I am an Assistant State Engineer and manage the Systems Management Group in the Transportation Systems Management and Operations Division. My role is very unique and can be lengthy to explain what I really do. I have oversight of multiple units that function beyond TSMO and serve as a cross-divisional support to multiple divisions. Those units include Maintenance Contract Services, Rest Areas, Maintenance Management Services, Feature Inventory Services, Level of Service and Statewide Permit Services (that includes Class C Permits, Outdoor Advertising and Film Permits). Lastly, I serve as ADOT’s liaison to the Federal Highway Administration’s Emergency Relief Program.

I’ve been with ADOT for 24 years and started as a state service intern while attending the University of Arizona. I am a member of the Navajo (Diné) Nation and grew up in a small rural community of Cottonwood/Tse’lan’í (Many Rocks), Arizona, which is about 24 miles southwest of Chinle on the Navajo Reservation.

How do you show respect for people? How do you conduct your gemba walks? Demonstrate care?
I treat people the way I want to be treated. Being open and honest creates an atmosphere of trust and integrity, which ultimately leads to accountability and respect. As a leader, it’s important to me to know about the team and understand their roles and functions of their business. Being a field guy, getting into the trenches or “going to the gemba” is my preferred way to gain that understanding and allows me to see their successes and challenges. I challenge my team to always think outside the box and shy away from how we’ve always done things. Taking the time for your employees and listening to them goes a long way. Knowing you own the same accountability, your employees will move mountains and I have seen amazing things happen.

How do you take time to reflect on how your actions may impact other groups?
Usually, it’s over that second cup of coffee in the morning. The majority of my daily tasks consistently involve multiple groups. Leaving out one group can affect resources, operations or the budget of another or all. Annually, I coordinate the spending of $36 million of special line item legislative funding for pavement surface treatment projects with multiple groups. Using a total systems thinking approach has presented cost-saving opportunities and allowed the Infrastructure Delivery and Operations Division maintenance districts and TSMO regions to maximize the spending of their annual maintenance budget allocations.

Jerry James
Assistant State Engineer
Innovative lighting solution for Deck Park Tunnel saves millions of dollars

F YOU’RE A DRIVER of one of the 290,000 vehicles going through the Deck Park Tunnel each day, you might not have given the tunnel lights a second thought. But you may have given them a second look recently, with new whiter, brighter LED fixtures in place.

The Interstate 10 tunnel, now 31 years old, had become costly and demanding to maintain due to the short life span of the high-pressure sodium lights and sheer volume of lights. Demolishing the entire existing system and installing a new lighting system, including conductors, controls and mounting structures, was estimated at $20 million.

Thanks to the Systems Maintenance team’s ingenuity, they found a way to bring the cost down to just $1.4 million.

“The ballasts for the high-pressure sodium lights were no longer available, and the unique voltage of the tunnel lights presented a challenge,” said Karim Rashid, systems maintenance engineer. “But we were able to find a manufacturer to make retrofitted lights to our specification. Our top priority was to ensure the safety of vehicles in the tunnel.”

The first phase of improving driver safety in the tunnel was testing the new lights. The team did a one-year pilot with 280 fixtures. Rashid took photometric readings of those new lights that showed a 23% increase in light output over the HPS lights. Then the more intricate part of the project began. Replacing the remainder of the 3,200-plus fixtures would require periodic tunnel closures between February and June. And, pun intended, it would mean all hands on deck.

“We’ve needed to enlist members of several teams, including Systems Maintenance, Sign and Striping, Intelligent Transportation Systems, plus contractors from other areas, to work during these installation efforts,” Systems Maintenance Manager Dave Locher said. “In addition, Roadway Maintenance played a role by providing dump trucks to haul away the old fixtures.”

One huge benefit, in addition to the safety factor, will be the energy savings. The project will recoup its costs before too long, with an estimated $175,000 savings annually in energy consumption.

~ Kim Larson, Senior Communications Specialist
Team considering better ways to preserve pavement and bridges

EMPLOYEES FROM across the agency are collaborating to develop improved methods to preserve highway pavement and bridges.

Infrastructure Prioritization team members are meeting weekly to discuss ways to slow down the deterioration of ADOT’s infrastructure. It is one of ADOT’s 2021 strategic initiatives.

“The goal is to maximize the investment into our pavements and bridges to maintain the current condition and start to reverse the current trend,” said Southwest District Engineer Paul Patane.

Patane and Multimodal Planning and Programming Manager Clem Ligocki are leading the Infrastructure Prioritization team, which began meeting in October 2020 to review current business practices and consider internal process improvements.

ADOT is responsible for 28,000 lane miles and 6,800 center-line miles of highway. Over the past nine years, the number of highway miles in good condition has decreased at a rate of 723 lane miles per year. The share of pavement considered in good versus fair condition steadily declined from 2010 to 2019:

- From 72% to 48% on the Interstate Highway System
- From 68% to 32% on the Non-Interstate National Highway System
- From 44% to 19% on state highways that aren’t part of the National Highway System

This drop in pavement condition is expected to worsen with time, if funding levels remain the same, as the deterioration is occurring at exponential rates, Ligocki said.

“We’re at a critical point where we’re starting to erode the quality of our roads in a bigger way,” Ligocki said.

In addition, the share of the state highway system’s 4,800 bridges rated in good condition has fallen from 78% to 59% in the past decade.

Using the PDCA (Plan-Do-Check-Act) process, team members are taking a deep dive into data to break down the problems. They are considering aspects of a project life cycle, including design, programming, scoping, policy, communication and maintenance.

Partnering Facilitator Julia Voight is the team’s facilitator. PDCA core team members represent the major work units associated with project delivery from three ADOT Divisions — Multimodal Planning, Infrastructure Delivery and Operations, and Transportation Systems Management and Operations.

Team members praised Voight for doing a great job leading them through the PDCA process.

“This is a One ADOT kind of thing. We’re looking everywhere using the kaizen principle of no blame, no judgement,” Ligocki said.

Countermeasures regarding pavement and bridge conditions are expected to be implemented in the 2022 fiscal year.

~ Lori Baker, Senior Communications Specialist

Common transportation terms key to explaining maintenance priorities

DO YOU KNOW the difference between reconstruction, rehabilitation and modernization? If you ask different people, you likely will get different answers.

That’s why a team of ADOT employees is creating standard definitions for various transportation terms so that everyone is speaking the same language — whether they are ADOT employees, contractors, local government officials or the public.

Because many people are unaware of how ADOT is allocating dollars and dedicating resources, the Maintenance Prioritization team was tasked with improving communication. The goal of simplifying and standardizing key language and terms is one of ADOT’s 2021 strategic initiatives.

The first step was to define transportation terms so they are used consistently. The Maintenance Prioritization team in tandem with the Infrastructure Prioritization team is finalizing definitions that will be used in communications about ADOT plans, projects, budgets and more.

“We want to improve our communication within ADOT, our external agencies and the public to tell people how our maintenance funds are being allocated,” said Systems Management Group Assistant State Engineer Jerry James.

He is leading the Maintenance Prioritization team along with Communications Deputy Director Jon Brodsky. State Engineer’s Office Lean Coach John Nichols serves as the team’s facilitator. Team members represent several ADOT divisions, also including Infrastructure Delivery and Operations, Multimodal Planning, Financial Management Services, Government Relations, and Enforcement and Compliance.

The SDCA (Standardize-Do-Check-Act) process is being used to identify what kind of communication tools would work best for different audiences.

~ Lori Baker, Senior Communications Specialist
Teaming up to transform the Central District

When the Infrastructure Delivery and Operations Central District moved to combine the Construction and Maintenance units, a lot of synergy started taking place. In fact, the assistant district engineers for each side of the house, Dylan Cardie (construction) and Mohamed Elomeri (maintenance), collaborated on some outstanding accomplishments, earning them the 2020 Team of the Year Award. Central District Administrator Randy Everett nominated them, noting their innovative work. “They have kaizened the district in so many ways, bringing each of their individual perspectives into the solutions. It has been a great example of AMS (Arizona Management System) in motion.”

This team collaborated on multiple projects for the Central District that displayed the elements of AMS — performance management, leader behaviors and problem solving. They created an A3 form that included the district’s annual objectives to measure performance, using various tools to provide relevant data that worked for the whole team, often coming up with countermeasures as obstacles came up. They created a new way to track overtime for both employees and managers.

Another significant project that Elomeri and Cardie took on was a required COVID-19 roll call spreadsheet to track attendance. They developed an innovative approach incorporating each unit’s total allocated positions and positions in recruitment to provide a more accurate number. Their form is now used by all units within IDO.

One of their biggest collaborations was the diamond grinding contract, which was a daunting task, navigating through the procurement and specification process. This new pavement preservation technique is still in the testing phase, but could have a significant impact on maintenance. The first freeway segment to use this process was the Loop 202 (Santan) freeway, between Interstate 10 and the Loop 101 (Price) freeway, which resulted in the rough, ravelling surface becoming smooth and safer.

Cardie and Elomeri stress that communication is key in their partnership. “We have open communication, constantly discussing issues and concerns,” said Cardie. “We have the mindset that it’s not a construction or a maintenance issue, it’s a Central District issue.”

Elomeri notes that total systems thinking is how they’re approaching their work. “There is a new culture of unity, with the two sides coming together. We’ve implemented new things during the construction process that creates a better strategy for both of us.”

Both were surprised and humbled by receiving this award. “We want to do what’s best for the district, for ADOT,” said Elomeri.

Cardie said, “We just really enjoy what we do.”

~ Kim Larson, Senior Communications Specialist

Mural pays tribute to John Carlson

A MURAL IN MEMORY of longtime ADOT Government Relations Director John Carlson was painted on a wall at the DeMenna Public Affairs offices, 1345 W. Monroe St. in Phoenix.

Carlson, who retired in January 2020 after 30 years of contributions to the efficiency and safety of Arizona’s transportation, passed away on March 17.

Ryan and Joe DeMenna and their father, Kevin, worked with Carlson on various transportation issues over the years.

“No matter the project, we always welcomed the opportunity to work with John and he eventually became a member of our extended legislative family. After we learned of John’s passing, we all agreed that a tribute mural would be the best way to honor such an amazing man,” Ryan DeMenna said.

The mural with Carlson wearing his trademark ADOT ball cap was painted by Jonathan Fierro, a relative of the DeMenna family.

“Those who have had the pleasure of working with John know that he truly was a transportation policy guru with a heart of gold. He will be dearly missed,” Ryan DeMenna said.

~ Lori Baker, Senior Communications Specialist

To share your condolences with John Carlson’s family, go to whitneymurphyfuneralhome.com/carlson-john-stewart.
Jon Jenkins helps keep MVD employees and customers safe

To help MVD employees and customers stay safe, Jon Jenkins guides MVD staff to continuously improve ways to meet safety measures.

Jenkins became the MVD Safety and Security Manager in March 2020, shortly before the global pandemic started impacting Arizona. His new position was created to support ADOT’s True North, Safety Home.

“I provide guidance in making sure that we are developing a culture of continuous improvement in our safety and security program, and that we are following ADOT Office Safety, OSHA, Centers for Disease Control and Prevention, and Arizona Department of Health Services safety guidelines, including COVID-19 protocols and safety measures,” he said.

Jenkins, who started his MVD career as a customer service representative 20 years ago, travels to all 43 MVD offices to do gemba walks, conduct safety and security inspections, huddles and provide safety training.

He helped establish COVID-19 protocols in MVD offices regarding social distancing, wearing face coverings, limiting the number of customers in a facility, plexiglass partitions at customer service stations and proper sanitization. About one-third of MVD field office staff is teleworking to allow additional social distancing with an empty workstation between customer service representatives.

Jenkins noted how MVD implemented several innovations to provide alternative ways to provide services. A new call center system was established to assist customers by phone and many MVD services are available online through AZ MVD Now at azmvdnow.gov.

“I use Arizona Management System tools and Lean Leadership principles to continuously improve how safety and security regulations, policies and procedures are adhered to,” he added.

For example, he developed a tracking system for Incident, Accident and Injury reports.

“While reviewing the reports, I identify possible areas requiring improvement or training to ensure a safe and secure environment,” Jenkins said. — Lori Baker, Senior Communications Specialist

We received many entries in response to last month’s AKA — The ADOT Way Scavenger Hunt contest but there could only be one winner. Congratulations to Beth Greves, an Equipment Services parts expediter, whose name was randomly selected! Assistant Communications Director for Internal Communications Kathy Boyle presented her with a special gift bag, including an Arizona Highways coffee table book, Arizona Highways’ Secret Sedona, along with a lanyard, stress ball, black marker, pen and other goodies. =

MVD Safety and Security Manager Jon Jenkins and Southeast Mesa MVD Office Manager Erika Poorman discuss the ADOT MVD / ECD Safety Inspection Checklist prior to conducting an inspection.

Winners,

Answers:

Simply put, AKA — The ADOT Way is how we do things at ADOT. It’s the way we operate. It is our culture.

Name one article under “THE THINGS WE DO ... THE ADOT WAY” that highlights the kaizen principle of No Judgement, No Blame.

“Deep-dive effort helps reduce wait time at the border, level 1 inspection process overhauled”

What was the title of the March Lunch and Learn forum? (hint: click on one of the 'Helpful Links')

“Gathering Data”