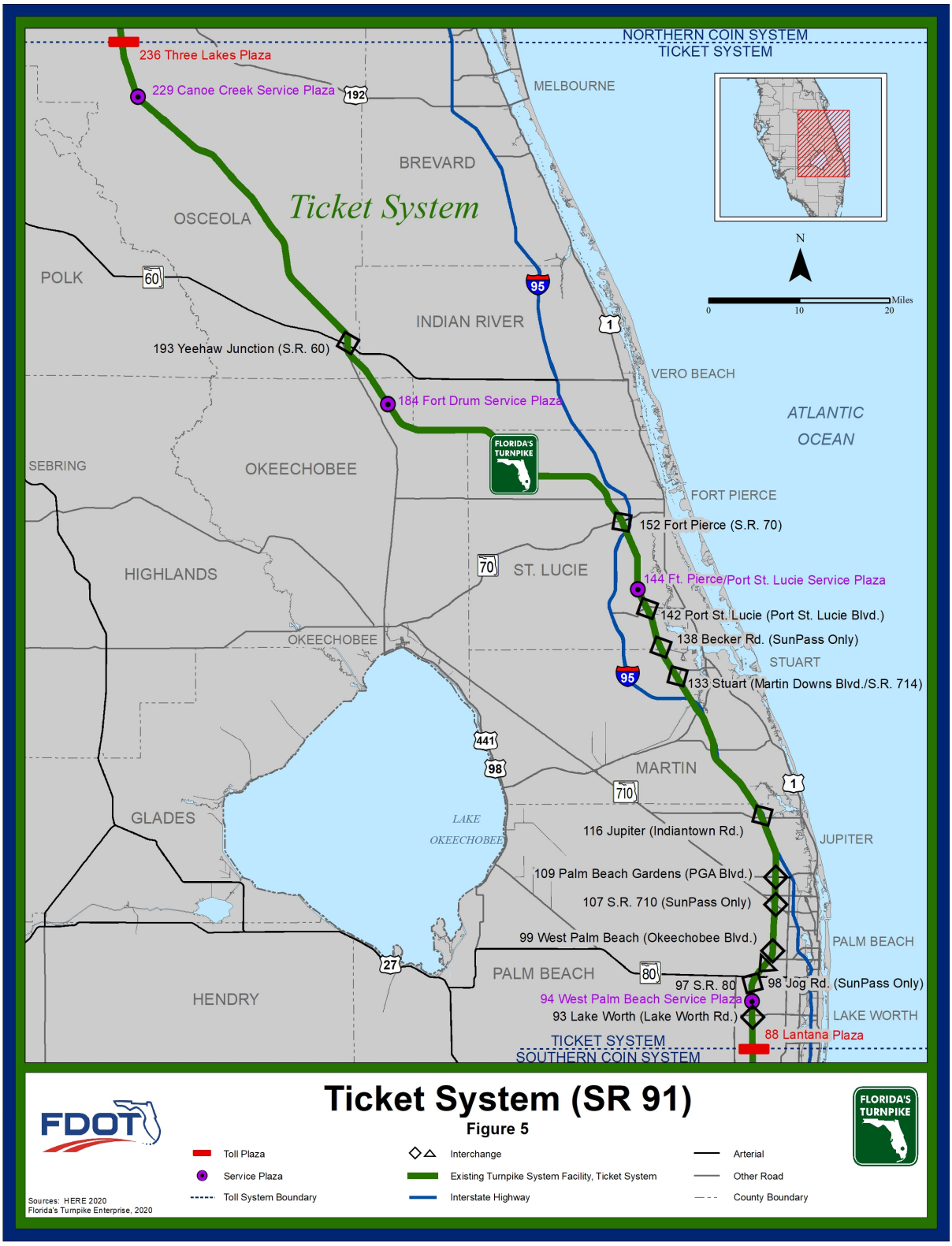
Appendix A: Maps of System Components and Inspection Zones

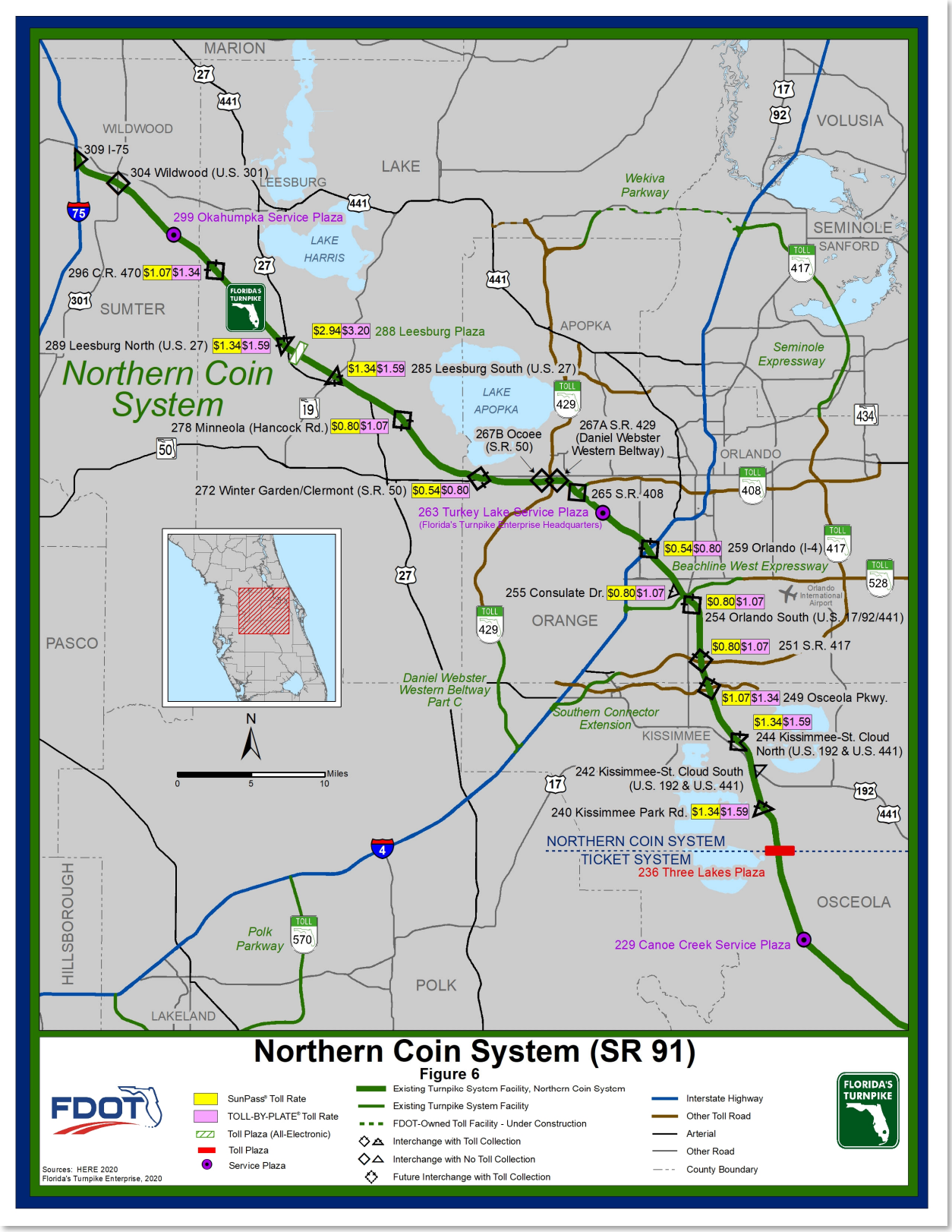


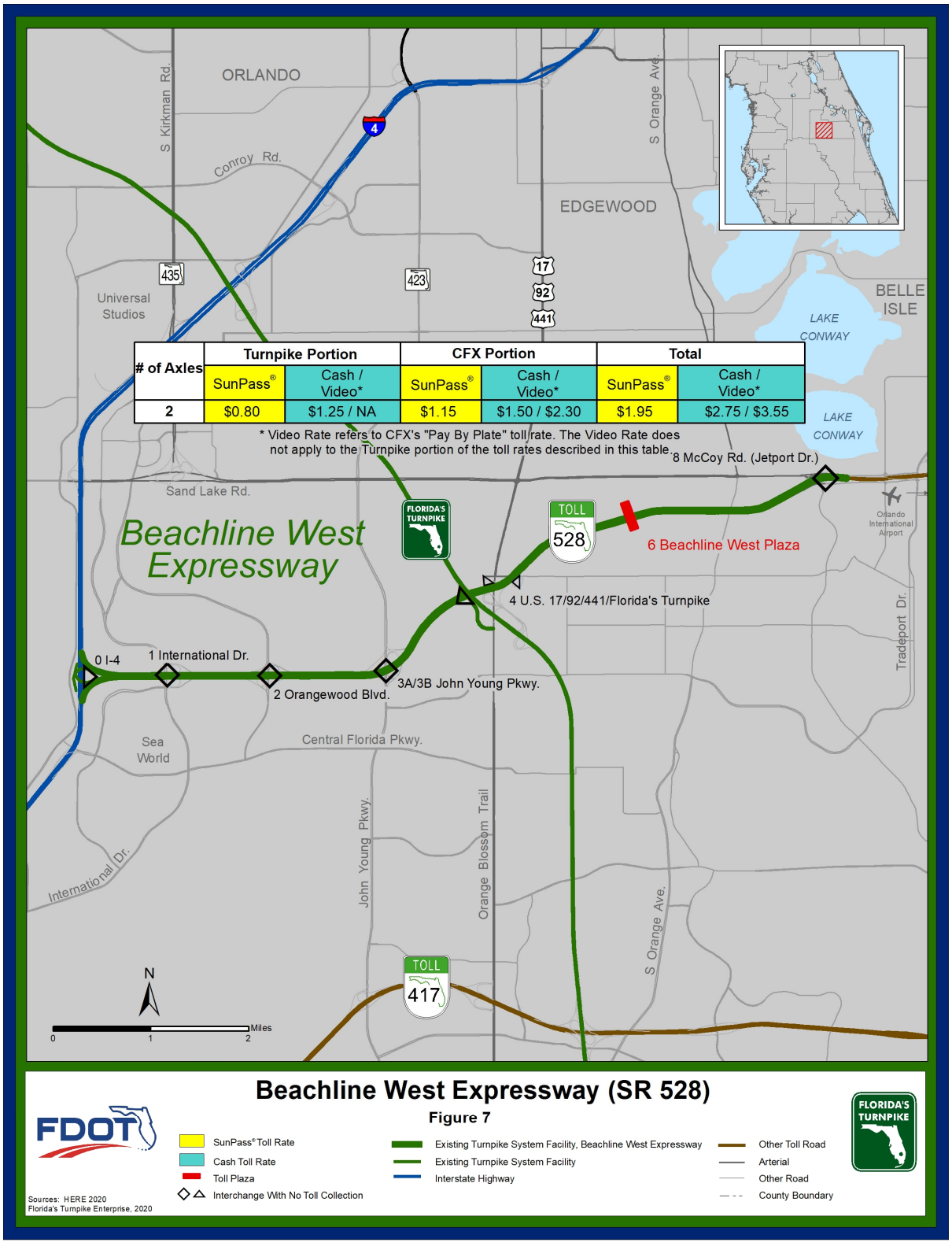

Florida's Turnpike System Mainline
Figure 2
NORTHERN TURNPIKE MAINLINE
CENTRAL TURNPIKE MAINLINE
SOUTHERN TURNPIKE MAINLINE
Turnpike Mainline (SR 91)
Turnpike Mainline (SR 821)
Polk Parkway
Beachline West Expressway
Daniel Webster Western Beltway, Part C
Southern Connector Extension
Beachline East Expressway
Holland East-West Expressway
Central Florida GreeneWay
Seminole Expressway
Wekiva Parkway
Osceola Parkway
Sawgrass Expressway
Everglades Parkway
Alligator Alley
ATLANTIC OCEAN
GULF OF MEXICO
SUMTER
LAKE
PASCO
ORANGE
VOLUSIA
SEMINOLE
OSCEOLA
BREVARD
POLK
HILLSBOROUGH
MANATEE
HARDEE
DESOTO
HIGHLANDS
OKEECHOBEE
INDIAN RIVER
ST. LUCIE
MARTIN
PALM BEACH
BROWARD
MIAMI-DADE
MONROE
COLLIER
LEE
CHARLOTTE
GLADES
HENDRY
238 Three Lakes Plaza
229 Canoe Creek Service Plaza
184 Fort Drum Service Plaza
144 Ft. Pierce/Port St. Lucie Service Plaza
94 West Palm Beach Service Plaza
88 Lantana Plaza
32 Okeechobee Plaza
22 Bird Road South Plaza
19 Snapper Creek Service Plaza
10 Homestead Plaza
263 Turkey Lake Service Plaza
288 Leesburg Plaza
304 Wildwood (U.S. 301)
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

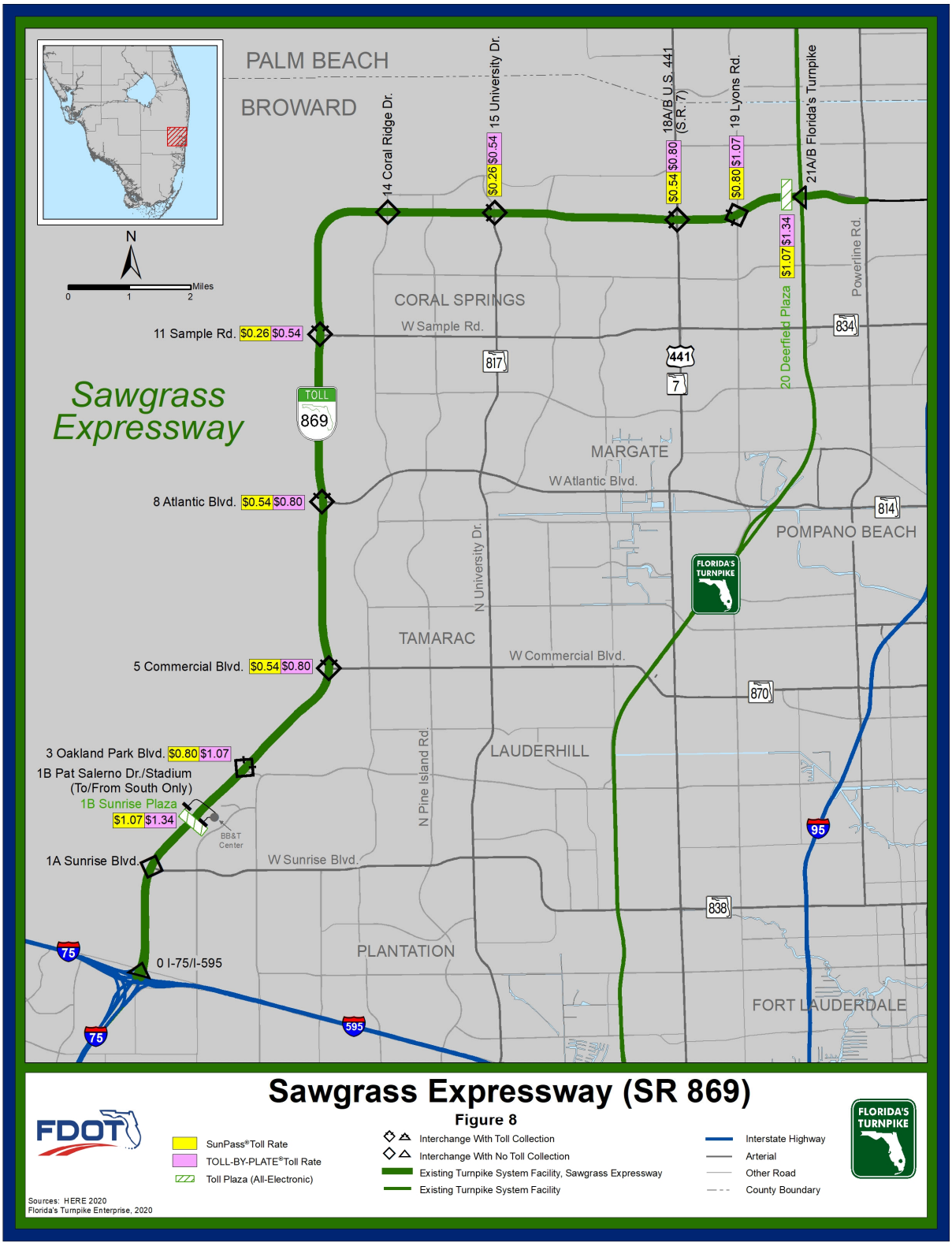

Turnpike Mainline (SR 821)
BROWARD
MIAMI-DADE
HOLLYWOOD
HIALEAH
MIAMI
MIAMI BEACH
CORAL GABLES
HOMESTEAD
ATLANTIC OCEAN
BISCAYNE BAY
43 NW 57th Ave. (Red Rd.)
47 NW 27th Ave. (University Dr.)
39 I-75
$0.54 $0.80
$0.80 $1.07
$1.07 $1.34 47 Miramar Plaza
35 Okeechobee Rd. (U.S. 27) $0.54 $0.80
34 NW 106th St. $0.54 $0.80
32 Okeechobee Plaza $1.07 $1.34
31 NW 74th St. $0.80 $1.07
29 NW 41st St. $0.54 $0.80
27 NW 12th St. (Beacon Tradeport) $0.54 $0.80
26 S.R. 836 (Dolphin Expwy.)
25 Tamiami Trail (U.S. 41/SW 8th St.) $0.54 $0.80
23 Bird Rd. (SW 40th St.) $0.54 $0.80
22 Bird Road Plaza $1.07 $1.34
20 Kendall Dr. (SW 88th St.) $0.54 $0.80
19 Snapper Creek Service Plaza
19 SW 120th St. $0.54 $0.80
17 Don Shula Expwy. (S. R. 874)
16 Coral Reef Dr. (SW 152nd St. & SW 117th Ave.) $0.54 $0.80
13 Quail Roost Dr. (Eureka Dr.)
12 Caribbean Blvd. (U.S. 1)/Government Center
11 Hainlin Mill Dr. (SW 216th St.)
10 Homestead Plaza $1.07 $1.34
$0.80 $1.07 9 Allapattah Rd. (SW 112th Ave.)
6 Tallahassee Rd. (SW 137th Ave.)
5 Biscayne Dr. (SW 288th St.) $0.54 $0.80
$0.54 $0.80 2 Campbell Dr. (SW 312th St.)
0 U.S. 1 (S. Dixie Hwy.)
N
0 5 10 Miles
Turnpike Mainline (SR 821)
Figure 3
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza (All-Electronic)
Service Plaza
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, SR 821 (HEFT)
Existing Turnpike System Facility
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

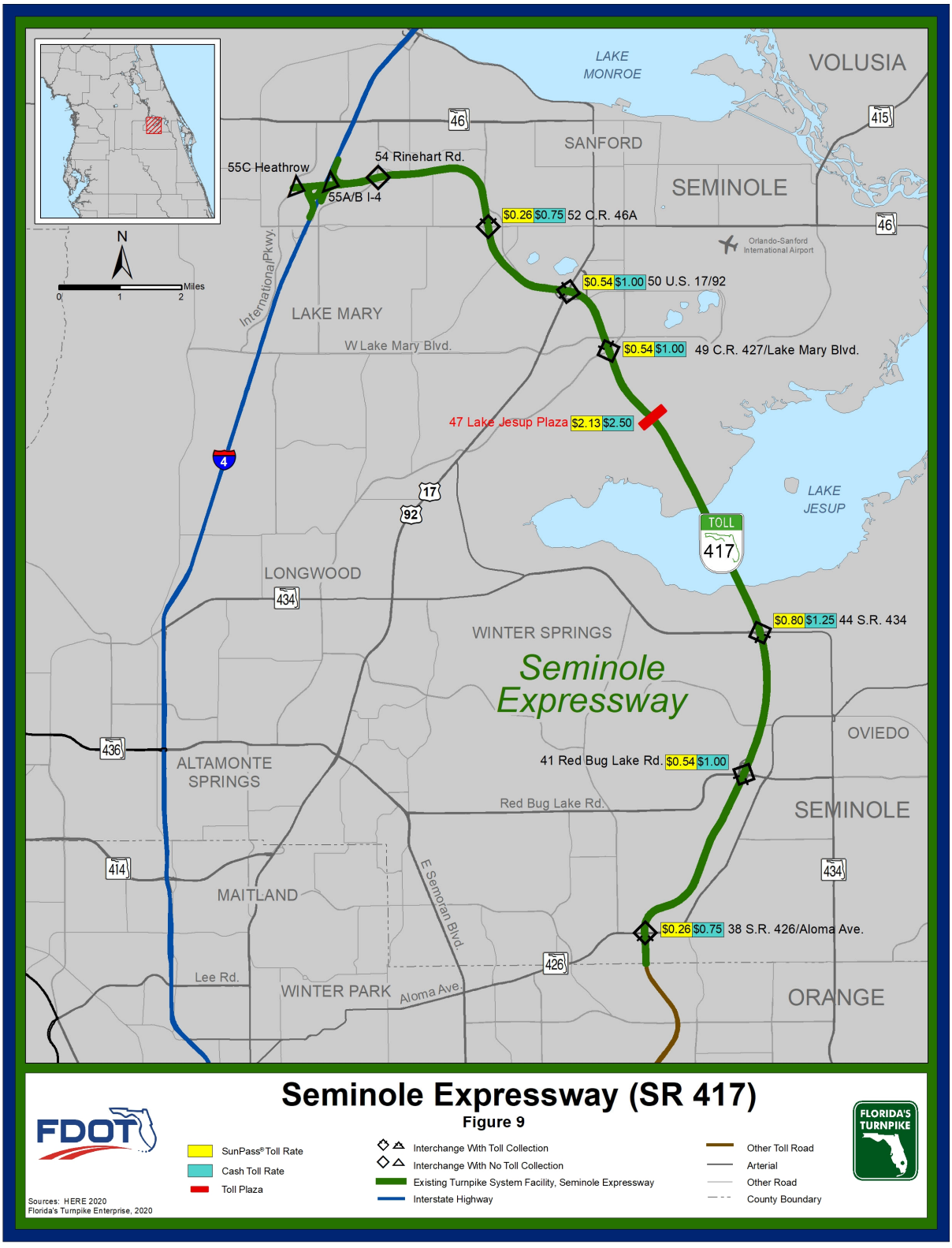

TICKET SYSTEM
SOUTHERN COIN SYSTEM
88 Lantana Plaza
86 Boynton Beach (S.R. 804) $0.80 $1.07
81 Delray Beach (Atlantic Ave.) $0.54 $0.80
75 Boca Raton (Glades Rd.) $0.26 $0.54
71 Sawgrass Expwy.
$0.26 $0.54 69 Sample Rd.
$0.54 $0.80 67 Coconut Creek Parkway
66 Atlantic Blvd.
65 Pompano Beach Service Plaza
63 Cypress Creek Plaza $1.07 $1.34
$0.80 $1.07 62 Ft. Lauderdale North (Commercial Blvd.)
$0.54 0.80 58 Ft. Lauderdale (Sunrise Blvd.)
54 Ft. Lauderdale South (I-595/S.R. 84/U.S. 441)
53 Griffin Rd. $0.26 $0.54
$0.54 $0.80 49 Hollywood Blvd.
47 Miramar Plaza $1.07 $1.34
$0.80 $1.07 47 County Line Rd. (No toll to south)
2X Dolphin Center (NW 199th St./Stadium) $0.80 $1.07
$1.07 $1.34 0X Golden Glades Plaza
Southern Coin System
Sawgrass Expressway
Turnpike Mainline (SR 821)
Everglades Parkway
Alligator Alley (Toll)
BROWARD
MIAMI-DADE
PALM BEACH
BOYNTON BEACH
BOCA RATON
POMPANO BEACH
FORT LAUDERDALE
HOLLYWOOD
NORTH MIAMI
HIALEAH
ATLANTIC OCEAN
Lake Worth Rd.
Boynton Beach Blvd.
Atlantic Ave.
Glades Rd.
Sample Rd.
Commercial Blvd.
Fort Lauderdale-Hollywood International Airport
N
0 5 10 Miles
441
95
1
27
75
595
817
869
818
820
826
997
Southern Coin System (SR 91)
Figure 4
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza
Toll Plaza (All-Electronic)
Service Plaza
Toll System Boundary
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Southern Coin System
Existing Turnpike System Facility
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

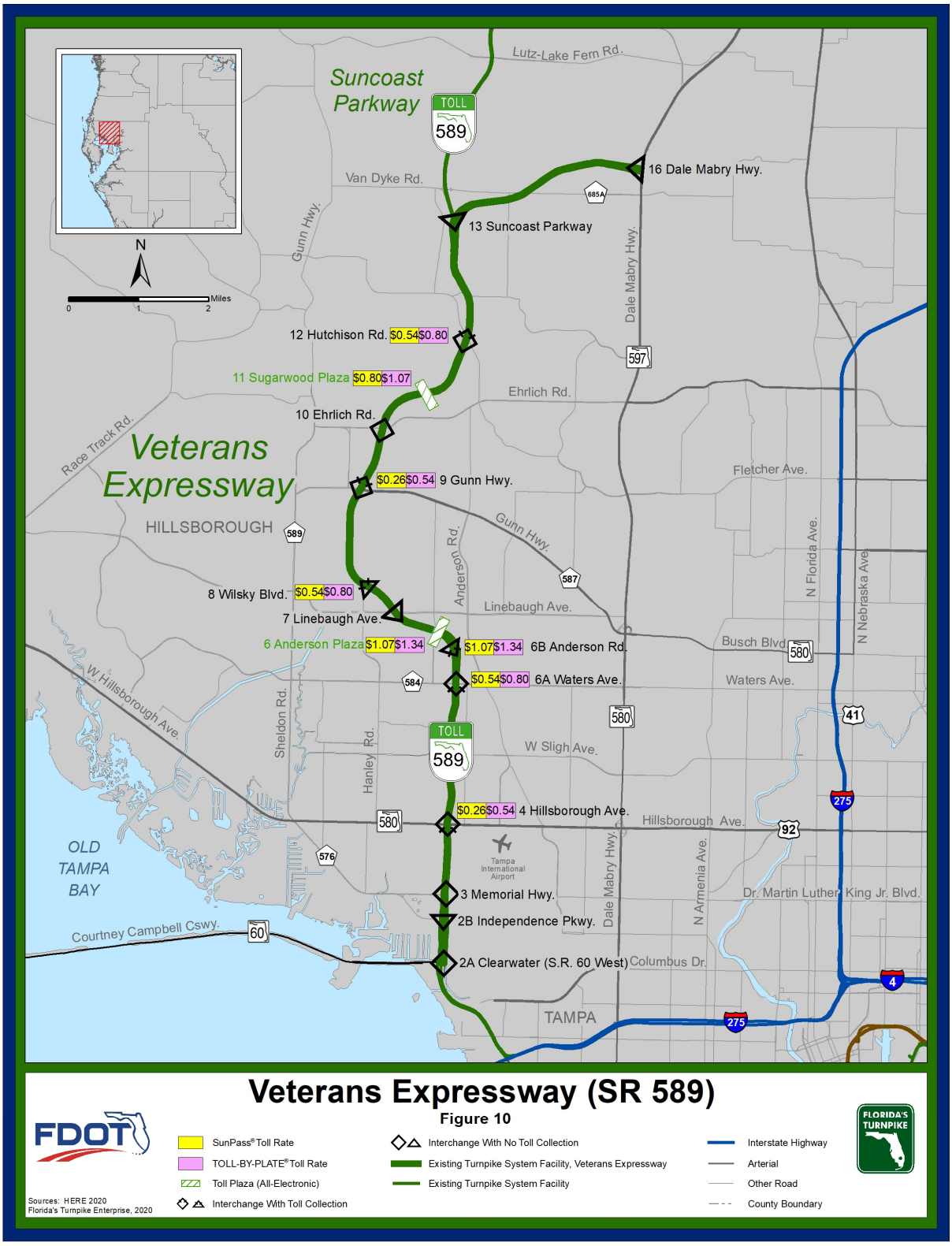

NORTHERN COIN SYSTEM
TICKET SYSTEM
236 Three Lakes Plaza
229 Canoe Creek Service Plaza
192
MELBOURNE
BREVARD
Ticket System
OSCEOLA
POLK
60
95
INDIAN RIVER
1
193 Yeehaw Junction (S.R. 60)
VERO BEACH
184 Fort Drum Service Plaza
ATLANTIC
OCEAN
SEBRING
OKEECHOBEE
FLORIDA'S TURNPIKE
FORT PIERCE
152 Fort Pierce (S.R. 70)
HIGHLANDS
70
ST. LUCIE
144 Ft. Pierce/Port St. Lucie Service Plaza
142 Port St. Lucie (Port St. Lucie Blvd.)
OKEECHOBEE
138 Becker Rd. (SunPass Only)
STUART
95
133 Stuart (Martin Downs Blvd./S.R. 714)
441
98
MARTIN
710
1
GLADES
LAKE
OKEECHOBEE
116 Jupiter (Indiantown Rd.)
JUPITER
109 Palm Beach Gardens (PGA Blvd.)
107 S.R. 710 (SunPass Only)
99 West Palm Beach (Okeechobee Blvd.)
PALM BEACH
27
PALM BEACH
80
97 S.R. 80
98 Jog Rd. (SunPass Only)
HENDRY
94 West Palm Beach Service Plaza
93 Lake Worth (Lake Worth Rd.)
LAKE WORTH
TICKET SYSTEM
88 Lantana Plaza
SOUTHERN COIN SYSTEM
N
0
10
20
Miles
FDOT
Ticket System (SR 91)
Figure 5
Toll Plaza
Service Plaza
Toll System Boundary
Interchange
Existing Turnpike System Facility, Ticket System
Interstate Highway
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020
FLORIDA'S TURNPIKE

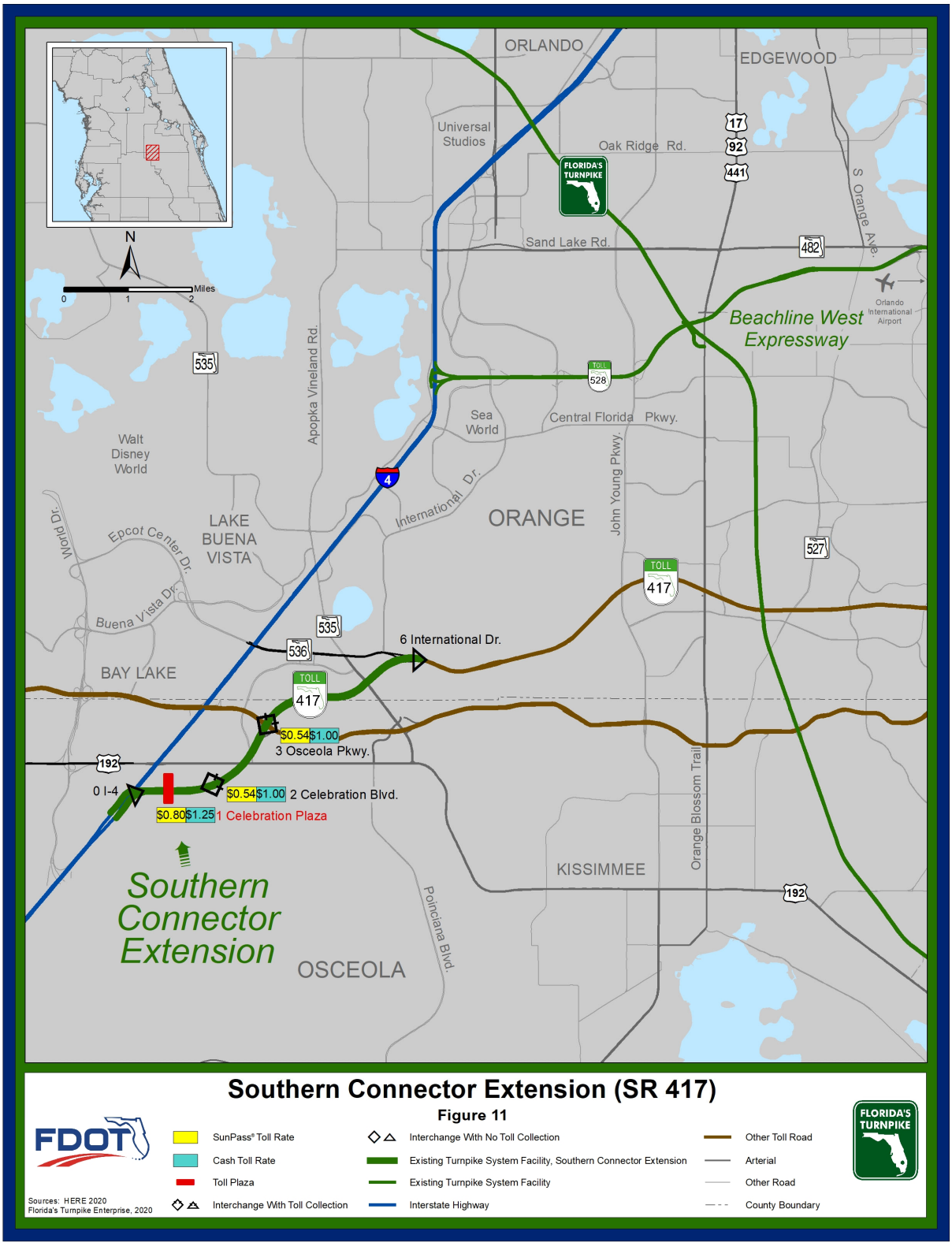

MARION
WILDWOOD
LAKE
LEESBURG
VOLUSIA
SEMINOLE
SANFORD
SUMTER
APOPKA
ORLANDO
ORANGE
PASCO
KISSIMMEE
OSCEOLA
POLK
HILLSBOROUGH
LAKELAND
LAKE HARRIS
LAKE APOPKA
309 I-75
304 Wildwood (U.S. 301)
299 Okahumpka Service Plaza
296 C.R. 470 $1.07 $1.34
289 Leesburg North (U.S. 27) $1.34 $1.59
$2.94 $3.20 288 Leesburg Plaza
$1.34 $1.59 285 Leesburg South (U.S. 27)
278 Minneola (Hancock Rd.) $0.80 $1.07
272 Winter Garden/Clermont (S.R. 50) $0.54 $0.80
267B Ocoee (S.R. 50)
267A S.R. 429 (Daniel Webster Western Beltway)
265 S.R. 408
263 Turkey Lake Service Plaza
(Florida's Turnpike Enterprise Headquarters)
$0.54 $0.80 259 Orlando (I-4)
255 Consulate Dr. $0.80 $1.07
$0.80 $1.07 254 Orlando South (U.S. 17/92/441)
$0.80 $1.07 251 S.R. 417
$1.07 $1.34 249 Osceola Pkwy.
$1.34 $1.59 244 Kissimmee-St. Cloud North (U.S. 192 & U.S. 441)
242 Kissimmee-St. Cloud South (U.S. 192 & U.S. 441)
240 Kissimmee Park Rd. $1.34 $1.59
NORTHERN COIN SYSTEM
TICKET SYSTEM
236 Three Lakes Plaza
229 Canoe Creek Service Plaza
Northern Coin System
Wekiva Parkway
Seminole Expressway
Beachline West Expressway
Daniel Webster Western Beltway Part C
Southern Connector Extension
Polk Parkway
Orlando International Airport
N
0 5 10 Miles
Northern Coin System (SR 91)
Figure 6
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza (All-Electronic)
Toll Plaza
Service Plaza
Existing Turnpike System Facility, Northern Coin System
Existing Turnpike System Facility
FDOT-Owned Toll Facility - Under Construction
Interchange with Toll Collection
Interchange with No Toll Collection
Future Interchange with Toll Collection
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

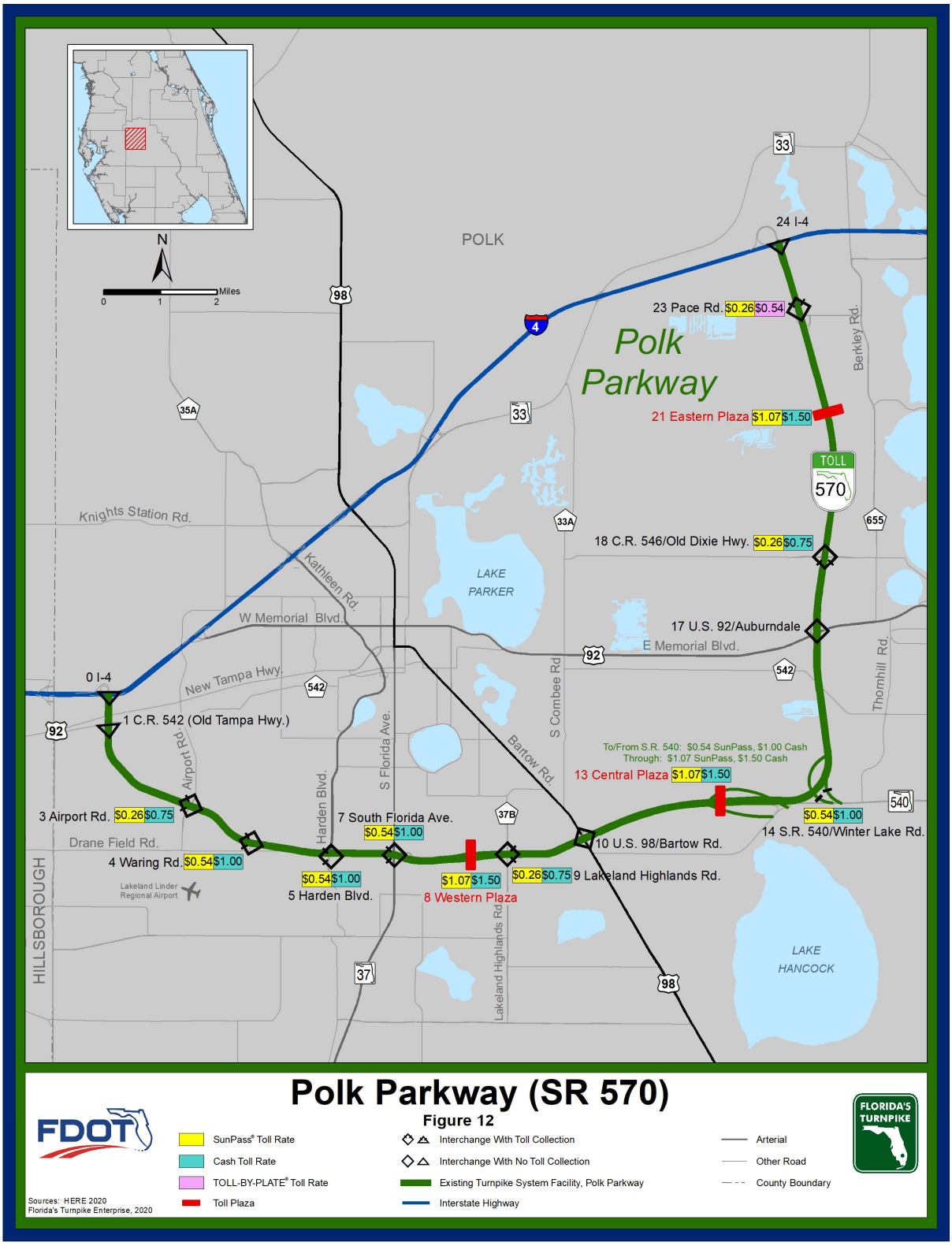

ORLANDO
EDGEWOOD
BELLE ISLE
LAKE CONWAY
LAKE CONWAY
Universal Studios
S Kirkman Rd.
Conroy Rd.
S Orange Ave.
Sand Lake Rd.
Beachline West Expressway
TOLL 528
6 Beachline West Plaza
8 McCoy Rd. (Jetport Dr.)
4 U.S. 17/92/441/Florida's Turnpike
0 I-4
1 International Dr.
2 Orangewood Blvd.
3A/3B John Young Pkwy.
Central Florida Pkwy.
Sea World
International Dr.
John Young Pkwy.
Orange Blossom Trail
S Orange Ave.
Tradeport Dr.
Orlando International Airport
TOLL 417
N
Miles
0
1
2
# of Axles
Turnpike Portion
CFX Portion
Total
SunPass®
Cash / Video*
2
$0.80
$1.25 / NA
$1.15
$1.50 / $2.30
$1.95
$2.75 / $3.55
* Video Rate refers to CFX's "Pay By Plate" toll rate. The Video Rate does not apply to the Turnpike portion of the toll rates described in this table.
Beachline West Expressway (SR 528)
Figure 7
SunPass® Toll Rate
Cash Toll Rate
Toll Plaza
Interchange With No Toll Collection
Existing Turnpike System Facility, Beachline West Expressway
Existing Turnpike System Facility
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

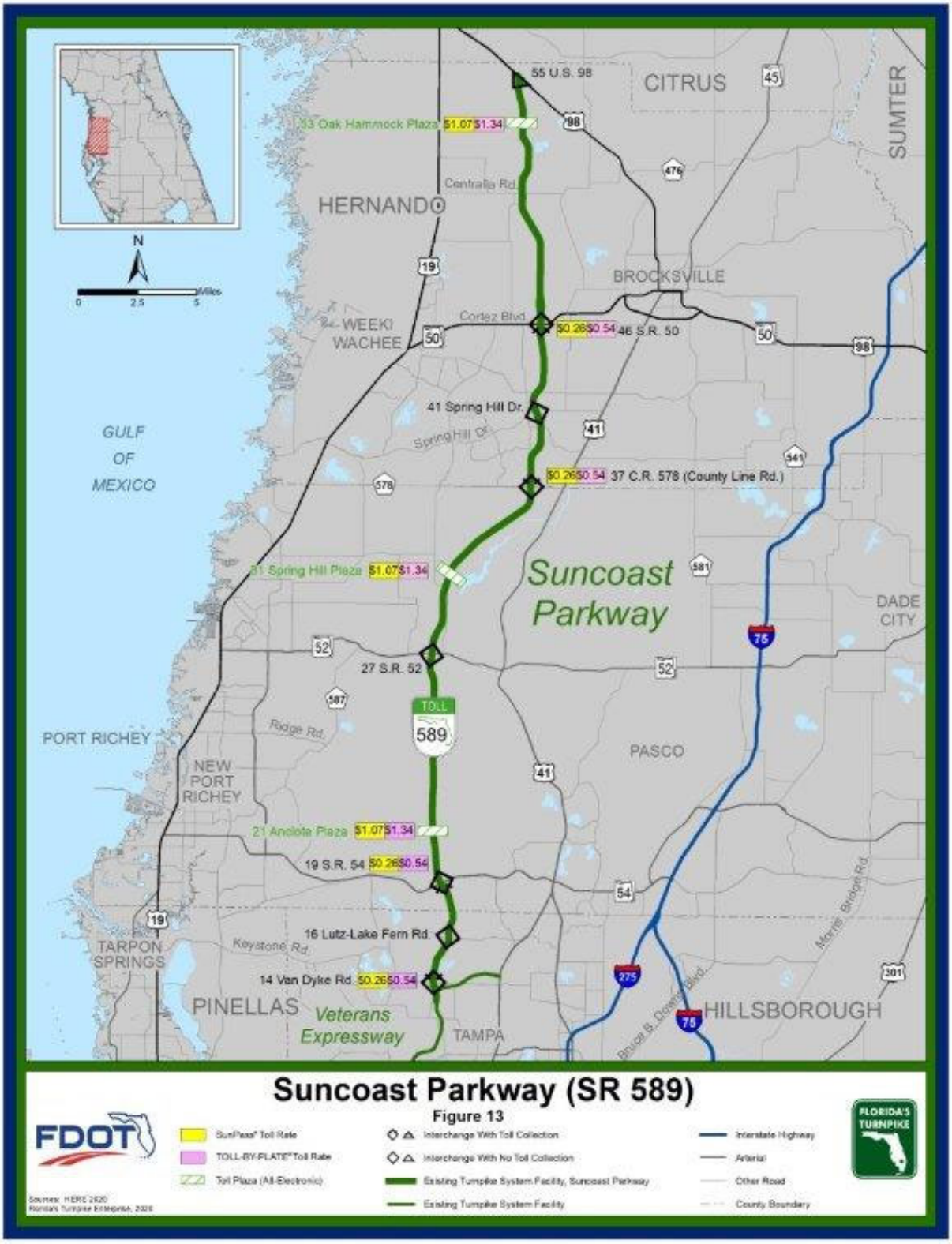

PALM BEACH
BROWARD
14 Coral Ridge Dr.
15 University Dr.
$0.26 $0.54
18A/B U.S. 441 (S.R. 7)
$0.54 $0.80
19 Lyons Rd.
$0.80 $1.07
21A/B Florida's Turnpike
$1.07 $1.34
20 Deerfield Plaza
Powerline Rd.
N
Miles
0 1 2
CORAL SPRINGS
W Sample Rd.
11 Sample Rd. $0.26 $0.54
817
441
7
834
Sawgrass Expressway
TOLL
869
MARGATE
W Atlantic Blvd.
8 Atlantic Blvd. $0.54 $0.80
814
POMPANO BEACH
N University Dr.
TAMARAC
W Commercial Blvd.
5 Commercial Blvd. $0.54 $0.80
870
3 Oakland Park Blvd. $0.80 $1.07
1B Pat Salerno Dr./Stadium
(To/From South Only)
1B Sunrise Plaza
$1.07 $1.34
BB&T Center
LAUDERHILL
N Pine Island Rd.
95
1A Sunrise Blvd.
W Sunrise Blvd.
838
75
0 I-75/I-595
PLANTATION
595
FORT LAUDERDALE
Sawgrass Expressway (SR 869)
Figure 8
FDOT
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza (All-Electronic)
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Sawgrass Expressway
Existing Turnpike System Facility
Interstate Highway
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

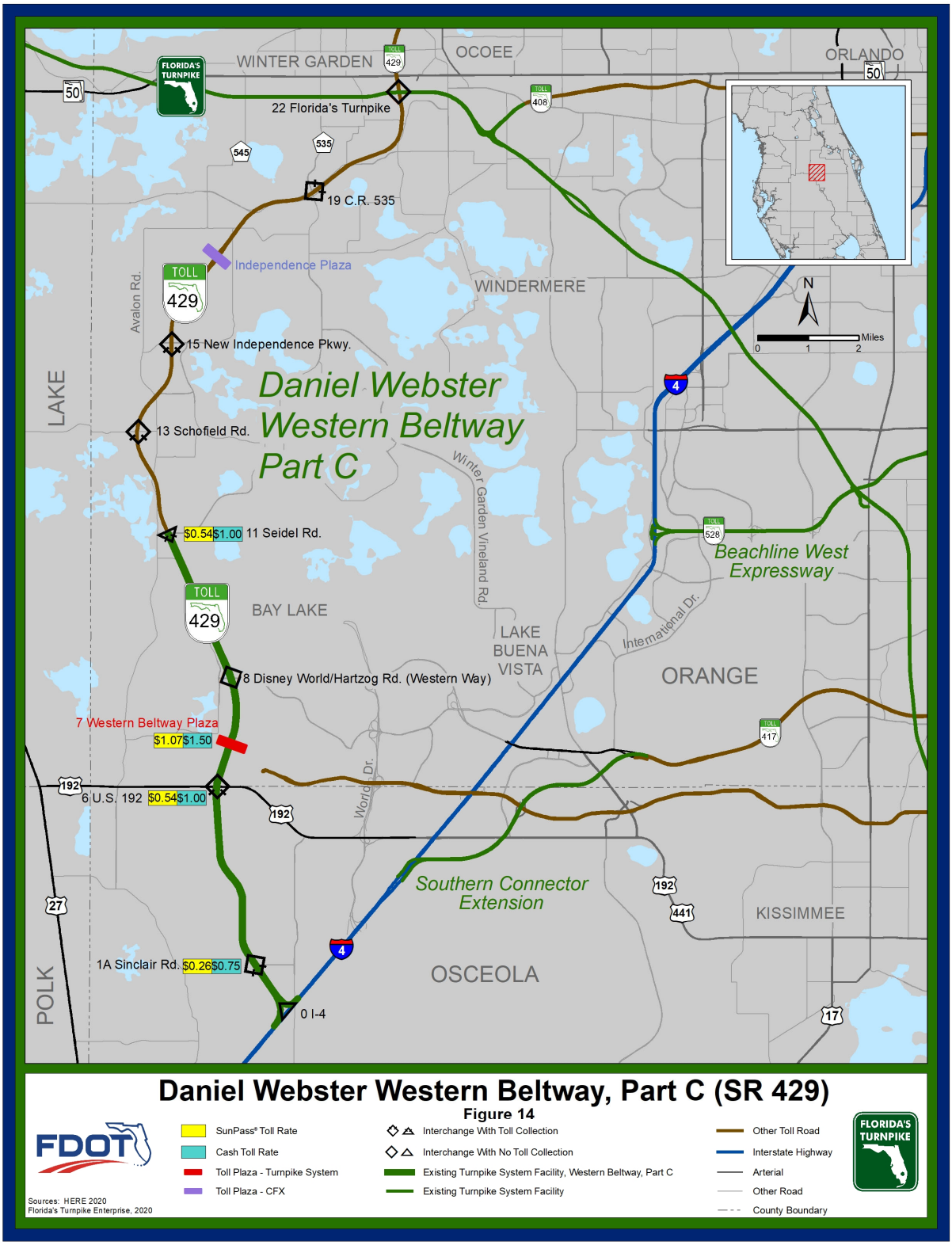

LAKE MONROE
VOLUSIA
SANFORD
SEMINOLE
55C Heathrow
54 Rinehart Rd.
55A/B I-4
$0.26 $0.75 52 C.R. 46A
Orlando-Sanford International Airport
$0.54 $1.00 50 U.S. 17/92
International Pkwy.
LAKE MARY
W Lake Mary Blvd.
$0.54 $1.00 49 C.R. 427/Lake Mary Blvd.
47 Lake Jesup Plaza $2.13 $2.50
LAKE JESUP
TOLL 417
LONGWOOD
WINTER SPRINGS
$0.80 $1.25 44 S.R. 434
Seminole Expressway
OVIEDO
41 Red Bug Lake Rd. $0.54 $1.00
ALTAMONTE SPRINGS
Red Bug Lake Rd.
SEMINOLE
MAITLAND
E Semoran Blvd.
$0.26 $0.75 38 S.R. 426/Aloma Ave.
Lee Rd.
WINTER PARK
Aloma Ave.
ORANGE
N
Miles
0 1 2
Seminole Expressway (SR 417)
Figure 9
FDOT
SunPass® Toll Rate
Cash Toll Rate
Toll Plaza
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Seminole Expressway
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

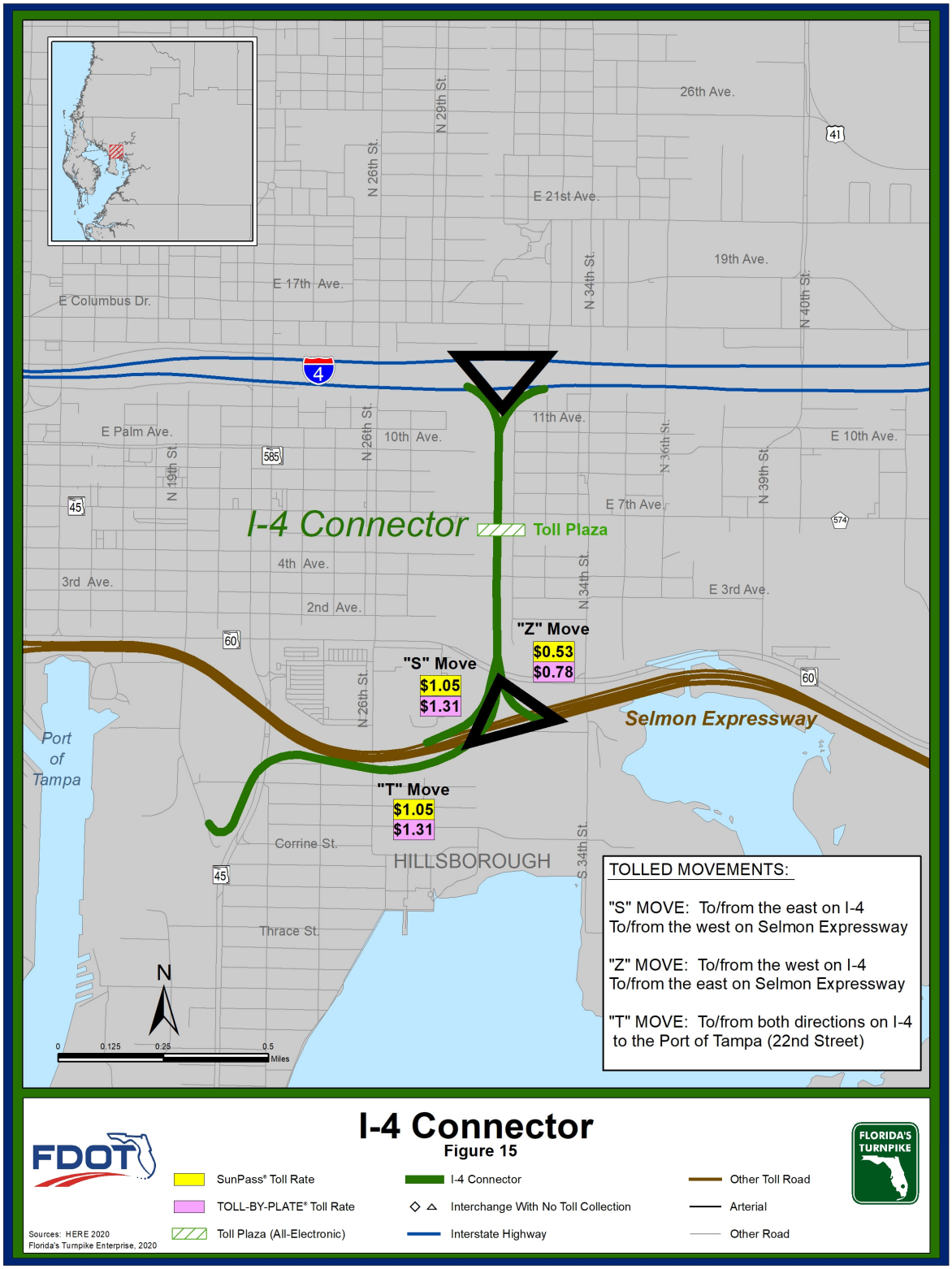

Suncoast Parkway
TOLL
589
Lutz-Lake Fern Rd.
Van Dyke Rd.
Gunn Hwy.
16 Dale Mabry Hwy.
685A
13 Suncoast Parkway
Dale Mabry Hwy.
12 Hutchison Rd. $0.54 $0.80
597
11 Sugarwood Plaza $0.80 $1.07
Ehrlich Rd.
10 Ehrlich Rd.
Race Track Rd.
Veterans Expressway
$0.26 $0.54 9 Gunn Hwy.
Fletcher Ave.
HILLSBOROUGH
589
Gunn Hwy.
Anderson Rd.
587
N Florida Ave.
N Nebraska Ave.
8 Wilsky Blvd. $0.54 $0.80
7 Linebaugh Ave.
Linebaugh Ave.
6 Anderson Plaza $1.07 $1.34
$1.07 $1.34 6B Anderson Rd.
Busch Blvd
580
W Hillsborough Ave.
584
$0.54 $0.80 6A Waters Ave.
Waters Ave.
580
41
Sheldon Rd.
Hanley Rd.
TOLL
589
W Sligh Ave.
$0.26 $0.54 4 Hillsborough Ave.
275
580
Hillsborough Ave.
92
OLD TAMPA BAY
576
Tampa International Airport
3 Memorial Hwy.
Dale Mabry Hwy.
N Armenia Ave.
Dr. Martin Luther King Jr. Blvd.
2B Independence Pkwy.
Courtney Campbell Cswy.
60
2A Clearwater (S.R. 60 West)
Columbus Dr.
4
TAMPA
275
N
Miles
0
1
2
Veterans Expressway (SR 589)
Figure 10
FDOT
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza (All-Electronic)
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Veterans Expressway
Existing Turnpike System Facility
Interstate Highway
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020
FLORIDA'S TURNPIKE

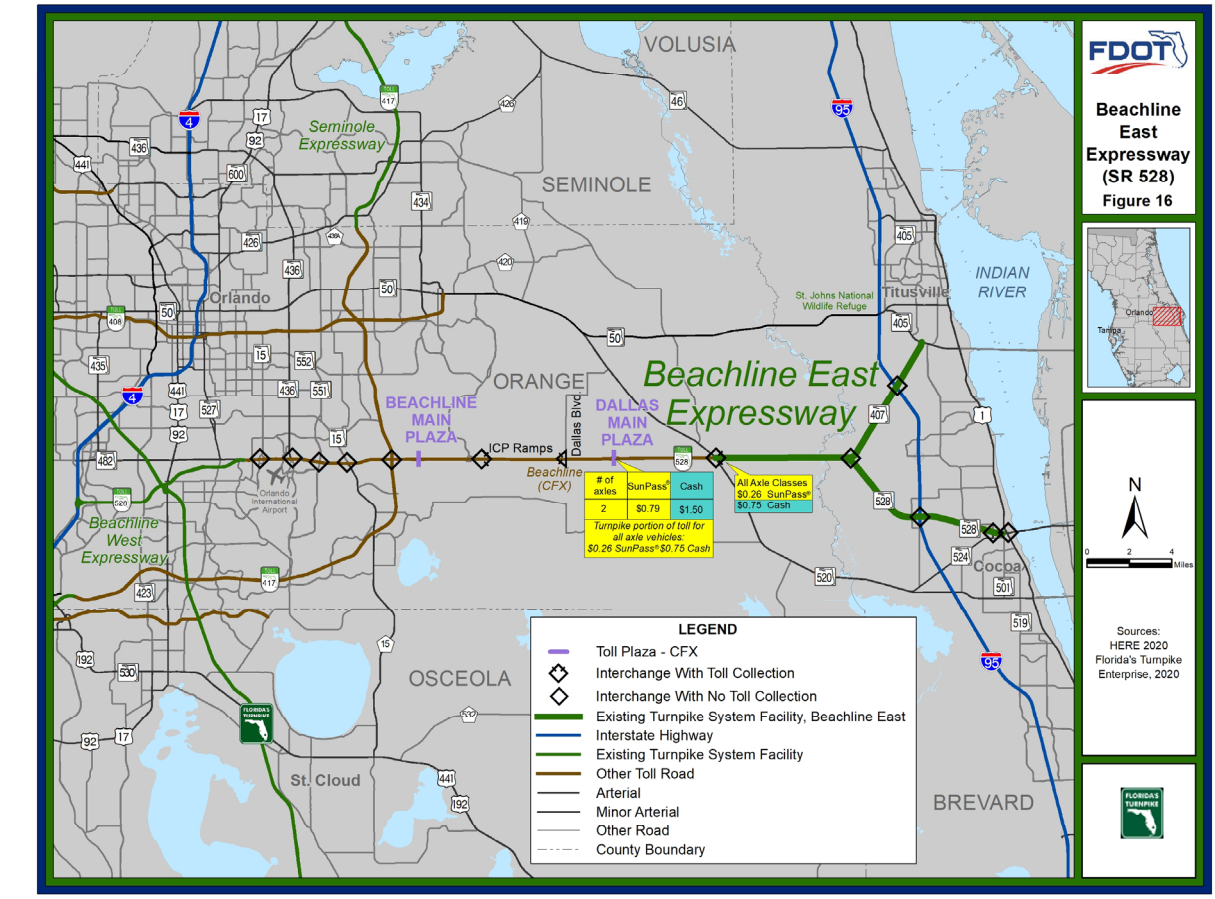

ORLANDO
EDGEWOOD
Universal Studios
Oak Ridge Rd.
Sand Lake Rd.
S Orange Ave.
Orlando International Airport
Beachline West Expressway
Appopka Vineland Rd.
Walt Disney World
Sea World
Central Florida Pkwy.
John Young Pkwy.
International Dr.
ORANGE
LAKE BUENA VISTA
World Dr.
Epcot Center Dr.
Buena Vista Dr.
BAY LAKE
6 International Dr.
3 Osceola Pkwy.
2 Celebration Blvd.
1 Celebration Plaza
0 I-4
$0.54 $1.00
$0.80 $1.25
Southern Connector Extension
OSCEOLA
KISSIMMEE
Orange Blossom Trail
Poinciana Blvd.
N
0 1 2 Miles
535
536
192
482
527
528
417
17
92
441
4
Southern Connector Extension (SR 417)
Figure 11
SunPass® Toll Rate
Cash Toll Rate
Toll Plaza
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Southern Connector Extension
Existing Turnpike System Facility
Interstate Highway
Other Toll Road
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020

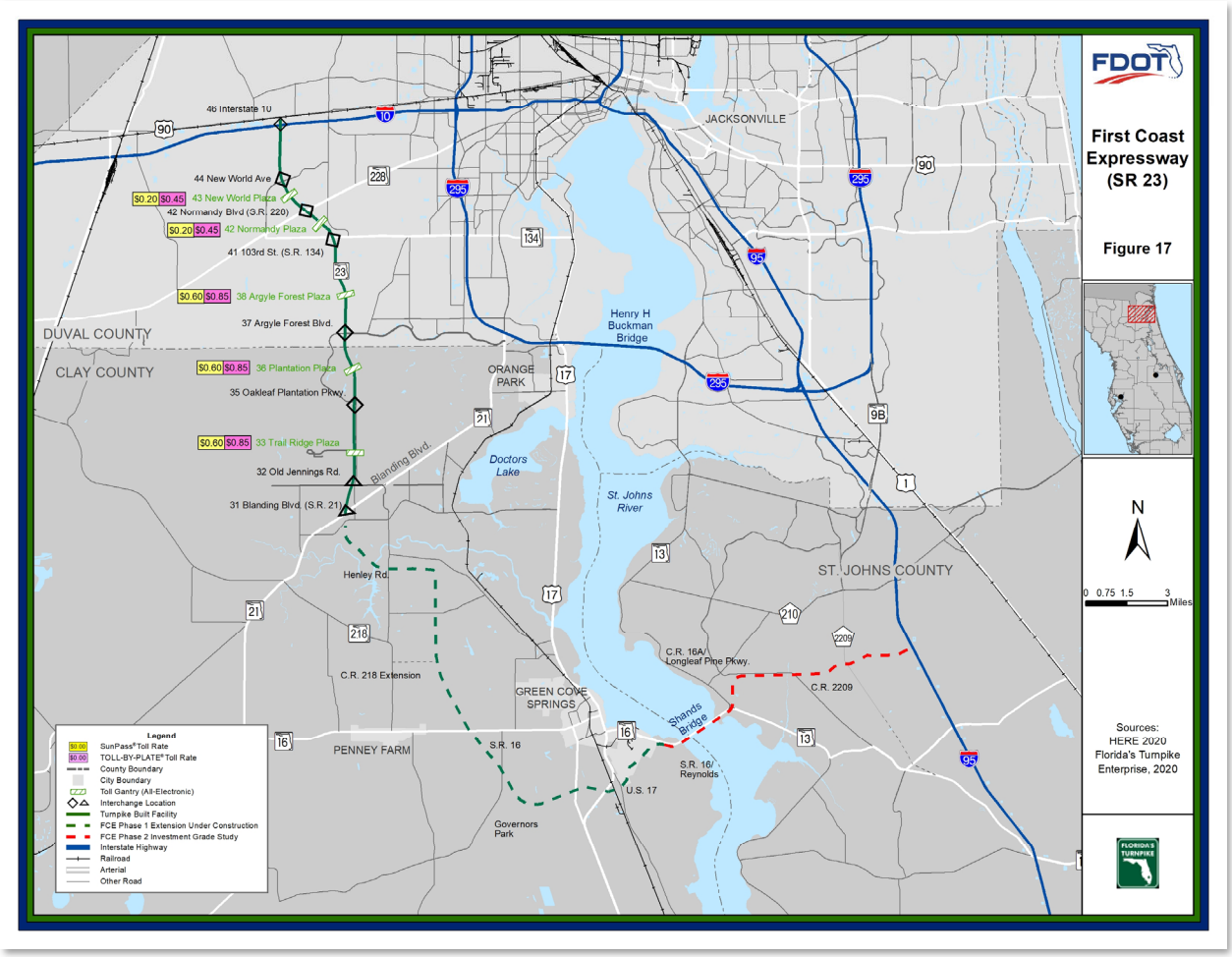

POLK
HILLSBOROUGH
Polk Parkway
24 I-4
23 Pace Rd. $0.26 $0.54
21 Eastern Plaza $1.07 $1.50
TOLL 570
18 C.R. 546/Old Dixie Hwy. $0.26 $0.75
17 U.S. 92/Auburndale
E Memorial Blvd.
To/From S.R. 540: $0.54 SunPass, $1.00 Cash
Through: $1.07 SunPass, $1.50 Cash
13 Central Plaza $1.07 $1.50
14 S.R. 540/Winter Lake Rd. $0.54 $1.00
10 U.S. 98/Bartow Rd.
9 Lakeland Highlands Rd. $0.26 $0.75
8 Western Plaza $1.07 $1.50
7 South Florida Ave. $0.54 $1.00
5 Harden Blvd. $0.54 $1.00
4 Waring Rd. $0.54 $1.00
3 Airport Rd. $0.26 $0.75
1 C.R. 542 (Old Tampa Hwy.)
0 I-4
W Memorial Blvd.
New Tampa Hwy.
Knights Station Rd.
Kathleen Rd.
Airport Rd.
Harden Blvd.
S Florida Ave.
S Combee Rd
Bartow Rd.
Lakeland Highlands Rd
Berkley Rd.
Thornhill Rd.
Drane Field Rd.
Lakeland Linder Regional Airport
LAKE PARKER
LAKE HANCOCK
N
Miles
0 1 2
Polk Parkway (SR 570)
Figure 12
FDOT
SunPass® Toll Rate
Cash Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Polk Parkway
Interstate Highway
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020


55 U.S. 98
CITRUS
SUMTER
53 Oak Hammock Plaza $1.07 $1.34
Centralia Rd.
HERNANDO
BROCKSVILLE
WEEKI WACHEE
Cortez Blvd.
$0.26 $0.54
46 S.R. 50
41 Spring Hill Dr.
Spring Hill Dr.
GULF OF MEXICO
$0.26 $0.54
37 C.R. 578 (County Line Rd.)
31 Spring Hill Plaza $1.07 $1.34
Suncoast Parkway
DADE CITY
27 S.R. 52
TOLL 589
Ridge Rd.
PORT RICHEY
NEW PORT RICHEY
PASCO
21 Anclote Plaza $1.07 $1.34
19 S.R. 54 $0.26 $0.54
16 Lutz-Lake Fern Rd.
Keystone Rd.
TARPON SPRINGS
14 Van Dyke Rd. $0.26 $0.54
PINELLAS
Veterans Expressway
TAMPA
HILLSBOROUGH
Bruce B. Downs Blvd.
Morris Bridge Rd.
N
0 2.5 5 Miles
Suncoast Parkway (SR 589)
Figure 13
FDOT
SunPass® Toll Rate
TOLL-BY-PLATE™ Toll Rate
Toll Plaza (All-Electronic)
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Suncoast Parkway
Existing Turnpike System Facility
Interstate Highway
Arterial
Other Road
County Boundary
FLORIDA'S TURNPIKE


WINTER GARDEN
OCOEE
ORLANDO
22 Florida's Turnpike
19 C.R. 535
Independence Plaza
WINDERMERE
Avalon Rd.
15 New Independence Pkwy.
Daniel Webster
Western Beltway
Part C
13 Schofield Rd.
LAKE
$0.54$1.00 11 Seidel Rd.
Winter Garden Vineland Rd.
Beachline West
Expressway
BAY LAKE
LAKE
BUENA
VISTA
International Dr.
ORANGE
8 Disney World/Hartzog Rd. (Western Way)
7 Western Beltway Plaza
$1.07$1.50
6 U.S. 192 $0.54$1.00
World Dr.
Southern Connector
Extension
KISSIMMEE
1A Sinclair Rd. $0.26$0.75
OSCEOLA
POLK
0 I-4
N
Miles
0 1 2
Daniel Webster Western Beltway, Part C (SR 429)
Figure 14
SunPass® Toll Rate
Cash Toll Rate
Toll Plaza - Turnpike System
Toll Plaza - CFX
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Western Beltway, Part C
Existing Turnpike System Facility
Other Toll Road
Interstate Highway
Arterial
Other Road
County Boundary
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020


I-4 Connector
Toll Plaza
"Z" Move
$0.53
$0.78
"S" Move
$1.05
$1.31
"T" Move
$1.05
$1.31
Selmon Expressway
Port of Tampa
HILLSBOROUGH
26th Ave.
E 21st Ave.
19th Ave.
E 17th Ave.
E Columbus Dr.
11th Ave.
10th Ave.
E 10th Ave.
E Palm Ave.
E 7th Ave.
4th Ave.
3rd Ave.
2nd Ave.
E 3rd Ave.
Corrine St.
Thrace St.
N 29th St.
N 26th St.
N 34th St.
N 40th St.
N 36th St.
N 39th St.
N 19th St.
S 34th St.
TOLLED MOVEMENTS:
"S" MOVE: To/from the east on I-4
To/from the west on Selmon Expressway
"Z" MOVE: To/from the west on I-4
To/from the east on Selmon Expressway
"T" MOVE: To/from both directions on I-4
to the Port of Tampa (22nd Street)
N
0 0.125 0.25 0.5 Miles
I-4 Connector
Figure 15
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
Toll Plaza (All-Electronic)
I-4 Connector
Interchange With No Toll Collection
Interstate Highway
Other Toll Road
Arterial
Other Road
Sources: HERE 2020
Florida's Turnpike Enterprise, 2020


VOLUSIA
SEMINOLE
ORANGE
OSCEOLA
BREVARD
Seminole Expressway
Beachline East Expressway
Beachline West Expressway
Orlando
Titusville
INDIAN RIVER
St. Johns National Wildlife Refuge
BEACHLINE MAIN PLAZA
DALLAS MAIN PLAZA
ICP Ramps
Dallas Blvd
Beachline (CFX)
# of axles
SunPass®
Cash
2
$0.79
$1.50
Turnpike portion of toll for all axle vehicles: $0.26 SunPass®/$0.75 Cash
All Axle Classes $0.26 SunPass® $0.75 Cash
Cocoa
St. Cloud
Orlando International Airport
LEGEND
Toll Plaza - CFX
Interchange With Toll Collection
Interchange With No Toll Collection
Existing Turnpike System Facility, Beachline East
Interstate Highway
Existing Turnpike System Facility
Other Toll Road
Arterial
Minor Arterial
Other Road
County Boundary
FDOT
Beachline East Expressway (SR 528)
Figure 16
N
Miles
Sources:
HERE 2020
Florida's Turnpike Enterprise, 2020


FDOT
First Coast Expressway (SR 23)
Figure 17
46 Interstate 10
44 New World Ave
$0.20 $0.45 43 New World Plaza
42 Normandy Blvd (S.R. 220)
$0.20 $0.45 42 Normandy Plaza
41 103rd St. (S.R. 134)
$0.60 $0.85 38 Argyle Forest Plaza
37 Argyle Forest Blvd.
$0.60 $0.85 36 Plantation Plaza
35 Oakleaf Plantation Pkwy.
$0.60 $0.85 33 Trail Ridge Plaza
32 Old Jennings Rd.
31 Blanding Blvd. (S.R. 21)
Blanding Blvd.
Henley Rd.
C.R. 218 Extension
DUVAL COUNTY
CLAY COUNTY
ORANGE PARK
JACKSONVILLE
Henry H Buckman Bridge
Doctors Lake
St. Johns River
ST. JOHNS COUNTY
C.R. 16A Longleaf Pine Pkwy.
C.R. 2209
GREEN COVE SPRINGS
Shands Bridge
PENNEY FARM
S.R. 16
S.R. 16 Reynolds
U.S. 17
Governors Park
Legend
SunPass® Toll Rate
TOLL-BY-PLATE® Toll Rate
County Boundary
City Boundary
Toll Gantry (All-Electronic)
Interchange Location
Turnpike Built Facility
FCE Phase 1 Extension Under Construction
FCE Phase 2 Investment Grade Study
Interstate Highway
Railroad
Arterial
Other Road
N
0 0.75 1.5 3 Miles
Sources:
HERE 2020
Florida's Turnpike Enterprise, 2020

Appendix B: Inspection Rating Procedures for Roadways, Buildings and Structures

A. Roadway Rating Procedure

The Roadway Rating Procedure developed by FTE and Atkins is shown in Table 21. The ratings and descriptions of the numerical grading system are shown in Table 4 in Section 1.2.2.1. This information is entered directly into a database on a GPS enabled tablets in the field for later compilation and reporting for each roadway. Inspection results are identified by roadway / ramp segment and lane direction.

Table 21: RRP Roadway Elements and Characteristics

Roadway		Roadside	Vegetation / Aesthetics
Pothole	Cracking	Soil Shoulder	Roadway Mowing
Joint	Depression	Front Slope	Slope Mowing
Pavement Void	Stripping	Sidewalk	Landscape
Edge Ravel	Shoving	Slope Protection	Tree Trim
Rutting	Paved Shoulder	Fence	Litter Removal
			Turf Condition
Drainage		**Traffic Services**	
Cross Drain	Misc. Inlet	Pavement Marker	Signs Less Than 30 SF
Roadside Ditch	Roadway Sweep	Striping	Signs Greater Than 30 SF
Median Ditch		Pavement Symbol	Object Marker
Outfall Ditch		Guardrail	Sign Light
Curb Inlet		Attenuator	Highway Light
Rip Rap		Barrier Wall	

B. Structures Rating Procedures

The structures inspection is performed on a biennial basis and is subdivided into four major elements: bridges, large non-qualifying culverts, overhead sign structures, and high mast light towers.

Bridge Rating Procedure

Security concerns prohibit publishing detailed bridge reports outlining component deficiencies in this report. Bondholders may request bridge reports from the individual FDOT Maintenance Districts where the bridges are located.

The biennial inspection for fixed bridges is based on three main components comprised of a total of 93 characteristics and 117 sub-characteristics. A numerical score is generated for each characteristic based on the rating scale shown in Table 22.

Table 22: Bridge Inspection Rating Scale

Grade	Rating	Description
9	Excellent	All elements are in excellent condition.
8	Very Good	There were no problems noted.
7	Good	Element has some minor problems. Minor maintenance may be needed.
6	Satisfactory	Element shows some minor deterioration. Maintenance may be needed.
5	Fair	Element is sound but may have minor section loss. Minor rehabilitation may be needed.
4	Poor	Element exhibits advanced section loss. Major rehabilitation may be needed.
3	Serious	Element has loss of section that has seriously affected the structure. Repair of rehabilitation is required immediately.
2	Critical	Element shows advanced deterioration. It may be necessary to close the bridge until corrective action is taken.
1	Imminent Failure	Bridge is closed to traffic. Corrective action may permit light service.
0	Failed	Bridge is out of service and beyond corrective action.

Overhead Sign Structures Rating Procedure

The condition of overhead sign structures is determined based on the biennial inspection of three characteristics:

1. Overlane Sign Structure Foundation
2. Overlane Sign Structure Horizontal Member
3. Overlane Sign Structure Vertical Member

The standard rating scale is shown in Table 23.

Table 23: Overhead Sign Structures Inspection Rating Scale

Grade	Rating	Description
8-9	Excellent	Performs function with high degree or reliability and or effectiveness
6-7	Good	Performs intended function with small reduction and or effectiveness
5	Fair	Performs intended function with significant reduction in reliability and or effectiveness. Repair or replacement may be required
4-0	Poor	Does not perform intended function in an acceptable level of reliability and or effectiveness. Repair or replacement is required

High Mast Light Tower Rating Procedure

The condition of high mast light towers is determined based on the biennial inspection of two characteristics:

1. High Mast Light Pole Foundation
2. High Mast Light Poles

The standard rating scale is shown in Table 24.

Table 24: High Mast Light Tower Inspection Rating Scale

Grade	Rating	Description
8-9	Excellent	Performs function with high degree or reliability and or effectiveness
6-7	Good	Performs intended function with small reduction and or effectiveness
5	Fair	Performs intended function with significant reduction in reliability and or effectiveness. Repair or replacement may be required
4-0	Poor	Does not perform intended function in an acceptable level of reliability and or effectiveness. Repair or replacement is required

Building Rating Procedures

The annual building inspection is based on 14 elements and 97 characteristics. The building type dictates the specific report form that is used in field inspection. The general elements and their respective characteristics are listed in Table 25. The standard Building Inspection Rating Scale is shown in Table 5 in Section 1.2.2.1.

Table 25: Building Elements and Characteristics - FTE System (All Zones)

Element	Characteristics	
Architecture	Caulking	Lockers
	Ceiling	Paint - Interior and Exterior
	Ceilings and Ceiling Grids	Restroom
	Counters/Cabinets and Drawers	Restroom Appurtenances
	Doors / Frames (Interior and Exterior)	Shelves
	Elevator	Site Signs
	Elevator Certification	Walls (Concrete Block, Brick, Stucco or EIFS)
	Flooring (Interior and Accessories)	Walls (Exterior)
	Handrail	Walls (Interior)
	Joint Sealants	Windows and Storefronts
Building Electrical	Canopy lighting	Panelboards
	Conduit	Receptacle
	Grounding	Sign Lighting
	Light Switches	Site Lighting
	Lighting (Exterior)	Switchboards and Breakers
	Lighting (Interior)	Toll Indicator
	Lightning Protection	Transformers
	Motor Control Center	TVSS (Transient Voltage Surge Suppressor)
	Nose Flasher	Wiring
Building HVAC	Air Cooled Chiller and Piping	HVAC Control Systems
	Air Handlers	Package Unit
	Condensing Units	Supply and Outside Air FANS
	Ductwork and Insulation	Ventilation Outlets
	Exhaust Fans	
Communications, Fire Alarm and Monitoring Devices	CCTV (Close Circuit TV)	Intercom System
	Fire Alarm	Security
	Fire Extinguisher	Telephone System
	Fire Pump System	

Element	Characteristics	
Domestic Plumbing Fixtures	Faucets / Sinks	Toilets / Urinals
	Piping / Valves	Water Heater
Structural	Concrete (Precast/Cast-in Place)	Steel Framing
	Masonry	
Sewer/Septic Tanks, Lift stations & Wells	Lift stations and Wells	Sewer/Septic Tanks
Concrete Pavement & Sidewalks	Concrete Pavement	Sidewalk and Curb
Island	ACM	Island Concrete
	Attenuator	Island Signs
	Bollards	
Booth	Ceiling	Flooring (Booth)
	Counters/Cabinets and Drawers	Toll Booth Windows/Glazing
	Doors / Splash Door (Booth)	
Plaza Concrete Apron	Apron Sweep	Pavement Voids
	Cracking	Striping
	Joints	
Canopy	Canopy Columns	Signs
	Canopy Fascia	Traffic Red / Green Lighting
	Canopy Underside	Variable Message Signs
	Sign Structure	
Site Grounds	Landscape	Site Grounds
	Parking Area	Turf Condition
Stand-By Power	Fuel Line	LP Tank
	Fuel Tank	Stand-By Generator
	Gauges	UPS (Uninterrupted Power Supply)

Appendix C: Selected Photographs of Desired / Undesired Conditions

Desired Guardrail Asphalt Condition

Undesired Guardrail Asphalt Condition – Deterioration

Desired Travel Lane / Ramp Condition

Undesired Travel Lane / Ramp Condition – Deterioration

Desired Soil, Shoulder and Front Slope Condition

Undesired Soil, Shoulder and Front Slope Condition – Vegetation

Undesired Sign Reflectivity Condition – Material Cracked and Faded