



Agencies are Banding Together  
to Protect Highway Workers  
and First Responders with  
“PennTIME”

# SUMMER INTERNSHIP PROVIDES REAL-WORLD EXPERIENCE

By: Hannah Stiller, Summer Intern, District 1



This summer, I worked in PennDOT's District 1 Press Office, which is a part of the Information and Data Management Unit. It was my second summer working for PennDOT, and I couldn't be more appreciative of the experience.

As a communication studies major, PennDOT was not the first organization I thought of when looking for summer employment. In my mind, PennDOT was primarily known for its engineering. What I later came to find is PennDOT houses diverse jobs, and people with an array of talents and specialties, like the Press Office.

Through my work with the Press Office, I was fortunate to be surrounded by all the different sides of PennDOT. In addition to gaining professional experience in my field of study, I have been able to learn from the employees themselves about different aspects of the PennDOT process — like the environmental precautions the department takes when preparing for a job, the intricacies of properly installing ADA curb ramps, and how the district conserves funds by pre-casting bridge components.

I have also been able to meet other interns while working at PennDOT. Those I talk to agree the internship program offered at PennDOT has been a worthwhile investment and rewarding experience. Interns at PennDOT represent all different aspects of the organization, including human resources, construction, IT, design, maintenance, and construction.

I even had the pleasure of sharing my experience with my brother this summer. He came to PennDOT as an intern in the Information and Technology unit, which has given him career-specific experience as he is working toward a degree in Computer Science.

Gaining real-life skills and hands-on knowledge benefitted myself, my brother, and the other interns as students and future employees. We will go out and represent the quality of experience PennDOT offers in our respective schools and work at our future jobs. We didn't simply have a summer job, we gained three months of career-building experience.

Beyond that, time at PennDOT has given me a greater appreciation of service-oriented jobs. The PennDOT employees I've had the honor of working with have been accommodating to student interns and always mindful of their jobs. As a state organization, the employees offer their work as a service and are always looking to aid the people of Pennsylvania to the best of their abilities. I hope to continue this attitude of service even as my internship has ended.

Among the most memorable experiences I've had in the past two years have been filming the demolition of an old bridge, seeing and reporting on a superload that was delivered to the Port of Erie, and participating in a television interview to promote bicycle safety. These, among many others, have been fun learning opportunities and have provided me with skills specific to my intended career.

As a rising junior applying to PennDOT in 2017, I could have never imagined that two summers later it would have had such a positive impact on not only me but also those around me, like my brother. I am very thankful for the experience that PennDOT has given me and I look forward to using it in my professional career.

**WELCOME TO THE DOTcom!**

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**FROM THE  
secretary**

Dear Colleagues,

As Fall slips by and we head to winter, I am reminded how swiftly time goes by. I will soon be wrapping up my 4th year as Secretary and not a day goes by without my seeing anew how special this organization is.

Our latest DOT.com attests to this and reviews some of our latest accomplishments. They include improved handling of customer concerns, the latest project update, our success with roundabouts and the importance of advocating for STEM education and attracting an ongoing pool of applicants to join us at PennDOT. And I always enjoy reading details of some of our exceptional staff and how they spend their professional and personal lives.

As 2019 approaches, I look forward to continuing as PennDOT Secretary in Governor Wolf’s second term and joining all of our staff in delivering quality transportation services to the people of Pennsylvania. Thanks for taking time to page through this issue to see how we are advancing the transportation agenda.

Sincerely,

Secretary of Transportation

This quarterly newsletter highlights our latest efforts to improve mobility and quality of life in Pennsylvania.

This issue spotlights improved Customer Care website, preparing for this winter, PennTIME, ongoing statewide 'RESURFACE PA' initiative, Innovations Challenge details, 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-penndotpress@pa.gov](mailto:ra-penndotpress@pa.gov).

**We hope you enjoy this latest issue!**

For more information please visit our website: [www.PennDOT.gov](http://www.PennDOT.gov)

Or find us on social media at:



[www.facebook.com/PennsylvaniaDepartmentofTransportation](http://www.facebook.com/PennsylvaniaDepartmentofTransportation)



[www.twitter.com/PennDOTnews](http://www.twitter.com/PennDOTnews)



[www.instagram.com/pennsylvaniadot](http://www.instagram.com/pennsylvaniadot)

# MORE THAN \$63 BILLION IN IMPROVEMENTS ANTICIPATED VIA UPDATED 12-YEAR TRANSPORTATION PROGRAM

Photo by John Myler, P.E. Engineering District 11



The State Transportation Commission (STC) updated the 12-Year Transportation Program (TYP), which anticipates \$63.9 billion being available over the next 12 years for improvements to roads, bridges, transit systems, airports, and railroads.

Here's the breakdown of the anticipated plan:

\$11.53 billion being available for state highway and bridge projects in the first four years. Public transit is in line for \$9.62 billion; aviation, \$128 million; rail freight, \$228 million, and multimodal projects, \$319 million.

Public input early in the 12-Year planning process played a key role in identifying investments in the various transportation modes.

Chaired by PennDOT Secretary Leslie S. Richards, the STC consists of 10 appointed citizens and the majority and minority chairs of the state House and Senate Transportation committees. State law requires the commission to review and update the 12-Year Program every two years, and no capital project can move forward unless it is included in the 12-Year Program.

To see locations and dollar amounts allocated by way of the TYP search State Transportation Commission Adopts 12-Year Transportation Program under Statewide Press Releases at [www.penndot.gov](http://www.penndot.gov).

Information about the 12-Year Program Update is available at [www.TalkPATransportation.com](http://www.TalkPATransportation.com).



# ROUNDBABOUTS PROVEN SAFER IN PENNSYLVANIA



If you drive in Pennsylvania, chances are you've encountered a roundabout. If not, you'll likely see one popping up in your area in the coming years as PennDOT continues to promote this safe alternative to traditional stop-sign or signal-controlled intersections.

National studies show that modern roundabouts reduce fatal crashes by up to 90 percent. Pennsylvania data\* through 2017 shows that roundabouts on state routes have seen:

- Fatalities reduced by 100 percent
- Suspected serious injuries reduced by 100 percent
- Suspected minor injuries reduced by 95 percent
- Total number of crashes dropped 47 percent

Also, through 2017, there have been no reported pedestrian or bicycle-involved crashes in any of these roundabouts since they opened.

## Roundabouts vs. Traffic Circles

Modern roundabouts in Pennsylvania are NOT the same as the old-style New Jersey traffic circles, which operate on a different set of principles. For instance, motorists entering traffic circles tend to have the right of way (not as safe), whereas traffic entering a roundabout must yield to motorists already in the circle (much safer). Traffic circles also tend to be much larger, but are inefficient for handling the increased traffic volumes we face today.

\*There are currently 11 roundabouts on state routes at previous stop-sign or signal-controlled intersections with at least three years of before-and-after data.

Driving on a roundabout is easy, once you know how. Watch our video on navigating Pennsylvania's roundabouts or learn more on the department's roundabouts webpage at [www.penndot.gov](http://www.penndot.gov)

## MEET APRIL HANNON: DISTRICT 4 PROJECT MANAGER



As a project manager, April Hannon — based in PennDOT's northeastern District 4 - covering Lackawanna, Luzerne, Pike, Susquehanna, Wayne and Wyoming counties - manages many types of projects, including downtown streetscapes, train station rehabilitations, rails-to-trails projects, safety signal upgrades, and multimodal roadway projects.

During her college years, Hannon studied at Penn State and graduated with a Bachelor of Science in environmental resource management. She began her career at PennDOT in 1992 when she worked as an intern for four summers in the Systematic Technique to Analyze and Manage Pennsylvania Pavement (STAMPP) and Environmental Units. She joined the department in a full-time capacity in 1996, working her way from construction inspector to traffic control specialist, and currently a management analyst.

When not at work, Hannon enjoys running, reading, interior decorating, and refinishing old antique furniture. She also likes to spend her time at concerts like Dave Matthews Band and Pearl Jam. Hannon is married; has two boys, Aidan and Cole; a black pug named Zoey; and a tortoise-haired cat named Rosie.

Hannon has run the Scranton Half Marathon four times while training with the Barrier Breakers at the Scranton Running Co. The half marathons she participates in help promote the preservation of the Lackawanna Heritage Valley trail network.

Hannon also is an assistant cross country coach at Old Forge High School. She mentions, "It's very rewarding helping the kids work towards their goals in the sport."

As a PennDOT employee, Hannon manages to tackle every challenge thrown at her. She demonstrates a friendly attitude with her fellow employees and proves she has a great work ethic.

## NEW PENNDOT CUSTOMER CARE WEBSITE EASIER TO USE

PennDOT has always asked for public input in reporting issues like potholes and dead deer on state-owned roadways, but now reporting those issues online has taken a technological leap forward with our updated Customer Care Center at <https://customercare.penndot.gov/>

The new online reporting system allows customers to use a mapping tool and even submit photos if they like, all within a user-friendly interface.

As of September 30, the previous Customer Care Center had nearly 45,000 concerns submitted this year, with more than 96 percent of those concerns being resolved.

# BE PREPARED THIS WINTER. LET PENNDOT HELP.

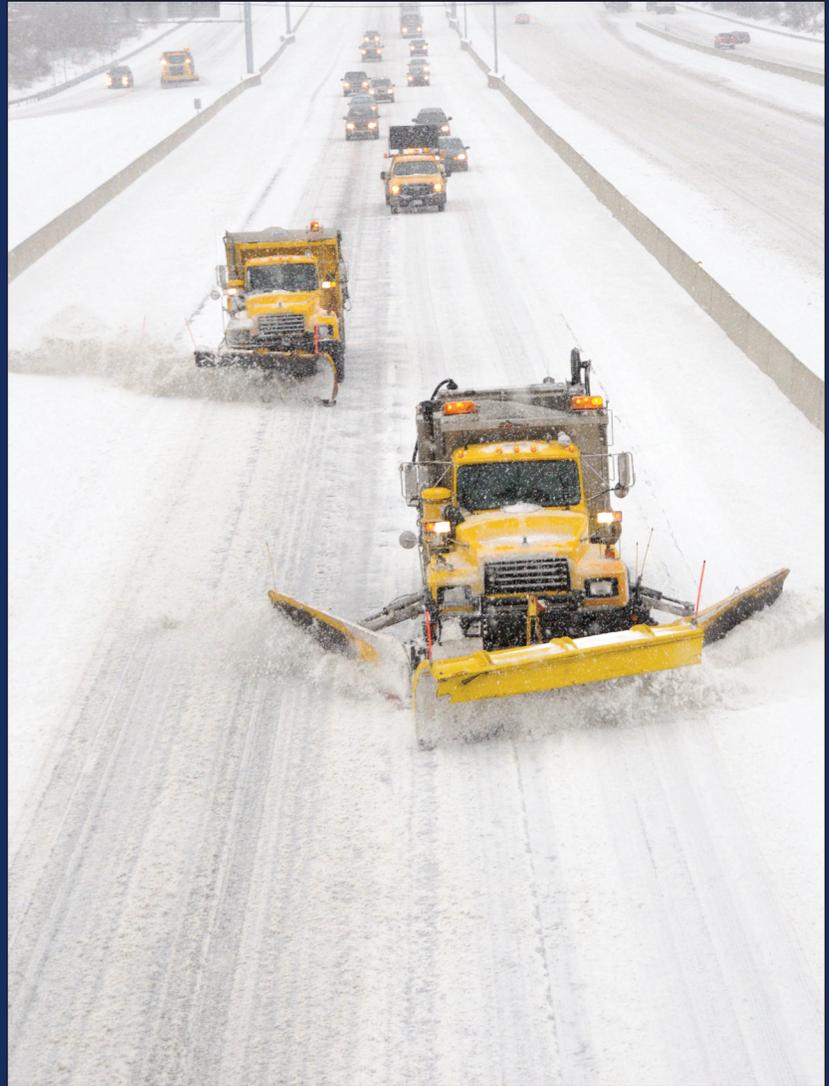
PennDOT's principal mission is public safety and it drives our winter-season preparation and operations. Our staff, equipment and materials are ready to go, and to help you be as ready, we have compiled much very useful information that- when taken to heart - will help to keep you safe under the sometimes challenging winter weather conditions.

Take advantage of our complete winter services directory by visiting [www.penndot.gov/Winter](http://www.penndot.gov/Winter). You'll find a comprehensive winter guide with detailed information about services in each of PennDOT's 11 engineering districts.

Did you know that you can access travel information on nearly 40,000 roadway miles year-round at [www.511PA.com](http://www.511PA.com)? During the winter, you can find plow-truck locations and details of when state-maintained roadways were last plowed. Now, won't that come in handy?

If you or someone you know is looking for a job, with some training and dedication you could turn a winter maintenance position with PennDOT into a career. Watch our recruitment video at the department's YouTube Channel to hear from some of our own.

Please take some time now to check out the winter resources that we have made available to you. It may not be here yet, but winter is coming.



## TRANSIT PROGRAM RECOGNIZED AMONG THE NATION'S BEST



PennDOT's Shared Ride Scheduling Software Program was a finalist in America's Transportation Awards. The project saw the installation of standardized technology at 42 shared-ride transit providers statewide.

Pennsylvanians who use the door-to-door service in the 65 covered counties enjoy improved efficiency and service.

The service scheduling and dispatch software, called Ecolane, helps providers improve on-time performance, collect data, and maximize the number of trips provided. In 22 counties, users can view available travel options as well as reserve or cancel shared-ride trips at [www.FindmyridePA.com](http://www.FindmyridePA.com).

Sponsored by the American Association of State Highway Transportation Officials (AASHTO), Socrata, AAA, and the U.S. Chamber of Commerce, the 11th annual America's Transportation Awards competition recognized transportation projects in three categories: Quality of Life/Community Development, Best Use of Technology and Innovation, and Operations Excellence.



## FIVE COMMONWEALTH AGENCIES BAND TOGETHER TO PROTECT HIGHWAY AND FIRST RESPONDERS WITH “PENNTIME”

The Pennsylvania Traffic Incident Management Enhancement program (PennTIME) is an agreement among five commonwealth agencies with the goal of reducing highway incident clearance times and improving first-responder safety while keeping traffic moving.

The agencies are PennDOT, the Pennsylvania Department of Health, Pennsylvania State Police, the Pennsylvania Emergency Management Agency and the Pennsylvania Turnpike Commission.

The PennTIME program, designed from national traffic-management concepts, will enhance coordination and training among responder agencies, decreasing the time it takes to respond to and clear highway incidents.

Reducing incident clearance times on our roadways through PennTIME will improve responder safety while also keeping traffic moving and travelers safe.

Traffic crashes and 'struck-by' incidents are leading causes of injury and death for highway workers, police officers, firefighters, emergency medical personnel and towing and recovery workers.

To learn more, connect with PennTIME on Facebook and Twitter.



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# MEET PHILIP MUTUNGA: STRATEGIC ENVIRONMENTAL MANAGEMENT PROGRAM MANAGER



## How long have you been with the department?

Seven years.

## What is your current title at PennDOT?

Strategic Environmental Management Program (SEMP) Manager

## What do you consider your greatest accomplishment at PennDOT?

In 2017, I earned my Professional Engineer license. The experience I gained through PennDOT prepared me for this exam, and I look forward to seeing how this accomplishment will help me contribute to PennDOT in the future.

## What has surprised you most about working for the department?

When I first came to PennDOT, I was surprised by the vast range of opportunities within the department. I began my career working in the traffic signals unit, and now I'm working in maintenance—a completely different field within PennDOT. I was surprised to learn that PennDOT even has a Bureau of Aviation!

## What is something you wish the general public knew about the department?

PennDOT invests an enormous amount of time, money, and thought into upgrading infrastructure throughout the Commonwealth. This job is constant, and PennDOT employees work hard to deliver quality work to the citizens of PA. I wish more of the general public was aware of these efforts.

## What do you do when you aren't working?

I love to travel and meet people from different cultures. In Pittsburgh, I enjoy watching live theater, trying out new restaurants, and attending festivals. I am a political news junkie and an aviation fanatic. When I'm not at work, I'm often following the political scene, attending airshows, and learning everything I can about airplanes.

## What might someone be surprised to know about you?

My two brothers and I are identical triplets.

## You were recently featured in Minority Engineer magazine. How do you feel about the experience and being recognized as someone who other engineers can admire?

I was honored that Minority Engineer magazine wanted to share my career experiences with their readers. I appreciate the magazine's efforts to recruit and inspire young minority engineers, and I'm glad I could be a part of their mission.

## Is there any advice you would share with a child considering the field of engineer as a career?

Join engineering clubs or after-school programs, so you can learn what this field is all about and develop your skills. There are so many different types of engineering; go job shadowing and do lots of research to find out what type of engineering might be a good fit for you. Work hard and do your best in all your classes—especially math class!

To see Philip's feature in Minority Engineer magazine, visit <https://bt.e-ditionsbyfry.com/publication/frame.php?i=498811&p=&pn=&ver=html5>



# ONGOING STATEWIDE 'RESURFACE PA' INITIATIVE IMPROVES MILES OF INTERSTATES

Pennsylvania continues to see benefits from the additional resources allocated through "Resurface PA." This aggressive campaign accelerates repaving work on interstates and attacks potholes across Pennsylvania, extending our reach to roads and highways that the department would not have been able to reach in a regular maintenance year.

Under the Resurface PA initiative, PennDOT has mounted an aggressive campaign to accelerate repaving interstates and attacking potholes across the state's 40,000 miles of PennDOT-maintained roads, the nation's fifth largest such system. The program made possible seven interstate maintenance projects and 24 interstate paving and preservation projects and more.



## WASHINGTON, WESTMORELAND, GREENE COUNTY INTERSTATE 79/70 & US 30/119 PROJECT UPDATE



The **Centerline Joint Repair (CJR) project** is for milling and repaving of centerline joints on I-79 in Greene County, I-70 and I-79 in Washington County and US 30, I-70 and US 119 in Westmoreland County. The project is made possible by Resurface PA, the Governor Tom Wolf Administration's statewide initiative to accelerate repaving work on interstates and attack potholes across PA.



## STUDENTS CHALLENGED TO MAKE WORK ZONES SAFER

### ARE YOU UP FOR A CHALLENGE?

**CALLING ALL HIGH SCHOOL STUDENTS**



**PENNDOT IS ASKING,**  
**“What cost-effective, innovative solution can be developed to get drivers to slow down in work zones?”**



**HAVE AN INNOVATIVE SOLUTION?**  
[\*\*www.PennDOT.gov/Innovations\*\*](http://www.PennDOT.gov/Innovations)

**P**ennDOT and the Department of Education are again teaming-up to challenge high school students to make our highways safer with the second Innovations Challenge.

The challenge asks high school students in grades 9 to 12 to use their problem-solving, creative and strategic-thinking abilities to solve real-world transportation challenges.

This year’s challenge asks students to look at cost-effective technologies and innovative methods, aside from laws and educational campaigns, that can be developed in the next five to 10 years to get drivers to slow down in work zones.

Through the PennDOT Innovations Challenge, regional winners will be selected and invited to compete in Harrisburg for the state championship. The statewide winning team will be awarded \$1,500 from the Pennsylvania Chapter of the American Traffic Safety Services Association (ATSSA) to be divided among team members.

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For complete Innovations Challenge details, visit [www.penndot.gov/innovation](http://www.penndot.gov/innovation). The deadline for submissions is December 31.

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## SMALL BUSINESSES TO COMPETE FOR PENNDOT CONTRACTS



**P**ennDOT is offering Small Business Enterprises (SBEs) the opportunity to compete for work as prime consultants on federally-assisted engineering and design agreements on at least six projects via a pilot “Small Business Set Aside Program.” The program aims to provide opportunities to expand expertise and the pool of potential firms for future department work.

The Small Business Set Aside pilot program currently includes preliminary engineering and final design for six projects: a bridge replacement over South Witmer Run on Route 3005 in Irvona Borough, Clearfield County; a bridge replacement over Marshall Run on Route 3007 in Conemaugh Township, Indiana County; a bridge replacement over Leaf Creek on Route 2057 in Amity and Douglass townships, Berks County; Route 514 over Sugar Run in Troy Township, Bradford County; a bridge replacement on Route 453 over Sink Run in Tyrone Borough, Blair County; and a bridge replacement on Route 4057 over Brush Run in Hopewell Township, Washington County.

The department will evaluate how many SBEs submit a statement of interest, whether a contract is awarded to a SBE, and work results. The program may be expanded depending on the pilot-program results.

There are currently 413 businesses certified by PennDOT as a SBE. SBEs must meet U.S. Small Business Administration size standards and submit a completed application to PennDOT for certification to participate in federally assisted transportation projects. Interested firms may review requirements and pursue certification through the department’s SBE database – [www.dotsbe.pa.gov](http://www.dotsbe.pa.gov).

More information on the department’s programs and efforts in Equal Opportunity Employment and diverse business opportunities is available at [www.penndot.gov](http://www.penndot.gov).

# BROADBAND INITIATIVE TO PROVIDE RELIEF TO UNDERSERVED PENNSYLVANIANS



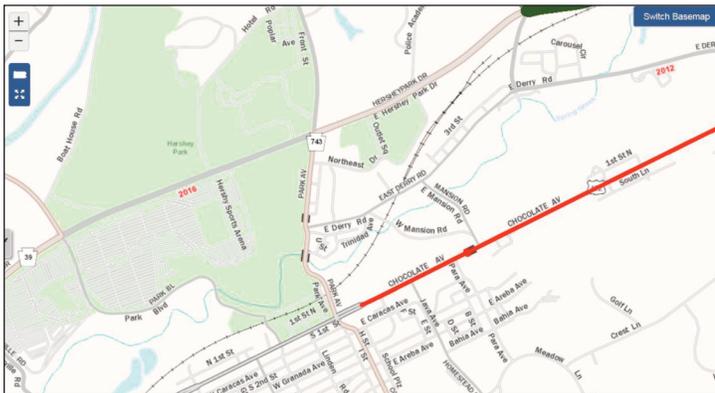
It's hard to imagine life without your device, right? Your laptop, desktop computer, smart phone, tablet and all your favorite apps. Thanks to Governor Wolf's Pennsylvania Broadband Investment Incentive Program, steps are now underway to deliver this much-needed service to homes and businesses in various areas within Erie, Crawford, Potter, Tioga, Mercer, Lycoming, and Bradford counties. June 2022 has been targeted for the delivery of broadband access to these areas of at least 100Mbps.

The program was a partnership between the Office of Broadband Initiatives and the department, with \$35 million of incentive funding being offered by PennDOT. This funding is in support of PennDOT's strategic goal to support intelligent transportation systems, connected vehicle infrastructure, and improved access to PennDOT's facilities. In exchange for incentive funding, PennDOT will have use of current and future network facilities or services.

Here are those who received the awards and the counties they service:

- Tri-County Rural Electric Cooperative, Inc.; Potter, Tioga, Lycoming and Bradford;
- Armstrong Telephone Company; Erie, Crawford, and Mercer; and
- Velocity Network, Inc., Erie.

## PENNDOT LAUNCHES TRAFFIC INFORMATION REPOSITORY



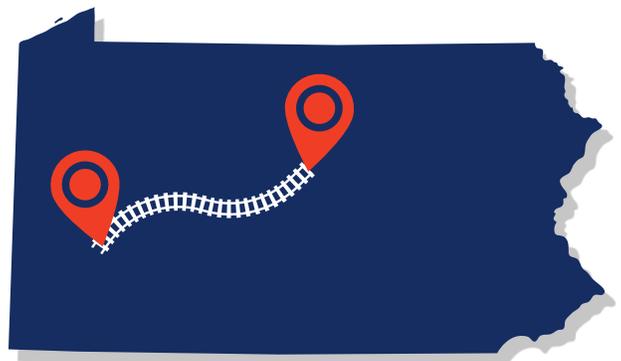
PennDOT recently released a new traffic data information application called the Traffic Information Repository, or TIRe.

TIRe is a web application for providing traffic count data and is designed to enable internal and external users the ability to view interactive maps of traffic counter site locations and traffic count information for roadways throughout the Commonwealth of Pennsylvania. Users have access to all available raw hourly classification and volume data as found in PennDOT's Roadway Management System (RMS). Additional resources, such as Functional Classification, National Highway System (NHS), and traffic limits also are available.

The website, which was built by the department's Bureau of Planning and Research, Transportation Planning Division, is also mobile-friendly.

Find TIRe online at the "Planning" tab of "Projects & Programs" at [penndot.gov](http://penndot.gov).

## PASSENGER RAIL BETWEEN ALTOONA AND PITTSBURGH BEING REVIEWED



Counting popular demand in western PA, PennDOT is revisiting the addition of passenger rail service from Altoona to Pittsburgh.

The department will review several past studies on the Keystone West Corridor, assessing the condition of the right of way, current and projected rail freight activity on the line, track and platform alignments and historic ridership data. And of course, associated costs.

PennDOT will reach out to Norfolk Southern Railroad, which owns the corridor between Harrisburg and Pittsburgh, and Amtrak, which currently operates the cross-state Pennsylvanian, a once daily train in each direction between New York, Philadelphia, Harrisburg and Pittsburgh.



## NEW LAWS ENCOURAGE MOTORISTS TO SLOW DOWN IN WORK ZONES

**H**ave you ever had a flat tire that required you to pull off to the side of a highway? When you got out of your vehicle, did you feel the wind gusts as other vehicles sped past you? Were you scared?

Road workers deal with the reality – and consequences – of speeding motorists on a regular basis. Forty percent of all work zone crashes involve speeding. There has been a 5 percent increase in the average annual rate of work zone crashes statewide from 2012-2016, increasing from 1,661 in 2012 to 2,075 in 2016.

Two pieces of legislation recently signed by Gov. Tom Wolf aim toward reversing that trend.

**Act 86** – or the Automated Speed Enforcement in Work Zones legislation – allows PennDOT and the Pennsylvania Turnpike Commission to perform a five-year pilot program in which some construction and maintenance work zones will have cameras that will take photos of license plates of any vehicle exceeding the work zone speed limit by 11 mph or more when workers are present.

If a violation is committed, a Pennsylvania State Police representative will review it and then a notice of violation will be issued to the registered vehicle owner. The first violation is a warning, the second violation results in a \$75 fine and the third and subsequent violation means a \$150 fine. Violations will not be subject to driving points or merit rating for insurance purposes. Special advanced signage advising motorists of the camera enforcement have to be erected at the affected work zones.

**Act 117** allows for PennDOT and PTC to implement highly automated work zone vehicles in active work zones. Truck Mounted Attenuators are safety vehicles designed to protect

workers and decrease damage to work zone equipment by absorbing the impact of any vehicle that encroaches in a work zone. They are required by policy and national standards to be in all mobile maintenance and constructions operations, such as pavement marking painting, crack/joint sealing, and pothole repairs.

In mobile operations, a PennDOT employee is required to be in the vehicle at all times. In 2017, 18 PennDOT-owned attenuators were impacted in work zones. And while the vehicles are engineered to minimize the impact on the operators, injuries can still occur, both physical and psychologically. By allowing for HAV work zone vehicles, PennDOT employees will be put out of harm's way when these incidents occur.

With 89 PennDOT employees having been killed in the line of duty since 1970, it's important to keep our work zones as safe as possible.

"I am thrilled that the Legislature and governor have taken this step that aims to save the lives of our employees, motorists, and our partners in the contracting community," PennDOT Secretary Leslie S. Richards said in a recent press release. "We have seen some speeds in work zones that are simply unacceptable, and we are confident that this tool will drive down speeding violations."

Read more about work zone safety – including stories of some of our employees' close calls and our workers' memorial page – at [www.penndot.gov/safety](http://www.penndot.gov/safety).

Act 117 also allows for the platooning of automated buses, military vehicles, or motor carriers on limited access highways or Interstates. It also instructs PennDOT to establish a Highly Automated Vehicle Advisory Committee. Learn more about automated vehicles in Pennsylvania at [www.penndot.gov/AV](http://www.penndot.gov/AV).

# TRANSPORTATION JOBS = STEM JOBS

By Leslie S. Richards, Secretary of Transportation

**D**id you know that transportation jobs = STEM jobs? It takes a lot of careful planning and expertise in the fields of science, technology, engineering, and math (STEM) to figure out how to best move people and goods from one place to another, to build safe bridges and roadways, and to provide communities with a high-performing multimodal transportation system.

We often talk about STEM in relation to preparing the next generation for the 21st century workforce. But the truth is that STEM jobs — and particularly those in the transportation industry — draw on some of the most basic engineering and math principles. From Legos to Rubik's Cubes, these classic toys of our youth are the building blocks to knowledge.

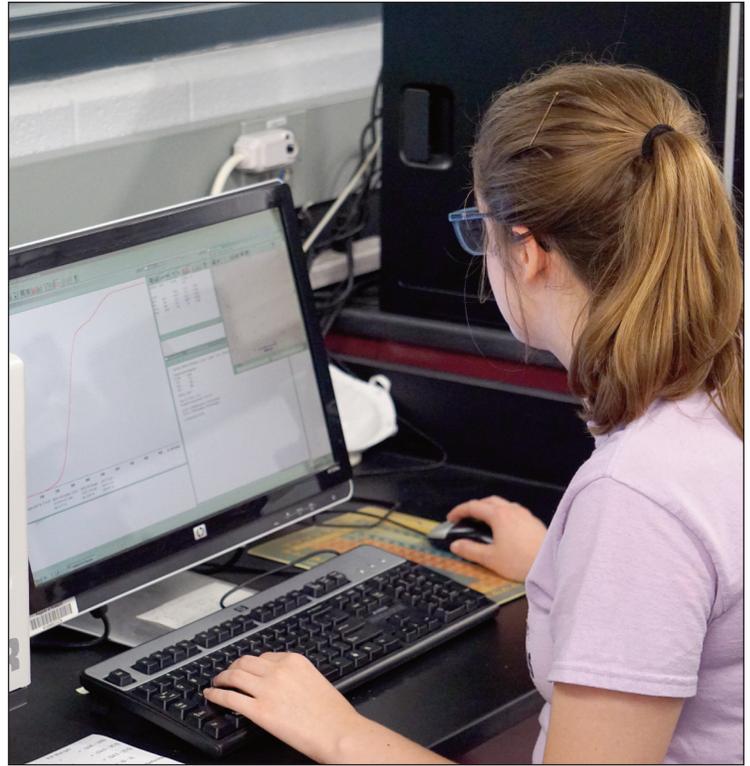
And it's never too early to foster an interest in STEM. In fact, as a child, I loved to play with erector sets — a toy that launched over 100 years ago! — taking great care to create my own miniature buildings and vehicles. In college, I played Sim City right when computers were really coming onto the scene. It was this natural affinity for engineering, math, and science that led me down a career path that included working at the Environmental Protection Agency, and later, focusing on urban planning and transportation. I enjoy using my love for math and science to make our communities safer and better.

As the Secretary of Transportation, I was proud to join Governor Wolf and Education Secretary Rivera this summer in highlighting the importance of STEM education, as part of the #SummerOfSTEM initiative. We have a shared interest in expanding access to computer science and STEM education for students across Pennsylvania. Governor Tom Wolf recently launched the next phase of his new and innovative PAsmart initiative by announcing that \$30 million in grants are available to invest in K-12 computer science and STEM education, expand registered apprenticeships, and support job training with Industry Partnership programs.

Pennsylvania is a national leader in STEM, but we need more people with these skills and knowledge to enter the field. Research suggests that over the next 10 years, 71 percent of new jobs will require computer science skills.

At PennDOT, we've been particularly interested in encouraging girls, who we know are often underrepresented in STEM, to learn more about the possibilities associated with transportation careers. Our staff takes time to meet with local Girl Scouts chapters, to present at schools and libraries, and lead groups on tours of the PennDOT Materials Testing Lab.

Whether it's highway design, traffic, planning, structures, land development, construction, materials, environment, water resources, or transit — it's important to demonstrate to students how everyone is affected by science and engineering. At the end of the day, it's my hope that these efforts are sparking the fuse for future generations of STEM enthusiasts like myself.



# MEET FRED STACKHOUSE: BUILDING MAINTENANCE FOREMAN

By Dave Thompson, Community Relations Coordinator, District 3

**D**ependability has been a hallmark of PennDOT District 3 Building Maintenance Foreman Fred Stackhouse's 20-year career with the department.

Hired in October 1997 as a maintenance repairman, he has been at his current position for more than 14 years.

Stackhouse is responsible for maintaining the district office buildings and grounds, located in Montoursville, Lycoming County, as well as in the district's nine counties — Bradford, Columbia, Lycoming, Montour, Northumberland, Snyder, Sullivan, Tioga, and Union. This includes overseeing plumbing, electrical and mechanical systems; building maintenance; lawns and landscaping; and removing snow from sidewalks and parking lots.

Stackhouse gives his best in everything he does, which is why he has been named district employee of the month multiple times. He's also been a member of the team named Group of the Quarter on several occasions.

He works extra hours, even if it's during a weekend or other off hours, to make sure a job is completed. During the winter, he constantly monitors the weather so he can be at work for snow removal before staff arrives.

Stackhouse's strong work ethic at PennDOT mirrors his dedication as past president and current executive board member of the Picture Rocks (Lycoming County) Lions Club. He is involved in the club's many fundraisers and community endeavors, including making and selling sauerkraut, operating food stands at various events in the area, performing litter pick-up along a section of Route 220 between Hughesville and the Sullivan County line, and supporting programs such as Camp Victory, the Leader Dog Program and donating to Muncy Valley Hospital.

"It's gratifying to be part of a group such as the Lions Club that does so much for the community," Stackhouse said. "I'm equally proud to work for PennDOT and be on a team that positively impacts the lives of so many people.

"PennDOT provides excellent employment and advancement opportunities to anyone with a desire to work hard and strive for excellence," he added. "This is a great organization and I'm thankful I made a career here."

Stackhouse lives in Hughesville with his wife Donna and daughter Amanda.



# PENNSYLVANIA'S WEATHER HAS TAKEN TO EXTREMES (AND WHAT YOU CAN DO ABOUT IT)



**I**n what has been the wettest year on record for much of Pennsylvania, a number of state agencies took advantage of National Preparedness Month in September to help Pennsylvanians understand the impact of the unprecedented rainfall, and help us to be ready for nature's worst.

PennDOT, the Pennsylvania Emergency Management Agency (PEMA), and the state Insurance Department shared how the state analyzed and prepared for extreme weather, offering tips and resources to Pennsylvanians.

PennDOT noted that as of September, there was an estimated \$105.5 million in flood and significant slide damage to state-maintained roads and bridges in 2018 alone, and offered an Extreme Weather Vulnerability Study to users. The study reveals where in PA the roads may be most susceptible to flooding. You can find the study at [www.penndot.gov](http://www.penndot.gov) on the "Planning" projects and programs area.

PEMA stressed preparedness while the Insurance Department encouraged Pennsylvanians to take a closer look at obtaining flood insurance. Learn more at [www.insurance.pa.gov](http://www.insurance.pa.gov)

Free emergency preparedness information, including templates for family emergency plans and checklists for emergency kit supplies, is available at [www.Ready.PA.gov](http://www.Ready.PA.gov). Motorists can see incident alerts — such as closures due to flooding — on more than 40,000 roadway miles by visiting [www.511PA.com](http://www.511PA.com) and clicking "Incidents." 511PA, which is free and available 24 hours a day, provides traffic delay warnings, weather forecasts, traffic speed information, and access to more than 860 traffic cameras.

# PENNDOT AND THE PENNSYLVANIA STATE POLICE HELP YOU TO SAFEGUARD YOUR MOST PRECIOUS CARGO

National Child Passenger Safety Week is held every September, and to mark the occasion, PennDOT teams up with the Pennsylvania State Police to raise awareness and help ensure that your child passengers are safe and secure in your vehicle.



Here's important news that you need to know:

The consistent use of a properly installed child passenger safety seat is the first step parents and caregivers can take toward keeping their youngest passengers safe while traveling.

When using a child safety seat:

- Read and follow the car seat and vehicle manufacturers' instructions;
- Use the car's seat belt to anchor the seat to the car unless you are using a child safety seat with the LATCH system;
- Fill out and return the registration card for your seat so you'll know if it is recalled because of a problem;
- Make sure the seat's harness fits snugly; and
- Use a tether strap if the seat requires it.

Pennsylvania law requires a child below the age of 2 to be securely fastened in a rear-facing child passenger restraint system. This is to be used until the child outgrows the maximum weight and limits designated by the manufacturer.

Also by law, children ages 8 to 18 must be wearing a seat belt when riding anywhere in the vehicle. Also, drivers and front-seat passengers 18 or older are required to buckle up.

To make sure that your child's safety seat is being used correctly, PennDOT funds resources such as training and educational materials for more than 190 fitting stations across Pennsylvania. Find a fitting station near you by visiting [www.pakidstravelsafe.org](http://www.pakidstravelsafe.org).

For more information on car seat safety click on the "Public Safety" link at [www.psp.pa.gov](http://www.psp.pa.gov).

## PROJECT SPOTLIGHT: ROUTE 519 SAFETY IMPROVEMENT PROJECT

By Raymond Deep, Community Relations Coordinator, District 12



The Route 519 Corridor Safety Improvement project is in North Strabane Township, Washington County — part of PennDOT's District 12. It is approximately 1.5 miles long and extends on Route 519 from the Interstate 79 ramps to the Route 980/U.S. 19 ramp. This portion of Route 519 is a highly traveled major roadway and has an average daily traffic count of 16,000 vehicles. It is a popular cut through for Interstate 79 and U.S. 19 traffic and serves as an emergency interstate detour route for both Interstates 79 and 70.

With this project, the Route 519 corridor will be widened from the Interstate 79 ramps to the Route 19 ramp intersection. A two-way center left turn lane will be provided. Three new traffic signals will be installed, one at each of the 79 ramps and the third at the intersection of Route 519 and U.S. 19 ramps. Exclusive turn lanes will be provided in certain locations along the length of Route 519 and widening will occur along Interstate 79 ramps and Route 980 to accommodate exclusive turn lanes. A portion of the Route 519 alignment will be relocated offline at its intersection with Route 980/U.S. 19 to allow for better traffic flow.

Minor shifts to Acme Road and Chesnic Drive will be made to better align with Route 519. Other safety improvements include the realignment of Carol Drive, installation of two cul-de-sacs, high-friction surface treatments, delineation, guiderail upgrades, and rumble strips.

This project is considered a high-crash location by the department. The three intersections mentioned above have crash clusters with the majority being angular type crashes. Turning lanes will be constructed at these intersections to provide increased safety and level of service and reduced congestion. All improvements will be done for safety, based on crash history.

This project is presently scheduled to be let in the fall of 2018 with construction scheduled for 2019 and 2020.

# SHADOWING SECRETARY RICHARDS AN EYE-OPENING EXPERIENCE

By Ellerie Krot, Summer Intern, Central Press Office



Back in June, I had the opportunity to shadow PennDOT Secretary Leslie S. Richards for the day. It was an amazing experience to be able to follow Secretary Richards and see what her job incorporates daily. She is a very busy woman and is constantly on the go to see and meet new people every day.

Secretary Richards stresses how important women's roles are in the work place. Therefore, our first stop was the Pennsylvania Turnpike Commission to help launch its Women's Resource Network, which aims to provide a place at the PTC for women to have the chance to develop their professional careers by providing opportunities to connect, mobilize, network, and participate in mentoring activities all while supporting work-life balance. Richards, who also is chairwoman of the Turnpike Commission, introduced herself to employees and shared her journey to where she is now.

Our next stop was attending a meeting with representatives from the New York State Department of Transportation to discuss salt improvements, how to start planning for this coming winter, and the future of automated vehicles. The topics were very interesting, and it was great to see states working together in hopes of specific improvements coming soon.

All in all, I was very fortunate to have the opportunity to shadow Secretary Richards for a day. I learned so much in the amount of time that I could spend with her.

*(Ellerie Krot is student at Shippensburg University studying public relations. She was a summer intern with the Pennsylvania Department of Transportation's central press office.)*



# MEET TOM HELSEL: ASSISTANT CONSTRUCTION ENGINEER FOR THE ROUTE 219 PROJECT



Photo: Todd Berkey, The Tribune-Democrat

Most of Tom Helsel's career has been spent as an inspector-in-charge for PennDOT while spending winter re-assignments in various divisions such as the bridge room. He also spent five winters in maintenance as both a foreman and as an acting assistant.

For the last five years, Helsel has been the assistant construction engineer for the Route 219 Project in Somerset County. This is a \$236 million project that has been broken into three contracts — earthwork, structure, and paving — and is set to be completed this fall. The project consists of the construction of 11 miles of new four-lane limited access highway on new alignment between Somerset and Meyersdale. The project includes 10 million cubic yards of earthwork, six dual structures, and two new interchanges.

The Buffalo Creek bridge dual structure is now the highest structure in PennDOT's District 9 at 220 feet.

Hsel works out of the field office for the project and is the only permanent PennDOT employee on the project. His inspection staff consists of consultants and he has as many as 23 people on board at any given time, including PennDOT Engineering Scientific Technical Interns (ESTI) and Civil Engineer Trainees (CET).

Hsel explained that he started his own career with PennDOT as an intern.

"I had one summer as an ESTI with PennDOT in 1985 and I liked being able to work outside and see projects being built," he said. "My father was a mechanical contractor and I was used to working in a contract environment growing up. I learned a lot of things about reading plans, specifications, preparing estimates, and working to install systems."

Hsel says his greatest accomplishment with the department goes back to the late '90s when he was the inspector-in-charge of the \$53 million Meyersdale Bypass project in Somerset County. The project won three state awards including the Project Recognition Award for the top project in Pennsylvania. It also won the National Quality Initiative Gold Award and the American Road and Transportation Builders Association Award.

Hsel's talents also saw him serve for two years on the Statewide Senior Inspector in Charge conference committee, where he was chairman in 2000.

He resides in Somerset county with his wife of 29 years, whom he met when he worked in the department's Philadelphia-area District 6. With his wife being from the Philly area, and his

in-laws still residing there, there is a big east/west division that occurs. But according to Helsel, his wife roots for the correct team — the Steelers.

The couple has two children — a daughter who is getting married in September and will be moving to Italy for two years as her fiancé is stationed there for the Navy, and a son who is starting 10th grade this year.

When not working, Helsel spends time at his farmette tending to horses, chickens, three dogs, eight cats, a bearded dragon, and a potbellied pig. He says it's like a second full-time job keeping up with all of his animals.

Hsel and his daughter also are Civil War Reenactors with the 2nd U.S. Cavalry Company A. They use two of their horses at live reenactments and living histories. Last year, Helsel sadly lost his cavalry horse and is currently working on training a new one to get used to the idea of gun fire.

"Flying across a battlefield with a saber or revolver in hand at the line of gray clad confederates on horses can be very interesting to say the least," he explained.

Hsel and his son also recently joined a newly formed Laurel Highlands Squadron of the Civil Air Patrol.

# STOP ON RED WEEK HIGHLIGHTS DANGERS OF RUNNING RED LIGHTS

Innocent lives are lost every day across the country because of drivers who recklessly decide to run red lights. In 2016, more than 800 people died due to red-light running in the United States.

To bring awareness to this dangerous aggressive driving behavior, the National Coalition for Safer Roads (NCSR) holds Stop on Red Week every year. And according to NCSR, Philadelphia is one of the top most dangerous cities for red-light running based on data from 2004-2016.

In Pennsylvania, under state law, fines from red light violations at 30 intersections in Philadelphia supply the grant funding for Pennsylvania's Automated Red Light Enforcement (ARLE) program, which aims to improve safety at signalized intersections by providing automated enforcement at locations where data shows red-light running has been an issue. The law specifies that projects improving safety, enhancing mobility and reducing congestion can be considered for funding.



**STOP ON RED WEEK**  
AUGUST 5-11, 2018

To spread the message, use the hashtag **#StopOnRed2018**

NCSR National Coalition for Safer Roads

## HERE ARE THE TOP 10 REASONS TO STOP ON RED:

1. The leading cause of death for U.S. teens is motor vehicle crashes.
2. On average, two people died each day in red-light running crashes in the United States in 2016.
3. One in three Americans know someone who has been injured or killed in a red-light running crash.
4. Between 2004-2015, an estimated 10,111 people were killed in red-light running related crashes.
5. 39% of people are injured in crashes in which motorists run traffic controls.
6. In 2016, 808 people were killed and an estimated 137,000 were injured in crashes involving red-light running.
7. The most common type of urban crash involves drivers who run red lights, stop signs and other traffic controls.
8. A large portion of drivers (42.7%) admitted to driving through a stoplight that has just turned red when they could have stopped safely in the past 30 days.
9. More than half of the deaths in red-light running crashes are pedestrians, bicyclists and occupants in vehicles other than vehicle running the red light.
10. Red-light running can be fatal.

# MEET KERRY COX: SENIOR CIVIL ENGINEER SUPERVISOR



**K**erry Cox is a senior civil engineer supervisor with PennDOT's District 5, which includes Berks, Carbon, Lehigh, Monroe, Northampton, and Schuylkill counties. In her five years with the department, she's also been an engineering and scientific technical intern, civil engineer trainee, and civil engineer for transportation. She currently is a project manager in design for consultant-designed projects.

## What made you want to work with PennDOT?

I enjoyed my time with the Department as an intern. Plus, the job security and decent benefits appealed to me.

## What do you consider your greatest accomplishment at PennDOT?

Seeing projects I managed in design get constructed, and assisting with the P3 Bridge Program.

## What is your favorite thing about working at PennDOT?

The family-like atmosphere between coworkers. I truly value the friendships I have made and appreciate how we all help each other to get the work done.

## What has surprised you most about working for the department?

The enormous amount of work the Department does and how much effort goes into keeping the transportation network running effectively.

## What is something you wish the general public knew about the department?

How much effort goes into a project. I'd like them to be understand the many, many things that need to be accomplished during the design process prior to a project being constructed and completed.

## When people find out that you work for PennDOT, what do they say or ask?

They generally ask about a construction project or the pavement condition of a roadway near them.

## Tell us about your family.

I'm going on three years being married to my husband, John, and we have a daughter, Emma, who will turn one year old in October.

## How would someone describe you?

Easy to get along with, and I have a good sense of humor.

## What do you do when you aren't working?

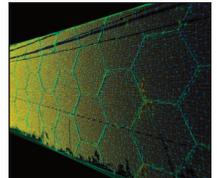
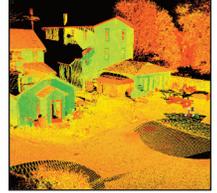
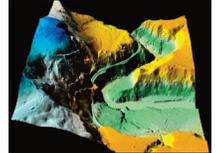
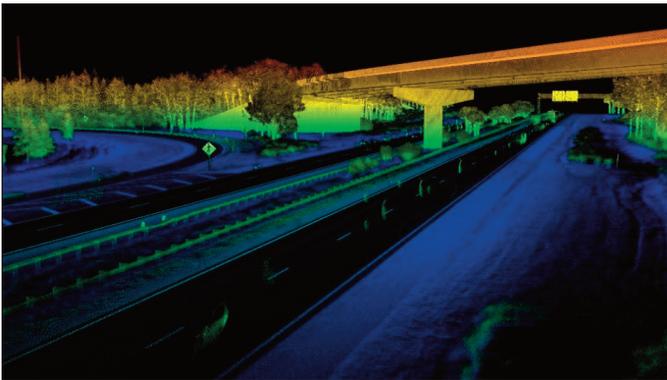
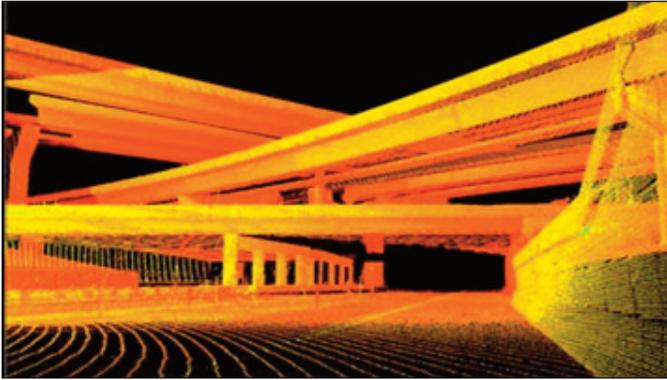
Right now, the baby takes up most of my time outside of work, but aside from that I enjoy going to the gym with my husband and hanging out with family and friends.

## What might someone be surprised to know about you?

I have a big sweet tooth, and I will almost never turn down an opportunity to get Chick-fil-A.

# PENNDOT USES PHOTOGRAMMETRY TO MEASURE UP

By Ellerie Krot, Summer Intern, Central Press Office



When it comes to designing a transportation project, it's important to get accurate measurements of the landscape surrounding the project site. To accomplish this, PennDOT uses photogrammetry and LiDAR to create 3-D pictures of an area that our design units then use to map out a project's specifications.

Photogrammetry is the use of overlapping photography — especially aerial photography — to create 3-D models. LiDAR, or light detection and ranging, involves emitting a laser pulse and collecting its reflected return up to a million times per second creating a cloud of 3-D points. LiDAR can be stationary, vehicle-mounted, or airborne. While LiDAR is more accurate than photogrammetry, it doesn't provide a description of the points collected. Photogrammetry, on the other hand, allows an operator to interpret the photos to see the features collected. Used together, they can provide a complete picture of an area.

Vehicle-mounted LiDAR used at PennDOT is very useful on existing corridors, but photogrammetry is best used outside the corridor, especially in vegetated areas. Photogrammetry is very cost-effective when high accuracy is not required. Static LiDAR is for specialized projects, especially where safety concerns limit the use of other methods. Land surveyors use static LiDAR to capture specific smaller portions of roads, bridges, and rugged terrain.

On both large and small projects, the use of these tools can greatly improve employee safety by eliminating the need for

land surveyors to enter high traffic or difficult and dangerous areas. The use of vehicle-mounted LiDAR allows PennDOT to gather highly accurate roadway data without having lane closures which is necessary to gather roadway measurements using conventional field survey methods.

PennDOT's photogrammetry unit generally does more than a hundred projects a year. For instance, in 2015 after a tractor-trailer crash and fire destroyed an interchange bridge carrying Interstate 81 in Harrisburg, static LiDAR was used to determine the extent of warping to steel beams on the bridge that were directly above the fire.

Mobile and static LiDAR methods were used on a project with high-traffic — the Fort Pitt and Squirrel Hill tunnels in Pittsburgh. By using LiDAR, the department closed the Fort Pitt Tunnel for just a few minutes, and the Squirrel Hill Tunnel had only one overnight single lane closure.

A current project that used photogrammetry and previously plotted designs is the Potters Mills Gap Transportation Project in Centre County. Construction on the project began in 2015 with Phase One building a new bridge at Sand Mountain Road. Phase Two created the new local interchange on Route 322 at Sand Mountain Road, and the goal of Phase Three is to reconstruct Route 322 from Sand Mountain Road to Potters Mills, including a new Route 322/Route 144 intersection. The completed project will alleviate congestion and allow traffic to move more safely and efficiently from the Centre/Mifflin County line to Potters Mills.