FAREWELL TO SECRETARY LESLIE S. RICHARDS
PennDOT participated in a ceremony June 28 designating a local bridge the H. Donald Whipple Memorial Bridge in honor of the department employee killed on the job in 2016. Whipple was the 87th employee killed on the job since 1970.

The bridge named in honor of Whipple is the Route 405 bridge spanning Norfolk Southern Railroad tracks and a tributary to Chillisquaque Creek in Northumberland County, part of PennDOT District 3.

The naming of the Route 405 bridge was significant because Whipple was instrumental in designing it. He drafted the entire 55-sheet bridge plan and designed the deck steel for this two-span structure. The project was completed in 2014. Although it was not the first bridge he worked on, Whipple considered it his most memorable due to the size and complexity.

The event was attended by many of Whipple's friends from the district office; family members including his parents, Dennis and Sharon, and his wife, Julia; and representatives of the offices of Sen. John Gordner and Rep. Lynda Schlegel Culver.

"Today is a special day. We are remembering, celebrating Don's life and recognizing Don's accomplishments," said District 3 Executive Sandra Tosca. "While his memory will live on in our hearts, the naming of this bridge will serve as a physical memorial to an outstanding individual who served the department with distinction and was loved and respected by everyone."

Maggie Jackson, a project manager for the district, worked with Whipple on designing the Route 405 bridge.

"Don was a fantastic co-worker and an absolute joy to work with," she said. "He had an excellent work ethic, but I'll remember him most as a caring friend who we deeply miss."

PennDOT is in the initial stages of an effort to name bridges after the PennDOT employees who died while on duty since 1970. Once this has been completed, PennDOT will work with the General Assembly to pass a naming authorization bill in the spring 2020 legislative session.
Dear Colleagues,

As you may know, my time as Secretary of Transportation is coming to a close. My last official day as Secretary will be Thursday, December 5. As I reflect on my time here, I am overwhelmed with gratitude. Over the last five years, I’ve had the honor of meeting and talking with so many of you. I have always been struck with how dedicated our employees are to PennDOT’s mission, and how much our employees truly care for one another. We refer to each other as “the PennDOT family,” and I have truly felt that throughout my time here.

I am truly thankful for the work you do to keep people and goods moving freely and improve our transportation assets and during winter, keep our roads passable and safe to drive on. You’re interacting with millions of drivers and vehicle owners; managing our internal, financial and facility processes without which we simply could not operate; dealing with stakeholders, other government officials, property owners, business partners and the whole range of people who contact us each day, and supporting mobility for Pennsylvanians across all modes of transportation. I never forget what it takes personally to meet these challenges, and the outstanding people throughout PennDOT who make us successful.

At its core, our work is about improving lives and connecting people. Each and every one of you are part of that story, and I’m so grateful that I had the opportunity to be part of it as well. I’m also honored to share Governor Wolf’s pick for the acting Secretary of Transportation, effective Friday, December 6: our current Executive Deputy Secretary Yassmin Gramian, P.E. Yassmin comes to us with over 30 years of technical expertise as an engineer in the transportation and infrastructure industry, and is focused on keeping PennDOT’s forward momentum going. I couldn’t be happier with this selection, and I wish Yassmin the best as she takes on this new role.

In closing, I want to thank you again for the work you do every day. I know it’s difficult, and I know that with it comes great personal sacrifice. I will always treasure my time here, and I will always be so grateful to all of you for welcoming me so open-heartedly into the PennDOT Family.

Sincerely.

[Signature]

Secretary of Transportation

For more information please visit our website: www.PennDOT.gov
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www.facebook.com/PennsylvaniaDepartmentofTransportation
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This quarterly newsletter highlights our latest efforts to improve mobility and quality of life in Pennsylvania.

This issue features PennDOT’s focus on the benefits of hot pour mastics, Pittsburgh tunnel maintenance organization, workplace heroes, bicycle friendly resurfacing program and more!

As always, feel free to send story ideas or requests for information you want to see. If you’re involved in an interesting or innovative project or initiative, have ever wondered about other parts of PennDOT’s operations or have other suggestions, email the Press Office at ra-pennndotpress@pa.gov.

We hope you enjoy this latest issue!
VENDORS DEMONSTRATE THE BENEFITS OF HOT POUR MASTICS AT PENNDOT-SPONSORED EVENT

By Richard Kirkpatrick, Bureau of Innovations

The State Transportation Innovation Council (STIC) – a partnership among PennDOT, the Federal Highway Administration (FHWA), and other public- and private-sector partners – is continuously looking for ways to market upcoming innovations to transportation stakeholders. One of the innovations, hot pour mastics, was showcased in a first-of-its-kind demonstration on July 17 in a parking lot near the PennDOT Materials Testing Laboratory.

Stacey Cleary, executive director of the Pennsylvania Association of Asphalt Material Applicants, noted that many states have adopted the use of hot pour mastics. She said it is the next step after crack sealing, and it is used for wider and deeper cracks.

"This material is designed to fill (holes) two inches or bigger and go deeper (than routine crack sealing)," she said. "It helps seal cracks and prevent water from getting in."

This sort of maintenance activity helps head off pothole formation, Cleary noted, and can be used to smooth out joints between bridge decks and adjacent pavements.

"While it is not familiar to PennDOT, we know that it works," she said.

One of the benefits of the new material is that it stays flexible even at lower temperatures, meaning long-lasting fixes can be completed during winter and spring.

Cleary added that it is not merely a ride-improvement benefit, but also helps protect and preserve pavement surfaces.

"It is a preservation technology," she said.

York County’s West Manheim Township Manager Marc Woerner applauded PennDOT for giving the opportunity to come out and see the product.

In his role, Woerner said, "We have about 8,500 residents in the southwest corner of York County. As township manager, it is my responsibility to bring recommendations to the board, so they can make decisions."

With the cost of building and maintaining a local road network growing, Woerner mentioned that "maintenance costs are always extremely high, but maintenance is cheaper than reconstruction. But if we can find a product here that will match our needs relative to maintenance, that's a large improvement and hopefully cut our costs in the long run."

PennDOT Deputy Secretary for Highway Administration George
McAuley told the participants that he was excited about the opportunity to see the physical deployment of the innovation. "We brought it to Pennsylvania through the State Transportation Innovation Council," he said.

Matt Briggs, chief of PennDOT’s New Products and Innovations Section, said the applications from the other vendors are under review. He said the STIC Maintenance Technical Advisory Group is working to secure the required approvals by the end of the year, and the challenge has been to identify the specifications for the materials.

Harrisburg City Council Member Dave Madsen, who is chair of the council’s Community and Economic Development Committee, said he attended the session to "look and learn."

"We have a lot of potholes and cracks," he said. "It’s a major concern."

He noted that with the state Capitol complex located in Harrisburg, the city’s population doubles during the work day. At the same time, half of the property in the city is not taxable and the city has a 30-percent poverty rate. With all the commuters putting so much pressure on infrastructure within the city, he is especially interested in pursuing "partnering with PennDOT to explore new products and technology as a cost-effective way to fix and improve roads, prolong their usable life, and not put the burden of preventable roadway reconstruction projects on taxpayers."

After the demonstrations, Madsen said he was impressed.

"The vendors gave good presentations ... It was beneficial. ... I’m excited to further explore hot pour mastics and their potential use in Harrisburg," he said.

PennDOT District 5 (Allentown Region) Executive Mike Rebert noted that the materials could be used to deal with a tough statewide issue – longitudinal cracks on expressways.

"This is something we have struggled with for years," he noted.

At the STIC meeting immediately after the demonstration, McAuley applauded the practical benefits the event offered. "It was great, not just to think about new products, but to see how they are deployed," he said.

McAuley also suggested that PennDOT would assist with training for local governments through LTAP on application of hot pour mastics.

"It is critical to understand what the products will do so we don't use them in the wrong place," he said.

More information on the Pennsylvania STIC can be found at www.penndot.gov/STIC.

**511PA CMV ENHANCEMENTS**

For the first time, 511PA will offer a dedicated map specific to commercial vehicle restrictions.

This map will go live when commercial vehicle restrictions are in place, and will display planned restrictions once enacted, along with any active restrictions. Additionally, the new map will be color-coded by restriction type, and will include graphics with definitions of each type.

These enhancements are expected to be available by mid-December and will be available on both the 511PA mobile apps and www.511PA.com.

For more information about PennDOT’s winter services, visit www.PennDOT.gov/winter.
Pittsburgh is known as the Steel City or City of Bridges, but the City of Tunnels would be an equally fitting name. As the only district with a Tunnel Maintenance Organization, PennDOT District 11 is home to the Fort Pitt, Squirrel Hill, Liberty, and Stowe tunnels.

The tunnels are critical for moving traffic in and out of the city each day. Therefore, anytime an incident occurs inside or even near the tunnels, it has a significant impact on traffic. Tunnel staff respond to over 2,500 incidents each year varying from loose animals and vehicles running out of gas to major crashes. Tunnel maintainers operate tow trucks to clear lanes and crash trucks to protect incident scenes and assist first responders.

District 11 Tunnels, with the support of the Southwestern Pennsylvania Commission and the Pennsylvania Turnpike Commission, formed the Pittsburgh Tunnels Traffic Incident Management (TIM) Team to improve incident management activities in the greater Pittsburgh area. Along with PennDOT, this team consists of first responders, local municipalities, towing companies, Pennsylvania State Police, Pennsylvania Turnpike, and other stakeholders. The group meets quarterly to conduct training, develop procedures, and determine other methods for improving traffic incident responses. The overall goal is to improve responder safety, to quickly clear incidents off the road, and to maintain effective and efficient communications among each organization involved.

The City of Pittsburgh Public Safety has been an active stakeholder in the TIM Team and has helped improve incident management in the region by providing public safety radios to the Fort Pitt, Squirrel Hill, and Liberty tunnels. This has tremendously improved communications with first responders handling incidents at the tunnels.

Training has been another significant improvement. This past spring, the TIM Team provided Federal Highway Administration Strategic Highway Research Program TIM training to all 650 firefighters from the City of Pittsburgh Bureau of Fire. This monumental task was completed in 40 sessions and 20 days to meet the firefighters’ challenging schedules. This October, the TIM Team is planning a major multidisciplinary drill at the Liberty Tunnels to test PennDOT and the city’s responses to a tunnel fire.

TIM teams are just one of many strategies under Transportation Systems Management and Operations (TSMO) and are becoming more present statewide. TIM teams promote cooperation between the different organizations, which helps clear incidents faster. Clearing incidents quicker improves the reliability of our highways and reduces congestion.
District 5 began a project this past spring to remediate rock along U.S. 209/Mauch Chunk Street in Mahoning Township, Carbon County.

For safety reasons, there are full closures of U.S. 209 north and south between Oak Drive and Race Street weekdays (Mondays through Fridays) between the hours of 8:30 a.m. and 3 p.m. "These closures are necessary to protect motorists from any rocks that may fall during the work, and provide the contractor space to safely maneuver equipment," Inspector-in-Charge Calvin Ulshafer said. "We will allow emergency service vehicles to travel through the area for emergency response efforts."

During the closures, U.S. 209 traffic is detoured on Packerton Dam Road, Hemlock Drive, PA 902, South Ninth Street, PA 443, U.S. 209, Harrity Road, Fairyland Road, Long Run Road, Maury Road, and PA 903.

A single lane is open on U.S. 209 north and south weekdays from 3 p.m. to 8:30 a.m. and from 3 p.m. Fridays through 8:30 a.m. Mondays.

Workers are removing fallen rock from the roadside, scaling back and removing additional rock from the mountain, installing mesh netting to help prevent future rocks from falling, milling and paving U.S. 209 north in the work area, and performing minor drainage improvements.

Over the past several years, multiple large rocks slid off the side of Flagstaff Mountain ("Mansion House Hill") alongside U.S. 209, resulting in the need for this remediation work.

This section of U.S. 209 has an average daily traffic volume of 9,814 vehicles.

Road-Con Inc. of West Chester, Pa., is the general contractor on the $3,550,829 project that is expected to be complete in May 2020.

For more information on projects occurring or being bid this year, those made possible by or accelerated by the state transportation funding plan (Act 89), or those on the department’s Four and Twelve Year Plans, visit www.projects.penndot.gov.

Recently, five PennDOT Chester County maintenance workers were recognized with Workplace Hero Awards.

Back in April, the crew was wrapping up line painting operations for the day when they encountered a single-vehicle crash on Route 82 in East Marlborough Township. The vehicle was on its roof and the single occupant was still inside. The victim had suffered trauma to the head and was unconscious. Acting Foreman Tom Dickinson helped the victim, while fellow crew members Jim Ferrier, Patrick Bernard, Doug Freed, and Rich Iorio helped secure the traffic scene until emergency responders arrived. It was their quick thinking and life-saving actions that allowed the victim to be successfully treated.

District 6 Executive Kenneth M. McClain expressed his gratitude that the team acted so quickly and worked together to help the crash victim and provide safety to other motorists who were driving up on the scene.

"All of you went above and beyond in this situation and as a result the crash victim was able to be successfully treated," McClain said. "This crew and other Workplace Hero recipients before you are an example to all PennDOT employees.

Dickinson explained he and the other crew members didn’t need to say a word. They looked at each other and just immediately jumped into action.

Workplace Hero is an award open to PennDOT employees who, during work hours, take actions that prevent the death or serious injury of a co-worker or member of public.
MITTAL REALIGNS TRACKS THANKS TO RTAP GRANT

Beginning with a 2013 Rail Transportation Assistance Program (RTAP) grant, Mittal Steel USA Railways began a multiple phase approach to improving operations and safety of the extensive railroad network located within the Arcelor Mittal Steel plant located in Steelton.

When initially constructed, the railroad track standards accommodated 52-foot, 70-ton freight cars; these freight cars have grown to 95-foot, 110-ton cars. The larger freight cars place an increasing demand on operations and switching logistics. Mittal Steel USA Railways was able to rehabilitate and reconfigure (i.e., re-align) railroad track and turnouts to accommodate the larger freight cars with the help of a 2015 RTAP grant from the Department of Transportation. These improvements have contributed to more efficient operations (i.e., limited shifting moves, greater clearances, safer operations, etc.), which has translated into the railroad reporting fewer derailments (seven vs. 29 being annually reported prior to 2013) after completion of the 2013 RTAP and 2015 RTAP grants.

PRESERVING HISTORY: EXPLORATORY DIG COMPLETED AT LOCATION OF FORMER HAMLET IN SUMMIT TOWNSHIP, ERIE COUNTY

By Brad Rudolph, Deputy Communications Director, District 6

One man's trash is another man's treasure, or rather, one man's 150-year-old garbage is another man's historical artifact.

That was the mode of operation at a recent exploratory dig at the proposed site of a roundabout in Summit Township, Erie County.

Under the leadership of PennDOT archeologist Scott Shaffer, the PennDOT Highway Archeology Survey Team (PHAST) and District 1 employees spent about two weeks in June sifting through the dirt looking for signs of a former wagon shop.

The move was prompted by research done by PennDOT architectural historian Don Burdan. While looking through an old map of the area near the Erie County Technical School, Don discovered what was once a small hamlet. This included several houses and Nathan Stafford’s wagon shop that was in business from the 1850s to 1881.

The question became: "Is there any evidence left of the building," Don said. The June dig was designed to find an answer.

With the assistance from Erie County maintenance, trenches were excavated in strategic locations on the school property near the intersection of Oliver, Hamot and Flower roads. When the initial churning of the soil showed signs of possible artifacts, PHAST jumped into action with hand digging to different depths.

"The trenches are for figuring out what’s going on horizontally. We [PHAST] have to figure out what is going on vertically," Scott said.

Dirt from hand digging was filtered through a mesh screen to find smaller pieces of potential relics. Any found items were categorized based on location and bagged for further analysis.

While the dig revealed signs of the community that once stood on the school grounds, most of the items uncovered appeared to be household garbage, like broken bowls, old buttons, and pieces of pottery.

"It’s the ‘garbage’ that tells us a lot about the people who once lived there," Scott said.

Among the more notable finds was a piece of porcelain marked with an Erie logo, a cup with the St. Louis World’s Fair insignia, and a wooden button. Once the research on the site and the relics is complete, the found items will be returned to the school if they wish to have them.

While nothing stood out as historically significant, "Collectively it tells you something," Don said.

The digging also helped confirm the historical maps and the details of the former neighborhood, according to Scott.

"The process will help us figure out the overall picture of what happened all those years ago," he said.

More information on the Summit Township roundabout project can be found by visiting www.penndot.gov/district1 and clicking on “Public Meetings/Studies” under the Resources heading.
PENNDOT PILOTS TRAC™ AND RIDES STEM PROGRAM

Under the guidance of PennDOT’s Bureau of Maintenance and Operations’ Justin Bruner and Matthew Kasunic, AASHTO’s TRAC™ and RIDES programs were piloted in Pennsylvania.

TRAC™ (Transportation and Civil Engineering) and RIDES (Roadways In Developing Elementary Students) are AASHTO’s educational outreach programs, designed for use in Science, Technology, Engineering, and Math (STEM) classes.

The hands-on activities introduce students in grades K-12 to the world of transportation and civil engineering, with the goal of inspiring them to consider careers in those fields. Both programs are aligned with national curriculum standards and are currently being aligned with Core Curriculum Standards of Learning.

Initial outreach to schools to gauge interest for a pilot of both TRAC™ and RIDES ultimately resulted in 35 teachers statewide taking the courses this past July at PennDOT’s Transportation University.

Both programs received rave reviews. Below are some examples of feedback PennDOT received from teachers who participated in the program.

"Most trainings give you the ‘why’ we should teach STEM, this training gives you the ‘how’ to teach STEM. It makes teaching STEM into a simple format that kids and teachers will love."

"This seminar was so practical. Coming away with all the materials was tremendous. I liked the connections made to math, science, technology, and transportation jobs. I can easily take this back to the afterschool program and utilize the activities immediately. The lessons are hands-on, fun and provide tons of learning opportunities. Thank you so much PennDOT!"

"The most helpful part of the class was trying the hands-on activities that students would engage with so that we can experience or identify some struggles the students might have."

Because of the pilot’s success, PennDOT will proudly offer TRAC™ and RIDES to teachers going forward.

PENNDOT ENGINEER RUNS BOSTON MARATHON

By Brad Rudolph, Deputy Communications Director, District 6

It takes 2,710 miles and 40 hours to travel from Philadelphia to Los Angeles by car. District 6 Construction Engineer Dan Gleason racks up that same mileage yearly – but on foot, running 50-70 miles each week to train for various races and marathons. In April, he ran the Boston Marathon for the first time, but it was not without some hurdles along the way.

Gleason explained it’s tough competition to even be able to register for the 26.2-mile road race. You must run a qualifying marathon and your time must meet the qualifying standards set by your age group. After runners register with their times, the Boston Athletic Association readjusts the qualifying times based on applicant submissions.

In 2018, after qualifying for Boston at the Via Marathon, Gleason missed the readjusted qualifying time by just seconds. So, he trained harder and qualified for Boston again at the Rehoboth Marathon in October and this time he was really heading to the 2019 Boston Marathon in April.

Despite a serious blood clot that kept him from running over the winter, and an injury along the way, he made it to Hopkinton Center and eventually the finish line, having fun along the way with his rooting wife and daughters, not to mention the crowds of people hyping up the 30,000 runners.

"From Mile 1 to Mile 26 there was a constant buzz," Gleason said. "I took photos, I did a Facebook Live, I stopped and had fun. I loved every second of it."

Following Boston, Gleason ran the Law Enforcement Memorial Run, trekking 100 miles from Philadelphia to D.C. over three days to honor law enforcement killed in the line of duty, which includes his late father. He does this race every year to honor his dad.
Brent Lykens, who serves as the construction services engineer for District 2, wasn’t always convinced he’d become an engineer, but he was sure he wanted to pursue a career that played to his strengths in math and science. By the time he graduated high school and began looking at colleges, he was sure of two things: he did wanted to become an engineer and he wanted to wrestle.

“It’s very demanding both physically and mentally, and the challenges really drew me in,” Lykens said of wrestling.

Not only did he face those challenges, he overcame them. In a career on the mat that started in first grade and continued through varsity, Lykens claimed seven Area V (Pennsylvania Junior Wrestling) PJW titles, two all-area PJW titles, posted a record of 102-17 as a starter for the Clearfield Bison, and captured three district championships at 140, 145, and 152 pounds. He was named Outstanding Wrestler at the District 9 Class AAA Championships in 1990 and secured the Northwest Region Class AAA title at 145 pounds the same year. He was also a two-time PIAA Class AAA State Place winner.

There was no shortage of options available for the aspiring collegiate grappler and engineer. The obvious choice for a central Pennsylvania native that grew up less than 40 miles from Happy Valley would be Penn State University, but Lykens chose to spread his wings. When he visited West Virginia University in Morgantown, he fell in love with the campus, the town, and the team. His prior friendship with fellow Clearfield Bison wrestling alum Scott Collins, the first Mountaineer to earn a national championship in the wrestling program’s history, was certainly a contributing factor. Lykens wrestled for the Mountaineers from 1992 to 1994.

It’s been said that coaching isn’t a job but a calling, and Lykens answered that call in December 1997 when he agreed to become a volunteer assistant coach for his alma mater. After two years he accepted full-time assistant coaching position with the Bison, a role he still serves in today. In 21 seasons, he’s coached a total of 72 District 9 Class AAA champions, 16 Northwest AAA regional champions, 46 PIAA Class AAA Championship qualifiers, 17 PIAA Class AAA place winners, and four PIAA Class AAA state champions. In recognition of his achievements on the mat and the bench, Lykens was inducted into the District 9 Wrestling Hall of Fame on Feb. 23 at the District 9 Wrestling Championship held at Clearfield High School as a wrestler and a coach.

Lykens’ PennDOT career also began in December 1997. After completing the Civil Engineer Trainee program, he worked in the bridge unit from 1999 to 2014. For the last five years, he has served as the construction services engineer for District 2, which supervises the geotechnical/materials and finals unit, constructability and scheduling, local projects portfolio, and the Potters Mills Gap construction project. Lykens received his longevity award for 20 years in 2017.

After a lifetime of wrestling achievements under his belt, Lykens sometimes considers stepping away. But when the season gets underway he starts bumping into old rivals, former pupils and colleagues, and he catches the bug all over again.

"I've worked with some great wrestlers and coaches over the years, and those are lifetime relationships you form. It's hard to walk away."
PennDOT District 6 developed a multi-agency partnership in alignment with PennDOT Connects that the Delaware Valley Regional Planning Commission (DVRPC) calls the "Bicycle Friendly Resurfacing Program."

Upon elimination of the Bicycle Occupancy Permit, PennDOT now uses Letters of Agreement with municipalities where bicycle lanes will be installed. This change increases municipal interest by lessening the perception of liability in relation to winter maintenance. (Municipalities are responsible for design, installation and maintenance of bicycle lanes in most instances.)

To encourage more municipal interest in bicycle facilities, PennDOT District 6 worked with DVRPC, county planners from the four suburban counties, and the Bicycle Coalition of Greater Philadelphia to get regional support for Congestion Mitigation and Air Quality (CMAQ) funding through the regional Transportation Improvement Plan (TIP) to support bicycle lane designs on state highways scheduled for resurfacing.

Roads on the District's Five-Year Resurfacing Plan are initially screened and prioritized by DVRPC with input from suburban county planning commissions and the Bicycle Coalition of Greater Philadelphia. PennDOT then performs a more thorough screening of the priority locations, while planners initiate a dialog with municipalities on their interest in bicycle facilities and commitment to maintain them.

PennDOT oversees the CMAQ-funded engineering consultant that designs the bicycle facilities. If an agreement is reached, PennDOT implements the bicycle facilities during the resurfacing project and the municipality agrees to maintain the bicycle facilities until the next resurfacing cycle. PennDOT also agrees to install any necessary supplemental signing, and the municipality agrees to maintain the signs.

This "Bicycle Friendly Resurfacing Program" has produced an effective partnership with all entities invested in the deployment and maintenance of enhanced bicycle facilities at priority locations in Bucks, Chester, Delaware and Montgomery counties.

The Bicycle Coalition of Philadelphia recently reported in their blog that through this process, Philadelphia's suburbs will see an 18% increase in bike lanes. That's about six miles of new bike lanes in the counties that surround Philadelphia.

Photo: On December 8, 2017, Secretary Richards joined local officials, planning partners and bike advocates at the Thorndale Train Station on Business U.S. 30 to mark the completion of new bike lanes on three suburban state highways in southeastern Pennsylvania.
TURNING GIRL SCOUT MEMORIES INTO CAREER STRATEGIES

By Jamie Arehart, Community Relations Coordinator, District 10

They can’t remember who mentioned the Girl Scouts first, but Alicia Kavulic, district geotechnical engineer and Jamie Arehart, community relations coordinator, both of PennDOT District 10, began swapping stories about their fond memories as Girl Scouts. Then, an idea: as former Girl Scouts who both decided to pursue careers and leadership positions in transportation and government, they should reach out to the Girl Scouts to see how their roles at PennDOT could help girls who wished to have more knowledge of STEM (Science, Technology, Engineering and Math) professions. And so, they did.

With the help of Jessica Schile, Girl Experience Specialist for the Girl Scouts of Western PA, Kavulic traveled to Camp Redwing in Renfrew, Butler County. On September 20, 2019, Kavulic met with Girl Scouts at their Think Like an Engineer Journey, where girls learn how to think like an engineer by participating in hands-on-activities. There, Kavulic discussed her career as a civil engineer through photos and a hands-on activity that challenged the girls to identify construction materials that PennDOT uses to build roads and bridges (such as concrete, steel reinforcing bar, high friction surface and reflective glass beads) and then to guess their purpose.

"I think it is great that the Girls Scouts are encouraging girls to learn about engineering," said Kavulic. "I enjoyed spending time with them and teaching them about what we do at PennDOT."

The purpose of the Think Like an Engineer Journey is for girls to see STEM as the foundation for a meaningful career. According to Schile, "Girls who participate in STEM journeys become better problem-solvers and critical thinkers, and they receive better grades, earn scholarships, and follow more lucrative career paths."

According to a recent study from the Girl Scout Research Institute, although 81 percent of high school girls show interest in STEM careers, about half believe that STEM isn’t a typical career path for a girl. Studies have predicted that within the next decade, the U.S. workforce will need 1 million more STEM professionals than it can produce.

"Girl Scouts has the largest pipeline of future female leaders available, and no place is this more important than in STEM fields," said Sylvia Acevedo, CEO, Girl Scouts of the USA. "Girl Scouts is the only organization for girls with the expertise and reach to help pave the way for any young girl — no matter if she lives in Middle America or a major city — to break barriers and achieve any dream she may imagine."

While more men than women hold professions in STEM fields, "PennDOT is making it a priority to educate and mentor young women about future careers in government and transportation," explains Arehart. "Girls need to know they have a wide range of options when it comes to what they want to be when they grow up."

The Girl Scouts Western Pennsylvania (GSWPA) provides 20,230 girls from 27 counties and many different backgrounds and beliefs with the resources to become tomorrow’s leaders. For more information, please visit the GSWPA website.

For more information on how PennDOT supports women in transportation and campaigns for engineering as a future for girls and students can be found on the PennDOT website.