ASHE scanner

Fall 2020

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Award-Winning Team

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Peachtree Corners, GA, Home of Curiosity Lab, First Real-World Smart City Ecosystem in U.S.

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Tim Matthews, PE
ASHE National President 2020–2021

New Directions

I do not think any of us could have imagined we would be in the place we are in right now in the U.S. I have heard many ways to describe our new reality, but I think it is best summed up as just "2020." History has shown us that even when faced with huge challenges like COVID, we always take them head-on and come out victorious at the end. I am confident that we will prove history is correct in our case today.

First, we are fortunate that the transportation industry has been considered an essential service. There are so many Americans who have lost their jobs during this pandemic, and my heart goes out to them and their families. I encourage everyone to stay strong and look toward a brighter year to come.

I think we all prefer face-to-face meetings so we can engage with each other and receive insights on a more personal level. However, working from home has had its upsides as well. I really believe productivity has increased drastically as a result. For example, before COVID, we would be subject to traveling from meeting to meeting, commuting from home to work and racing to get to our kids' sporting events. For me, using virtual platforms removes the travel time loss between meetings, which keeps production moving. It is also nice to get a little extra sleep (normally commuting) before the first meeting of the day and having a nice dinner with family before the next baseball practice (again normally commuting). Time has always been a valuable commodity, and I will certainly take advantage of this opportunity to get that benefit.

Normally as ASHE President, I would be traveling around the nation to visit as many ASHE Sections as possible. While I cannot do that at this time, I hope that in the near future things will change to allow me to get out to meet and learn from our ASHE community. If you recall from my previous message, education, innovation and fellowship are essential to our mission. I believe this can be accomplished with any platform, virtual or otherwise. That said, please feel free to include me in any of your upcoming meetings or events. Additionally, please continue the advancement of transportation in our communities by engaging with your peers and offering as many opportunities as you can for education and fellowship.

I encourage you all to continue to stay actively involved in your Sections and share the experiences you have had with others to promote growth and diversity as we move into the future. Stay strong, be safe and I hope to see you all soon.

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The A.S.H.E. SCANNER

THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS

DECEMBER - 1970.

A.S.H.E. Demonstrates Support For P.H.I.A. By Generous Gift From Harrisburg Section

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An American Smart City Making the Autonomous Vehicle Vision Come to Life

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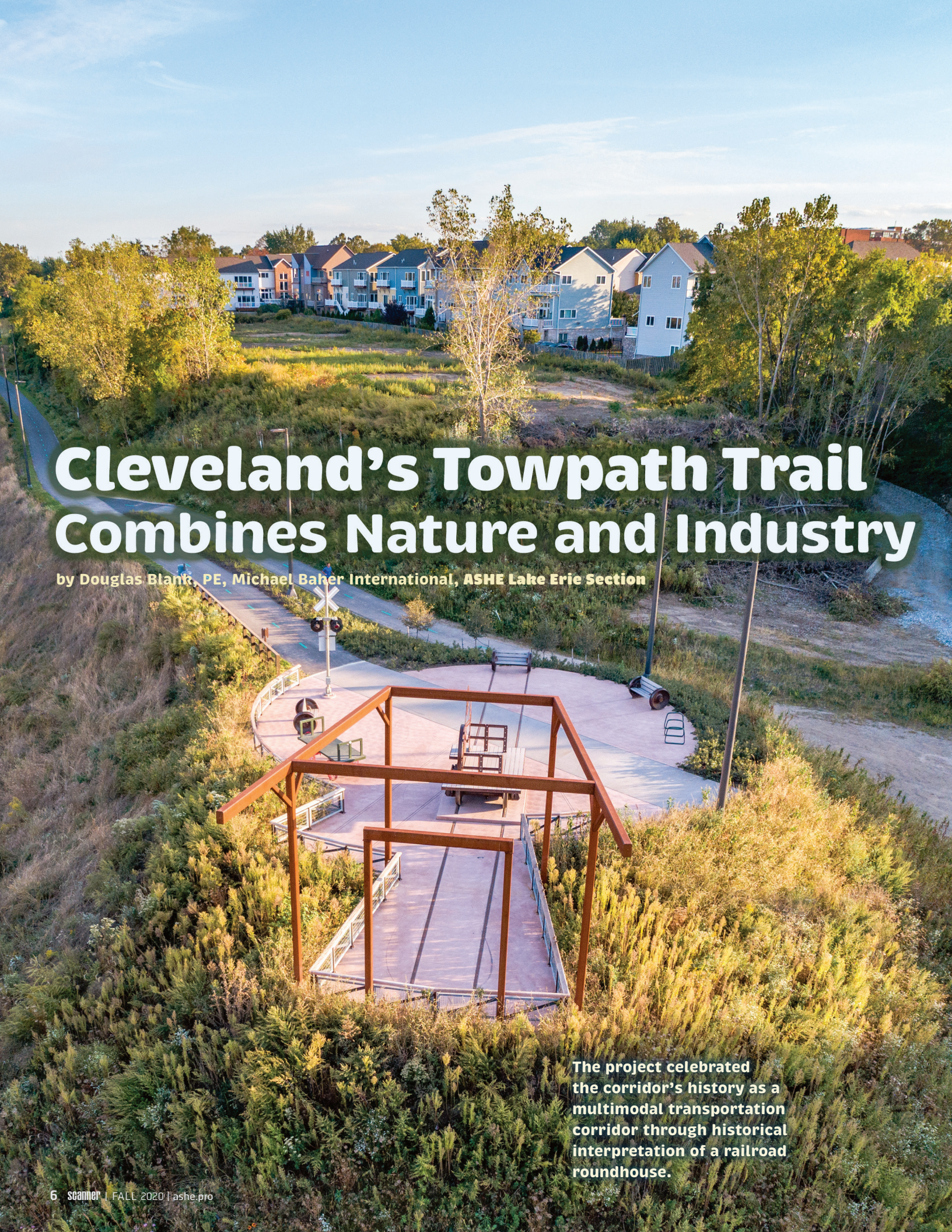
ASHE National Board

Cleveland's Towpath Trail Combines Nature and Industry

by Douglas Blank, PE, Michael Baker International, **ASHE Lake Erie Section**



The project celebrated the corridor's history as a multimodal transportation corridor through historical interpretation of a railroad roundhouse.

The Ohio and Erie Canal Towpath Trail in northeastern Ohio has provided opportunities for birding, biking, hiking, running, horseback riding, taking a boat ride on the canal or traveling alongside it by rail. More than two-and-one-half-million people have used the 101-mile trail annually. Running through the heart of the Ohio and Erie Canalway, it can be entered at one of the many trailheads in Tuscarawas, Stark, Summit or Cuyahoga County.

The recently completed two-mile Stage 3 of the Towpath Trail in Cleveland, OH, linked together the Tremont neighborhood, the Steelyard Commons employment and retail center and the Clark Fields public outdoor recreation area. The trail also provided a buffer of greenspace between the residential neighborhood and the valley's industrial areas, with pathways, interpretive exhibits and observation decks along the way.

Michael Baker International provided planning and final design services for this stage of the trail. In addition to the design, the firm tested and restored contaminated, post-industrial soil, implemented slope stability measures and grading and designed a trail overlook, pedestrian bridge and trailhead. Michael Baker's team also constructed a sustainable stormwater management system.

To convert the land, environmental testing and comprehensive restoration of contaminated soils were performed on 11 acres of a reclaimed area that once served the local railyard and industry. The project planted native tree and plant species and converted seven acres of asphalt to wetlands for improved drainage and stormwater management. Since the project encompassed more than 40 acres of urban land, modern stormwater quality and quantity treatment also provided benefits for the region's water quality.

Because the trail sits below a residential area and beside the Cuyahoga River, Michael Baker designed ecological, sustainable stormwater mitigation systems to reduce runoff from the project area and manage stormwater quality in a natural environment. These systems relied on the integrated use of local plantings, bioretention cells and wetlands. Through reclamation of a former asphalt plant, portions of city streets and other impervious surfaces, along with sustainable stormwater management, the project resulted in an annual runoff reduction of over 600,000 gallons for an area that contributed to combined sewer overflows.

Three stormwater best management practices systems (a combination of constructed wetlands, bioretention and detention ponds) performed substantial peak flow and volume reduction to the combined sewer system. This improved the Northeast Ohio Regional Sewer District's Combined Sewer Overflow (CSO) system, spreading peak flows over longer periods of time and allowing more runoff to infiltrate and recharge into groundwater. By reducing the project area's contribution to CSO overflows, it improved the water quality of the Cuyahoga River and Lake

(continued on page 8)

Cleveland's Towpath Trail Combines Nature and Industry

(continued from page 7)

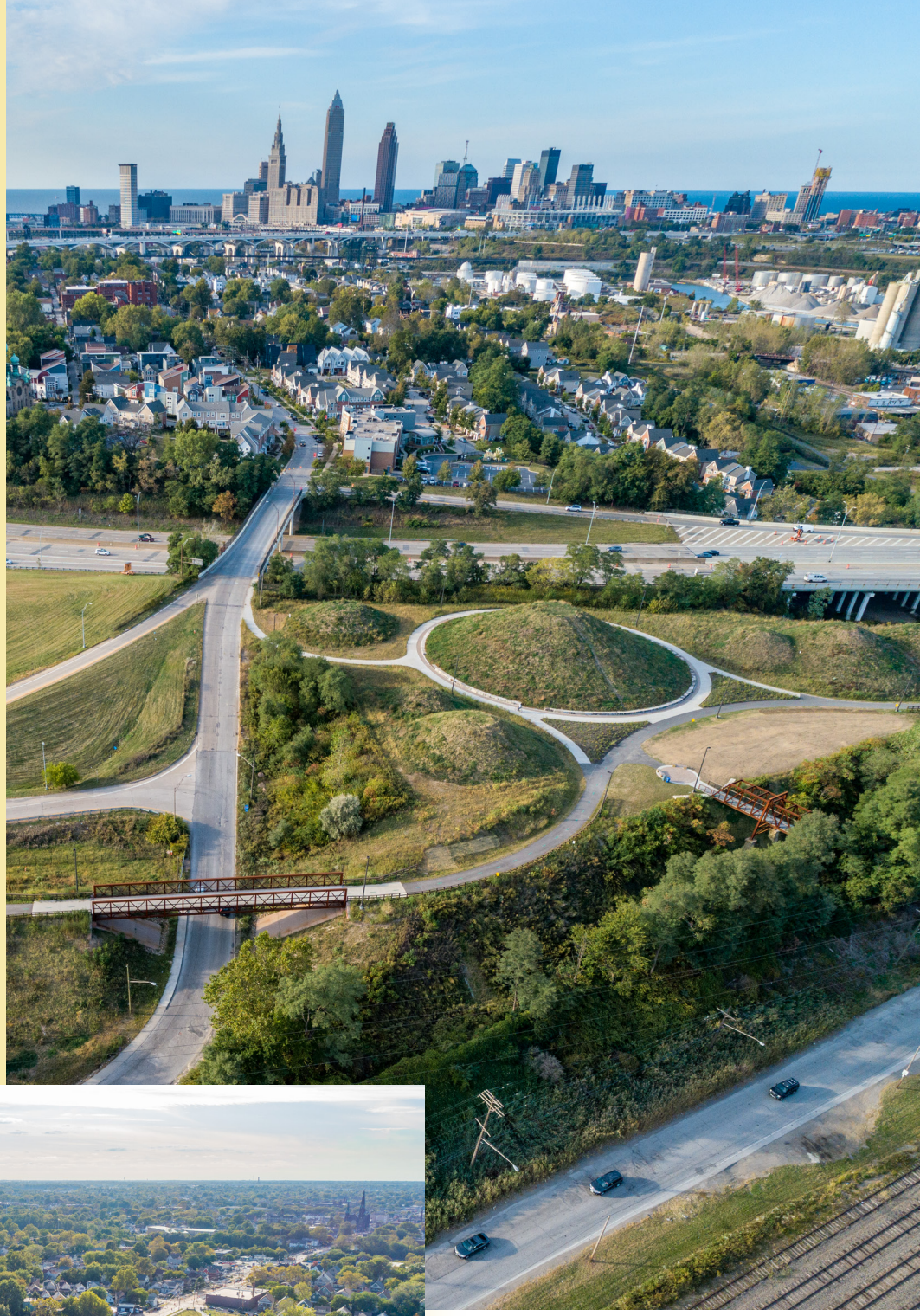
Erie. This resulted in a partnership with the Northeast Ohio Regional Sewer District that yielded a $250,000 Green Infrastructure Grant, the district's largest award for that year.

Michael Baker's team included an Ohio-based Environmental Design Group that created a grading plan on top of a former construction and demolition landfill to form large, conical mounds up to 30 feet high. These aesthetically mirrored the aggregate stockpiles that have defined the industrial valley landscape for decades. The landfill site rises 50 feet above the adjacent industrial street grid and railroad yard. Adding mounds to this already-elevated site required a multi-discipline effort to develop a settlement monitoring plan and install wick drains. Utility relocation was also required as it became clear that multiple utilities were not abandoned when the construction and demolition landfill was built decades ago. This left an active gas line and water line buried more than 20 feet beneath the landfill, directly in the path of the required wick drains. An in-construction adjustment to the layout of the mounds moved the tallest one away from the utilities to enable the wick drains to be constructed while the utilities were relocated, maintaining the project schedule. The partnership among Cuyahoga County Department of Public Works, the designers and the utility companies created a topographically dynamic urban park for that section of the Towpath Trail.

When the City of Cleveland acquired a 10-acre former asphalt plant, the site was a wasteland of asphalt spoils, aggregate and broken pavement. It had become an unauthorized dumping site, receiving household garbage, appliances, furniture and abandoned vehicles. Through the project's environmental remediation, including a clay liner for portions designed to detain stormwater and a clean fill cap over the site to make it suitable for passive recreation, the area is now composed of wetlands, trails and vegetated hillside.

Throughout all stages of the project, Michael Baker performed public outreach. Monies for the project came from multiple streams, including Federal Highway Administration funding for Congestion

Mitigation and Air Quality, the American Recovery and Reinvestment Act and the Great Lakes Restoration Initiative, all requiring input from many stakeholders and agencies. The team provided stakeholder support to facilitate collaboration between these groups, including the City of Cleveland, Cleveland Metroparks, Cuyahoga County Department of Public Works, National Park Service, Ohio and Erie Canalway and Canalway Partners. The project also expanded the footprint of Cleveland Metroparks, allowing it space to develop educational programs for schoolchildren to experience nature in the city. The trail, open for over a year, has quickly become popular for commuters, dog-walkers and cyclists.



A grading plan that reshaped a former construction and demolition landfill (above) into mounds inspired by aggregate piles along the Cuyahoga River and the transformation of a former asphalt plant into an urban park (left) combine to soften the user experience on this trail that cuts through the industrial core of Cleveland.

As The Wheel *Turns*

ASHE Members on the Move!

Dewberry Welcomes Feigles-Kaar

Fairfax, VA—**Virginia Feigles-Kaar** has joined Dewberry as a market segment leader for municipal services in the firm's Mechanicsburg, PA, office. ***A member of the ASHE Williamsport Section,*** Feigles-Kaar has more than 20 years of experience managing highway and bridge design projects as a liaison between the state and consulting industry for Pennsylvania Department of Transportation. In her role with Dewberry, she will support marketing the firm's municipal services in central and north central Pennsylvania. She will also help develop the firm's construction management and construction inspection services in the region, including National Bridge Inspection Standards contracts for locally owned bridges. Feigles-Kaar earned a Bachelor's degree in Civil Engineering from Bucknell University. She has served as chairperson of the Milton Planning Commission for more than 20 years and is a member of the Williamsport/Lycoming Chamber of Commerce.

Victor Joins Dewberry

Fairfax, VA—Dewberry announced that **Robert Victor, PE, F.ASCE,** has joined the firm as an operating unit manager to lead its Mid-Atlantic engineering operations, based in Fairfax, VA. Victor, ***a member of ASHE's Potomac Section,*** has more than 25 years of experience, most recently at HDR where he led the transportation group for northern Virginia, Maryland and Washington, D.C. Victor earned a Bachelor's degree in Civil Engineering from the University of Michigan and a Master's degree in Civil Engineering from the University of Illinois. He is also a graduate of the American Road and Transportation Builders Association's Young Executive Leadership Development Program. He serves on the transportation and land use committee and is a member of the mobility and logistics solutions group for the Greater Washington Board of Trade. He also serves on the transportation committee for the American Council of Engineering Companies/Metro Washington and is a volunteer mentor for the Women's Transportation Seminar.

Less Congestion, M
in Sou

ASHE Triko Valley 2020 Project of the Year, *Over $5 million*, Donald C. Schramm Transportation Improvement Award

Redesign of Innovation Way expanded it from one lane in each direction to two lanes in each direction. It also added a sidewalk and shared bike path.

More Economic Opportunities Southwestern Ohio

by Steven Shadix, PE, PS, Stantec Consulting Services, Inc., **ASHE Triko Valley Section**

The I-71 and Western Row Road partial interchange was constructed during the 1970s in southwest Ohio to provide access for visitors coming north from Cincinnati on I-71 to Kings Island Amusement Park's parking lots. The remaining adjacent land use was primarily farmland and undeveloped woodlands. Since then, southwestern Warren County has experienced much growth. Both Deerfield Township and the City of Mason have expanded, with several residential subdivisions and a business park adjacent to I-71 that specializes in high-tech and healthcare industries.

The Warren County Transportation Improvement District (WCTID), in conjunction with Ohio Department of Transportation (ODOT), Ohio Kentucky Indiana Regional Council of Governments (OKI) and the City of Mason and Deerfield Township, coordinated efforts to reimagine the I-71 and Western Row Road interchange to meet the needs of the growing region.

Top Priority: Safety

The project had to address the safety and congestion issues that plagued the area. In most cases, the safety issues could be directly attributed to the heavy congestion along Western Row Road and Columbia Road. The most significant issue was the spacing of the I-71 northbound ramp/Kings Island Drive signalized intersection with the Columbia Road signalized intersection along Western Row Road. Numerous "fixes" had been applied to improve the condition, but the fact that the two signals were only 400 feet apart was the root cause. The other safety issue on Western Row Road resulting in higher-than-state-average crash rates was due to a 90-degree curve just east of Columbia Road.

Planning to Enhance Economic Development

From the project's outset, Stantec worked with the WCTID and the City of Mason to develop a plan that addressed current safety concerns and peak traffic demands, while enhancing economic development opportunities in the area.

Initial work identifying the need to bring the missing movements to the existing partial interchange was in the Southwest Warren County Transportation Major Investment Study (MIS) in 2005. That report projected a 635 percent increase in vehicle hours for the 2030 design year as compared to a 323 percent increase for the remainder of the OKI region.

In 2011, the project team began work to identify a preferred alternative from the three that were

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Less Congestion, More Economic Opportunities in Southwestern Ohio

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advanced from the MIS. This involved multiple stakeholder meetings within the business community, coordination with the City of Mason's Economic Development Director and a public information meeting. As a result, the preferred alternative changed the ramp terminals from Western Row Road to Innovation Way and united the business community as a strong supporter of the project.

Stantec provided preliminary engineering with the development of various design alternatives and prepared an Interchange Modification Study for the preferred alternative. Traffic simulation models created for each of the alternatives with TransModeler provided a better understanding about where congestion was being relieved and what side effects might result from various connections. The project team completed all required environmental field studies, ecological base studies, hazardous material screenings and cultural resource investigations. It also prepared a Level 2 Categorical Exclusion Environmental Document and all necessary waterway permits.

Interchange Design and Phasing

The first phase of the project relocated Columbia Road around existing retail businesses to provide adequate intersection spacing along Western Row Road between the I-71 exit ramp terminal/Kings Island Drive and the new Columbia Road intersection. This change alone significantly improved safety and relieved congestion in the area.

Additionally, the I-71 northbound exit ramp was widened, the employee entrance to Kings Island was relocated and the nearby 90-degree bend in Western Row Road was softened to provide increased sight distance. Relocating Columbia Road required the extension of a 150-inch diameter corrugated metal pipe culvert at both the inlet and outlet. The depth of the fill over the end of the existing culvert and the extension at the outlet was approximately 25 feet. The supporting soils were not strong enough for the total fill of 40 feet or the new full-height headwalls at the inlet and outlet. As a result, stone columns were used to improve the bearing capacity of the soil. In addition, there were concerns about settlement of the ground supporting the end of the existing culvert and the possible creation of a low point in the culvert at the tie-in to the extension. To reduce the amount of settlement, a 15-foot depth of Geofoam EPS was used in the fill above the end of the existing culvert to reduce the weight of the embankment on the culvert.

Aesthetics were incorporated into several aspects of the project, including the retaining wall required to support the property of an adjacent business. The concrete face of the soldier pile wall utilized alternating formliner patterns with "frames" defining each pattern and the top of the wall.

The second phase of the project added the missing I-71 southbound exit ramp and I-71 northbound entrance ramp. To best serve the business community, the exit ramp ties directly to Innovation Way, which parallels I-71 to the west and intersects with Western Row Road. A new southbound entrance ramp from Innovation Way was also added. Innovation Way was widened from two to four through-lanes, with turn lane adjustments made along Western Row Road. The project also created an auxiliary lane on I-71 in both directions between

Aesthetic treatments added to the I-71 overpass bridge parapets helped highlight the city.

Western Row Road and the SR-741 interchange.

To accommodate the new southbound exit ramp, the existing I-71 four-span concrete slab bridge over Western Row Road was widened to the west. To avoid vibrations from pile driving that could interfere with sensitive testing equipment at a nearby firm, drilled shafts to bedrock helped support the pier extensions, with pre-drilled holes used for the steel piles to bedrock supporting the abutment extensions. To accommodate the new northbound entrance ramp, a new four-span concrete slab bridge was constructed over Western Row Road to the east of the existing bridge. An additional enhancement included adding the City of Mason's name and logo to the outside face of the parapet on this bridge and the widened portion of the existing bridge, with three-dimensional letters and images mounted to the concrete face.

Project Coordination

During construction, the public and key stakeholders were informed about traffic restrictions and that the contractor worked around peak recreational events. One of the project's neighbors was the Kings Island Amusement Park that hosted over three-and-one-half-million visitors a year. The other was the Western & Southern Open Men's and Women's Association of Tennis Professionals Tournament at the Lindner Family Tennis Center, held in August with nearly 200,000 spectators over the week-long event. The maintenance of traffic plans helped minimize lane closures and restrictions during the tournament week and provide clear signage for visitors throughout the duration of the project.

The Project Team

Stantec served as the prime consultant on the project, with a team of subconsultants who helped with completion. Other team members were Bayer Becker (traffic counts, signal design and landscaping design), Terracon (geotechnical services), Aerial Technologies (aerial mapping), SHA Engineering, LLC (assisting with traffic analysis), AMEC (environmental site assessment investigations and public involvement support) and Gray & Pape (cultural resources investigations). For construction, John R. Jurgensen Company served as general contractor for both project phases.

Award Recognition

The American Council of Engineering Companies of Ohio recognized the project with an Honor Award as part of the 2020 Engineering Excellence Awards. Improvements to Western Row Road's interchange with I-71 helped unlock more of the potential of southwestern Warren County, increasing safety, alleviating congestion and expanding access to the interstate from all directions. The interchange could better serve residents, businesses and visitors to the area, allowing for continued economic growth in the region.

Brian Johnson, Peachtree Corners' City Manager, prepares to ride his requested teleoperated scooter.

Teleoperated scooter arriving to the location where it was requested

An American Smart City Making the Autonomous Vehicle Vision Come to Life

by Andrew de Lara, Executive Vice President, DRIVE360/ the City of Peachtree Corners, **ASHE Georgia Section**

The vision surrounding autonomous vehicles (AV) is nothing new. Automotive manufacturers and the larger industry have created much fanfare about various levels of autonomy for the past few years. The emergence of new use cases involving other forms of autonomous machines, from drones to service robots, only added to the excitement.

But more incidents involving cars with "autonomous features" continue to appear in the news, including one in June in Taiwan. There, a vehicle using a form of "autopilot" crashed directly into a large truck lying on its side over two lanes of highway (completely ignoring a pedestrian and other obstacles). It shows just how far vehicles are from operating truly autonomously and in a safe manner, especially in cities.

A true AV requires a combination of onboard Internet of Things (IoT) technologies, various forms of advanced connectivity and smart city infrastructure to know where it is, as well as know-how to react to real-world scenarios and environments. *(continued on page 18)*

An American Smart City Making the Autonomous Vehicle Vision Come to Life

(continued from page 17)

Peachtree Corners, GA, a municipality on the outskirts of Atlanta, is the first real-world smart city ecosystem in the United States. The city serves as a leader for how government entities and the private sector best work together to build out true smart city ecosystems across the country. It is uniquely governed and positioned to test, develop and deploy emerging IoT and smart city technologies alongside actual residents, in addition to real driven vehicles on the road.

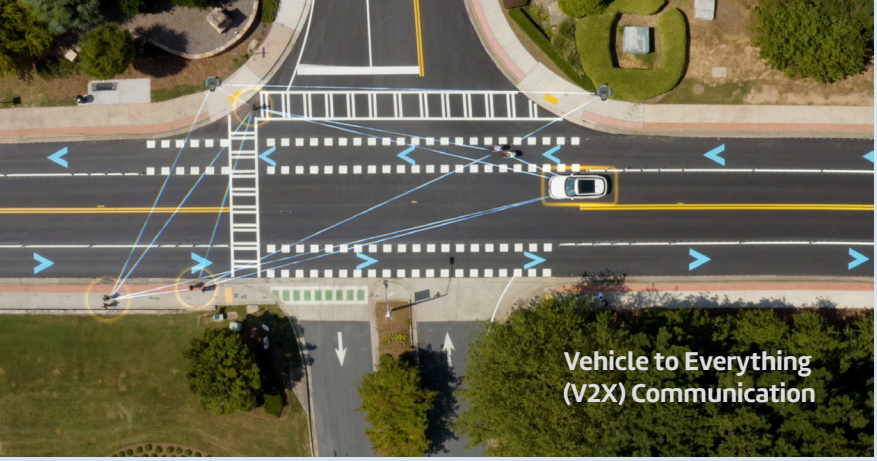
Within the city, the Curiosity Lab at Peachtree Corners is the first intelligent mobility and smart city living laboratory powered by real-world infrastructure and 5G network connectivity. It serves as the premiere proving ground for companies to test the next generation of IoT technologies that will change the face of business and society in the near future. The 500-acre technology park and one-and-one-half-mile autonomous vehicle test street create conditions that enable robotics, artificial intelligence, autonomous services/vehicles and countless more emerging applications to be trialed and developed in a real-world environment.

Curiosity Lab's mobile 5G network, combined with direct short-range communications (DSRC) roadside units and other forms of connectivity, enables these disruptive technology developers to test vehicle-to-everything communications in a manner that cannot be replicated in a closed lab setting. Intelligent traffic cameras and traffic signals, along with smart streetlights and data sensors, push video and invaluable data to a network operations center where all IoT devices and connections are managed, analyzed and secured. It reflects how larger smart city ecosystems will be built out in the future, with city infrastructure communicating with machines and humans.

In Peachtree Corners for several months in 2019, for example, a fully autonomous shuttle operated in the city. Residents used the shuttle for daily transportation. At the same time, the company that

Curiosity Lab at Peachtree Corners, the first intelligent mobility and smart city living laboratory

An autonomous vehicle driving alongside a public road



created the shuttle conducted real-world research and development. This ranged from "micropositioning," using advanced connectivity and city infrastructure for ultra-precise navigation, to teaching the vehicle how to react to various everyday scenarios, obstacles and general terrain challenges (trees, buildings, road gradients, weather, etc.).

For the autonomous shuttle to have operated safely with the more than 600 riders it carried, that critical combination of IoT technologies, connectivity and smart infrastructure was necessary. Up to this point, few places in the world could offer all three in an actual city, alongside its citizens. In fact, Peachtree Corners may be the only municipality in the world to carry liability insurance for both driven and driverless vehicles, with both operating alongside each other every day.

As a result, in addition to present and future AV testing, the city got a head start with micromobility use cases. This included the world's first-ever fleet of teleoperated e-scooters deployed for residents, which began in May. With the testing of various forms of drones, roadway solar panels and small-scale AV opportunities emerging, the municipality showed how government leadership can evolve approaches to moving society and business forward, in tandem with new technologies ready to mature.

Peachtree Corners and the Curiosity Lab provide a microcosm of how the cities of the future will operate, with millions of IoT devices communicating with each other and with smart infrastructure. Its residents have benefited from the latest technologies that are designed to make life and work easier. And companies, especially automotive manufacturers, are able to develop and refine solutions that, for the most part, have not been ready for the real world.

MileMarkers

News From Across ASHE-Miles

Dimmerling (*center*) shares his excitement with Kristen Kostick (Pennoni) and Brian Boyer (Pennsylvania Department of Transportation District 5).

ASHE Golfer Shoots Hole in One!

On August 5, James Dimmerling, ***member of ASHE's North East Penn Section***, shot a hole in one on his final hole of the match during the Section's annual scholarship golf tournament at Mountain Valley Golf Course, Barnesville, PA. It was the first hole in one in Dimmerling's 25+ years of golfing, and the first ace at the Section's tournament in its 20-year history. Dimmerling, recipient of a Travis Mathew Prize Package of golf apparel and accessories, owns Dimmerling Consulting, Inc., specializing in traffic and transportation engineering services since 2006. He regularly golfs at the Blackwood Golf Course in Douglassville, PA.

James Dimmerling shows where he hit his hole in one.

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Spotlighting Projects That Added

Poster Session of ASHE First S
Section's Project Showcas

Installation of the main cable dehumidification system for the Delaware Memorial Bridge

Safety, Efficiency and Sustainability

ASHE First State Section's Project Showcase and dinner

by Joseph Jakubowski, PE, **ASHE First State Section**

In the spirit of the ASHE National mission, ASHE First State Section (FSS) has focused on promoting innovation within its communities, in addition to providing educational events. FSS's most recent Project Showcase in March 2019 underscored how FSS members have contributed to "a safe, efficient and sustainable transportation system" in the Mid-Atlantic region.

The Project Showcase featured a poster session, formal dinner and an awards ceremony, including a People's Choice Award. The size of the 11 projects that were presented ranged from $200,000 to $41 million and were completed by FSS members in Delaware, Maryland and New Jersey. Participants included three individual submissions, eight team submissions, seven consultants, eight contractors and eight agencies, community groups or universities. The projects were judged in nine value categories, and each category winner received recognition. Scores in each category were combined, and Project of the Year Awards were given to the following:

Cleveland Avenue in the City of Newark, DE, was critical for 35,000 full-time residents, University of Delaware's 25,000 students and "cut-through" commuters, but it had level of service "F" intersections at each end. Led by Whitman, Requardt and Associates, LLP (WRA), in Wilmington, DE, Newark's Cleveland Avenue Task Force was formed to combine input from business owners, advocacy groups and elected officials. A four-year study revealed 358 crashes. Upgrades included prohibition of on-street parking to allow bike lanes, pedestrian scramble serving over 1,500 college students during class changes, new signal and elimination of turn restrictions on a "diversion route" and downsizing a five-leg intersection to an eight-phase signal by converting a local street to one-way. Improvements also included new right-turn overlap phasing, road diet with a two-way left-turn lane and bike lanes and mid-block crosswalks with refuge islands and rectangular rapid flashing beacons. WRA, Delaware Department of Transportation (DelDOT) and City officials faced public questioning, recognizing that the road diet striping could be reversed if safety and capacity improvements did not meet expectations. After the improvements, during

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Completed rehabilitation of SR 141 Centre Road

peak surges the road diet's processing rate (capacity) was about 150 vehicles per hour higher (vph) than the former four-lane roadway. The westernmost critical intersection processed more than 325 vph.

The Delaware Memorial Bridge crossing the Delaware River consists of two parallel suspension bridges, each with a main span of 2,150 feet and side spans of 750 feet. The bridge, owned and operated by the Delaware River and Bay Authority (DRBA), carries a combined 30 million vehicles per year. After an internal inspection found corrosion, DRBA concluded that dehumidification could preserve and extend the service life of the main cables. Although such systems had routinely been fitted to suspension bridges globally, this was only the second application in the United States. DRBA retained AECOM to design the system of main cable dehumidification and provide construction support services and resident engineering staff. This required extensive planning, scheduling and coordination for the physical characteristics of the cables and DRBA's operational requirements, which included reduced relative humidity in the shortest time possible. The effort was led by AECOM's office in Wilmington. The systems were operational approximately 10 months ahead of schedule and five percent below budget, with much of the work done safely above ongoing traffic in harsh conditions.

McCoy Road in Bear, DE, connects SR 72 and Kirkwood Saint Georges Road, to access approximately 300 homes. During original construction of the community, a "gap" in the sidewalk resulted where McCoy Road travels over Dragon Run. For 18 years, the configuration forced pedestrians into the travel lane. Eastern Highway Specialists, Inc. (EHS), Wilmington, received the construction contract for DelDOT's McCoy Road Pedestrian Bridge, working with Century Engineering, Inc. (Century), in Dover, DE. Century completed extensive outreach and pre-planning with the Red Lion Chase community, as well as designing contract drawings. The final construction included a 60-foot-long prefabricated truss bridge spanning Dragon Run, helical piles, cast-in-place concrete abutments and piers with a timber boardwalk over delineated wetlands. Other items included a vehicle detour to create a staging area in the existing McCoy Road right-of-way and a pedestrian detour around the work area. The new pedestrian bridge and boardwalk alignment alleviated safety concerns, allowing for leisure activities. It was completed five percent below contract value and 10 percent less than contract time.

Constructed in the late 1980s, **SR 141 Centre Road** was a concrete roadway, providing access to I-95, the City of Wilmington and surrounding suburbs. New environmental regulations changed concrete manufacturing and resulted in silica being captured back into the cement. As water penetrated the concrete roadway along Centre Road, alkali-silica reaction resulted in deterioration and hazards for motorists and cyclists. After overlaying the roadway and frequent patching, DelDOT and its consultant,

AECOM, determined that the roadway needed full-depth reconstruction. In addition, the project included installation of a multi-use path, bike-friendly rumble strips, pedestrian facilities at the intersection of Centre Road and Lancaster Pike and a high-tension cable barrier in sections of the median. Traffic was contra-flowed to provide the contractor, Richard E. Pierson Construction Company, Inc., of Pilesgrove, NJ, with the largest work area. This also provided clear separation between construction equipment and personnel from the traveling public. Public outreach helped prepare travelers for driving the roadway under contra-flow and significant traffic delays. Century provided construction inspection services, and the project was completed 30 days ahead of schedule. This project also received the FSS's People's Choice Award.

Award-winning team involved in rehabilitation of SR 141 Centre Road in New Castle County, DE

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ASHE Archives

Thanks to the McTish family and McTish-Kunkel and Associates, we have received and posted to the ASHE website a collection of *scanner* issues from early days of the organization. Spanning the years from 1968 to 1992, these feature the chartering of the Carolina Triangle Section, several National Conferences and several Past Presidents from that period. Explore the archives at http://ashe.pro/archives/.

Send other *scanner* issues to RCochrane@ashe.pro. We also welcome photos of past ASHE events or meetings sent to tntsince87@comcast.net.

The A.S.H.E. SCANNER

VOLUME IV, No. III — THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS — FEBRUARY 1968

New Officers And Directors Are Nominated For 1968-69 Society Year

Nominations for national officers and directors of the American Society of Highway Engineers have been announced by the nominating committee, for the new Society year beginning at the close of the sixth annual convention on May 25, 1968.

The nominees and their respective offices are: President, C. J. Wachter, Jr. of Easton, Pa.; 1st Vice President, Robert S. Kepner, of Clearfield, Pa.; 2nd Vice President, Robert E. Martzall, P.E., of Dillsburg, Pa.; Secretary, Ralph T. Smith, of

The national nominating committee, on which all sections had duly appointed representation, was under the leadership of Chairman John P. Rutter, P.E., of York, a past president of the Society.

MEMBER OF THE MONTH

President's Message

By rummaging through a stack of miscellaneous articles in my "catch-all file", and doing a little editing, I can offer the following portions of these articles for your enjoyment - and perhaps they might even provoke some thought on the future of the highway industry and your contribution toward the betterment of it through our Society. We are all sometimes painfully aware of the fact that we live in rapidly changing times. It appears that every days' newspaper and telecast points up the rapid - even startling - advances in medicine, science and other sophisticated technologies. It does no harm, and is enlightening to some extent,

SCANNER

NEWSLETTER OF THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS

April, 1990

28th Annual American Society of Professional Engineers National Convention Hosted by the Altoona, PA Section

Anniversary," offered by the Pennsylvania Turnpike Commission.

Interesting and enlightening technical sessions include "Rehabilitation of a Steel Truss Using Cables," "T-Wall and Its Uses," "Stressed Timber Deck Bridges with Sandwich Plates," and "Bonded and Unbonded Concrete Overlays."

As in the past many convention exhibitors representing the varied facets of the highway industry will be present with displays and information on the latest innovations in design, construction and maintenance.

But...all will not be work! A fashion show and make-up seminar is planned for those who want to keep up-to-date on fashion and beauty trends. During the first evening the Ice Breaker reception and party is sure to be a time for frolic while attendees enjoy an Hawaiian Luau complete with roasted pig. Members are encouraged to dress in tropical attire to promote the "island spirit," so bring your flowered shirts, shorts and sundresses.

There's also a bus tour of area historical attractions: the Allegheny Portage Railroad, Altoona Railroader's Museum and the Baker Mansion. In addition, self-guided tours can be made of other local points of interest such as the Penn State University

Continued on page 3

scheduled visits to other local points of interest.

For nearly two centuries - from the early stage coach lines, to the Pennsylvania Canal, the Pennsylvania Railroad and up to date with our modern expressways, Altoona is and has been an important part of transportation in the state. The convention will use both past and present transportation facilities to demonstrate how this industry has changed throughout this time. Also historical sessions will be presented featuring "The Canals, the Portage Railroad and the Horseshoe Curve" offered by the National Park Service, and "The Pennsylvania Turnpike's 50th

INSIDE THIS ISSUE - pages 7, 8, 9
1990 A.S.H.E. CONVENTION PACKAGE:
Schedule - Registration Forms

SCANNER

NEWSLETTER OF THE AMERICAN SOCIETY OF HIGHWAY ENGINEERS

2-1992

30th ASHE Charter Presented to Carolina Triangle Section Congratulations and Welcome

Bob Pearson, President Carolina Triangle Section; Sam Callisto, National President

Bruce Leonard, Section 2nd V. P.; Jimmy Beckom, Section 1st V. P.; Bill Butler, Section Secretary; Ron Fitzula, Section Board of Directors; Jim Graham, Section Treasurer; Bob Lee, Section Board of Directors; Bob Pearson, Section President; Henry Clegg, Section Board of Directors; Jim Anglin, Section Board of Directors; Charlie Flowe, Section Board of Directors

is due to the efforts of National Directors Mike Martin, Ray Petrucci, Dave Greenwood and others who fostered expansion of ASHE into the South.

2021 National Conference

A Gateway to Transportation Adventures

June 9 to 13

Kalahari Resort

Pocono Manor, PA

Join us in the beautiful Pocono mountains, at the exciting Kalahari Resort! Fun for all ages with an indoor water park, natural scenic beauty, quaint historic towns and local attractions! We look forward to seeing you! Visit our website for more details!

Call for papers is now open! Abstracts are due October 30, 2020. Visit our website for more details.

2021conference.ashe.pro

ASHE Delaware Valley | ASHE East Penn | ASHE North East Penn

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___Business Card	$350	$1,200 ($300/Issue)	3-½ x 2-3/8" horizontal
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___Spring	**March**	January 15
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___One Year (4 issues) ___Each issue as checked above

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New Mexico
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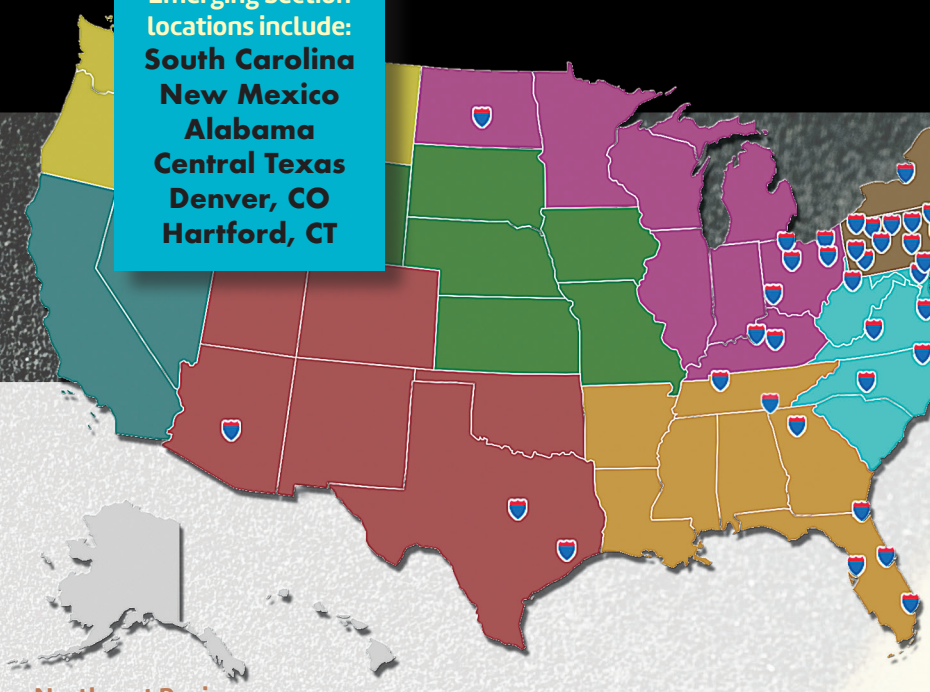

Northeast Region

Albany	99
Altoona	204
Central New York	49
Clearfield	190
Delaware Valley	384
East Penn	120
First State	178
Franklin	131
Harrisburg	433
Long Island	67
Mid-Allegheny	136
New York Metro	172
North Central New Jersey	149
North East Penn	132
Pittsburgh	544
Southern New Jersey	172
Southwest Penn	284
Williamsport	81
Subtotal	**3,525**

Mid-Atlantic Region

Blue Ridge	74
Carolina Piedmont	84
Carolina Triangle	262
Chesapeake	315
Greater Hampton Roads	92
North Central West Virginia	52
Old Dominion	89
Potomac	189
Subtotal	**1,157**

Southeast Region

Central Florida	94
Georgia	574
Middle Tennessee	308
Northeast Florida	174
South Florida	10
Tampa Bay	53
Tennessee Valley	54
Subtotal	**1,267**

Great Lakes Region

Bluegrass	69
Central Dacotah	82
Central Ohio	185
Cuyahoga Valley	117
Derby City	86
Lake Erie	190
Northwest Ohio	52
Triko Valley	181
Subtotal	**962**

Southwest Region

Dallas-Fort Worth	38
Houston	74
Phoenix Sonoran	195
Subtotal	**307**

National Total	**7,218**

Professional Status	56%
Government	12%
Consultant	75%
Contractor	5%
Other	8%

Want to join and don't see a Section near you? Visit our website to see how to start a new Section. www.ashe.pro