Session Descriptions for the Call for Presentations

This Workshop is an opportunity to share and collaborate on innovative ideas and established best practices in maintaining and servicing world-class roadways. Beyond the General Sessions will be three sets of sessions divided along Management and Technical tracks. Check out the descriptions below and send the planning group your presentation ideas!

GENERAL SESSIONS

Session #1: The Wide World of Bridges
Bridges large and small are critical components of our transportation network. In recent years, we have seen exciting advances in the design, construction and preservation of bridges. New procurement methods, accelerated bridge construction, and innovative demolition methods have streamlined the bridge replacement process. As our bridges age, preventive maintenance and rehabilitation become even more critical. Unfortunately, we have also seen outright failures of bridges. This session seeks presentations from the cutting edge of bridge design, construction, inspection, maintenance, preservation, rehabilitation and operation. We are especially interested in real-life examples and “war stories” about all aspects of bridges, including responses to unexpected events and failures. Preference will be given to innovative completed projects that emphasize “lessons learned” that can be directly applied by attendees at the conference. (Participation in the presentation by the project’s owner is strongly encouraged).

Session #2: Practical Uses of Emerging Technology
New technologies and unique solutions to common problems emerge every day. In the past we have discussed the future, looked at new and innovative products and solutions and envisioned an improved reality. Now we have practical examples of the use of these technologies that can assist in the reduction of maintenance costs, protect our investment, cut development costs as well as increase safety on our toll roads and bridges. This session will focus on the preparation and practical uses of emerging technologies, including considerations for occupancy sensors, camera cleaning systems, drone uses, autonomous vehicle preparations, DSRC and other communication options, and other first-run examples. Please share what is possible today to reduce infrastructure, maintenance and operations costs or improve customer and employee safety and the customers’ experience. We are looking for real examples of implementation of these technologies with the benefits and applicability to tolling and ITS.
Session #3: Collaborative Approaches to Emergency & Traffic Incident Management
As a result of new technologies and the changing environment in which we live, Traffic Management Centers (TMC’s) are continually evolving. This session will focus on the vision for TMC’s of the future and how they have evolved from Traffic Centers to a fully integrated operational center with not only incident monitoring, but also the collaboration with first responders such as police, fire, towing and other local and state agencies. Also, we will examine the TMC’s place in a SMART Cities initiative.

Session #4: Innovation in Construction & Repair Maintenance Techniques and Delivery
Every day, transportation agencies are faced with numerous construction and maintenance challenges in order to meet the needs of their customers. Aging infrastructure, cost escalations, limited resources, productivity, lack of skilled labor, environmental issues and traffic congestion challenges the management of the network. Many agencies have sought alternative and innovative methods to improve the speed and efficiency of construction projects and maintenance activities. The goal of this session is to highlight innovative technologies and practices that accomplish one or more of the following: increase efficiency, reduce construction time, reduce life-cycle costs, improve safety, improve quality, have less impacts to traffic, extend the service life of highways and bridges and enhance customer satisfaction. Presentations reflecting case studies in the areas of accelerated construction, innovative contracting practices and delivery methods are of particular interest.

TECHNICAL TRACK

Session #1: Bridge Preventative Maintenance & Preservation
As the old saying goes, “An ounce of prevention is worth a pound of cure”. It is easier and cheaper to stop damage from happening in the first place than to repair the damage after it has occurred. Around the country there are great examples of how innovative bridge preventative maintenance and preservations strategies and solutions have helped extend the useful life of structures. This session seeks presentations about ensuring the functionality of “protective elements” such as protective coatings, wearing surfaces, joints, etc. over the long term. Panelists will also discuss the preservation of “core/structural elements” throughout the entire life of the bridge. Submit a presentation for this session to discuss what your organization is doing to extend the useful life of structures using new and innovative products, processes and systems and share information about your agency’s lessons learned. Please note that specific product sales presentations are not encouraged.

Session #2: Developments in Roadway Safety
Roadway safety practices are constantly evolving throughout the world as new applications are studied and more advanced technology is developed. The transportation industry is currently undergoing a transitional landscape with the onset of connected and autonomous vehicles. Recent developments in Vehicle to Infrastructure (V2I) and Vehicle to Vehicle (V2V) technology have paved the way for several advanced roadway safety practices such as smart and connected work zones and wrong way detection and warning systems. In addition to these
advanced techniques, many agencies rely on traditional roadway safety practices that include improved signage and pavement marking applications as well as roadway configuration changes. This session is seeking presentations that will discuss targeted mitigation techniques used to improve safety and reduce crashes on our roadways.

Session #3: Roadway/Interchange Design Challenges & Innovations – Look Back to Move Forward
As we look to the future of surface transportation and toll collection/road user charging, the design of our roadways/interchanges and their operation must be commensurate with one another. The introduction of new technologies, connected vehicles, as well as conversion to all electronic tolling and managed lanes on the aging toll facilities, presents design challenges to not only rehabilitate the old and design the new, but to incorporate how these changes are communicated to the road users. This session will focus on how owners and operators have addressed these design challenges using innovative geometric design, traffic control devices, reuse of facilities and vacated land, ITS technologies, managed lanes, and other technologies. Tell us about your challenges, successful implementations and lessons learned.

MANAGEMENT TRACK

Session #1: Reducing the Incident Clearance Timeline
Although incident prevention is the ultimate goal with any agency, when a traffic incident does happen, what does your agency do to get it cleared quickly? Traffic Incident Management (TIM) guidelines have been developed with the focus of detecting, verifying, responding, and clearing incidents and returning traffic back to normal conditions. What are your best practices for reducing this timeline in a safe manner? Preference will be given to best practices related to service patrols and the use of technology. This includes using technology to assist with identifying incidents, notifying roadway users, and how the dispatch and response of courtesy patrols are tied in.

Session #2: Asset Management – Back to Basics
Asset Management is a series of processes that link the agency mission, goals and objectives with the lifecycle maintenance and management of infrastructure. This can be a daunting task that often involves cultural change within an organization. Some agencies have used incremental implementation as a technique to move the process forward. We are interested in hearing how your agency is dealing with the challenges, what worked and what you would do differently to achieve early and long-term success. We are looking for presentations from both small and large agencies that will inform attendees and stimulate questions and discussions with the audience.

Session #3: Current and Future Challenges to Finding, Training and Keeping a Good Quality Workforce
The Times they are a Changin’! The ability to put an ad in the paper and get 100 resumes from qualified candidates has come and gone. In many fields, finding quality people to fill niche roles
means proactively finding them and recruiting them. Headhunters for highway workers? Sometimes it is not about pay, sometimes it is. What makes workers tick? Your locale, your region, your ability to tele-commute, is there enough over-time, is there too much over-time? Are your niche fields like tolling installation and maintenance getting appropriate education and training elsewhere or do you need to create your own training program? Are highway workers and seasoned snow plow operators even available in your area at competitive wages? How many seasoned construction inspectors are there when there is a sudden increase in capital work? Ever try to hire a Master Electrician? Are you able to adjust work schedules and incentivize certain positions without upsetting the whole apple cart? How do you incentivize them to move to your agency or your project? We’re looking for presentations that identify the problem with finding, training and retaining a high-quality workforce.