

### Transurban: Express Lanes in Virginia

If you drive a car in the DC area, then you are almost sure to have driven either within or alongside the 495/95 Express Lanes. Besides knowing that you have to pay a toll to use the roads, what else do you know about the Express Lanes network in Virginia?

Did you know that in 2007, the Virginia Department of Transportation (VDOT) finalized a long-term partnership agreement with Capital Beltway Express, LLC – a consortium led by Transurban that would design, build, operate,

Again, in 2012, VDOT finalized a long-term contract with 95 Express Lanes, LLC, where Transurban and its partners made a substantial upfront equity commitment to fund construction of the new 95 Express Lanes and again secured financing through private activity bonds and a TIFIA loan. Through this partnership, Virginia was able to leverage private investment to deliver a nearly \$1 billion project for only \$82 million of state funds.

In an effort to extend the Express Lanes network, VDOT recently approved the \$460 million 395 Express Lanes project under the existing 95 Express Lanes concession agreement, which, once constructed, will extend the 95 Express Lanes for eight miles north to the Washington, DC line. The 395 Express Lanes project will reduce congestion in the I-395 corridor, increase capacity by adding an additional HOV lane to create three



finance and maintain the \$2 billion 495 Express Lanes project? Transurban and its partners provided a substantial upfront equity commitment to help fund construction of the 495 Express Lanes and financed the rest of the project through private activity bonds and a loan from the U.S. Department of Transportation's TIFIA program. By partnering with the private sector, VDOT was able to deliver improvements more quickly and with fewer tax dollars, provide new travel choices, and reduce impacts on the community and the environment. The partnership enabled Virginia to leverage private capital to translate every one dollar of state taxes into four dollars of transportation improvements.

reversible lanes on I-395, and extend the benefits and travel options of the 95 Express Lanes further north. Early construction activity is expected to begin in the summer of 2017 with completion currently scheduled for late-2019.

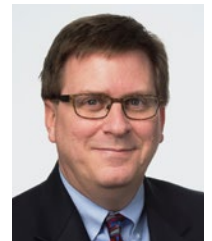
Transurban is an Australian-based company that manages and develops urban toll road networks in Australia and the United States. Transurban has 13 roads in their Australian portfolio and two roads in the state of Virginia, both in the Washington DC area. Be sure to join us on April 18<sup>th</sup> to learn more about Transurban and the Express Lanes in Virginia, including projects that are currently under construction and future projects on the horizon!

Please join us on **Tuesday, April 18**, at the Hilton Arlington, 950 North Stafford Street, Arlington, VA, on the second floor in the Gallery Ballrooms. Parking is available at the hotel (\$10), at the Ballston Mall garage (\$1 after 6 pm), and on the street (free after 6 pm). The Hilton is on the same block as the Ballston Station on Metro's orange and silver lines. Registration and networking will be from 6–6:45 pm, followed by dinner. The program will end by 8:30 pm. The cost is \$45 for those preregistering, \$10 for students and \$55 for walk-ins, as space allows. One Professional Development Hour is available to attendees. For questions, please contact [Jordan Pitt](#). Please click [here](#) to register by **April 13**.

*Note that no-shows will be charged the full registration fee. We welcome walk-ins, including any registrations made after the guaranteed number of guests is provided to the hotel. However, the cost for walk-ins is higher because the Section is charged accordingly by the hotel for late registrations.*

#### About the Speaker:

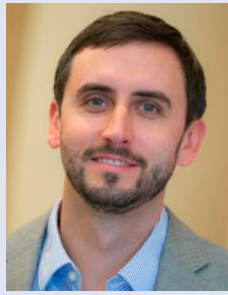
Karl A. Rohrer is the Head of Delivery (North America) for Transurban, responsible for leading Transurban's delivery of new toll and managed roadways in the North American market. He is active in establishing and executing the overall business strategy for North America, serves as a key liaison with contractors, government, industry and other stakeholders, and engages internal teams to safely deliver major



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## President's Corner

As the weather warms and the cherry trees are blossoming, we continue to have an abundance of new activities coming to life in the National Capital Section. Since our last newsletter release, we have been busy with a variety of interesting events. The NCS Education Committee and a handful of volunteers did an outstanding job teaming with the local ASCE Student Chapters at Howard University and George Mason University for "meet and greet" outreach events, where students had the chance to meet some of our members and learn more about ASCE and the National Capital Section. I had the opportunity to attend both events, and it was such a blast to network with the students and listen while our members and volunteers shared their unique experiences about their daily jobs as civil engineers. I recall when the situation was reversed and I was the student asking the questions. Being on the other side this time giving advice truly brings into perspective the importance of these experiences for young engineers and students. I encourage you to volunteer and share your story at the upcoming outreach events at George Washington University and Catholic University on April 6<sup>th</sup> and 11<sup>th</sup>.



based on the physical condition and needed investments for improvement. Although the news was not especially glamorous this time (our overall grade has remained the same since 2013 at a D+), there were some very engaging discussions at the press release by Tom Smith, ASCE's

Executive Director, Greg DiLoreto, ASCE Past President and Chair of the Report Card Committee, as well as panel discussions by George Hawkins, CEO of DC Water, Governor Ed Rendell, former governor of Pennsylvania, and Governor Dannel Malloy of Connecticut. The Infrastructure Report Card is an excellent tool for highlighting the important need for continued investment in America's infrastructure, and we can all use that tool to promote that need for investment. As you may recall in 2016, as part of our Centennial Celebration, the NCS developed the very first Report Card for D.C.'s Infrastructure, and I am reminded of the spectacular effort put forth by members our Report Card Committee by seeing the results of the study included in the 2017 Report Card release. If you're interested in learning more about the 2017 Infrastructure Report Card, you can learn more by visiting [www.infrastructurereportcard.org](http://www.infrastructurereportcard.org).

Last but not least, on March 21<sup>st</sup> we held what is one of my favorite events of the year: the NCS Annual Awards Banquet. Each year we have the opportunity to recognize outstanding students, scholarship award winners, outstanding member service award-ees, Project of the Year awardees, new ASCE Life Members, new ASCE Fellows, and the list goes on. Each year

I am fortunate to meet some very outstanding students, which after hearing all the activities some of the students are involved with, I feel like I am slacking compared to them! And when it comes to our members, I am so proud of all of the hard work done by our dedicated members and volunteers throughout the year, and I would like to offer my sincere gratitude to everyone in our Section that works hard to make our events a success. I look forward to seeing who all the award winners will be next year!

This month we are very excited to have Karl Rohrer, Head of Delivery for Transurban's North American Operations, at our April dinner meeting to present an interesting discussion about the Express Lanes network in Northern Virginia. I hope you will be able to join us on April 18<sup>th</sup> for networking and dinner before learning some history about the Express Lanes, as well as some of Transurban's current projects such as the 395 Express Lanes and 95 Express Lanes Southern Extension that is currently being constructed.

As always, I encourage you to reach out to me at [president@asce-ncs.org](mailto:president@asce-ncs.org) for any comments or ideas you may have about our events or if you are interested in becoming more involved and sharing your story with others. Hope you enjoy the wonderful spring-time month ahead!

Sincerely,



Jordan Pitt  
President, ASCE National  
Capital Section

## Newsletter

Jim Palmer, Editor

**May 2017 Issue Deadline:** April 19, 2017

**To Submit Articles:** [newsletter@asce-ncs.org](mailto:newsletter@asce-ncs.org)

**NCS eNewsletter Archives:** go to [www.asce-ncs.org](http://www.asce-ncs.org) and view along the sidebar.

**Address Changes:** Call 1-800-548-ASCE, e-mail [member@asce.org](mailto:member@asce.org), visit [www.asce.org](http://www.asce.org), or write: ASCE – Membership, 1801 Alexander Bell Drive, Reston, VA 20191. Include your membership number.

## National Capital Section

### Officers (2016–2017)

**Jordan Pitt**, President

**Brian Barna**, Vice President

**Emily Dean**, Treasurer

**Kelly Cronin**, Secretary

**Jim Palmer**, Newsletter Editor

**Mike Venezia**, YMF President

**Rachel Schneider**, Director

**Piers Causton**, Director

**Alex Rosenheim**, Director

**Victor Crawford**, Director

**Christian Manalo**, Past President

**Ranjit S. Sahai**, Previous Past President

### Committee Chairs

Please refer to the [NCS website](http://www.asce-ncs.org) for a current list of NCS committees and chairs.

## Mark Your Calendars! Construction Safety Workshop: Wednesday, April 26, 2017

ASCE's Construction Institute (CI) and the ASCE National Capital Section, along with the American Society of Safety Engineers (ASSE) and ANSI's A-10 Committee on



**CONSTRUCTION  
INSTITUTE**

Construction and Demolition, invite you to attend an exciting one-day workshop for construction professionals, including owners, architects, engineers, construction managers, general contractors and subcontractors, to discuss construction engineering's impact on the safety of both site workers and the public.

During the Construction Safety Workshop, presenters will examine case studies of successful utilization of construction engineering practices on multiple construction projects for risk management and safety management.

Construction engineering has the potential to impact construction safety in the areas of: demolition, utility relocations, temporary ground support for excavation or adjacent buildings and

structures, highways, bridges, tunnels, and the management of construction risks.

This one-day workshop will be a conversation between construction professionals about how to improve our individual company processes for safety. A total of **eight Professional Development Hours (PDHs)** will be awarded for attendance.

The keynote speaker will be Mohammad Ayub, Director, Engineering and Construction Services, OSHA.



Attendees will be served a hot breakfast and lunch, with morning and afternoon breaks. Vegetarian meal options will be provided.

There will be free parking available on-site.

Advance Registration Fee (through April 15, 2017):

- General: \$120
- Student: \$60

Late Registration Fee (after April 15, 2017):

- General: \$150
- Student: \$75

### Who Should Attend?

Owners, University officials, Healthcare, Government, Construction PMs, Construction project superintendents, Project Safety Professionals, Corporate Safety Directors, and Subcontractor Safety Professionals

### Speakers

T J Lyons, Gilbane; David Maggio, Clark; Frank Trujillo, Miller & Long; Jeff Oliver, Barton Mallow; TBD, Balfour Beatty; TBD, Skanska; John Farrell, Allan Meyer; Cory Gaye, Wagman; Shane Yanagisawa, Impreglio JV; Dean McKenzie, OSHA; Justin Crandol, Zurich; Jim Worrell, Construction Institute Safety Committee; John Brain, Construction Institute Temporary Structures Committee; Dr. Michael Toole, Bucknell University

### When?

April 26, 2017

### Where?

Bechtel Conference Center, American Society of Civil Engineers Headquarters, 1801 Alexander Bell Drive, Reston, VA 20191.

[Register Here](#)

### Transurban: Express Lanes in Virginia

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new infrastructure and capital maintenance projects.

Prior to joining Transurban, Karl served as the Deputy Project Director (Phase 2) of the Dulles Corridor Metrorail Project for the Metropolitan Washington Airports Authority (MWAA), and has held previous roles as Senior Project Manager for Parsons Corporation and

Project Development Manager of the Dulles Corridor Metrorail Project for the Virginia Department of Rail and Public Transportation (DRPT).

Please join the ASCE-NCS on Tuesday, April 18, as Karl Rohrer, Head of Delivery (North America) for Transurban presents an exciting topic about current and future Express Lanes in Virginia! ■

### ASCE-NCS Newsletter Patrons



**PARSONS  
BRINCKERHOFF**

**Ethan Grossman  
Engineering**

# 2017 NCS Award Winners

The NCS Annual Awards Banquet is an opportunity for the Section to recognize individuals and teams for outstanding achievement. Nearly one hundred members, guests, and students attended the 2017 Awards Banquet on March 21 at the Hilton Arlington. *A special thank-you to our photographer Dr Z!*

## Civil Engineering Student Awards

The NCS awarded \$10,000 in scholarships to deserving Civil Engineering students from four of our area schools: The Catholic University of America (CUA), George Mason University (GMU), The George Washington University (GWU), and University of the District of Columbia (UDC). We also honored the faculty's selection for Outstanding Graduating Senior from the above four schools plus our fifth area school, Howard University (Howard).

Student Scholarship Awards	
<b>The Catholic University of America</b>	
James Walsh	ASCE-NCS Scholarship
<b>George Mason University</b>	
Craig Gray	Hummel Memorial Scholarship
Rebecca Haataja	Hathaway Memorial Scholarship
<b>The George Washington University</b>	
Edna Aguilar	ASCE-NCS Scholarship
Jiangnan "Louise" Lu	ASCE-NCS Scholarship
<b>University of the District of Columbia</b>	
Roxy Guandique	ASCE-NCS Scholarship
Stacey Lockerman	Williams Memorial Scholarship



CUA scholarship recipient James Walsh (C) accepts an ASCE-NCS Scholarship from Scholarship Trust Fund Chairman Bernie Dennis (L) and NCS President Jordan Pitt (R)



GMU scholarship recipient Craig Gray (C) accepts the Hummel Memorial Scholarship



GMU scholarship recipient Rebecca Haataja (C) accepts the Hathaway Memorial Scholarship



CUA scholarship recipient Edna Aguilar (C) accepts an ASCE-NCS Scholarship




CUA scholarship recipient Louise Lu (C) accepts an ASCE-NCS Scholarship



UDC scholarship recipients Roxy Guandique (CL) and Stacey Lockerman (CR) accept scholarships with proud UDC Professor Ahmet Zeytinci (C)

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## ASCE-NCS Newsletter Patrons

 <p><b>Robert A. Pronier</b> Senior Vice President / Regional Manager Robert.Pronier@cardno.com 1881 Campus Commons Drive, Suite 103 Reston, VA; <b>Phone: 703-391-0024</b> www.cardno.com <a href="http://www.cardnohayneswhaley.com">www.cardnohayneswhaley.com</a></p>	<p><b>Practicing the Art of Structural Engineering</b></p> <p>We provide structural engineering services nationwide and internationally for a broad range of projects, including:</p> <ul style="list-style-type: none"> <li>&gt; Commercial</li> <li>&gt; Institutional</li> <li>&gt; Public</li> </ul>	<p><b>Booz   Allen   Hamilton</b></p> <hr style="width: 50%; margin: 0 auto;"/> <p><b>100 YEARS</b></p>
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## Outstanding Graduating Seniors

### The Catholic University of America

Caitlin Boyle

### George Mason University

Alayna Bigalbal

### The George Washington University

Mojolaoluwa (Demi) Ladipo-Obasa

### Howard University

Anna-Kaye Barrett

### University of the District of Columbia

Brahim S. Sidi M'hamed



CUA Outstanding Senior Caitlin Boyle accepts her award, presented by NCS President Jordan Pitt (R) and NCS Vice President Brian Barna (L)



GMU Outstanding Senior Alayna Bigalbal (CR) accepts her award, presented by GMU President Liza Durant (CL) and GMU Faculty Advisor Brian Barna (L)



GWU Outstanding Senior Demi Ladipo-Obasa (CR) accepts her award, presented by GWU Faculty Advisor Samer Hamdar (CL)



Howard Outstanding Senior Anna-Kaye Barrett (CR) accepts her award, presented by proud Howard Professor Bob Efimba (L)



UDC Outstanding Senior Brahim M'hamed (L) accepts his award, presented by proud UDC Professor Ahmet Zeytinci (CR)

## Life Member Awards

To achieve Life Member Status, a member must have reached their 65<sup>th</sup> birthday, have paid dues in any membership grade except Student member for at least 35 years, and have had at least ten years of continuous membership immediately preceding the attainment of Life Member. Congratulations to the following NCS members who were awarded Life Member Certificates:



The 2017 Life Members, presented their Certificates by Life Members Forum Chair Philip Melville (Back Row, C), NCS President Jordan Pitt (R) and Vice President Brian Barna (L)

## ASCE-NCS 2017 Life Member Inductees

Mr. Vincent Matner	Mr. Gary Hartz
Mr. Geoffrey Bonnin	Mr. Kurt Wagner
Mr. Andrew Persinko	Mr. William Zobel
Mr. Richard Schneider	Mr. Michael Martin
Mr. Albert Ducker	Mr. Gary Newlen
Mr. Victor Omelchenko	Mr. Kenneth Hall
Mr. Charles Irish	Mr. Christopher Kubik
Mr. Jack Strosnider	Mr. Renso Gasparotto
Mr. Paul Tertell	Mr. Robert Ray
Mr. Howard Lincoln	Mr. Charles Bolyard
Mr. Paul Chung	Mr. James Konnick
Mr. James Wilson	Mr. Daniel Dornan
Mr. T. Gingrich	Mr. Mark Osborne
Mr. Get Moy	Mr. Paul Clarke
Mr. John Stokely	Mr. David Shen
Mr. Philip Vitale	Ms. Deborah Goodings
Mr. Mark Hogan	Mr. Jonathan Jacobsen

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## ASCE Fellows

ASCE Fellows have made celebrated contributions and developed creative solutions that change lives around the world. It is a prestigious honor held by fewer than 3.5% of ASCE members.

There is no direct admission to the grade of Fellow. Fellow status must be attained by professional accomplishments via application and election by the Membership Application Review Committee. Fellows receive a framed certificate, pin, lanyard, and ribbons from ASCE, have a bio and photo published in ASCE News, receive recognition at the OPAL (Outstanding Project and Leaders) Awards Gala, and earn the credential F.ASCE. The National Capital Section is proud to have six members receiving this prestigious title in the Class of 2017 and offers its sincere congratulations to our newest Fellows.

### ASCE-NCS 2017 Fellows

Ahmet Zeytinci, PhD, PE, F.ASCE, F.NSPE

Robert Wolff, PhD, PE, F.ASCE, F.SAME

John Casana, PE, D.WRE, F.ASCE, Region 2 Director

James Saucedo, PE, F.ASCE

Camille George Rubeiz, PE, F.ASCE

Christopher H. Westbrook, PE, F.ASCE



ASCE Fellows Robert Wolff (CL), John Casana (CR), and Ahmet Zeytinci (R), announced by NCS President Jordan Pitt (L). Not pictured: ASCE Fellows James Saucedo, Camille George Rubeiz and Christopher Westbrook

## National Capital Section Service and President's Appreciation Awards

### Community Service Award – Victor Crawford, PE, M.ASCE

The Community Service Award recognizes outstanding contributions by an individual toward community improvement in the Washington metropolitan area. The National Capital Section Board of Directors determines that the awardee must have made, in the opinion of community leaders, an outstanding, selfless contribution of time and talent toward a civil engineering-related activity that has furthered the welfare of the community within a three-year period preceding the award. The winner of the Community Service Award is presented with a plaque to commemorate the accomplishment.



Community Service Award nominee Victor Crawford (C) accepts his award from NCS President Jordan Pitt (L) and Vice President Brian Barna (R)

**Victor Crawford, PE, M.ASCE**, is a current member of the National Capital Section Board of Directors and serves as the lead for K-12 student outreach for the NCS Education Committee. He has been active involved in STEM events for the NCS including two Science and Engineering Festivals and several Discover Engineering Family Day volunteer events. In addition to his work for the National Capital Section, Mr. Crawford re-established the Bull Run Branch under the Virginia Section of ASCE and currently serves as the Branch President. It is for supporting and promoting STEM throughout the National Capital region, his dedicated service to the National Capital Section through his numerous volunteer efforts, and his outstanding leadership of the ASCE-NCS Centennial Celebration that Mr. Crawford is being awarded the 2017 Community Service Award.

### Meritorious Service Award – Piers Causton, PE, M.ASCE and Rachel Schneider, HG, AM.ASCE

The Meritorious Service Award recognizes individual members of the National Capital Section who have made outstanding contributions to the work of the Section. Awardees must be active members who contributed significant time and talent to the Section and who set a high standard of professionalism through service.



Meritorious Service Award nominees Piers Causton (CL) and Rachel Schneider (CR) accept their awards

**Piers Causton, PE, M.ASCE**, has been a member of the NCS Board of Directors since 2014, and he is a major contributor to the organization through his involvement with the Environmental & Water Resources Institute (EWRI) Chapter (previously the Water Resources Committee), his service as the Treasurer-Elect, and through his efforts on the NCS Report Card Committee to help prepare the 2016 Report Card for DC's Infrastructure. It is for his outstanding service to the NCS through his involvement with the EWRI Chapter, as a major contributor for the development of the 2016 DC Infrastructure Report Card, and his active Board membership that Mr. Causton is being awarded the 2017 Meritorious Service Award.

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**Rachel Schneider**, HG AM.ASCE, has been a member of the NCS since 2013, serving as an Editor in Training and then Newsletter Editor for two years, and as a member of the Board of Directors since 2014. She helped transition the Water Resources Committee to the National Capital Environmental & Water Resources Institute (EWRI) Chapter. Ms. Schneider works as an Environmental Scientist/Engineer for the Department of Homeland Security on behalf of Parsons and is pursuing ENVISION™ certification. It is for her outstanding years of service to the Section as past Editor of the monthly NCS Newsletter and active Board membership that Ms. Schneider is being awarded the 2017 Meritorious Service Award.

**Lifetime Excellence Service Award – Phillip Melville, PhD, PE, F.ASCE**

This award recognizes individual members of the National Capital Section who have made outstanding contributions to the work of the Section over their lifetime. The awardee must be an active member who has contributed significant time and talent to the Section over at least 10 years and who sets a high standard of professionalism through service.

To say that **Phillip Melville**, Ph.D., P.E., F.ASCE is a long-time member of ASCE would be an understatement. Having first joined the Society in 1947, he has contributed much to the civil engineering community through his active



Lifetime Excellence in Service Award nominee Phillip Melville (C) accepts his award

participation in a variety of professional organizations. In addition to being an ASCE Life Member, Dr. Melville holds the prestigious title of ASCE Fellow, which is held by fewer than 3.5 percent of all ASCE members. He is also a Past President of the Virginia Society of Professional Engineers where he was active in planning their 50-year anniversary, and even commissioned an orchestral composition as part of the anniversary celebrations. In 2016, Dr. Melville championed efforts by the NCS to establish the Life Member Forum, which involved soliciting information from the local Life Member community to determine ways that Life Members can become involved and share their wealth of experience and knowledge with other engineers in the National Capital region. It is for his lifelong service in the civil engineering field, his contributions to the 2016 Centennial Engineer of the Month series, and his volunteer efforts to establish the Life Member Forum that Dr. Melville is being awarded with the 2017 Lifetime Excellence in Service Award.

**President’s Appreciation Award – Brian Barna, PE, M.ASCE and Emily Dean, PE, M.ASCE**

This award is selected by the NCS President to recognize members that have made significant contributions to the Section. Awardees are active members who contributed significant time and talent to the Section and who set a high standard of professionalism through service.

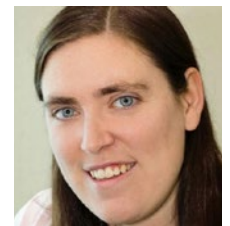
**Brian Barna**, PE, M.ASCE, is the current NCS Vice President and Awards Banquet Committee Chair. He has been active in the leadership of the NCS since joining as Webmaster in 2012. During his term as Webmaster, NCS won the national Outstanding Section & Branch 2014 Web Award from ASCE. Mr. Barna is a Professional Engineer with 10 years of experience as a structural engineer specializing in the design of buildings. He works for Whitman, Reardon & Associates as a Project Engineer providing project management and structural



President’s Appreciation Award nominee Brian Barna (R) accepts his award from NCS President Jordan Pitt (L)

engineering design and analysis for building projects. It is for his involvement in the NCS and continuous service on the Board of Directors, including terms as Vice President, Secretary, Director/Webmaster, and Awards Banquet Committee Chair that Mr. Barna is being awarded the 2017 President’s Appreciation Award.

**Emily Dean**, PE, M.ASCE, is the current Treasurer of the National Capital Section and has been an active member of the NCS since 2009. She is a graduate of the Pennsylvania State University and holds a Master of Engineering Degree in Project Management from the University of Maryland. Emily currently works as a Project Engineer for Bohler Engineering a land development firm located in Bowie, MD. It is for her outstanding service as the Treasurer of the NCS and her years of leadership to plan and organize volunteer activities for the Discover Engineering Family Day at the National Building Museum that Ms. Dean is being awarded the 2017 President’s Appreciation Award.



Congratulations to President’s Appreciation Award Winner Emily Dean!

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## National Capital Section Project Awards

### Sustainability Project Award – AlexRenew Nutrient Management Facility

The Nutrient Management Facility (NMF) in Alexandria, VA includes 18 million gallons of tank capacity with associated pumps, chemical analysis equipment, and an extensive odor control system. It also includes a lit,



Rich Voigt (C) of CH2M accepts the Sustainability Project Award on behalf of the AlexRenew Nutrient Management Facility; presented by NCS President Jordan Pitt (R) and Director Piers Causton (L)

regulation athletic field located on top of the process tanks, created as a community amenity. The NMF stores wastewater to balance the amount of nitrogen that goes into AlexRenew's biological treatment process. This helps to reduce the amount of chemicals and energy needed to clean water and ultimately helps reduce the amount of nitrogen discharged into the Chesapeake Bay watershed. Acres of impervious surface were replaced with vegetated areas to restore infiltration and water quality functions. A fish and sediment barrier was removed, improving the aquatic habitat. 85,000 cubic yards of contaminated soil was permanently removed and only native plant species were selected for landscaping to protect the surface and groundwater from contamination.

### Civil Engineering Project Award of Merit – 17th Street Levee Closure Structure

The 17th Street Closure in Washington, DC is a removable structure that can be erected in the event of high water. It attaches to the floodwalls on both sides of 17th Street and consists of aluminum panels between steel posts. This replaced the existing levee, which was in place since the late 1930s, which consisted of an earthen berm that ran parallel to the Lincoln Memorial Reflecting Pool. Previously, when river flood conditions were imminent, it required construction of a temporary closure of sandbags, Jersey barriers, and an earthen dam across 17th Street. Post-Katrina federal standards required that a more reliable levee system be in place. Numerous federal and local agencies collaborated over a two-year period to develop this new approach. The levee closure structure elements are designed to seamlessly blend with the setting of the National Mall.



Luis Seijido (C) of Akima Constuction, Sean Kennealy (CR) of the National Parks Service and Col. Edward Chamberlayne (R) are recognized on behalf of the 17th Street Levee Closure Structure, Civil Engineering Project Award of Merit

### Civil Engineering Project of the Year Award – MGM National Harbor

MGM National Harbor has been awarded the 2017 NCS Outstanding Civil Engineering Award and is the first luxury gaming destination in the National Capital Region, adding an exciting new aspect to the culture of the nation's capital. This project, with a construction cost of \$1.4 billion, brings Las Vegas-style entertainment to the nation's capital and re-invents the National Harbor skyline. The striking, curved roof has an area of 250,000 SF and, as a primary architectural feature, was carefully designed to avoid openings typically reserved for mechanical systems. A fast-track construction process required study of options on how best to accomplish design features within the time and money allotted for construction. 3D modeling was used to create architectural, structural, and construction models for coordination. This project earned a LEED Gold rating for its



Noor Masumi (CL) and Jim Vallie (CR), both of McKissack & McKissack, accept the Civil Engineering Project of the Year Award, Presented by NCS President Jordan Pitt (R) and Vice President Brian Barna (L)

commitment to sustainability.

***The National Capital Section wishes to extend its sincere congratulation to all the 2017 award recipients!***



# ASCE-NCS Committee News and Updates

## Transportation Committee

Our last presentation "Ethics 101," originally scheduled for March 14th, 2017 was canceled due to inclement weather. This presentation will now be held on April 11th at 11:45 AM on GWU Campus by Mr. Ranjit Sahai, PE, F.ASCE, the 2013–14 ASCE-NCS Past President. He is an author and principal at RAM Corporation, a consulting engineering firm focused on traffic engineering, storm water management, and technology projects. He has a keen interest in philosophy and has completed several online courses on the topic. Please look forward to registration emails that are sent out periodically. Remember, the attendance is at no cost and free food and beverages will be served.

## Construction Committee Professional Development Workshop:

The Construction & Reston Committees' Professional Development Session was held on March 10th, 2017 from 5:00 pm to 6:00 pm at Bechtel, 12011 Sunset Hills Rd #110, Reston, VA 20190. The workshop topic was program management activities of a Federal agency (Federal Transit Administration) from 2006–2010 when it conducted program reviews of three projects. One of them was a local project, Dulles Phase I which was the initial build out of the system to its current terminus, Wiehle Avenue. The other was New Jersey Transit's ARC and the last will be NYCMTA's Eastside Access. Twenty attendees received the professional development hour certificate.



**Call for Committee Members:** Please join our mailing list at this link: <https://groups.google.com/d/forum/asce-ncs-cc> and we will share information such as professional development event, job opening, construction news etc. Please contact me at [sunjeffsun@gmail.com](mailto:sunjeffsun@gmail.com) if you need more information or wish to serve on the Committee's leadership team. Committee members commit to regular meeting attendance, have the ability to receive communication by phone and/or e-mail and are comfortable communicating their ideas in a group setting. We'd be delighted if you considered being a part of it.

## CI Construction Safety Workshop:

We invite you to attend an exciting one-day workshop on Wednesday April 26, 2017 from 7:00 AM to 5:30 PM EDT at Bechtel Conference Center, ASCE Headquarters, 1801 Alexander Bell Drive, Reston, VA 20191 for construction professionals to discuss construction engineering's impact on the safety of both site workers and the public. See the featured article in the month's Newsletter for more information.

## Geotechnical Executive Committee

**Geotechnical Symposium:** Slope Stability. This year's symposium will focus on slope stability. Topics include, but are not limited to, slope failures & repairs, slope design, lessons learned, project case studies, and other related topics.

**When:** Wednesday, April 19, 2017 from 7:30 AM to 5:00 PM EDT

**Where:** Marriott Tysons Corner, 8028 Leesburg Pike; Tysons Corner, VA 22182

**Fee:** \$275/person. Fee includes continental breakfast and lunch.

**Schedule:** Available [here](#).

**Registration:** Available [here](#).



## Education Committee

### A Young Engineer's Perspective

*Editor's Note: The following is Engineering Student Laxman Dahal's meditation following a recent ASCE-NCS student outreach campaign at Howard University.*

It is astonishing how one can develop an entirely different perspective despite experiencing the same situation over and over again. Sitting on the same chair, surrounded by the familiar walls and staring at the usual white-board for the fourth hour in a single day wasn't enough to make him lethargic and not attend the event. Instead, a roomful of professionals exuberated an air of excitement which made him comprehend and embrace the opportunity to flourish outside the textbook.

Too old-school an introduction? I totally get it. Let me try telling you a story.

Once upon a time, there was a dark room full of ants. Among the colony of ants, an ant named Andy wanted to get out. Andy used to see a glimmer of light coming in from a window, which he thought could come handy. He began to build steps and, with a little help, was successful, getting out, into the woods, in the sun.

What's the connection, you might ask? An average student spends almost every weekday and sometimes even weekends to survive in the scary "grade-world" without having the slightest idea of the light being passed-in, in the form of opportunities, scholarships and the help that gets tagged along with networking. When students can barely survive the grade-world, outreach events like the one hosted by ASCE-NCS are pivotal in shaping them to start building the steps to get out in the real world and get a taste of endless horizon.

*continued on page 10*

Overlooking a solved dynamics problem on the board, as NCS President Jordan Pitt shared the story of his journey as president and a structural engineer, a sophomore civil engineering major who grew up in Nepal started connecting the dots of Pitt's Story with his own. To him, more than just an inspiration, the story encouraged an inevitable motivation. The urge to get out, get involved and make a real difference. Moreover, the scene in ASCE's Dream Big movie's trailer from the 2015 Nepal Earthquake stimulated him to act in the right direction to make an impact. Just like the roomful of ants in darkness pursue a glimmer of light, the overall event gave an impression of the light, exposing students to previously unexplored opportunities, scholarships, and more. With an aim of strengthening bonds between NCS and the Student Chapter, it left no stone unturned in describing the essence of networking – including an introduction to the Younger Members Forum (YMF) and the happy hours they

host. If it wasn't for the networking session, I wouldn't have been inspired to write this article.

Always remember – once Andy is out, he opens himself to the endless sky, which is what every member of a colony should be aiming for.

### **Reston Committee**

On March 9th, Michael O'Connor, PE, Vice President of the Frederick and Pennsylvania Line Railroad Museum presented a "Construction Program



Management Workshop," jointly hosted with the Construction Committee.

The next meeting of the Reston Committee will be held on April 26th at ASCE Headquarters in Reston, VA starting at 11:45am. Andrew Whittaker, PhD, SE, F.ASCE, Professor at the University at Buffalo Department of Civil, Structural, and Environmental Engineering and Director of the Multidisciplinary Center for Earthquake Engineering Research will present "Second Generation Tools for Performance-Based Earthquake Engineering." One PDH will be awarded to attendees.

*To be added to the Reston Committee distribution list, please contact Lisa Anderson: [lmanders@bechtel.com](mailto:lmanders@bechtel.com) or 703-429-6631. ■*

## **ASCE-NCS Newsletter Editor-In-Training**

### **Get Involved in Your Local Section!**

The NCS is looking for an energetic professional to contribute to the Section while developing technical communication skills and professional relationships with local civil engineers and ASCE-NCS Board members. Duties include helping to produce

eight newsletters annually; volunteer hours do not exceed five to eight hours per month. Editors-In-Training typically go on to be Newsletter Editors and hold NCS Board Positions. *A great way to get more involved!*

Email Jim Palmer, Newsletter Editor at [newsletter@asce-ncs.org](mailto:newsletter@asce-ncs.org) with "Editor-In-Training" in the subject line. ■

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- Introduction and Exhibit Space at Monthly Section Meeting
- Section meeting passes
- Scholarship Fund Contribution

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- Business card recognition in eNewsletter for 1 year
- Recognition on Section website homepage

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- Recognition in eNewsletter for 1 year (\$350)
- Annual Awards Banquet recognition incl. one pass (\$300)
- Exhibit space at Monthly Section Meeting (\$150)
- Scholarship Trust (\$100+)

As a volunteer-run Section of ASCE, your sponsorships allow NCS to promote our profession with public outreach efforts and support the professional and personal growth of our members. NCS is also committed to assisting civil engineering students through its Scholarship Trust. Surplus funds from the Section add to the Trust, subsidize the fees that we charge our members for educational meetings, and help us promote civic participation and leadership. Visible recognition for your support is a key part of the program. We have outlined specific sponsorship opportunities below.

**eNewsletter Sponsor/Website Recognition:** Our eNewsletters are issued throughout the year and distributed to more than 5,000 individuals.

**Annual Awards Banquet:** The NCS Annual Awards Banquet will be Tuesday, March 21, 2017 in Arlington. With attendance typically exceeding 100, we must rely on the generosity of others to support a quality event to honor deserving individuals and projects. As a sponsor, your firm will be recognized in the event program, on a display board located within the banquet hall, on our website, and in our eNewsletter.

**NCS Meeting Benefit:** Meeting sponsorship entitles your organization the opportunity to exhibit promotional materials at a monthly Section dinner meeting or select other meetings/events. Platinum sponsors also receive an opportunity to present their firm from the podium before the meeting's keynote speaker. Meetings are held throughout the year, typically several times per month. Platinum sponsors also receive a "Platinum Section Meeting Pass" that allows them to send one attendee at no cost to any or all monthly Section dinner meetings (Annual Banquet excluded).

**Scholarship Fund, Direct Contribution:** More than \$340,000 in scholarships have been awarded to local students since 1988. As in previous years, recipients will be announced at the Annual Awards Banquet.

Sponsorship demonstrates your commitment to those who serve in developing and sustaining our built and natural environment. ASCE-NCS provides a unique platform to showcase your partnership in promoting the civil engineering profession, honoring the past, and improving our future. For further information, contact Sponsorships Committee Chair Mr. Christian Manalo at (703)377-1697 or via email at [Manalo\\_Christian@bah.com](mailto:Manalo_Christian@bah.com)

## What Engineers Do? Ten Reasons to Love Engineering

What do engineers really do? How do they spend their days? If you think they mostly sit at a desk doing math, you are wrong. According to DiscoverE (E-in STEM), engineers not only design, invent, fix, improve, research, travel, present, inspect, draw, write, calculate, but also they work with really interesting people on great projects. Engineers are changing the world for the better all the time. They dream up creative, practical solutions and work with other smart, inspiring people to invent, design, and create things that change our planet. As promised, in this issue of Dr. Z's Corner we will talk about "Ten Reasons to Love Engineering."

### 1: Love your work, and love your life

Engineering is an exciting profession, but one of its greatest advantages is that it will leave you time for all the other things in your life that you love. According to author and creativity guru, [Chris Barez-Brown](#), life and work are intrinsically linked. They are not separate, they are one. If we want to live an extraordinary life, we have to make our work equally extraordinary. It is possible to help you make your work, work for you. Apparently Brown's approach has produced some tangible returns on investment for many Fortune 500 companies such as Nike, Coca Cola, Diageo, The Gates Foundation, Sony and WPP Unilever, and ITV, for his unique and energetic approach to transforming their people and their work.

### 2: Be creative

Engineering is a great outlet for the imagination – the perfect field for independent thinkers. Can Creativity Be Taught? What about the creative process? Certainly an [understanding](#) of the basic rules of thumb can be taught. Everyone can learn to some degree how to construct ideas and things that work by imitating, emulating and modeling the behaviors of effective teachers. A word of caution: According

to experts on creativity, extensive technical thinking diminishes creativity. Most engineers would need to be a practitioner to understand the creativity process.

### 3: Work with great people

Engineering takes teamwork, and you'll collaborate with all kinds of people inside and outside the field. Whether they're designers or architects, doctors or entrepreneurs, you'll be surrounded by smart, inspiring people.

### 4: Solve problems, design things that matter

Come up with solutions no one else has thought of. Make your mark on the world. A lot of people end up [being successful](#), and some of those successful people end up [being rich](#). But very few people actually make their mark on the world and leave us all better off for having known them.

### 5: Never be bored

Creative problem solving will take you into uncharted territory, and the ideas of your colleagues will expose you to different ways of thinking. Be prepared to be fascinated and to have your talents stretched in ways you never expected.

### 6: Earn a big salary

Engineers not only earn lots of respect, but they're highly paid as well. Even the starting salary for an entry-level job is impressive comparing to other professions. According to a recent survey, entry-level civil engineers can expect to earn an average of \$58K per year. Of course, the residence (location of the work) and the name of the company will impact the annual salary, with the former having the largest influence.

### 7: Enjoy job flexibility

An engineering degree offers you lots of freedom in finding your dream job. It can be a launching pad for jobs in business, design, medicine, law, and

government. To employers or graduate schools, an engineering degree reflects a well-educated individual who has been taught ways of analyzing and solving problems that can lead to success in all kinds of fields.

### 8: Travel

Field work is a big part of engineering. You may end up designing a skyscraper in Europe or developing safe drinking-water systems in Asia. Or you may stay closer to home, working with a nearby high-tech company or a hospital.

### 9: Make a difference

Everywhere you look you'll see examples of engineering having a positive effect on everyday life. Cars are safer, sound systems deliver better acoustics, medical tests are more accurate, and computers and cell phones are a lot more fun! You'll be giving back to your community.

### 10: Change the world

Imagine what life would be like without pollution controls to preserve the environment, lifesaving medical equipment, or low-cost building materials for fighting global poverty. All this takes engineering. In very real and concrete ways, engineers save lives, prevent disease, reduce poverty, and protect our planet.

And finally, did you know that starting July 1, 2017, NCEES will introduce a new testing component called Alternative Item Types (AITs) in its computer-based FE and FS exams? As you may have guessed, AITs are questions other than traditional multiple-choice questions and next month we'll talk about them.

Until next time,  
Ahmet Zeytinci (Dr.Z.)  
[az@akfen.com](mailto:az@akfen.com)



## Upcoming Events *(Also available on the NCS website under the Events tab.)*

### April 5

**YMF Happy Hour**, 6:00–8:00 pm, [RFD Washington](#) (810 7th St. NW, Washington, DC 20001). Join younger members from the area for free appetizers and drink specials. Look for an email announcement with more details.

### April 6

**Education Committee GWU Student Outreach Program**, 6:00–8:00pm, GWU Campus. Contact Education Committee Chair [Mike O'Connor](#) for more information.

### April 6–8

**SEA Structures Congress 2017**, Denver, CO. Further Information available: <http://www.structurescongress.org/>

### April 11

**Education Committee CUA Student Outreach Program**, 6:30–8:30pm, CUA Campus. Contact Education Committee Chair [Mike O'Connor](#) for more information.

### April 19

**Geotechnical Executive Committee Slope Stability Symposium**, Tysons Corner, VA [Marriott](#). Refer to the Committee update for further information.

### April 26

**CI Construction Safety Workshop**, ASCE Headquarters, Reston, VA, 7:00am–5:30pm. Exciting one-day workshop for construction professionals (owners, architects, engineers, construction managers, general contractors and subcontractors) to discuss construction engineering's impact on the safety of both site workers and the public, sponsored by ASCE Construction Institute and ASCE National Capital Section. Refer to this month's Newsletter article for further information.

### April 26

**Reston Committee Professional Development Meeting**, 11:45am–1:00pm, ASCE Headquarters, Reston, Va. Andrew Whittaker, Ph.D., S.E., F. ASCE, Professor at the University at Buffalo Department of Civil, Structural,

and Environmental Engineering and Director of the Multidisciplinary Center for Earthquake Engineering Research will present "Second Generation Tools for Performance-Based Earthquake Engineering." Refer to the Committee update for further information.

### May 3

**YMF Happy Hour**, 6:00–8:00pm, [Courthaus Social](#), Arlington, Va. Join younger members from the area for free appetizers and drink specials. Look for an email announcement with more details.

### June 4–7

**Geo-Risk 2017**: Denver, Colorado. Geotechnical Risk from Theory to Practice will feature the latest research advances and engineering-practice innovations with a focus on the use of probabilistic and risk methodologies in geotechnical engineering. The conference will include a wide range of knowledge-enhancing keynote, panel and technical sessions, as well as short courses. View the [Preliminary Program](#) for program details.

## Employment Clearinghouse

*The NCS provides the Employment Clearinghouse as a free service to its membership. The Clearinghouse allows members to post short notices for available positions or candidates seeking employment. All employers listed herein are equal opportunity employers. If you have questions, are seeking employment or would like to post a position please contact the [newsletter editor](#) and visit our [jobs page](#).*

**Forensic Consultants of North America, LLC** is a full service forensic engineering firm. We are currently seeking licensed engineers in various disciplines to meet the growing demands of our clients – specifically civil/structural engineers, electrical engineers and mechanical engineers in the VA, MD, DC region (state licensure

is required). We can provide interesting and challenging assignments that will give you the freedom to set your own working hours and the discretion to make your own decisions. For more inquiries and to apply, please email [recruitment@fc-na.com](mailto:recruitment@fc-na.com).

**The Thrasher Group, Inc.** has an immediate opening for an experienced Site Civil Engineer in our Fredericksburg, VA office. The selected candidate will become part of a team that provides site planning, design and consulting services to both public and private clientele. Applicant must have knowledge of civil engineering design practices including being able to prepare plans for permitting and construction of land development projects which include design; layout, grading, drainage and E & S Controls.

For inquiries and to apply, please email [ttghr@thrashereng.com](mailto:ttghr@thrashereng.com) or visit [www.thrashereng.com](http://www.thrashereng.com).

**The Thrasher Group, Inc.** has an immediate opening for an experienced Utility Engineer in our Fredericksburg, VA office. The selected candidate will become part of a team that provides design and consulting services to both public and private clientele. Applicant must have knowledge of civil engineering design practices and an understanding of the project development process. Candidate must possess the ability to prepare design calculations, drawings and specifications for water and wastewater systems, municipal water, sewer and storm water projects. For inquiries and to apply, please email [ttghr@thrashereng.com](mailto:ttghr@thrashereng.com) or visit [www.thrashereng.com](http://www.thrashereng.com).