State Transportation Innovation Council (STIC)

Innovation in Motion

A newsletter with highlights from the STIC

INNOVATE
DEPLOY
EDUCATE

photo: FHWA

This edition of the Innovation in Motion e-Newsletter highlights the Federal Highway Administration (FHWA) Every Day Counts Round 7 (EDC-7) Strategic Workforce Development innovation. PennDOT's goal over the next two years is to improve its ability to identify, train and place highway construction workers.

Workforce Development: Innovative Strategies to Help Meet the Demand

Workforce development continues to be on the forefront for PennDOT as the demand for highway workers is growing, and emerging technologies require new skills. As part of this focus, PennDOT is championing the EDC Round 7 (EDC-7) Strategic Workforce Development innovation. Led by Daryl St. Clair, P.E., special assistant to the Executive Deputy Secretary for Highway Administration, this innovation centers its efforts on improving the ability to identify, train and place highway construction workers.

As part of this innovation, PennDOT is working on the development of a Workforce Development Strategic Plan, an Employee Safety Plan, and a 504e plan, which outlines compliance with the Governor's Commonwealth Workforce Transformation Program (CWTP). The CWTP dedicates a percentage of the Commonwealth's federal infrastructure dollars under the Inflation Reduction Act (IJA) and Infrastructure Investment and Jobs Act (IIJA) to workforce development.

PennDOT is also looking to pilot a new program, modeled after the Texas Department of Transportation's ConnectU2Jobs program. This program prepares and trains justice-involved young adults between the ages of 18 and 24 for careers in the heavy highway construction industry. Graduates receive the National Center for Construction Education and Research (NCCER) Core Construction Level 1 Certification, as well as the NCCER Heavy Equipment Operator Level 1 Certification and become part of the workforce.

To further support workforce development, PennDOT has developed a Mentor-Protégé Program (MPP) to increase diversity and participation in the Disadvantaged Business Enterprise (DBE) Program through outreach to new and underutilized companies, particularly Black American-owned businesses in both the consultant and contractor markets. It features a multifaceted approach that includes various forms of virtual classroom training, one-on-one interactions, and networking and project-based partnering with contract-based pay line items on specified PennDOT design and construction ECMS projects.

To learn more about the MPP, how it was developed and what's in store for 2024, stay tuned for the release of PennDOT's ***Focus on Innovations*** online publication later this spring. The publication will also feature updates on several other EDC innovations PennDOT is championing, including Targeted Overlay Pavement Solutions (TOPS), Crowdsourcing for Advancing Operations, Next Generation TIM: Integrating Technology, Data, and Training and UHPC for Bridge Preservation and Repair, as well as several STIC and homegrown innovations that have been implemented across Pennsylvania.

Looking Ahead

Highway Construction Training Program Grant Informational Webinar

FHWA recently announced a new grant program to fund existing Highway Construction Workforce Partnerships (HCWP) and establish new programs that will identify, train, place and retain individuals into highway construction jobs. Grant funds, totaling $4.2 million, will be available through the Highway Construction Training Program (HCTP). The HCTP grants are intended to supplement existing Strategic Workforce Development program activities and augment efforts to establish new programs. Additional information is available on the grants website or by emailing penndotstic@pa.gov.

FHWA is hosting an HCTP informational webinar on **Thursday, May 2 from 2 p.m. to 3 p.m.**, to review the notice of funding opportunity. Registration is not required.

Join the HTCP webinar

Want to learn more about innovative initiatives happening across PennDOT? Join us for our 2024 *Innovation in Motion* Webinar Series to hear about innovative practices, tools and technologies being used to help move transportation forward in Pennsylvania. All webinars will be held from 10 a.m. to 11 a.m.

- **June 11 -** Modernizing Technology: Creating Efficiencies and Exceeding Expectations
- **Sept. 10 -** Innovating Winter Maintenance
- **Dec. 10 -** PennDOT's Digital Transformation

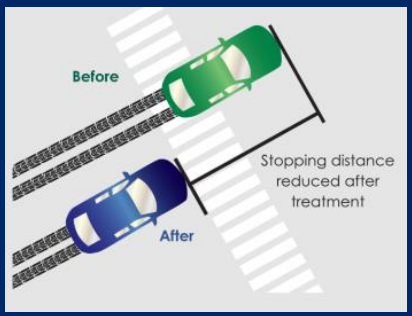
If you missed any of our previous *Innovation in Motion* webinars, they are available for viewing at www.penndot.pa.gov/innovation. Select the blue "Innovation in Motion Webinar Series" tile on the right-hand side of the page.

Did You Know?

Build a Better Mousetrap Winner Announced

North Codorus Township won PennDOT's top prize in this year's Build a Better Mousetrap (BABMT) Innovation Challenge. The award honors projects built by road crews or municipal employees to improve safety, reduce costs and increase efficiency. The 2024 winning innovation is a loader-mounted pole saw for tree trimming. This tool allows the crew to trim and cut limbs from the ground versus a truck. For more information on the BABMT Innovation Challenge, visit PennDOT's Local Technical Assistance Program (LTAP) website.

High Friction Surface Treatment: Silver Bullet of Safety Countermeasures



High Friction Surface Treatment, an FHWA EDC-2 innovation, continues to demonstrate its benefits across the nation and in Pennsylvania. HFST, one of the tools for managing pavement friction, is a surface enhancement applied to existing pavement and consists of a durable, gritty and highly polish-resistant aggregate layered within a polymer resin binder that bonds to the pavement surface.

PennDOT, in partnership with The Pennsylvania State University, published a report in June 2023 that quantified the safety effects of HFST on horizontal curves and at intersections across the state. The project developed crash modification factors (CMFs) for severe (fatal and injury) crashes, total

crashes and various crash types. The data set included over 57 treated miles, consisting of 700 horizontal curves and 33 intersections, making it one of the largest studies of its kind in the U.S. Read more about HFST here.

For more information on these and other STIC innovations, email penndotstic@pa.gov.