Be Ready for Winter with PennDOT

Pennsylvania’s First Automated Vehicle Summit Takes Place in State College

PennDOT Enables “Travel Pathways Through Lemoyne’s History”

Innovative Security Solution for Bridge Bays

November 2017
Norristown was the recent setting of the department’s official winter kick off media event in October, where department staff wore pink hard hats in recognition of Breast Cancer Awareness Month. PennDOT Secretary Leslie S. Richards took the opportunity to outline the department’s plans for winter services and provide some driver preparation tips.

Highlighted at the event was an upgrade to www.511PA.com, which allows customers to see a color-coded map of when each of the nearly 40,000 miles of state-maintained roadway was last plowed. This enhancement is the latest in PennDOT’s Automated Vehicle Location (AVL) technology that is used in each of more than 2,200 department-owned and rented plow trucks.

The AVL program, started in 2014, is part of Governor Tom Wolf’s GO-TIME initiative that leverages inter-agency coordination and collaboration to maximize efficiency, modernize state government operations, and provide the highest quality services.

Many useful winter tips can be found at www.penndot.gov/winter including a complete winter guide that outlines winter services in each of PennDOT’s 11 engineering districts and driving pointers.

Speaking of winter driving, PennDOT is actively seeking hundreds of temporary equipment operators statewide for the winter season. Details on minimum requirements, such as possession of a CDL, and application information, are available at www.employment.pa.gov. Job seekers can apply for several other types of non-operator, winter positions such as diesel and construction equipment mechanics, welders, clerks and more.

Less than a year after its creation, Governor Tom Wolf announced that the administration’s initiative to provide motorists with information during long-term road closures, 511PACConnect, has earned several regional and international transportation awards.

How Does 511PACConnect Work?

A potential long term road closure is identified by the Pennsylvania Department of Transportation (PennDOT) and the Turnpike. The potential closure is then reported to the PA Emergency Management Agency’s (PEMA) 24-hour Commonwealth Watch and Warning Center, who then issues a location-based alert to motorists’ cell phones. At that time the motorists have the option of registering for automatic text messages or phone call updates.

Once the incident is resolved, motorists who registered for the alerts will automatically be unsubscribed and all personal data will be scrubbed from the system.

Law enforcement also uses the alerting system to issue Amber Alerts for missing children.

Coordinated among PennDOT, PEMA, Pennsylvania State Police, and PA Turnpike Commission, the service recently earned four awards:

- 2017 Toll Excellence Award for Technology from the International Bridge, Tunnel and Turnpike Association;
- 2017 Transportation Achievement Award for Operations from the Institute for Transportation Engineers;
- Outstanding ITS Project for 2017 from the Intelligent Transportation Society of New Jersey; and
- 2017 Project of the Year from the Mid-Atlantic Section of the Institute of Transportation Engineers.

For more information on 511PACConnect, please visit https://www.paturnpike.com/travel/511PACConnect.aspx.
Pennsylvania’s First Automated Vehicle Summit Takes Place in State College

PennDOT, Community and Economic Development (DCED), Labor & Industry (L&I), and State Police (PSP) all took part in the state’s first Automated Vehicle Summit in State College in September.

The summit reviewed all aspects of automated vehicle development including safety, workforce changes, planning, and industry implications. It was attended by roughly 300 transportation officials, academic and industry experts, public officials, planners and industry partners who discussed and learned about how connected and automated vehicle technology is shaping the next generation of travel.

Discussions included how cities, townships, business models, employment and more will change due to highly automated vehicle technology.

The summit was hosted by the Pennsylvania Intelligent Transportation Society and the Mid-Atlantic Section of the Institute of Transportation Engineers.

More information on automated vehicles, including a video explaining them, is available at www.penndot.gov at the “Autonomous Vehicles” featured resource.

PennDOT, the Pennsylvania Department of Education Hold “Innovations Challenge” Contest for High School Students

PennDOT and the Pennsylvania Department of Education (PDE) are inviting high school freshmen, sophomores and juniors to take part in the first PennDOT Innovations Challenge.

Every hour, about 15 reportable traffic crashes occur in Pennsylvania and although we have made positive steps towards reducing traffic crashes, injuries and fatalities, a disproportionate number of these crashes involve teenagers. Through the PennDOT Innovations Challenge, we are inviting high school students to become an active part of the solution in helping develop innovative ways to tackle this real transportation concern.

The PennDOT Innovations Challenge asks students to look at technologies and innovative methods, aside from traditional paid advertising, marketing and social media channels, that can be developed in the next five to ten years to curb unsafe teen driving practices.

This new program aims to not only help students explore real transportation challenges that PennDOT is facing, but also open their minds to the very real possibility of working for PennDOT after graduation.

Through the PennDOT Innovations Challenge, 11 regional winners will be selected and be invited to compete in Harrisburg for the grand championship in April 2018. PennDOT intends for the Innovations Challenge to become an annual event.

Public-Private Partnership Board Approves Projects to Establish Wetland Mitigation Bank, Pursue Development Around Train Stations

Pennsylvania’s Public-Private Partnership (P3) Board recently approved two projects—one that will establish a wetland mitigation bank to offset environmental impacts from construction or development projects, and another for transit oriented development (TOD) at one or more stations along Amtrak’s Keystone Corridor from Harrisburg to Philadelphia.

Through the proposed wetland mitigation bank, a PennDOT-owned 140-acre site in Chalfont, Bucks County, would be developed so PennDOT and private developers can meet federal environmental requirements by applying for credits to offset environmental impacts on projects. A private entity would be selected to operate, finance and maintain the site, streamlining the environmental review process as well as project timelines compared to establishing separate sites for each applicable project.

The other project approved by the board seeks to build on the TOD P3 project already being administered for the Middletown train station. The department will seek interested proposers to develop and connect the areas around one or more stations including Harrisburg, Elizabethtown, Mount Joy, Lancaster, Parkesburg and Downingtown.

What is P3?
The Public-Private Transportation Partnerships Act was signed into law in September 2012 and authorized P3 projects in Pennsylvania. This law allows PennDOT and other transportation authorities and commissions to partner with private companies to participate in delivering, maintaining and financing transportation-related projects.

To learn more about P3 in Pennsylvania, visit www.P3forPA.pa.gov.

Homemade Tool Saves Money in District 2

By Marla Fannin, Community Relations Coordinator, District 2

Innovative ideas are often a driving force behind the receipt of a Star of Excellence award, PennDOT’s highest recognition.

In 2017, that proved again to be true for a District 2 Star of Excellence winner, Shawn McFarland, who currently serves as the district’s Structure Control Engineer. He was a Star recipient for several reasons, including a very innovative one: his home-made construction of an “ABCD Meter” (Automated Blow Counting Device).

Shawn’s ABCD Meter is a simplified version of the PDI Saximeter. This hand-held instrument calculates the hammer operating rate, by gauging the stroke of the diesel hammer while simultaneously counting the number of blows when piles are being driven on a bridge. The accuracy of the homemade ABCD Meter is within ½” of the PDI Saximeter. The cost of the homemade version makes it even more attractive. To build it in-house, Shawn’s ABCD Meter costs the District only 1% of the manufactured, purchased version; $30 as opposed to $3,000.

Shawn’s latest version has a 3-inch LCD screen and displays:

• Last stroke of the hammer (in feet),
• Minimum, average, and maximum stroke for the current interval (foot or inch of pile),
• Minimum, average, and maximum stroke for the previous interval,
• Total blow count, and
• Blow count for the current interval and previous intervals.

When driving piles on a bridge, it’s important to count the number of blows it takes to drive a pile (every foot, inch, etc.) and it’s equally important to monitor the stroke of the hammer—the height from which the piston falls on the pile—which can vary due to several different factors. Because things happen quickly when piles are driven, it’s quite difficult to record all the required data, and impossible to get an accurate stroke measurement without a machine. The ABCD meter records all data to a micro-SD card so that the driving data may be graphed and reviewed after piles are driven. Shawn’s ABCD Meter is put to regular use in District 2, where six of them are in use. Based on the cost of an externally manufactured device, Shawn’s ABCD Meter has saved the district almost $18,000. In addition to saving money, these devices also improve the quality on our projects by allowing inspectors to verify that the hammer is operated within the pre-approved strike range. This ensures that adequate capacity is provided on the piles without overstressing them.
The return to school can be a hectic time for students and parents alike. Schedule changes, fall sports, new clothes and school supplies are on everyone’s mind.

A conversation about the important need for school supplies gave District 9’s Community Relations Coordinator, Tara Callahan Henry, an idea. District 9 is comprised of Cambria, Blair, Huntingdon, Fulton, Bedford and Somerset counties. Realizing that not every family had the means to fulfill the long supply lists sent home by schools, she and her colleagues came up with a plan to help to help local elementary schools.

Tara and her team brainstormed the idea and “Stuff the Barrel” was born.

“Engineers CAN Fight Hunger,” so they reached out to them to see if anyone had an interest in working with PennDOT on this new project. The EADS Group, Stiffler McGraw and Keller Engineers all decided to participate!

Supplies were collected for approximately three weeks. Not only did they receive donations from their staff and the engineering firms, but also received a generous donation of notebooks and supplies from ACCO, Inc., in Huntingdon County as well as numerous donations from the public.

The team analyzed data from all the elementary schools in the District 9 region and chose four schools based upon the highest number of students receiving free lunches and those with the most families below poverty level.

The supplies were handed out shortly after school began and the faculty was thrilled to receive such a generous donation. Tara and her team hope to expand the program next year.
Hundreds of Thousands of Veterans Have Opted for Patriotic Designation on Their Pennsylvania Driver's License, ID Card

More than 440,000 veterans have had the veterans designation added to their Pennsylvania driver’s license or ID card since the option was made available in 2014. The designation — an American flag with the word Veteran beneath it — is a patriotic way for veterans to show their pride and convey to others that they served in the United States military.

Qualified applicants for a veterans designation must have served in the United States Armed Forces and/or the reserve component, and have been discharged or released from service under conditions other than dishonorable.

There is no fee for the veterans designation, however regular renewal or duplicate fees still apply. Forms for driver’s license or ID renewals and duplicates have a box for applicants to certify that they are a veteran, and to have the designation added. Once the veterans designation has been added to a driver’s license or identification card, it will automatically appear each time the card is renewed.

Veterans holding a non-commercial driver’s license or identification card can immediately apply for the designation by visiting www.dmv.pa.gov and clicking on the American flag/veterans designation icon.

Commercial Driver’s License holders should visit www.dmv.pa.gov for instructions on having the veterans designation added to their license.

The veterans designation does not entitle a veteran to any special consideration or discount, but rather identifies the bearer as a veteran. Any other recognition such as a discount, free meal, or other token of appreciation is completely and solely determined by the organization, business or entity providing a service.

Wolf Administration’s 'Road MaP’ Initiative Improved Two Monroe County Roadways

Roadway improvements using recycled asphalt paving, or RAP, on nearly 4 miles of lower volume roads took center stage in Monroe County through PennDOT’s Improved Road Maintenance and Preservation (Road MaP) initiative.

RAP is an environmentally conscious method that repurposes ground millings from projects onto other roadways, and allows the department to pave less-traveled roads that otherwise wouldn’t be paved, or to reinforce roadway shoulders. It is one of the many low-cost tools PennDOT is putting to work through the initiative, allowing savings to be used for additional department or contract work to improve more roadways.

Road MaP will invest $2.1 billion in roadway maintenance and highway and bridge capital projects over the next 10 years.

More information on Road MaP is available at www.penndot.gov on the "Act 89 Transportation Plan" page.
Daylighting, an Effective Process for Rural Roads

By Sylvia Chabala, Community Relations Coordinator Intern, District 4

Have you ever heard the term “daylighting?” It is not something that usually comes to mind when thinking about roadwork and construction. However, it plays an important role in the work that takes place on rural roads.

Daylighting is the process of cutting back trees so the road is exposed to more light. When a road is shaded by trees, this can be difficult and even unsafe for road workers, drivers, and pedestrians. The first positive aspect of daylighting is that it aids in keeping the road dry. When a road is wet from rain or melted snow, this poses a danger to drivers, cyclists, joggers, and anyone on or near the road, as it heightens the risk of cars sliding off the road and causing an accident. If there is a heavy rain and the road is wet, it will dry more quickly if it is exposed to more light.

Also, this is especially useful in the winter. The excess light can be beneficial in melting snow on roads, which is important for people who are traveling through the snow.

Daylighting also helps keep workers safe. If a road has better lighting, this can help drivers see workers on the road more easily, and be more aware of them when driving through a work zone. Overall, daylighting is a very useful part of road work that is beneficial in maintaining roads and keeping people safe.

District 4 has been working on daylighting in several areas that are overgrown and covered by trees.

The photos accompanying this article show contractor crews daylighting in northeastern PA this summer.
PennDOT Advances Diversity Mission with First-Ever Construction Contractors Diversity Forums

In another step to fulfill Governor Tom Wolf’s and Secretary Richards’ goal of enhancing diversity and inclusion efforts, PennDOT recently staged three Construction Contractors Diversity Forums across the state.

Marketed to road and bridge construction prime and subcontractors, DBE construction firms and suppliers, and other construction contractors looking to do business with PennDOT, these sessions drew interest from more than 200 representatives within the contracting community. Held on Oct. 11 at Cheyney University, Oct. 17 at the PA Farm Show Complex, and Oct. 25 at the Indiana University of Pennsylvania, these events are the first of their kind hosted by PennDOT.

“Our goal is to draw the rich diversity already present in our business community into the contracting work we perform to deliver transportation benefits,” Secretary Richards said as she announced plans for the events. “These forums will highlight the steps disadvantaged and diverse businesses can take to participate in our important mission.”

In his keynote remarks, Deputy Secretary for Highway Administration George McAuley highlighted the size of PennDOT’s program and the dollars invested each year in improving our transportation infrastructure. He further noted the importance of ensuring those who perform the work reflect the diversity of the communities PennDOT serves.

Borrowing a quote from Stephen Covey, McAuley shared his belief that “Strength lies in differences, not in similarities,” and shared that diversity in all aspects, including diversity of opinion, is essential to progress. “The truth is, the transportation industry is largely comprised of a single demographic – and they all look a lot like me. But, diversity in the transportation arena is trending upward, and PennDOT is continually seeking new opportunities to support and enhance those diversity efforts.”

During the Harrisburg and IUP sessions, Moises Marrero, Acting Division Administrator for the Federal Highway Administration’s (FHWA) Pennsylvania Division Office, offered brief remarks prior to introducing the keynote session.

“There is no principle more important than fair and equitable treatment,” he said. In a poignant analogy, Marrero cited the fall foliage. “Just as every tree’s leaves have the same opportunity to change color, there needs to be a level playing field for all DBE firms to compete fairly.” DBE goals are required for federally funded projects, and Marrero put forth a challenge to set diversity goals for all projects, ensuring opportunities are provided for all qualified firms to do work with PennDOT.

District Executives Ken McClain from District 6, Mike Keiser from District 8, and Joe Dubovi from District 10 offered opening remarks at each respective event, and served as masters of ceremonies for the sessions in their districts. In their opening remarks, each touched on Secretary Richards’ commitment to a policy of diversity and inclusion.

Bureau of Equal Opportunity Director Kathy Peters, with support from Faith Colden, the bureau’s Contract Compliance Section Manager, and Keyla Evans, the DBE/SBE Section Manager, spoke on the difference between the Diverse Business (DB) Program and the federal Disadvantaged Business Enterprise (DBE) Program, covering the steps attendees can take to become certified. They further defined the DB program as including disadvantaged businesses, minority-owned businesses, women-owned businesses, service-disabled veteran-owned small businesses, and veteran-owned small businesses.

Bill Gipe from the Bureau of Office Services and Matt Weaver from the Bureau of Project Delivery (BOPD) covered the processes to register as a commonwealth vendor and obtain an SAP number, and to register as a business partner – two separate but interdependent processes for those looking to do business with PennDOT. Matt then offered a walk-thru of PennDOT’s ECMS system, demonstrating how to find available work, run reports, and locate information on pre-bid meetings. Matt also walked attendees through the 12-month letting schedule, the list of plan-holders, and the contractor search feature in ECMS.

Melissa Batula, Director for Project Management, and Michele Harter, the Contract Management Section Chief, presented information on the payment process timeframes, and the required deadlines for

Continued on Page 9
prime contractors to pay their subcontractors. George Dunheimer, Assistant District Executive for Construction, and Keith Dawson, Construction Services Engineer, from District 6 assisted in facilitating this discussion on Oct. 11 at the Cheyney University event.

Prime and subcontractor speakers added value to each forum by leading discussions on networking, and shared their perspective relative to bidding on PennDOT projects. In conversation-style sessions, Craig Hoogstraten from James J. Anderson Construction and LaMar Childs of LB Enterprises presented on Oct. 11, Tom Johnston from Allan Myers spoke with attendees on Oct. 17, and Lynn Tiernan of Gulisek Construction LLC and Mary Campbell from CAMSCO led discussion on this topic on Oct. 25.

As Johnston stressed to subcontractor attendees, “Prime contractors are looking for you every single day, so you need to be aggressive in reaching out to prime contractors and making your areas of expertise known.”

Mark Corbin, Tanya Morris, and Kenyon Holley from Cheyney’s supportive services programs led a networking session at each event, sharing additional tactics for increasing visibility in the industry. From emails, phone calls, and site visits at your project site or theirs, Morris shared the necessity of pursuing leads and taking the initiative.

In an energetic and inspiring presentation, Corbin offered a challenge to DBE firms. “When you attend events to ‘network,’ know in advance who you want and need to meet that day,” he said. Time is a valuable commodity we don’t have enough of, so coming prepared is essential. “There are five people each of you need on your team: an advocate to champion your business within the industry, a strategist to help you create a sustainable business plan, a “mail carrier” who will “deliver” for you every time, a mentor, and a man or woman of action who prefers to act rather than plan and procrastinate.”

Deputy Secretary for Planning Jim Ritzman, described the planning process that serves as the starting point for all projects, and offered practical tips for DB and DBE firms as they look for upcoming projects on which they can participate.

Representatives from the PA Turnpike Commission, Myneca Ojo, Diversity and Inclusion Director, and Fawn Cassel, Engineering Project Manager, explained the commission’s commitment to diversity in their projects. The two speakers also provided an overview of the commission’s Electronic Bidding System and explained how firms can qualify for Turnpike construction work. Closing out the three respective sessions were District Executives Mike Rebert from District 5, Karen Michael from District 2, and Joe Szczur from District 12.

“There are incredible opportunities for diverse businesses to work with PennDOT. Each of you is, in fact, an extension of PennDOT, and together we need to look at what we can do to succeed,” said Szczur in the IUP session’s closing remarks.

As Karen Michael shared on Oct. 17, “PennDOT depends heavily on our relationships with our partners in the private sector, and the department is dedicated to continuous improvement efforts pertaining to diversity and inclusion.”

In closing, she echoed Deputy Secretary McAuley’s remarks: “We invited you here today to gain a better understanding of how each of you can help us to diversify our contracted work, and deliver the very best transportation services for the people of Pennsylvania.”
**Department in National Spotlight via Three Prestigious Awards**

PennDOT recently received three national awards – the American Association of State Highway and Transportation Officials’ (AASHTO) President’s Transportation Award for Performance Excellence, an Urban and Regional Information Systems Association (URISA) Exemplary Systems in Government (ESIG) Award, and a AASHTO 2017 State Transportation Innovations Council (STIC) Excellence Award

The AASHTO award was presented for the work of the department’s Highly Automated Vehicle (HAV) Senior Leadership Team, having performed exemplary service during the year furthering PennDOT’s transportation activities which have, or potentially could have, a valuable impact on transportation nationwide or on a regional basis.

The team’s achievements and efforts include leadership on the state Autonomous Vehicle Policy Task Force, collaboration on proposed automated vehicle policy and legislation, and continued public and stakeholder engagement through demonstrations and events.

Information on the department’s automated vehicle efforts is available at www.penndot.gov at the “Autonomous Vehicles” featured resource.

URISA awarded PennDOT with a distinguished enterprise system award for its “Maintenance-IQ” system. The award cites Maintenance-IQ as an outstanding and working example of using information systems technology in a multi-department environment as part of an integrated process.

Maintenance-IQ compiles information from different systems including maintenance, inventory, condition, traffic, safety, planned projects and environmental data into a centralized GIS repository. The internal application provides an easy-to-use interface through which staff strategically schedule and plan activities, increasing efficiency and reducing costs.

URISA’s ESIG Awards recognize extraordinary achievements in the use of geospatial information technology that have improved the delivery and quality of government services. The award competition is open to all public agencies at the federal, state/provincial, regional and local levels.

The Pennsylvania STIC was given the award for having enhanced dialogue between State and local leaders and promoted state-of-the-art safety practices and resources. The Pennsylvania STIC and local governments collaborated on a Salt and Snow Management Course that trained 600 participants on innovative winter maintenance techniques, demonstrated the effectiveness of high-friction surface treatment in high-crash locations, and reached out to 445 local public agencies to understand their top transportation issues.

**PennDOT Awarded for Communications Excellence**

The department took home three American Association of State Highway and Transportation Officials (AASHTO) TransComm Skills Contest awards in August.

The Skills Contest is conducted annually by the AASHTO Subcommittee on Transportation Communication to recognize the outstanding work of its public relations practitioners and facilitate an exchange of ideas. The contest is considered the premier competition in the transportation industry and the awards have become a standard of public relations excellence among state departments of transportation. Winners demonstrate the very best examples of innovation, planning, production, execution, and evaluation of results and budget.

PennDOT took home a first-place award for our CDL Recruitment Video. In case you didn’t see it, you can watch it here or on our YouTube channel, www.youtube.com/pennsylvaniaDOT

We won a second-place award for our blog, the PennDOT Way. Catch the latest edition here or visit www.penndot.gov.

And lastly, we won a second-place TransComm Skills Contest award for our 2019 TYP Public Outreach Campaign. You can see the toolkit developed for the campaign here.
Flipping the Script on Crack Sealing

By Chelsea Lacey-Mabe, Digital Community Relations Coordinator, District 6

PennDOT District 6 literally flipped on the light bulb for its latest innovation to improve the transportation network in one of Pennsylvania’s more urbanized areas.

Every year, PennDOT crews are tasked with crack sealing hundreds of miles of roadway across the Philadelphia region. These operations typically occur during non-peak daytime hours. To improve effectiveness and efficiency of the program, Montgomery County Maintenance decided to change the hours and pilot a nighttime crack sealing operation. The move was a huge success.

Recently, the entire Montgomery County crack sealing team visited Harrisburg where they were awarded the Governor’s prestigious GO TIME Award.

“Initially, we had reservations from a safety perspective due to visibility and higher probability of drunk drivers after dark; however, the reality has been that these operations are safer because of the dramatic reduction in traffic volumes during the overnight hours,” said Montgomery County Maintenance Manager Anthony Goreski. “This is our second year with no accidents or injuries. It’s been a win-win for everybody.”

The shift to nighttime operations allowed Montgomery County Maintenance to save hours, cut their crack sealing team in half and mitigate important health and safety concerns since the job was performed in cooler temperatures with fewer vehicles on the roadway.

To provide visibility at night, all construction vehicles were equipped with an umbrella light and each crew member was given a halo light for their hardhats to ensure their safety. These design changes were crucial in adapting the new work hours and accommodating for more rural work locations that traditionally have less lighting.

“New innovations like our nighttime crack-sealing program are prime examples of how we strive to improve travel in the Philadelphia region,” said PennDOT District 6 Executive Kenneth M. McClain. “Other districts who are similarly challenged with time restrictions, have already expressed an interest in adopting these new practices.”
Northwestern PennDOT District Honored for Bridge Preservation Efforts

By Hannah Stiller, Intern, District 1

District 1’s efforts to rehabilitate the Center Street Bridge in Oil City, Venango County, have been recognized with an Oil Heritage Region Historic Preservation Award.

“The project was a great opportunity for PennDOT to work with the community in order to preserve one of its historic landmarks,” said Mike Deibert, Assistant District Executive for Construction in District 1. “This project ensures that the unique structure will be safer and accessible for all motorists as a gateway to the city’s downtown.” Diebert represented PennDOT in accepting the preservation award during a ceremony held in Titusville in May.

The Oil Heritage Region Historic Preservation Award, presented by the Oil Region Alliance of Business, Industry and Tourism, recognizes individuals and organizations who undertook rehabilitation and restoration efforts involving buildings or other structures in the Oil Region that are at least 50 years old. Recipients are selected from among nominations received from the public, interested observers, and property owners.

Started in March 2016, the project cost $2.1 million and took seven months to complete. According to District 1 Bridge Engineer Bill Koller, the 77-year old bridge is one of only two steel-rib tied-arch bridges in Pennsylvania. The second bridge is located about 15 miles upstream on South Franklin Street in Titusville, Crawford County. The District 1 Bridge Unit completed the design and drawings for the project, which included reinforcing the bottom tie chords of the bridge, eliminating the end floor beams, and painting. Work was also done on the surrounding roads, sidewalks, traffic signals, pavement markings, and landscape.

Once the bridge preservation was complete, two regional development groups, the Oil City Main Street Program and the Oil Region Alliance, installed lights on the structure to further highlight its architectural details and illuminate its importance as a gateway into downtown Oil City. The lights, which can shine in alternating colors, were turned on during a formal evening ceremony held in August.

With these two projects completed, the Center Street Bridge will stand firmly in the Oil City community for the next 50 years.
Accelerated Bridge Construction on Interstate 78 in Berks County

By Ron Young, Community Relations Coordinator, District 5

The undersides on six bridges over Interstate 78 in Berks County were slightly over 14 feet and were routinely getting hit. They needed to be replaced to meet the current under-clearance standard of 16 feet 6 inches.

A team comprised of District 5 staff in PennDOT’s Allentown-based District 5 and consultant engineers designed a plan to replace the bridges using accelerated bridge construction (ABC) methods, mainly utilizing pre-cast concrete components. This approach would avoid long-term traffic disruptions on I-78 and the associated side roads. The consultant firms involved in the design were: AECOM; Johnson, Mirmiran & Thompson, Inc.; Alfred Benesch & Company; and Erdman, Anthony & Associates.

In late 2015 a $37.5 million contract was awarded to HR1, Inc. of State College, with a contract completion date of November 2017.

The contract stipulated the maximum length of time for each bridge closure at 40-60 days, depending on the bridge, and that any traffic stoppages on I-78 for beam removal and placement would occur at night, with each stoppage lasting 15 minutes or less.

Here are the bridges replaced over I-78 and the number of days the contractor had the bridges closed:

- Route 4041/Midway Road (43 days);
- Route 4043/Power Drive (57 days);
- Route 4045/Northkill Road (40 days);
- Route 183/Bernville Road (40 days);
- Route 419/Four Point Road (58 days); and
- Route 4011/Mountain Road (40 days).

There was an issue with the form work on the underside of the first bridge, the Midway Road Bridge, that needed to be re-evaluated. Basically, the ultra-high performance concrete has a higher unit weight than conventional concrete or grout and therefore the formwork needed to be more robust. After the first structure, the contractor formed these areas more completely which in turn corrected the issue for the other five bridges.

On several of the structures, variations of the surfaces on pre-cast pieces led to some fitting issues. Overall, these issues were relatively minor in nature and were corrected onsite by grinding the conflicting areas and issuing other spot repairs.

The crews also experienced a few challenges with the maintenance and protection of traffic, mainly on the Mountain Road Bridge and to a lesser degree on the Midway Road Bridge. The challenges arose because of the Department’s willingness to provide reasonable access to adjacent businesses to avoid total closures of their access and the subsequent loss of customer revenue.

One of the biggest challenges the onsite crews faced was when the Northkill Road Bridge sustained serious damage to a fascia beam when it was hit by an oversized load on I-78 in early spring 2017. This bridge, which luckily was set to begin construction the following month, was immediately closed to traffic by PennDOT’s Berks County Maintenance. And HR1 was able to adapt their construction schedule almost seamlessly to accommodate the direction from the District Bridge Unit to begin work sooner on the Northkill Road Bridge due to public safety concerns. Although some of HR1’s build time for this structure needed to be adjusted to account for this, the bridge was safely removed and reconstructed.

Even with these challenges, the HR1 team hit the milestone dates on the majority of the structures and the project was quite successful.

“As with any project, some complications arose during construction,” said Inspector-In-Charge Adam Bratrude. “It is a great testament to our contractor and onsite inspection staff that we were able to overcome challenges and deliver a quality project.”

Although the tolerances on the pre-cast concrete components caused the most significant challenges, there were no major fitting issues. Also, the weather did not cause significant delays, and uniform geotechnical conditions meant no re-evaluations on any bridge foundations or the need for major undercuts.

The ABC process resulted in nominal traffic disruptions, minimal complaints, greater safety for motorists and construction workers, reduced environmental impacts from vehicle and construction equipment emissions, and shortened construction times.

The overall result is the replacement of six interstate bridges in less than two years - a feat that could have taken much longer if each bridge was contracted out separately using non-ABC methods.
The “Travel Pathways Through Lemoyne’s History” mural project, planned by the Lemoyne Borough, is the first of its kind in the region to use a state transportation facility as its canvas. The Pennsylvania Department of Transportation District 8 is pleased to have partnered with borough officials to realize the project along a retaining wall for the Interstate 83 ramp known as the Lemoyne exit.

PennDOT appreciates the research and great care that artist Daniel Finch took to depict the local history of the borough, from its earliest days as Bridgeport to its current days as Lemoyne. The mural captures all forms of transportation, from canoes to wagons and trains and airplanes – a true multimodal experience as one winds their way along the exit ramp and into “the little town that has it all.”

Time, effort and years of planning went into the mural project. Coordination efforts between the borough’s design sub-committee and District 8 were well thought-out and effective in communicating the needs and concerns of all parties involved.

Lemoyne Borough and all of Cumberland County should be proud of the effort that went into a beautiful, welcoming mural that showcases so much of the area’s history.
EMERGENCY TRAVEL KIT...DON’T LEAVE HOME WITHOUT IT!

- Warm clothing and gloves
- Blanket
- Ice scraper
- Sand
- Cellphone and car charger
- Flashlight
- Jumper cables
- Small shovel
- First aid kit
- Water
- Nonperishable food

PERSONAL NEEDS:
(such as special medications, baby supplies or pet food):

- _____________________________  - _____________________________
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16