



# moving FORWARD

FALL 2021

A quarterly review of news and information about Pennsylvania local roads.

## A New Report Explores Solutions to the Transportation Funding Challenges Facing the State Now and in the Future

The Transportation Revenue Options Commission (TROC), which was tasked earlier this year with developing comprehensive funding recommendations

for Pennsylvania’s vast transportation network, recently released a report outlining several potential revenue sources, including road user charges, tolling, redirection of funding, fees, and taxes.

The report was sent to Gov. Tom Wolf and the General Assembly this summer after five months of work and biweekly meetings by the commission, which was established by executive order on March 12. TROC is comprised of transportation, economic,

and community stakeholders from the public and private sectors, including majority and minority leaders from the House and Senate Transportation and Appropriations committees. The commission was divided into eight workgroups focused on a specific revenue need or potential option.

“I wholeheartedly thank the members of TROC for their hard work and engagement,” Secretary of Transportation Yassmin Gramian, who serves as TROC chair, says. “Throughout this process, we have had thoughtful and productive discussions, and we are now presenting the governor and the General Assembly with a host of well-researched options for consideration.”

The report can be accessed at [www.penndot.gov/about-us/funding/Pages/TROC-Report.aspx](http://www.penndot.gov/about-us/funding/Pages/TROC-Report.aspx). It follows on the heels of analysis conducted in 2019 by the Transportation Advisory Committee (TAC), which

identified major risks to transportation funding, including reduced fuel revenues, unpredictable federal funding, and legislative changes that reduce fiscal commitments. (To read more about the risks, go to [talkpatransportation.com/perch/resources/documents/tac-2019-transportation-funding-risks-report.pdf](http://talkpatransportation.com/perch/resources/documents/tac-2019-transportation-funding-risks-report.pdf).)

PennDOT’s latest assessment places the annual gap of its needs in all state-level modes and facilities at \$9.3 billion, growing to an annual \$14.5 billion gap by 2030. Additionally, infrastructure maintained by local governments faces an annual shortfall of nearly \$4 billion, which is expected to grow to \$5.1 billion per year by 2030.

The TROC report presents an overview of transportation funding in Pennsylvania and outlines the commission’s review of several possible revenue sources. Analysis of each option includes potential revenue that a given solution could bring, concerns raised by commission members, and suggested next steps.

Since March 25, the commission has held nine meetings where various presentations and materials were provided. Meeting presentations, minutes, and recordings can be found on the TROC webpage, [www.penndot.gov/about-us/funding/Pages/TROC.aspx](http://www.penndot.gov/about-us/funding/Pages/TROC.aspx). (For example, a report on PennDOT efficiencies is available here: [www.penndot.gov/about-us/funding/Documents/TROC-Meeting\\_04-15-21/TROC\\_4-15-21\\_PennDOT-Efficiencies-Report.pdf](http://www.penndot.gov/about-us/funding/Documents/TROC-Meeting_04-15-21/TROC_4-15-21_PennDOT-Efficiencies-Report.pdf).)

“This commission represents nearly 50 transportation stakeholders with a diversity of positions on the potential funding options discussed,” Gramian says. “Those varied perspectives were crucial to our discussions and are represented in the final report.”

**PennDOT currently faces an annual \$9.3 billion shortfall to fund its transportation needs while local governments are experiencing an annual shortfall of nearly \$4 billion.**

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# Pavement Markings Provide Clear Visual Information to Road Users

by Patrick Wright, Pennoni

A roadmaster must know a wide variety of topics and techniques for maintaining roads, and most are well-versed in pavement preservation, winter maintenance, drainage, and other challenges of road maintenance. However, when it comes to traffic control devices, such as signs, pavement markings, and signals, knowledge can be more difficult to obtain, mostly because of all the different references and guidelines.

The main resources for the standards, guidelines, and specifications to apply pavement markings are PennDOT Publication 111, *Traffic Control and Signing Standards*, Publication 46, *Traffic Engineering Manual*, and Publication 408, *Construction Specifications*. Chapter 3 of the *Manual on Uniform Traffic Control Devices (MUTCD)* provides additional detail beyond the PennDOT Publications.

Let's explore some fundamental questions and answers about pavement markings, which are an important traffic control device for all road users.



Center lines and edge lines are common pavement markings on a road.

## Why use pavement markings?

Pavement markings help to communicate information to road users without requiring them to take their eyes off the road. They are a common and expected component of the highway system. Their primary purpose is to provide clear visual information so that road users can navigate the transportation system in a variety

of situations. Markings help to define the intended travel path during daylight and nighttime hours and in various weather conditions.

Markings on highways and private roads open to public travel provide important guidance and information for the road user. Examples include pavement and curb markings, delineators, colored pavements, channelizing devices, and islands. In some cases, markings are used to supplement other traffic control devices, such as signs and signals. Other times, markings are used alone to effectively convey regulations, guidance, or warnings in ways not attainable with other devices.

## What are the types of pavement markings?

Pavement markings come in several different types and colors. The MUTCD has two broad categories: longitudinal and transverse.

**Longitudinal markings** are parallel to the road and include lane lines, center lines, and edge lines. **Transverse markings** are a broad category that includes markings that go across the road, such as stop bars and crosswalks, but also includes symbols, parking spaces, curb painting, words, and others. For the most part, all transverse markings are white.

Delineators are also in the pavement markings section of the MUTCD.

## When should pavement markings be used and are there standards that must be followed?

The use of pavement markings depends on the road type, traffic volumes, roadway width, number of lanes, and other factors. Pavement markings are traffic control devices, just like signs and signals. Before applying pavement markings, a municipality should conduct a study to make sure the markings are appropriate and comply with standards.



This photo shows the different types of pavement marking applications. Longitudinal lines are center lines, edge lines, and lane lines. Transverse markings include stop bars and crosswalks. Other markings would be symbols, words, and hatching.

The MUTCD has criteria for the application of center lines, edge lines, and other markings. Just like other traffic control devices, you want to be judicious with the use of pavement markings and install them only where studies show that they are warranted or needed. For most local low-volume roads, center lines and edge lines are optional.

Keep in mind that it costs time and money to install and maintain pavement markings, and you always want to make the best use of your limited funds. Pavement markings wear out much faster than other devices and may require annual maintenance. In addition, working in the road is dangerous, and municipalities will want to minimize workers' exposure to traffic.

When pavement markings are warranted, standards must be followed. These guidelines are important to communicate uniformly with road users. Not following standards can lead to road users becoming confused, which could result in safety and liability issues. One important standard is that all pavement markings must be retroreflective.

## How do pavement markings improve safety and what are their limitations?

One of the most important aspects of a safe and efficient transportation system is the uniform application of pavement markings to delineate the road path and specific traffic lanes. Pavement markings can communicate information to road users like no other traffic control device does. They provide continuous information to road users about a road's alignment, positioning, and other important attributes. Studies show that the safety benefits of using center lines and edge lines can result in a 14 to 45% reduction in crashes.



This low-volume residential road in Delaware Township, Pike County, leads to a few houses and sees maybe 50 vehicles per day. Such a road does not require any pavement markings.

	Area type	Road Class		Lanes	Avg. Daily Traffic (ADT)	Travel Width (feet)
REQUIRED	Urban	Collectors	Arterials	2	6,000 +	20+
	All	All		3+		
RECOMMENDED	Urban	Collectors	Arterials	2	4,000+	20+
	Rural	Collectors	Arterials	2	3,000+	18+
MAY CONSIDER	Any	Any		2	Any	16+

This chart from Section 3B.01 of the MUTCD shows the criteria for center line pavement markings. Before applying any pavement marking, a municipality should conduct a study to ensure that it is warranted and appropriate. Section 3B.07 has warrants for using edge lines.

However, pavement markings do have their limitations. For example, visibility can be limited by snow, debris, and water on or adjacent to the markings. Marking durability is also affected by material characteristics, traffic volumes, weather, and maintenance operations such as snowplowing and location. Still, under most highway conditions, markings provide important information while allowing minimal diversion of a user's attention from the road.

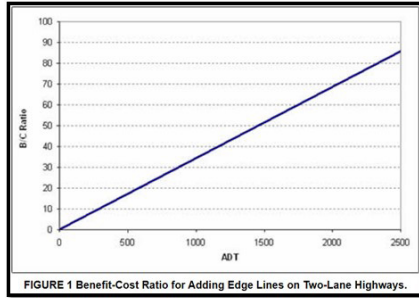


FIGURE 1 Benefit-Cost Ratio for Adding Edge Lines on Two-Lane Highways. FHWA research shows that as traffic volumes rise, the benefits of center lines and edge lines on a two-lane, two-way road also increase.

### Are pavement markings enforceable?

It depends. Many pavement markings are supplements to official traffic control devices, such as signs and signals. Some markings by themselves are not enforceable. Others are reminders of laws and regulations and can be enforced.



The curbs at this intersection are painted yellow before the stop sign and along the road after the intersection. The "no parking within 30 feet of a stop sign" requirement is a statutory state law and can be enforced without markings or signs. The other painted curb is a supplement to the "No Parking" sign.

### What colors are permitted and what do they mean?

Under Section 3A.05, Colors, of the MUTCD, pavement markings may be yellow, white, red, blue, green, or purple. The colors for markings must conform to the standard highway colors. **Black** may also be used in conjunction with one of these other colors and is useful for contrast marking on a light-colored pavement.

**Yellow** is used on longitudinal lines to delineate the separation of traffic traveling in opposite directions, the left-hand edge of divided highways and one-way streets or ramps, and the separation of two-way left-turn lanes and reversible lanes from other lanes. Center lines are double yellow lines, typically 4 inches wide separated by 6 inches. Section 3B.01 of the MUTCD specifically prohibits the use of single yellow center lines.

**White** longitudinal lines are used to delineate the separation of traffic flows in the same direction or the right-hand edge of the roadway. White edge lines are typically 4 inches wide on local roads, and while they continue along driveways, they are broken at intersections. White lane lines are also typically 4 inches wide and can be used to designate multiple traffic lanes, auxiliary lanes, and other features.

The colors of **red, green, blue,** and **purple** can be used as an optional



Black may be used in combination with other colors allowed in the MUTCD where a light-colored pavement does not provide sufficient contrast with the markings.

treatment for added emphasis. For example, red color pavements are used in urban areas for bus only lanes, and blue can be used to supplement the white markings for delineating reserved parking spaces. Green color pavements are used for designated bike lanes while purple is associated with toll plazas.

### What does the future hold for pavement markings?

The technology for pavement markings has rapidly improved in the last decade, and there are many innovative applications of pavement markings currently being tested. Some communities use pavement markings as traffic calming and decorative crosswalks. The MUTCD is in the process of being revised, and an updated version should be published in the next year or so. Some of these innovative treatments will likely be approved, while others will require further study.

Another important application of pavement markings is for automated vehicle travel. Many of the automated driving systems rely on pavement markings to position the vehicle as it travels along a road. Naturally, many roads have faded or no pavement markings, which could potentially affect the use of autonomous vehicles on these roads in the future.

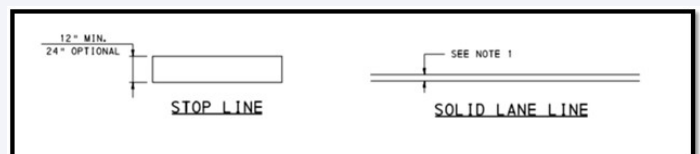
Lastly, standards for the retroreflectivity of pavement markings are also being considered and will likely be addressed in the update of the MUTCD. 🚧

### Key Resources for Pavement Markings

Below is a list of the main resources for pavement marking laws, regulations, and publications:

- Title 75, PA Vehicle Code: [www.dmv.pa.gov/Information-Centers/Laws-Regulations/Pages/PA-Vehicle-Code-\(Title-75\).aspx](http://www.dmv.pa.gov/Information-Centers/Laws-Regulations/Pages/PA-Vehicle-Code-(Title-75).aspx)
- Title 67, Chapter 212, Section C (also known as Publication 212, Official Traffic Control Devices): [www.dot.state.pa.us/public/PubsForms/Publications/PUB%20212.pdf](http://www.dot.state.pa.us/public/PubsForms/Publications/PUB%20212.pdf)
- Manual on Uniform Traffic Control Devices (MUTCD) – 2009 edition, with revisions, Chapter 3, Pavement Markings: [mutcd.fhwa.dot.gov](http://mutcd.fhwa.dot.gov)
- Publication 111, Pavement Marking and Signing Standards: [www.dot.state.pa.us/public/pubsforms/publications/pub%20111.pdf](http://www.dot.state.pa.us/public/pubsforms/publications/pub%20111.pdf)
- Publication 46, Traffic Engineering Manual: [www.dot.state.pa.us/public/PubsForms/Publications/PUB%2046.pdf](http://www.dot.state.pa.us/public/PubsForms/Publications/PUB%2046.pdf)
- Publication 408, Construction Specifications: [www.dot.state.pa.us/public/PubsForms/Publications/Pub\\_408/PUB%20408.pdf](http://www.dot.state.pa.us/public/PubsForms/Publications/Pub_408/PUB%20408.pdf)

In addition, municipalities can obtain more information about pavement markings by attending the LTAP Pavement Markings course. For more information, contact LTAP at 1-800-FOR-LTAP (367-5827) or [gis.penndot.gov/ltap](http://gis.penndot.gov/ltap).



PennDOT Publication 111, *Pavement Marking and Signing Standards*, contains details for the application of pavement markings, such as the stop line and solid lane line (shown above).



# LTAP SUCCESS STORY Making a Curve Safer in Luzerne Township, Fayette County

by Chris Zivkovich, PE, LTAP Engineer

LTAP recently worked with Luzerne Township, Fayette County, to evaluate the need for low-cost safety improvements at the intersection of Zubaks Road, Penncraft Road, and East Riverside Road. Traffic along Zubaks and Penncraft roads is free-flowing while vehicles along East Riverside Road are controlled by a stop sign.

LTAP's first recommendation was to update the warning signs to treat Zubaks and Penncraft roads as the free-flowing approach instead of using the current signing configuration.

The second recommendation was to determine the appropriate advisory speed and curve warning devices to help motorists identify the curve and navigate it at a safe and manageable speed. The curve speed study conducted at the intersection followed the requirements in PennDOT Publication 46 and the Manual on Uniform Traffic Control Devices (MUTCD Section 2C.08). These studies are conducted by making several trial runs through the curves in a vehicle equipped with a ball-bank indicator.

The results of the study determined that the Zubaks Road approach should have an advisory speed of 25 mph and the Penncraft Road approach an advisory speed of 20 mph. These advisory plaques were then used in conjunction with the appropriate curve warning signs (W1-1R). Because of the sharp angle and relatively short distance of the curve, a large arrow sign (W1-6) was installed along the outside of the approach. The township decided to install an oversized sign (96x48") to increase visibility because of the long tangent approach along Zubaks Road leading into the curve where motorists tend to travel faster than the posted speed limit.

In addition to the signage improvements, "SLOW Curve Arrow" pavement markings were installed along both the Zubaks Road and Penncraft Road approaches in accordance with PennDOT Publication 111M, TC-8600. Ground mounted flexible delineator posts were installed adjacent to the shoulder area through the curve to add additional delineation and definition of the road edge.

"We were very pleased with the quantity and quality of information that we received from LTAP on a stretch of road that has been a problem," Luzerne Township Supervisor Gregg

Downer says. "The LTAP engineer came up with a solution with the proper signage and road markings, and I believe it has helped tremendously. At night especially, it makes the intersection much more visible and alerts oncoming traffic of an upcoming curve."

For help with curve studies in your municipality, call 1-800-FOR-LTAP or attend an LTAP class on curve warning studies.

## LTAP recommended updating the warning signs instead of using the current signing configuration.

### BEFORE



### AFTER



LTAP helped evaluate this problem intersection in Luzerne Township, Fayette County.

## Q&A

**Q: How much does it cost to have LTAP come onsite to provide technical assistance?**

**A:** All LTAP services are free to municipalities. LTAP technical experts spend time with municipal staff reviewing the topic that they have requested assistance for and provide resources and next steps to help the municipality resolve the issue or do the job correctly.



## Success Story

### STUDIES THAT MAKE A DIFFERENCE:

#### Transit Station Access Study Calls for Better Neighborhood Walking and Biking Conditions

PennDOT Connects planning grants are available to advance collaborative transportation studies that help ensure infrastructure improvements and development are coordinated. Here is one success story:

The Southeastern Pennsylvania Transportation Authority's (SEPTA) planned upgrades to Devon Station's historic building and platform prompted leaders in Easttown Township, Chester County, to consider how to leverage SEPTA's investment as part of the township's vision of a revitalized town center.

Together with the Delaware Valley Regional Planning Commission (DVRPC), the Chester County Planning Commission, and SEPTA, the township undertook a study to plan for better bicycle and pedestrian access to the station and nearby Devon Center commercial district and identify transit supportive land use strategies in the station area. DVRPC obtained funding through PennDOT Connects to support integrated modal and land use planning in the vicinity of the station.

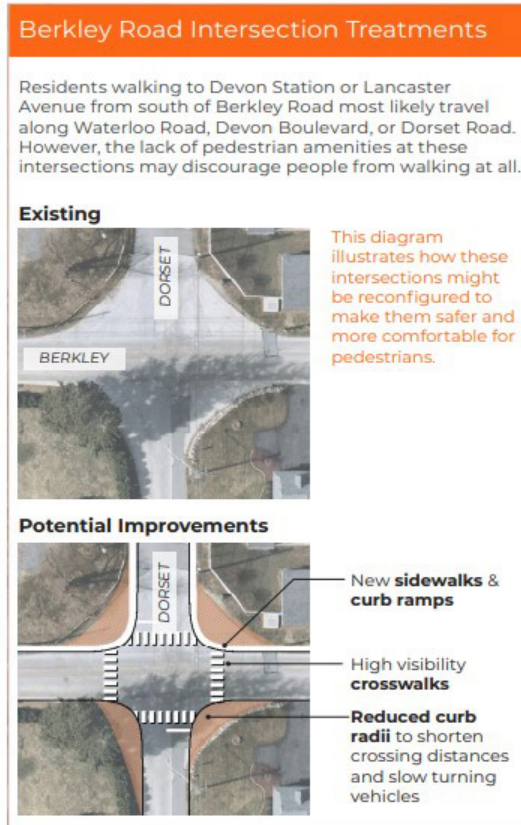
The transportation portion of the study addressed street and sidewalk gaps and intersection designs that neglected or endangered bicyclists and pedestrians. The

study also identified preferred low-stress bike routes. Recommendations were made to add sidewalks, crosswalks, curb extensions, roundabout

conversions, traffic islands, and neighborhood greenways, as well as implement a road diet, access management strategies, and placemaking efforts. Implementing these transportation strategies over time will require ongoing coordination among SEPTA, PennDOT, and Easttown Township.

The land use analysis found that policy and development regulations dispersed activity rather than concentrating it in compatible, walkable patterns. The study proposed an amendment to the township code to 1) incorporate the new Devon Center District (DCD) and 2) revise the land use table for the DCD and Professional/Business Office District. Based on the study and concurrent work by the township planning commission, an ordinance was presented to the board of supervisors in January 2021.

Visit [penndot.gov/connects](http://penndot.gov/connects) to see how PennDOT Connects can work for your municipality. 🚲



### Road Maintenance, the Key to Saving Dollars

#### Take Advantage of New Approved Preservation Treatments to Extend Roads

by Tom Welker, PennDOT

Well-planned road projects are key to making sure the public funds that you expend are returning value to your citizens. A great way to achieve this is to develop a long-term plan to determine which roads need major repair and which would benefit from pavement preservation.

By establishing and sticking to such a plan, you can avoid major repairs to roads for longer periods of time. Approved preservation treatments, including chip seals, microsurfacing, ultra-thin overlays, and smaller projects such as crack sealing or applying mastics, all work to extend pavement life.

You can also extend the life of your pavement by ensuring proper drainage. Nothing deteriorates a road surface faster than a water issue. Winter weather, in particular, can bring additional problems, such as damage caused by repeated applications of ice control materials to roads.

In the past few years, there have been several improvements to road maintenance procedures. For instance, the use of fabrics under normal paving have been expanded to include chip seals. In this process, a layer of approved paving fabric is applied to the road surface before a double application of chips is applied. The technique greatly extends the life of a chip seal since existing cracks in the road do not reflect through and the time between needed treatments is lengthened.

A smaller aggregate has also been approved for use as the second layer on a double seal coat. #9M, which is sometimes called a ¼-inch or rice aggregate, has been tested and used successfully on low-volume roads. It provides a smoother driving surface, which motorists like. Keep in mind, however, that this smaller stone is not useful on roads with higher volumes of traffic.

Fog seals were also recently approved and are being used over a seal coat in many locations. This technique helps lock in the aggregates and provides an appearance of a paved street. Again, it is well received by the public in most areas.

When writing specifications for your road project, remember to follow the standards established in PennDOT Publication 408, *Construction Specifications*, and Publication 447, *Approved Products for Low-Volume Roads*. Take samples as required and make sure your contractors and suppliers are furnishing you with approved material and certifications as required. 🚲



# Meet Chris Metka

## Transportation Planning Manager, Municipal Research and Outreach

### Tell us about yourself.

After I graduated from Shippensburg University with undergrad and graduate degrees in Geo-Environmental Studies, I started with PennDOT in 2005, progressing through the Transportation Planning series. For my first 15 years, I worked with Safe Routes to School (SRTS), Transportation Enhancements (now known as Transportation Alternatives), and the Rec Trails program.

The SRTS program was the focus of my efforts from 2006-2012, when PSATS was selected as a consultant to provide noninfrastructure resources and training. During that contract, I worked collaboratively with PSATS to provide new resources for all Pennsylvania schools, including crossing guard training, mini grants, a Comprehensive Guide to SRTS, bicycling education videos, bicycle education classroom modules, and bicycle education train-the-trainer courses.

My work with Transportation Enhancements, Transportation Alternatives, and Rec Trails provided me with significant experience in bicycle and pedestrian safety, which coalesces well with my love for running, especially on Pennsylvania's large and ever-expanding trail network.



Chris Metka helps to establish long-term goals for and direct the vision of LTAP.

### What is your role with LTAP?

My position oversees several staff members in the Municipal Research and Outreach Section, including the LTAP Director Mike Dudrich. While the LTAP work and day-to-day operations are Mike's responsibility, I help him establish longer term goals and guide his efforts to deliver and continually enhance classes, resources, and the website. Customer service is an area of focus for both existing and new LTAP customers. Also, I help direct longer-term visions for the LTAP Advisory Committee and our partnerships with Planning Partners and District Municipal Services Representatives.

### What are your goals for the program?

As our focus is on technology transfer, we strive to ensure that municipalities have the latest safety and maintenance information to maintain their transportation networks. We aim to provide each LTAP customer with the service and resources that they need. Additionally, I have three goals for LTAP moving forward: expanding the reach of LTAP, diversifying the input provided to the program, and improving the LTAP website.

As the way in which we train and interact with our customers is rapidly evolving, I want to make sure we're continuing to meet the needs of current customers but also reaching new municipalities that don't know about LTAP or haven't had a chance to take advantage of the tremendous resources offered.

In terms of diversifying input, I want to ensure that we're hearing from as many perspectives as is feasible. This means ensuring that all municipal government structures are represented: cities, boroughs, and townships of all classes. Additionally, I've directed our LTAP director to explore ways to improve the diversity of our LTAP Advisory Committee by adding women, minorities, and at least one administrative professional and a municipal police officer.

With regards to the website, I aim to make it more user friendly, intuitive, and inviting. I want it to be or become the go-to resource for your municipal transportation safety and maintenance information and training needs. One of our current focus areas is creating a resource to allow users to search for all LTAP resources by topic area. If you have any concerns with the website or have any suggested enhancements to improve your ability to access resources, please feel free to reach out to me.

### What have you learned about LTAP since you started?

Wow. Where do I start? One of the biggest impressions is just the breadth and depth of knowledge of our instructors, course materials, and other LTAP resources. The website is packed with resources, but the key is being able to quickly access them by topic area (and we're working on that!) Also, as I was helping with the development of a couple of LTAP in-person classes in 2019 and 2020 before many of us were instructed to begin working from home in early 2020, I was very impressed with how quickly LTAP was able to do a 180-degree turn and go from nearly all in-person delivery to 100% virtual offerings. The agility and ability to adapt to changing learning environment so quickly really impressed me.

### Why is the program valuable to local governments? What are its benefits for PennDOT?

Municipalities benefit from LTAP by having a dedicated resource to provide them with the latest transportation maintenance and safety information, allowing them to effectively and efficiently utilize the funds and resources that they have. Aside from the resources offered on the website, municipal officials can always email [ltap@pa.gov](mailto:ltap@pa.gov) or call 1-800-FOR-LTAP for answers to any transportation safety or maintenance issues that they may have at no cost to them.

The benefit to PennDOT is knowing that our municipal partners have access to the latest transportation technology, innovation, and safety information, allowing municipalities to provide a seamless roadway network for Pennsylvania residents and visitors. It's still astounding to me that approximately two-thirds of Pennsylvania's roadway network is owned and maintained by municipal governments.

### What advice do you have for municipalities about taking advantage of LTAP services?

If you need help with a transportation issue or concern, please let us help. Pennsylvania is one of the few states where LTAP training, resources, and technical assistance are offered at no cost to the municipality. PennDOT feels it's in the best interest of our state and our citizens to provide municipalities with access to the latest transportation maintenance and safety information whenever they need it, so please do not hesitate to reach out. And, if you've received great advice, technical assistance, or training, please tell other municipalities about the services that we offer. 🏃



In his spare time, Chris enjoys running, especially on Pennsylvania's large and ever-expanding trail network.

## STIC Spotlight Certification Now Required for Concrete Finishers on PennDOT Projects

Under a new PennDOT requirement championed by the Pennsylvania State Transportation Innovation Council (STIC), 60% of concrete finishers will have to be certified as of April 2022. The Federal Highway Administration (FHWA) recently granted approval of PennDOT's clearance transmittal to implement a concrete finishers training and certification requirement on all PennDOT projects. The addition is found in Section 704 of Publication 408, *Construction Specifications*.

The training and certification program, which passed through the STIC Innovation Development Process, was initiated as Pennsylvania and other states realized that when it comes to the quality and longevity of finished concrete, the skill level of concrete finishers is often as important as the physical product itself. The training, which includes classroom and practical hands-on work, is designed to help improve the durability and extend the service life of concrete and eliminate mistakes in concrete finishing that can result in poor quality work requiring costly repairs or reconstruction.

"The certification classes have been well received by participants," says Jim Casilio, P.E., director of Technical Services for the Pennsylvania Aggregates and Concrete Association (PACA), who played a leading role in implementing the innovation. "Rave reviews are coming in from them. Because the training results in lifetime certification, the finishers feel they are getting a lot out of the course."

In 2020, 52 concrete finishers who are members of the National Ready Mixed Concrete Association (NRMCA) and 47 flatwork finishers who are members of the American Concrete Institute (ACI) completed the training. In the first seven months of 2021, 132 NRMCA concrete finishers and 35 ACI flatwork finishers were trained at six concrete finishers training sessions held around the state.

Training for inspectors was held in PennDOT Districts 1, 2, and 8 last winter with more training sessions planned in Districts 11 and 12 for the upcoming winter.

### Ensuring Quality Work

Jim Fitzroy, western Pennsylvania training coordinator and business agent for Local 526 of the Operative Plasters and Cement Masons International, noted that many of his members are skilled workers with extensive experience in the concrete industry. Still, the union always welcomes new ideas that allow its members to expand their skill base and learn about new processes and procedures.

"We are very interested in the training," he says. "It's a nice idea. The state pays good money for what they want, and they deserve a quality product and to know they have quality finishers on the work."

He believes the training and certification program will level the playing field across the state and ensure more quality work is done.

Casilio's work with STIC on the innovation attracted the interest of Ron Seybert, engineer in Ferguson Township, Centre County, and Bob Belinda, manager at Centre Concrete in State College. Seybert, who represents the American Public Works Association on the STIC, began talking with Casilio about the issue after hearing his presentation at the November 2019 STIC business meeting. Seybert explained that Ferguson Township had experienced the same quality issues in finished concrete and wanted to assist in addressing the problem.

"We wanted to provide an awareness among engineers and technical people who were doing contracts and inspections of field work in the Centre County region to know what is being done about this issue," Seybert says.

A training session for engineers and inspectors was held to raise

awareness about the problems with concrete finishing. Working with Casilio, he reached out to potential concrete bidders to let them know about the classes.

"We became an early adopter and included in our contracts a special provision that required concrete finishers to be certified," Seybert says.

### A Win-Win for All

As a former chair of the PACA board and a previous board member of NRMCA, Centre Concrete's owner, Eric Nicholson, wanted his

company to take a proactive role in the initiative. On behalf of Centre Concrete, Belinda set up a hands-on training class in May that involved replacing the concrete parking lot at the Pine Grove Mills Veterans of Foreign Wars (VFW) building in Ferguson Township. The 40 participants all passed the training and were certified.

"It was worth every bit of it to do and was a win-win," Belinda says. "It worked out very well. Guys walked away from it with great comments. All of the feedback we received was very positive. We were very happy with it, and Centre Concrete looks forward to supporting and participating in additional classes in the near future."

Moving forward, Seybert says the goal is to get as many people certified as possible so that contractors can meet the new certification requirements and be able to continue to bid for work. He even plans to have the township staff who do concrete work take the training.

"I'm glad PACA came forward and presented the innovation to the STIC, and STIC thought it worthy to move forward and PennDOT to adopt the requirements that finishers be certified," he says. "I'm a firm believer in the class and the results of people learning the proper way to finish the concrete."

"We want to continue to spread the word around the construction community — to APC and others — to make contractors aware of it and get the training," Seybert continues. "Keep it going!"

For more information, visit the STIC website at [www.penndot.gov/stic](http://www.penndot.gov/stic). Click on "Innovations" and then "Construction" to find the Certified Concrete Finishers Course page.



In a training class set up by Centre Concrete last May, participants learned more about concrete finishing while replacing the parking lot at the Pine Grove Mills Veterans of Foreign Wars (VFW) building in Ferguson Township, Centre County.



**State Transportation  
Innovation Council (STIC)**

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[www.penndot.gov/about-us/PennDOT2020](http://www.penndot.gov/about-us/PennDOT2020)

## Upcoming LTAP Training

Classes are beginning to be held in person again. Check the website, [gis.penndot.gov/ltap](http://gis.penndot.gov/ltap), for the latest listing. If you would like to receive email alerts about upcoming training, send a request to [ltap@pa.gov](mailto:ltap@pa.gov).

### Active Transportation

**October 19 – Union County**

### Posting & Bonding on Local Roads v.II

**October 14 – Juniata County**

### Project Oversight

**October 22 – Cambria County**

### Safe Drive v.II

**October 21 – York County**

### Seal Coat

**October 14 – Cambria County**

### Stop Signs & Intersection Traffic Control

**November 4 – Blair County**

### Winter Maintenance 101

**October 18 – Lycoming County**

**October 21 – Blair County**

## Archived Training: Catch up online!

Recorded sessions and handouts from previously held drop-ins and webinars are available on the LTAP website, [gis.penndot.gov/ltap](http://gis.penndot.gov/ltap). Sessions cover a variety of topics from asset management to truck restrictions. Check out the full list online and take advantage of this free training from the comfort of your home or office.

### Congratulations to the following Roads Scholars!

*The following scholars were certified between April 28 and July 31, 2021:*

#### Roads Scholar I:

- Autumn D. Barszczowski, City of Pittsburgh, Allegheny County
- Douglas G. Husted Jr., Susquehanna Township, Dauphin County
- Chris Metka, PennDOT, Dauphin County
- Travis L. Skrzypek, City of St. Mary's, Elk County
- Tyler Clark, Elizabethtown Borough, Lancaster County
- Laura S. Mcleod, Keating Township, Potter County
- Austin Erhard, Hempfield Township, Westmoreland County

#### Roads Scholar II:

- Chris L. Cooper Jr., City of Pittsburgh, Allegheny County
- Andrew K. Lake, North Union Township, Fayette County
- Laura S. Mcleod, Keating Township, Potter County

#### Roads Scholar Administrative:

- Thomas C. Welker, PennDOT, Dauphin County
- Travis L. Skrzypek, City of St. Mary's, Elk County
- Daniel Markey, Jermyn Borough, Lackawanna County
- Michael Long, Columbia Borough, Lancaster County

#### Roads Scholar Police:

- Raymond A. Schell Jr., Kutztown Borough, Berks County
- Kenneth M. Shank, Derry Township, Dauphin County
- Andrew J. Bochanski, Upper Dublin Township, Montgomery County

**Roads Scholars, Share the News!** LTAP has a press release you can modify and use to announce your accomplishment to your local media. To obtain a copy of the release, go to [gis.penndot.gov/ltap](http://gis.penndot.gov/ltap) and look for the release under "Roads Scholar Program."

### TROC Report *continued from page 1*

Now that the report has been submitted, TROC recommends that leadership and technical teams be established to support the Wolf administration and General Assembly in further evaluating and implementing potential funding options.

"Our work is far from over," Gramian says. "PennDOT is committed to continued collaboration with stakeholders and our colleagues in the General Assembly in support of reliable transportation funding."

For more information about transportation funding in Pennsylvania, visit [www.PennDOT.gov/funding](http://www.PennDOT.gov/funding).



#### LTAP Contact Information:

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Web: [gis.penndot.gov/ltap](http://gis.penndot.gov/ltap)

*All LTAP services are free to municipalities.*