

**ASCE, PHILA. SECTION
 MEETING SCHEDULE 2014-15**

The ASCE, Philadelphia Section Meeting program for the upcoming season is starting to take shape. Our meeting program committee is busy lining up speakers and topics for what we hope will be an interesting and informative series of meetings. The TENTATIVE dates have been provided below for your planning purposes. We would suggest that you use this to mark your calendar at this time and hold these dates.

In coming issues of *THE NEWS*, this information will be “fine-tuned” to provide updates as they are available. We also suggest you visit the Section website for the latest changes in our meeting program. As we have done, each month’s edition of *THE NEWS* will feature detailed information on that month’s meeting along with as much information as is available for the following month’s meeting. The “look-ahead” schedule will show details that are available for future meetings at that time for your advance awareness.

Dinner meetings generally follow a schedule of a cocktail hour starting at 5:30PM, dinner at 6:30PM, and the meeting presentation following at approximately 7:30PM, unless otherwise noted. We also intend to follow our second-Thursday pattern except as noted below.

As always, you are welcome to attend the meeting presentation without dinner at no cost if you prefer to do so.

Information on future meetings this season as of this printing are:

January 21, 2015 (Wednesday)

Joint meeting with American Society of Highway Engineers, Delaware Valley Section; Radisson Hotel/Valley Forge Casino, Valley Forge; ASCE PA Report Card; Cocktails 6PM, dinner 7PM, meeting 8PM

February 12, 2015 – To be determined

March 12, 2015 – To be determined

April 9, 2015 – Multi-topic meeting/breakout sessions; Villanova Conference Center, Radnor

May 2015 – Spring Social to be determined

**We cannot do everything at once,
 but we can do something at once.**

– Calvin Coolidge

NOVEMBER DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

THURSDAY, NOVEMBER 6, 2014

Loews Hotel, 1200 Market Street, Center City Philadelphia
 Cocktails 5:30PM, Dinner 6:30PM, Meeting 7:30PM

SUBJECT: PennDOT District 6-0 Update

SPEAKER: Lester Toaso, District Executive, Pennsylvania Department of Transportation, Engineering District 6-0

SPECIAL FEATURE: Drexel University Night – The ASCE Student Chapter, Faculty and Alumni of the Department of Civil, Architectural and Environmental Engineering of Drexel University will be honored at this meeting. All Faculty, Alumni and Students are cordially invited to attend and participate.

RESERVATION DEADLINE — MONDAY, NOVEMBER 3. The cost per attendee is \$40, with a half-price (\$20) cost for government agency employees and students, for reservations received by this deadline.

RESERVATIONS RECEIVED AFTER NOVEMBER 3 — Reservations received after the deadline and “walk-ups” without prior reservations paying at the door will be charged \$50 (government agency employees and students will be charged the regular \$20 rate), but will be subject to acceptance on a space-available basis. Please note that payment via PayPal will NOT be available at the close at the reservation deadline.

THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE. Walk-ins and anyone without a reservation will be handled on a space-available basis.

Reservations can be made via e-mail at info@asce-philly.org or electronically through our website (www.asce-philly.org) and pay via PayPal. As noted above, the PayPal option will NOT be available as a payment option after the reservation deadline.

Advance payment can be made by check as an option to electronic payment. Checks should be made payable to “Philadelphia Section ASCE” and sent to ASCE Philadelphia Section, 215 S. 16th Street, Suite 16, Philadelphia, PA 19102. Checks will also be accepted at the reservation table at the dinner.

As always, guests will be welcome to attend the presentation without dinner at no charge. This may be subject to room capacity constraints in the event of a large turnout for dinner.

Continued on Page 2

DECEMBER JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section
 Engineers’ Club of Philadelphia
 Society of American Military Engineers, Philadelphia Post
 Construction Management Association of America, Mid-Atlantic Chapter
 (Sponsoring societies tentative as of presstime)

MONDAY, DECEMBER 8, 2014

DoubleTree Hotel, Broad and Locust Streets, Center City Philadelphia
 Cocktails 5:30PM, Dinner 6:30PM, Meeting 7:30PM

SUBJECT: Navy Yard Update

SPEAKERS: Will Agate, Vice President/Navy Yard Manager, Philadelphia Industrial Development Corporation (PIDC), and **Carmen Zappile**, Vice President/Planning and Project Management, PIDC

Information on the topic and speaker(s) for this meeting will be included in the November edition of *THE NEWS*. Please mark this date in your calendar to hold it for now.



PRESIDENT'S MESSAGE

Hopefully, by your reading this edition of *THE NEWS*, it means you are in our e-mail database and all your contact information is up to date. Can you believe it's been seven years since the Section made the cutover to a digital newsletter? Since that time, our Section leadership has been hard at work looking into new ways to stay connected with you, our members.

About five years ago, a dynamic new website was rolled out. With the website, it was the first time it gave the membership the ability to register and pay for events directly from the website. This website reduced the need to maintain dedicated phone lines and a central mailing addresses to receive RSVPs for our events. This system also was the first time our Section leaders could efficiently organize and prepare for each event. Most importantly it gave the members a consistent location to go and see the events our Section has planned and register to attend on the spot.

This year our Section will be rolling out two new advances in technology to better serve you. For the past year, the Section's Communications Committee has been experimenting with a new integrated e-mail and event registration system. After working out some bugs, in September 2014 we were finally ready to roll out our Constant Contact e-mail and EventSpot registration. This new e-mail system allows us to customize e-mails to reach those who will benefit most from the information. It also allows us to get information out a lot faster than we could before. We have just started to scratch the surface of what we can do with this new system and will be adding additional functionality in the future.

With new technology, we are sure to run into a few hiccups here and there. Even Apple, one of the largest technology companies in the world, isn't immune to this (does anyone remember Antennagate or most recently bendgate?). Our e-mail and event registration is no exception. However, unlike Apple, our Section is working hard to stay in front of these issues and resolve them as quick as possible. If you have any issues with our e-mails or are not receiving them, please contact **Kazi Hassan** (kazihassan@pennoni.com) and he can work through the issues with you.

That brings me to my last point. As you can see, staying in contact with you is dependent on maintaining a digital connection to you. Just as in the not so distant past when we would send out a letter to friends and family letting them know we had moved and gave them your new address, we need you to update our digital connect information. The easiest way to do this is by logging into your account with ASCE (<http://www.asce.org>). From here, you can update your e-mail address and contact information. You can also update your interests in our Technical Groups and Institutes to ensure you are getting the information that benefits you most. Alternatively, you can contact our Section's Membership Chair, Kazi Hassan, and let him know of any changes.

Hopefully you find these changes beneficial and valuable to your experience with the Section. If there is something you feel we could do better, please let me know.

Sincerely,
Joseph Platt, P.E.
President, ASCE Philadelphia Section

NOVEMBER DINNER MEETING

Continued from Page 1

The Pennsylvania Department of Transportation (PennDOT) is responsible for the network of over 41,000 miles of highways statewide, with a budget of nearly \$4 billion annually. Engineering District 6-0, one of 11 such Districts in the state, covers the five-county Philadelphia region (Bucks, Chester, Delaware and Montgomery Counties and the City of Philadelphia). Within these counties, PennDOT owns and maintains 3,560 miles of State Highways and 2,753 bridges, which serve the most populous area of the Commonwealth with some of the most-travelled roadways in the state's system. The District is responsible for the planning, design, construction and maintenance of the network, with an annual budget of \$500 million and nearly 900 employees, operating out of its headquarters in King of Prussia and maintenance units in each county.

The passage of Act 89 almost a year ago has changed things significantly for PennDOT. The additional funding provided by this Act allows

long-stalled projects to advance to construction and completion. This also permits federally-funded local-aid projects to move accordingly, resulting in notable and much-needed improvements on our region's highway system and the continuation of long-term projects such as the rehabilitation of I-95 and completion of the I-95/I-276 Pennsylvania Turnpike Interchange.

Mr. Toaso was appointed as District Executive in February 2007 and has worked for PennDOT for the past 39 years. Prior to being named District Executive, he served as the Assistant District Executive for Services, the District Maintenance Services Manager, the District Maintenance Manager, and in the Montgomery County Maintenance Unit. He graduated from Drexel University in 1984 with a Bachelor of Science degree in construction management.

ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION — 2014-15 SEASON

PRESIDENT

Joseph Platt, Traffic Planning & Design, Inc.

PRESIDENT ELECT

AnnMarie L. Vigilante, Langan Engineering & Environmental Services

VICE PRESIDENT

Guy DiMartino, Traffic Planning & Design, Inc.

SECRETARY

Cathy G. Farrell, Michael Baker, Jr., Inc.

ASSISTANT SECRETARY

Angelo Waters, Urban Engineers Inc.

TREASURER

Marc B. Preim, STV

ASSISTANT TREASURER

Jennifer Reigle, Pennoni Associates

MEMBERSHIP SECRETARY

Kazi Hassan, Pennoni Associates, Inc.

DIRECTORS

Andrew Bechtel, College of New Jersey ('13-'15)

Spencer Finch, Langan Engineering & Environmental Sciences ('14-'16)

Don Gusic, Pennoni Associates Inc. ('14-'16)

Troy Illig, PB ('14-'16)

Ara Mouradian, Gannett Fleming ('13-'15)

Keith Yamatani, DiGioia, Gray & Associates ('13-'15)

PAST PRESIDENTS

Jennifer K. Walsh,* McMahon Associates Inc.

Jeremy D. Colello,* HNTB Corporation

Ann M. Tomalavage,* Malarkey Consulting, Inc.

PRESIDENT, READING BRANCH

E. J. Walsh, McCarthy Engineering

**Our Constitution recognizes only the immediate Past President as a part of our Board but, following tradition, we list the immediate three Past Presidents to acknowledge their service.*

President — Joseph Platt, P.E.

Senior Project Manager
Traffic Planning & Design, Inc.
Sanatoga Commons
2500 E. High Street, Suite 650
Pottstown, PA 19464
(610) 326-3100
jplatt@trafficpd.com

Secretary — Cathy G. Farrell, P.E.

Project Manager – Transportation
Michael Baker, Jr. Inc
201 Gibraltar Road, Suite 120
Horsham, PA 19044
(215) 442-5316
cfarrell@mbakerintl.com

PUBLICATIONS COMMITTEE

Editor of *THE NEWS*

Robert Wright

Staff Writers

James Markham Joe Szymick

SEND COPY TO:

ASCE, c/o Engineers' Club of Philadelphia
215 S. 16th Street, Suite 16
Philadelphia, PA 19102

**COPY DEADLINE FOR
DECEMBER 2014 ISSUE
NOVEMBER 14, 2014**

YOUNGER MEMBER FORUM NEWS

Kristin Leese, P.E., Forum Editor
 Drew Sirianni, P.E., Forum President 2014–15
 Pennoni Associates
 3001 Market Street
 Philadelphia, PA 19104
 (215) 222-3000
 dsirianni@pennoni.com

SCHUYLKILL BANKS BOARDWALK CONSTRUCTION TOUR

SEPTEMBER 24 – CENTER CITY

On Wednesday, September 24, YMF held a construction tour of the since-completed Schuylkill Banks Boardwalk. Jacobs Engineering led the group of approximately 25 people along the length of the new Boardwalk which required only a few finishing touches before opening up to the public with a ribbon cutting just over a week later on October 2. This extension of the mixed-use trail contains bumpouts allowing for great views of Center City, West Philadelphia and the Schuylkill River, as well as a ramp connecting in to the new South Street Bridge. Attendees headed to Bonner's Irish Pub after the event for appetizers and socializing.

WELCOME BACK BOWLING OCTOBER 7

Pep Bowl - Philadelphia

On Tuesday, October 7, YMF hosted our annual Welcome Back Bowling event at Pep Bowl in Philadelphia. The event was well attended by both students and professionals (engineers, that is, not pro bowlers!), with attendees representing Temple, Drexel and Swarthmore. The event successfully provided the students with a fun environment to socialize with their colleagues while also allowing them the opportunity to develop their networking skills and pick the brains of young engineering/construction professionals (all while wearing funny-colored shoes and tossing balls with holes in them at unsuspecting pins...). A big "thank you" goes out to our local college chapters for helping to spread the word about this event. We look forward to an even larger crowd next year!

SAVE THE DATES!

YMF will be hosting its annual **Winter Social** at **McGillin's Olde Ale House** in Philadelphia on **January 26, 2015**. Additional event details will follow as we get closer.

The Young Members Group of the Delaware Valley Section, American Society of Highway Engineers (ASHE), is planning its winter get-together at **Rock Bottom** in **King of Prussia** in **December**. All are welcome to participate (maybe as a "warm-up" event for the Winter Social?). More details will be provided in the next edition of *THE NEWS*.

SECTION SCHOLARSHIP PROGRAM OPEN FOR APPLICATIONS

The Section's Scholarship Program has been moved to start earlier in the year to help promote an increased number of applications. The program is now open for applications for the 2014-15 season.

The Section offers three distinct undergraduate scholarships annually:

ASCE Delaware Valley Engineers Week Scholarship

ASCE Student Scholarship

ASCE Section Member Scholarship

ENGINEERS WEEK SCHOLARSHIP

As part of the Delaware Valley Engineers Week celebration, the Section will continue to offer one \$2,000 undergraduate scholarship. Applications are due for this Scholarship by November 17. Please visit the Engineers Week website, www.dvewc.org, for the application and specific requirements.

The recipient of this scholarship will be invited to attend the Engineers Week Awards Luncheon on February 20, 2015, at which he/she will be cited accordingly.

STUDENT SCHOLARSHIP

A minimum of one \$1,000 scholarship will be awarded by the Section to an undergraduate Civil Engineering student who meets the following requirements.

The applicant must be matriculating in a full-time Civil Engineering or Architectural Engineering program at one of the Philadelphia Section's five Student Chapters: Drexel University, Swarthmore College, Temple University, Villanova University, or Widener University.

The applicant must be an active participant in the ASCE Student Chapter.

The applicant must be in their sophomore or junior year (and Pre-Juniors at Drexel).

Application Requirements:

Cover letter containing:
 The applicant's name
 The applicant's institution
 GPA and/or class rank
 Address/telephone number
 Additional information for consideration (such as need)

Resume
 Letter of Recommendation from faculty advisor

Essay (limited to 1,000 words) on the following topic:

What is the biggest challenge that Civil Engineers in the US will face over the next 10 years? What are some possible solutions, and how should the ASCE be involved?

Submission Deadline:

Applications (including recommendations) must be submitted by **January 31, 2015** to **Andrew Bechtel** (bechtela@tcnj.edu)

Scholarship winners will be notified by February 27, 2015. Recipients will be invited to attend our March 2015 dinner meeting (tentatively

scheduled for March 12, 2015) to be recognized accordingly.

SECTION MEMBER SCHOLARSHIP

A minimum of one \$1,000 scholarship will be awarded by the Section to an undergraduate civil engineering student who is the child of an active Philadelphia Section member. The requirements are the same as that of the Student Scholarship except:

All children of active Philadelphia Section members in their sophomore or junior year (and Pre-Junior at Drexel) matriculated in any full-time Civil Engineering or Architectural Engineering program at an accredited college or university are eligible

Application requirements and submittal deadline are the same as for the Student Scholarship. The applicant's cover letter should include his/her parent's name and ASCE ID number.

We encourage all eligible students to apply. Good luck!

OOPS

While we know we're not perfect (remember, practice makes perfect, but nobody's perfect, so you can see why we at *THE NEWS* are as confused as we appear to be), but it appears we had a nice no-error streak going. Just like the number of days without an accident displayed at any construction site, it only takes one to start the count again. While no one was hurt in our little mishap, we will admit that our "perfect" streak slammed to a halt in October (well, maybe more like a little bump...). And, no, we don't remember when this streak started, nor have we attempted to look — we'll leave that to you, our attentive readers. Thus...

Our list of Section Officers and Board of Directors on page 2 neglected to mention our newly-appointed Assistant Treasurer's place of employment. Yes, **Jen Reigle** is indeed gainfully employed, and she is with Pennoni Associates.

A little further down the list, we listed Past President **Jeremy Colello's** place of employment incorrectly. He is with HNTB Corporation (an even more egregious "duh" as we listed his change of employer not far away on the same page...!).

Each of these has been corrected in this edition, and apologies to both Jen and Jeremy on this oversight. The Board is mulling over the appropriate punishment to dole out on your Editor to make sure this doesn't happen again (which usually consists of "keep doing this until you get it right"), and your Editor has re-started the "issues without error" clock in the hopes of establishing the next "no screw-ups" streak.

**A MAN HAS TO LIVE WITH HIMSELF,
AND HE SHOULD SEE TO IT THAT HE
ALWAYS HAS GOOD COMPANY.**

— Charles Evans Hughes

OCTOBER DINNER MEETING

October 9, 2014

Loews Hotel, Center City

Cleaning Philadelphia's Waters Through Green Infrastructure

by Robert Wright, Editor

The first meeting “out of the gate” for our 2014-15 season found us in familiar territory at the Loews Hotel in Center City. As folks greeted each other after not having an ASCE meeting at which to do so since last spring, and with a number of new faces in the crowd, a somewhat cloudy but comfortable day turned into a nice evening to come inside and hear about Philadelphia being a leader in a trend for a change.

Following a lively networking hour, the crowd of nearly 90 folks settled down in the meeting room and were welcomed by President Joe Platt, who then gave everyone a chance to have dinner and dessert before returning to front and center for a few announcements. He then turned over the evening to our featured speaker, Chris Crockett, the Deputy Commissioner of Planning and Environmental Services for the Philadelphia Water Department (PWD), for his presentation.

Dr. Crockett indicated that his “spiel” would be a story which would include each and every one in the room in some fashion from start to finish, both in their professional and personal capacities, as the City’s stormwater management touches everyone. He began at the beginning, appropriately, with the National Combined Sewer Overflow Policy adopted in 1994 and the 1997 Long-Term Control Plan, which were the guidance documents for the handling of stormwater conveyance systems in the future. He noted that one such effort began at that time was only recently (a few days before this presentation) opened on Venice Island in Manayunk at a cost of \$50 million, so the implementation has been slow and deliberate, but necessarily so. At the outset, PWD realized that the projects that would need to be undertaken would be big, costly, and with many unforeseen problems, but its plan of attack would need to reflect integrated planning and goals to accomplish the desired result. Additionally, given that much of PWD’s sewer system is of the combined variety, a significant effort would be needed to address this and find ways to suitably separate and manage storm runoff.

On Venice Island, Dr. Crockett noted that a large storage tank was built to retain storm flow, and the early thinking leaned toward such tanks and tunnels. These would not only be costly, but the providers and contractors of such facilities would not be local, and PWD was concerned that the local “content” needed to be there, particularly with a possible cost of nearly \$9 billion per year to design and build these facilities. Faced with this magnitude of cost, limited resources, and the desire for local involvement, PWD began to look more toward a “green infrastructure” approach to the problem.

PWD set its sights on efforts underway particularly in the Pacific Northwest with the use of infiltration as an alternative to conveyance, and began to see how this could be used in our

area. Dr. Crockett explained that the “triple bottom line” of economic, environmental and social benefits could best be realized with this approach, with nearly \$1 in benefits gained from each \$1 spent. Following the execution of regulatory agreements with federal and state oversight agencies, PWD began its ambitious program for over \$1.6 billion in green infrastructure, \$345 million in sewage treatment plant upgrades, and incorporation of green elements into the City’s overall routine public works renewal/improvement program, aiming for a goal of the removal of 34% of the impervious cover and creation of 10,000 acres of greened area (“greened acres”) over a 25-year period. The greened acres would consist of equal parts of public rights-of-way and private property.

Dr. Crockett outlined the first five years of the effort, which have mainly been directed at providing the “toolbox of solutions”, with concentrations on schools, vacant lots, parks, campuses, large facilities and parking areas. On public streets, green elements could be combined with traffic calming measures, which make this more palatable to the public as many groups are looking for such control of vehicle movement and speed with associated amenities for pedestrians. By the end of this year, PWD will have completed over 750 such efforts, a combination of its own projects, those of other City agencies, and private developments.

The often-more-difficult element of any program is the commitment to ongoing maintenance and monitoring, particularly with limited budgets. Dr. Crockett explained that citizen involvement has been enlisted as one way to help in this regard, and private developers must sign operations and maintenance agreements to commit to the viability of green measures required for their projects to get approvals. Data collection has demonstrated that the green elements often exceed the design values for retention and infiltration as well.

Dr. Crockett cited several example “success stories” of the program, including the “blue green roof” being built as part of the current Cira Center South complex currently under construction in University City (a stormwater retention system in the parking garage “feeds” the building’s green roof) and the “big green block” surrounding the Kensington Performing Arts School, which will connect to a nearby park via a greenway on Palmer Street and eventually extend to the Delaware River at Penn Treaty Park. He also noted PWD’s incentives and assistance programs which help reduce stormwater charges/billing through green retrofit efforts and promote the sharing of managed areas to spread benefits among several properties. This is open to P3 potential as well.

In wrapping up his good presentation, Dr. Crockett noted that green technology and

measures are extensively used throughout the rest of the world and the US needs to catch up. Philadelphia is in the forefront and many cities are coming to observe what PWD has done and to see how they can follow its lead.

A very lively question and answer period followed.

President Platt thanked Dr. Crockett for his insightful program and presented him with a token of the Section’s appreciation for his effort.

MARK YOUR CALENDARS NOW — ENGINEERS WEEK EVENTS SCHEDULED

The Delaware Valley Engineers Week Committee will be celebrating Engineers Week 2015 from **February 20 through February 28** and will continue its schedule of three events which will highlight the various contributions of Engineers and Engineering students in the Delaware Valley. Please note this information in your calendar and plan to participate.

AWARDS LUNCHEON FRIDAY, FEBRUARY 20, 2015

DoubleTree Hotel, Center City

This event is both the kickoff event of Engineers Week and the main event of the Delaware Valley celebrations.

A poster session, with presentation of student paper winners, will be conducted starting at 11:00 AM.

All Delaware Valley Awards and Scholarships will be presented.

Project and individual awards of all participating Engineering societies in the Delaware Valley will be recognized.

The 2015 Engineer of the Year and Young Engineer of the Year will make brief remarks.

YOUNG ENGINEER SOCIAL EVENT TUESDAY, FEBRUARY 24, 2015

Manayunk Brewery, Philadelphia/Manayunk

This event will be a happy-hour type event geared to younger Engineers. The Young Engineer of the Year will make brief remarks.

CELEBRATION OF ENGINEERING RECEPTION THURSDAY, FEBRUARY 26, 2015

Singh Center for Nanotechnology, University of Pennsylvania, Philadelphia/University City

The culminating event of Engineers Week will be a social/networking gala event to celebrate Engineering, with cocktails, appetizer stations, and dessert stations.

Award recipients will be honored with posters/exhibits/running PowerPoint in the networking area.

Future City Competition Regional winners will display their first place model.

The Engineer of the Year and Young Engineer of the year will provide brief remarks.

More information will be provided on price, location, and other details in the coming months. Please visit www.dvewc.org for up-to-date announcements.

As always, volunteers are needed! If you are interested in volunteering for one of the many activities of Engineers Week, please visit www.dvewc.org.

MEMBERS IN THE NEWS

NATIONAL HONORS BARTOLOMEO, TRAVER

Section Members **Anthony Bartolomeo** and **Robert Traver** were cited by ASCE National at the recent Global Engineering Conference in Panama.

Mr. Bartolomeo, the President and CEO of Pennoni Associates, was awarded the 2014 President's Medal, for recognized leadership in the field of sustainable infrastructure, serving on several national and international professional society committees and boards while operating a successful consulting practice in sustainable Engineering.

Dr. Traver, a Professor in the Department of Civil and Environmental Engineering at Villanova University and the Director of Villanova Urban Stormwater Partnership, was recognized as one of two recipients of the William H. Wisely American Civil Engineering Award, which cites individuals or groups who have made continuing efforts to promote appreciation for the history, tradition, developments, and technical and professional activities of ASCE.

Congratulations to both Tony and Rob on their awards.

MARTSOLF NEWEST MEMBER OF HALL OF FAME

Section Past President **Carol Martsof** was inducted into Temple University's Achievers to Leaders Hall of Fame at the 15th Annual League for Entrepreneurial Women's Conference, conducted at Temple on October 8. Carol was cited for her devotion to the advancement of the civil engineering profession through mentoring and professional development. Nicely done, Carol!

WRIGHT TRIES ANOTHER PRESIDENCY (AGAIN...?)

In the "somewhat old news" department, Past Section President **Bob Wright** has taken over the helm at the Delaware Valley Section of the American Society of Highway Engineers (ASHE) for its 2014-15 season. He was installed as President of the Section at its meeting on April 16. We're not sure why he waited this long to tell anyone (maybe he was making sure his colleagues weren't going to impeach him or anything...). We wish Bob well in his latest presidential endeavor (if you're keeping score, this is his third such effort leading a professional society).

DON'T FORGET ABOUT YOUR DUES!

Your dues statement/invoice for 2015 should have landed in your mailbox (and e-mail inbox) in mid-September from National. As noted on the invoice, you can pay by check or electronically. Please don't forget to pay your ASCE and Philadelphia Section dues (both are due on January 1 but there are currently some incentives being offered for early renewal). Your dues are vital to the support of the Section's activities. We appreciate your ongoing support.



SECTION TO ADOPT A HIGHWAY

Or, more appropriately, co-adopt one. As part of PennDOT's Adopt-A-Highway program, which enlists citizen volunteers in the anti-litter efforts to keep Pennsylvania's "front yard" (150,000 acres of roadside in total) looking clean and spiffy, our Section has teamed with our pals at the Delaware Valley Section, American Society of Highway Engineers (ASHE). ASHE's committee, led by **Isaac Kessler**, took the lead in the investigation of the Section's ability to take on this responsibility and reviewed this with his counterparts in our Section (including himself as a Section member) to develop a plan of attack.

As part of the responsibility as an "adopter", a group must commit to become the caretakers of a designated two-mile section of State Highway and agree to clean litter in that section at least four times a year for a two-year period, which is automatically renewed unless that the group decides otherwise. The group can enlist volunteers as young as 8 years old (anyone under 18 must be accompanied by adults). PennDOT will conduct safety training before any cleanup activity and participants must wear safety vests, with PennDOT providing signage warning motorists that a litter cleanup is underway.

Our little piece of the PennDOT network will be in Fort Washington/Ambler on Bethlehem Pike from the Lafayette Avenue Connector to Butler Pike. It's strategically placed such that at least two places of refreshment (needed after a tough day of litter pickup) – Toner's and Cantina Feliz – are within the limits of our corridor, and a third – MaGerk's, just south of our segment near Skippack Pike – will be available for our use. Always thinking ahead...

Please watch for more information on this on our website and in coming editions of *THE NEWS* and for scheduled clean-up activities. We hope to see you there.

TO CARRY A GRUDGE IS LIKE BEING STUNG TO DEATH BY ONE BEE.

– William H. Walton

ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP DINNER MEETING

THURSDAY, NOVEMBER 13

SUBJECT: Upper Dublin Flood Control Structures – Saving a Business Park

SPEAKER: John Volk, P.E., Vice President, URS Corporation

TIME: 5:30 PM Registration/Networking;
6:00 PM Dinner, Presentation follows

LOCATION: Michael's Restaurant and Deli, 130 Town Center Road, Valley Forge Center, King of Prussia

COST: \$30 (students \$15)

RSVP by Tuesday, November 11

Mr. Volk will present the flood retardation structures project from concept, to funding, to design and to construction. These structures have already reduced the seriousness of the flooding that occurred in Upper Dublin Township and the Fort Washington Business Park, which has experienced 24 major floods since 1959, with the average annual damages totaling \$3.7 million. The designs had to address the stringent environmental requirements of the Army Corps of Engineers, PADEP, and the Montgomery County Conservation District. The presentation will extensively cover the unique design and construction challenges of these projects.

Post Reservations and payment by PayPal to the website: www.asce-philly.org. Payment by check can be sent in advance to: Philadelphia Section ASCE, 215 South 16th St., Ste. 16, Philadelphia, PA 19102-3349. Checks should be made payable to "Philadelphia Section ASCE". Contact **Eric Lindhult** at **732.570.8086** if you have any questions or if you will be unable to attend after you've registered.

Attendees are eligible for one (1) Professional Development Hour (PDH) for attending this presentation.

SECTION WELCOMES NEW E-MAIL COORDINATOR

...or maybe not so new. If you get our twice-a-month "blasts" and reminders on upcoming meetings and events, you've come to realize how handy this is, particularly for those of us who are often too busy to remember what day a particular meeting might be, when the RSVP deadline, is, etc. This has been handled by various Section Members over the past couple of years, and Nha Truong has been the latest to be handed this baton and asked to run with it, starting this past summer.

Nha has done a good job with this so far in a position in which his work is done almost entirely behind the scenes, and we thank him for his efforts in keeping us up-to-date and aware. He is the newest member of our Publications Committee and will be so cited in future editions of *THE NEWS*. Welcome, Nha!

N-ASCE*

We inadvertently started a bridge theme last month, so to keep our bridge engineers interested and happy, we're doing it again. Whether we can stretch this into another month, well, as they say on TV, stay tuned.

WANT TO BUY A BRIDGE (NO TAKERS YET)?

There are stories about people who bought the Brooklyn Bridge, among others, but, in Portland, Oregon, there is actually a bridge for sale. Really. In the southern extremes of the city, the Sellwood Bridge is being replaced. The existing functionally-obsolete 88-year-old structure which crosses the Willamette River has been offered for sale by its owner, Multnomah County. The County set a deadline in September for interested parties to submit plans to purchase and relocate the bridge, but this has come and gone, without a single serious offer. The new structure, a few feet upriver, will be open to traffic late next year. "Nobody even came out to kick the tires," County bridge spokesman Mike Pullen said. "We had a tour available for anybody to come out, and we didn't get a single person."

County leaders aren't surprised and pretty much expected this outcome when they announced the sale. The Sellwood is old and crumbling, and its unusually long 1,091-foot truss span would make moving it a costly and difficult endeavor. But the county had to put it up for sale. The Sellwood's uncommon design, with a four-span continuous truss holding up the road, makes it worthy of placement on the National Register of Historic Places. By virtue of that distinction, the County is required to attempt a sale before moving to demolish the bridge.

A few letters and e-mails from abroad have been received by the County after news of the bridge sale attracted international press attention, but nearly every inquiry had a misunderstanding about what was involved. Some thought the County would arrange for the bridge's transport to its new owner. Others never followed up on their original e-mails.

As a result, the County will turn the old bridge over to Slayden/Sundt, the contractor in charge of building the new bridge, which will hire a subcontractor to demolish the structure. The money the contractor stands to gain from recycling the bridge's steel and concrete – a sum likely to reach six figures – is written into the contract. But before the wrecking crews go to work, County workers will salvage a few keepsakes including the plaque that commemorates the original bridge's 1925 completion for a commemorative display of the old Sellwood.

Thanks to *Oregon Live* for this information.

OR YOU COULD BUY AMTRAK A BRIDGE...

Amtrak's Portal Bridge, which carries 450 trains and more than 150,000 riders a day, is in desperate need of replacement. The cost of replacing the bridge, which crosses the Hackensack River near the portal to the New York tunnel (hence the name), is estimated at \$900 million, none of which has been lined up.

It carries more passenger trains than any other

railroad bridge in the Western Hemisphere, yet few people beyond those who rely on it have heard of it. It goes largely unnoticed, unless something goes wrong, which happens with irritating frequency. After all, the bridge is 104 years old. Every time it swings open to let a boat pass is a test of early-20th-century technology that can snarl train travel from Boston to Washington, the nation's busiest rail corridor. And over the years, because it is partially made out of wood, it also has proved to be quite flammable. To the tens of thousands of commuters on the hundreds of trains that cross it going to or coming from New York City, the Portal Bridge is infamous. Since the start of last year, the bridge has been blamed for about 250 delays on the rails, according to New Jersey Transit, which is its heaviest user.

Even in an era when so much of the nation's infrastructure is in a state of disrepair, the Portal Bridge stands out. Everyone agrees that it is in desperate need of replacement, but no one has come up with the money for a new crossing. Two recent significant delays caused by the bridge have focused attention on Amtrak's stalled effort to obtain the nearly \$1 billion needed to replace the creaky bridge. (And recently, the condition of the nearby twin tunnels beneath the Hudson River, which carry the same rail line into and out of New York, was reported to be bad enough to force a re-look at replacement tunnels, in the \$10 billion range.)

Every time its center section opens to let a tugboat push a barge full of sludge downriver, there is a reasonable chance that a lot of people will be late for work — or dinner — with delays radiating out from Pennsylvania Station in New York and stretching from the nation's capital to Massachusetts. When the bridge's name is uttered in official announcements or in e-mail alerts, riders know that frustration lies just around the bend.

Most of those delays are measured in minutes, but when serious problems arise, the backups can last for hours. That is what happened twice over the summer when the bridge failed to swing back into place, delaying trains for as long as 45 minutes during the evening rush. A few weeks earlier, wooden fenders beneath the bridge caught fire just after 6:30 PM, forcing Amtrak officials to cut power to the bridge. In the 70 minutes it took to extinguish the fire and reopen the bridge, 31 trains had been delayed and an additional 21 had been canceled. Commutes to New Jersey suburbs that would take just over an hour took three hours and caused riders to scatter to buses and PATH trains where they could.

Indeed, the bridge, expected to last 100 years, is swinging on borrowed time. Federal transportation officials have recognized its precarious state for many years, and they have a plan to replace it with a two-track bridge tall enough for boats to pass under it. But that plan carries an estimated price of \$900 million, none of which has been lined up yet. New Jersey Transit, which operates commuter trains and buses throughout the state, split the \$32 million cost of the preliminary engineering of a replacement with Amtrak and also paid \$12 million for its final design.

When New Jersey Governor Chris Christie announced that New Jersey Transit was canceling its plan to build its own rail tunnels under the Hudson River to Manhattan, he criticized Democratic elected officials for failing to include funding for a new Portal Bridge in that project. In 2011, he said he had let federal officials know that New Jersey was prepared to contribute a "significant amount of money" toward a new bridge, noting "there can't be high-speed rail between New York and Washington without a change at the Portal Bridge." In fact, since a train derailed on it on a Saturday morning in late 1996, the Portal Bridge has lowered the speed of trains approaching and leaving New York to 60 miles per hour.

Thanks to the *New York Times* for this information.

*N-ASCE – Not always something concerning Engineering...

THANKS TO OUR SPONSORS

We have started the season a bit strong in the sponsorship department, as there are 13 firms participating at this early point. We extend our special and collective THANKS to each sponsor for their financial commitment and support.

Sponsor logos are displayed in a special Sponsors section of our website. Additionally, we provide direct links to sponsors' own websites so prospective employees can review all available and up-to-date positions. We also offer sponsors the opportunity to have a "spotlight" article in an edition of *THE NEWS* (please see the separate article on one of our sponsors in this issue) as well as service as a sponsor of one of our monthly dinner meetings.

We contacted last year's sponsors in mid-August to determine their interest for this season, so if you were "in" last year but haven't yet renewed, we look forward to having you back.

If you have an interest in joining our sponsorship program, please contact **Bob Wright** at newseditor@asce-philly.org for more details.

The major difference between a thing that might go wrong and a thing that cannot possibly go wrong is that when a thing that cannot possibly go wrong goes wrong, it usually turns out to be impossible to get at and repair.

– Douglas Adams

TECHNICAL GROUPS/CHAIRS

Information on the ASCE, Philadelphia Section's Technical Groups is given below. If you have any topics that you think would be of interest to the Groups, please feel free to pass this information along to the appropriate Group Chair.

CONSTRUCTION

Dennis MacBride
SEPTA
1234 Market Street, 12th Floor
Philadelphia, PA 19107-3780
215-580-3404
dmacbride@septa.org

DELAWARE VALLEY GEO-INSTITUTE (DVGI)

Robert M. Sabanas
GAI Consultants, Inc.
1055 Westlakes Drive, Suite 200
Berwyn, PA 19312
610-640-7456
r.sabanas@gaiconsultants.com

ENGINEERING MANAGEMENT

Ehsan Minaie
Intelligent Infrastructure Systems
One Drexel Plaza
3001 Market Street, Suite 200
Philadelphia, PA 19104
215-254-7740
eminaie@iisengineering.com

ENVIRONMENTAL AND WATER RESOURCES

Eric Lindhult
Whitman
7 Pleasant Hill Road
Cranbury, NJ 08512
732-390-5858
elindhult@whitmanco.com

STRUCTURAL ENGINEERING INSTITUTE (SEI)

Fred Baumert
Keast & Hood Co.
400 Market Street, Suite 1250
Philadelphia, PA 19106
215-625-0099
fbaumert@keasthood.com

TRANSPORTATION AND URBAN DEVELOPMENT

William T. Thomsen
Urban Engineers, Inc.
530 Walnut Street, 14th Floor
Philadelphia, PA 19106
215-922-8080
wthomsen@urbanEngineers.com




ASCE PENNSYLVANIA SECTIONS TO TEAM UP FOR NITTANY LIONS FOOTBALL

The four ASCE Sections in Pennsylvania (Central PA, Lehigh Valley, Pittsburgh and us) will be joining forces to co-sponsor a group outing when Penn State hosts Michigan State on Saturday, **November 29**. A pre-game tailgate/get-together is also being coordinated by the Central PA Section.

Tickets can be ordered online through Ticketmaster and range between \$70 and \$85 (visit https://oss.ticketmaster.com/html/group_corp_start.html?l=EN&team=pennstate&owner=2754697&group=150&err=&event=&custome rID= to create an account and order tickets).

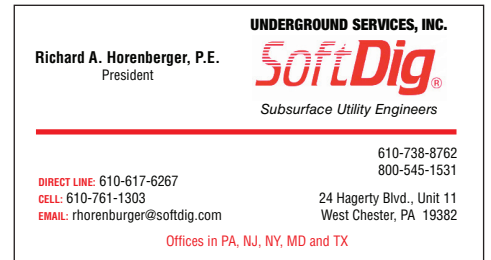
For those who intend to participate in the tailgate, more information on the meeting location will be provided on our website. You will be asked to RSVP for the tailgate so that sufficient food can be ordered and provided. The tailgate will be free but you are encouraged to bring a snack or side dish to share.

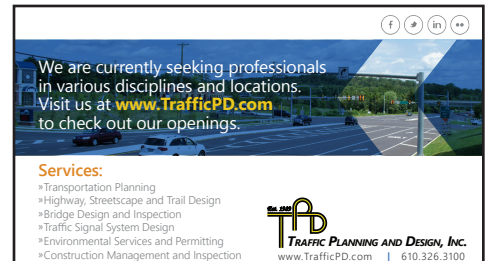
Please visit our website for more details on this.










IS THIS THE END OF POTHOLES — THE “HOLEY” GRAIL?

A team of researchers at Boston’s Northeastern University is using technology to solve one of the urban world’s peskiest issues. Road repairs are easier and as much as five times cheaper when problems are detected early. But sending crews to continually survey streets for damage isn’t practical, and minor cracks often grow into gaping holes before workers can get to them. A group headed by Ming Wang, a professor of environmental and civil engineering at Northeastern University, has developed a clever solution, called Versatile Onboard Traffic Embedded Roaming Sensors (VOTERS). Here’s how it works.

Most potholes start small, some beneath the pavement where drivers can’t even see them. When installed in a customized van, VOTERS can scan 80 miles of road per day, identifying potential issues before they expand into tire-busting asphalt chasms. “Over 32% of the roads in the US are bad,” says Wang, citing ASCE National Report Card data. [In Pennsylvania, 44% are in poor condition.] “We need to interrupt that cycle.”

As the van rolls over the road surface, a sensor records changes in air pressure inside the tire caused by bumps. A carefully-calibrated microphone senses any jostling sounds, and a unique radar system scans the surface between the wheels, checking for problems missed by the tires, and for pockets of air or pools of water beneath the pavement - likely signs of potholes-to-be. A video camera trained on the ground behind the van offers an overall picture of crack density and helps corroborate info from the other sensors.

As the van travels, information is sent to a computer, where it’s sifted through by VOTERS software. Analysts then examine the results to determine when and where to send repair crews for the most effective prevention. The information

reaches road managers in days rather than months, and at a fraction of the cost of traditional methods. Catching problems early, before disasters occur, means long-term savings as well.

Wang is in the process of spinning off a firm with which cities can contract to perform annual road evaluations. But the real goal is to persuade auto manufacturers to embed tire sensors in new cars, thereby crowdsourcing vast, continuously updated troves of data on road quality. The resulting info would be less detailed than what VOTERS can pick up, but it would still improve road maintenance dramatically. “This is not a crazy idea,” says Wang. “It could be cheap. Every car could have it — it would be that easy.”

**LOOK TO THE FUTURE,
BECAUSE THAT’S WHERE YOU’LL
SPEND THE REST OF YOUR LIFE.**

– George Burns

**YOUR CARD COULD
BE HERE!**
Become a Section Sponsor.
Contact us at
newseditor@asce-philly.org
for more information.

SO HOW MANY OF US ARE WE?

The latest forecast from Kelly Services, Inc., employment consultants, indicates that the US will need to add over 250,000 Engineers to our workforce by 2023. This is in addition to the replacement of those who will retire during the same period (which is anyone’s guess, given how people are more likely to change jobs than to outright retire these days). The outlook goes on to say that in the field of Civil Engineering the rate of job growth will be twice that of other engineering disciplines.

To answer the question set out in the title, in 2013 there were over 1.9 million Engineers in the US. A total of 51% of these worked in the civil, electrical, industrial and mechanical specialties, with Civil Engineers representing 16% of the overall total.

The good news is that between 45,700 and 53,700 new Civil Engineering positions will be added in the next decade (Kelly is predicting the former, while the US Bureau of Labor Statistics has prognosticated the latter). The good/bad news is that this is a result of our decaying infrastructure. Also good/bad news is that 35% of the job growth in the combined Engineering disciplines is expected to occur in 10 metro areas – San Francisco, Los Angeles, San Jose, Phoenix, Denver, Dallas, Houston, New York, Boston and Washington. (As always, this is likely good for us, in our position in the New York-Washington “sandwich”.)



PHILADELPHIA SECTION
AMERICAN SOCIETY OF CIVIL ENGINEERS

215 S. 16th Street, Suite 16, Philadelphia, PA 19102
Telephone/Reservations: (215) 985-5703
Web site: <http://www.asce-philly.org>
National ASCE Central Number Toll Free 1-800-548-ASCE