

## The Original Boundary Stones of the Federal City

A presentation by Stephen Powers, P.E.

Please join us on Tuesday, September 22, as Stephen Powers, ASCE-National Capital Section (NCS) representative and the Nation's Capital Boundary Stones Committee co-chair, recounts the history of Andrew Ellicott's original boundary lines survey and the current preservation effort for the 40 stones that continue to mark those lines today.

What are boundary stones? After President George Washington chose the Potomac River region as the site for the new national capital in 1790, surveyors (most notably Andrew Ellicott) laid out 40 sandstone markers to mark the territory by placing a [boundary stone](#) every mile. The stones have four sides – facing inward towards DC (which read “Jurisdiction of the United States” and a mile number), facing outward (which show the name of the bordering state, either Maryland or Virginia), and two faces parallel to the boundary line (showing the year the stone was placed and the compass variance at that point).

The stones are the oldest federal monuments in the country and are listed on the [National Register of Historic Places](#). Many of the forty stones remain in their original places. Due to development in the area, the stones now stand in such places as a church parking lot, a road's median, and at the bottom of a pipe at the Blue Plains Impoundment Lot. Because of development pressures,

many of the stones have been moved to locations that are more convenient – view this [map of actual vs. theoretical locations](#).

The NCS has been involved in the preservation effort since the late 1970s and revitalized interest in the stones with our [biannual fence restoration projects](#) held between 2010 and 2012. The NCS leads a. In 2014 and 2015, Daughters of the American Revolution, who originally erected the fences around the stones, renewed its boundary stone preserva-



tion efforts. Stephen will update members on the status of the stones and the District Department of Transportation restoration project underway.

This meeting will also include an induction ceremony for the 2015–16 NCS Board of Directors. **Come and meet the new Board!**

**About the speaker:** Stephen grew up in Springfield, VA, and is the son of an Army Colonel. He attended Thomas Jefferson High School, and obtained a B.S. in Civil Engineering from Virginia

Join us Tuesday, **September 22, 2015**, 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 p.m.), and on the street (free after 6 p.m.). 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 p.m., followed by dinner. The program will end by 8:30 p.m. The cost is \$45 for those preregistering, \$10 for students, and \$55 for walk-ins, as space allows. One Professional Development Hour (PDH) is available to attendees. For questions, please contact [Christian Manalo](#). Please click [HERE](#) to **register by September 17**.

*Note that the NCS will charge no-shows 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.*

Institute of Technology. Stephen currently works for the Washington Metropolitan Area Transit Authority on rehabilitation projects at the nine rail yards that service Metrorail car maintenance. Stephen previously served as a member of the NCS Board of Directors and is currently co-chair of the Nation's Capital Boundary Stones Committee. His 10 years working with the boundary stones grew from his daughter's elementary school project on Arlington County trivia and a lifelong interest in Washington, DC history. ■

## President's Corner

As I enter my final month as NCS President in September, I am overcome with a sense of both satisfaction and optimism. This past year has just been an amazing 12 months. We continued the great works of our Water Resources, Sustainability, History & Heritage, Geotechnical, and Education Committees and Younger Members Forum. We also rejuvenated our Transportation and Structural Committees and stood up a new Communications Committee and Life Members Forum. We organized dozens of activities for our members, including presentations and tours, and participated in dozens more activities to promote the civil engineering profession. We hosted outstanding presentations, including on the Panama Canal and the Blue Plains Tunnel, and participated in outreach programs such as Discover Engineering Family Day, the P3 Expo, Infrastructure Week, and the Legislative Fly-In. We also developed and are near completion of the first-ever DC Infrastructure Report Card, scheduled for release this fall. In addition, we redesigned our newsletter, issued our annual awards and scholarships, and recognized our outstanding members and civil engineering projects of the past year.

September 2015 not only marks the end of our fiscal year, but it also represents the final month of our 99<sup>th</sup> year as an ASCE section. It is most appropriate and fitting at this time that we reflect on the past accomplishments of our many forebears. Among those that I personally admire are Major General Montgomery Meigs, builder of the Washington Aqueduct, and A. James Clark, founder of Clark Construction and benefactor of the University of Maryland's Clark School of Engineering.



It is upon these giants and countless other civil engineers that have faded in history that we continue to build our profession's legacy and serve the needs of our region. As a tribute to these individuals, we have near-completed a 100-page Centennial anniversary book, which will be released in the next few months. This hard-cover coffee-table-style book includes glossy and rare photos and the stories behind dozens of our area's most notable projects and achievements, including the U.S. Capitol, Metrorail, Pentagon, and many others. The book will showcase our Section's accomplishments, and I strongly recommend the book for your home and office. It will inspire civil engineers for years to come and will prompt many more to join this great profession.

As October represents the start of our 100<sup>th</sup> year, a Centennial anniversary requires centennial-level planning. Our Centennial Committee has worked tirelessly over the past year in preparing a packed agenda for the next 12 months. The highlight of our program will be our Centennial Anniversary Symposium scheduled for next June. In addition to the symposium and book, our agenda also includes a series of site tours, newsletter interviews, an interactive webmap, extensive STEM outreach, public announcements, and proclamations from the DC mayor and local governors. This next year will certainly be an anniversary to remember. Our carefully selected theme, "Engineering the Nation's Capital," will also be sure to resonate.

In the day-to-day challenges that I faced as NCS President, it was sometimes difficult to step back and see all the positive things that are happening in our profession. Infrastructure investment

continues to fall short while our aging systems deteriorate and fail, sometimes with tragic result. The Washington, DC area was again ranked last month as the worst metropolitan area for traffic delays. Legal battles around our profession and industry practices also get in the way, draining the energy of many of our volunteers. Despite these challenges, and especially now reflecting on my experience, I feel a strong sense of optimism. The success of our profession, to which we owe our livelihoods, is much in part due to the energy and talent of our 3,200 members, which continues to grow. Thousands have participated in our Section's activities, with more than 5,000 receiving our newsletter each month. The Bureau of Labor Statistics predicts the number of civil engineers in the U.S. will increase 20 percent over 10 years. So it is with great confidence that I convey that this is a great time to be a civil engineer. We will overcome today's challenges and we will have a tremendous impact on our next 100 years. Our nation is depending on us and I am certain that we will rise to the occasion.

In closing, I wish to thank all the countless volunteers who have sacrificed their evenings, weekends, and day jobs, to give back to the civil engineering profession. Our NCS Board, committee, and forum officers and members, past presidents, governors, and communications staff all have my unending gratitude for making this past year worthy of closing out our first 100 years. On September 22, we will install our new NCS officers including Mr. Scott Wolf, who has served admirably as Vice President for the past 2 years and will take the helm to kick off our Centennial. Please join us as we kick off our new Century!

*Chris Manalo*  
ASCE-NCS President

## Newsletter

**Rachel Schneider**, Editor

**October Issue Deadline:** September 15, 2015

**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 click on the Newsletters tab.

**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

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### Committee Chairs

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

# A Message from the Region 2 Director – Summer 2015

By Christopher J. Menna, P.E., F.ASCE

I hope that all Region 2 ASCE members are having a nice summer. I just got back from the quarterly Board of Directors meeting. Many good things are happening. The Society budget was passed. A new Institute focusing on surveying and utilities has been started up and has been given funding and provisional status to prove itself. This looks to fulfill a great need and has potential for lots of growth. The Board voted to not implement a dues increase as well. You should be updated on many of these initiatives via the Society's email broadcasts.



For our Region, I am pleased to say that we have appointed Carol Martsof, P.E., of Philadelphia to join our Board of Governors this October. She brings a wealth of experience to the table, as a long-time member and volunteer within ASCE. She has earned many ASCE and other professional society accolades over the years as well, and is very active professionally within the Delaware Valley. She will complement our Board's capabilities nicely. Over the next few weeks, we will work to appoint a second new Governor, thus ensuring a full slate of officers for the 2015–16 year.

- This fall, we will begin a Section dues assessment for the Region. These funds will help supplement our excellent programs which are only partially funded through the annual Region allotment received from the Society. This assessment will come from the respective Section's budget and does not come from individual

members. In the meantime, our Finance Committee is still looking for ways to further boost revenue such that we can provide the best value to our membership.

- Planning is ongoing for the upcoming Region Assembly, to be held on November 14<sup>th</sup> at Bucknell University. All ASCE geographic entities (Section, Branch, YMG, and Student Chapters) are strongly encouraged to send current or emerging leaders.
- We also are updating our portion of the Society's website and learning how to use a new web-based communication system. Once set up, we will use this like our own website to communicate better with our Region membership.
- As an additional plug, the 2015 ASCE Convention will be in New York City this October and will be very accessible for many of us. Registration for this convention has already begun and this venue will have a new and exciting format. I strongly encourage you to attend if possible. If for no other reason, many of our groups

have been recognized with Society-level awards which will be presented at the convention. It would be great to come and support them.

- In the fall, we will say thank you to two Governors going off our Region Board and welcoming two new ones.

For me, I will enter my last year as Director this October. I will join the ExCom Committee of the Society's Board as well. This is a one-time gig as Director. Our Region will be preparing for a more extensive election next time, selecting Governors and a Director. I have enjoyed my tenure so far and have learned much. I have also gotten to meet and work with some great people. I will serve on the Society's Audit Committee again this year, as well as serving on the Committee for Advancing the Profession. None of this is possible without the help, enthusiasm, and interest from your Governors. I thank them for what they have done and what they will do over the coming year. When you come across one of them, please go up to them and say thanks. Until the next time. ■

## ASCE Convention New York, New York, October 11–14, 2015

The ASCE Convention is the Society flagship event for its membership. It is the single annual opportunity that the entire Society is represented together and therefore needs to reflect the diversity that ASCE encompasses. The program for the Convention will be of an integrated, cross-cultural, technical, and educational nature. The Convention will provide benefits to attendees and their employers on an educational and professional level. [Register](#) today! ■



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## NCS Committee News and Updates



### Younger Members Forum

**Monthly Happy Hours.** The NCS Younger Members Forum (YMF) holds monthly happy hours in Arlington, VA or Washington, DC. Happy hours are usually the first Wednesday of each month unless a holiday falls during that week. The August happy hour occurred at Penn Social on Wednesday, August 5, 2015. Approximately 25 members attended the event.

The October monthly happy hour will take place at CourtHaus Social (2300 Clarendon Blvd, Arlington, VA 22201) at 6 p.m. on Wednesday, October 7, 2015. Join younger members from the area for complimentary appetizers and drink specials. Look for emails with specific locations for future monthly happy hours!

**Second Annual Young Professionals Night at Nationals Park.** The YMF recently joined with other local younger members groups for the 2nd annual young professionals night at Nationals Park on Monday, July 20th! NCS Younger Members met with



members of AGC, AIA, ASHRAE, and DBIA for drinks and dinner prior to the first pitch.

The NCS YMF is looking forward to collaborating these groups again for another joint event later this year! Stay tuned for more emails.

**Stay Connected!** Check out photos and stay up-to-date with YMF events by visiting the new [YMF Facebook page](#). Also, follow us on [Twitter](#) (@asce\_ncsYMF).

**Get Involved!** Are you interested in getting involved with more Younger Members activities? Do you have ideas for social events or volunteering activities? Would you like to be a board member? The NCS YMF is always looking for new members! Let us know if you are not already on our mailing list! If you would like to become more active with the YMF or would like more information on our events, please email the [YMF President](#).

### Centennial Committee Engineering the Nation's Capital.

Our Celebration begins October 1, 2015! We have so many activities planned to celebrate our first 100 years that we have to start a little early. So please joins as we strive to honor the civil engineers from our area that have not only played key roles around the world but also built the infrastructure in the Washington DC area. These Centennial Celebration Committee activities will not only promote our civil engineering profession



but highlight the numerous accomplishments that have been benefiting the public since 1916.

As the representative of the ASCE in the nation's Capital, the NCS Centennial Celebration provides an excellent opportunity to promote and honor our civil engineers and their accomplishments. Open to the public, we will be hosting tours, in conjunction with other NCS Committees, at the Washington Aqueduct in October 2015, the C&O Canal in November 2015, and the Smithsonian in March 2016. We are also working on a boat tour of bridges in April 2016 and a tour of Dulles Airport in May 2016. A key public outreach tool will be an interactive map that highlights our engineering accomplishments, where a click on the internet-accessible map will bring up a description of the project, photos, and fun facts for people touring Washington, DC.

The Centennial Committee will also be participating in the USA Science and Engineering Festival, and other engineering functions such as Engineers Week. To highlight our Centennial during these activities we will be wearing shirts with our logo and displaying posters showing engineering accomplishments in the DC Area.

As our Centennial Commemorative Book nears completion, we will be contacting engineering firms to solicit their financial support and involvement in our promotional activities. We will also be reaching out, to the students in our area to highlight the benefits of pursuing engineering careers. We will be doing this by working with local schools and

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**BUILD ON US**

## NCS Committee News and Updates

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universities to obtain their support in promoting the benefits of a civil engineering education.

Also in the works is a Symposium that will include continuing educational hours, speakers on our accomplishments and future prospects, and an Awards Luncheon. The NCS monthly dinner meetings will feature speakers and topics celebrating our Centennial. Each month an e-Newsletter article will highlight a key engineer and their accomplishments. Finally, proclamations are being developed for issuance by area governments to recognize our Centennial and the NCS's accomplishments that have benefited the public since 1916.

Your participation will help the NCS to fulfill our Centennial goals to promote our profession, to steer students into civil engineering, and to recognize our members' accomplishments over the last 100 years. We have many activities where your assistance will help make the Centennial Celebration a success. So, whether you are a Young Member, a Life Member, or somewhere in between, please join us by contacting the Centennial Committee's Secretary at [vicris51@verizon.net](mailto:vicris51@verizon.net).

### Transportation Committee

The Transportation Committee will present Michael O'Connor and "Managing Infrastructure Budget & Scope Creep" on September 8, 2015, on the George Washington University Campus (800 22nd Street NW, Washington, DC). More often than not, civil infrastructure megaprojects come in over budget while the scope increases as the project moves forward. Why is that? And what can

we do about it? Discover the insights Michael O'Connor has learned in the trenches as a risk manager and direct report to first the director of Federal Transit Administration's (FTA) Office of Engineering in its Office of Program Management and then the Regional Administrator in Region II (New York City). His responsibilities included program development for technical requirements in cost and schedule modeling and contingencies; and validating megaproject cost and schedules for projects with total value over \$25 billion. He provided major inputs into FTA's proposed rulemaking on risk management including concepts of management capacity and organizational capacity; risk definitions; and risk mitigation classification and sequence.

To register, email [Shri Yamijala](mailto:Shri.Yamijala) by September 7, 2015, to ensure accurate attendee count. The event is free and pizza will be served. Licensed professional engineers who attend will earn one PDH that counts toward their license renewal requirement.



### Sustainability Committee

On September 17, 2015, the Sustainability Committee will hold a Happy Hour/Planning Session, beginning at 5:30 pm at the [Rock Bottom Brewery in Ballston Common Mall \(4238 Wilson Blvd\)](#), Arlington, VA. Between bites of food and sips of beverages, we plan to discuss the Section's sustainability efforts for the 2015-16 year.

Happy hour prices end at 6:30 pm. Enjoy complementary appetizers and soft drinks. Contact [Alex Rosenheim](#), (202) 412-3090, NCS Sustainability Committee Chair, for more information.

### Water Resources Committee

On June 25, 2015, the NCS Water Resources Committee was excited to host a luncheon featuring Dr. Chandra S. Pathak, senior hydrologic and hydraulic engineer for the U.S. Army Corps of Engineers (USACE), who provided an overview on the modernization of the USACE water management decision support systems. The presentation focused on the USACE modernizing effort of its Corps Water Management System, the automated information system that supports its water management mission. This system is used for round-the-clock monitoring and operation of more than 700 reservoirs, locks and dams and other water control projects, and during flood and drought operations. The model integrates real-time data acquisition, database storage, flow forecasting of watershed runoff, reservoir operation decision support, river profile modeling, inundated area determination, consequence/damage analysis, and information dissemination into a comprehensive suite of software supporting water management.

The event was hosted in the new George Washington University Science and Engineering Hall. It was attended by close to 30 engineers, including local area university students. Questions regarding the event should be directed towards Piers Causton ([Causton\\_piers@bah.com](mailto:Causton_piers@bah.com)) and Sudhanshu Mishra ([sumishra@gmail.com](mailto:sumishra@gmail.com)) of the Water Resources Committee. ■

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# A New Era for the PE Exams: Are You Ready for the New Specifications?

## Part 4 – Civil Breadth and Transportation Depth Exams

As discussed in our three previous articles, the new PE exam specifications were implemented, effective April 2015. In the [March](#), [April](#), and [June](#) issues, we discussed in detail the new specifications for the “Construction Module,” “Geotechnical Module,” and “Water Resources & Environmental Module.” This month we will discuss the “**Transportation Module**” afternoon depth exams.

### PE Civil exam basics:

- Offered twice a year; in April and October.
- Designed for engineers with FE (EIT) certificates who have at least 4 years of post-college work experience in their chosen engineering discipline.
- Lasts 8 hours and consists of multiple choice questions. Every problem on the PE exam is **stand-alone** (there is only one question per problem).
- Split into a morning and an afternoon session (4 hours each; 40 multiple choice questions each).
- Both sessions use SI units and the US Customary System (USCS).
- Morning and afternoon session exam results are combined with breadth results for final score.
- The [February issue](#) of our column details the morning **breadth** session of the exam.
- The afternoon **depth** section focuses on a single area of practice in civil engineering to test an engineer’s ability to practice competently in one of the five sub-disciplines of the civil engineering.
- The exam is scored based on the afternoon module selected during registration.

### PE Civil Transportation – Afternoon Depth Exam Specifications

The afternoon session of the PE Civil Transportation depth session includes questions that require a variety of approaches and methodologies, including design, analysis, and application. Some problems in the

afternoon session may require knowledge of engineering economics.

A typical breakdown with approximate number of questions:

- **Traffic Engineering (Capacity Analysis and Transportation Planning):** 11 questions,
- **Horizontal Design:** 4 questions,
- **Vertical Design:** 4 questions,
- **Intersection Geometry:** 4 questions,
- **Roadside and Cross-Section Design:** 4 questions,
- **Signal Design:** 3 questions,
- **Traffic Control Design:** 3 questions,
- **Geotechnical and Pavement:** 4 questions,
- **Drainage:** 2 questions,
- **Alternatives Analysis:** 1 question.

**Design Standards:** Effective beginning with the October 2015 examinations, new revisions on design standards posted by NCEES on July 23, 2015, will be implemented.

### Abbreviation & Design Standard Title:

**AASHTO**, *A Policy on Geometric Design of Highways and Streets*, 6th edition, 2011 (including November 2013 errata), American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Guide for Design of Pavement Structures (GDPS-4-M)*, 1993, and 1998 supplement, American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Roadside Design Guide*, 4th edition, 2011 (including February 2012 and July 2015 errata), American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Mechanistic-Empirical Pavement Design Guide: A Manual of Practice, interim edition*, July 2008, American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, 1st edition, 2004, American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Guide for the Planning, Design, and Operation of Pedestrian Facilities*, 1st edition, 2004, American Association of State Highway & Transportation Officials, Washington, DC.

**AASHTO**, *Highway Safety Manual*, 1st ed., 2010, vols. 1–3 (including February 2012 errata), American Association of

State Highway & Transportation Officials, Washington, DC.

**AI**, *The Asphalt Handbook (MS-4)*, 7th edition, 2007, Asphalt Institute, Lexington, KY.

**HCM**, *Highway Capacity Manual 2010*, vols. 1–3, Transportation Research Board – National Research Council, Washington, DC. This includes the following:

- *Approved HCM 2010 Corrections and Clarifications (as of January 2014)*
- *Approved HCM 2010 Interpretations (as of January 2014)*
- *Replacement HCM 2010 Volume 1–3 pages (April 2014)*
- *Replacement HCM 2010 Volume 1–3 pages (January 12–February 13)*
- *Replacement HCM 2010 Volume 1–3 pages (March 2013)*

**MUTCD**, *Manual on Uniform Traffic Control Devices*, 2009, including Revisions 1 and 2 dated May 2012, U.S. Department of Transportation – Federal Highway Administration, Washington, DC. 6

**PCA**, *Design and Control of Concrete Mixtures*, 15th edition, 2011, Portland Cement Association, Skokie, IL.

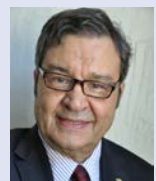
**FHWA**, *Hydraulic Design of Highway Culverts*, Hydraulic Design Series Number 5, Publication No. FHWA-HIF-12-026, 3rd edition, April 2012, U.S. Department of Transportation – Federal Highway Administration, Washington, DC.

**Final Notes:** The exam is open-book. According to NCEES, you can bring bound reference material, loose paper bound with ring binders, plastic snap binders, and spiral-bound notebooks. All paper must remain bound during the exam, and sticky notes and flags must remain attached to book pages.

As we always remind our readers, these are very fast-paced exams and you will have little time to look up information. Therefore, make sure you are familiar with your reference material and begin with the subject areas you know best. This will give you more time and build your confidence. Also, it is always good idea to consider reverse engineering the problems by substituting the answers and seeing which one works. To help prepare for the exam, [here](#) is this month’s problem set.

And finally, stay relaxed and confident. Always keep a good attitude and remind yourself that you are going to do your best!

Until next time,  
Ahmet Zeytinci, P.E.,  
(Dr. Z.)  
[drz@alfam.com](mailto:drz@alfam.com)





## Transportation Committee's Railroad Excursion and Picnic at Walkersville Southern Railroad

The Transportation Committee hosted its Railroad Excursion & Picnic event on Saturday, July 18, 2015, at the [Walkersville Southern Railroad](#) in Walkersville, MD. Despite the morning rain, sometimes heavy, we had a great turnout. L.J. Sauter took the photographs in the collage; Ranjit Sahai took the group photo (bottom right), and the "Scenic train rides..." photo (top right) is courtesy of the Walkersville Southern Railroad.

Photographs, from the top to the bottom, left to right, are: train conductor, locomotive and cars we rode; the Walkersville Southern railroad station; the picnic shed the railroad yard; the railroad flagger at railroad-street intersections; and NCS group photo after the hour-long excursion on the historic train that was built in the 1870s. ■



## Kornel D. Kerenyi, PhD, M.ASCE awarded 2016 Henry L. Michel Award!

The NCS wishes to extend its sincere congratulations to Dr. Kornel D. Kerenyi, Ph.D., M.ASCE, on his 2016 Michel Award for Industry Advancement of Research. The [Henry L. Michel Award](#) was established in 1996 and is named in honor of Henry L. Michel, Past Chair of the Civil Engineering Research Foundation Board of Directors. This annual award is intended to recognize and acknowledge leaders of the design and construction industry whose dedication and aggressive vision for the industry have provided the



cornerstones for improving the quality of people's lives around the world through research in the design and construction industry. It was instituted as an ASCE Award in December 17, 2008.

The individual nominee "must be a visionary leader whose work has had an impact on research and innovation in the design, construction, and/or environmental community. Not only can prior contributions be considered, but also the nominee's potential

for advancing the industry in the future. The candidates' future potential can be given as much weight as their past accomplishments." Dr. Kornel Kerenyi is a Research Hydraulic Engineer with the Federal Highway Administration and Adjunct Professor at George Washington University. ■

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

### September 8

**Managing Infrastructure Budget & Scope Creep**, 12:30 – 2:15 pm, GWU Campus (800 22<sup>nd</sup> Street, NW, Washington, DC 20052). Discover the insights Michael O'Connor has learned in the trenches as a risk manager and direct report to the director of Federal Transit Administration's Office of Engineering in its Office of Program Management, and then the Regional Administrator in Region II (New York City). Pizza will be served and one earn PDH. To register by September 7, email [Shri Yamijala](mailto:Shri.Yamijala).

### September 9

**NCS Centennial Committee**, 11:30–1 pm, Washington, DC. Please email Committee Secretary [Vic Crawford](mailto:Vic.Crawford) for additional information.

### September 17

**Sustainability Committee Happy Hour**, 5:30–8:30 pm, at [Rock Bottom Restaurant & Brewery at Ballston Commons Mall Common Mall \(4238 Wilson Blvd\)](#) in Arlington, VA. Between bites of food and sips of beverages, discuss the Section's sustainability efforts for the 2015–16 year. Happy hour prices end at 6:30 pm. Enjoy complimentary appetizers and soft drinks. Contact [Alex Rosenheim](mailto:Alex.Rosenheim) for more information.

### September 19–21

**Younger Member Leadership Symposium**, at ASCE Headquarters in Reston, VA. Hosted by the Committee on Younger Members, the Younger Member Leadership Symposium (YMLS) is a two-day workshop designed to prepare Younger Members to lead. [Register](#) by September 11.

### September 22

**NCS Monthly Meeting**, 6–8:30 pm at Arlington Hilton. Visit our [website](#) and look for more information in upcoming emails.

### September 28

**NCS Structural Committee**, 6:30 p.m., offices of Wiss, Janney, Elstner Associates, Inc, in Fairfax, VA. Contact Paul Parfitt for more information at [pparfitt@wje.com](mailto:pparfitt@wje.com) or (703) 641-4601.

### October 5–6

**The First International Symposium on Sustainable Human-Building Ecosystems (ISSHBE)**, Carnegie Mellon University. Sponsored by ASCE, ASCE AEI, and Autodesk. The symposium provides an opportunity to share innovative findings in the integration of human behavioral science, social and economic sciences with building design, engineering,

and metrology for better understanding of building energy performance, environmental impacts, and occupant comfort. [Register](#) here.

### October 7

**YMF Monthly Happy Hour**, 6–8 pm, Location TBD. Join other younger members from the area for while you enjoy free appetizers and drink specials. Watch for upcoming emails for more information.

### October 11–14

**ASCE 2015 Convention**, New York City. [Register Today!](#) Join civil engineering professionals from around the world at this ASCE flagship event. Network with peers, earn PDHs, and expand your knowledge base.

### October 20

**NCS Monthly Meeting**, 6–8:30 pm at Arlington Hilton. Visit our [website](#) and look for more information in upcoming emails.

### February 11–13, 2016

**Regions 1, 2, 4 & 5 Multi-Region Leadership Conference 2016**, Pittsburgh, PA. Visit [www.asce.org](http://www.asce.org) and look for more information in upcoming emails.

## Employment Clearinghouse

**Multiple Positions Available: Project Engineers and Project Managers.** Mosaic is a company that provides engineering services with emphasis on repair and restoration of existing buildings. Project engineers and managers perform assessments of condition, design repairs, and manage construction efforts for clients. In this role, you will conduct structural analysis, design repairs, prepare drawings and specifications, and engage in construction administration activities.

### Responsibilities:

- Perform a wide range of structural and materials engineering analysis and design projects involving steel, concrete, masonry and wood structures.
- Assist senior staff in site investigations to document existing conditions.

- Prepare engineering reports and proposals.
- Assist with the construction administration phase of projects.
- Work may include:
  - Structural and materials evaluations and analysis.
  - Façade and building envelope evaluation and design.
  - Roofing and waterproofing evaluations and design.
  - Property condition assessments.
  - Pavement evaluations and designs.
  - Forensic and failure evaluations.

Seeking candidates with 2 to 10 years of experience. Responsibilities will be commensurate with skills and experience. Mosaic provides an environment that rewards excellent

performance. Opportunities for business management and professional growth are available. P.E.s and those on a licensure-track are desired. Excellent written and oral communication skills required. Ability to travel is required. For more information, email [Mark Leeman](mailto:Mark.Leeman).

*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.*