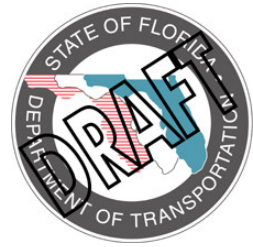


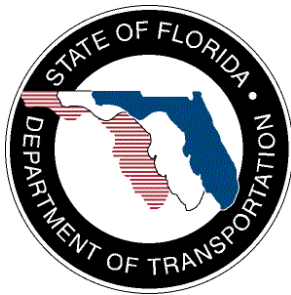
# Technical Memorandum



## Statewide Advanced Traveler Information System Project

### District 5 Concept of Operations

December 20, 2006  
Draft Version 3



Prepared for:

Florida Department of Transportation  
Traffic Engineering and Operations Office  
Intelligent Transportation Systems Section  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

*Technical Memorandum – Statewide ATIS Project  
District 5 Concept of Operations*



<b>DOCUMENT CONTROL PANEL</b>		
File Name:	<i>Technical Memorandum – Statewide Advanced Traveler Information System Project – District 5 Concept of Operations</i>	
File Location:	W:\ITS Program\ITS GC\060305 NEW ITS GC Contract\Assign 8 - STIS Concept\D5 ConOps\061219 D5 ConOps Draft v1 (clean).doc	
Deliverable Number:		
Version Number:	Draft Version 3	
	Name	Date
Created By:	Erik Gaarder, PBS&J	August 1, 2006
	Richard Mino, PBS&J	August 1, 2006
	Katrina Priore, PBS&J	August 1, 2006
Reviewed By:	Hong-Ting Chen, PBS&J	September 25, 2006
	Richard Mino, PBS&J	September 25, 2006
	Jennifer Heller, FDOT District 5	November 16, 2006
	Erik Gaarder, PBS&J	November 17, 2006
	Erik Gaarder, PBS&J	December 7, 2006
Modified By:	Pam Hoke, PBS&J	December 2, 2006
Completed By:	Pam Hoke, PBS&J	December 20, 2006



## Table of Contents

<b>List of Appendices</b> .....	<b>iv</b>
<b>List of Tables</b> .....	<b>iv</b>
<b>List of Figures</b> .....	<b>iv</b>
<b>List of Acronyms</b> .....	<b>v</b>
<b>1. Introduction</b> .....	<b>1</b>
<b>1.1 Purpose</b> .....	<b>1</b>
<b>1.2 Background</b> .....	<b>1</b>
<b>1.3 Content</b> .....	<b>2</b>
<b>2. Referenced Documents</b> .....	<b>3</b>
<b>3. Concept of Operation</b> .....	<b>4</b>
<b>3.1 Current Situation</b> .....	<b>4</b>
3.1.1 Introduction .....	4
3.1.1.1 Background .....	4
3.1.1.2 Overview.....	5
3.1.2 Inputs .....	7
3.1.2.1 Overview.....	7
3.1.2.2 District 5 Regional Transportation Management Center Inputs.....	7
3.1.3 Operations.....	8
3.1.3.1 Overview.....	8
3.1.3.2 Regional Transportation Management Center Advanced Traveler Information System Staffing .....	9



3.1.4	Outputs.....	9
3.1.4.1	Overview.....	9
3.1.4.2	Data Fusion Subsystem.....	9
3.1.4.3	Interactive Voice Response Subsystem.....	10
3.1.4.4	Web Site.....	10
3.1.4.5	Bright House Networks.....	10
3.1.4.6	Central Florida Data Warehouse.....	11
3.1.4.7	Partners.....	11
<b>3.2</b>	<b>Justification for Changes .....</b>	<b>12</b>
<b>3.3</b>	<b>Future State.....</b>	<b>13</b>
3.3.1	Introduction .....	13
3.3.1.1	Vision.....	13
3.3.1.2	Basic Model.....	13
3.3.1.3	Overview.....	14
3.3.2	Inputs .....	17
3.3.2.1	Overview.....	17
3.3.3	Operations.....	17
3.3.3.1	Overview.....	17
3.3.3.2	Additional Responsibilities.....	17
3.3.4	Outputs.....	18
3.3.4.1	Overview.....	18
3.3.4.2	Data Fusion Subsystem.....	18
3.3.4.3	Interactive Voice Response Subsystem.....	19
3.3.4.4	Web Site.....	19
3.3.4.5	Video Aggregation Subsystem.....	20
3.3.4.6	Third Party Feed.....	20
3.3.4.7	Partners.....	20



## **List of Appendices**

Appendix A – District 5 Roads Covered by the Current  
Advanced Traveler Information System

Appendix B – District 5 Roads to be Covered by the Future  
Statewide Advanced Traveler Information System

## **List of Tables**

Table A.1 – District 5 Roads Covered by the Current Advanced Traveler Information System.....	A-3
Table B.1 – District 5 Roads to be Covered by the Future Statewide Advanced Traveler Information System.....	B-2

## **List of Figures**

Figure 3.1 – District 5 Current Advanced Traveler Information System Support.....	6
Figure 3.2 – District 5 Future Advanced Traveler Information System Support.....	16



## List of Acronyms

ATIS.....	Advanced Traveler Information System
CAD.....	Computer-aided Dispatch
CCTV.....	Closed-circuit Television
ConOps.....	Concept of Operations
CR.....	County Road
CRC.....	Castle Rock Consultants
CRS.....	Conditions Reporting System
DMS.....	Dynamic Message Signs
Email.....	Electronic Mail
FDOT.....	Florida Department of Transportation
FHP.....	Florida Highway Patrol
FIHS.....	Florida Intrastate Highway System
FTE.....	Florida’s Turnpike Enterprise
HAR.....	Highway Advisory Radio
HEFT.....	Homestead Extension of Florida’s Turnpike
I-4.....	Interstate 4
ITS.....	Intelligent Transportation System
ITS America™.....	Intelligent Transportation Society of America
IVR.....	Interactive Voice Response
JPEG.....	Joint Photographic Experts Group
OOCEA.....	Orlando-Orange County Expressway Authority
PIO.....	Public Information Office
RTMC.....	Regional Transportation Management Center
SIS.....	Strategic Intermodal System
SR.....	State Road
TEOO.....	Traffic Engineering and Operations Office
TMC.....	Transportation Management Center
TMI.....	Traffic Management, Inc.
U.S.....	United States
VAS.....	Video Aggregation Subsystem



## **1. Introduction**

### **1.1 Purpose**

This technical memorandum describes the next-generation statewide advanced traveler information system (ATIS) to be implemented in the 2008 to 2013 timeframe at the District level, and serves as the initial District 5 concept of operations (ConOps).

This report details the current or near-term situation of 511 traveler information in District 5, along with the proposed system in 2008. This report is one of eight District ConOps that further refines the initial *Statewide ATIS Concept of Operations* for each District.<sup>1</sup>

### **1.2 Background**

The Florida Department of Transportation (FDOT) currently operates one of the most widely used traveler information programs in the country. Florida 511 services receive roughly 500,000 calls a month from people accessing real-time traveler information. Florida's combined cobranded 511 Web sites also receive roughly 1,000,000 Web hits a month. Hundreds of dynamic messages sign (DMS) devices, and dozens of permanent and portable highway advisory radio (HAR) stations are used throughout the state to inform drivers of congestion, incidents, and construction zones. Millions of travelers rely on static information provided through various means, such as rest areas, welcome centers, the state map, and public service campaigns.

While the FDOT's efforts have proven effective, opportunities remain to improve service to the traveling public. The state's initial regional advanced traveler information projects are scheduled to reach the end of contractual terms in mid-2008. This gives the state both an opportunity to improve and integrate services, and a need to plan and implement follow-up services to ensure the continued provision of quality traveler information.

---

<sup>1</sup> More information regarding the *Statewide ATIS Concept of Operations* and other project documentation for the Statewide ATIS project is available in *Section 2*.



## *Technical Memorandum – Statewide ATIS Project District 5 Concept of Operations*

---

In late 2003, the FDOT formed the Florida 511 Working Group to support coordination among state traveler information programs.<sup>2</sup> In early 2004, the 511 Working Group determined that Florida's next-generation traveler information services — or what follows when these first-generation projects end in 2008 — should be far more integrated, consistent, statewide, and seamless than current projects. Further, the FDOT Central Traffic Engineering and Operations Office (TEOO) Intelligent Transportation Systems (ITS) Section should take the lead in defining and establishing an integrated telephone and Web site infrastructure that supports state traveler information services in 2008 and beyond. The TEOO ITS Section should also continue working with the 511 Working Group to coordinate the creation of that infrastructure, and to define roles for the FDOT Districts and partner agencies in creating and managing the content provided through the statewide ATIS.

The FDOT Executive Board approved the budget for Florida's next generation statewide ATIS on July 19, 2006.

### **1.3 Content**

This technical memorandum contains the initial District ConOps, and provides an initial baseline of the project's assumptions, boundaries, and constraints, including the roadways covered by each District and the data flows within each District).

The topics covered in this report include:

- *Section 1 – Introduction*
- *Section 2 – Referenced Documents*
- *Section 3 – Concept of Operations*

---

<sup>2</sup> More information regarding the Florida 511 Working Group is available online at [http://www.dot.state.fl.us/TrafficOperations/ITS/Projects\\_Deploy/511/WGM.htm](http://www.dot.state.fl.us/TrafficOperations/ITS/Projects_Deploy/511/WGM.htm).



## **2. Referenced Documents**

The documents identified below were referenced during the development of this ConOps. These documents, along with other project information, are available on the project Web site located online at [http://floridaitis.com/Travel\\_Info-ConOps\\_Dev.htm](http://floridaitis.com/Travel_Info-ConOps_Dev.htm).

*Technical Memorandum  
Statewide Advanced Traveler Information  
System (ATIS) Project  
Statewide ATIS Concept of Operations  
August 4, 2006  
Version 2*

Florida Department of Transportation  
Traffic Engineering and Operations Office  
Intelligent Transportation Systems Section  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

*Technical Memorandum  
Statewide Advanced Traveler Information  
System (ATIS) Project  
Environmental Scan  
August 16, 2006  
Version 2*

Florida Department of Transportation  
Traffic Engineering and Operations Office  
Intelligent Transportation Systems Section  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

*Technical Memorandum  
Statewide Advanced Traveler Information  
System Project  
Stakeholder Input and User Needs  
August 16, 2006  
Version 2*

Florida Department of Transportation  
Traffic Engineering and Operations Office  
Intelligent Transportation Systems Section  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

*Technical Memorandum  
Statewide Advanced Traveler Information  
System Project  
Project Concept Report  
September 13, 2006  
Version 2*

Florida Department of Transportation  
Traffic Engineering and Operations Office  
Intelligent Transportation Systems Section  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600



### **3. Concept of Operations**

To understand the impact that the future statewide ATIS to be implemented in 2008 will have on traveler information in District 5, this ConOps reviews the current situation, discusses the justification for changes, and reviews the potential future state in District 5.

#### **3.1 Current Situation**

##### **3.1.1 Introduction**

###### **3.1.1.1 Background**

District 5 launched the Central Florida Traveler Information 511 Service on June 24, 2002. The 511 service initially provided travelers with traveler information on four segments along the Interstate 4 (I-4) corridor in Volusia and Seminole counties; downtown Orlando; and the central Florida attractions' area.)

In 2005, as part of the *i*Florida Model Deployment project,<sup>3</sup> District 5 enhanced the Central Florida Traveler Information 511 Service, expanding the geographic coverage area of the 511 service to include limited-access facilities and key arterials in the Orlando metropolitan area, and launched the statewide 511 service. Additional enhancements to the system included additional data availability from the Orlando-Orange County Expressway Authority's (OOCEA) data warehouse, which allows the system to report travel times for all roads covered by the OOCEA.

Both the central Florida and statewide 511 systems are part of the same system — that is, they share the same data fusion subsystem and data dissemination subsystem.

---

<sup>3</sup> More information regarding the FDOT's *i*Florida Surface Transportation Security and Reliability Information System Model Deployment project is available online at <http://www.iflorida.net/>.



### *3.1.1.2 Overview*

The District 5 regional transportation management center (RTMC) currently acts as the hub for ATIS information. Traffic Management, Inc. (TMI) is the District 5 RTMC contractor and assists with ATIS data collection as part of normal RTMC operations. Castle Rock Consultants (CRC) was contracted to provide the 511 system's conditions reporting system (CRS), which fuses traveler information for dissemination on the 511 Web site and 511 interactive voice response (IVR) telephone system. Castle Rock Consultants developed the central Florida 511 Web site and the 511 IVR subsystem was developed under contract with LogicTree.<sup>4</sup>

The *i*Florida project is in the deployment phase through March 2007, and contract extensions through March 2009 are anticipated.

*Appendix A* provides the list of roadways currently covered by the central Florida 511 system and the statewide 511 system.

Figure 3.1 shows the current traveler information data flows within District 5. The following sections review the inputs, operations, and outputs shown in this diagram.

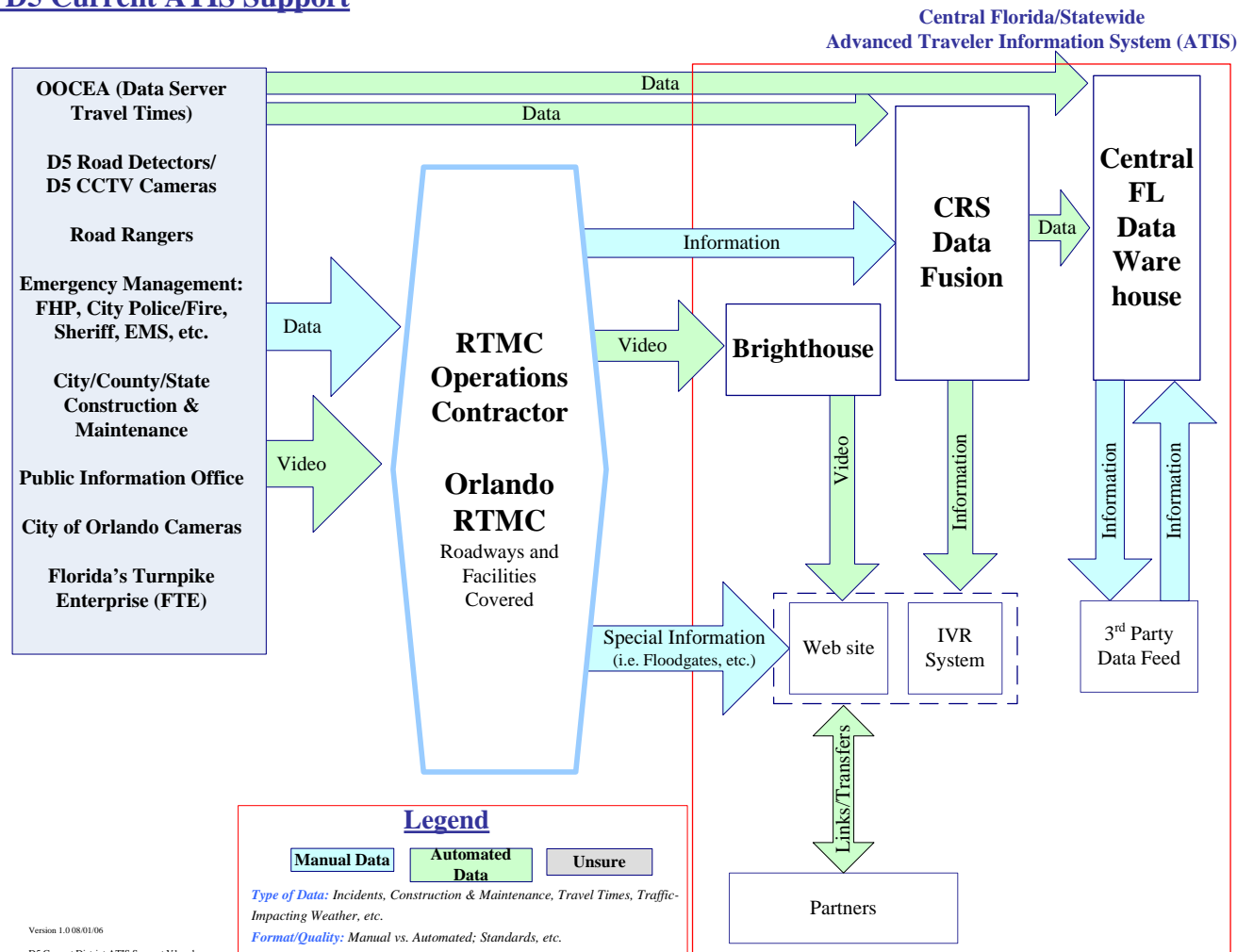
---

<sup>4</sup> More information regarding LogicTree is available online at <http://www.logictree.com/>.



Figure 3.1 – District 5 Current Advanced Traveler Information System Support

D5 Current ATIS Support





### 3.1.2 Inputs

#### 3.1.2.1 Overview

As seen in Figure 3.1, the District 5 RTMC acts as the hub for traveler information. The inputs shown are mostly manual in nature, with TMI operators receiving and distributing telephone calls, text messages, et cetera. Some information, such as data from the RTMC closed-circuit television (CCTV) cameras, RTMC detectors, and a Florida Highway Patrol (FHP) computer-aided dispatch (CAD) feed, are received automatically. Note that the OOCEA data server also sends travel times directly to the CRS data fusion subsystem and the central Florida data warehouse.

#### 3.1.2.2 District 5 Regional Transportation Management Center Inputs

As shown in Figure 3.1, the District 5 RTMC inputs include those listed below.

- **Orlando-Orange County Expressway Authority** — The OOCEA center-to-center server feeds travel times directly to the CRS and the central Florida data warehouse. These travel times are for both OOCEA roadways and FDOT roads covered by the *i*Florida project. The OOCEA video goes to the RTMC, but is not yet provided to the Web site.
- **District 5 CCTV Cameras and Detectors** — District 5 CCTV cameras and detectors are located on the roadways listed in *Appendix A*.
- **Road Rangers** — Road Rangers provide assistance along the freeways in District 5, and are often times the first to arrive on the scene and the first to provide timely incident information to the RTMC.
- **Emergency Management** — Emergency management agencies, including the FHP, local police, emergency operation centers (EOCs), et cetera, are an important source of information on all roadways covered by the RTMC.

District 5 and FHP have an agreement for a direct automatic feed into the CRS for incident and event information on District covered roadways. Note that the roadways covered by the statewide 511 ATIS are fed solely by information from the FHP CAD system.



The RTMC operators collect additional travel information in the District by:

- Interfacing with local police and fire departments
- Interfacing with the FHP, which is currently collocated with the FDOT at their Orlando RTMC
- Communicating with EOCs
- Communicating with other transportation management centers (TMCs)
- **City / County / State Construction and Maintenance Offices** — The RTMC also interfaces with state, city and county construction and maintenance offices to obtain up-to-date information on planned construction and maintenance activities that impact District covered roadways.
- **District Public Information Office (PIO)** — Various reports from the District’s PIO, including weekly construction and maintenance reports, are provided to the RTMC and provide additional traveler information.
- **City of Orlando Cameras** — The City of Orlando has several cameras located throughout the city that provide video with important traveler information. There is an agreement between the City of Orlando and District 5 that allows the District access to view the City of Orlando’s cameras for use in the 511 system.
- **Florida’s Turnpike Enterprise (FTE)** — Florida’s Turnpike Enterprise provides traveler data on its roadways to the RTMC. No video is provided.

In the near future, FTE plans to take responsibility for entering data in the CRS on Florida’s Turnpike roadways in District 5.

### **3.1.3 Operations**

#### **3.1.3.1 Overview**

As seen in Figure 3.1, the FDOT RTMC is a critical element in the data collection process for the central Florida and statewide 511 systems. The RTMC processes data/video utilizing the CRS, and Cameleon™ and Skyline software.<sup>5,6</sup>

---

<sup>5</sup> Cameleon is a trademark of Access Commerce and may be registered in certain jurisdictions. More information is available online at <http://www.access-commerce.com/>.

<sup>6</sup> More information regarding Skyline is available online at <http://www.skylinesoft.com/>.



### *3.1.3.2 Regional Transportation Management Center Advanced Traveler Information System Staffing*

The District 5 RTMC operates 24 hours a day, 7 days a week. Traffic Management, Inc. is the current RTMC contractor and ATIS information is collected as part of normal RTMC operations.

Traffic Management, Inc. maintains a staff of four full-time operators during peak hours (i.e., from 6:00 a.m. to 10:00 p.m.), which includes a TMI RTMC manager. The FDOT also staffs an FDOT RTMC floor manager during this time.

During off-peak hours, TMI maintains a staff of three full-time operators, including the TMI RTMC manager. Traffic Management, Inc. is looking at hiring additional part-time staff to support operations during peak hours.

## *3.1.4 Outputs*

### *3.1.4.1 Overview*

As seen in Figure 3.1, traveler information is fused by the CRS, and disseminated via the central Florida/statewide IVR subsystem and 511 Web site.

Bright House Networks takes certain video streams from the RTMC and makes them available for the 511 Web site.<sup>7</sup>

Special information, such as floodgate messages, alert messages on the Web site, et cetera, is handled by RTMC operators for dissemination on the IVR subsystem.

There will also be a central Florida data warehouse that receives inputs directly from the OOCEA and from the CRS data fusion subsystem.

### *3.1.4.2 Data Fusion Subsystem*

The data fusion subsystem utilized by the central Florida/statewide 511 traveler information system is the CRS developed by CRC. As mentioned previously, some of the inputs into the CRS, such as construction information, PIO information, et cetera, are entered manually by RTMC operators and some of the inputs, such as the FHP CAD data and OOCEA data, are automatically fed into the CRS.

---

<sup>7</sup> More information regarding Bright House Networks is available online at <http://www.brighthouse.com/>.



### *3.1.4.3 Interactive Voice Response Subsystem*

District 5's IVR subsystem has two partitions, one is the central Florida 511 system and the other is the statewide 511 system. The central Florida 511 system can be accessed by dialing 511 from within the central Florida area. The statewide 511 system can be accessed by dialing 511 in any area that does not currently have a regional 511 service.

Information provided on the central Florida 511 partition includes:

- Highway information, such as traffic, event, construction, and travel-time data
- Public transportation information
- Airport information
- Port Canaveral information

Information provided on the statewide 511 partition includes:

- Highway information, such as traffic, event, and construction data

### *3.1.4.4 Web Site*

The central Florida 511 Web site is a partition within the statewide Web site and provides information for both the statewide and central Florida 511 systems.<sup>8</sup> This site was launched on November 17, 2005. Information provided on the Web site includes:

- Traffic conditions provided on a stylized map with close-ups of certain regions
- Construction information
- Weather information
- Evacuation information
- Travel-time data with a real-time route planner
- Congestion map
- Traffic cameras providing streaming video and Joint Photographic Experts Group (JPEG) images

### *3.1.4.5 Bright House Networks*

Bright House assists with providing video for the 511 Web site.

---

<sup>8</sup> The Web site is available online at <http://www.fl511.com/>.



#### *3.1.4.6 Central Florida Data Warehouse*

The central Florida data warehouse automatically collects and archives data from the OOCEA and the CRS. This data warehouse and the third party data feed are still works in progress. The third parties that would benefit from this data feed would be a FDOT-approved entity, public or private, that uses the information to add additional value or further disseminate the information.

#### *3.1.4.7 Partners*

The central Florida 511 IVR subsystem provides transfers to:

- LYNX
- Orlando International Airport
- Orlando-Sanford International Airport
- Port Canaveral
- Other regional and statewide Florida 511 systems, including the systems for southeast Florida, Tampa Bay, and the statewide Florida system

The central Florida/statewide Web site links to:

- Southeast Florida 511
- Tampa Bay 511
- Georgia Navigator traveler information
- Alabama traveler information
- Central Florida Regional Transportation Authority (LYNX)
- Florida transit agencies
- Amtrak<sup>9</sup>
- Orlando International Airport
- Orlando-Sanford International Airport
- I-95 Corridor Coalition
- I-4 Polk County
- Port Canaveral
- Interstate 4 Tans4mation

---

<sup>9</sup> Amtrak is a registered trademark of the National Railroad Passenger Corporation.



### **3.2 Justification for Changes**

Distinct traveler information systems currently exist within Florida, each differing slightly in what, where, when, and how they provide traveler information. As noted previously, the Florida 511 Working Group determined in early 2004 that the next generation of Florida's traveler information services should be far more integrated, consistent, statewide, and seamless than current projects.

The *Stakeholder Input and User Needs Technical Memorandum* referenced in *Section 2* confirmed this assessment. Stakeholders want, and users expect, a future Florida ATIS that improves the current situation and provides high-quality information that is accurate, timely, reliable, complete, accessible, and relevant in a manner that is quick and easy to understand and use. Stakeholders also desire a future ATIS that is both consistent and accountable, while built on a common platform.

In 2008, the current contracts for all the regional 511 services in Florida end — an opportune moment to introduce a new way of providing 511 services across the state. The proposed model, a statewide approach, maintains decentralized data collection at each FDOT District while introducing centralized data fusion and data dissemination subsystems.

This new statewide approach attempts to provide the best of both worlds. By continuing decentralized data collection, each District maintains control over the 511 content, and keeps some of the flexibility and autonomy inherent in a decentralized system. By introducing centralized data fusion and data dissemination subsystems, the statewide approach provides more consistency and efficiency. By utilizing risk management and systems engineering, the potential disadvantages of centralizing the data fusion and data dissemination subsystems can be overcome.

A new statewide approach to 511 will:

- Avoid redundant spending on multiple regional 511 services
- Eliminate the current inconsistency of service delivery across the state
- Eliminate call routing issues
- Lower operating and maintenance costs
- Simplify implementation of a statewide video aggregation subsystem (VAS)
- Enhance District coordination



- Better meet stakeholder needs —
  - High quality information that is accurate, reliable, and timely
  - Quick and easy to use
  - Consistent
  - Accountable

This new statewide approach to 511 will affect each District differently. The following section describes the likely future state in District 5 that will result from this new statewide approach to traveler information. Specifically, the new data flows (i.e., inputs, operations, and outputs) and roadway coverage will be examined.

### **3.3 Future State**

#### **3.3.1 Introduction**

##### *3.3.1.1 Vision*

The envisioned structure for the future statewide ATIS as it relates to each District is discussed in this section. The goal of this next-generation statewide ATIS is to provide users with a far more integrated, consistent, statewide, and seamless traveler information system. To achieve this goal, the future statewide ATIS will rely on the data reported by the seven Districts, FTE, and their partners for traveler information.

Each District and FTE shall manage the content (i.e., traveler information) being reported on the statewide ATIS. This management includes the responsibility of collecting and verifying the information on incidents; traffic flow; construction and maintenance; et cetera; for their particular coverage area (i.e., District).

##### *3.3.1.2 Basic Model*

The basic model for the data flow in each District is very similar. In this model, the RTMC acts as the hub for traveler information on the covered roadways. The covered roadways consist of a minimum of Florida's Strategic Intermodal System (SIS) and emerging SIS roadways within each District.<sup>10</sup>

---

<sup>10</sup> More information regarding Florida's SIS and emerging SIS roadways is available online at <http://www.dot.state.fl.us/planning/SIS/default.htm>.



## *Technical Memorandum – Statewide ATIS Project District 5 Concept of Operations*

---

The traveler information gathered at the RTMC can be categorized into ITS and non-ITS inputs. The ITS inputs, such as sensors and CCTV cameras, are directly controlled by the RTMC. The non-ITS inputs, such as the District PIO; construction and maintenance personnel; emergency management agencies; police scanners; mobile units; et cetera; will supplement this information. Quality standards/metrics need to be established for when traveler information from these inputs meets a good level of quality and can be disseminated. The RTMC will be responsible for performing all functions of data collection, verification, and validation. The RTMC will also be responsible for coordination (i.e., no double reporting of incidents) with other reporting agencies, including other District RTMCs.

To minimize the RTMC workload, there will be automated interfaces between the data fusion subsystem and the RTMC operating software, such as SunGuide<sup>SM</sup>, SunNav, et cetera.<sup>11</sup> Note that while this interface will be automated, human intervention will still be needed to verify and validate this information. The video from each RTMC will be handled automatically by the VAS. Some special information, such as bilingual floodgate messages, will still be required and will probably not be automated.

Consistency in data collection and reporting will be key to the success of the future statewide ATIS. Each District and FTE is unique (e.g., status. of current ATIS, methods of collecting ATIS data, et cetera) and needs to be analyzed in detail.

This section reviews the future 511 system for District 5 and clarifies the impact a future statewide ATIS will have on District 5.

### *3.3.1.3 Overview*

In the future state (2008), the District 5 RTMC will continue to collect and manage all the content within their District. There will potentially be increased responsibility to collect data on more roadways, and to verify and validate data from more sources. The District 5 RTMC will continue to serve as the hub for the ATIS information that will be disseminated to the centralized statewide data fusion and dissemination subsystems.

*Appendix B* provides a list of roadways that will be covered in the future system by the District 5 RTMC.

Figure 3.2 shows the current thought of what the future state in District 5 might look like and shows the data flows (i.e., inputs/outputs) that will occur in District 5 with respect to the new statewide approach to ATIS in 2008.

---

<sup>11</sup> SunGuide is a service mark of the Florida Department of Transportation. More information regarding the FDOT's SunGuide software project is available online at <http://sunguide.datasys.swri.edu/>.

*Technical Memorandum – Statewide ATIS Project  
District 5 Concept of Operations*

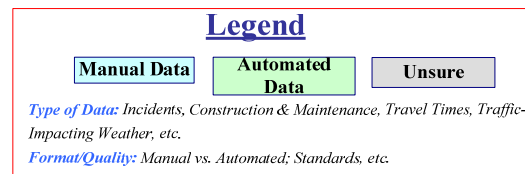
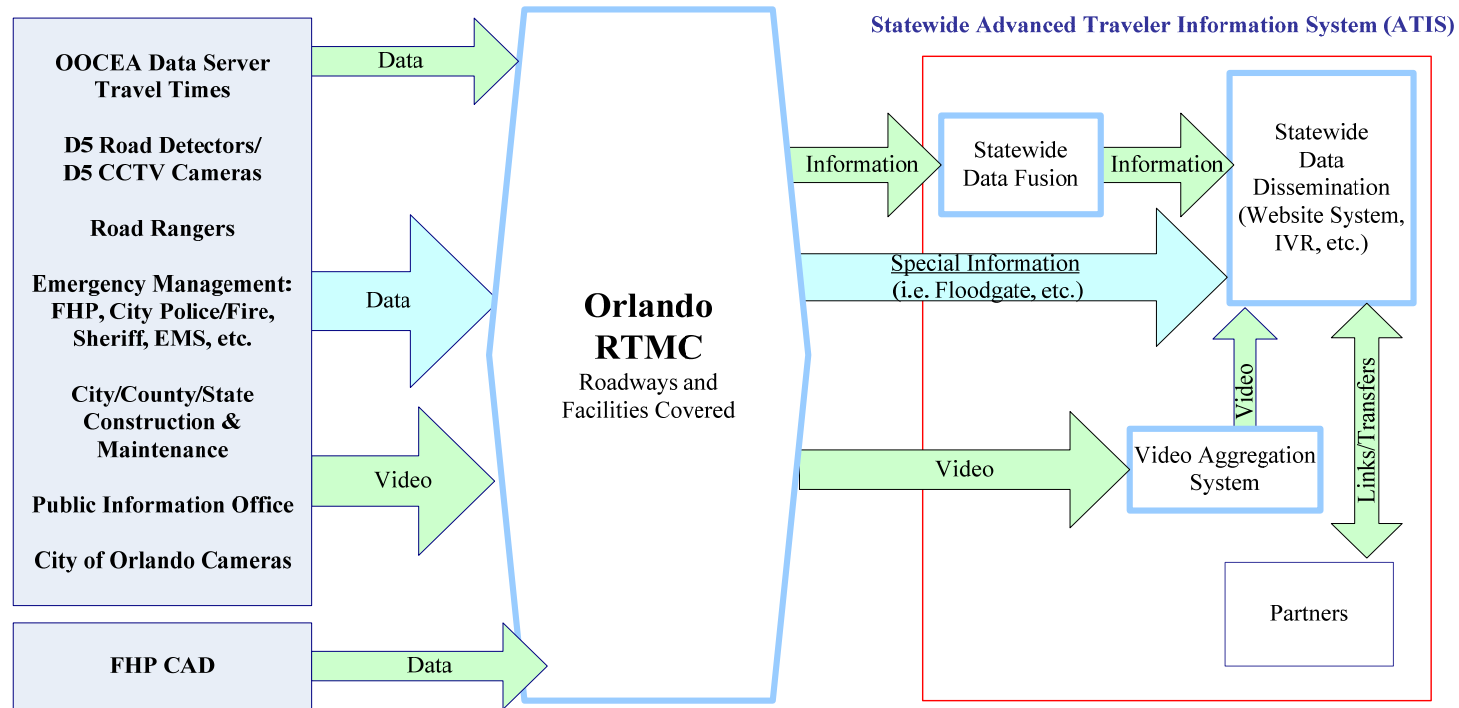
---



The current contract for ATIS services in District 5 will end around July 2008. The plan is to transition to the new statewide service at this time. Details on this transition have not been finalized at this time.



Figure 3.2 – District 5 Future Statewide Advanced Traveler Information System Support



Version 1.0 08/01/06  
 D5 Current District ATIS Support V1.vsd



### 3.3.2 Inputs

#### 3.3.2.1 Overview

As seen in Figure 3.2, the ATIS inputs into District 5's RTMC in the future state will essentially be the same as the current state inputs shown in Figure 3.1. At this time, it is unknown what part the central Florida data warehouse will play in the future state, so the inputs from the OOCEA are shown going solely to the District 5 RTMC.

### 3.3.3 Operations

#### 3.3.3.1 Overview

As seen in Figure 3.2, the RTMC will act as the hub for all traveler information within the District. In 2008, it is assumed that the software used will be an updated/improved version of SunGuide, with an automated interface from the FHP CAD system into SunGuide. There will also be an automated feed from SunGuide into the statewide data fusion subsystem.

The new responsibilities imposed on the District 5 RTMC will not be that extensive. As mentioned previously, most if not all of the ATIS inputs will already be monitored by the RTMC as part of normal operations. In addition, interfaces from the RTMC operating software to the statewide data fusion subsystem will be automated to assist with data transfer. To assist with understanding the impact of the new statewide approach, the following sections highlight the potential additional staffing and roadway responsibilities.

#### 3.3.3.2 Additional Responsibilities

Some of the additional tasks that the RTMC will have to perform because of the new statewide approach will be:

- Verification and validation of ATIS information — The RTMCs will continue to ensure that the data/information being supplied is consistent, timely, and at a good quality level as defined in *Closing the Data Gap: Guidelines for Quality ATIS Data* developed by the Intelligent Transportation Society of America (ITS America<sup>TM</sup>).<sup>12, 13</sup>
- Coordination with other Districts and partner agencies with respect to ATIS information to avoid redundant reporting, which will be a rare occurrence

---

<sup>12</sup> ITS America, *Closing the Data Gap: Guidelines for Quality Advanced Traveler Information System (ATIS) Data* (Version 1.0, September 2000), Electronic Document Library (EDL) No. 13580. Available online at [http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPT\\_MIS/13580.html](http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPT_MIS/13580.html).

<sup>13</sup> ITS America is a trademark of the Intelligent Transportation Society of America.



## *Technical Memorandum – Statewide ATIS Project District 5 Concept of Operations*

---

- Bilingual (i.e., English/Spanish) floodgate messages into the IVR subsystem and text banners for the Web site
- Reporting on additional roadways, including the SIS and emerging SIS roadways (Refer to *Appendix B*.)
- Collect performance measurements that reflect performance of both the ITS and infrastructure, as well as that of the ATIS — The new statewide system will be performance driven, which will require the collection of performance metrics, which will be automated as much as possible.

### *3.3.4 Outputs*

#### *3.3.4.1 Overview*

As seen in Figure 3.2, there will be a statewide data fusion subsystem that fuses all data from District 5 along with data from other sources, such as other Districts, FTE, et cetera. After integrating national, state, and District data, this data is collected by the central Florida data warehouse for archiving, and the statewide data fusion subsystem then sends information to the statewide 511 IVR subsystem, the statewide 511 Web site, and a third party feed. These user interfaces will be supplied with the same information to provide consistent, relevant, and complementary information to the user (i.e., one voice/one visual). The statewide 511 IVR subsystem and the 511 Web site will be bilingual. The statewide 511 system will cover a minimum of the SIS and emerging SIS roadways for the entire state.

The current concept for the next-generation statewide ATIS also includes a VAS that will gather the video from District 5, along with information from the other Districts and FTE.

For more information on the statewide system, refer to the *Statewide ATIS Concept of Operations* referenced in *Section 2*.

#### *3.3.4.2 Data Fusion Subsystem*

The future data fusion subsystem will be a centralized system that fuses data from across the state and performs the following functions.

- Gathers data from a variety of sources, including:
  - Automated traffic detection systems
  - Construction management systems
  - Law enforcement systems
  - Weather reporting systems
  - Other District systems



## *Technical Memorandum – Statewide ATIS Project District 5 Concept of Operations*

---

- Matches the data with the appropriate source
- Ensures that all data is represented in the same temporal and geographic frames of reference
- Addresses and repairs anomalies or inconsistencies between data sources
- Puts the data from various sources into one standard output stream
- Estimates the current state of the system from the available data
- Provides a way to assess the quality of the fused data and the fusion processes according to data quality guidelines, including data accuracy, reliability, latency, et cetera

### *3.3.4.3 Interactive Voice Response Subsystem*

The future statewide 511 IVR subsystem will be a centralized system that supports total call volumes from across the state. It is estimated that this could potentially be as high as 10 million calls per year, which will require approximately 400 ports.

In the future statewide IVR subsystem, all callers entering the system will have immediate access to all information at the main menu. In this new statewide system, users will no longer have to transfer to regional systems to obtain detailed information for a particular region or District as they do today.

The future Statewide IVR subsystem will continue to provide information on:

- Covered roadways
- Public transit
- Other services to be determined in the future

### *3.3.4.4 Web Site*

The future statewide 511 Web site will be a centralized system with separate page views for each District. It is estimated that the Web site will have to support total Web hits as high as 20 million Web hits per year.

The future statewide 511 Web site will continue to provide:

- Traveler information on covered roadways
- Personalization, such as Web site preferences, personalized electronic mail (email) alerts, et cetera



## *Technical Memorandum – Statewide ATIS Project District 5 Concept of Operations*

---

- Video
- Public transit information

### *3.3.4.5 Video Aggregation Subsystem*

The future statewide VAS will receive disaggregated video from all seven District RTMCs, the two FTE RTMCs, and potentially other partners. While there will be almost 1,600 CCTVs available from the FDOT's RTMCs in 2008, the current thought is that only 600 of these will be used initially to provide video on the statewide ATIS. The VAS will translate/convert and aggregate selected video streams to a format that can be displayed as video on the statewide Web site.

### *3.3.4.6 Third Party Feed*

The statewide system will have a third party feed. This third party feed will have a published interface that is to be used by both the public and private sector.

### *3.3.4.7 Partners*

As the project proceeds, the full list of partners will need to be documented.



## **Appendix A**

# **District 5 Roads Covered by the Current Advanced Traveler Information System**



Table A.1 lists the roads currently covered by the District’s existing ATIS and shows the type of coverage that the District uses to obtain traveler information on each particular roadway. These coverage types are explained below.

- **Closed-circuit Television** — Closed-circuit television cameras allow ATIS operators to monitor travel conditions on roadways.
- **Automated ITS Sensors** — Sensors on roadways allow ATIS operators to monitor travel conditions on roadways.
- **Incident-related CAD Data** — Data is obtained by ATIS operators from emergency management agencies’ CAD Web sites to monitor roadway incidents.
- **Agency Calls / Emails on Incidents** — Calls or emails are made to or by ATIS operators to emergency management and other agencies to monitor roadway incidents.
- **Scanner Monitoring** — Incident information is obtained by ATIS operators that monitor frequency scanners on frequencies used by emergency management personnel and other agencies.
- **Internet Construction / Work Zone (WZ) Reports** — Information is obtained by ATIS operators on scheduled construction areas and WZs on roadways by monitoring county or city construction office Web sites.
- **County / City Construction / WZ Calls and Emails** — Reports are obtained by ATIS operators from county or city construction offices that provide regular updates for scheduled roadway construction areas and WZs via telephone calls or emails.
- **Road Ranger Reports** — Incident or travel information reports are received by ATIS operators from Road Rangers that have been contracted to drive the covered roadways; respond to certain types of incidents; and report incidents or travel information on a regular basis to the RTMC.
- **Mobile Data Collection and Tip Line** — Information is received by ATIS operators from either drivers contracted to drive the roadways to monitor incidents and travel conditions on roadways, or by noncontracted roadway users who volunteer information through a tip line setup for traveler feedback.
- **Permits** — Information is received by ATIS operators through the District permitting office on permits issued for events that will impact roadway travel conditions.

In 2003, the FDOT established Florida’s SIS, which identifies specific ports, terminals, and roadways as high priority transportation facilities throughout the state. As part of the vision for the future statewide system, it was determined that each District would cover a minimum of the SIS and emerging SIS roadways in their District.

*Technical Memorandum – Statewide ATIS Project  
District 5 Concept of Operations*

---



To assist with that, Table A.1 identifies the SIS and emerging SIS roadways that belong to the District. Those SIS roadways that are not currently covered by the District ATIS are highlighted in yellow.



**Table A.1 – District 5 Roads Covered by the Current Advanced Traveler Information System**

COUNTY	ROAD	BETWEEN		DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Statewide	I-4	I-275	I-95		-	-	-	-	-	-	-	-	-	-
	I-10	Alabama State Line	I-95		-	-	-	-	-	-	-	-	-	-
	I-75	Palmetto Expressway (State Road [SR] 826)	Georgia State Line		-	-	-	-	-	-	-	-	-	-
	I-95	South Dixie Highway (U.S. 1)	Georgia State Line		-	-	-	-	-	-	-	-	-	-
	I-110	Pensacola Bay Crossing	I-10		-	-	-	-	-	-	-	-	-	-
	I-175	I-275	4 <sup>th</sup> Street South (SR 687 / U.S. 92)		-	-	-	-	-	-	-	-	-	-
	I-195	I-95	Alton Road (SR 907)		-	-	-	-	-	-	-	-	-	-
	I-275	I-75 (south Tampa Bay)	I-75 (north Tampa Bay)		-	-	-	-	-	-	-	-	-	-
	I-295	I-95 (south Jacksonville)	I-95 (north Jacksonville)		-	-	-	-	-	-	-	-	-	-
	I-375	I-275	4 <sup>th</sup> /5 <sup>th</sup> Avenue North (SR 595)		-	-	-	-	-	-	-	-	-	-
	I-395	I-95	MacArthur Causeway (U.S. 41)		-	-	-	-	-	-	-	-	-	-
	I-595	I-75	SR 5 / U.S. 1		-	-	-	-	-	-	-	-	-	-
	Florida's Turnpike (SR 91)	I-95 / Palmetto Expressway (SR 826)	I-75		-	-	-	-	-	-	-	-	-	-
	Airport Expressway (SR 112)	North LeJeune Road (SR 953)	I-95		-	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	Astronaut Boulevard (SR A1A)		-	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)		-	-	-	-	-	-	-	-	-	-
	Dolphin Expressway (SR 836)	Homestead Extension of Florida's Turnpike (HEFT) / SR 821	I-95		-	-	-	-	-	-	-	-	-	-
	Don Shula Expressway (SR 874)	HEFT (SR 821)	Palmetto Expressway (SR 826)		-	-	-	-	-	-	-	-	-	-
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	East Colonial Drive (SR 50)		-	-	-	-	-	-	-	-	-	-
	Gratigny Parkway (SR 924)	Palmetto Expressway	I-95		-	-	-	-	-	-	-	-	-	-
Jacksonville Eastern Beltway (SR 9A)	Baymeadows Road	I-95 (north Jacksonville)		-	-	-	-	-	-	-	-	-	-	
Palmetto Expressway (SR 826)	North Kendall Drive (SR 94)	I-95 / Turnpike (SR 91)		-	-	-	-	-	-	-	-	-	-	
Polk County Parkway (SR 570)	I-4 (west Polk County)	I-4 (east Polk County)		-	-	-	-	-	-	-	-	-	-	
Sawgrass Expressway (SR 869)	I-75	I-95		-	-	-	-	-	-	-	-	-	-	



**Table A.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	Lee Roy Selmon Crosstown Expressway (SR 618)	West Gandy Boulevard (SR 600 / U.S. 92)	I-75	-	-	-	-	-	-	-	-	-	-
	Suncoast Parkway (SR 589)	Veterans Expressway (SR 589)	Ponce de Leon Boulevard (U.S. 98)	-	-	-	-	-	-	-	-	-	-
	Veterans Expressway / East-West Connector	I-275	I-75	-	-	-	-	-	-	-	-	-	-
	Western Beltway (SR 429)	County Road (CR) 535	Orange Blossom Trail (U.S. 441)	-	-	-	-	-	-	-	-	-	-
	SR 26 / SR 20 / SR 100 / SR 207	U.S. 19 / U.S. 98	I-95	-	-	-	-	-	-	-	-	-	-
	SR 29	Hickpoochee Avenue (SR 80)	U.S. 27	-	-	-	-	-	-	-	-	-	-
	SR 40 / CR 326	U.S. 27	I-95	-	-	-	-	-	-	-	-	-	-
	SR 44	U.S. 19 / U.S. 98	I-75	-	-	-	-	-	-	-	-	-	-
	SR 50	Commercial Way (U.S. 19)	I-75	-	-	-	-	-	-	-	-	-	-
	SR 60	I-75	I-95	-	-	-	-	-	-	-	-	-	-
	SR 64	Orange Street (U.S. 17)	U.S. 27 / U.S. 98	-	-	-	-	-	-	-	-	-	-
	SR 70	I-75	I-95	-	-	-	-	-	-	-	-	-	-
	SR 77	CR 2300 (Panama City)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 78	Burnt Store Road (CR 765)	Del Padro Boulevard (CR 867A)	-	-	-	-	-	-	-	-	-	-
	SR 79	Panama City Beach Parkway (U.S. 98)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 80 / United States (U.S.) 441 / SR 700 / U.S. 98	U.S. 27	I-95	-	-	-	-	-	-	-	-	-	-
	SR 80	I-75	U.S. 27	-	-	-	-	-	-	-	-	-	-
	SR 85	SR 123	I-10	-	-	-	-	-	-	-	-	-	-
	SR 87	Navarre Parkway (U.S. 98)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 123	Eglin Parkway (SR 85)	SR 85	-	-	-	-	-	-	-	-	-	-
	Gandy Boulevard (SR 694 / 600)	U.S. 19	Lee Roy Selmon Crosstown Expressway (SR 618)	-	-	-	-	-	-	-	-	-	-
	SR 710 / SR 708	SR 70	I-95	-	-	-	-	-	-	-	-	-	-
	Gratigny Road (SR 924)	Unity Boulevard (SR 9)	I-95	-	-	-	-	-	-	-	-	-	-
	SR 997	SR 25 / U.S. 27	South Dixie Highway (SR 5 / U.S. 1)	-	-	-	-	-	-	-	-	-	-
	U.S. 1	Whitehead Street (SR A1A)	HEFT (SR 821)	-	-	-	-	-	-	-	-	-	-
	U.S. 17 / U.S. 98	I-75	Polk County Parkway (SR 570)	-	-	-	-	-	-	-	-	-	-



**Table A.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	U.S. 19	Gandy Boulevard (SR 694)	Georgia State Line		-	-	-	-	-	-	-	-	-
	U.S. 27	Palmetto Expressway (SR 826)	Florida's Turnpike (SR 91)		-	-	-	-	-	-	-	-	-
	U.S. 27 / Alternate U.S. 27	I-75	U.S. 19		-	-	-	-	-	-	-	-	-
	U.S. 98	Okaloosa County line	U.S. 231		-	-	-	-	-	-	-	-	-
	U.S. 231	East Baldwin Road	Alabama State Line		-	-	-	-	-	-	-	-	-
	U.S. 301 / U.S. 441	N.W. 10 <sup>th</sup> Street (U.S. 27)	U.S. 1 / U.S. 23		-	-	-	-	-	-	-	-	-
	U.S. 319	Coastal Highway (U.S. 98)	Georgia State Line		-	-	-	-	-	-	-	-	-
	U.S. 331	SR 30 / U.S. 98	I-10		-	-	-	-	-	-	-	-	-
	SR 50	Central Florida Greenway (SR 417)	I-95		-	-	-	-	-	-	-	-	-
	SR 71	Monument Avenue (U.S. 98 / U.S. 319)	Central Avenue (SR 20)		-	-	-	-	-	-	-	-	-
	Challenger Memorial Parkway (SR 407)	Bee Line Expressway (SR 528)	I-95		-	-	-	-	-	-	-	-	-
	SR 520	Bee Line Expressway (SR 528)	Atlantic Avenue North (SR A1A)		-	-	-	-	-	-	-	-	-
	U.S. 17	East International Speedway Boulevard (U.S. 92)	East End Road (SR 20 / SR 100)		-	-	-	-	-	-	-	-	-
	U.S. 29	I-10	Alabama State Line		-	-	-	-	-	-	-	-	-
	U.S. 41	HEFT (SR 821)	Davis Boulevard (SR 84)		-	-	-	-	-	-	-	-	-
	U.S. 441 / U.S. 192	I-95	Florida's Turnpike (SR 91)		-	-	-	-	-	-	-	-	-
Central Florida	I-4	U.S. 27	I-95	East	-	-	-	-	-	-	-	-	-
	I-4	U.S. 27	I-95	West	-	-	-	-	-	-	-	-	-
	I-95	Brevard / Indian River County Border	Flagler / Volusia County Border	Both	-	-	-	-	-	-	-	-	-
	Florida's Turnpike (SR 91)	U.S. 192 / U.S. 441	West Colonial Drive (SR 50)	Both	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	I-95 (northbound)	East	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	I-95 (northbound)	West	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)	North	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)	South	-	-	-	-	-	-	-	-	-
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	Colonial Drive (SR50) / Challenger Memorial Parkway	East	-	-	-	-	-	-	-	-	-



**Table A.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN		DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	Colonial Drive (SR50) / Challenger Parkway	West	-	-	-	-	-	-	-	-	-	-
	Western Beltway (SR 429)	CR 535	Orange Blossom Trail (U.S. 441)	North	-	-	-	-	-	-	-	-	-	-
	Western Beltway (SR 429)	CR 535	Orange Blossom Trail (U.S. 441)	South	-	-	-	-	-	-	-	-	-	-
	Colonial Drive (SR 50)	Florida's Turnpike (SR 91)	East-West Connector (SR 408)	Both	-	-	-	-	-	-	-	-	-	-
	Maitland Boulevard (SR 414)	Orange Blossom Trail (U.S. 441)	U.S. 17 / U.S. 92	Both	-	-	-	-	-	-	-	-	-	-
	John Young Parkway / Lee Road (SR 423)	Central Florida Greenway (SR 417)	U.S. 17 / U.S. 92	Both	-	-	-	-	-	-	-	-	-	-
	Semorán Boulevard (SR 436)	Orange Blossom Trail (U.S. 441)	Central Florida Greenway (SR 417)	Both	-	-	-	-	-	-	-	-	-	-
	SR 520	East Colonial Drive (SR 50)	I-95	Both	-	-	-	-	-	-	-	-	-	-
	U.S. 17 / U.S. 92	East Colonial Drive (SR 50)	Central Florida Greenway (SR 417)	Both	-	-	-	-	-	-	-	-	-	-
	U.S. 192	I-4	Florida's Turnpike (SR 91)	Both	-	-	-	-	-	-	-	-	-	-
	Orange Blossom Trail (U.S. 441)	Central Florida Greenway (SR 417)	Western Beltway (SR 429)	Both	-	-	-	-	-	-	-	-	-	-
<b>SIS and Emerging SIS Highways</b>														
<b>SIS Roads that Meet Adopted Criteria and Thresholds</b>														
Interstates	I-4, I-75, I-95 (entire lengths)													
Turnpikes and Expressways	Florida's Turnpike (SR 91)													
	Central Florida Greenway (SR 417)													
	Seminole Expressway (SR 417)													
	Bee Line Expressway (SR 528)													
	East-West Connector (Orlando, SR 408)													
	Western Beltway (Orlando, SR 429), north of Florida's Turnpike													
	Western Beltway, Part C													



**Table A.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	(provisional)												
	Southern Connector Extension (SR 417)												
Other Florida Intrastate Highway System (FIHS) Facilities	U.S. 27 from SR 826 / Palmetto Expressway to Florida's Turnpike at Exit 289												
	U.S. 301 / SR A1A from SR 326 to I-95												
	SR 44 from U.S. 19 to I-75												
	SR 326 from I-75 to U.S. 301												
	SR 60 from I-75 to I-95												
<b>Emerging SIS Roads that Meet Adopted Criteria and Thresholds</b>													
FIHS Facilities	U.S. 27 / U.S. 27A from I-75 to U.S. 19												
	SR 326 / SR 40 from U.S. 301 to I-95												
Non-FIHS Routes	SR 100 / SR 100A / U.S. 41 from I-95 to I-10												
	U.S. 441 from SR 80 to SR 60												
	U.S. 17 from I-4 to I-295												



## **Appendix B**

# **District 5 Roads to be Covered by the Future Statewide Advanced Traveler Information System**

*Technical Memorandum – Statewide ATIS Project  
District 5 Concept of Operations*

---



Table B.1 lists the roads that will be covered by the District’s future statewide ATIS and shows the type of coverage that the District will use to obtain traveler information on each particular roadway. These coverage types are explained in *Appendix A*.

In 2003, the FDOT established Florida’s SIS, which identifies specific ports, terminals, and roadways as high priority transportation facilities throughout the state. As part of the vision for the future statewide system, it was determined that each District would cover a minimum of the SIS and emerging SIS roadways in their District.

To assist with that, Table B.1 identifies the SIS and emerging SIS roadways that belong to the District. Those SIS roadways that are not currently covered by the District’s ATIS are highlighted in yellow.



**Table B.1 – District 5 Roads to be Covered by the Future Statewide Advanced Traveler Information System**

COUNTY	ROAD	BETWEEN		DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS/EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
Statewide	I-4	I-275	I-95		-	-	-	-	-	-	-	-	-	-
	I-10	Alabama State Line	I-95		-	-	-	-	-	-	-	-	-	-
	I-75	Palmetto Expressway (SR 826)	Georgia State Line		-	-	-	-	-	-	-	-	-	-
	I-95	South Dixie Highway (U.S. 1)	Georgia State Line		-	-	-	-	-	-	-	-	-	-
	I-110	Pensacola Bay Crossing	I-10		-	-	-	-	-	-	-	-	-	-
	I-175	I-275	4 <sup>th</sup> Street South (SR 687 / U.S. 92)		-	-	-	-	-	-	-	-	-	-
	I-195	I-95	Alton Road (SR 907)		-	-	-	-	-	-	-	-	-	-
	I-275	I-75 (south Tampa Bay)	I-75 (north Tampa Bay)		-	-	-	-	-	-	-	-	-	-
	I-295	I-95 (south Jacksonville)	I-95 (north Jacksonville)		-	-	-	-	-	-	-	-	-	-
	I-375	I-275	4 <sup>th</sup> / 5 <sup>th</sup> Avenue North (SR 595)		-	-	-	-	-	-	-	-	-	-
	I-395	I-95	MacArthur Causeway (U.S. 41)		-	-	-	-	-	-	-	-	-	-
	I-595	I-75	SR 5 / U.S. 1		-	-	-	-	-	-	-	-	-	-
	Florida's Turnpike (SR 91)	I-95 / Palmetto Expressway (SR 826)	I-75		-	-	-	-	-	-	-	-	-	-
	Airport Expressway (SR 112)	North LeJeune Road (SR 953)	I-95		-	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	Astronaut Boulevard (SR A1A)		-	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)		-	-	-	-	-	-	-	-	-	-
	Dolphin Expressway (SR 836)	HEFT (SR 821)	I-95		-	-	-	-	-	-	-	-	-	-
	Don Shula Expressway (SR 874)	HEFT (SR 821)	Palmetto Expressway (SR 826)		-	-	-	-	-	-	-	-	-	-
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	East Colonial Drive (SR 50)		-	-	-	-	-	-	-	-	-	-
	Gratigny Parkway (SR 924)	Palmetto Expressway	I-95		-	-	-	-	-	-	-	-	-	-
Jacksonville Eastern Beltway (SR 9A)	Baymeadows Road	I-95 (north Jacksonville)		-	-	-	-	-	-	-	-	-	-	
Palmetto Expressway (SR 826)	North Kendall Drive (SR 94)	I-95 / Turnpike (SR 91)		-	-	-	-	-	-	-	-	-	-	
Polk Co Parkway (SR 570)	I-4 (west Polk County)	I-4 (east Polk County)		-	-	-	-	-	-	-	-	-	-	
Sawgrass Expressway (SR 869)	I-75	I-95		-	-	-	-	-	-	-	-	-	-	



**Table B.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	Lee Roy Selmon Crosstown Expressway (SR 618)	West Gandy Boulevard (SR 600 / U.S. 92)	I-75	-	-	-	-	-	-	-	-	-	-
	Suncoast Parkway (SR 589)	Veterans Expressway (SR 589)	Ponce de Leon Boulevard (U.S. 98)	-	-	-	-	-	-	-	-	-	-
	Veterans Expressway / East-West Connector	I-275	I-75	-	-	-	-	-	-	-	-	-	-
	Western Beltway (SR 429)	CR 535	Orange Blossom Trail (U.S. 441)	-	-	-	-	-	-	-	-	-	-
	SR 26 / SR 20 / SR 100 / SR 207	U.S. 19 / U.S. 98	I-95	-	-	-	-	-	-	-	-	-	-
	SR 29	Hickpoochee Avenue (SR 80)	U.S. 27	-	-	-	-	-	-	-	-	-	-
	SR 40 / CR 326	U.S. 27	I-95	-	-	-	-	-	-	-	-	-	-
	SR 44	U.S. 19 / U.S. 98	I-75	-	-	-	-	-	-	-	-	-	-
	SR 50	Commercial Way (U.S. 19)	I-75	-	-	-	-	-	-	-	-	-	-
	SR 60	I-75	I-95	-	-	-	-	-	-	-	-	-	-
	SR 64	Orange Street (U.S. 17)	U.S. 27 / U.S. 98	-	-	-	-	-	-	-	-	-	-
	SR 70	I-75	I-95	-	-	-	-	-	-	-	-	-	-
	SR 77	CR 2300 (Panama City)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 78	Burnt Store Road (CR 765)	Del Padro Boulevard (CR 867A)	-	-	-	-	-	-	-	-	-	-
	SR 79	Panama City Beach Parkway (U.S. 98)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 80 / U.S. 441 / SR 700 / U.S. 98	U.S. 27	I-95	-	-	-	-	-	-	-	-	-	-
	SR 80	I-75	U.S. 27	-	-	-	-	-	-	-	-	-	-
	SR 85	SR 123	I-10	-	-	-	-	-	-	-	-	-	-
	SR 87	Navarre Parkway (U.S. 98)	I-10	-	-	-	-	-	-	-	-	-	-
	SR 123	Eglin Parkway (SR 85)	SR 85	-	-	-	-	-	-	-	-	-	-
	Gandy Boulevard (SR 694 / 600)	U.S. 19	Lee Roy Selmon Crosstown Expressway (SR 618)	-	-	-	-	-	-	-	-	-	-
	SR 710 / SR 708	SR 70	I-95	-	-	-	-	-	-	-	-	-	-
	Gratigny Road (SR 924)	Unity Boulevard (SR 9)	I-95	-	-	-	-	-	-	-	-	-	-
	SR 997	SR 25 / U.S. 27	South Dixie Highway (SR 5 / U.S. 1)	-	-	-	-	-	-	-	-	-	-
	U.S. 1	Whitehead Street (SR A1A)	HEFT (SR 821)	-	-	-	-	-	-	-	-	-	-
	U.S. 17 / U.S. 98	I-75	Polk County Parkway (SR 570)	-	-	-	-	-	-	-	-	-	-
	U.S. 19	Gandy Boulevard (SR 694)	Georgia State Line	-	-	-	-	-	-	-	-	-	-



**Table B.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN		DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	U.S. 27	Palmetto Expressway (SR 826)	Florida's Turnpike (SR 91)		-	-	-	-	-	-	-	-	-	-
	U.S. 27 / Alternate U.S. 27	I-75	U.S. 19		-	-	-	-	-	-	-	-	-	-
	U.S. 98	Okaloosa County Line	U.S. 231		-	-	-	-	-	-	-	-	-	-
	U.S. 231	East Baldwin Road	Alabama State Line		-	-	-	-	-	-	-	-	-	-
	U.S. 301 / U.S. 441	NW 10 <sup>th</sup> Street (U.S. 27)	U.S. 1 / U.S. 23		-	-	-	-	-	-	-	-	-	-
	U.S. 319	Coastal Highway (U.S. 98)	Georgia State Line		-	-	-	-	-	-	-	-	-	-
	U.S. 331	SR 30 / U.S. 98	I-10		-	-	-	-	-	-	-	-	-	-
	SR 50	Central Florida Greenway (SR 417)	I-95		-	-	-	-	-	-	-	-	-	-
	SR 71	Monument Avenue (U.S. 98 / U.S. 319)	Central Avenue (SR 20)		-	-	-	-	-	-	-	-	-	-
	Challenger Memorial Parkway (SR 407)	Bee Line Expressway (SR 528)	I-95		-	-	-	-	-	-	-	-	-	-
	SR 520	Bee Line Expressway (SR 528)	Atlantic Avenue North (SR A1A)		-	-	-	-	-	-	-	-	-	-
	U.S. 17	East International Speedway Boulevard (U.S. 92)	E End Road (SR 20 / SR 100)		-	-	-	-	-	-	-	-	-	-
	U.S. 29	I-10	Alabama State Line		-	-	-	-	-	-	-	-	-	-
	U.S. 41	HEFT (SR 821)	Davis Boulevard (SR 84)		-	-	-	-	-	-	-	-	-	-
	U.S. 441 / U.S. 192	I-95	Florida's Turnpike (SR 91)		-	-	-	-	-	-	-	-	-	-
<b>Central Florida</b>	I-4	U.S. 27	I-95	East	-	-	-	-	-	-	-	-	-	-
	I-4	U.S. 27	I-95	West	-	-	-	-	-	-	-	-	-	-
	I-95	Brevard / Indian River County Border	Flagler / Volusia County Border	Both	-	-	-	-	-	-	-	-	-	-
	Florida's Turnpike (SR 91)	U.S. 192 / U.S. 441	West Colonial Drive (SR 50)	Both	-	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	I-95 (northbound)	East	-	-	-	-	-	-	-	-	-	-
	Bee Line Expressway (SR 528)	I-4	I-95 (northbound)	West	-	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)	North	-	-	-	-	-	-	-	-	-	-
	Central Florida Greenway (SR 417)	I-4 (south Orlando)	I-4 (north Orlando)	South	-	-	-	-	-	-	-	-	-	-
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	Colonial Drive (SR 50) / Challenger Parkway	East	-	-	-	-	-	-	-	-	-	-
	East-West Connector (SR 408)	Florida's Turnpike (SR 91)	Colonial Drive (SR 50) / Challenger Parkway	West	-	-	-	-	-	-	-	-	-	-



**Table B.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN		DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	Western Beltway (SR 429)	CR 535	Orange Blossom Trail (U.S. 441)	North	-	-	-	-	-	-	-	-	-	-
	Western Beltway (SR 429)	CR 535	Orange Blossom Trail (U.S. 441)	South	-	-	-	-	-	-	-	-	-	-
	Colonial Drive (SR 50)	Florida's Turnpike (SR 91)	East-West Connector (SR 408)	Both	-	-	-	-	-	-	-	-	-	-
	Maitland Boulevard (SR 414)	Orange Blossom Trail (U.S. 441)	U.S. 17 / U.S. 92	Both	-	-	-	-	-	-	-	-	-	-
	John Young Parkway / Lee Road (SR 423)	Central Florida Greenway (SR 417)	U.S. 17 / U.S. 92	Both	-	-	-	-	-	-	-	-	-	-
	Semorán Boulevard (SR 436)	Orange Blossom Trail (U.S. 441)	Central Florida Greenway (SR 417)	Both	-	-	-	-	-	-	-	-	-	-
	SR 520	East Colonial Drive (SR 50)	I-95	Both	-	-	-	-	-	-	-	-	-	-
	U.S. 17 / U.S. 92	East Colonial Drive (SR 50)	Central Florida Greenway (SR 417)	Both	-	-	-	-	-	-	-	-	-	-
	U.S. 192	I-4	Florida's Turnpike (SR 91)	Both	-	-	-	-	-	-	-	-	-	-
	Orange Blossom Trail (U.S. 441)	Central Florida Greenway (SR 417)	Western Beltway (SR 429)	Both	-	-	-	-	-	-	-	-	-	-
<b>SIS and Emerging SIS Highways</b>														
<b>SIS Roads that Meet Adopted Criteria and Thresholds</b>														
Interstates	I-4, I-75, I-95 (entire lengths)													
Turnpikes and Expressways	Florida's Turnpike (SR 91)													
	Central Florida Greenway (SR 417)													
	Seminole Expressway (SR 417)													
	Bee Line Expressway (SR 528)													
	East-West Connector (Orlando, SR 408)													
	Western Beltway (Orlando, SR 429), north of Florida's Turnpike													
	Western Beltway, Part C (provisional)													
	Southern Connector													



**Table B.1**  
 (CONTINUED)

COUNTY	ROAD	BETWEEN	DIRECTION	CCTV	AUTOMATED ITS SENSORS	INCIDENT-RELATED CAD DATA	AGENCY CALLS / EMAILS ON INCIDENTS	SCANNER MONITORING	CONSTRUCTION / WZ REPORTS	COUNTY / CITY CONSTRUCTION / WZ CALLS AND EMAILS	ROAD RANGER REPORTS	MOBILE DATA COLLECTION AND TIP LINE	PERMITS
	Extension (SR 417)												
Other FIHS Facilities	U.S. 27 from SR 826 / Palmetto Expressway to Florida's Turnpike at Exit 289												
	U.S. 301 / SR A1A from SR 326 to I-95												
	SR 44 from U.S. 19 to I-75												
	SR 326 from I-75 to U.S. 301												
	SR 60 from I-75 to I-95												
<b>Emerging SIS Roads that Meet Adopted Criteria and Thresholds</b>													
FIHS Facilities	U.S. 27 / U.S. 27A from I-75 to U.S. 19												
	SR 326 / SR 40 from U.S. 301 to I-95												
Non-FIHS Routes	SR 100 / SR 100A / U.S. 41 from I-95 to I-10												
	U.S. 441 from SR 80 to SR 60												
	U.S. 17 from I-4 to I-295												