



SUNGUIDE® DISSEMINATOR

Ramp Management Introduced in FDOT District Six

Ramp Management Enhances Mobility Along I-95

Ramp signals were activated on February 4, 2009, along northbound Interstate 95 (I-95) in Miami-Dade County, helping to improve the overall mobility of this mainline. The first system of its kind to be implemented in the state, the Ramp Signaling Program is part of a long-term strategy of transportation management initiatives, which along with the 95 Express, is designed to increase efficiency while maximizing the capacity of the existing roadway infrastructures within southeast Florida.

Ramp traffic merging onto the interstate disrupts the flow of traffic, creating congestion, and raising the occurrence of crashes along the mainline. I-95, within the project limits, carries up to 250,000 motorists each weekday and serves as the main access point for cross-county commuters traveling between Miami-Dade and Broward Counties. Unregulated traffic entering from the ramps onto I-95, not only disrupts the flow, but contributes to the overall breakdown in capacity of the mainline, especially during periods of heavy use. With local population and traffic volumes expected to rise, the Florida Department of Transportation (FDOT) District Six implemented the ramp signal system as part of its transportation management plan to mitigate existing and future congestion along the heavily accessed highway.

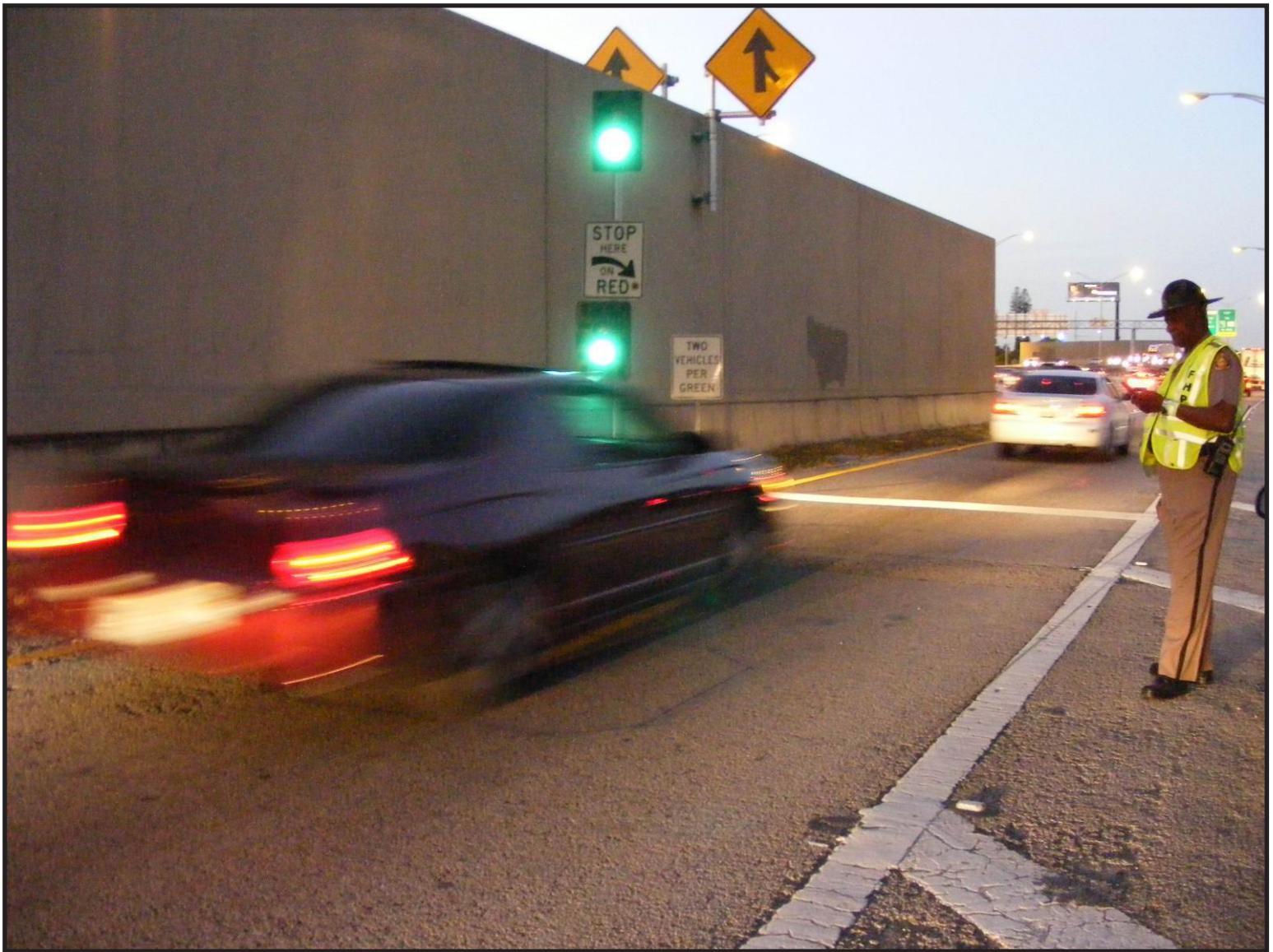
Ramp signaling began operations two months after the launch of Phase 1A of the 95 Express Lanes. The signals follow the project limits of the express lanes and help control the rate at which vehicles enter the highway along eight northbound entrance ramps on I-95—from NW 62 Street, north to NW 167 Street, near the Golden Glades Interchange. The signals are positioned along each entrance ramp and serve as traffic control devices that alternate from red to green lights to ensure vehicles enter in a spaced, but steady manner. They operate based on traffic demand and allow one or two cars to enter the interstate in response to real-time traffic conditions along the highway.

Driver behavior along the ramps dictates the system's cycling rates. This is why public acceptance and understanding are imperative to the overall success of the project. District Six led the charge in a multi-agency coordination effort to properly inform the public on how to use the signals; and a series of planned educational efforts were executed in the weeks before launch.

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In continuation with the public safety and enforcement support received on the 95 Express project, District Six worked with the Florida Highway Patrol to ensure that safety and mobility goals were maintained. Traffic engineers at the transportation management center closely monitored system operations. In combination with Florida International University, District staff observed and adjusted the system parameters based on real-time traffic conditions on the mainline and various on-ramps. Agency coordination, in addition with public outreach initiatives performed throughout the launch period, was also beneficial; and the combination of these efforts ultimately resulted in the public's understating and acceptance of the project.

Phase 1B of the Ramp Signaling Program will complete the northbound and southbound ramp signaling installation between NE 203 Street to NW 62 Street in Miami-Dade County. This is expected to launch shortly after southbound 95 Express operations begin in late 2009.

This article was provided by Javier Rodriguez, FDOT District Six. For information, please contact Mr. Rodriguez at (305) 470-5341 or email to Javier.Rodriguez2@dot.state.fl.us.

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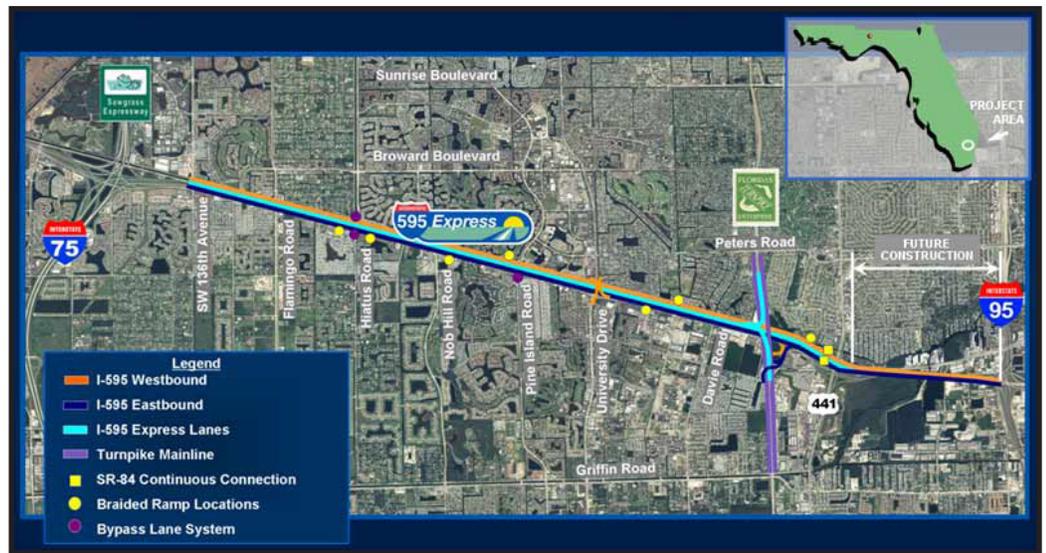
Public-Private Partnership in District Four

“This is a new way of doing business,” said Steven Corbin, FDOT District Four ITS Operations Manager. “We are taking an important step with this paradigm shift. Times have changed and with traditional funding being reduced, Freeway Operations Departments are looking for non-traditional funding sources. The ‘P3’ has arrived in District Four!”

In the heart of Broward County, a 13-mile stretch of freeway is a part of millions of motorists’ daily commute. I-595 connects to I-75 on the west and I-95 on the east. It has up to six lanes in each direction, a service road on both sides, and interchanges with the Florida’s Turnpike system. There is no doubt that with South Florida’s population growth over the last few years, there is a great need to maximize the efficiency of this stretch of road. Enter 595 Express.

The project has come a long way since its concept was agreed upon years ago. In fact, in just a few short months, construction will begin along I-595 to convert the median into tolled reversible lanes among other improvements. It is a Public Private Partnership, often referred to as a “P3” or “triple P.” By bringing a concessionaire into the project, the state is able to obtain the funding needed up front and come to an agreement on how the money will be paid back over a period of time. This allows the project to be expedited, which is important considering that it is impacting 10.5 miles of Broward County’s main, east-west high-speed facility and a significant amount of ITS infrastructure. “The bottom line is that the concessionaire’s customers are also the District’s; and the best way to provide safe and efficient operation of the project is through a collaborative approach to traffic engineering,” said Mark Plass, FDOT District Four Traffic Operations Engineer.

The FDOT District Four ITS Unit has had tremendous involvement with the project from nearly the beginning. As RS&H, the company providing Corridor Design Consultant services, began writing the Request for Proposals (RFP), the ITS Unit was asked to draft the ITS Operations portion. Comments were collected from experienced staff within the ITS Unit as well as from the Traffic Incident Management (TIM) Team, who were able to speak up on issues such as access points for emergency response vehicles. Within the section, day to day operations, device requirements and maintenance, as well as connectivity (physical and operations) between the concessionaire and the District were carefully defined. The concessionaire will be under contract with the FDOT District Four for 35 years of which the first five years will be construction and interim operations, and the remaining 30 years will be for operations and maintenance.

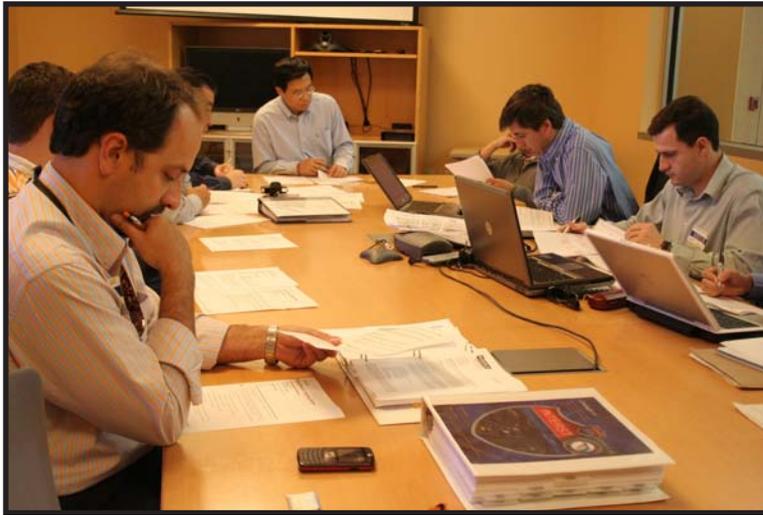


The project presents a tremendous opportunity to develop innovative approaches to identifying and mitigating traffic flow and safety problems through the partnership. Many of the solutions to these

problems are based on traffic engineering principles and practice and, as such, the project concessionaire will be working closely with the District’s traffic operations office to ensure that traffic control devices and systems are employed properly and in a manner consistent with FDOT’s practice.

The 595 Express operators’ role has been designed to mirror that of the District Four operators. The concessionaire’s team, although seated in the Broward Transportation Management Center (TMC), will essentially operate as an independent, scaled down operation. From utilizing SunGuide® software (hosted on a separate server) to dispatching Road Rangers and coordinating device maintenance, the team will be responsible for the entire stretch of 595 Express (I-75 to east of SR 7, with a connection to Florida’s Turnpike). The concessionaire will also be an active part of regional partnering efforts such as the

South East Florida Regional Transportation Management Center Operations Committee (SEFRTOC), the South Florida Regional ITS Coalition, the TIM Team, and others. “The importance of the concessionaire to manage and operate this project is critical to be as seamless in approach as the other regional partners,” said Corbin. “The motorists should not be aware of different operators while they are driving through southeast Florida.” The concessionaire will be able to connect to other TMCs by using the center-to-center (C2C) feature in the SunGuide software. They will be responsible for funding a new SunGuide software feature that allows them to manage reversible and tolled lanes.



The key to successful traffic engineering of this project is establishing and maintaining an open, trusting relationship between the District and concessionaire’s traffic operations staff. This implies regular interaction through which knowledge, experience, and lessons learned can be shared. To facilitate this, the District’s traffic operations office has designated a position as the point of contact for all traffic operations issues that arise before, during, and after construction of the project. Rather than generating contractor reports, the concessionaire will use automated performance measures, generated from SunGuide. This allows the District Four to oversee operations at all times. As there will be no need for validating information, a tremendous amount of time and effort will be saved.

As many similarities as there will be to the Broward TMC operations, there are some major differences. As part of the contract, the concessionaire will have to manage traffic while the roadway is undergoing construction. Any interruptions to roadway and/or communications services must be preplanned and have approved temporary service put in place. If they allow a drop in communications, it impacts the Broward TMC’s communications with devices on I-75. To enforce this requirement, five tiers of penalty types and amounts for not maintaining the current incident management and ITS infrastructure was written into the contract. Additionally, during the 35 year span that the concessionaire will operate the road, they will be responsible for the Road Ranger Service Patrol program (for the 595 Express section of road).

The ITS Unit was heavily involved in the review process for the submitted proposals, ensuring that the best team possible was awarded the project. Meetings have already commenced with the selected concessionaire and are set to occur each week through the duration of the project. By mid-spring, there will be a 90 percent plan review and the team will have moved into the Broward TMC. Meanwhile, the ITS Unit is working on rearranging current telecom so that there is no break in communications services. By summer 2009, the second notice to proceed will be issued and the whole section of the road will be handed over to begin construction.

The ITS Unit realizes that their role is only a small part of the overall plan, but it is critical that it is done right and crucial to the success of 595 Express. “We are ahead of overall construction because we need to be 100 percent ready on day one,” said Dong Chen, FDOT District Four ITS Program Manager. “The concessionaire will be required to deliver an equal or higher level of performance than that of FDOT District Four ITS Unit.”

As a result of establishing a P3, 15 years of time will be saved in opening this project as compared to using the traditional design/bid/build method.

This article was provided by Steven Corbin, FDOT District Four. For information, please contact Mr. Corbin at (954) 847-2791 or email to Steven.Corbin@dot.state.fl.us. For general information on the project, visit www.i-595.com.

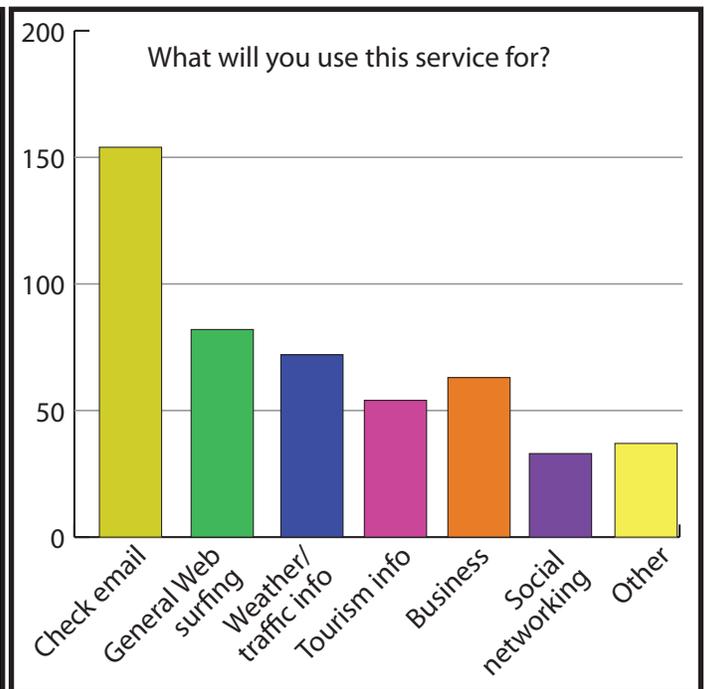
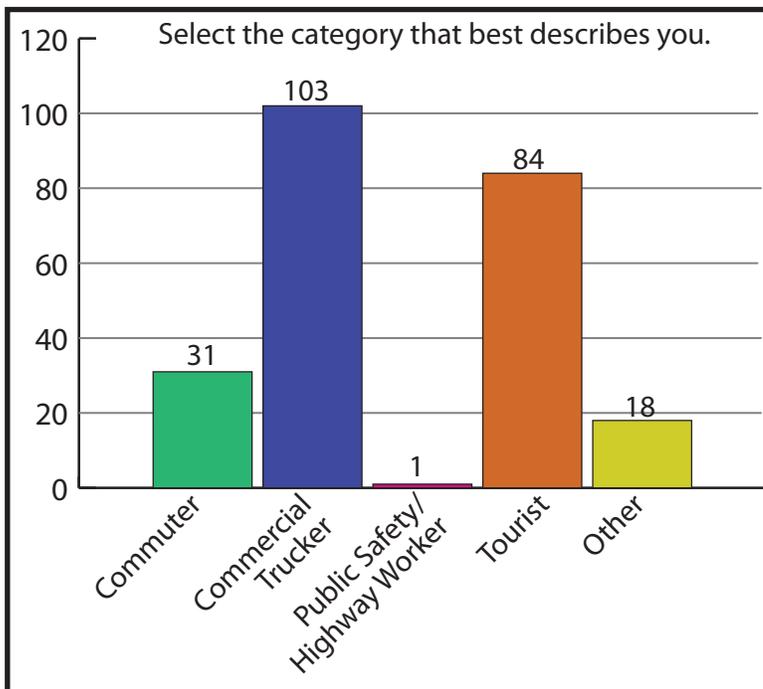
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WiFi® Survey Results

The Florida Department of Transportation (FDOT) WiFi® Pilot Project has been commissioned at all five project sites. Wireless internet service is operational at the four welcome centers and at the Turkey Lake Turnpike Service Plaza. During the holiday season, the increased highway traffic was reflected in the increased use of the WiFi service. After hitting a peak of 538 log ins during the week between the Christmas and New Year’s holidays, the average number of weekly log ins has returned to its pre-holiday average of 450 to 460 log-ins.

The system contractor, Zoom Information Systems, has recently implemented a customer satisfaction survey on the FDOT homepage and the early results are intriguing. Of the 237 travelers who have taken the survey, the majority of them were at either I-95 or I-75, with I-10 and Turkey Lake tied for third. The survey of 237 travelers indicates that there are two predominant groups of travelers accessing the internet. This is shown below in the graph of survey results.

Travelers were also asked how long they plan to use the free internet service and 42 percent said they would use the internet connection for less than 15 minutes. In addition, 65 percent of those surveyed said they were logging in to check email, as shown in the survey results below:



The final construction phase of this pilot project is the implementation of a mobile WiFi hotspot on an existing FDOT equipment trailer. The contractor anticipates completing construction before spring. The overall pilot project is scheduled to conclude in mid-June. FDOT is currently reviewing contract options to extend the contract and continue to offer WiFi internet service to Florida’s travelers.

This article was provided by Randy Pierce, FDOT Traffic Engineering and Operations Office. For information, please contact Mr. Pierce at (850) 410-5608 or email to Randy.Pierce@dot.state.fl.us.

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ITS Florida's New Web Site Counts Down to World Congress 2011 in Orlando

ITS Florida's new Web site is getting rave reviews from Florida and beyond. The Executive Vice President of ITS America, Thomas Kern, writes, "My compliments. Congratulations!" The new Web site, which has the same address as the previous site, www.ITSFlorida.org, features a bold new look and a digital clock that is counting down the years, months, days, hours, and minutes to the 2011 World Congress on ITS held jointly with ITS America's 2011 Annual Meeting and Exposition at the Orlando/Orange County Convention Center on October 16-20, 2011.

The President of the ITS Florida Board of Directors, L.A. Griffin, says the Web site is ITS Florida's face to the world, as the award-winning organization prepares for the 2011 World Congress on ITS in Orlando. "The new Web site is eye-catching with relevant information and is intuitive to use. It clearly conveys the benefits, purpose, and mission of ITS Florida in serving its membership and the transportation community at large. We invite everyone to access the new Web site and welcome any comments or questions," says Griffin.

The site was designed by Global-5 Communications to complement the ITS America Web site. The customized, content-managed software and site hosting are provided courtesy of the Harrington Group, a Florida-based advanced technology company that provides organizations of all sizes with software and simulation solutions.

President and CEO Chris Addison says, "The Harrington Group is pleased to bring an advanced technology solution to an outstanding organization that is clearly the nation's leading state chapter for promoting the use of transportation technology. Serving the needs of ITS Florida is a pleasure. We're eager to hear from ITS Florida members and we're very pleased that when the world looks at ITS Florida, the impression they receive is exactly the one we all want to send."

Regular visits to www.ITSFlorida.org will keep members updated about important upcoming industry events, training opportunities, scholarship donations and awards, and efforts underway by the various ITS Florida committees that are always looking for volunteers to spread the word about the benefits of transportation technology. Visitors can directly contact all Board Members through the site, read profiles of the individuals and organizations who have been named "ITS Florida Award Winners," and learn more about long-time industry leaders in the ITS Florida "Honor Roll" section. Our "Meet the Experts" section profiles leaders who are available to speak to your organization about the benefits of transportation technology.

To post job listings and submit articles for consideration to the monthly ITS Florida electronic newsletter, please contact ITS Florida Chapter Administrator Sandy Beck through the new site. New members can also access the member application at www.ITSFlorida.org.

If you wish to contribute an article to the SunGuide® Disseminator on behalf of ITS Florida, please email Mary Hamill at MaryKHamill@global-5.com.

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The new ITS Florida Web site is unveiled during the 2008 World Congress on ITS and ITS America's 2008 Annual Meeting and Exposition in New York City in November. Pictured above are Anita Vandervalk, 2008 ITS Florida President; Elizabeth Birriel, ITS Florida Past President; Kevin Green, The Harrington Group; and Mary Hamill, ITS Florida Board Member and Outreach Committee Chair. Global-5 designed the graphic look and site interface as a service to ITS Florida and The Harrington Group is providing the site functionality and hosting as a free service to ITS Florida

Editorial Corner—Intelligent Transportation Systems Benefits

Intelligent transportation systems (ITS) consist of transportation technologies that enhance safety, improve mobility, support commerce, and help sustain the environment. ITS directly improves traffic flow and reduces congestion by allowing transportation agencies to operate their systems as efficiently and safely as possible. Major elements in Florida's ITS Program include: congestion management, traffic incident management, emergency management, and traveler information.

Congestion management is used to improve traffic flow and decrease delays on Florida's roadways. Florida ITS technologies used to manage traffic include traffic signal optimization/retiming, surveillance and detection systems using vehicle detectors and closed-circuit television cameras; congestion pricing to manage lane volumes, ramp metering using traffic signals at on-ramps to control the rate of vehicles entering the freeway; and advanced communications using dynamic message signs, highway advisory radios, and 511 traveler information. These technologies offer improved travel times, reduced crash rates, and improved trip time reliability. The use of ITS in traffic management can increase peak period freeway speeds by 8 to 13 percent¹. Data also indicates that ramp metering alone can improve freeway traffic speeds by 13 to 26 percent and reduce crashes by 15 to 50 percent¹. Through the use of these resources, ITS will also be a powerful congestion management tool during the construction projects funded by the economic stimulus package.

Traffic incident management (TIM) is a proven strategy that uses a variety of ITS technologies to quickly detect, manage, and clear incidents. Incidents account for up to 60 percent of the total congestion on limited-access facilities; for every minute that a freeway travel lane is blocked, four minutes of additional travel delay occurs until the incident is cleared². Coordinated TIM helps reduce the time associated with the clearance of incidents. In addition to this time savings, improved incident clearance also enhances responder safety, reduces the likelihood of secondary accidents, reduces time lost and fuel wasted in traffic backups, and increases customer satisfaction. According to recent studies, one aspect of TIM, service patrols, has benefit-to-cost ratios ranging from 2:1 to 36:1¹. Service patrols are supported by an array of ITS components, enabling significant reductions in the time to respond to and clear incidents. They are one of the most effective and appreciated TIM strategies as indicated by the over 2 million assists and setup of initial traffic control for major incidents/emergency events since Florida's program inception in 2000. Service patrols are considered one of the most essential components of a successful traffic incident management program.

Emergency management through the use of reverse lanes provides a coordinated means of evacuation in times of crisis, such as during hurricanes, wildfires, or hazardous material spills. ITS technologies play an important role in emergency management by enhancing interagency coordination through effective communications, critical to successful evacuation management. ITS can improve the transportation system efficiency and effectiveness during emergencies and improve traveler safety and security. Reverse lanes, supported by dynamic message signs, closed-circuit television cameras, and 511 traveler information systems, can be used to efficiently and safely evacuate regions within the state when large-scale disasters threaten.

Traveler information, provided by the 511 traveler information systems, Florida's 511 Web site, and partnerships with the media allow motorists to avoid congestion on Florida's roadways by pre-planning or altering their routes based on information about congestion, incidents, etc. The 511 traveler information system helps to ensure the mobility of Florida's citizens and goods, while assisting with the preservation of our environment and communities through reduced emissions. Florida's 511 calls accounted for 22 percent of the 511 calls made in the U.S. through December 2007. Proven benefits from 511 include improved on-time reliability, better trip planning, and reduced late arrivals.

Simply stated, intelligent transportation systems save lives, time, and money by providing information to the public to make travel decisions; maximizing the use of our roadways by allowing their most effective and efficient operations; and by reducing congestion on our freeways through quicker incident detection and clearance. Transportation is the roadmap to economic recovery and ITS is the most cost-efficient way to keep Floridians moving during this recovery.

This article was provided by Elizabeth Birriel, FDOT Traffic Engineering and Operations Office. For information, please contact Ms. Birriel at (850) 410-5606 or email to Elizabeth.Birriel@dot.state.fl.us.

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1 Intelligent Transportation Systems Benefits, Costs, Deployment, and Lessons Learned 2008 Update, US Department of Transportation, Research and Innovative Technology Administration, September 2008

2 Benefits of Traffic Incident Management, National Traffic Incident Management Coalition, November 2008

Inside the TERL

The FDOT has a goal to assure that only a safe and uniform ITS and traffic control system is implemented in the state of Florida. The Traffic Engineering Research Lab (TERL) plays a part in obtaining this goal by satisfying Florida Statute 316.0745 - Uniform Signals & Devices. Below is a look Inside the TERL at activities that help accomplish our goal.

Below are manufacturers that have recently been qualified and product that has been added to the Approved Product List (APL).

Skyline Product's I-Series Dynamic Message Sign (DMS), Model VMSLED-W-3-18F-27-125-I (18inch character), became the first DMS to be fully evaluated to the FDOT's ITS specifications and certified to meet those specifications. The Skyline DMS was certified on February 1, 2009.

Southern Manufacturing's fluorescent Internally Illuminated Street Name Sign, Model: FF-1.1.S-SERIES, was certified in January.

Additions to the TERL's manufacturer qualification list in February were Skyline Products, DMS manufacturer; Campbell Company, a pedestrian detectors manufacturer; and Control Corporation, who manufactures device servers. Skyline's DMS was approved as noted above, but Campbell Company and Control Corporation have yet to supply a product for approval.

Approved products can be viewed at the following Web pages:

Signalized intersection products - www3.dot.state.fl.us/trafficcontrolproducts/

ITS products - www.dot.state.fl.us/TrafficOperations/Traf_Sys/ITS%20APL/TemporaryITSAPL.shtm

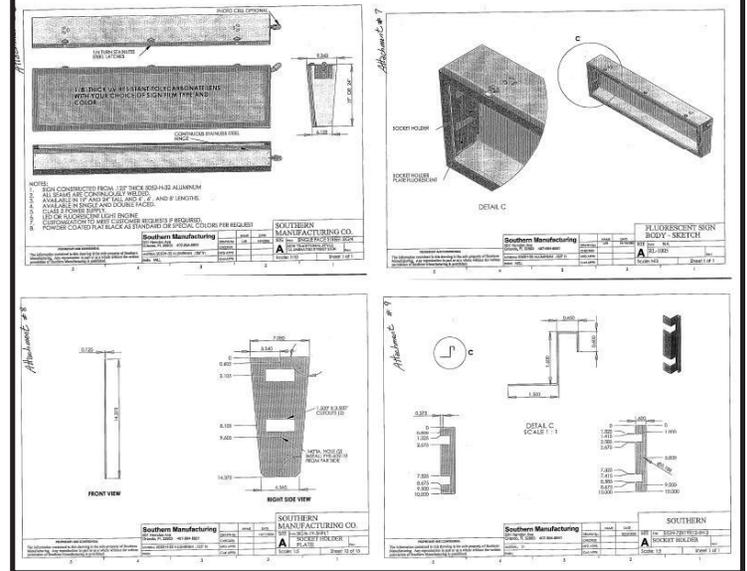
Minimum specifications for traffic control signal devices are listed at www.dot.state.fl.us/TrafficOperations/Traf_Sys/terl/apl4.shtm.

This article was provided by Jeff Morgan, FDOT Traffic Engineering and Operations Office. For more information, please contact Mr. Morgan at (850) 921-7354 or email Jeffrey.Morgan@dot.state.fl.us.

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Announcements

Mark Your Calendars For These Two Upcoming Conferences

ITS America's 2009 Annual Meeting and Exposition—Moving America Forward

When: June 1-3, 2009

Where: Gaylord National Resort and Convention Center (National Harbor, Maryland)

ITS America's 2009 Annual Meeting & Exposition is a three-day learning and networking event which will attract the most diverse transportation audience from across the country in one place. This event will feature panel sessions, poster sessions, interactive seminars, renowned industry speakers, informative exhibits and hands-on technology demonstrations, technical tours, and receptions.

Further information is available at www.itsa.org/annualmeeting.html

2009 National Rural ITS Conference— Advancing Rural ITS to the Next Level...

When: August 23-27, 2009
Where: Seaside, Oregon

The 2009 National Rural ITS Conference (NRITS) will provide a variety of networking opportunities and time with vendors to help you develop in your professional career. Training will provide the transportation professional with cost effective professional development hours.

Further information is available at www.nritsconference.org/.

FDOT Traffic Engineering and Operations Mission and Vision Statements



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