



#### 95 Express Annual Operations Report: Fiscal Year 2017-2018

#### General

The 95 Express program operates 21 miles of express lanes, with three congestion-priced tolling segments in each direction. Segment 1 in Miami-Dade County extends from just north of SR 836 to the Golden Glades Interchange (SR 826/Florida's Turnpike). Segment 2 is also in Miami-Dade County from north of the Golden Glades Interchange to just south of Ives Dairy Road. Segment 3 is in Broward County from Hallandale Beach Boulevard to Broward Boulevard with access from/to I-595 via the Stirling Road express lanes ingress/egress

District Six, from its SunGuide<sup>®</sup> Transportation Management Center (TMC) in Miami, is responsible for tolling operations for the facility. The District Four SMART SunGuide<sup>®</sup> Center and District Six SunGuide TMC manage resources within their respective districts for incident management. Florida's Turnpike Enterprise (FTE) is responsible for consolidating the tolls collected by drivers' transponders at the six segments and billing those customers accordingly. All express lanes trip (or traffic volume) and revenue information shown herein is provided to the district from FTE SunPass<sup>®</sup> offices.

The FY was marked with events that impacted trip volumes and revenue. Hurricane Irma caused tolls to be suspended for approximately 16 days starting September 9, 2017. Beginning May 2017 and through the FY, a pavement rehabilitation project on I-95 in Miami-Dade County temporarily relocated the Segment 1N entrance 2/3 of a mile further north. This reduction of segment length resulted in an interim maximum toll of \$10.00 for Segment 1N (\$0.50 less than the original maximum toll of \$10.50). Construction for long-term roadwork has included Segment 1 closures as well as detouring traffic from the general purpose lanes into the express lanes during continuous weekend lane closures. During these construction activities, tolls are set to zero along the three NB segments to accommodate general purpose motorists.

FY 2017-2018 had a 14% increase in total volume (49,525,583 vehicle trips) compared to the previous FY. Most of this increase was attributed to Segments 2 and 3 operating for a full FY. Segments 2 and 3 were opened to traffic in October 2016 which covered nine of the twelve months in FY 2016-2017. However, the average monthly trips for FY 2017-2018 decreased with respect to the previous FY. The lower monthly average was attributed to a combination of the affect from Hurricane Irma in FY 2017-2018 and averaging monthly volumes for Segments 2 and 3 over the nine operational months in FY 2016-2017 (excluding July, August and September). 95 Express has serviced approximately 235 million trips since opening (December 5, 2008).

Average monthly toll revenue increased 4.5% to approximately \$4.2 million, bringing total revenue for the FY to approximately \$49.9 million. Toll exempt registered vehicles increased by 1.2% for a total of 9,179 registrations, however, toll exempt trips grew by 16.2% to approximately 1.77 million toll exempt trips for the FY.









#### **Operations/Traffic Statistics** –General Statistics

The table below outlines 95 Express performance measures. Each segment is shown individually with comparisons to the previous FY. Colored arrows are used to quickly identify the annual comparisons.

FY 2017-2018 Statistics		Segment 1 1S		(7 miles) 1N		Segment 2 2S		(1 mile) 2N		Segment 3 3S		(4 miles) 3N	
- ITD Trips**	90	,743,984		95,366,195		14,276,962	1	1,804,475	1	12,401,274	1	0,430,785	
- FY 2017-2018 Total Trips	11,175,328		10,468,637		8,170,591		6,645,423		7,246,437		5,819,167		
<ul> <li>FY 2017-2018 Average Monthly Trips</li> </ul>		931,277		872,386		680,883		553,785		603,870		484,931	
<ul> <li>% Increase/Decrease to Previous FY</li> </ul>	+	-3.2%	♣	-2.5%	1	0.4%	╇	-3.4%	1	5.4%	♣	-5.4%	
<ul> <li>FY 2017-2018 Average Exempt Monthly Trips</li> </ul>		37,565		35,122		23,255		20,468		17,181		14,281	
<ul> <li>% Increase/Decrease to Previous FY</li> </ul>	+	-0.4%	÷	-1.5%	1	4.4%	1	4.1%	1	5.8%	1	4.3%	
Revenue													
- ITD Revenue**	\$ 94	,371,964	\$	120,436,038	\$	7,215,732	\$	4,769,031	\$	5,222,224	\$	4,269,538	
- FY 2017-2018 Revenue	\$ 15	,240,892	\$	22,342,565	\$	4,204,493	\$	2,643,242	\$	3,086,258	\$	2,355,398	
- FY 2017-2018 Average Monthly Revenue	\$ 1	,270,074	\$	1,861,880	\$	350,374	\$	220,270	\$	257,188	\$	196,283	
Tolls (Rounded to Nearest \$0.25)													
- Range Charged for Month	\$0.00 - \$10.50		\$0.00 - \$10.00		\$0.00 - \$3.00		\$0.00 - \$3.00		\$0.00 - \$0.50		\$0.00 - \$0.50		
- Average Weekday	\$1.75		\$3.00		\$0.50		\$0.50		\$0.50		\$0.50		
<ul> <li>Average Peak Period*</li> </ul>	\$2.75		\$7.00		\$0.75		\$0.50		\$0.50		\$0.50		
- Average Weekend	\$0.75		\$0.50		\$0.50		\$0.50		\$0.50		\$0.50		
- Average Off Peak	\$1.50		\$1.75		\$0.50		\$0.50		\$0.50		\$0.50		
- 85th Percentile	\$3.25		\$8.25		\$0.50		\$0.50		\$0.50		\$0.50		
- 95th Percentile	\$5.00		\$9.75		\$1.75		\$0.50		\$0.50		\$0.50		
Volume (vehicles)					_								
- FY 2017-2018 Average Weekday		34,480		31,993		24,797		20,225		22,396		17,829	
- % Increase/Decrease to Previous FY	4	-0.8%		0.0%	1	0.8%	ł	-2.6%	1	5.3%	₽	-6.1%	
<ul> <li>FY 2017-2018 Average Peak Period*</li> </ul>		9,126		7,387		5,024		4,552		4,418		3,947	
- % Increase/Decrease to Previous FY	+	-0.3%	-	-0.1%	-	-1.2%	4	-4.1%	1	5.5%	➡	-10.3%	
Speed (mph) (EL Target ≥ 45 mph)	EL	ш	E	L LL	E	L LL	E	u	E	L LL	EL	ш	
- Pre-95 Express Peak Period Conditions** <sup>1</sup>	20	15	1	8 18	2	4 28	56	5 40	3	5 52	68	55	
<ul> <li>FY 2017-2018 Average Weekday</li> </ul>	60	57	5			2 57	65		7		74		
<ul> <li>FY 2017-2018 Average Peak Period*</li> </ul>	57	43	-	9 25	-	4 51	62		70		69		
ITD Average Operated Above 45 MPH		99.5%	-	96.9%		95.2%		99.9%		99.7%		98.9%	
FY 2017-2018 Avg. Operated Above 45 MPH		98.6%		89.6%		95.0%		99.9%	_	99.6%		99.5%	
- % Increase/Decrease to Previous FY		-0.3%	-	-5.0%	-	-0.4%	1			-0.3%	-	-0.3%	
		73.6%		74.9%		98.9%		98.8%		98.3%		98.8%	
Remained Open to Motorists Closed due to Planned Construction		24.7%		22.5%		98.9%		98.8%	-	98.3%		98.8%	
Closed due to Non-recurring Events (<5% Target)		1.7%		22.5%	-	0.7%		0.2%	-	0.7%		0.6%	
<ul> <li>% Increase/Decrease to Previous FY</li> </ul>		-0.7%		-1.5%	-	0.4%		0.2%		-0.2%		-0.9%	
<ul> <li>mcrease/Decrease to Previous FY</li> </ul>	V	-0.7%	-	-1.5%	_	0.0%	1	0.1%	-	-0.2%	-	-0.9%	

#### 1 Increase/Decrease vs. Previous Fiscal Year (FY) Average.

EL (Express Lanes); LL (Local Lanes); ITD (Inception to Date); FY (Fiscal Year); \*Peak Period = 6-9 AM (Southbound) and 4-7 PM (Northbound) \*\*1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016

<sup>1</sup> Sources: 1N/1S - FDOT "2008 I-95 Managed Lanes Monitoring Report"; 2N/2S; 3N/3S - FDOT "2012 I-95 Managed Lanes Monitoring Report" All data shown is based on best available information at time of report.







#### **Operations/Traffic Statistics** – Express Lane Markers (ELMs)

Express Lane Markers (ELMs) are the flexible plastic tubes that create a buffer separation between the express lanes and the general use lanes. Until fall of 2016, ELMs were placed at 10-foot spacing. As traffic volumes increased annually in the express lanes, motorists were observed illegally crossing over the ELMs. This dangerous movement (defined as "lane diving") continued to increase over time. As a result, the Department increased its Florida Highway Patrol (FHP) patrolling presence in the express lanes; ticketing those motorists making the illegal movement.

On December 21, 2016, the Department completed installation of new ELMs in both directions of Segment 1. The new ELMs are more durable and are now placed at a new distance of five feet apart. The objective was to deter motorists from the "lane diving" movement and, in turn, improve operations of the express lanes. The following table shows the comparative values for specific performance criteria that are tracked monthly and compared to the performance of the facility prior to the installation.

Performance Metric	Monthly Avg. for Six Months Before New ELM Installation	Monthly Avg. During New ELM Installation	Monthly Avg. After New ELM Installation <sup>5</sup>
ELM Replacement <sup>1</sup>	4,030	21	334
Lane Diving (Citations + Warnings) <sup>2</sup>	152	82	12
Crashes in Express Lanes <sup>3</sup>	81	60	53
Vehicle Throughput <sup>4</sup>	1,874,077	1,816,973	1,851,799

#### Pre-, During, and Post-Installation Performance Metric Data (Segment 1)

Through the end of FY 2017-2018 the new ELMs have contributed to the following average monthly improvements for 95 Express Segment 1:

- ELM replacement has decreased 92%;
- Lane diving has decreased 92%;
- Crashes within the facility have decreased by 34%.

ELM replacement has also been analyzed additionally based on average number replaced to total number available. Prior to the new ELM installation, markers were spaced at ten feet and totaled approximately 8,400. With 4,030 markers replaced per month on average, nearly 50% of the markers were being replaced monthly. With the current spacing of five feet, the new ELMs total approximately 16,800. With an average monthly replacement of 334 (through June 2018), replacement equates to only 2%.

<sup>1</sup>Data provided by Archer Western (Contractor on I-95 Pavement Rehab Project) and DBI (District Six's Asset Maintenance Contractor)

<sup>2</sup>Data provided by FHP (Though Bi-weekly Invoicing for District Six FHP Hireback Program)

<sup>3</sup>Data provided by District Six SunGuide<sup>®</sup> Center (via SunGuide<sup>®</sup> Software)

<sup>4</sup>Data provided by Florida's Turnpike (via Monthly Toll Gantry Reports)

<sup>5</sup>Monthly average from December 22, 2016 through June 30, 2018









#### **Operations/Traffic Statistics** - Speed Data

95 Express average speeds met or exceeded the facility's 45 MPH operational speed target for weekdays; however, peak period speeds in segments 1N and 2S did not meet the speed target. Facility-wide average and peak period speeds for the Express Lanes (EL) and Local Lanes (LL) decreased between 2 and 1 percent on average when compared to speeds from the previous Fiscal Year.

The following graphs show the facility's speed reliability by segment in both overall and peak periods.



NOTE: ITD = Inception to Date; EL = Express Lanes; LL = Local Lanes (General Purpose Lanes) NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016 NOTE: Peak Period is defined as 6-9 AM (southbound) and 4-7 PM (northbound).





#### **Operations/Traffic Statistics** - Speed Data (Cont.)

95 Express average peak period speeds met or exceeded the facility's 45 MPH operational speed target on all segments except for segments 1N and 2S. See below for average peak period speeds for the Express Lanes (EL) and Local Lanes (LL) by segment for all fiscal years from inception.



NOTE: ITD = Inception to Date; EL = Express Lanes; LL = Local Lanes (General Purpose Lanes) NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016 NOTE: Peak Period is defined as 6-9 AM (southbound) and 4-7 PM (northbound).







### **Operations/Traffic Statistics** - Speed Data (Cont.)

Overall speed reliability for each segment exceeded the facility's 90% goal as shown below. However, the graphs show 95 Express speed reliability during the peak period declined for Segment 1N to 27.3% and was 54.0% for Segment 2S. Speed reliability for the entire 95 Express facility during weekdays was 93.8% and 98.6% for the northbound and southbound directions respectively, while speed reliability for the peak periods was 57.1% for the northbound PM peak and 92.3% for the southbound AM peak.



NOTE: ITD = Inception to Date; EL = Express Lanes; LL = Local Lanes (General Purpose Lanes) NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016





#### **Operations/Traffic Statistics** - Volume Data

95 Express average weekday volumes were consistent with the previous Fiscal Year average. Average weekday volumes for FY 2017-2018 are depicted below for each segment.



NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016







### **Operations/Traffic Statistics - Volume Data** (Cont.)

The Express Lanes experienced a 1.5% decrease in peak period average volume compared to last year. While peak period average volumes in Segment 1 were consistent with last FY, a decline can be observed in the graphs below for Segments 2 and 3 in the northbound direction. Average peak period volumes for FY 2017-2018 are depicted below by segment.



NOTE: ITD = Inception to Date; EL = Express Lane NOTE: Peak Period is defined as 6-9 AM (southbound) and 4-7 PM (northbound).

NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016





#### **Operations/Traffic Statistics - Volume Data** (Cont.)

The graphs on this page depict the percentage of traffic using the Express Lanes compared to the overall I-95 corridor volume by direction for each segment.



NOTE: Peak Period is defined as 6-9 AM (southbound) and 4-7 PM (northbound). NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016

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### **Revenue Statistics**

95 Express collected approximately \$49.9 million in revenue during FY 2017-2018; close to a 5% increase above the previous Fiscal Year. FY 2017-2018 was marked with events that impacted trip volumes and revenue. It was the first full FY of operations for Segments 2 and 3 (operations started October 16, 2016). Hurricane Irma caused tolls to be suspended for approximately 16 days starting September 9, 2017. Beginning May 2017 and through the FY, a pavement rehabilitation project on I-95 in Miami-Dade County temporarily relocated the Segment 1N entrance 2/3 of a mile further north. This reduction of segment length resulted in an interim maximum toll of \$10.00 for Segment 1N (\$0.50 less than the original maximum toll of \$10.50). Construction for long-term roadwork has included Segment 1 closures as well as detouring traffic from the general purpose lanes into the express lanes during continuous weekend lane closures. During these construction activities, tolls are set to zero along the three NB segments to accommodate general purpose motorists. Incremental year by year comparison graphs are shown below for average monthly revenue, average weekday and average peak period revenues.



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#### Revenue Statistics (Cont.)

Average peak period revenue for FY 2017-2018 are depicted below by segment.



NOTE: ITD = Inception to Date; EL = Express Lanes

NOTE: Peak Period is defined as 6-9 AM (southbound) and 4-7 PM (northbound).

NOTE: 1N Commenced Tolling on 12/5/2008; 1S on 1/15/2010; 2N, 2S, 3N and 3S on 10/16/2016







#### **Tolls Statistics**

An interim maximum toll of \$10.00 was in effect for Segment 1N through the FY due to a temporary relocation of the segment ingress by the I-95 Pavement Rehabilitation construction. For the year, 85% of the trips in Segment 1 were charged \$4.00 or less (on average) and 95% were charged \$9.75 or less. These values represent \$0.25 and \$0.75 more than the previous year. A toll of \$0.50 or less was charged to 95% of the trips in Segment 2 and to 100% of the trips in Segment 3. The frequency of the tolls charged and the typical toll for each hour of the day, by direction are depicted below.



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# **Registrations—Toll Exempt Trips**

The total registrations for FY 2017-2018 increased from 9,070 to 9,179 (+1.2%). There were 1.77 million Toll Exempt Trips, a 16% increase over the previous Fiscal Year; comprising approximately 3.6% of the total trips for the year. Hybrid vehicles increased to 49% of the registrations this year. Hybrid vehicles accounted for 88% of the total exempt weekday trips and for nearly 89% of the exempt trips taking place during the peak periods. In all, hybrid exempt trips accounted for 2.4% of all 95 Express trips happening during the weekdays.











#### **Facility Availability**



#### Express Lanes Facility Availability (FY 2017-18) Segment 2 0.9% 0.2%



Segment 1 of the 95 Express Lanes was open to motorists 74.3% of the time, while closed 23.6% due to 525 planned construction and/or maintenance events and 2.1% due to 695 nonconstruction recurring events. The and maintenance events are typically overnight; concrete rehabilitation however, а and emergency stopping sites construction project executes weekend long express lanes closures during some weekends. The non-recurring events caused the express lanes to be closed 27 minutes per event. These annual totals equate to approximately 44 planned events and 58 incidents every month.

Segment 2 of the 95 Express Lanes was open to motorists 98.9% of the time, while closed 0.9% due to 58 planned construction and/or maintenance events and 0.2% due to 66 nonrecurring events. The construction and maintenance events are typically overnight and each last approximately 2.7 hours. The nonrecurring events caused the express lanes to be closed 34 minutes per event. These annual totals equate to approximately 5 planned events and 6 incidents every month.



Segment 3 of the 95 Express Lanes was open to motorists 98.6% of the time, while closed 0.8% due to 39 planned construction and/or maintenance events and 0.6% due to 165 nonrecurring events. The construction and maintenance events are typically overnight and each last approximately 3.9 hours. The nonrecurring events caused the express lanes to be closed 33 minutes per event. These annual totals equate to approximately 3 planned events and 14 incidents every month.







# **Equipment Availability**

95 Express devices are deemed by the District as the most critical, since all combine to provide accurate and timely information to the driver, including toll amounts, congestion and closure information, as well as incident management messaging. The graph below depicts the availability of the nearly 235 devices.



Below are the average monthly failure responses (maintenance crews responding to a device failure ticket) for the 95 Express devices. Failures are either deemed as Critical or Non-Crititcal. A Critical failure is defined as a failure that creates a safety hazard to motorists or impact the operations of several devices in the region. Since all 95 Express devices are deemed as critical devices, their failures are also deemed critical.



NOTE: DMS equals Dynamic Message Sign









# <u>Transit</u>

Below shows the average weekday boardings for the Miami-Dade Transit (MDT) and Broward County Transit (BCT) express bus routes which utilize 95 Express. Average weekday boardings for FY 2017-2018 was 3,679 passengers, consistent with numbers from the previous FY.



This concludes the 95 Express Annual Report for Fiscal Year 2017-2018. For all previous years' performance, project history and lessons learned, please visit 95Express.com.



