DISSEMINATOR

TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS

January-February 2022



NextGen TIM and Rural RISC

District One Work Zone Safety and Mobility
Guide Now Available

V2I Project Improves Travel Conditions in Miami-Dade County





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FDOT TRAFFIC ENGINEERING AND OPERATIONS MISSION AND VISION STATEMENTS

MISSION

Provide leadership and serve as a catalyst in becoming the national leader in mobility.

VISION

Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

Looking to be a Contributor for the Next Issue of the TSM&O Disseminator?

Email Deborah Fiesler (deborah.fiesler@dot.state.fl.us) with your story subject and title.

We would love to have your contribution be a part of the next edition.

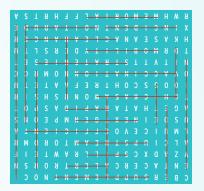
Photo credits: FDOT

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Active Arterial Management (AAM) Team Keeps Traffic Moving Near **COVID-19 Testing Sites**

By Lurvin Fernandez, Global-5, Inc.

The number of people lining up to get tested for COVID-19 significantly increased in recent weeks, causing car lines to extend into intersections and reducing roadway capacity near the Orange County COVID-19 testing sites. However, the Active Arterial Management team at the District Five Regional Transportation Management Center was ready to jump into action, as they are with any incident - minor or major - on Central Florida roadways.

"What we do is track events; and we will do what is needed to help," said senior traffic operations engineer Manny Rodriguez, P.E.

Following the announcement of a second COVID-19 testing site on December 27th, the AAM team began monitoring the two testing sites: The Econ Soccer Complex near State Road 50/Chickasaw Trail and Barnett Park near West Colonial Drive/Pine Hills Road. Over the next week, a third site - the South Orange Youth Complex near Orange Avenue/Zell Drive - also opened.

As news came in, the AAM Team anticipated the traffic at the testing sites, and they implemented the timing changes at the first sign of backups, said Eric Cunningham, ICM Corridor Manager.

The Econ Soccer Complex near State Road 50/ Chickasaw Trail was one of the busiest COVID-19 testing sites, and the queue extended into State Road 50/Colonial Drive. At times, the line extended to Econlockhatchee Trail located 1.5 miles down the road. As a result, only two out of three lanes could proceed through the intersection. Therefore, a flush plan was activated to better move traffic through the intersection, and the plans remained in place into the evenings. Lines remained long for both the final week of December and first week of January but began to subside and the team eventually turned off the flush plans.



COVID-19 testing line at Orange Avenue/Zell Drive intersection.

Similarly, the gueue at the South Orange Youth Complex near Orange Avenue/Zell Drive extended beyond the testing site into Orange Avenue just south of Zell Drive. Although traffic queued up in the right lane along Orange Avenue, the traffic at Zell Drive was never impacted to the point where timing changes needed to be implemented. The AAM team continued to monitor the area, and they were ready to coordinate with Orange County to recommend changes should congestion occur.

Congestion at COVID-19 sites is relatively new to the AAM team. As testing sites and vaccinations sites opened in 2020 and 2021, the team learned to monitor these areas and implement the necessary changes to improve traffic flow. For this reason, they stayed in tune with news of testing site openings and were ready to monitor and adjust, where needed.

Staying in tune with the news and coordinating with other agencies is only the tip of the iceberg. Cunningham describes it as being part of the puzzle and getting fulfillment from doing his part.

"Every situation is going to be different and unique, and you apply the knowledge you learned from a previous situation and apply it to the one in front of you," Cunningham said.

For additional information, please contact Tricia Labud at tricia.labud@dot.state.fl.us.

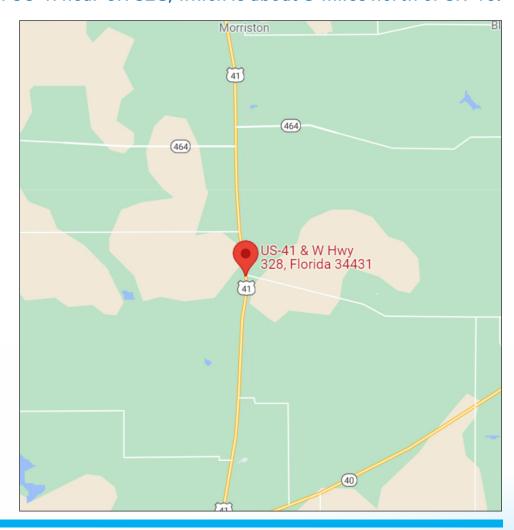
Cover photo:: Congestion along Colonial Drive due to COVID-19 testing.

NextGenTIM and Rural RISC

By Sheryl Bradley, District Five ICM Project Manager, FDOT

In line with the FHWA's NextGenTIM focus area for rural Traffic Incident Management (TIM), District Five has extended its use of RISC (Rapid Incident Scene Clearance) to rural roadways. RISC is FDOT's quick clearance program for large-scale, complex incidents that require ultra heavy-duty wrecker equipment and specially trained personnel. These incidents generally involve large commercial vehicles, buses, or dump trucks with a lost or shifted load and/or extensive fuel spill. Previously, the District's RISC contracts allowed for arterial activation only under special circumstances and with the District Traffic Operations Engineer's (DTOE) approval. New contracts, however, have extended the availability of RISC to any state road, or roadway impacting a state road. On January 18th, District Five's I-75 Integrated Corridor Management (ICM) Team had an incident that exemplified the benefits of an aggressive arterial Traffic Incident Management program. At 3:51pm, the District Five RTMC received notification of an overturned logging truck on US 41 near CR 328, which is about 5-miles north of SR 40.

Logs were reportedly scattered across the road and our RTMC operator was advised of the potential of a significant fuel spill. We had no responders on scene and only the information provided to FHP dispatch via a 3rd party. By 3:52, our ICM Program Manager was on the phone with the FHP Captain, explaining the situation and offering the resources provided by RISC. The Captain advised that their troop had several calls holding. He was advised that, although we didn't have eyes on the scene, Google maps provided sufficient indication via traffic patterns that we likely had an all lanes blocked scenario. Together, they quickly evaluated the limited alternative routes in the area and determined that rapid action was warranted. By 4:02, RISC had been activated. The RISC contractor arrived on scene at 4:40pm to find the complex scene we had expected and went straight to work on the fuel spill. They also began pushing logs out of the road to get a lane open as we were into the PM peak. Soon after, the truck

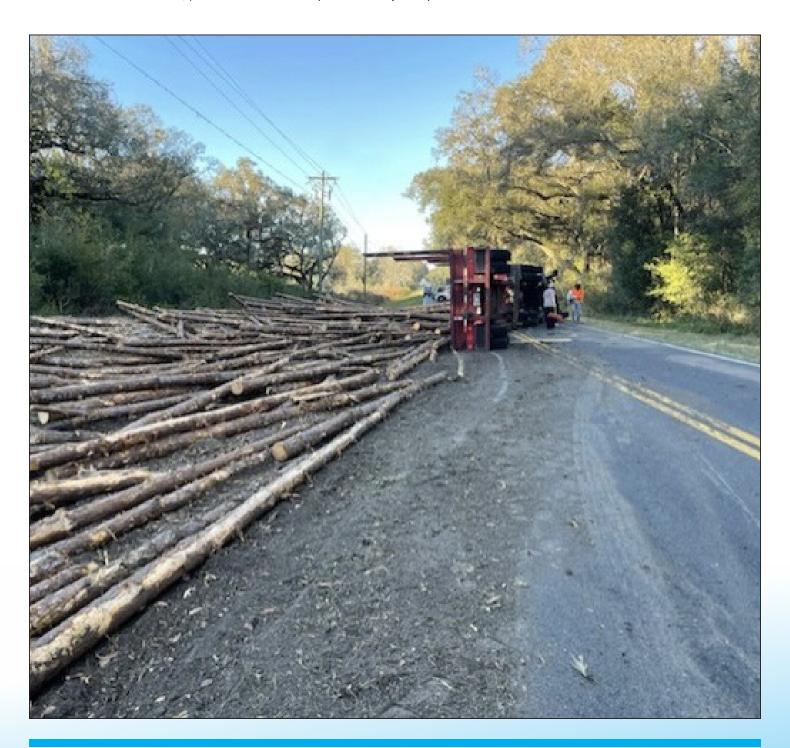


NextGen TIM and Rural RISC, continued from page 4

was uprighted and removed. All lanes were cleared by 6pm, with full restoration of northbound and southbound travel.

While we often think of the critical need for these services in heavily congested, urban areas, there's tremendous value in safe, quick clearance of rural arterial roadways. In many cases, these corridors serve as freight routes or alternate freight routes, and provide singular access routes to numerous homes and businesses. Blockage of an isolated rural route can also be extremely problematic for emergency responders who need to gain access to those homes or businesses. As night falls in these remote rural areas, secondary crashes are also of significant concern with sightlines around horizontal and vertical curves, tree lines that are close to the edge of roadway, and limited lighting. Quick reporting and collaboration between FHP, the District Five I-75 ICM team, and the RISC contractor provided for a safe, quick clearance of a heavily traveled rural route, restoring critical access and efficient travel times to residents and passersby throughout the area.

For additional information, please contact Jeremy Dilmore at jeremy.dilmore@dot.state.fl.us.



District One Work Zone Safety and Mobility Guide Now Available

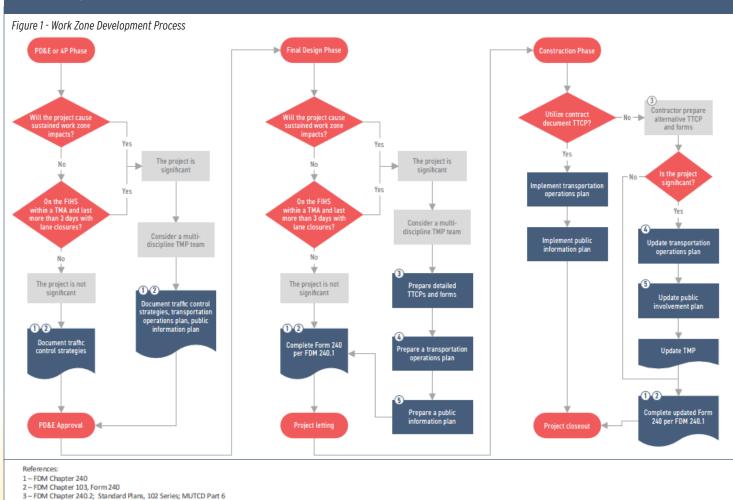
By Neal Turner, District One PE Trainee, FDOT; Dan Preslar, Neel-Schaffer; Demond Hazley, VHB and Dan D'Antonio, VHB

The Florida Department of Transportation (FDOT) District One has recently completed its Work Zone Safety and Mobility Guide and will be rolling it out to practitioners within the District.

In support of FDOT's Vital Few goals, District One has established a Safety and Mobility in Construction initiative which strives to proactively improve the design and implementation of work zones within the District. One facet of this initiative was to develop the Work Zone Safety and Mobility Guide to provide guidance on the process and best practices for developing the Transportation Management Plan elements and the applicability of strategies based on work zone conditions.

The Guide is intended to work as a supplement to the FDOT Design Manual (FDM), Section 240, as well as support the District's efforts to be compliant with the Federal requirements in 23 CFR 630 Subpart J regarding Transportation Management Plans (TMPs). The following sections are provided for this support.

SECTION 1 provides an introduction and purpose for the development of this guide in support of the FDM and Federal requirements mentioned above.



4 - FDM Chapter 240.3

- FDOT Chapter 240.4; FDOT PD&E Manual Part 1, Chapter 11; FDOT Public Involvement Handbook

District One Work Zone Safety and Mobility Guide Now Available, continued from page 6

SECTION 2

describes the Work Zone Project Lifecycle, showing how work zones should be considered within the fullproject development cycle (from project development, through design, and into construction). Team member roles and responsibilities are identified, including means to pass the information between phases. Training requirements are also identified.

SECTION 3 describes the development of TMPs. This includes the assessment of work zone significance, based on FDM requirements and District specific criteria. Projects which are not deemed significant only require a Temporary Traffic Control Plan (TTCP) to support the movement of vehicles through a work zone. However, the projects that are deemed significant require further planning with regard to Traffic Operations (TO) and Public Information (PI) elements to enhance the safety and mobility of the travelling public.

Figure 2 - Unit Involvement in Development Process **Project Design Project Initiation Project Construction** Closeout Construction Project Construction Project PD&E Project Design Project Lead Manager / Project Manager / Project Manager Manager Administrator Administrator Design Project **Planners** Traffic Engineers Design Project Manager Manager Public Construction Involvement FHWA Representative **FHWA** Project Manager Officer Representative Support / Project Public Involvement Administrator Traffic Engineers Officer Public Involvement Officer **FHWA FHWA** Contractor Representative Representative Contractor Initial evaluation Implement the TMP of traffic control Monitor the concepts Documentation Contractor's operations TMP of the work zone's with regard to mobility Development of performance and considerations and and safety operations Tasks detailed plans lessons learned development and TMP Enforce the for continuous **Project Scoping** requirements of the improvement contract Public Public Engagement Engagement **Pass the Torch Meetings Key Tasks** Discuss key findings from planning phase. The planning / preliminary design phase Meeting 1: Planning to will include detailed alternative assessments, which may inform the Design unit on the appropriate safety and mobility strategies to address project impacts. The initial TMP Design and public engagement feedback should also be discussed. Meeting 2: Design to This is the pre-construction meeting where the TMP developed during design including Construction the final FDM Form 240 and any detailed TMP components should be discussed. Meeting 3: Construction to Project review, discussion of innovative techniques or best practices, lessons learned, Closeout and documentation for project closeout. Example "Pass the torch" meeting agendas can be found in Appendix A.

Table 3 - Project Significance Guidance (Criteria 1)										
Criteria	Peak Hour / Peak Direction Traffic	Concurrent Project Impact ¹	Heavy Vehicle %	Anticipated Delay	Network Reliability²	Duration of Traffic Impacts ³	TMP Requirements			
Meets ANY of these criteria	Art >1,000 / lane Hwy >1,200 / lane Fwy >2,000 / lane	One or more other projects in the vicinity are affected by this project's traffic impacts	>20%	>15 minutes	-	≥2 Years	Indicate Compliance with all TMP reference docs (Form 240) and develop a Comprehensive Plan for each TMP Component			
Meets at least 2 of these criteria	Art >800 / lane Hwy >960 / lane Fwy >1,600 / lane	-	>10%	> 10 minutes	If there is an incident, there is no redundancy in network to ensure mobility	>1 Year	Plan, Transportation Operations Plan, and Public Information Plan			

District One Work Zone Safety and Mobility Guide Now Available, continued from page 7

SECTION 4 details the sections of the TMP elements and provides the practitioner with a breakdown of the TTCP, TO, and PI strategies which may be implemented to increase the safety and mobility in and around work zones. Table 240.3.1 of the FDM provides some strategies for Traffic Operations; this Guide provides additional information and strategies. Public Information strategies are also expanded upon, and include reference to the Community Awareness Plan that complements the required efforts within a TMP.

Matrix of Strategies		S			<u> </u>					
ID	Strategy	Relative Cost	Traffic Volume		Area Type		Roadway		Potential	
			High	Low	Urban	Rural	Interstate/ Freeway	Arterial	Benefit	
1	Queue detection warning system	\$\$\$	✓		✓		\checkmark	✓	м, s, с	
2	Motorist awareness system	\$\$	✓	✓	✓	✓	\checkmark		м, s, с	
3	Variable speed limit system	\$\$	✓		✓		✓	✓	M, S	
4	Dynamic lane merge system	\$\$	✓		✓	✓	✓	✓	M, S	
5	Incident detection and surveillance system	\$\$	√		√	✓	✓	✓	м, s, с	

Legend:

Potential Benefit = S - Safety, M - Mobility, C - Customer Satisfaction, E- Efficiency

SECTION 5 provides links to additional resources and references for the practitioner's use.

District One's Safety and Mobility in Construction initiative has developed several more elements, such as a SMART Work Zone Guide, a Lane Closure Analysis tool, and a Work Zone Mobility tool. We'll provide updates on those in future articles.

5.1.3 FDOT Safety Portal

The FDOT Safety Portal includes comprehensive resources for crash data. Work zonespecific crashes can be found on FDOT Open Data Hub.

5.2 Work Zone References

23 CFR 630 Subpart J:

https://www.govinfo.gov/content/pkg/CFR-2012-title23-vol1/pdf/CFR-2012-title23vol1-part630-subpartJ.pdf

23 CFR 630 Subpart K:

https://www.govinfo.gov/content/pkg/CFR-2012-title23-vol1/pdf/CFR-2012-title23vol1-part630-subpartK.pdf

Part 6 MUTCD (TTC):

https://mutcd.fhwa.dot.gov/pdfs/2009/part6.pdf

FHWA Work Zone Management Program:

https://ops.fhwa.dot.gov/wz/resources/policy.htm

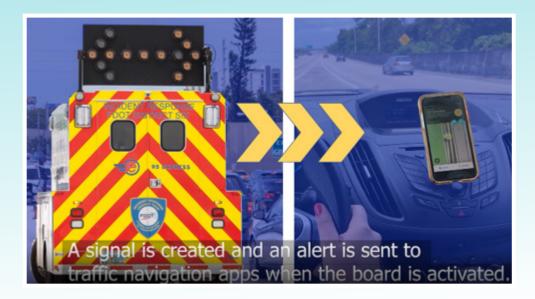
FDOT Specifications Page:

https://www.fdot.gov/design/standardplans/current/default.shtm

FDOT Design Manual:

https://www.fdot.gov/roadway/fdm/default.shtm

For additional information, please contact Steven Davis at steven.davis@dot.state.fl.us.



V2I Project Improves Travel Conditions in Miami-Dade County

By Javier Rodriguez, PE, District Six TSM&O Program Engineer, FDOT

A third-party evaluation report revealed that District Six's Vehicle to Infrastructure (V2I) pilot project for incident management may have been a contributing factor for reducing travel speeds around active incident scenes in Miami-Dade County.

The pilot project launched in 2020 and installed connected vehicle technology on the existing fleet of Incident Response Vehicles (IRV) to link them with traffic navigation applications like Waze. This V2I technology connects a transmitter to the IRV's arrow board. When the arrow board is activated, the transmitter sends a signal to the traffic navigation application. Drivers approaching an IRV-managed scene receive a traffic alert with detailed incident information such as event location relative to their current location on the highway, a timestamp of the event, and a prompt to slow down or move over a lane. This notification is delivered directly to a user's mobile phone and can be received by voice prompt to ensure driver safety.

The evaluation was conducted by Florida International University (FIU) and showed that average travel speeds reduced by approximately 5.5 mph both upstream and downstream of incidents responded by IRVs. Average travel speeds upstream of crashes reduced by 9.5 mph and average travel speeds upstream of level-3 incidents reduced by 11.8 mph.

The pilot project was introduced on the highways managed by the IRV fleet which include Interstate 75, 75 Express, Interstate 95, 95 Express, State Road 826 and Palmetto Express. It was initiated to mitigate the hazardous work conditions incident responders face every day. District Six conducted industrywide research for additional strategies to further secure scene safety. They procured the technology and developed a detailed action plan that covered implementation, operation, and post-launch evaluation.

The pilot project has been operating for more than a year and the evaluation results show great promise for potential expansion. It shows how V2I strategies are connecting motorists with existing infrastructure to help them make more informed decisions. The additional layer of traveler information is another tool in the traffic management toolbox that can improve driver behavior on our roads. Its continued use may work to increase awareness about the Move Over Law and help save lives. This project is an example of the District's commitment to FDOT's mission of improving safety, enhancing mobility, and inspiring innovation through its work.

For more information contact Javier Rodriguez at javier.rodriguez2@dot.state.fl.us.

District Four Participates in Annual Crash Responder Safety Week

By Alexandra Lopez, District Four TSM&O Program Engineer, FDOT



In recognition of Crash Responder Safety Week (CRSW), November 8-14, 2021, the District Four TSM&O program participated in a nation-wide campaign to highlight roadway safety during traffic incidents. The goal of CRSW is to inform the motoring public on driver safety education and awareness on state Move Over Laws.

Formerly known as National Traffic Incident Response Awareness Week, District Four recognized the importance of CRSW after several years of increased incident responder-involved crashes. Since 2021, 28 Road Ranger involved crashes occurred in District Four. Most recently, a veteran Road Ranger of 10 years, was fatally struck while responding to a crash on I-95 in Martin County. A memorial procession was held in his honor on October 16, 2021, and a commemorative plaque was gifted to his wife, daughter, and mother.

To further push the narrative of traffic safety during CRSW, District Four posted "Move Over" law Public Service Announcements on Dynamic Message Signs across the district and launched a comprehensive social media campaign. This year's campaign included powerful video impact statements from incident responders with Florida Highway Patrol, Road Rangers, Towing, and Severe Incident Response Vehicles.

District Four Participates in Annual Crash Responder Safety Week, continued from page 10

"Our goal every year is to educate motorists on proper safety practices that directly impact incident responder lives. This year's awareness week is no different," said Tim Stanberry, Traffic Incident Management Coordinator.

With effective public education, alert drivers can react properly when encountering emergency scenes by safely moving over a lane and slowing down.



For more information on District Four's awareness efforts, please contact Alexandra Lopez at 954-777-4376, by email alexandra.lopez@dot.state.fl.us, or visit the National Operations Center of Excellence website at https:// transportationops.org/TIM/CRSW

Break Time

C B E R S U P P L E M E N T N O TGENM SCOHTREFAA RWHMEMORIALFFHRTSA

> **CHICKASAW** COVID **VACCINATION** SITE **ARTERIAL SPILL RAPID NEXTGEN EFFICIENT CLEARANCE SUPPLEMENT DETECTION**

DURATION MOBILITY INFRASTRUCTURE EVALUATION UPSTREAM ALERT STRATEGIES RESPONDER RANGER **INCIDENT MEMORIAL EDUCATE**





Who Is ITS Florida?

By Sandy Beck, ITS Florida and Russell Allen, Atkins

Who We Are

ITS Florida is an association network of ITS professionals. It is comprised of Professional Engineers, consultants, vendors, governmental agencies including cities, counties and the Florida Department of Transportation.

Founded in 1992 as an educational and informationsharing group, ITS Florida was the first formal ITS state chapter organization, and we affiliated with ITS America in April 1994. ITS Florida has been named Outstanding State Chapter of the Year in 2004, 2008, 2009, 2010, 2011, 2013, 2017 and 2019.

What We Do

The purpose of ITS Florida is to serve as a mechanism to facilitate communication and coordination among our members; ITS America; and other governmental, academic and private institutions and associations. The overall goal is to provide the Florida government, academic institutes, and the private sector with improved access to advanced transportation technology to meet the demands placed on highways, public transportation, and interfaces with air, rail, and sea-borne modes.

The primary methods of information exchanges are through our interactive website, committee meetings, our annual meeting, the bi-annual conference and expo (Transpo™), regional conferences, email updates, newsletters, and our outreach and training series led by the ITS Florida Continuing Education Program. Professional Development Hours (PDHs) are provided for conferences, events, Lunch & Learns and training.

Membership in ITS Florida is organizational, that is, via a governmental agency, company, university, local transportation agency, etc. Individuals who are not associated with a qualifying organization may become individual affiliates. ITS Florida is led by a Board of Directors.

Our Mission

The Intelligent Transportation Society of Florida promotes safe and efficient transportation by delivering nationleading innovation, information, advocacy, and interest in ITS solutions for our members, policy makers, industry leaders and Florida's diverse population, visitors and commercial enterprises.

Scholarships

ITS Florida provides scholarships with two main categories.

The ITS Florida Anne Brewer Academic Scholarships are available to two groups: 1) to a full-time undergraduate or Masters' students and 2) to graduate (PhD) students (at the time of the Scholarship Awards). Students from any accredited Florida University or College are eligible. Principal course work shall include a major in a field directly related to transportation, ITS systems, transportation engineering, or a related field subject to the approval of the Awards Committee. The number of scholarship awards may fluctuate depending on available funding and qualifying students.

The Erika Birosak Training and Certification Scholarship is available to public and private sector nominees in which their respective organizations are members of ITS Florida. The scholarship assists those seeking to advance their skill set through additional training and certification courses, to better serve their organizations and the ITS industry in Florida. This scholarship amount is up to \$1,000 reimbursement for successfully completing approved coursework within one year.

Awards

ITS Florida awards recognize deserving individuals, projects, or organizations. The awards may include ITS FL Member of the Year, ITS FL Professional of the Year, ITS FL President's Award, ITS FL Champion, and ITS FL

Who Is ITS Florida?, continued from page 12

Certificate of Outstanding Achievement.

In 2020, ITS Florida has created three new awards to recognize the front-line staff who ensure that Florida's transportation network operates in a safe and efficient manner for the traveling public. The three awards include:

- · Road Ranger of the Year
- ITS Field Technician of the Year
- TMC Operator/Supervisor* of the Year

The individual in each category will be recognized, awarded a certificate and gift card.

* This does not include managers.

ITS Florida occasionally identifies a person in the transportation business who has greatly contributed to ITS during their career. Persons who have retired, or who are about to retire are considered candidates. Any member may nominate a candidate for the ITS Florida Honor Roll with a letter describing their accomplishments and contributions.

Calendar

Another first for the ITS community is the ITS Florida Chester Chandler Calendar, Annually, ITS Florida holds a photo contest. The winning entries are used to create this highly successful endeavor.

Membership Benefits

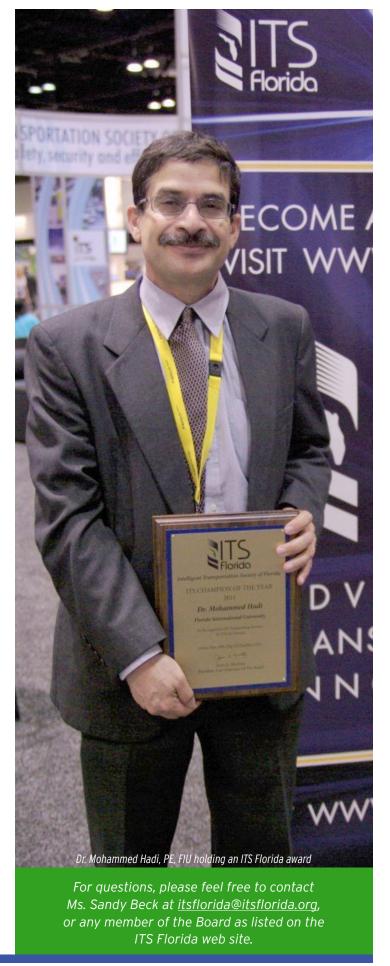
ITS Florida members participate in national industry events.

Membership in ITS Florida is organizationally based. By becoming a member, you will join some of the leading agencies in the industry.

Your membership in ITS Florida provides the unique opportunity for networking and engaging in and around the ITS community on both a statewide and nationwide level. Membership includes access to industry training and conferences, professional development courses, technology forums and other exciting opportunities. Our organization is constantly evolving to address the changing needs of our members.

Why Should I Join?

- · Gain access to top decision makers and innovators.
- Build relationships and develop business opportunities among public sector and private industry partners.
- · Participate in conferences, discussion forums, training and other networking opportunities.
- Become involved in advancing the ITS industry in your region.



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