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Winter 2019

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**A Time-Honored Bridge Gets
a 21st-Century Upgrade**

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**2019
ASHE
National
Conference
Details and Registration**



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**Shaping Up the South Florida
Express Lanes Network**

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Scanner was recently made aware of photos in the fall 2018 issue that did not depict correct safety standards. We would like to express our thanks to the reader who pointed out these errors. For future issues, we will make every effort to examine each submitted photo more closely to ensure that it reflects proper safety standards before it is published in the *scanner*.



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Richard N. Cochrane, PE
ASHE National President 2018-2019

New Directions



National Charter Members

I received an email a few months ago from John Rignani, one of the Charter Members of ASHE. John and I worked together on PennDOT projects in the early 1970s. As 2018 was the 60th anniversary of ASHE's chartering, he wanted to let me know about the few Charter Members still with us. With John's personal knowledge and some internet searches, we found four more surviving Charter Members. In our sixth decade, we should take a moment to remember the 104 people who had the vision to create "a society for those interested in the advancement of the Highway Industry."

For more information about our early history and Charter Members, take a look at the article on page 5 in this issue. If you have additional information to share, please contact either me or Tom Morisi, ashenationalsecretary@ashe.pro.

From those first 104, we have grown to almost 6,650 members. While from its beginning ASHE included engineers, technicians and anyone else with an interest in highways, we have expanded our mission to include all modes of transportation. Our greatest growth decade was from 1987 to 1997, when we almost doubled our membership from 2,680 to 4,832. In our most recent decade, we grew by about 500 to reach our current membership.

National Board Activities

The National Board has been busy with several initiatives on behalf of our organization. We just completed our first training program for Section and Region officers—the unsung heroes of ASHE. They work in the background making sure the bills are paid, updating the membership rolls and coordinating meetings and dinners. But perhaps their most challenging task is to meet the various National requirements that maintain our IRS status, ensure our membership database is accurate and handle a myriad of other important details. These tasks are daunting enough for experienced individuals, but for new officers it is often trial by fire. By providing this training, new officers can receive guidance as they take on their new duties, and they will know where to turn for advice. About 95 individuals have currently joined the training. I thank Stan Harris and the Operations Committee for preparing the training program. Look for a link to this program on our website soon.

Speaking of the ASHE website, the National Board has solicited proposals to redesign the site. Watch for more information in future *scanners* and on the website; we have asked Section and Region webmasters to assist in this process.

The National Board is also looking into insurance that will cover and protect the entire organization, including National Conferences. Most Sections do not have insurance, and we hope to provide more comprehensive protection.

As I continue to travel throughout the Sections, I hope to meet as many of you as I possibly can, and to get your feedback on ASHE activities. Remember, this organization exists for you, our members, and we strive to do what is best for you. Please consider volunteering for Section, Region and National committees and officer positions. If I do visit your Section and you have an interest in serving at the National or Regional level, please introduce yourself and we'll talk. I also welcome your emails (on any topic) at ASHENationalPresident@ashe.pro.

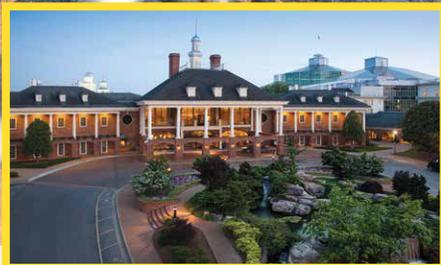
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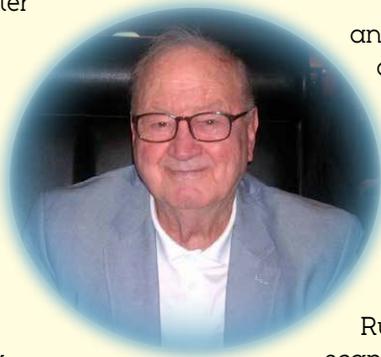
on the cover
Pittsburgh's Gateway from the East—A Time-Honored Bridge Gets a 21st-Century Upgrade
ASHE Pittsburgh Section
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John V. Rignani, 87, looks back at ASHE's beginnings with great pride and a deep sense of appreciation for all the benefits his membership provided him.

ASHE celebrated its 60th anniversary in 2018, and Rignani was one of the 104 Charter Members who established ASHE's National Section, as well as the Harrisburg Section in Pennsylvania, where ASHE was incorporated in 1958. Rignani, a Past President of the Harrisburg Section, also received recognition as its first Member of the Year (then called *Man of the Year*).

"Being selected first Man of the Year of the Harrisburg Section is a stand-out memory for me," said Rignani. "I remember when Ben Rocuskie was presenting what the qualifications were for being selected, and I kept saying to myself, "Hey, I did that!" for each one, and then boom, my name was announced. Quite a thrill!"

He added, "The relationships that I made as an active member helped me in my professional career advancement as well as my personal life. Learning how to communicate with people and working as a team were very important life lessons."



Rignani said that even after retiring in 1991, he continued to attend monthly Section meetings in Harrisburg, along with several Past Presidents dinners and ASHE's 50th Anniversary Annual Conference in Hershey.

Along with marking ASHE's 60th anniversary as a Charter Member, Rignani and his wife also celebrated a major milestone of their own in 2018—their 65th wedding anniversary!

In addition to Rignani, four other living Charter Members, who are proud to help celebrate ASHE's 60th anniversary, include Lt. Col. John C. Whisler, Donald J. Redlich, John P. Rutter, and Albert J. Bedard, Jr.* A future scanner article will highlight their memories about ASHE's beginnings and its growth over the years. Now nearly numbering 6,650 members today, the ASHE organization continues to expand, with new members joining every year in over 40 Sections throughout the country. 🇺🇸

*Please contact the ASHE National Secretary, Tom Morisi, at ashenationalsecretary@ashe.pro or call (814) 696-7430, if we have inadvertently missed any other Charter Members.



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More than 40,000 cars travel through Lexington's congested downtown streets. Many of these vehicles travel to and from downtown to access other destinations outside of the core urban area, like the University of Kentucky (UK). In a recent three-year period, this activity contributed to almost 1,000 traffic accidents on major downtown streets, many that involved pedestrians or bicyclists.¹

The traffic backups in Lexington have impeded downtown development and increased risks to those who use the downtown area for business and entertainment. This was a major obstacle to that area's revitalization. The city's answer to the problem was to redirect pass-through traffic by extending Newtown Pike as outlined in the City of Lexington's Segoe Master Plan created in the 1930s. However, the actual design and construction were delayed because every proposed alternative roadway alignment bisected Davistown (which included the Southend Park neighborhood), a historic African American neighborhood established shortly after the Civil War in the mid-nineteenth century.

Finally, a new corridor plan was developed that included not only the Newtown Pike Extension project; it was also sensitive to future expansion of the downtown while protecting long-term affordable housing for the residents of Southend Park. The plan's goals included:

- Improving traffic flow through downtown
- Reducing congestion and improving the pedestrian and bicycling environment
- Improving access to UK
- Placing the neighborhood in a community land trust controlled by a representative board consisting of neighborhood residents and local community supporters
- Supporting well-planned growth and urban revitalization in downtown Lexington

- Making improvements without putting an unfair burden on other areas

The Newtown Pike Extension project offered a valuable opportunity to not only solve many of Lexington's ongoing traffic issues but also re-establish one of the most disadvantaged and neglected neighborhoods in the city. Located near downtown, the project extends from the intersection of Newtown Pike and Main Street through the intersection with High Street/Versailles Road and terminates at an existing intersection with South Broadway and Bolivar Street near UK. Due to anticipated complexity and costs of the project, it was to be built in four phases (Phase III is yet to be constructed, but Phase I, II and IV are complete and open to traffic).

Phase IV of the project was constructed first to provide the extension of Newtown Pike from Main Street to Versailles Road prior to Lexington hosting its first Fédération Equestre Internationale World Equestrian



Affordable housing

Games. Phase I, the neighborhood redevelopment and creation of Lexington's First Community Land Trust, soon followed the completion of Phase IV.

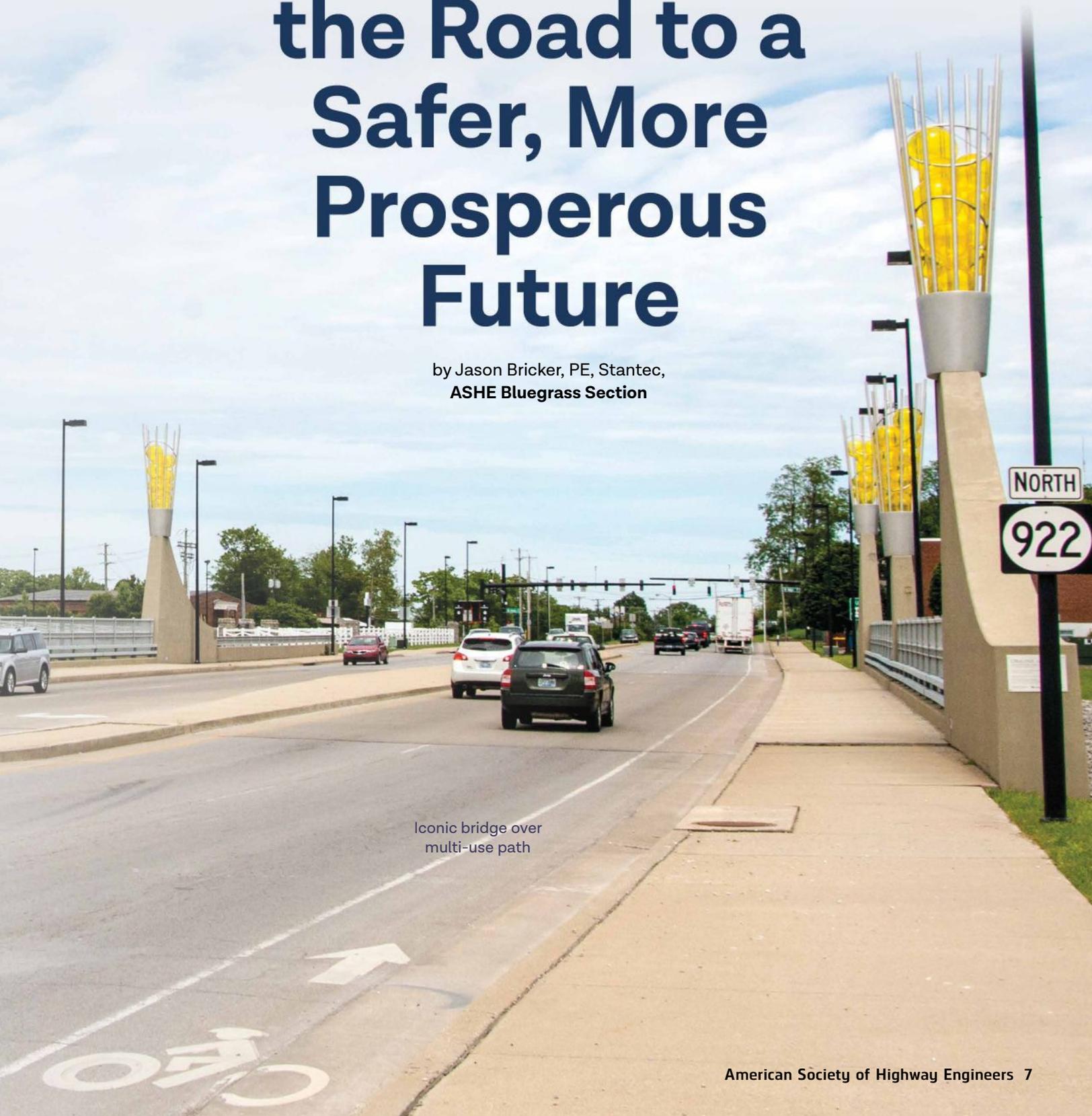
Phase II was located between South Broadway and Versailles Road, bisecting the Davistown community. More than 20 single and multi-family homes were relocated to construct the proposed boulevard. The

(continued on page 8)

Newtown Pike Extension in Lexington, KY:

Looking Down the Road to a Safer, More Prosperous Future

by Jason Bricker, PE, Stantec,
ASHE Bluegrass Section



Iconic bridge over
multi-use path

Looking Down the Road to a Safer, More Prosperous Future

(continued from page 6)

Lexington Community Land Trust, a nonprofit, was established to provide affordable housing and develop the property in the future while providing new homes to existing residents from the Davistown neighborhood affected by the roadway. The homes are affordable because the Community Land Trust owns all land, and individuals or families can purchase the homes without purchasing the land. It is provided by the trust to the homeowner at no cost via a 99-year renewable lease.

Part of the project included a retaining wall that was built on the old Harry Gordon Steel scrapyard property, creating additional residential and commercial lots available for development within the Community Land Trust. This area was one of two contaminated waste sites within the project limits that required environmental remediation. The entire site had to be excavated to a point where the excavated soil was tested and determined “clean.” The site was ultimately excavated down to bedrock and filled with a minimum of three feet of clean soil brought in from an off-site location and tested prior to placement. The Harry Gordon Steel site covered just over three acres.

Part of the project’s Record of Decision was constructing a new park to replace the old Davistown Park that included a baseball field and place for community gatherings. Part of

the Phase II project included the rough grading of the proposed park to be situated between De Roode Street and the new roadway. A new multi-use path, adjacent to the proposed park, was also constructed to provide pedestrian and bicycle access between the two roadways. A city bus stop was added to the route to serve the neighborhood.

Even though the length of the project is less than a mile, the newly opened section of Oliver Lewis Way (Newtown Pike Extension) provided relief for traffic congestion. It also positively impacted one of Lexington’s most neglected communities, Davis Bottom (Southend Park Redevelopment), and expanded access to the UK from Interstates 75/64.

Once the entire Newtown Pike Extension project is complete, it will carry up to 24,000 cars per day, reducing downtown traffic up to 40 percent. This will allow downtown Lexington to plan safer commercial and residential growth, expand downtown community activities and improve the pedestrian environment. 🇺🇸

Footnotes:

¹<https://transportation.ky.gov/PublicInvolvementToolbox/Examples/Newton%20Pike%20Extension%20Brochure%20-%20D7%20-%20Item%20No.%207-593.pdf>



Ribbon cutting for Oliver Lewis Way

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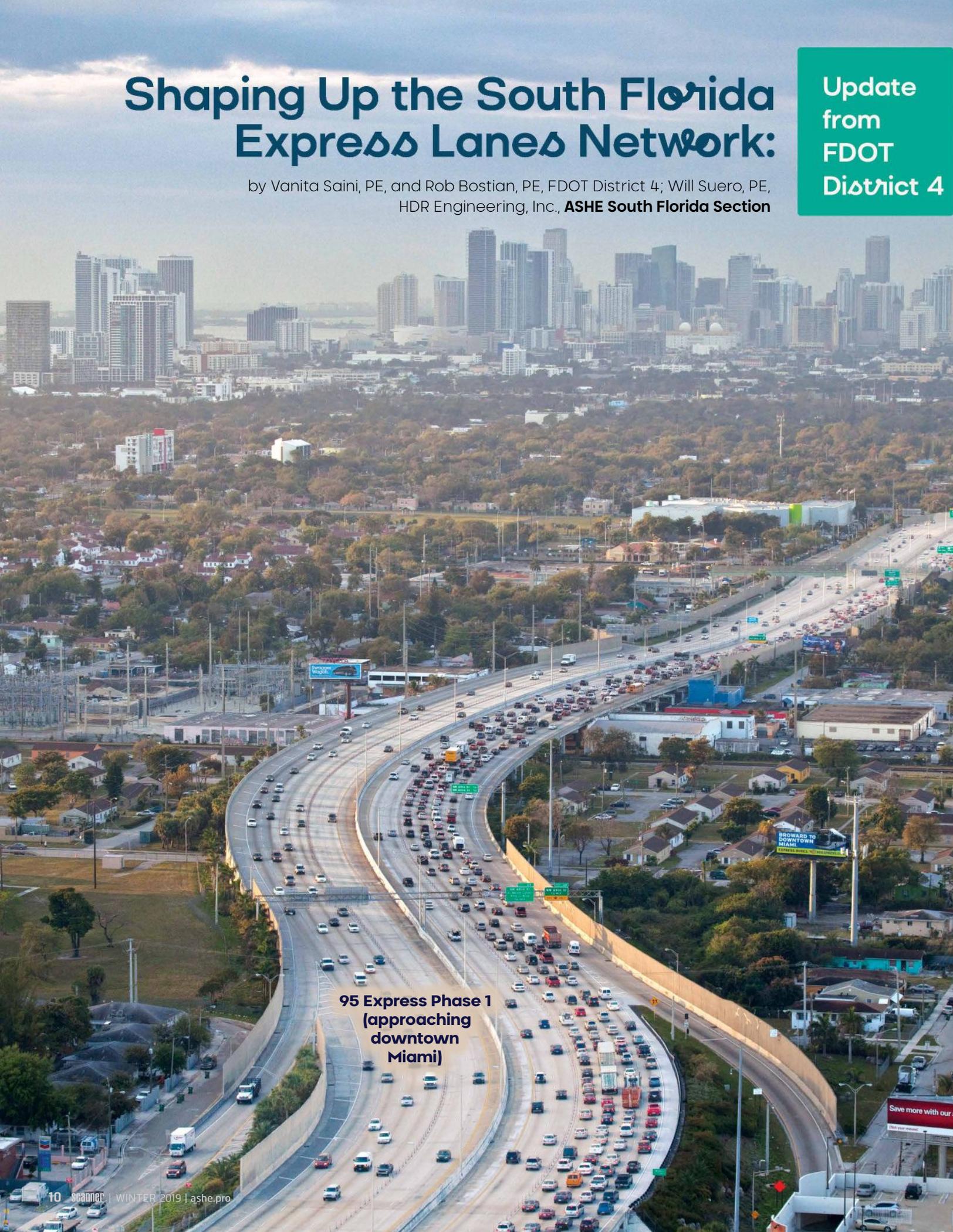
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Shaping Up the South Florida Express Lanes Network:

by Vanita Saini, PE, and Rob Bostian, PE, FDOT District 4; Will Suero, PE, HDR Engineering, Inc., **ASHE South Florida Section**

Update
from
FDOT
District 4



95 Express Phase 1
(approaching
downtown
Miami)

Shaping Up the South Florida Express Lanes Network: Update from FDOT District 4

(continued from page 11)



South Florida Express Lanes Premium Transit Bus

Ramp Signaling (Metering), to help control large platoons of entrance ramp traffic from entering the mainline flow at the same time, resulting in overall system benefits to both the express lanes and the general use lanes.

A significant benefit of the South Florida express lanes network is express bus routes, anchored by multi-modal transit stations (Commuter Rail and Intercity MetroRail), as well as park and ride lots. The region has long sought this expanded premium transit network. The express lanes provide a built-in network for high-quality, modern and convenient transit corridors.

In conjunction with the implementation of the South Florida network, FDOT Central Office, in partnership with Districts 4 and 6, developed the *Express Lanes Handbook*, in August 2015. It offered initial guidance on planning and implementation of express lanes. In addition, the FDOT Express Lanes Manual released in 2018 provides policy and more specific guidance for

planning, Project Development and Environment (PD&E), finance, design, construction, operations, public outreach and maintenance of express lanes and their networks throughout the state.

The authority to implement tolls on the State Highway System can be found in Section 338.151, Florida Statutes; Section 338.166, Florida Statutes directing how to use toll revenue on express lanes; Rule 14-100.003 Florida Administrative Code establishing express lanes tolling criteria; and Topic No. 525-030-020, a Tolling Directive to set policy.

More than \$2 billion in construction cost has already been spent in District 4 on express lanes. That included 595 Express (\$1.2 billion), 75 Express (\$558 million) and parts of 95 Express (\$500 million). An additional \$455 million is estimated to have been spent for 95 Express Phase 3C, which brought the total construction cost to \$2.7 billion by 2018 in District 4 alone. All District 4 express lanes construction projects have been procured

as design-build projects. Significant travel time savings and improved operating speeds in the general use lanes reflect that the investment by the USDOT, and likewise by the State of Florida, has paid dividends and met the expectations envisioned in 2007.

As the express lanes open to traffic, there is an extensive effort being made in District 4 to capture performance measures on the operations of the express lanes system, and study and evaluate areas that can provide data to validate the planning and design parameters. This process is key to optimizing the express lanes network to benefit the customers choosing to use them for more reliable travel times. Currently, performance measure reports are documented and available to the public at <http://sunguide.info/index.php>.

More information can be found at www.95express.com, www.75-express.com or www.floridaexpresslanes.com. 

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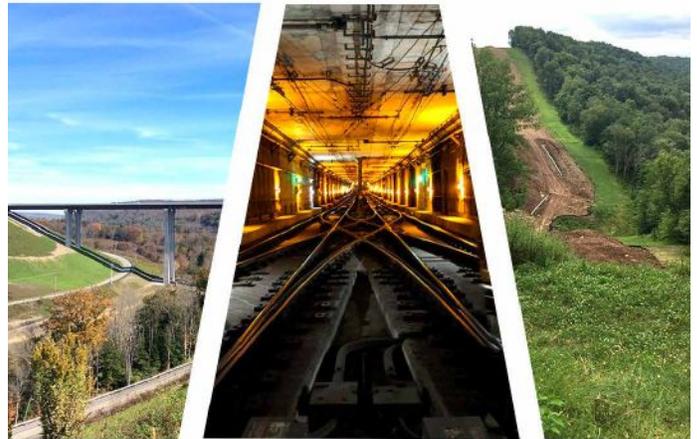
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Newly constructed CR 160, looking southeast

In the heart of historic Winesburg, a small, unincorporated community in Holmes County, OH, County Road (CR) 160 intersects the south side of US 62. Due to a number of geometric deficiencies and increasing traffic on this county road, the intersection had become a serious hindrance to traffic flow. The Holmes County Engineer asked Palmer Engineering (Palmer) to develop a solution to accommodate commercial truck traffic while maintaining the character of the town.

Importance to Traveling Public

Serving as the primary link between US 62 and the largest employer in the area, CR 160 is a major collector with a current Average Daily Traffic (ADT) of 1,700. After the expansion of a chicken processing plant nearby, the level of commercial truck traffic on this roadway had increased significantly by the beginning of 2017. US 62 is classified as a minor arterial, with an ADT of over 3,500. It serves as one of the primary routes into an area where many Amish families live, and it sees frequent congestion during peak travel season.

The overwhelming majority of the commercial traffic on CR 160 turns south onto this road from US 62. These turns were inhibited by a number of significant deficiencies; most notably, the grade of CR 160 was between 13 and 14 percent, while the turn radii were approximately 30 feet. Additionally, the CR 160 roadway approaching the intersection was only 21 feet wide with no shoulders.

These constraints caused many problems on

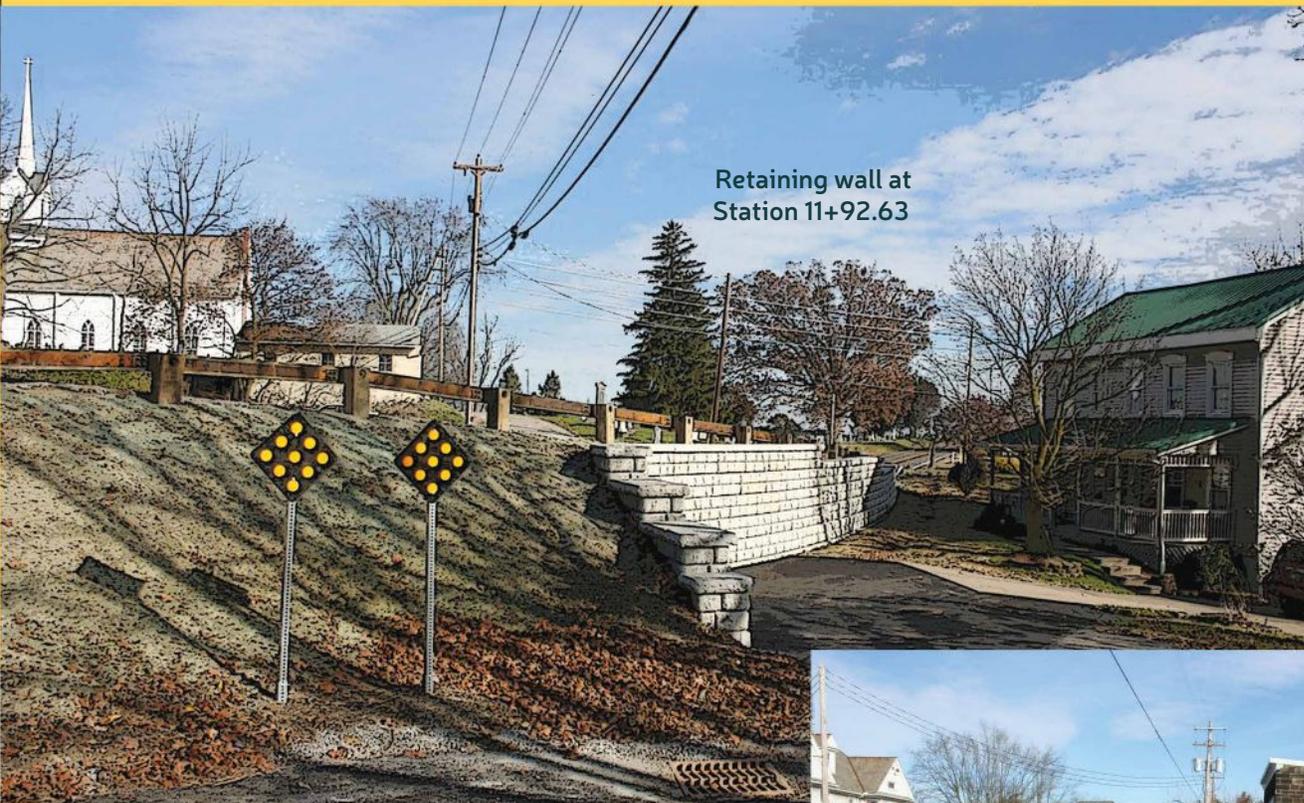
both US 62 and CR 160. Trucks turning onto CR 160 were forced to negotiate a difficult and sweeping movement that required a large gap in oncoming traffic along US 62, as well as clear lanes in both directions on CR 160. Given traffic volumes on these roads, securing the necessary gaps frequently required a bystander to direct traffic. Similarly, trucks turning right onto US 62 from CR 160 were forced to track into the oncoming lane due to the insufficient turn radius. This movement also frequently called for the aid of an impromptu traffic controller. Vehicles on CR 160 approaching the US 62 intersection were commonly forced to pull over to the side of the road to allow oncoming trucks to complete the turn. Trucks turning onto US 62 from CR 160 often failed to come to a complete stop at the stop sign—especially during wet or snowy conditions—since taking off from a standstill on the steep slope was difficult. Sometimes, when accelerating up the slope, trucks' poorly secured loads ended up on the CR 160 roadway.

Complexity

Correcting these issues called for widening CR 160 at the intersection and reducing its grade. However, these goals were inhibited by private residences adjacent to the roadway, the presence of a historic cemetery along CR 160 just 300 feet south of the intersection and the CR 160/Vintage Street intersection located only 200 feet south of US 62. This intersection was situated in the middle of a sag in the profile of CR 160 where the roadway would

Small-Town Charm, Big-Time Trucks

by Matt Johnson, PE, ASHE Cuyahoga Valley Section



Retaining wall at
Station 11+92.63

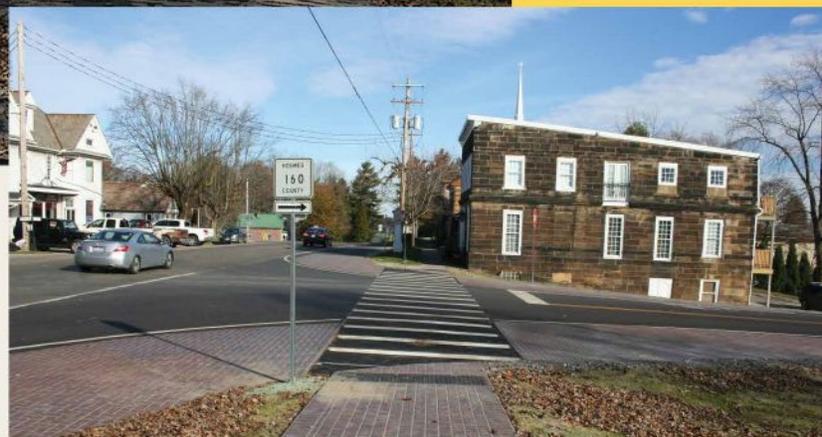
need to be raised by nearly 12 feet. Additionally, representatives of the Winesburg community were adamant that the historic appearance and charm of the town should be unchanged by the project.

Innovation

The project team, including Palmer and the Holmes County Engineer, were challenged to develop a design that produced significant improvements in the intersection while it minimized impacts to private property and community aesthetics. At the same time, they needed to stay within a limited budget. They collaborated with local business leaders and the Paint Township trustees to devise innovative, practical solutions.

Several of the design challenges were mitigated early in the project when a local business leader negotiated the private purchase of the residence at the southwest corner

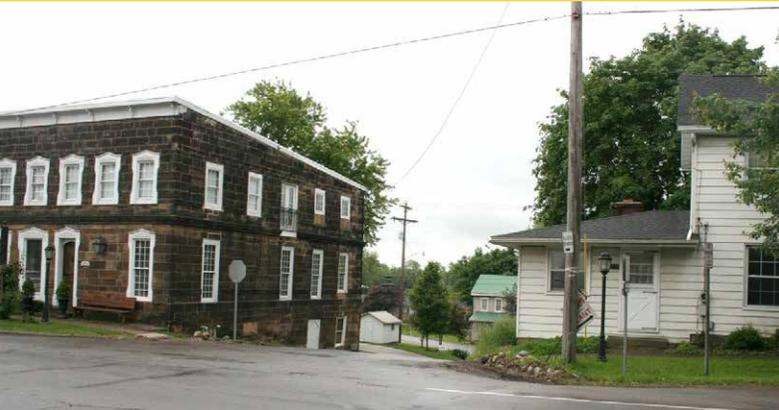
(continued on page 16)



Newly
constructed
CR 160/US 62
intersection,
looking east
along US 62

Small-Town Charm, Big-Time Trucks

(continued from page 15)



Former CR 160/US 62 intersection, looking south from US 62



Former CR 160/US 62 intersection, looking north from CR 160

of the CR 160/US 62 intersection. The residence was demolished, and the property was donated to the county, allowing CR 160 to be relocated to the west so that it could be widened and moved away from the building to the east.

Another challenge was overcome when the project team negotiated with the Paint Township trustees to allow Vintage Street to terminate in a cul-de-sac just east of CR 160, eliminating the need to adjust the profile of Vintage. This concession on the part of Paint Township was particularly beneficial because raising the profile of Vintage would have rendered the driveway of the residence at the corner of Vintage and CR 160 unusably steep.

The final innovation was the construction of a retaining wall along the south side of CR 160, beginning at Station 11+92.63, to prevent the embankment from encroaching on the yard of the adjacent residence. This wall was the most controversial aspect of the project. While the county right-of-way extends to the corner of the existing home, the community wished to minimize the impacts to this residence, and constructing several feet of earth

embankment in a residential yard would have been an unpopular decision. Palmer and the Holmes County Engineer worked to develop specifications that ensured the retaining wall would be as aesthetically pleasing as possible, including seeking the homeowner's input (see photo on page 15.) Ultimately, they chose a gravity wall system using large precast concrete blocks shaped and colored to match natural stone.

Aesthetic Value

Because its historic character was so important to the Winesburg community, the plans called for the construction of stenciled concrete truck aprons at the intersection. These aprons were intended to channel passenger vehicles to the center of the roadway, while providing the additional width necessary for commercial truck-turning movements. The effect made the intersection appear smaller than it actually is.

In addition to the retaining wall constructed along the south side of CR 160, a timber guardrail was added at the top of the wall, further enhancing the appearance and helping to reduce the visual impacts of the project. 🇺🇸

As The Wheel Turns

ASHE Members on the Move!



Zhao Joins Dewberry

Fairfax, VA—Dewberry announced that **Alan Zhao, PE**, has joined the firm as a senior project manager in the New York City office. Zhao is a *member of ASHE's New York Metro Section*, the American Society of Civil Engineers, and the Municipal Engineers of the City of New York. He has more than 20 years experience in the management and design of large-scale, multidiscipline infrastructure and municipal projects in both the public and private sectors, including rail transit and design-build projects, as well as site development and planning, stormwater management and local and state permitting and regulations. Zhao holds a Master's degree in Structural Engineering and a Bachelor's degree in Railway Engineering from Beijing Jiaotong University. He is a professional engineer in New York and New Jersey.



Leo Leonetti Retires

Philadelphia, PA—**Leo Leonetti, Past President and longtime member of ASHE's Delaware Valley Section**, retired from his "second career" at Urban Engineers in June. He joined Urban in Philadelphia in 1998 as Vice President and Director of Construction Services, directing construction management and construction inspection efforts for numerous public and private transportation agencies, both in the Philadelphia region as well as in other areas. Prior to joining Urban, Leonetti had "retired" from Pennsylvania Department of Transportation (PennDOT) as Assistant District Engineer for Construction. Leonetti oversaw all construction in the five counties of southeastern Pennsylvania, including Philadelphia. These projects ranged from the Vine Street Expressway and local roads (I-676) and Walnut Street Bridge over the Schuylkill River, to rehabilitation of the Schuylkill Expressway (I-76) and two major emergency restoration projects on I-95. Leonetti was recognized as the Delaware Section's Person of the Year in 1992, as well as Philadelphia Civil Engineer of the Year by the Philadelphia Section of the American Society of Civil Engineers.



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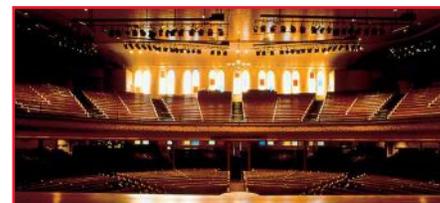
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Government Employee	\$150	\$200	
ASHE Member 1 Day Registration	\$125	\$175	
Non-ASHE Member 1 Day Registration	\$150	\$200	
Government 1 Day Registration	\$100	\$150	
Guest/Child 10 & over (no charge for child under 10)	\$50	\$65	
Conference Registration Subtotal			\$
Confirmed Speaker [Deduction] (enter code: _____)			- \$
Complimentary Registration as an Exhibitor [Deduct Registration] (enter code: _____)			- \$
Complimentary Registration as a Sponsor [Deduct Registration] (enter code: _____)			- \$
Golf Registration Subtotal (from Golf Registration Form)			\$
Activities Registration Subtotal (from Attendance and Activities Form)			\$
GRAND TOTAL			\$

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Registration questions: Luke Sullivan, 615.340.9196, or email Luke.Sullivan@wsp.com

Registrants are responsible for booking their own hotel rooms. Note: Hotel reservations must be made by **April 16, 2019** for ASHE rate of \$199/night for single/double occupancy.

Hotel information including online reservations via the conference web site: www.2019conference.ashe.pro

Conference Cancellation Policy: ASHE reserves the right to cancel tours, programs, or events if there is insufficient registration or for any other reason. ASHE is not responsible for cancellation charges assessed by hotels, airlines or travel agencies or other losses incurred due to cancellation of tours, programs and or events. Conference refund requests received via online registration (website) on or before April 24th will be honored, however will be subject to a \$25 administrative fee. **NO CONFERENCE REFUNDS AFTER APRIL 24, 2019.**

By registering to attend this conference, the registrants agree to allow the use of their photograph in conference promotional materials.

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ATTENDANCE AND ACTIVITIES REGISTRATION FORM

Fill in highlighted boxes as appropriate – carry total over to Conference Registration Form.

Time	Event/Activity	Cost	Number Attending	Total
Wednesday, May 8, 2019				
4:00PM - 7:00PM	Registration	Use Registration Form		
7:00PM - 12:00AM	Hospitality Suite	n/c	–	–
Thursday, May 9, 2019				
7:00AM - 5:00PM	Registration	Use Registration Form		
6:00AM - 8:00AM	Breakfast	n/c	–	–
7:00AM - 2:00PM	Gaylord Springs Golf Links (includes breakfast and lunch)	Use Golf Form		
9:00AM - 1:00PM	Guest Tour #1 – Fontanel	\$40		
5:00PM - 8:00PM	Exhibits Open (Hall opens for setup at 1:00PM)	n/c	–	–
6:00PM - 8:00PM	Icebreaker Reception with Exhibitors	n/c		–
8:00PM - 12:00AM	Hospitality Suite	n/c	–	–
Friday, May 10, 2019				
7:00AM - 5:00PM	Registration	Use Registration Form		
7:00AM - 8:00AM	Breakfast in Exhibit Hall	n/c		–
7:00AM - 2:00PM	Exhibits Open	n/c	–	–
8:30AM - 10:00AM	Opening Session	n/c		–
10:00AM - 10:30AM	Break with Exhibitors	n/c	–	–
10:30AM - 11:30AM	Region/Section Officers Meeting	n/c		–
10:30AM - 1:30PM	Guest Tour #2 – Grand Ole Opry Backstage Tour	\$30		
10:30AM - 1:30PM	Guest Tour #3 – The Hermitage: Home of Pres. Andrew Jackson (lunch included)	\$60		
Session 1				
10:30AM	1A – Coordination of Transit Projects with State DOTs: Nolensville Shelters	n/c		–
	1B - Vert Geofoam Br Embankments: Poplar Ave over CSX and Walnut Grove	n/c		–
	1C - Frankford Avenue Bridge: Rehab of the Oldest Bridge in the United States	n/c		–
Session 2				
11:00AM	2A - Designing Like We Live: Bringing Town Branch Commons to Life	n/c		–
	2B - Permanent Sheet Pile Wall System, Pennsylvania Turnpike, MP 40.84 WB	n/c		–
	2C - Liberty Bridge Emergency Repair	n/c		–
11:45AM - 1:15PM	Luncheon Honoring Past Presidents' and Robert E. Pearson Award Luncheon - Includes Project of the Year Awards	\$65		
1:30PM - 2:30PM	Past Presidents' Meeting (Past National Presidents Only)	n/c		–



Time	Event/Activity	Cost	Number Attending	Total
Session 3				
1:30PM	3A - Urban Multi-modal Accommodation	n/c		–
	3B - Inventorying Geohazards of Ohio's first P3 Roadway Project	n/c		–
	3C - Bridges to Prosperity	n/c		–
1:30PM - 4:30PM	Guest Tour #4 – Ryman (Mother Church of Country Music)	\$45		
1:30PM - 4:30PM	Guest Tour #5 – Tennessee State Museum	\$20		
Session 4				
2:00PM	4A - I-40 at Donelson Pike Interchange Access Request	n/c		–
	4B - TDOT Locally Managed Advanced Delivery Process	n/c		–
	4C - The Big Slide: Replacing Dual Bridges in One Weekend	n/c		–
2:30PM - 3:00PM	Break	n/c		–
Session 5				
3:00PM	5A - Bringing the Turbo-Roundabout to the US	n/c		–
	5B - I-24 Fast 4 ABC DBB project	n/c		–
	5C - Remote Concrete Thermal Monitoring	n/c		–
Session 6				
3:30PM	6A - Innovative Approaches to Reclaiming Highways for Communities	n/c		–
	6B - The Concept of Merging Two Major Modes of Transportation	n/c		–
	6C - Louisville – Southern Indiana Ohio River Bridges Project (LSIORBP)	n/c		–
4:00PM - 5:00PM	Hospitality Suite	n/c		–
5:30PM - 10:00PM	Friday Night Event (Wildhorse Saloon)	\$70		
10:00PM - 12:00AM	Hospitality Suite	n/c		–
Saturday, May 11, 2019				
6:00AM - 11:00AM	Registration	Use Registration Form		
6:00AM - 9:00AM	Breakfast	n/c		–
Session 7				
8:30AM	7A - The Establishment of ASHE Student Chapters	n/c		–
	7B - Urban freight deliveries	n/c		–
	7C - Five (5) Mile Belt Parkway Reconstruction Project, Brooklyn, NY	n/c		–
Session 8				
9:00AM	8A - Effective Data Quality Measures for Infrastructure Asset Management - Douglas Frith- Quality Engineering Solutions, Inc	n/c		–
	8B - LiDAR's Role in a Nationwide Move to 3D for Transportation Projects	n/c		–
	8C - Rebuilding Puerto Rico in the Aftermath of Hurricane Maria	n/c		–
9:30AM	Technical Tour #1: TMS	n/c		–
9:30AM	Technical Tour: 2 I-440 DB	n/c		–

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Nashville, TN | May 8-12



Time	Event/Activity	Cost	Number Attending	Total
9:00AM - 4:00PM	Guest Tour #6 - Jack Daniels Distillery	\$45		
9:00AM - 4:00PM	Guest Tour #7 - Country Music Hall of Fame Tour	\$45		
	Transportation Only (To & From)	\$20		
4:00PM - 5:30PM	Hospitality Suite	n/c	–	–
6:00PM - 7:00PM	President's Reception	n/c		–
7:00PM - 10:00PM	President's Reception & Annual ASHE Banquet with Entertainment	\$80		
10:00PM - 12:00AM	Hospitality Suite	n/c	–	–
Sunday, May 12, 2019				
7:00AM - 8:30AM	Breakfast	n/c		–
8:00AM - 12:00PM	National Board Meeting (National Board Members only)	n/c	–	–
9:00AM - 11:00AM	Conference Debrief	n/c	–	–
Activities Subtotal				



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GOLF REGISTRATION FORM

Please join us at the 2019 ASHE National Conference GOLF OUTING at **Gaylord Springs Golf Links**
 18 Springhouse Lane, Nashville, TN
 Thursday, May 9, 2019

Registration: 7:00AM | **Shotgun Start: 8:00 AM**

Registration Fees:	Format:	Outing Includes:
\$125 per player if registered for the Conference	Captain's Choice	◆ Breakfast!
\$150 per player if not registered for the Conference	4-Man Scramble	◆ Cash Prizes for the top 3 teams in 2 flights!
Online Registration and Hole Sponsorships are also available!		◆ Skill Prizes!
		◆ Refreshments, snacks, and drinks!
		◆ Lunch!

Please designate someone as your Team Captain for reference (Golfer #1 below).

If registering/paying here as an individual, please indicate the Team Captain you would like to play with: _____

Golfer #1 (Team Captain) Name:	Company:	Conference Attendee?
Phone/ Email:		Yes / No
Transportation required: Yes / No	Payment covered by Sponsorship: Yes / No	
Golfer #2 Name:	Company:	Conference Attendee?
Phone/ Email:		Yes / No
Transportation required: Yes / No	Payment covered by Sponsorship: Yes / No	
Golfer #3 Name:	Company:	Conference Attendee?
Phone/ Email:		Yes / No
Transportation required: Yes / No	Payment covered by Sponsorship: Yes / No	
Golfer #4 Name:	Company:	Conference Attendee?
Phone/ Email:		Yes / No
Transportation required: Yes / No	Payment covered by Sponsorship: Yes / No	

Number of golf registrations covered through Conference Sponsorship _____ x \$0 = \$ _____

Number of golf registrations (registered for the conference) _____ x \$125 = \$ _____

Number of golf registrations (not registered for the conference) _____ x \$150 = \$ _____

◇ Transfer **Golf Subtotal** to the conference Registration form ◇ **Golf Subtotal** \$ _____

- ◆ Golf club rentals are available directly through registration.
- ◆ Breakfast will be served at the golf course
- ◆ Transportation provided from the Gaylord Opryland Resort. Meet in the lobby of the hotel between 6:30AM and 7:00AM.
- ◆ Bus will return to the Gaylord Opryland Resort starting 30 minutes following the round and continuing for 1.5 hours.

For more information, please contact:

GOLF:
 Sammie McCoy
 SMCoy@benesch.com | 615.988.2886

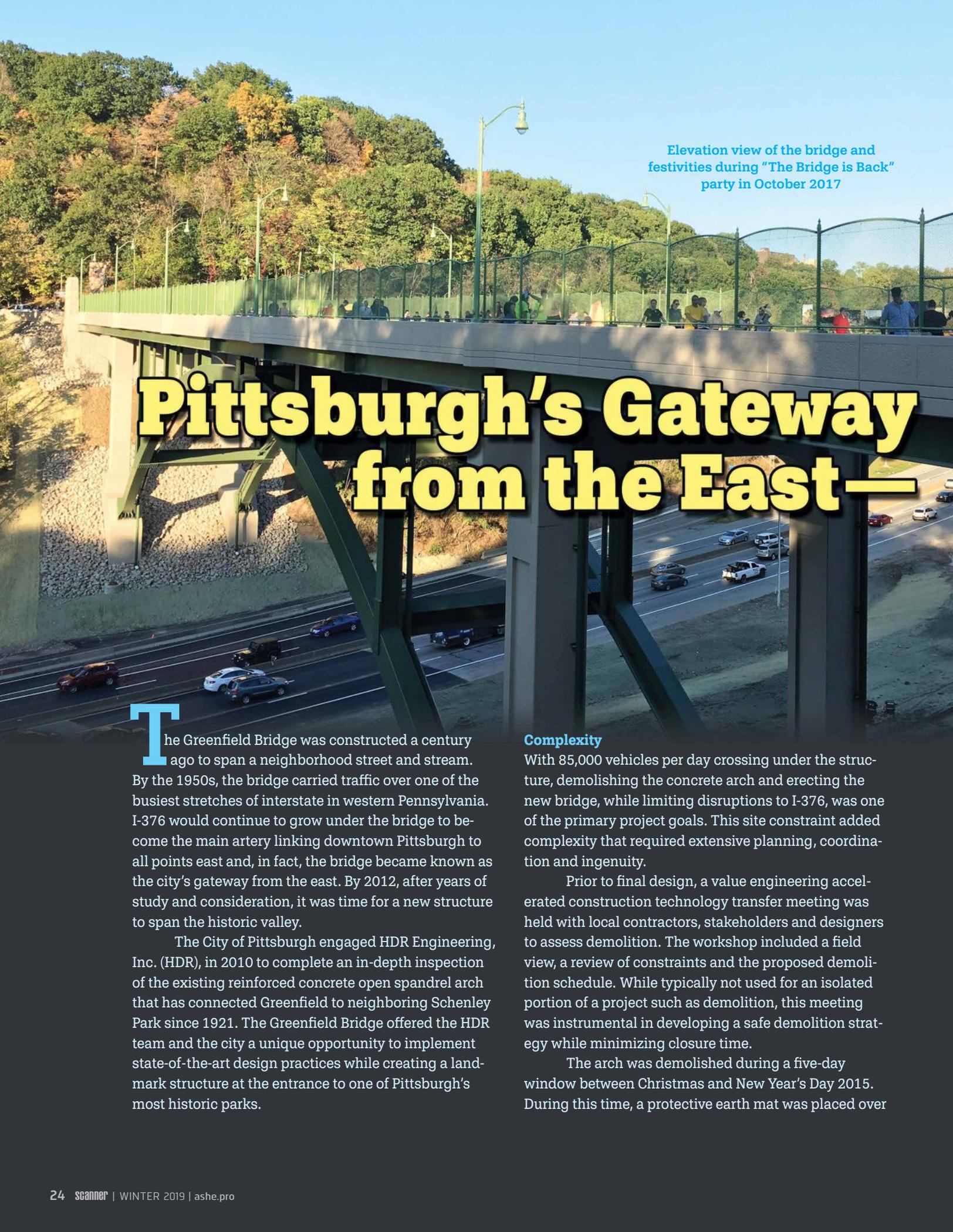
REGISTRATION:
 Luke Sullivan
 Luke.Sullivan@wsp.com | 615.340.9196

SPONSORSHIP:
 Jon Storey
 Jon_Storey@greshamsmith.com | 615.770.8177

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Elevation view of the bridge and festivities during “The Bridge is Back” party in October 2017

Pittsburgh’s Gateway from the East—

The Greenfield Bridge was constructed a century ago to span a neighborhood street and stream. By the 1950s, the bridge carried traffic over one of the busiest stretches of interstate in western Pennsylvania. I-376 would continue to grow under the bridge to become the main artery linking downtown Pittsburgh to all points east and, in fact, the bridge became known as the city’s gateway from the east. By 2012, after years of study and consideration, it was time for a new structure to span the historic valley.

The City of Pittsburgh engaged HDR Engineering, Inc. (HDR), in 2010 to complete an in-depth inspection of the existing reinforced concrete open spandrel arch that has connected Greenfield to neighboring Schenley Park since 1921. The Greenfield Bridge offered the HDR team and the city a unique opportunity to implement state-of-the-art design practices while creating a landmark structure at the entrance to one of Pittsburgh’s most historic parks.

Complexity

With 85,000 vehicles per day crossing under the structure, demolishing the concrete arch and erecting the new bridge, while limiting disruptions to I-376, was one of the primary project goals. This site constraint added complexity that required extensive planning, coordination and ingenuity.

Prior to final design, a value engineering accelerated construction technology transfer meeting was held with local contractors, stakeholders and designers to assess demolition. The workshop included a field view, a review of constraints and the proposed demolition schedule. While typically not used for an isolated portion of a project such as demolition, this meeting was instrumental in developing a safe demolition strategy while minimizing closure time.

The arch was demolished during a five-day window between Christmas and New Year’s Day 2015. During this time, a protective earth mat was placed over



A plaque commemorating opening of the new bridge was installed on a salvaged and reused architectural pillar.



The bridge's grand opening party included music, information booths, children's activities and refreshments.

A Time-Honored Bridge Gets a 21st-Century Upgrade

by Bill Beining, PE,
HDR Engineering, Inc.,
ASHE Pittsburgh Section

demands on the spandrel columns and associated connections were significantly reduced.

The redundancy of the floor beams was achieved through a combination of robust line girder analyses and detailed three-dimensional finite element analyses (3D FEA). Line girder analyses were used to verify the ability of the stringers and their splices to span two floorbeam bays in the event of a fracture. In addition to the line girder analyses, dynamic 3D FEA simulations captured the structure's behavior. The 3D FEA indicated that the simplified line girder analyses resulted in a floor system design that provided sufficient resistance during a fracture while also confirming that other members were adequate.

While the floor beams were still required to be fabricated as fracture critical members (FCM), the analysis method allowed them to be termed system redundant members per FHWA guidelines,

(continued on page 26)

the interstate; then the bridge was prepped, blasted, dropped onto the interstate and cleared.

Throughout design, consideration was given to elements that would reduce impacts to the traveling public. Each steel arch rib was divided into three field pieces. These ribs were connected using simple Vierendeel bracing, eliminating diagonal bracing and connections associated with a conventional truss-style bracing system. This design choice significantly reduced the number of crane picks.

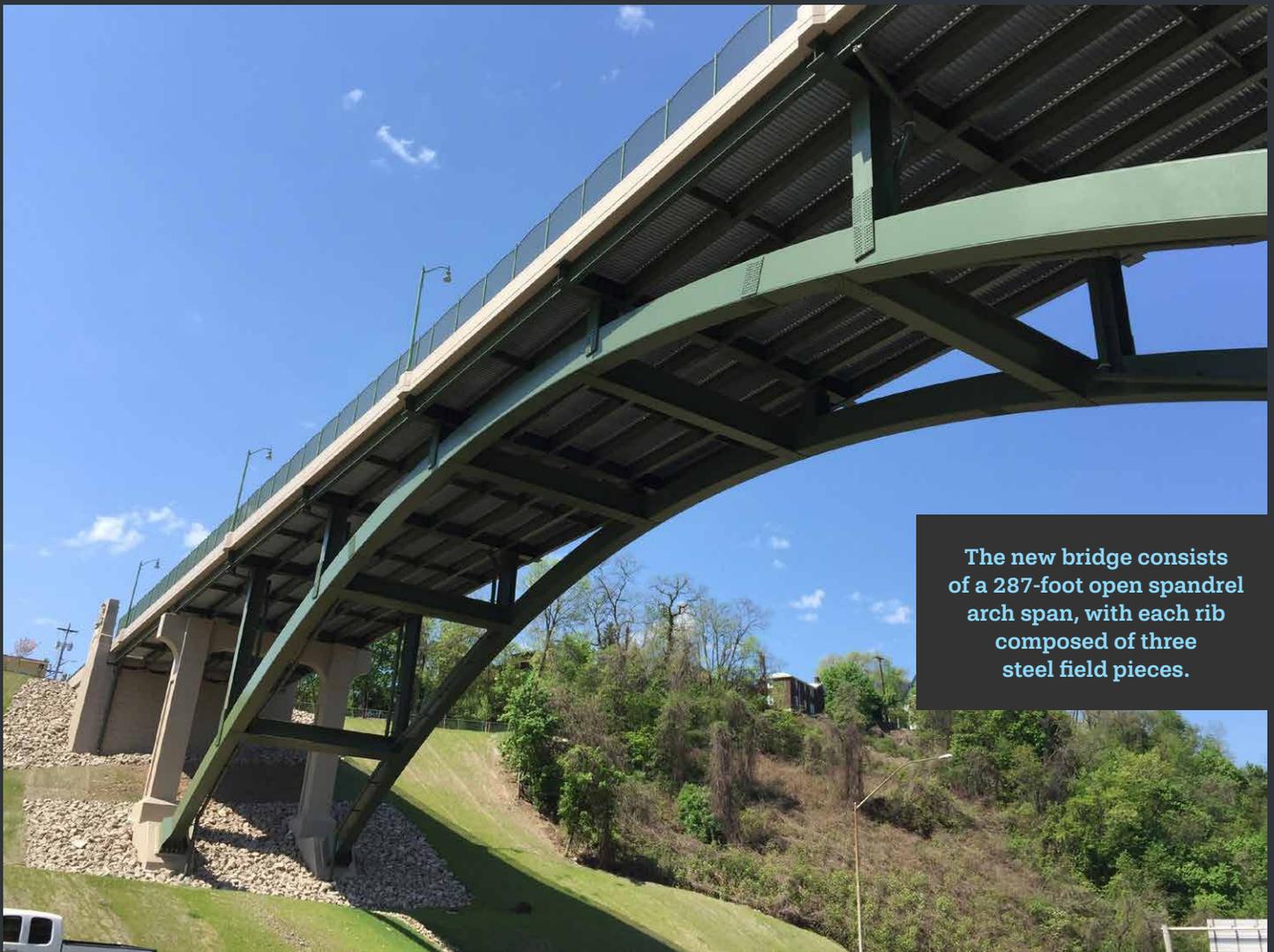
Through design decisions and further innovative construction techniques, such as lifting the floor system into place in segments rather than in individual members, the vast majority of the steel arch was erected in a single weekend closure.

Innovative Application of New or Existing Techniques

While a design that captured the site's historic nature was desired, it was imperative that the new bridge provide a landmark structure that would last well into the 21st Century and beyond. One element included using the piers to reduce longitudinal load, such as braking and wind on the steel arch. Due to geometric and aesthetic requirements, the piers have significant strength and stiffness. By fixing the stringer/floorbeam floor system to the piers and using expansion disc bearings at the shortest spandrel columns, the de-



A ribbon-cutting re-established the bridge as a prominent landmark linking Greenfield to Schenley Park and neighboring communities.



The new bridge consists of a 287-foot open spandrel arch span, with each rib composed of three steel field pieces.

Pittsburgh's Gateway from the East— A Time-Honored Bridge Gets a 21st-Century Upgrade

(continued from page 25)

eliminating the need for in-depth fracture critical inspections.

Social, Economic and Sustainable Development Consideration

As the link between Greenfield and Schenley Park, the bridge serves not just as a transportation facility, but as an entrance to one of Pittsburgh's largest and most historic parks. The bridge comes from what locals call a bygone era—one in which bridges were to serve as public art. This unique setting encouraged an innovative, context-sensitive design that embraced such a role. To involve the community, an extraordinary level of public input was used to share ideas. The new bridge pays homage to the design features from the past—replacing the concrete arched bridge with a structurally sound steel version.

To involve the community, an event hosted by the Greenfield Community Association and called the "Rock Away the Blues" party was held at the bridge site the day prior to closure. This event was geared toward those who would be most impacted economically by the closure. The party also shared information about the bridge project with attendees and provided a sense of optimism.

In October 2017, two years after the "Rock Away the Blues" party, the public was again invited—this time to "welcome" the new bridge. With signs proclaiming, "The Bridge is Back," another party at the bridge site allowed community members to tour the bridge and talk with the design team. This event culminated with a ribbon cutting that once again established the bridge as a prominent local landmark—Pittsburgh's gateway from the east. 🇺🇸



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Driving Down the Accident Rate in Tampa Bay, FL

by Sara Beresheim, PE, PTOE, Florida Department of Transportation,
ASHE Tampa Bay Section



The National Highway Traffic Safety Administration (NHTSA) reported that the number of traffic deaths in the U.S. in 2016 was the highest since 2008, with a 5.57 percent overall increase in traffic fatalities over 2015. Vulnerable road users (pedestrians, bicyclists and motorcyclists) made up 32 percent of the overall United States traffic deaths, with a high increase in these types of road users. The U.S. had a traffic crash fatality rate of 11.59 fatalities per 100,000 population in 2016, according to NHTSA's latest report. The World Health Organization's 2015 Global Status Report on Road Safety showed that this country's traffic crash fatality rate was higher than all of Europe's, ranking 40th for road safety out of the 51 high-income nations of the world.

The Tampa Bay, FL, area saw similar trends in the 2016 traffic crash data, with a nearly 15 percent increase in overall traffic fatalities. Fifty-three percent of the traffic deaths in Tampa Bay were related to vulnerable road users, with a 24 percent and 26 percent increase in pedestrian and bicycle deaths, respectively, in 2016. This area also had 2.1 percent of the nation's pedestrian fatalities, 3 percent of the bicycle fatalities and 2.1 percent of the motorcycle fatalities.

Collaborating to Improve Safety

As an ongoing effort to enhance road safety, the Florida Department of Transportation (FDOT) District 7 hosted a Safety Summit at District 7's headquarters in Tampa, attended by more than 140 engineers, planners,

officials and other partners from over 70 agencies and firms in the Tampa Bay area. Traffic crashes occurring in this area are spread among many jurisdictions, with 44 percent of fatalities occurring on local (off the state system) roadways.

The summit featured several speakers who informed local agency partners about statewide and District 7 safety initiatives, provided training and resources on traffic safety, and briefed attendees on current efforts and strategies to reduce crashes throughout the region. The event primarily focused on the state's commitment to dedicate state and federal safety funds to local agency projects as part of the Florida Strategic Highway Safety Plan (SHSP) and the Highway Safety Improvement Program.

Taking a Multidisciplined Approach

District 7 has taken a multidisciplined approach to safety, and one aspect includes a bi-weekly report of the details of all the traffic fatalities that occurred on public highways in the Tampa Bay area. In a presentation by FDOT District 7 Secretary David Gwynn, PE, he challenged all District 7 employees to incorporate safety into their daily duties. He also included a link to a SharePoint site where observed issues could be documented and new ideas presented to enhance safety.

District 60 Florida State Representative Jackie Toledo, PE, stressed the importance of having representatives from a variety

of professions, including engineers, represented in the legislature. Toledo currently serves on the Transportation and Infrastructure Subcommittee and has sponsored a bill to ban texting while driving in Florida. Bay News 9 Real Time Traffic Expert Chuck Henson, a media partner, detailed ways that engineers and agencies can use him as a resource to inform the public.

Creating Florida's SHSP

Florida developed the SHSP to identify emphasis areas and strategies that address safety concerns. The SHSP also identified crash types of special interest within the emphasis areas and detailed requirements for data-driven decision-making and resource allocation. FDOT State Safety Engineer Joseph Santos, PE, focused his presentation on intersection crashes and lane departure crashes, which are two of these emphasis areas. To target intersection crashes, Florida is performing a network screening of all intersections based on three methods that all consider fatal and serious injury crashes only. These include the historical crash method,

(continued on page 34)



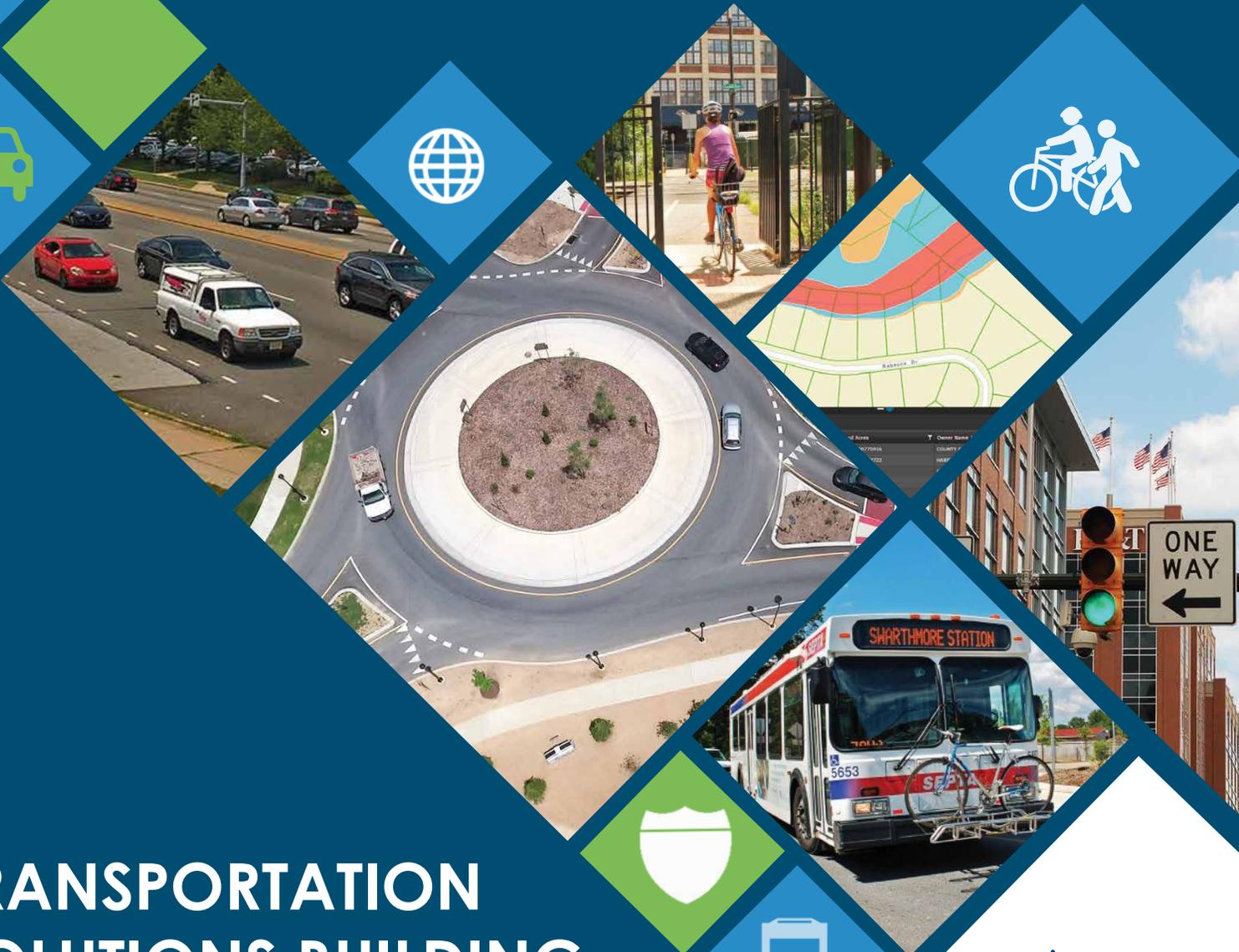


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The \$24-million, 1,124-foot-long bridge was designed with numerous innovations and sustainability measures to enhance safety and provide environmental protections, including preservation of several endangered species of freshwater mussels. Dewberry designed the bridge for the Pennsylvania Department of Transportation (PennDOT) District 1-0.

Read more about this project by visiting http://www.nxtbook.com/nxtbooks/Dewberry/dimensions_2018fall/index.php#/6.



2018 FDOT District 7 Local Agency Safety Summit: Driving Down the Accident Rate in Tampa Bay, FL *(continued from page 30)*



Matthew Nance, EI, FDOT D7 Traffic Safety Specialist, speaks at summit.

Safety Analyst method and Highway Safety Manual method.

Florida is screening the roadway network to target lane departure crashes based on this combined methodology. It has yielded over 5,000 candidate on-system and off-system road segments for the countermeasures that include highway lighting, centerline and shoulder rumble strips, curve warning and advisory speed signs, high-friction surface treatment, and roadside hazard rating upgrades.

Using Innovative Countermeasures

In his presentation, Matthew Nance, EI, stated that more than 200 Rectangular Rapid Flashing Beacons (RRFBs) have been installed throughout Tampa Bay, resulting in an 80 percent increase in driver-yielding behavior in District 7. Additionally, the installation of wrong-way driving treatments at interchanges has resulted in an 80 percent reduction in wrong-way driving crashes. These included wrong-way signs, RRFBs, pavement shields, pavement

arrows and reflective pavement markers. Other innovative treatments considered by District 7 for future projects include in-pavement LEDs at crosswalks, signal cabinet wraps with pedestrian safety messages, solar roadways, solar light poles and LED chevron signs and in-road LED raised pavement markers on curves.

Increasing Safety Now and in the Future

Mark Doctor, PE, FHWA Safety and Design Engineer, talked about tools to enhance safety, including the Safe Transportation for Every Pedestrian initiative. With a focus on safety enhancements for uncontrolled crossing locations, these tools included adding

crosswalk visibility enhancements, such as stop bars or yield lines, in-street pedestrian crossing signs, curb extensions, parking restrictions and in-roadway warning lights, and crosswalk lighting. The initiative also calls for installing raised crosswalks, creating pedestrian refuge islands and pedestrian hybrid beacons, and performing road diets. Reducing left-turn conflicts at intersections can also greatly enhance safety by reducing the number of conflicts with high severity rates. The Intersection Control Evaluation process considers these innovative intersections that can help to reduce fatal and serious injury crashes through their implementation. 🇺🇸

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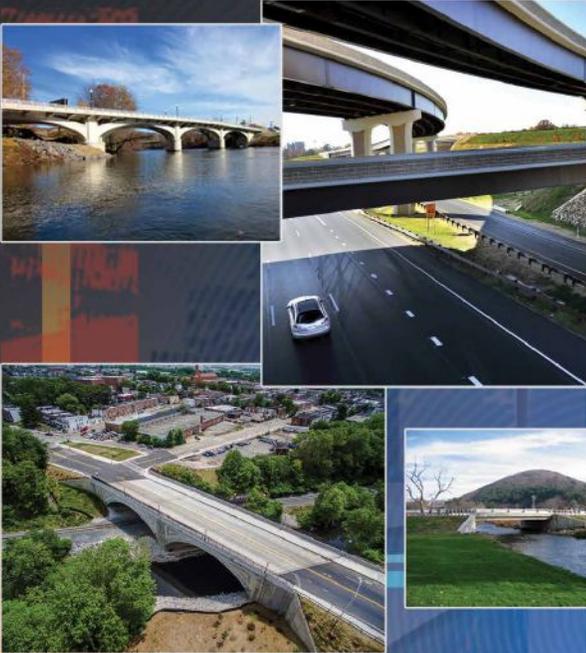
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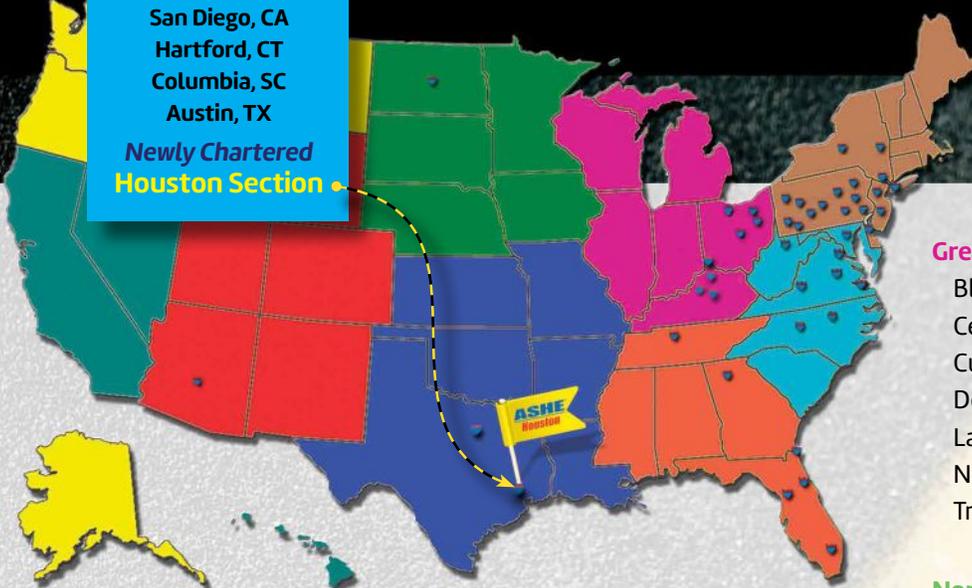
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Clearfield	184
Delaware Valley	355
East Penn	94
First State	157
Franklin	123
Harrisburg	318
Long Island	66
Mid-Allegheny	126
New York Metro	168
North Central New Jersey	139
Northeast Penn	114
Pittsburgh	564
Southern New Jersey	79
Southwest Penn	289
Williamsport	76

Subtotal 3,202

Mid-Atlantic Region

Blue Ridge	78
Carolina Piedmont	86
Carolina Triangle	245
Chesapeake	240
Greater Hampton Roads	95
N. Central West Virginia	37
Old Dominion	95
Potomac	206

Subtotal 1,082

Southeast Region

Central Florida	80
Georgia	454
South Florida	10
Middle Tennessee	339
Northeast Florida	174
Tampa Bay	57

Subtotal 1,114

Great Lakes Region

Bluegrass	58
Central Ohio	181
Cuyahoga Valley	112
Derby City	88
Lake Erie	174
Northwest Ohio	47
Triko Valley	174

Subtotal 834

North Central Region

Central Dacotah	94
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Subtotal 94

Rocky Mountain Region

Phoenix Sonoran	177
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Subtotal 177

South Central Region

Dallas-Fort Worth	80
Houston	58

Subtotal 138

At-Large Memberships

Domestic At-Large	13
International At-Large	2

Subtotal 15

National Total

6,656

Professional Status	58%
Government	12%
Consultant	76%
Contractor	5%

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