

PRESIDENT'S MESSAGE *by Tony Frascarella, P.E.*



Congratulations to all the winners in the ACEC/MD's Annual Awards competition! Please read about each of the winners in this newsletter. I was especially pleased to be able to select Mr. Paul Shank, PE, CM for the 2021 ACEC/MD President's Award. I can think of no one more deserving to receive this award. Where would BWI Thurgood Marshall Airport and Martin State Airport be without Paul's experience and dedication to lead the planning, design and construction of the multi-billion-dollar capital improvement and system preservation programs. Thank you, Paul, for all that you have given to our industry!

A huge "thank you" to Tiffany Harrison (Gannett Fleming), Awards & Recommendations Committee chair for her tireless work organizing this year's virtual awards program. It was all new ground having to prepare for and deliver this program virtually. Tiffany, along with her committee members, and with help from the Public Relations committee chaired by Bill Frisch (JMT), coordinated with award recipients and firms to produce a seamless awards presentation and on-line project videos.

The Maryland General Assembly session adjourned on Monday April 12th. Unfortunately, our Duty to Defend legislation did not make it out of committee in either the House or Senate chambers. But we are not giving up! The Legislative committee will continue to discuss strategies on how to move this legislation forward.

The ACEC 2021 Virtual Annual Convention and Legislative Summit will be held April 26-28. The focus of this convention and summit is current legislative issues impacting the consulting engineering profession including President Biden's proposed recovery bill "The American Jobs Plan". Components of the President's latest stimulus bill provides significant infrastructure investments in highways, bridges, rail, ports, airports and transit systems. The President's proposal includes \$115B for highways and bridges over an 8-year period. Based on recent disbursement formulas, that amounts to about \$220M per year for the State of Maryland. To put in context the funding situation we now face in Maryland, the MDOT CTP has dropped by approximately \$2.9B for the 6-year

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In this issue:

| | |
|---|----|
| President's Message | 1 |
| 2021 EEA Winners | 2 |
| Award Judges Provide Valuable Service | 12 |
| Thanks for Being a Sponsor | 12 |
| WSP's Lauren Waesche, PE Selected for 2021 Young Professional Award | 13 |
| WBCM's Deanna Schreiber Awarded 2021 Community Service Award | 14 |
| Young Members Committee Hosts Trivia | 14 |
| MDOT MAA Paul Shank Recognized with 2021 President's Award | 15 |
| Engineer of the Year from a Small Firm & from a Mid-Large Firm | 16 |
| Congratulations Art Barrett | 17 |
| Worthy Students Garner Scholarships | 18 |
| New Members | 19 |
| Member News | 19 |
| Upcoming Events | 20 |



PRESIDENT'S MESSAGE (CONTINUED)

period 2021-2026, equating to about \$500M per year. So clearly, we have a long way to go, and we need reauthorization of the Federal Surface Transportation Act and support from Annapolis, as well. We will be setting up virtual legislative visits with our Maryland congressional legislators advocating for these issues:

- o Sustainable Infrastructure Funding
- o Comprehensive Energy Legislation
- o Major Tax and Regulatory Reform
- o Legislative waiver to eliminate PPP loans from FAR credits clause

The ACEC/MD 54th Annual "Day at the Club" Governmental Golf Outing at Greystone Golf Course is scheduled for May 3rd, with proceeds going towards the ACEC/MD Scholarship Fund. Contact your legislative representatives and public facility leaders to encourage them to attend. To follow COVID protocols, we will be holding a shotgun start at 9:00am and subsequent post round BBQ and cocktails under Greystone's outside pavilion. As with previous outings, we will also be holding our Silent Auction benefitting CEPAC, ACEC/MD's political action committee. The silent auction will be held virtually, so look for details as to how to donate auction items and how to bid.

I would like to also highlight the good work being done by our Community Outreach committee. Led by Kevin Permisohn (WSP), the committee has begun development of a virtual on-demand training platform via the ACEC/MD website and YouTube page. The committee has been divided into two working groups focusing on outreach to schools and technical training content development. Members continue to partner with other technical societies at specific STEM events, but the committee could use more help. Look for a STEM flyer describing the types of programs being offered and how you can volunteer. It is more important than ever to promote STEM careers to our young engineers and scientists.

Also, be sure to be on the lookout and sign up for the May 20th Environmental Spring Forum virtual event. And lastly, please mark your calendars for June 24th for ACEC/MD's Annual Conference, being held this year at the B&O Railroad Museum. I look forward to seeing everyone either in person or virtually at all of our future events.

Be well and stay safe!

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## *BLOEDE DAM REMOVAL & PATAPSCO INTERCEPTOR RELOCATION GARNERS TOP AWARD IN ACEC/MD ENGINEERING EXCELLENCE AWARDS COMPETITION*

The American Council of Engineering Companies/Maryland (ACEC/MD) is pleased to announce that Inter-Fluve, Inc., with KCI Technologies, Inc., Hazen & Sawyer, and Kiewit Corporation received the Grand Award in the 2021 ACEC/MD Engineering Excellence Awards (EEA) competition for the Bloede Dam Removal and Patapsco Interceptor Relocation. The ten finalists in this prestigious competition were recognized for diverse accomplishments that exemplify today's engineering challenges.

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## ACEC/MD 2021 EEA WINNERS (CONTINUED)

### GRAND AWARD

Inter-Fluve, Inc.

*Bloede Dam Removal and Patapsco Interceptor Relocation*



The 34-foot-high, 220-foot-wide Bloede Dam on Maryland's Patapsco River was a serious public safety concern. From the 1980s until today, nine people died at the dam and dozens more likely lost their lives since it was first constructed in 1907.

Engineers, scientists and contractors worked with American Rivers, NOAA, Maryland DNR, Baltimore and Howard counties, USFWS, Patapsco Valley State Park staff, and the Friends of the Patapsco Valley State Park to develop design plans and complete the removal of the dam. The resulting dam breach and return of this river to its natural, free-flowing state is the culmination of extraordinary cooperation and collaboration between science and engineering, public-private partnerships and all levels of government, non-governmental organizations, and the private sector to accomplish ambitious conservation and public safety goals. The planning and design work took more than 15 years, while construction was completed in just 18 months. This complex removal and restoration serves as a success story of habitat conservation and is a model for other states challenged by outdated dams and wastewater infrastructure.

The design and construction team overcame a number of water resource, infrastructure, natural resource, funding, and recreational obstacles. Primary complexities included permitting issues, existing sanitary sewer infrastructure, river flow management, coordination required between the various governmental entities, and unforeseen conditions.

An unprecedented release of 300,000 cubic yards of impounded sediments behind the dam required extensive sediment transport and prediction models and an adaptive management plan. Precise timing of the breach to high water flows was critical, leading the team schedule the blast in September of 2018, as Hurricane Florence was bearing down on the state.

Relocation was required for two sewer mains located upstream of the dam, adding \$16 million to the original estimated cost and creating conflicts with streamside infrastructure and historic structures. An artificial island diverted flow around 20-foot-deep sectional trench shoring, where targeted blasting was required to place the new sanitary lines deep within the bedrock beneath the river channel and subsequent lower water levels.

Engineers and contractors had to overcome flashy river flows and storm-related deluges, including the devastating 2018 Ellicott City flood, that washed away a temporary access bridge

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The logo for ACEC, featuring the text "ACEC" in a large, serif font, with a curved line above the text.



## ACEC/MD 2021 EEA WINNERS (CONTINUED)

(Grand Award continued)

and caused extensive damage throughout the site.

Despite these challenges, the project was completed on time, exceeding the performance and technical goals, and within the financial constraints of the project. Today, the area is a natural setting that offers a cascading river environment and recreational opportunities for outdoor lovers in the Baltimore metro area. Kids can safely play in the river, canoes and kayaks meander downstream, and fish freely migrate.



## OUTSTANDING PROJECT AWARD

Gannett Fleming Inc. / Mott MacDonald Joint Venture  
*Broad Creek Augmentation Conveyance System*



WSSC Water's Broad Creek Augmentation Conveyance System is a forward-thinking example of how to mitigate sanitary sewer overflows and provide capacity for the future, while minimizing impacts to environmentally sensitive areas, ensuring reliable service and cleaner, safer water. WSSC Water sought to increase the capacity of its collection system in the Broad Creek Pumping Station service area that serves 200,000 customers. In

doing so, sanitary sewer overflows would be eliminated, and raw sewage would be conveyed to the WRRF for treatment, instead of spilling into area waterways during extreme rain events.

The project features a new parallel-concept sewer including 4.8 miles of 48-inch force main, 60-inch gravity sewer, and 42-inch pressure sewer connecting the pumping station to the WRRF, new headworks and equalization storage at the WRRF, as well as capacity improvements to the pumping station.

Increasing the capacity from 35 MGD to 55 MGD, the new conveyance infrastructure is designed to function as an independent system yet interconnected with the existing piping to provide maximum operational flexibility. During extreme weather events, the two systems will operate in parallel to maximize capacity and prevent overflows. An innovative design approach, these parallel pipelines allow WSSC Water to take one system offline for maintenance, inspection, and if needed, repairs, while maintaining continued service to customers—a scenario that was not previously possible with the existing 50+ year-old system.

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## *ACEC/MD 2021 EEA WINNERS (CONTINUED)*

(Outstanding Project Award continued)

The project involved an unusual number of challenges. Among the most significant were physical obstacles—highways, historic property, national parks, and environmentally sensitive areas. The team employed trenchless technology—microtunneling 8,500 feet of the alignment. The tunnels minimized community impacts by eliminating road closures, maintaining access to commercial areas, and ensuring unrestricted access to the local hospital. Open-cut construction in several environmentally sensitive and historic areas also was avoided, allowing them to remain undisturbed by construction.

The team worked closely with the community to bring the project to life—even proactively forming a Citizen’s Advisory Committee. Also, the team partnered with several agencies, such as MDOT Maryland State Highway Administration and the National Park Service, early in the design phase to ensure all stakeholder interests were appropriately considered and represented.

In lockstep with WSSC Water, the team met an accelerated schedule for 100% design drawings and delivered the project within 5% of budget. The project successfully addressed the conveyance system’s capacity to eliminate wastewater overflows and enabled the utility to continue to meet its commitment to environmental stewardship. The result is an efficient, site-sensitive, environmentally responsible conveyance system that is fully compliant with state pollution-control requirements and contributes to a healthy future for this Maryland community.

## AWARD OF EXCELLENCE

RUMMEL, KLEPPER & KAHL, LLP (RK&K)

*Patapsco Wastewater Treatment Plant Enhanced Nutrient Removal Facility*

The City of Baltimore added new facilities to its 81 mgd Patapsco Wastewater Treatment Plant featuring biological aerated filters and denitrification filters to meet the Maryland Department of the Environment’s stringent enhanced nutrient removal (ENR) standards for nitrogen and phosphorus removal for protecting the Chesapeake



Bay. The project included a new pump station with a maximum capacity of 150 mgd to convey wastewater from the existing treatment system to the new facilities. Methanol, caustic soda and phosphoric acid storage/feed systems were provided to optimize nitrogen removal performance. The ENR facility’s solids removal capacity polishes the upstream multi-point chemical feed phosphorus removal process and greatly improves effluent water clarity. The entire process is monitored using new on-line instrumentation which provides feedback for automatic control by a new distributed control system, which was a part of the plant-wide process control system upgrade included in the project.

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The logo for ACEC, featuring the acronym "ACEC" in a large, bold, sans-serif font. A thin, curved line arches over the text.



## *ACEC/MD 2021 EEA WINNERS (CONTINUED)*

(Award of Excellence continued)

The new facilities were constructed on a site adjacent to the Patapsco River that presented significant engineering challenges.

Small footprint relative to the large quantity of wastewater to treat the site had high groundwater and low-bearing capacity soils contaminated with hexavalent chromium, and the site was bounded by: 1) existing treatment structures and conduits to be maintained in operation, 2) buried steel H-piles anchoring tie-backs for steel sheeting, and 3) a soil stockpile contaminated with hexavalent chromium.

The project was implemented under two construction contracts. Hydraulic and process performance testing of the \$251 million project started in 2018 and the City issued final acceptance for both contracts in January 2020.

## HONOR AWARDS

Alvi Associates, Inc.

*Route 91 Bridge over Laurel Creek*



Creeper Trail is a 34.3-mile national recreation trail which extends from Abington, Virginia to the border with North Carolina. Near the town of Damascus, the trail crosses over Route 91 at the Laurel Creek bridge, where the trail serves over 12,000 hikers, bicyclists, and equestrians per month.

The Route 91 bridge over Laurel Creek carries over 3,800 vehicles per day traveling at high speed and with limited sight distance due to the roadway alignment. Because of the hazards associated with so many trail users being required to cross busy Route 91 traffic, the Virginia Department of Transportation (VDOT) initiated this project to create a spur to the trail to be aligned under the bridge, thereby creating a much safer path for trail users to continue along their journeys.

In order to create the needed vertical space for the trail, the project involved design of a new shallower bridge superstructure, and to accommodate the proposed trail spur alignment, the adjacent bridge wingwall was removed and replaced on an alignment which was coordinated with the trail. Bridge aesthetics were upgraded by using stone from a local quarry as the facing for the abutment and pier directly adjacent to the trail.

Maintaining roadway and trail traffic during construction was complicated by the requirement of staged construction, with the high volume of fast-moving vehicles traveling over the narrow bridge, and with the large number of people still using the trail during construction. To meet this challenging set of circumstances, temporary traffic signals were provided at each bridge approach.

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## *ACEC/MD 2021 EEA WINNERS (CONTINUED)*

(Honor Awards continued)

The structural design was complicated by the refined approach required to properly account for the effects of the highly skewed bridge geometry, and by the need to replace the wingwall adjacent to the trail, which was relatively close to the roadway approach to the bridge. The existing piers were found to be structurally inadequate for the new loading condition brought on by the change in bridge span continuity, and the piers were retrofitted with the addition of stainless steel structural angles at the interface of the wall piers and supporting foundations.

Trail users and motorists have both directly benefitted from the added safety associated with no longer being required to interact with each other at the Route 91 crossing. Additionally, because the new superstructure has no deck joints, the service life of the existing substructure is dramatically increased, resulting in less life cycle maintenance costs.

VDOT held a ribbon-cutting ceremony upon project completion and dedicated the project to a former VDOT employee who lost her battle with cancer but won her battle for championing safety for trail users at this formerly dangerous roadway crossing.

### Century Engineering, Inc.

#### *Smart Stormwater Management (SmartSWM™) - An Intelligent Stormwater Infrastructure Solution*

Smart technologies are taking the world by storm! This is no different for stormwater management. With new technologies, we can link hyper-local weather information with cutting-edge stormwater facility controls. By adding in artificial intelligence, we create an autonomous control system that increases performance. The system can be used to target many different objectives including water quality, flood control, or seasonal issues. If that wasn't amazing enough, smart stormwater control systems are more efficient! With more efficient technology, we can use a smaller pond to achieve better performance than a traditional, larger pond.



Century Engineering, Inc. developed the SmartSWM™ stormwater control system to fundamentally improve stormwater facility performance. The SmartSWM™ online app shows the user real-time and historical data about the facility's performance. Using innovative technologies, stormwater management best practices, and a connection to real-time data, the team at Century Engineering hopes to change the way engineers and authorities view stormwater capabilities and efficiency!

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## *ACEC/MD 2021 EEA WINNERS (CONTINUED)*

(Honor Awards continued)

### **Gannett Fleming, Inc.** *Herring Run Trail Bank & Stream Restoration*



For decades, fast-moving flow in Herring Run Stream, triggered by heavy rain and runoff from impervious surfaces, eroded its streambed and compromised portions of the embankment along Herring Run Trail.

In the winter of 2018, wet weather accelerated erosion and bank loss left an 18-foot-high vertical bank face in an unstable condition, creating perilous conditions for pedestrians, and threatened to destabilize the adjacent roadbed and disrupt nearby utilities—all of which necessitated the closure of a 600-foot section of Herring Run Trail.

As an assignment under Gannett Fleming's on-call engineering services contract with the City of Baltimore Department of Recreation and Parks (City), the firm was tasked with the Herring Run Trail emergency bank repair and the restoration of a section of the Herring Run stream channel.

The City selected a hard-armoring sheet pile wall solution that will protect against long-term erosion. Faced with an emergency repair in a densely populated urban area, the City and Gannett Fleming attended a community meeting to build stewardship by educating the community about the project.

To successfully stabilize the embankment, approximately 350 linear feet of sheet pile was driven into the ground at a depth of 12 to 15 feet to create a floodwall. With the sheet pile installed, the embankment and pedestrian trail were stabilized using streambed material harvested from the project site. The project team then returned Herring Run Stream to its natural channel, which will help to minimize its migration back toward Herring Run Trail.

The City recognized the time- and money-saving benefits of following a design-build delivery method. The City, engineers, and contractors worked in close coordination during the project, keeping one another informed and engaged. The efforts resulted in the project being completed in less than three months and within the defined budget and the parameters set forth by the City.

The ingenuity of the emergency repair of Herring Run Trail transformed a hazardous, unstable area into an inviting parkway and provided environmental protection for the Chesapeake Bay. When the trail reopened to the delight of the community in December of 2019, the overall section of the parkway had been transformed to create a safer and expanded parkway.

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## ACEC/MD 2021 EEA WINNERS (CONTINUED)

(Honor Awards continued)

### Gannett Fleming, Inc. & KCI Technologies, Inc. Joint Venture *I-270 / Watkins Mill Road Interchange*

The \$110 million Watkins Mill Road interchange project – the largest new interchange project designed and constructed in Maryland in recent history – is a showpiece for complex partnering, stakeholder engagement, and technical innovation. The Gannett Fleming, Inc./KCI Technologies, Inc.



joint venture coordinated seamless partnering between nearly 20 stakeholders while navigating a complicated contract, teaming transitions, and a demanding schedule to produce an accident-free project for both the workers and the public. The team overcame many obstacles that could have delayed the project and resulted in substantial cost impacts, such as utility conflicts, environmental and unforeseen site conditions, design issues, and constructability concerns.

More than simply another exit, the new full-diamond interchange along I-270 rejoins the divided Gaithersburg community and provides access to the Gaithersburg Medical Center and the Montgomery County Police Department among many other key locations. The interchange provides another way for residents to access I-270 other than the congested Montgomery Village Avenue interchange. Carefully and sensitively designed to limit the impact to surrounding utilities and the environment, the successful Watkins Mill Road interchange was delivered 30 days ahead of schedule and \$10 million under budget despite the setbacks of the COVID-19 pandemic. The marquee project positions the community to thrive into the future through reduced traffic congestion, safer travel, and new economic development opportunities.

### Johnson, Mirmiran & Thompson (JMT)

#### *Transportation Systems Management & Operations (TSMO) Program Support*

Transportation Systems Management and Operations (TSMO) is the effort to optimize planning, engineering, operations, and maintenance through the full integration of technology applications across all business processes. For the Maryland Department of Transportation State Highway Administration (MDOT SHA), this integration is needed to support real-time, proactive solutions and efficient project delivery for Maryland state roads and related facilities. MDOT SHA sought to meet customer needs more quickly, flexibly, and reliably by adopting TSMO as a part of all business practices.



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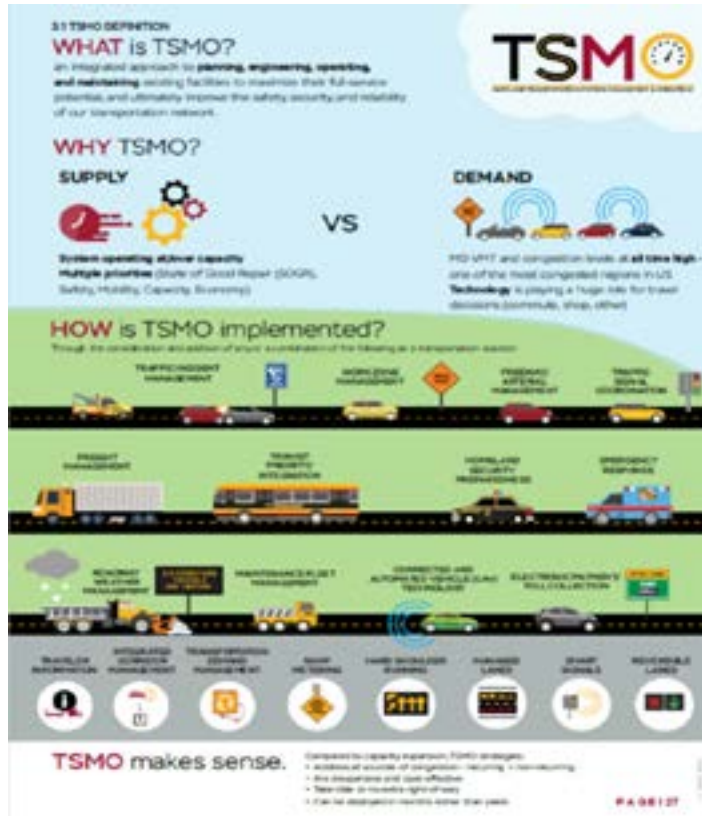




## ACEC/MD 2021 EEA WINNERS (CONTINUED)

(Honor Awards continued)

### JMT's TSMO Program Support (continued)



Beginning in 2018, the consultant program support team assisted MDOT SHA to implement its TSMO program across the agency through services such as strategic planning, communication and outreach, data gathering and analysis, and technology services. Critical milestones included development of the TSMO strategic plan and draft implementation plan; coordination of a TSMO working group kickoff meeting in January 2019 involving 50+ team members; facilitation and oversight of action item implementation; development of an MDOT SHA TSMO website; a GIS-based TSMO master plan portal that displays dashboards including projects, project costs, mobility and asset management data in a single application; and the culminating event – the July 1, 2020 directive from Administrator Tim

Smith that every MDOT SHA project, no matter what stage, needs to consider how to incorporate TSMO solutions.

### KCI Technologies, Inc. *VDC Mechanical Room Upgrade*

For many old and historic facilities, upgrades to these building systems can be complex and require innovative technologies to remove and replace the existing equipment. KCI used virtual design and construction (VDC) to coordinate the installation of new air handlers at a children's hospital and institute that was built more than six decades ago. Considerably past their useful life, the units were consuming nearly twice as much energy as a comparable new code compliant system due to an antiquated design and aging control system.



When the building was originally constructed, the mechanical room was placed in the middle of the hospital and over the years, the facility has grown around it. With limited space, new units had to fit into the same areas occupied by the existing air handlers. Our team also had to develop a plan to swap out the systems without disrupting normal activities while still meeting necessary air quality requirements.

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## *ACEC/MD 2021 EEA WINNERS (CONTINUED)*

(Honor Awards continued)

### KCI's VDC Mechanical Room Upgrade (continued)

VDC is a process that leverages digital tools to optimize engineering and construction efforts. This data was processed into a 3D building information model (BIM) that served as a digital representation of the physical and functional characteristics of a site. Engineers then evaluated the feasibility of different replacement air handlers and determined the best method of installation to ensure that construction was viable. Equipment types were tested virtually to identify a solution that would meet technical specifications and logistic restrictions of the tight space.

Once equipment was selected, a detailed phasing plan was developed to switch out the systems. The congestion in the room and the limited access through a non-standard door limited maneuverability. Stringent Infection Control Risk Assessment (ICRA) standards eliminated any exploratory demolition. Engineers used the model to virtually install the air handler units. Potential conflicts were identified ahead of time, eliminating associated rework and change orders. Installation details and safety plans were outlined, helping to speed up construction and avoid costly mistakes and safety incidents. Engineers were also able to work with manufacturers and fabricators to break down the units into components that worked with the phasing plan.

With VDC, the team was able to address a complex building process and seamlessly coordinate the replacement of the hospital's outdated air handlers. The end result was an updated system that will meet the needs of patients and staff for years to come.

### RUMMEL, KLEPPER & KAHL, LLP (RK&K)

#### *William Preston Lane Jr. Memorial Bridge All Electronic Tolling (AET) Conversion*

The Maryland Transportation Authority (MDTA) is in the process of converting their toll plazas to all electronic tolling (AET) where all users are tolled at highway speeds. The design to convert the William Preston Lane Jr. Memorial Bridge (Bay Bridge) to AET began in early 2019. The initial



plan was for design to be completed in mid-2020 with construction starting in early 2021. In late September 2019 MDTA closed the right lane of the westbound bridge as part of a project to repair a portion of the bridge deck. This resulted in severe congestion and a call from residents and politicians for immediate improvements to relieve the congestion. In mid-October, MDTA and the Governor committed to implementing AET at the Bay Bridge before the summer of 2020. MDTA and the design team, led by RK&K, worked to identify how the ongoing AET design project could be revised to implement AET within 6 months. The solution would provide an interim AET configuration where users would travel at highway speeds through the existing toll plaza area and be tolled electronically at a new gantry on the Eastern Shore.

MDTA and RK&K completed design for a new AET gantry, toll plaza demolition, and reconfiguring eastbound US 50/301 into an AET alignment by December, months faster than a typical design process. Construction for all task orders was completed by April 2020 with interim AET in place before May, a year earlier than originally planned.

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AWARD JUDGES PROVIDE VALUABLE SERVICE TO ACEC/MD

We would like to express appreciation to the following judges that played an integral part in the success of our Awards Program. Our distinguished panel of judges for this year's awards included:

- Bryan Dusza, The Wilson T. Ballard Company
- Eric Marabello, MDOT SHA
- Joey Sagal, MDOT SHA
- Kathy Walsh, Stantec
- Lauren Buckler, MD DGS
- Roy Streib, Development & Facilitators, Inc.
- Tiffany Harrison, Gannett Fleming, Inc.
- Wane-Jang Lin, MDOT MTA

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## *THANKS FOR BEING A SPONSOR!*

ACEC/MD would like to extend its sincere appreciation, and thank the following sponsors for making ACEC/MD's Awards Program a great success:

### GOLD

- Century Engineering, Inc.
- Gannett Fleming, Inc.
- GPI
- Johnson, Mirmiran & Thompson (JMT)
- KCI Technologies, Inc.
- Rummel, Klepper & Kahl (RK&K)
- Stantec
- Wallace Montgomery
- Whitney Bailey Cox & Magnani (WBCM)
- WSP

### SILVER

- A. Morton Thomas & Associates (AMT)
- AECOM
- Ames & Gough
- Brudis & Associates
- McCormick Taylor
- Specialized Engineering

### BRONZE

- EBL Engineers

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WSP'S LAUREN WAESCHE, P.E. SELECTED AS THE 2021 YOUNG PROFESSIONAL AWARD RECIPIENT

Annually, in conjunction with our parent organization the American Council of Engineering Companies (ACEC), ACEC/MD presents a Young Professional of the Year Award. This award recognizes the accomplishments of our member firms' young engineers by highlighting their interesting and unique work, and the resulting important impact on society. Lauren Waesche, PE, was the recipient of the 2021 Young Professional of the Year Award.



Lauren is a devoted steward to the community through her leadership and participation in numerous civic societies, programs, and charitable organizations, both in and outside the Engineering Community. Her kindness and good will toward her community certainly sets her apart from others. As an active member of the ACEC Community Outreach Committee, she has supported the industry's concerns for proposed legislation, such as Indemnity and Duty to Defend, and has reached out to local politicians to voice ACEC/MD's interests.

Lauren helps educate her neighbors in local government and assesses the neighborhood for traffic calming and overall safety. She has participated in several STEM events for high school students throughout Maryland and is actively involved with the Women's Transportation Seminar (WTS). She participated in a fundraiser for the WTS Nicole Washington scholarship fund, which provides educational opportunities to college students. As the co-chair and a mentor of the WTS Mentor Program/Committee, she gives guidance to younger women engineers/planners to help them succeed in the Transportation industry. Her experience has led her to start a new mentor program titled, 'Next Level' that targets building leadership skills for mid-level engineers/planners.

As a lead on the Red Shoe Shuffle committee with the Ronald McDonald House (RMH), Lauren developed a plan and modified details for an in-person 5k race to become a virtual event. Her leadership skills helped raise thousands of dollars for RMH. With this organization, she has also prepared and served hundreds of meals for families of pediatric patients in Baltimore Hospitals and rendered her spare time to helping children with crafts.

As part of the WSP Green Team, Lauren was involved in the cleanup of several parks. In 2020, Lauren graciously donated funds to a WSP-led charity drive to support the Maryland Food Bank during the holiday season. Her generosity doesn't end there; she continues by donating clothing and toys to both Toys for Tots and Operation Christmas Child. She has even gone to the limits of growing out her hair, only to have it cut and donated to make wigs for cancer patients.

Lauren has a selfless, 'take charge' attitude. At the rise of the pandemic when essential personal protection equipment was limited, she took the initiative to respond to the worldwide COVID-19 crisis by buying supplies and making/sewing over 600 plastic face shields and masks for the Kennedy Krieger Institute, Healthcare for the Homeless, and local hospitals in the Baltimore area for front line workers fighting the pandemic.

While volunteering for Bridges to Prosperity, Lauren spent two weeks in Africa providing design and construction services for a pedestrian bridge that now connects two rural communities in Kabere, Rwanda. Last spring, Lauren had a mission trip planned to Guatemala through a non-profit organization, but unfortunately, it was canceled due to COVID travel restrictions. She has rescheduled the trip for 2021.

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## *WBCM'S DEANNA SCHREIBER AWARDED ACEC/MD 2021 COMMUNITY SERVICE AWARD*

Annually, ACEC/MD honors a member firm representative that has made a significant contribution to the community by volunteering their time and expertise. The ACEC/MD 2021 Community Service Award went to Deanna Schreiber, PE (WBCM).

Deanna Schreiber is an exceptional, young professional involved in the design, analysis, rehabilitation, and inspection of transportation structures throughout the state of Maryland. Her resume includes the design of a variety of structures ranging from small culverts to large, multi-span bridges over waterways and railroad tracks. She has performed the inspection and reporting for hundreds of structures to identify and document structural deficiencies that warrant repair or additional analysis. Deanna has also designed and developed repair details to keep bridges in safe working order. The work she performs is essential to keeping the roadways safe for motorists and pedestrians and preventing the State's infrastructure from falling into a state of disrepair.



Deanna's engineering knowledge and strong work ethic have allowed her to quickly ascend the ranks at WBCM. Each year she continues to take on more responsibilities such as the development of Jr. staff and interns and management of multiple projects. In her current role, Deanna is responsible for coordinating with other transportation disciplines to help ensure that contract documents are technically accurate and delivered on time. Deanna also continues to be a rising star in the engineering community. She has served as the President of ASCE MD's Young Members Committee and provides mentoring to young students in engineering through the Civil Engineering Program at Penn State. Her passion for engineering and desire to give back have inspired many to continue in the field of engineering and go on to lead careers providing safe and reliable infrastructure for generations to come.

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ACEC/MD'S YOUNG MEMBERS COMMITTEE HOSTS TRIVIA NIGHT

Offering an opportunity for some virtual networking, ACEC/MD's Young Members Committee, chaired by AECOM's Brian Pietryka, hosted ACEC/MD's first trivia event on February 24th. Utilizing the professional services of VOLO, this event provided a tremendous opportunity to introduce the 40 registrants for the program to ACEC/MD, and allowed participants a fun respite from the challenges faced in the current COVID environment. Congratulations to the following prize winners: Dana Knight, Greg Donnelly, Paul Silberman, Dave Roberts, Kim Ambrose, Jamie Frank, Matt Ewell, and Rob Marchetti. And a special thank you to the following program sponsors, who helped to make the program a big success:

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| AECOM | KCI Technologies |
| Century Engineering | McCormick Taylor |
| Johnson, Mirmiran & Thompson | Michael Baker International |

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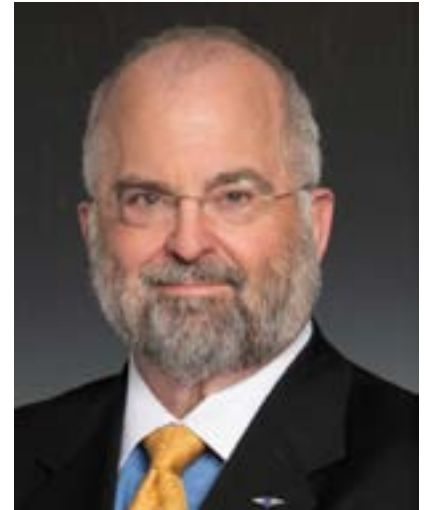
## *MDOT-MAA'S PAUL SHANK RECOGNIZED WITH THE 2021 PRESIDENT'S AWARD*

At the president's discretion, the American Council of Engineering Companies/Maryland honors an individual whose actions have greatly contributed to the advancement of the consulting engineering profession and the citizens of Maryland. This year's President's Award went to:

**PAUL L. SHANK, PE, CM**  
**CHIEF ENGINEER**

MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND AVIATION ADMINISTRATION

Mr. Shank has served as the Chief Engineer at the Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA) for over 15 years. During that time, he has led the planning, design and construction of the multi-billion-dollar capital improvement and systems preservation programs at Baltimore Washington International Thurgood Marshall Airport and Martin State Airport. As Chief of the Division of Planning and Engineering he oversees MAA's Office of Engineering and Construction, Office of Planning and Environmental Services, Office of Environmental Compliance and Sustainability, and the Office of Architecture. Mr. Shank has over 40 years of experience in airport development and associated transportation, commercial and institutional development. His accomplishments are measured in the billions of dollars of projects completed throughout the United States and overseas.



He is a Professional Engineer and a Certified Member of the American Association of Airport Executives. He was a past recipient of the American Association of State Highway Transportation Officials President's Transportation Award for Aviation and the Federal Aviation Administration's Henry "O" Award. Mr. Shank is a commercial pilot, flight instructor and aircraft owner. Aviation is his passion.

**PAST RECIPIENTS:**

- 1997 R. Charles Avara | former Delegate in MD General Assembly
- 1998 Gene Lynch | Maryland Department of General Services Secretary
- 1999 David Winstead | former MDOT Secretary
- 2000 None Awarded
- 2001 Emil Kordish, PE | Past ACEC/MD President; retired - RK&K, LLP
- 2002 Liz Homer | former SHA Deputy Administrator
- 2003 Delegate Casper Taylor | former Speaker of the House in MD General Assembly
- 2004 Francis Kuchta, PE | former Baltimore City DPW Director
- 2005 Carl Scheffel, PE | Fox Industries Inc.
- 2006 Neil Pedersen | SHA Administrator
- 2007 William Gluck, PE | Maryland Department of General Services
- 2008 Don Sherin | SHA Office of Consultant Services
- 2009 John Porcari, PE | Maryland Department of Transportation Secretary
- 2010 Jaswant Dhupar, PE | former Baltimore City DPW Engineering & Water and Wastewater Division Chief
- 2011 Paul J. Wiedefeld | Maryland Aviation Administration
- 2012 Brian R. Kelm | Maryland Defense Force
- 2013 Donald C. Fry | President & Chief Executive officer of the Greater Baltimore Committee
- 2014 William K. Hellmann, PE | Rummel, Klepper & Kahl and former MDOT secretary
- 2015 Douglas H. Simmons, PE | SHA Deputy Administrator
- 2016 Stephen V. Silva | MTA Chief Engineer
- 2017 James M. Irvin | Howard County DPW Director
- 2018 Earl S. "Jock" Freeman, PE (OOS, MDOT SHA)
- 2019 Gregory Slater (former MDOT SHA Administrator)
- 2020 Christine Nizer | MDOT MVA Administrator

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2021 ACEC/MD ENGINEER OF THE YEAR FROM A SMALL FIRM & FROM A MID-LARGE FIRM

Recognizing engineering achievements and community service by engineers from both a small and a mid-large size firms, ACEC/MD is pleased to introduce Engineer of the Year Awards for the respective categories.



2021 ENGINEER OF THE YEAR FROM A SMALL FIRM PRESENTED TO GIPE ASSOCIATES' DAVID R. HOFFMAN, PE

Dave is an extraordinary mechanical engineer and leader. His passion for mechanical engineering radiates from him, and those working around him benefit from his willingness to share his experience and knowledge. He is "hands on" with every single project produced. He collaborates and invites others to share their engineering or construction experience, regardless of position or credentials. Because of Dave's willingness to collaborate and share his knowledge, he was nominated and awarded the Association of Energy Engineers, National Capitol Chapter's Energy Engineer of the Year Award in 2017.

Dave's focus is always on "what is right for the Owner" and their facility or system. He often spearheads the research and feasibility of new technologies, and examines how to apply them to the firm's projects. He develops checklists and master templates for his colleagues regarding what will work, what won't, and always shares his "lessons learned". His fundamental engineering knowledge and field expertise are un-paralleled in the industry. The firm's owner clients seek Dave out to address their "unsolvable" issues. This shows a high level of respect, trust, and appreciation for his abilities.

Finally, Dave loves to share his passion for mechanical engineering and design. He has presented engineering topics for ASHRAE, MD Public Schools, the ACE Program, and various other organizations. He volunteers his time to meet with students, contractors, facility planners, and other engineers to share his knowledge and experience in designing mechanical and plumbing systems for public facilities.

2021 ENGINEER OF THE YEAR FROM A MID-LARGE FIRM PRESENTED TO RK&K'S ELFORD D. JACKSON, PE

Elford Jackson is one of RK&K's most valued engineers and is a trusted leader and mentor to many. Elford started his career over 29 years ago as a drafter for Baltimore City in their Water Engineering Section. Since joining RK&K 22 years ago as a young designer, he has steadily progressed to his current title of Utility Manager. Elford is respected by both his peers and clients for his broad technical expertise in many disciplines including utility design, site development and transportation engineering. Elford oversees a multitude of staff



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2021 ACEC/MD ENGINEER OF THE YEAR FROM A SMALL FIRM & FROM A MID-LARGE FIRM AWARDS (CONTINUED)

and is probably best known for his enthusiasm, management style of leading by example founded on strong technical skills, and his ability to communicate and relate to other staff. One testament of Elford's leadership has been his ability to maintain close cohesion, high morale and productivity among departmental staff working remotely during the ongoing COVID pandemic by hosting daily virtual meetings that facilitate personal interaction and communication.

Elford is Assistant Secretary Treasurer on the Board of Directors for the Chesapeake Section AWWA having served in various positions including Diversity Manager and Trustee for Membership & Demographics. Elford has served as a member of the Baltimore City Public Arts Commission and currently serves on the Industrial Advisory Board for Morgan State University's Civil Engineering Department, where he holds the position of Secretary.

It is Elford's enthusiasm about the profession and his positive relationship with the entire engineering community that establishes him as a leader worthy of ACEC Maryland's Engineer of the Year.

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## *CONGRATULATIONS ART BARRETT!*

It is with great pride that we announce that Gannett Fleming's Art Barrett, PE has been elected to serve as ACEC's Chair-elect, commencing at ACEC's upcoming Board of Directors meeting, being held virtually on April 25th. He has been selected to serve as ACEC Chair-elect in 2021-2022 and will become ACEC Chair in 2022-2023. In addition to being an ACEC Vice Chair from 2018-2020, Art served as ACEC/MD President in 2015-2016, in all the other officer positions and as an ACEC/MD Director. Art is currently an active participant in ACEC/MD's Legislative Committee.

Art follows in the footsteps of past ACEC/MD leaders that have been elected to steer ACEC, including:

- Andrew Parker, PE (Mueller Associates) 1991 -1992
- Jim Thomas, Jr., PE (George, Miles & Buhr) 1997 – 1998
- Terry Neimeyer, PE (KCI Technologies) 2011 – 2012



Congratulations to Art on this well-deserved recognition! We wish him well as he begins to take the reigns of ACEC in what is both a very challenging and exciting time!

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WORTHY STUDENTS GARNER SCHOLARSHIPS

In order to assist worthy students pursuing careers in engineering or land surveying, the American Council of Engineering Companies/Maryland awards four scholarships. Three scholarships, sponsored by ACEC/MD, go to selected students majoring in either civil, mechanical or electrical engineering, or surveying, attending an accredited college or university. The fourth scholarship, the William R. Kahl Scholarship, sponsored by long-time member firm RK&K, LLP, is awarded to the top ranked engineering student in the competition.

ACEC/MD Scholarship Winners

Yekta Kamali

Yekta Kamali is a junior entering her senior year at University of Maryland (UMD) College Park, pursuing a bachelor's degree in Electrical Engineering. As a resident of Gaithersburg, Maryland, she possesses a 3.7 GPA. Yekta recently interned at GL Communications Inc. creating demonstration videos for their website. She is an active UMD Persian Club member and recently was the position of Officer for IEEE Club at Montgomery College while participating as a member of Women in Engineering Science and Technology club in 2020.

Jacob Witlin

Jacob Witlin is a sophomore entering his junior year at University of Maryland (UMD) College Park, pursuing a bachelor's degree in Fire Protection Engineering. As a resident of Ellicott City, Maryland, he possesses a 3.62 GPA. Over the summer, Jacob interned with Eccalon, LLC, assisting with the company's webpage development. He also recruited participants for a research study on hypersonics. He serves as student ambassador for ClarkLEAD and ClarkCommunities, helping incoming students. He maintains an active membership with Engineers without Borders, Society of Fire Protection, Hillel, and National Society of Collegiate Scholars.

Andrew Huffer

Andrew Huffer is a junior entering his senior year at University of Delaware (UD), pursuing a bachelor's degree in Civil Engineering. As a resident of Williamsport, Maryland, he possesses a 3.5 GPA. Andrew is an active track and field athlete holding the title of Sprint Captain for UD. He currently works for Soccer Shot in New Castle County as a soccer instructor. He also works for Head Research Group, monitoring the progress of research projects.

William R. Kahl 2020 Scholarship Winner

Chimaobi Aku

Chimaobi Aku is a sophomore entering his junior year at University of Maryland (UMD) College Park, pursuing a bachelor's degree in Mechanical Engineering. As a local resident of College Park, he possesses a 3.4 GPA. Chimaobi currently works at the Center for Minorities in Science and Engineering (CMSE), collecting and analyzing data to support other CMSE programs. He maintains an active membership with the Black Engineers Society and is a UMD Clark Leader. His future plans include developing affordable efficient biomedical devices that can be easily obtained for all levels of income level.

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## *NEW MEMBERS*

The following firms have been elected to membership in ACEC/MD:

### *REGULAR MEMBER:*

CP ENGINEERING, LLC.

145 Ostend Street, Suite 600, Baltimore, MD 21230

410-934-0889

Rep: Chander Shahdarpuri, PE#56901, SECB, M.ASCE, C.ENG, FISTRUCTE  
(chanderp@cpengineering.live)

Size of Firm: 1

Website: [www.cpeengineering.live](http://www.cpeengineering.live)

Brief History and Activities provided by the Firm: CP Engineering, LLC. is a newly established firm providing Structural Engineering.

### *AFFILIATE MEMBER:*

TRION, A MARSH AND McLENNAN AGENCY

502 Washington Avenue, Suite 250, Towson, MD 21204

Telephone: 410-828-2763

Rep: Jonathan Spivey ([jonathan.spivey@trion-mma.com](mailto:jonathan.spivey@trion-mma.com))

Website: <http://www.trion.com>

Brief History and Activities of the Firm: Trion was founded in the late 1990's and in 2010 became a subsidiary of Marsh, part of the Marsh & McLennan Companies, and the world's leading global insurance broker and risk management adviser. Trion is a leader in the employee benefits marketplace, developing innovative solutions that simplify benefits and risk management for local, regional, national, Fortune 500 and Fortune 100 companies. Based in King of Prussia, Pennsylvania, the firm has seven additional offices and more than 450 associates nationally, including several consultants located remotely throughout the country to ensure optimal support for their geographically dispersed clients. Their services focus on employee health and welfare benefit plans, voluntary benefits, disability and life programs, benefits administration including COBRA, spending accounts and call center support, and strategic benefits communications.

We welcome these firms as members of ACEC/MD. Be sure to add their information to your records. The next time you see one of their representatives, please take the time to let them know we're glad that they have joined the Council!

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MEMBER NEWS

JOHNSON, MIRMIRAN & THOMPSON (JMT) is pleased to announce that the firm is celebrating its 50th anniversary.

KCI TECHNOLOGIES is pleased to announce that *Terry Neimeyer, PE* was the recipient of ASCE's prestigious OPAL Award that recognizes outstanding projects and leadership.

SPECIALIZED ENGINEERING recently announced that the firm's ACEC/MD representative is now *Bob Simon*. He can be reached at bsimon@specializedengineering.com

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OFFICERS

- President  
Tony Frascarella, P.E.  
Century Engineering
  
- Vice President  
Sean McCone, P.E.  
Johnson, Mirmiran & Thompson
  
- Secretary  
James Deriu  
KCI Technologies
  
- Treasurer  
Melinda Peters, P.E., CCM, DBIA  
RK&K
  
- ACEC Representatives  
Director  
Stu Taub, P.E.  
Wallace Montgomery  
Alternate Director  
Alan Straus  
AECOM
  
- ACEC/MD Directors  
2018-2021  
Derek Mostoller, P.E.  
Gannett Fleming  
Kathy Walsh, P.E.  
Stantec  
2019-2022  
Malini Glueck, P.E.  
Phoenix Engineering  
Heidi Van Luven, P.E.  
A. Morton Thomas & Associates  
2020-2023  
Rob Marchetti, P.E.  
McCormick Taylor  
Tony Mawry, P.E.  
Wallace Montgomery
  
- Executive Director  
Jim Otradovec

*UPCOMING EVENTS*

ACEC Annual Convention & Legislative Summit  
April 26-28, 2021

Virtual  
Registration is now open!

**Annual Golf Outing**

May 3, 2021  
**Time Change!** Shotgun 9am  
Registrations due by April 23!

**Environmental Forum**

May 20, 2021  
Virtual - Details to Follow

**ACEC/MD Annual Conference**

June 24, 2021  
One-day Program  
B&O Railroad Museum  
*Details are being finalized!*

For more information on these, and other events, please contact the ACEC/MD office at 410-539-1592, [acecmd@acecmd.org](mailto:acecmd@acecmd.org), or go to [www.acecmd.org](http://www.acecmd.org). Mark your calendar and to plan to participate!

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**contact:**  
**Jim Otradovec**  
**Executive Director**  
**AMERICAN COUNCIL OF**  
**ENGINEERING COMPANIES/**  
**MARYLAND**  
**8254 Bayside Drive**  
**Pasadena, MD 21122**  
**Tel. 410-539-1592**

2020 ACEC/MD's  
Engineering Excellence  
Grand Award Winner,  
designed by  
KCI Technologies, is the  
Town of Rising Sun  
Chester Water  
System Interconnect.

