



# INNOVATOR



*Use of ultra-high performance concrete is expanding to bridge repairs. In this photo, steel microfiber reinforcement is added to UHPC, giving it the ability to stretch.*

*Credit: Arash E. Zaghi and Alexandra Hain, University of Connecticut*

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# Repairing Bridges with UHPC

The use of **ultra-high performance concrete** (UHPC) to strengthen and repair bridges has grown substantially in the past 15 years. Early on, UHPC was most often used as an option for connecting prefabricated bridge elements. Today, States are using it to repair **bridge deck overlays** and beam or girder ends and to replace expansion joints with UHPC link slabs.

UHPC's fiber-reinforced, cementitious composite material has mechanical and durability properties that far exceed those of conventional concrete materials. Regular concrete has a strength of about 4,000 pounds per square inch (psi), while UHPC can support more than 18,000 psi.

"Concrete tends to deteriorate with time," said Dr. Sherif El-Tawil, a University of Michigan civil and environmental engineering professor who has researched UHPC for more than a decade. "Water goes into the pores of concrete and expands when it freezes. This breaks the concrete apart and becomes a very expensive problem to fix."

Extensive corrosion of bridge beams can occur beneath leaking joints, especially in northern States. "When we have simple span beams and deck joints, we get leaking of water and de-icing salts which causes severe corrosion damage at the ends of beams," said Dr. Alexandra "Lexi" Hain, University of Connecticut assistant research professor. "This results in a loss of bearing capacity and the need to repair these beams. It is an increasingly costly issue."

## Beam End Repairs

The University of Connecticut, in partnership with the Connecticut Department of Transportation (DOT), has developed a more cost-effective, easy-to-implement design to repair beam ends. The repair involves welding headed-shear connectors on the intact portion of the web, bypassing the corroded region. Next, the area is encased in UHPC to create an alternate load path. The load is transferred from the shear connectors to the UHPC and down to the pier. Proof-of-concept experiments led by Dr. Arash

E. Zaghi began in 2013. Researchers looked at shear connector capacity with embedded UHPC and studied three full-scale plate girder repairs. From 2018 to 2020, Dr. Zaghi and Dr. Hain conducted a field implementation on a 55-year-old bridge along I-91 in New Haven, CT. A variety of sensors used to collect data before and after the repair confirmed that an alternate load path through the shear connectors and UHPC was established. "The data showed the repair was very successful," said Dr. Zaghi.

## Benefits

"UHPC beam end repair is a solution that is well adapted to working within tight geometric restraints of beam end supports, tight constraints with traffic control, and heavily restricted access beneath the bridge," said Justin Ocel, FHWA's UHPC for bridge preservation and repair team co-lead.

Michigan's Saint Clair County Road Commission used the University of Connecticut's UHPC research to make steel beam repairs on a 1930s bridge and were pleased with the results. "We believe that by using UHPC in the critical parts of the superstructure such as the beam ends, you're going to get a longer life out of the bridge entirely," said Dewayne Rogers, former Saint Clair County Road Commission project manager.



UHPC repair adapts well to working within the tight geometric restraints of beam end supports. This photo shows formwork in place prior to encasing the repair area in UHPC.

Credit: Arash E. Zaghi and Alexandra Hain, University of Connecticut

Cover photo: Steel microfiber reinforcement is added to a batch of UHPC during a bridge beam end repair project in Connecticut.



## Non-Proprietary Mixtures

During his efforts to learn more about UHPC for bridge repairs, Rogers heard about a **non-proprietary UHPC blend** that Dr. El-Tawil developed at the **University of Michigan**. This option costs 70-percent less than commercially available UHPC mixes.

“Instead of buying a pre-mixed bag of UHPC, you buy the ingredients separately and then mix it yourself,” said Rogers. “It’s a little more legwork, but it reduces the cost a lot. We paid about \$800 per cubic yard, and if you’re using 5 yards of UHPC for a maintenance project, that’s a small amount for many years of service.”

Agencies that have uncertainties about mixing UHPC themselves should not be deterred. “While the up-front cost may be higher than conventional solutions, once life-cycle costs are considered, UHPC can be a more economical solution,” said Zach Haber, FHWA’s UHPC for bridge preservation and repair team co-lead. “You can fix it numerous times with conventional solutions or once with UHPC.”

## UHPC Link Slabs

The New York State DOT (NYSDOT) knows firsthand how well UHPC bridge repairs last. The agency installed its first UHPC link slab in 2013.

“Based on our bi-annual inspections and an independent study, our UHPC link slabs are not showing any signs of leakage,” said NYSDOT Major Project Unit Supervisor Jim Scarlata. “The girder ends, diaphragms, bearings, and the pier are basically in the same condition as they were when the link slab was first constructed 8 years ago. The UHPC repair halted deterioration of the



*In this bridge beam end repair, the load is transferred from welded shear connectors to the UHPC and down to the pier.*

steel and concrete, reduced the need for future maintenance activities, and will preserve the bridge for many decades to come.”

Credit: Arash E. Zaghi and Alexandra Hain, University of Connecticut

## MORE INFORMATION

- Click on this interactive map of **Deployments of UHPC in Highway Bridge Construction** to see where in-service bridges using UHPC are located and the application used.
- 📄 Read the February 2022 EDC-6 UHPC **newsletter** for information on upcoming workshops and current UHPC research.
- @ Contact FHWA’s **Zach Haber** or **Justin Ocel** for information and technical assistance.



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# Virtual Reality Enhances Community Engagement

**Virtual public involvement** (VPI) is a rapidly growing and evolving method for encouraging community engagement that can take many forms. One emerging technology that shows promise in VPI applications is virtual reality (VR).

VR is a computer-generated, real-time virtual environment where users can experience a location in three dimensions without being physically present at the scene. Two main features of VR are immersion and virtual interactivity. These are accomplished by capturing the user's hand, eye, and body movements and adjusting the immersive virtual environment accordingly.

VR is often experienced using a specialized headset normally composed of a stereoscopic head-mounted display, stereo sound, and motion-tracking sensors. The experience can be enhanced by accessories such as a joystick or glove, which give users basic interactivity with the environment, or by a full room dedicated to sensing user movement.

"Virtual reality can assist the public in having a more balanced perspective of the transportation decision-making process through interactive applications of the virtual environment," said Mack Frost, FHWA transportation specialist and Every Day Counts round six (EDC-6) VPI team member.

## Public Involvement Using Virtual Reality

Public involvement is an interactive process that engages the community in shaping or creating a vision for a transportation plan or project. Numerous strategies exist, from anonymous surveys to virtual public meetings. This type of creative outreach provides an excellent opportunity to collect feedback by reaching audiences who may not otherwise be interested in participating in the transportation planning and project development process.

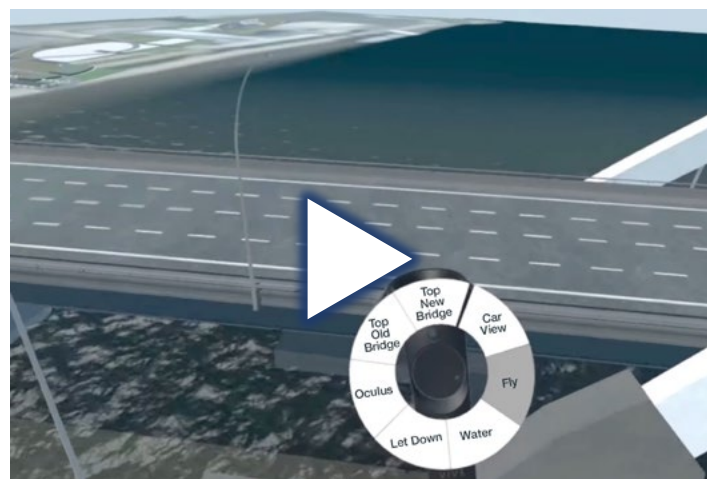
Engaging with the public can be rewarding and fun, but also serves an important role during conceptualizing, developing, and implementing a project.

Successful public engagement can lead to better project outcomes and help improve stakeholder understanding of, and support for, a project.

VR helps transportation professionals communicate their ideas and engage with the public during project demonstrations. Compared to traditional methods such as two-dimensional (2D) drawings, renderings, and 360-degree images, users can find it much easier to experience and explore a design, compare alternatives, brainstorm ideas, or point out specific elements of a project through an immersive virtual experience. Researchers have found that, compared to 2D plans on paper or 360-degree images on a computer screen, VR can **increase civic participation** in offering feedback on designing public spaces.

## I-74 Mississippi River Bridge Replacement VR Demonstration

The Iowa Department of Transportation (DOT) collaborated with Iowa State University to develop a VR demonstration of the **I-74 Mississippi River Bridge** replacement project that attracted citizens to observe, advise, and provide feedback on the project.



Iowa DOT's VR headset enabled a fully immersive experience of a new bridge as part of its public involvement efforts on its I-74 bridge project.

Credit: Iowa Department of Transportation





Credit: IrisVR

Outreach for the Downtown 11th Street Bikeway study in Boise, ID, included [3D VR images](#) to help the public visualize proposed improvements.

The VR demonstration allowed users to experience the new design in different ways. They could drive or fly over the bridge, walk along its pedestrian path, or observe the view from its scenic deck. The demonstration also provided educational information about the river environment. Viewers could “dive” into the river and “pick up” mussels as a U.S. Fish and Wildlife Service biologist provided information about the species. Many of the mussels in the Mississippi River are considered threatened or endangered, so the Iowa and Illinois DOTs, along with the U.S. Fish and Wildlife Service and other agencies, conducted one of the largest mussel relocations in the United States prior to construction of the new bridge.

According to Annette Jeffers, automation engineer for the Bridges and Structures Bureau at Iowa DOT, the development of the 3D, fully immersive environment of the I-74 bridge replacement project cost less than \$50,000. The 3D model of the bridge was developed by a consultant, while other 3D content for the simulation was designed by Iowa DOT and Iowa State University.

The Iowa DOT made the VR demonstration available at multiple locations across the city and supplemented it with public meetings and presentations. Project demonstrations were also uploaded on social media websites such as YouTube, where interested locals could leave comments.

## Boise, ID, Downtown Bikeway Study

Not all VR demonstrations have to be as complex as a video or fully interactive environment. Sometimes, using VR to display a 360-degree, 3D image to the public can cause a concept to jump from the page to reality in the public’s mind.

In Boise, ID, [3D VR images](#) were created for the [Downtown 11th Street Bikeway](#) study to show the public exactly how new intersections would look after the proposed improvements. The VR images were used in conjunction with an online survey to help plan the new bikeway.

## Implementation Help Is Available

The EDC-6 VPI team supports agencies looking to implement innovative technologies such as VR into their public engagement strategy. They can provide resources and help make connections with other agencies who have successfully implemented VR to help agencies make an informed decision about adding it to their toolkit or to help implement it.

## MORE INFORMATION

@ Contact [Lana Lau](#), [Jill Stark](#), or [Carolyn Nelson](#), FHWA EDC-6 VPI team co-leads, for information and technical assistance.

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# National Safety Awards Spotlight EDC Innovations

The FHWA **Every Day Counts** (EDC) program promotes roadway innovations that are proven to work. It is no surprise, then, that the 2021 **National Roadway Safety Awards** featured many EDC offerings. Five EDC innovations were featured in six of the seven winning projects and one of the three honorable mentions.

The winning projects range from small towns to State departments of transportation (DOTs), from analytic tools to on-the-ground countermeasures.



Credit: Florida Department of Transportation

FDOT installed Active Work Zone Awareness Devices on portable trailers for deployment to work zones.

## Arterial Work Zone Safety

In Florida, speeding in work zone areas accounts for **31 percent of fatal work zone crashes**. To help solve this deadly problem, the Florida DOT worked with the University of South Florida Center for Urban Transportation Research to evaluate **smart work zone** technologies (SWZ) on arterials.

The researchers studied several countermeasures, including Active Work Zone Awareness Devices (AWAD)—dynamic signs that warn approaching drivers of work zones. The study showed that using AWADs increased safe driving behavior by 39 percent and reduced risky driving by 34 percent.

## Long-Life Pavement Markings Safety Initiative

Lane departure crashes caused 55 percent of fatal and serious injury collisions in North

Carolina between 2015 and 2019, according to the **Roadway Safety Foundation**. To combat this trend, the North Carolina DOT (NCDOT) evaluated long-life pavement markings, one of the countermeasures promoted by EDC's **Focus on Reducing Rural Roadway Departures** (FoRRRwD) team.

All types of long-life markings tested demonstrated crash reductions: Across all sites treated with the countermeasure (over 400 miles of roadway), NCDOT found a 13-percent reduction in lane departure crashes using standard markings and a 19-percent reduction when using wider 6-inch markings.

## Community-Wide Safety Improvements

The village of Whitefish Bay, WI, saw a trend of increasing crashes since 2010, including many involving non-motorists. The village took a two-phased approach to address this safety problem.

First, they implemented low-cost, quickly deployed treatments like dynamic speed feedback signs to increase driver awareness of pedestrians and bicyclists. Longer-term solutions included several EDC innovations such as **high-friction surface treatment** and multiple pedestrian safety countermeasures promoted by EDC's **Safe Transportation for Every Pedestrian** (STEP) team.



Whitefish Bay, WI, implemented STEP countermeasures such as rectangular rapid flashing beacons and high-visibility crosswalks.

Credit: Village of Whitefish Bay, WI



The village also used a **systemic approach** to evaluate solutions, a method promoted by the EDC **data-driven safety analysis** (DDSA) and FoRRRwD teams. Since 2015, crashes in Whitefish Bay have been reduced 39 percent.

## Video Analytics Toward Vision Zero Program

The city of Bellevue, WA, also used a **systemic approach** and **DDSA** techniques to be proactive about implementing safety solutions. Bellevue employed sophisticated traffic conflict analysis that uses cloud computing, artificial intelligence, and video analytics to predict conflicts so agencies can respond before crashes happen. The effort has been so successful that, in 2021, the city began applying these safety techniques to its high-injury network corridors and integrating conflict analytics into road safety assessments.

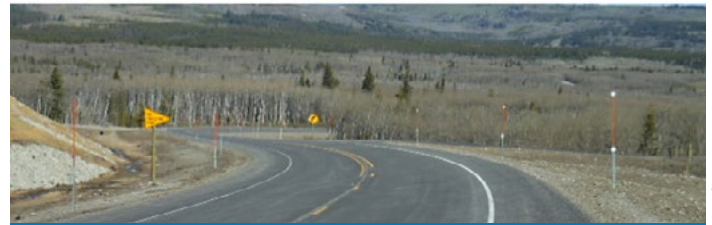


Credit: Broward Metropolitan Planning Organization

## Complete Streets Master Plan and Wilton Drive Improvements

The South Florida Region that includes Broward County has the highest number of total pedestrian fatalities in the Nation (1,675 from 2010 through 2019). A particularly difficult location was the Wilton Drive corridor.

The Broward Metropolitan Planning Organization (MPO), as part of its Broward Complete Streets Master Plan, integrated several **STEP** approaches and countermeasures to accommodate all road users. The results include a 66-percent decrease in bicycle and pedestrian crashes, a 75-percent reduction in severe-injury and fatal crashes, and a roughly 50-percent improvement in travel times along the corridor, according to the MPO.



Wider shoulders and edge line rumble strips were among the improvements the Montana DOT added to Highway 89. The photo shows the old (top) and new (bottom) alignments for one of 21 curves that were reconstructed.

Credit: Montana Department of Transportation

## TxDOT Safety Scoring Tool

The Texas DOT (TxDOT) and Texas A&M Transportation Institute developed a scoring tool to evaluate the safety effectiveness of design elements on projects. This lets TxDOT predict the safety outcomes of design decisions and allows safety considerations to be considered early in a project's development and design stages.

This tool, which incorporates predictive techniques from the **AASHTO Highway Safety Manual**, is a great example of the **DDSA** approach.

## Honorable Mention: North of Kiowa North

U.S. Highway 89 west of Browning, MT, was built in 1927 and is a main entrance to Glacier National Park. The road was narrow with sharp curves and heavy tourist traffic. It also crosses many cultural sites of the Blackfeet Nation Reservation.

The Montana DOT improved a 5.8-mile stretch of U.S. 89, implementing multiple countermeasures highlighted in the **FoRRRwD** initiative such as wider shoulders and edge line rumble strips.

## MORE INFORMATION

- Read the National Roadway Safety Awards **2021 Noteworthy Practices Guide** for details on the winning projects.
- Watch U.S. Transportation Secretary Pete Buttigieg announce the winners in a **congratulatory video**.



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# STICs Support Innovation Deployment

Across the country, **State Transportation Innovation Councils** (STICs) are boosting adoption of innovative technologies and practices. Read more to learn about recent successes reported by STICs in Colorado, Missouri, Pennsylvania, Puerto Rico, and Texas.

## Colorado's Lean Everyday Ideas

Colorado's STIC helped support **Lean Everyday Ideas** (LEI) at the Colorado Department of Transportation (CDOT). CDOT's LEI initiative aims to inspire and spread process-improving innovations. The program encourages CDOT employees to identify a problem or opportunity, develop a solution, test their innovation, and apply the change. These innovations are then shared throughout CDOT and promoted publicly so that peers at other transportation agencies who might have the same challenges can use them as well.

CDOT used STIC Incentive funds to help replicate improvements such as **paperless workflows for fuel tracking**, a **t-post puller for roadside**

**maintenance**, and **2D hydraulic modeling**. Over the past 8 years, CDOT has used LEI to implement hundreds of these types of innovations. Stories and instructions for borrowing more than 340 of them are posted on CDOT's **Idea Cards webpage**.

## Missouri's Maintenance Management System

Missouri DOT (MoDOT) launched phase I of its **Maintenance Management System** (MMS), a web-based enterprise system to schedule work. Prior to the MMS, MoDOT maintenance staff used pen and paper and eight different software programs to document the agency's maintenance activities, which then had to be compiled into a statewide report.

To create a more efficient system, MoDOT established a steering committee that gathered information from field staff for a better understanding of the complexities of collecting maintenance activity data. Additional teams were established to gather requirements, design, develop, implement, and support the custom system.

Maintenance staff can now quickly enter their activities, equipment, and materials used each day into the MMS. This data can then be seen at the State level for enhanced decision-making. The MMS also interfaces with other MoDOT systems such as financial, human resources, and payroll.

About 3,000 MoDOT maintenance staff—60 percent of its workforce—use the MMS daily. The agency estimates the MMS so far is saving about 65,000 staff hours per year, which results in a return on investment of about \$2.73 million annually.



Credit: Colorado Department of Transportation

CDOT's Lean Everyday Ideas program helps staff share improvements they have implemented.



## Pennsylvania's Virtual Innovation Week and Exhibit Hall

The Pennsylvania STIC developed new methods to maintain engagement and keep projects moving during the pandemic in lieu of in-person events. Through PennDOT's first **Virtual Innovation Week**, the STIC promoted innovations such as **bridge deck link slabs**, **unmanned aerial systems**, and **e-Ticketing**.

Nearly 1,000 individuals participated in at least one virtual event session, with an average of more than 200 attending each. Session recordings were made publicly available as an **Innovation Week playlist** on PennDOT's YouTube channel.

The Virtual Innovation Week also included a **virtual exhibit hall** with more than 50 innovative tools, materials, applications, and technologies. Eighteen exhibits showcasing STIC and EDC innovations were developed for the event. During the first 3 months after going live, the virtual exhibit hall webpage received nearly 2,000 pageviews.

## Puerto Rico's Innovation Newsletter

Puerto Rico's STIC (PRSTIC) developed a new digital magazine called "**Puerto Rico STIC Innovation**." The magazine promotes EDC round 6 innovations and keeps transportation professionals informed on proposals and projects the PRSTIC has approved, such as a recent STIC Incentive project to acquire hardware to improve the security and resiliency of the island's intelligent transportation system network.

PRSTIC is also using the magazine to promote virtual technical trainings and summits on topics associated with emerging technologies related to EDC and other areas. The magazine is published every 6 months and distributed through State and Federal agencies and professional organizations that are members of the STIC.

## Texas' Workforce Guide

The Texas STIC used STIC Incentive funding to help the State's Local Technical Assistance Program (TxLTAP) develop a new workforce guide. The "**Job Descriptions and Recommended Training Guide for Texas County/City Road & Bridge Workers, Foremen, and Supervisors**" is part of a **strategic workforce development** project aimed at helping fill highway construction jobs.

**Job Descriptions and Recommended Training Guide**

**- TxLTAP -**

Texas County/City Road  
Bridge Workers  
Foremen Supervisors

UNIVERSITY OF TEXAS ARLINGTON

*Texas used STIC Incentive funding to produce a workforce guide to help locals recruit and train road and bridge personnel.*

Credit: Texas Local Technical Assistance Program

TxLTAP had found that many Texas cities and counties did not have road and bridge personnel job descriptions on hand, or what they had was outdated, and they were not widely aware of the zero-cost training available for those positions. The guide helps fill this need by supplying industry job descriptions and recommended training courses offered by TxLTAP, the American Association of State Highway and Transportation Officials, and the Texas DOT.

Preliminary feedback from local agencies indicates the new workforce guide represents a large cost savings versus developing something similar themselves. Developing the guide also helped TxLTAP increase engagement. Of the 28 counties involved with the project, 19 were new to using TxLTAP's services.



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# States **innovate!**

## Arizona Adds a New Diverging Diamond Interchange

The Arizona Department of Transportation's (ADOT) [Interstate 10/Houghton Road project](#) features a [diverging diamond interchange](#). According to an ADOT news release, ADOT traffic engineers chose the diverging diamond design because it can improve safety and handle higher traffic volumes in a growing part of the southeast Tucson area where traffic is expected to increase by as much as 50 percent by 2045. ADOT reported that more than 115 diverging diamond interchanges are in use in the United States, including two half-diverging diamond interchanges in the northern part of Arizona.

## Concrete Overlay Gives Delaware Motorists a Smooth Ride for 20+ Years

In 1990, the Delaware Department of Transportation (DelDOT) initiated a comprehensive study to evaluate rehabilitation strategies for a 9-mile-long section of I-495 and the associated ramps around Wilmington. Major concerns about the existing concrete pavement included cracking and joint deterioration. After a review of several rehabilitation strategies, DelDOT selected an unbonded jointed plain concrete

(UJPC) overlay with a 15-foot transverse joint spacing. A UJPC overlay allowed the use of the existing pavement structure, retained the affected concrete at the project site, and reduced construction time considerably, resulting in less disruption to traffic. After more than 26 years in service, DelDOT reports that the UJPC overlay on I-495 is performing well and continues to provide improved rideability and safety for road users. The project has required only minor maintenance activities such as joint spall repair, crack and joint sealing, and shoulder patching. Learn more in the EDC [Targeted Overlay Pavement Solutions](#) case study on the [Delaware I-495](#) project.

## Florida Benefits from Highly Modified Asphalt Overlays

The Florida Department of Transportation (FDOT) began using Highly Modified Asphalt (HiMA) 6 years ago to address severe rutting observed in high-stress locations that were subject to heavy axle loads and slow-moving traffic, such as truck weigh stations, agricultural inspection stations, and high-volume intersections and interchanges. Since then, the agency has placed more than 500,000 tons of HiMA mixtures on at least 40 projects across the State.

In addition, FDOT expanded use of HiMA to other types of applications such as mitigating reflective cracking from construction joints in overlaid portland cement concrete pavements and reducing raveling in open-graded friction courses. FDOT research and preliminary data suggest the expected gain in pavement life will exceed what is needed to offset the additional cost of HiMA. Read about more Florida's use of [Targeted Overlay Pavement Solutions](#) (TOPS) in the TOPS [ebulletin](#).



Credit: Arizona Department of Transportation

The Arizona DOT converted an interchange to a diverging diamond as part of its I-10/Houghton Road project to improve traffic operations.



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Play the game.  
 Get to work.

*PennDOT partnered with the developers of the Future Road Builders app to help spread its availability.*

### Gaming App Helps Users Explore Construction Project Skills

Stakeholders in Pennsylvania organized a working group to develop creative ways to market the highway construction industry to potential job candidates. One key way is redefining how people think about the necessity of a four-year degree. The working group is promoting construction apprenticeships as “the other four-year degree.” One member of the working group, the Constructors Association of Western Pennsylvania (CAWP), developed an app called **Future Road Builders** that lets users explore a virtual highway construction project to see the skills needed for the job. The Pennsylvania Department of Transportation (PennDOT) partnered with CAWP in 2016 to continue the development of the Future Road Builders platform to include an application for smart phones and tablets. Read more on PennDOT’s **on-the-job training program** webpage.

### Puerto Rico Employs Project Bundling

The Puerto Rico Highway and Transportation Authority (PRHTA) is designing highway construction projects to correct landslides and replace traffic signs and guardrails affected by Hurricanes Irma and Maria using Federal funds from the FHWA Emergency Relief Program. To facilitate the bidding process for more than 500 locations, PRHTA requested assistance from FHWA’s Eastern Federal Lands Highway Division (EFLHD) in the project management process.

EFLHD is using **project bundling** to award a single contract for several similar projects. The project bundling approach streamlines design, contracting, and construction and allows agencies to capitalize on economies of scale to increase efficiency. EFLHD began the procurement process of several projects with the project bundling technique in late 2020. Read more in Puerto Rico’s State Transportation Innovation Council **newsletter**.

### Value Capture Helps Fund Development in Metro Atlanta

In Georgia, the **Atlanta BeltLine** is transforming a 22-mile corridor of unused railroad segments into a multi-modal urban redevelopment around downtown Atlanta. The development includes multi-purpose trails, bike paths, and a modern streetcar. The vision for the BeltLine is to knit 45 Atlanta neighborhoods together through a green amenity while stimulating economic development.



Credit: Danquella Manera

*The Atlanta BeltLine project highlights the use of value capture tools on a multimodal project that includes roadway improvements, bike lanes, pedestrian paths, and transit.*

The BeltLine has attracted philanthropic and corporate dollars, and leveraged Federal and State funds, but its main source of financing is a **value-capture** mechanism that directs increased property-tax revenues from new development and economic growth above an initial baseline into a special-purpose **tax allocation district** (TAD) fund that repays project-related debt. Atlanta BeltLine, Inc., the quasi-public corporation created to administer the BeltLine, has issued \$155 million in TAD bonds so far.



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# INNOVATOR

INNOVATOR, published by the FHWA's Office of Innovation Management, Education, and Partnerships, advances the implementation of innovative technologies and accelerated project delivery methods in highway transportation.

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U.S. Department of Transportation  
**Federal Highway Administration**

## Help Determine the Next Round of EDC Innovations

Do you have experience with a proven innovation that is currently underutilized but has game-changing potential for the highway community? If so, we want to know!



Credit: FHWA

FHWA is seeking suggestions for market-ready innovations to deploy in 2023 in round seven of Every Day Counts (EDC-7). State, local, Tribal, and industry partners, as well as the public, are encouraged to submit innovative technologies or practices that can help provide safer roads for all users, address equity as part of project planning and delivery, and support sustainable and resilient infrastructure nationwide. The submission deadline is April 11, 2022. Visit the [EDC website](https://www.fhwa.dot.gov/innovation) to learn more.

Your ideas can help make every day count to ensure the Nation's infrastructure is built better, faster, and smarter.

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