



PHILADELPHIA SECTION

AMERICAN SOCIETY OF CIVIL ENGINEERS 215 S. 16th Street, Suite 16, Philadelphia, PA 19102

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The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Our 100th Year

February 2013

ASCE, PHILA. SECTION MEETING SCHEDULE 2012-13 — WHAT'S LEFT???

Vol. 85-6

Time flies, and so does our Section Meeting program. We are winding down to the last few meetings. After those noted to the right, there will be one Section meeting remaining, on **April 11**. This will be our multi-topic event as has been conducted for the past couple of years, once again at the Villanova Conference Center.

And, of course, the closing event of the season will be on **Saturday, May 4**, our combined annual **Spring Social/100th Anniversary gala**, at the Franklin Institute. Look for more information on this in the March edition of *THE NEWS*.

INTRODUCE A GIRL TO ENGINEERING

Know a group of girls who might want to learn about Civil Engineering? Introduce a Girl to Engineering Day is slated for February 21, and ASCE and the Society of Women Engineers (SWE) are teaming up to tell girls all about the awesome ways Civil Engineers are making a difference in the world. This year, for Engineers Week, SWE and ASCE are encouraging our members to seek each other out, form Girl Day partnerships, and take advantage of loads of free resources to support their events. Posters, brochures, buttons, information cards, and more are available for partners who register their event at the SWEeter Futures Website. For more information visit: www.swe.asce.org/girlday.

CALL FOR NOMINATIONS FOR SECTION OFFFICERS

If you have an interest in being a part of the Section's governance, your opportunity has arrived. In accordance with the Constitution and Bylaws of the Section, President **Jeremy Colello** has appointed a Nominating Committee to recommend a slate of officers for all Section elective offices for the 2013-14 administrative year. The positions which will be open for nominees are President Elect, Vice President, Treasurer, Membership Secretary, and at least three Director positions.

Please feel free to nominate yourself or a colleague if you are interested in serving the Section in one of these capacities. We are

FEBRUARY JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section American Society of Civil Engineers, New Jersey Section, South Jersey Branch

WEDNESDAY, FEBRUARY 13, 2013 (NOTE - CHANGE IN DATE FROM THAT PREVIOUSLY ADVERTISED)

Crowne Plaza Hotel Philadelphia-Cherry Hill

2349 W. Marlton Pike (at Cuthbert Blvd.), Cherry Hill, NJ Cocktails 5:30 PM • Dinner 6:30 PM • Meeting Presentation Follows

SUBJECT: Delaware River Port Authority Capital Program

SPEAKERS: Michael Venuto, P.E., Director of Engineering/Chief Engineer, Delaware River Port Authority

RESERVATIONS MUST BE SUBMITTED BY THURSDAY, FEBRUARY 7. Please make your reservations through South Jersey ASCE's system (http://events.r20.constantcontact.com/register/event?oeidk=a07e6ykvxdl8b54a842&llr=njk4tqkab).

The cost of dinner will be \$35 per member or guest, \$20 per ASCE Student Member. Payment will be accepted at the door. Walk-ins will be subject to acceptance on a space-available basis. THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE.

The Delaware River Port Authority (DRPA) is a bi-state agency created jointly by the Commonwealth of Pennsylvania and State of New Jersey to handle transportation facilities and port activity in the greater Philadelphia region. It owns and manages four Delaware River bridges (Ben Franklin, Walt Whitman, Betsy Ross and Commodore Barry) and the PATCO High-Speed Line. As part of the Authority's \$746 million capital improvements program, the Walt Whitman Bridge Rehabilitation project is currently underway. This effort will redeck the suspended main span of the Bridge and result in major repairs to the 55-year-old structure. The 120-car PATCO fleet, dating to the opening of the line in 1968, is being rebuilt for another 40 years of service.

Michael Venuto, P.E. has been with the Delaware River Port Authority Engineering Department for 12 years. Prior to his appointment as Chief Engineer three years ago, he held several positions in the Authority's Engineering Department and led multiple bridge, roadway, marine, transit and building capital improvement projects. He holds a Masters of Business Administration from Lehigh University, a Bachelor of Science in Civil Engineering from Rutgers University, and a Bachelor of Science in Surveying Engineering Technology from the New Jersey Institute of Technology. He is a licensed Professional Engineer (PE) and Professional Land Surveyor (PLS) in New Jersey.

For more information on the Hotel location and directions, visit http://www.crowneplaza.com/hotels/us/en/cherry-hill/cpcrw/hoteldetail/directions.

Resolve to attend ALL Section Meetings!

MARCH DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

THURSDAY, MARCH 14, 2013

SUBJECT: Philadelphia International Airport Master Plan

SPEAKER: Mark Gale, Chief Executive Officer, Philadelphia International Airport (PHL), Philadelphia Department of Commerce, Division of Aviation

More information on this meeting will be provided in the March edition of *THE NEWS*. Please hold the date and mark it in your calendar.

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PRESIDENT'S MESSAGE

I would like to start off the new with a special thank you to our friends at ASHE for hosting our joint meeting in January. These joint meetings provide us with great opportunities to catch up with old friends and to meet new colleagues. I would also like to recognize Board Member and speaker **Cathy Farrell**, along with the Baker-Urban presentation team, for a job well done.

As we close out January, we can look forward to Engineers Week and the associated celebrations of the profession. The series of events (Awards Luncheon on February 15, Young Engineers Social on February 19, and the Celebration of Engineering Reception on February 21) once again provide us the opportunity to interact with professionals from across the Engineering disciplines. This crosspollination of technical skills reminds us of the value of Engineers and motivates us to cultivate interest in Science, Technology, Engineering and Mathematics.

This leads me to the plans to celebrate our Section's **100th Anniversary**. As we announced in the fall, our **Gala celebration** is planned for **May 4** at the **Franklin Institute**. This will be an opportunity for our civil Engineering community to gather and celebrate our profession. In addition, I am pleased to announce several other events including: a Scavenger Hunt for the local colleges and universities; the publication of a Landmark Guide highlighting some of our accomplishments; a community service event supporting Habitat for Humanity; and a family-friendly "run the bases" night at a Camden RiverSharks game. Be sure to check our website and upcoming editions of *THE NEWS* for event dates and details.

Finally, I would like to recognize and thank all of our sponsors who have chosen to support the Section's activities. Your generosity and support of our members makes all of our events possible during the year and ensures our success as a Section. Thank you.

Sincerely, Jeremy Colello, P.E. President, ASCE, Philadelphia Section

100TH ANNIVERSARY HISTORICAL PERSPECTIVE

As we have been doing each month, we offer our historical perspective as part of our 100th Anniversary celebration. As noted below, February has historically been a busy month for our Section.

1917 — Long-time Editor of *THE NEWS*, **Sid Robin**, was born in Philadelphia on February 3. (He left us on August 16, 2003, serving as Editor up until that day.)

1926 — The Section meeting topic was "Design and Construction of the Broad Street Subway", which was touted as having all the latest innovations and a modern marvel for the City. The first segment of the Subway, from City Hall to Olney, opened on September 1, 1928.

1931 — Initial steps were taken to set up the Section's Junior Forum. This became known as the Associate Members Forum in 1959 and later morphed into the Younger Members Forum in 1982. **1952** — The Section's Central Pennsylvania Sub-Section was established. This became the Central Pennsylvania Section in February 1958. **1953** — A new group, the Delaware Valley Engineers Week Council, an offshoot of the Philadelphia Chapter of the Pennsylvania Society of Professional Engineers (PSPE), started a local multi-society celebration of Engineers Week. Since then, fifteen Section members have been honored as the Delaware Valley Engineer of the Year (1953 - Francis Friel, 1959 - Samuel Baxter, 1971 - Samuel Hudson, 1975 - John Rumpf, 1981 - Robert Koerner, 1985 - C. R. "Chuck" Pennoni, 1987 - Richard Woodring, 1992 – Joseph Mullin, 1995 – Harry Perks, 1997

- Joseph Syrnick, 1999 - Lawrence Moy, 2002

Edward D'Alba, 2006 – Eric Flicker, 2009 –
 David Lowdermilk, 2012 – Timothy Haahs). See
 the separate article on the Delaware Valley
 Engineers Week events for this year.

1953 — The Section's Trenton Sub-Section was established. This would later become the Trenton Branch and then a Branch of the New Jersey Section.

1956 — Past Section President **Francis Friel** was nominated for National Vice President.

1990 — After many years at its location on Spruce Street, the Engineers' Club of Philadelphia relocated to the Public Ledger Building and shared meeting space with the Down Town Club. The Section had used the Club's facilities as its meeting location for many years and continued to use the Down Town Club on a somewhat regular basis until last season.

PSPE PHILADELPHIA ENGINEERS WEEK BANQUET

The Pennsylvania Society of Professional Engineers (PSPE), Philadelphia Chapter, will conduct its 2013 National Engineers Week Banquet on **Saturday, February 23** at the **Springfield Country Club** (400 West Sproul Road, Springfield). This event will recognize, promote and celebrate the role that Engineers fill in the Greater Philadelphia and Delaware Valley Region. **Derek Gillman**, Executive Director of the Barnes Foundation, will offer the keynote address.

The price per person is \$60.00 for reservations received before February 15 and \$75.00 for reservations received afterward. Reservations can be made on the Chapter's website, **www.pspe-philly.org**, using PayPal. Sponsorships and tabletop exhibits are also available, and information on these can be found on the Chapter's website.

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> COPY DEADLINE FOR MARCH 2013 ISSUE FEBRUARY 15, 2013

SCIENCE FAIRS COMING UP – JUDGES NEEDED

As our ASCE, Phila. Section has done for many years, we will offer Special Awards at the Delaware Valley Science Fairs. The Fairs will be conducted on **Wednesday, April 3** at the Greater Philadelphia Expo Center in Oaks. Four Special Awards for projects that have a Civil Engineering theme will be up for grabs, with two awards for Grades 6 through 8 and two for Grades 9 through 12.

Volunteer judges are needed for this effort. The judging will require you to spend most, if not all, of your day (approximately 8 AM to 3 PM) at the Fairs, examining and short listing possible projects in the morning and then interviewing the students who assembled them and finalizing the selections in the afternoon. It is always a very interesting and enlightening experience.

If you are interested in being a Special Awards judge for the Section please contact **Chris Rood** at **crood@drjtbc.org**. You will also need to register for this and this can be done through the Fairs' website **www.dvsf.org**.

For more information on the Fairs please visit the above website.

We hope you can join us for a rewarding and interesting day.

PARTNER PROFILE

WIDENER UNIVERSITY

Widener University's School of Engineering is celebrating its 150th anniversary this year, and we congratulate the University on its longevity and this honor.

Widener aspires to be the nation's preeminent metropolitan university recognized for an unparalleled academic environment, innovative approaches to learning, active scholarship, and the preparation of students for responsible citizenship in a global society.

Widener's vision is inspired by a legacy of leadership, public service, and career preparation started by John Bullock, who established the Bullock School for Boys in 1821 to prepare young men for "entry to college." In 1846, the name changed to the Alsop School for Boys when Samuel Alsop became headmaster. Another name change took place in 1853 when the school became Hyatt's Select School for Boys under the direction of Theodore Hyatt, who purchased the school from Alsop. In 1858, Hyatt introduced a military discipline to "develop the muscles, expand the chest, and impart an erect gentlemanly carriage..." when, according to legend, he found his pupils performing drills with broomsticks in the gym. In 1859, the school was incorporated under the charter of the Wilmington Literary Institute as the Delaware Military Academy (DMA).

Henry C. Robinett, a DMA graduate, distinguished himself in the Civil War by leading a Union artillery battery that successfully defended a strategic position at the Battle of Corinth in Mississippi. The current Widener ROTC "Battery Robinett," which fires a cannon after each touchdown at Widener home football games, was

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YOUNGER MEMBER FORUM NEWS

Amanda Kessler, Forum Editor Kazi Hassan, Forum President 2012-13 Pennoni Associates, Inc. 3001 Market Street, 2nd Floor Philadelphia, PA 19104 215-222-3000 kazihassan@pennoni.com

GREAT VALLEY HIGH SCHOOL PRESENTATION

Kolleen and Eric Backlund completed two presentations to students at Great Valley High School in Malvern on January 10. Kolleen worked with teachers Dr. Paul Burgmayer and Katherine Crabb, both mentors of Women In Science and Engineering (WISE), and WISE president student Nikhita Singh, to plan the presentations.

The first presentation outlined civil Engineering and its various disciplines and the students were asked to identify the disciplines of Civil Engineering shown in photos. The second presentation was about retaining walls and included a reinforced earth demonstration. Around 20-25 students attended each session and both presentations were well received.

CE CLUB AT ARTHUR SCHOOL

The Chester A. Arthur School, at 20th and Catherine Streets in Philadelphia, is looking to start a Civil Engineering Club in conjunction with the YMF. The club will consist of bi-weekly, approximately 2-hour meetings running after school from February through May. It is being organized by Michael Franklin, a Philadelphia School District Science Cohort and teacher at Arthur, as well as Jesse Gormley, one of the YMF's Outreach Coordinators.

We are currently seeking Civil Engineers who would be interested in volunteering time with the club—whether it is for a single meeting or a more extended role. The responsibilities will ideally include giving a short presentation or demonstration related to your specific field, trying to involve the students as much as possible, and answering any questions they may have. If you are interested but do not have any demonstrations or other activities, we can help you come up with some ideas.

If you are interested in attending, or just in volunteering, we ask that you contact Mr. Gormley at **jgormley@pennoni.com** for more information. Thanks in advance for your interest, and we look forward to hearing from you!

PHILLIES GAME – SAVE THE DATE!

YMF has reserved 125 tickets for the Phillies vs. Rockies on **Wednesday**, **August 21**. In addition to the game, the evening will feature Cole Hamels Bobblehead Night. Stay tuned for more info and ticketing!

SEPTA CONTROL CENTER TOUR

On January 9, the YMF organized a tour of the SEPTA Central Command Control Center located in Center City. A brief introduction was provided to the real-time system including acquiring information, scheduling, routing, and coordination. Afterwards, a complete transit display walkthrough was led by **Jim Fox**, Chief of Control Center Operations and **Jack Power**, Managing Director, while discussing in depth the

technical facilities, command hierarchy, and error safeguards. Future upgrades and improvements to SEPTA's system were also discussed. The event was a great success with 20 ASCE members in attendance ranging from students to working professionals. Thanks to Jim, Jack and SEPTA for accommodating our group and leading the tour!

WINTER SOCIAL

The YMF once again hosted its annual Winter Social event on January 28 at McGillin's Olde Ale House in Center City (in case you didn't make or don't remember if you did!). A full report will be provided in the March edition of *THE NEWS*.

FACEBOOK: https://www.facebook.com/YMFPhilly TWITTER: http://twitter.com/Philly_YMF

QR CODE:



THREE CANDIDATES DECLARED FOR NATIONAL PRESIDENT-ELECT

You might have thought (and been relieved!) that the presidential election is behind us, but ASCE's version is beginning once again. Three members have thrown their proverbial hats into the ring as nominees for President-Elect, to be narrowed to two official nominees by the Society's Board of Direction Nominating Committee before being put to a vote by members this summer. The candidates will meet members attending this year's three Multi-Regional Leadership Conferences and make their cases at town hall-type forums.

The candidates for 2014 President-Elect, to advance to ASCE President for 2015, are:

Anthony M. Puntin, PE, M.ASCE, Senior Project Manager at the Louis Berger Group, Morristown, NJ

Robert D. Stevens, PhD, PE, AICP, F.ASCE, Executive Vice President at ARCADIS, Highlands Ranch, CO

Mark W. Woodson, PE, LS, F.ASCE, President, Woodson Engineering and Surveying, Inc., Flagstaff, AZ

Read the bios and vision statements each has submitted — in-depth profiles appear in January's ASCE News. Voting for the two official nominees will open in June. Eligible voters at the membership grade of Associate or higher must be current on their dues as of May 15. Students and Affiliate Members are not eligible. Online voting credentials will be emailed in June, so be sure your membership profile includes a valid email address.

To comment on the election and the nominees, write to **board@asce.org**.

BETTER TO REMAIN SILENT AND BE THOUGHT A FOOL THAN TO SPEAK OUT AND REMOVE ALL DOUBT.

- Abraham Lincoln

JANUARY JOINT DINNER MEETING

January 16, 2013

Radisson Valley Forge Hotel - King of Prussia

Gustine Lake Interchange Reconstruction

by Robert Wright, Editor

In January 1989, the Delaware Valley Section of the American Society of Highway Engineers (ASHE) and our ASCE, Phila. Section scheduled a joint meeting to see how it might work out, given the commonalities and members our two societies share. Something apparently went right, since, for the 24th time (not consecutive, as, for some reason forgotten by many of us, 1995 was skipped), this joint event has been repeated, making it almost a tradition. Thus, following this trend, the first meeting of the "13" part of our 2012-13 season found us making the trip to the newest casino in our region, in the busy King of Prussia area, where we would hear about the award-winning reconstruction of the Gustine Lake Interchange (which many of us passed on the way to the meeting). A cloudy and damp day put a little gloom on the trip, but over 150 members of both organizations came to hear about this noteworthy project.

Delaware Valley Section President **Bruce Masi** opened the meeting and welcomed those present, followed by grace led by Delaware Valley Section Past President **Curt Shugars** and the customary recitation of the Pledge of Allegiance. Section President **Jeremy Colello** offered his welcome and made a few announcements on upcoming Section events.

After dinner, Section President Masi introduced the presentation team and the interesting "Prezi" slide show got underway. First up was Cathy Farrell (our Section's Membership Secretary), the Project Engineer for the roadway design portion of the effort, of Michael Baker Jr.'s office in Horsham. She gave an overview of the project, which started as a bridge replacement effort to address the five bridges within the interchange, all of which had reached their serviceable lives and were in need of reconstruction. The project morphed from this fairly straightforward effort into one which would rebuilt the entire interchange (a "spaghetti bowl" of ramps that links City Avenue, Lincoln Drive, Kelly Drive and Ridge Avenue, as well as distributes traffic crossing the Schuylkill to get to and from I-76) which serves 100,000 vehicles a day.

Ms. Farrell walked the crowd through several deficiencies that would be addressed in the expanded project, including an eventual decision to eliminate one bridge entirely (the northbound City Avenue to northbound Ridge Avenue



The meeting presenters are thanked by President Masi.



President Colello addresses the audience.

movement) and replace it with an at-grade signalized intersection that would fit better in the urban environment and actually improved traffic flow by eliminating a problematic merge. The rationalization of roadways enabled the removal of confusion and quick driver decisions, and allowed some paved areas to be converted into green space and used for infiltration and landscaping.

As to the name of the interchange, Ms. Farrell showed an old aerial photograph that noted the location of the actual body of water called Gustine Lake. This no longer exists as such, but the name continues on.

Audrey Corrado, Baker's Structures Manager, explained the complexity of the bridges, both in terms of the coordination of the scheduling of work for maintenance and protection of traffic purposes and the construction of new abutments and supports in an area with many large underground utility lines. The nearby water intakes for the City's Queen Lane Water Treatment Plant feed into large (48" and 96") mains that convey the water from the Schuylkill River to the Plant and are interspersed throughout the site. These lines could not be relocated and the bridge supports had to be designed to accommodate them in place. This prevented the use of pile driving, but led to the extensive use of micropiles throughout the project.

Ms. Corrado outlined the types of structures that were designed to replace the existing, going to single-span bridges to replace 3-span structures for ease of future maintenance and fewer joints. To enhance the aesthetics of the site, given its status as part of the Fairmount Park system, stone facing treatments were cast into the bridge abutments, and the first use of tubular sign structures in District 6 helped to reduce the overhead clutter.

Joseph Doubet, a Schedule and Constructability Specialist for Urban Engineers, the construction management and inspection firm for the project, highlighted a number of critical items and situations that came up and had to be handled as the project went through the contract award process and into construction. The "stimulus" funding that the project received dictated that the schedule had to be basically cut in half to meet the required completion deadlines. Urban was able to revise some of the proposed sequencing

WIDENER UNIVERSITY

Continued from Page 3

named in Robinett's honor. Robinett was one of many who would come to serve honorably as part of Widener's military school legacy.

In 1862, the academy moved to West Chester, and the school's name changed to the Pennsylvania Military Academy (PMA). At that time, Colonel George Patten, a South Carolinian who fought in the Civil War on the Union side, established a civil engineering curriculum, part of a legacy that continues, with the School of Engineering expanding over time to include electrical, civil, chemical, biomedical, and mechanical engineering disciplines.

In 1866, after the Civil War, there was another brief move to Upland, PA, before the Academy eventually moved to its present location in Chester in 1868.

In 1892, now under the direction of General Charles Hyatt, the son of Theodore Hyatt, the Academy applied for and received collegiate status, becoming the Pennsylvania Military College (PMC). An all-male cadet college, modeled after the legendary U.S. Army Military Academy at West Point, the PMC cadets came to think of themselves as being from the "West Point of Pennsylvania."

In 1966, to increase enrollment, women and civilians were admitted for the first time into Penn Morton College, a parallel, coeducational PMC counterpart. The two institutions eventually combined to become PMC Colleges (Penn Morton College and Pennsylvania Military College). By 1972, the PMC Corps of Cadets (about 277 members at the time) was disbanded, and PMC Colleges became Widener College, named after the prominent Widener family of Philadelphia. In 1975, Widener College expanded Continued on Page 5

and scheduling to allow two of the bridges to be underway simultaneously and changed a planned detour to facilitate completion of one bridge.

Mr. Doubet showed several slides that illustrated the various complexities and difficulties working in a very constrained site with busy traffic on all involved routes. The Lincoln Drive bridge over Ridge Avenue was done in halves, forcing southbound Lincoln Drive traffic to detour onto the existing Ridge Avenue ramp and through a temporary-signal-controlled intersection for the duration of this bridge work. Despite the obstacles, the work was able to be completed on time. The construction contractor, Buckley (which, ironically, built the original interchange in the early 1960's), had a bid price of \$20.2 million, and, after work orders and credits, the final cost of the work was \$21.3 million.

A number of interesting questions were received from the audience and ably answered by the presenters.

President Masi thanked the speakers for an insightful and informative evening and provided each with a token of appreciation for their effort. (This did NOT include the "pot" that Ms. Farrell pocketed as the winner of the first prize of the 50-50 drawing!)

ENGINEERS WEEK — ALMOST HERE!

The Delaware Valley Engineers Week Committee will be celebrating **Engineers Week 2013** from **February 15 through February 23** 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 15

DoubleTree Hotel, Center City

The Awards Luncheon will include:

- A poster session with presentation of student paper winners from 11:00 am to 12 noon, prior to the Luncheon
 - Awards and Scholarships will be presented
- Engineers Week proclamations will be displayed
- Project and individual awards of all participating Engineering societies in the Delaware Valley will be recognized
- The Engineer of the Year and Young Engineer of the Year will make brief remarks

COST: \$60 on or before February 8 (\$70 February 9 and after), \$40 for government agency employees

YOUNG ENGINEER SOCIAL EVENT TUESDAY, FEBRUARY 19

Fado Irish Pub & Restaurant, Center City

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

COST: \$25 on or before February 8 (\$30 February 9 and after)

CELEBRATION OF ENGINEERING RECEPTION THURSDAY. FEBRUARY 21

Lathem Hall, Widener University, Chester

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

- 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, followed by a brief recognition of the Outstanding Service and Engineering Achievement award recipients

COST: \$70 on or before February 8 (\$80 February 9 and after)

The **2013 Delaware Valley Engineer of the Year**, **Charles Clerecuzio**, will be formally installed and recognized at the Awards Luncheon.

Please visit **www.dvewc.org** for up-to-date announcements and reservations for these events.

As always, volunteers are needed! If you are interested in volunteering for one of the many activities of Engineers Week, please visit the website noted above.

Please visit **www.dvewc.org** for up-to-date announcements.

ANACE*

THE WORLD OF LEGOS

Many of us Engineers got hooked at early ages on things like Erector sets, Kenner bridges and building kits, and, of course, Lego blocks. The fascination of something that can be used to build into various shapes and items and then taken apart to build something entirely different is a major part of the attraction of these toys.

So, it should come as no surprise that the world of Legos has spawned "BrickCon", an annual convention and gathering of Lego brick aficionados from all over the country, which usually takes place in early October in Seattle. BrickCon 2012 marked the event's 10th anniversary, and it coincided with the 50th anniversary of the World's Fair being held in Seattle (the Space Needle and the Seattle Monorail are two remaining attractions from that Fair). Among the fellowship of the rank and file, these Lego lovers have built a popular movement from coast to coast. Its goal is nothing short of inspiring future generations of Engineers in the United States, one Lego brick at a time.

And there is an Engineering connection here (even though this piece, in ANACE, shouldn't concern Engineering...) At the event, Cathy Webb, a technology teacher and student learning plan advisor at Edmonds Heights School in Edmonds, WA, demonstrated how she uses the organizational framework of modular design, in which children learn to use objects that are categorized by geometric shape and mathematical measurement in separate containers. The Lego bricks the kids use in their projects are all schematized along these criteria. They learn to use these Lego building blocks and create an integrated, functional model. It's applied education at its very best.

Ms. Webb plans on inspiring the kids in her school laboratory to be the Engineers of the future. Perhaps she's grooming these Engineers, or is she just creating more "Lego-philes"?

You might want to start planning ahead for BrickCon 2013—you can visit www.brickcon. org for more information.

Thanks to **forbes.com** for this.

OLD SUBWAY CARS FINALLY RETIRED

Those of you in the transportation field know that railcars tend to remain in service for a long time, with a 35-40 year service life not unusual. However, in Buenos Aires, the cars that opened the first of the city's (and the first in South America) subway lines in 1913 (!)were finally put out to pasture in early January, a few months shy of their 100th anniversary in service At that time, the entire Line A, which they served, closed for several months for rehabilitation. When it reopens, a fleet of modern cars built in China will take over service, only the second fleet to operate on the line since the 95 original wooden cars imported from Belgium began the service on December 1, 1913.

The cars have developed a following among local residents, many of whom oppose the

modernization of the line, and tourists frequent the line to ride the antiques.

You may recall that, closer to home, SEPTA retired about 75 of its Silverliner II and III cars at the end of June. These cars were built between 1963 and 1967. In New York City, over 200 subway cars that were built in this same time period remain in daily service and are undergoing a mini-rehabilitation of sorts to keep them operational until replacements are received, now planned for 2016-18.

Putting this in a different perspective, the first segment of the London Underground, the world's first subway, is celebrating its 150th anniversary, having opened for service on January 9, 1863 (meaning that the Underground was 50 years old when the old Buenos Aires cars were new).

Thanks to several sources for this information.

*ANACE—Almost Nothing About or Concerning Engineering

WIDENER UNIVERSITY

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to acquire the Delaware Law School (now known as the Widener School of Law), and one year later incorporated the Wilmington campus of Brandywine College. In 1979, the College became Widener University.

During the next two decades, Widener University continued to grow with a groundbreaking for the Harrisburg campus in 1988 (another School of Law campus) and the Exton campus in 2004, which serves Continuing Studies (formerly University College) students and the Osher Lifelong Learning Institute. In 2006, Metropolitan Hall (a new state-of-the-art student residence) and the Wellness Center were added to the main campus facilities in Chester. In 2011, Widener added Founders Hall, which is now home to the School of Nursing and the Oskin Leadership Institute.

Today, Widener's core values stand as respectful legacy to our past in preparing young men and women to become citizens of character who can become effective leaders in a global society.

DELAWARE VALLEY GEO-INSTITUTE (DVGI) MEETINGS

The Institute has scheduled the following meetings for the remainder of this season.

February 19 – Student Night with **Craig Calabria** giving keynote talk and student presentations (Villanova University, Connelly Center)

March 19 – Ethics Short Course (12 noon to 4 PM) with Roy Hunt, "Haiti Earthquake: Road Reconstruction"

April 11 – Section Meeting; DVGI module's speaker will be **Dr. David Elton** (topic to be determined)

May 21 – Jerry DiMaggio (topic to be determined)

Please visit the website (**www.dvgi.org**) for registration and more information.

WHO SAID THIS, AND WHEN?

The relationship between the architect and the structural Engineer: Much has changed over the years; however, one thing has not – recognition. This article appeared in the October edition of "Structural Engineer" and is reprinted here with permission of the magazine and its author, Richard G. Weingardt.

A renowned Structural Engineer proclaimed, "The architect frequently views the structural Engineer as no more than a draftsman capable only of figuring the size of beams and getting out structural drawings. The ability to compute loads and stresses and set forth the results by drawings is indeed a necessary attribute in building construction, but Engineering is much more than this. The failure on the part of architects to recognize and properly evaluate the services of the Engineer, and to accord him (or her) a place as an associate, tends to place the Engineer in a subordinate position. How often in the mention of buildings of great magnitude is the name of the Engineer mentioned? In the presentation of work in the architectural press, the Engineer's name is almost invariably conspicuous by its absence. Surely the mention of the man (or woman) upon whose work the stability of the structure depends would in no way detract from the credit accruing to the architect. Architects decry the practice of the daily press in so often omitting any mention of the architect's name, yet in their own press they very often deny the Engineer the same recognition for which they - however justly criticize others."

WHO SPOKE THESE WORDS? WHEN AND WHERE DID THEY APPEAR?

The Engineer, quoted in an interview, was the great **Kort Berle**, principal in Gunvald Aus Company, Structural Engineers for the Woolworth Building, which was the tallest building in the world from 1913 to 1930 (Architect: Cass Gilbert). The Berle interview appeared in American Architect and Architecture (Vol. 119) way back in 1921. Yet, it could just as well have been reported today. Little has changed concerning this matter! And nothing will change if the Engineering and Architectural communities stay as apathetic to the situation as they have been

For centuries, the cornerstones on monumental and public buildings have borne the name of the architect but not the Engineer. Oh, Engineers sometimes get credited when they are the lead designers for bridges, dams, water and sewerage treatment plants, industrial facilities and utilitarian structures – but not always. Even when mentioned, they are often labeled as the "architect" rather than the "Engineer" of the project. And generally, the media ignores such Engineering accomplishments, except for spectacular dams or bridges.

Over the decades, countless impassioned speeches have been made and reams of articles written concerning this long-suffering plight of the Engineer. Yet little has improved, with no significant changes on the horizon. Of course, there's whining and joking about Engineering

being the industry's invisible profession and Engineers being the unsung heroes or called the "Rodney Dangerfields," who get no respect. But this accomplishes little.

In addition, celebrated Engineers like President Herbert Hoover, the only U.S. President to hold a P.E. license, suggest their colleagues don't need or want public recognition. The work itself is the Engineer's reward – or so the misconception goes. Hoover once said, "The Engineer himself looks back at the unending stream of goodness that flows from his successes with satisfactions that few professions may know. And the verdict of his fellow professional is all the accolade he wants." Really?!

Regarding architects failing to give structural Engineers their due credit, Berle reported, "I have often talked over this matter with prominent architects. They feel that my attitude on this subject is absolutely correct and that, in order to foster a greater co-operation and a more friendly feeling between these brother professions, the architect must recognize the Engineer as a fellow professional man, and not merely as a subordinate."

Berle and others discussing the situation rarely propose depreciating "the splendid work of architects." Rather, they express a belief that the finest solutions and best interests of the owner (the end-users of buildings) can be obtained if architects call in reputable and respected consulting Engineers at the earliest stages of a project - not as an afterthought. Once highprofile structures - those ranked as the tallest, biggest, longest-spanning or featuring uniquely ground-breaking design - are completed, Engineers must be named and given their due credit. Similarly, Engineers need to go out of their way to recognize architects for their work, while also ensuring their own achievements are duly noted.

Improving this overall state requires a lot of reciprocal confidence and appreciation – plus the best goodwill that both professions already have in their relationships. Recognizing the architect/ Engineer team can be better accomplished if both make sure each is properly mentioned in the media when stories of building designs are covered.

For now and in decades to come, it's critical that people in both professions adopt these practices in much greater numbers.

Richard G. Weingardt, P.E., is CEO and chairman of Richard Weingardt Consultants, Inc., a Denver-based structural Engineering firm. He can be contacted at rweingardt@gostructural.com.

CALL FOR NOMINATIONS

Continued from Page 1

looking for hard-working, dedicated volunteers who have fresh ideas.

The deadline for nominations is **Friday**, **February 22**. Any inquiries or nominations should be submitted to the Section's Secretary, **AnnMarie Vigilante**, whose contact information is given on page 2.

THANKS TO OUR SPONSORS (AND, ARE YOU ONE YET?)!

Our "enhanced" ASCE, Phila. Section Sponsorship Program is underway. The "enhanced" part is that we have revised it to raise additional funds to support planned activities and commemoration of our 100th Anniversary year. And now, we welcome individual members to help us celebrate this special occasion.

We thank those who have made the financial commitment for this season so far, and the business cards of our 23 sponsors as of this printing are included in the sponsor section of *THE NEWS* along with their levels of support. We are halfway to our goal of \$50,000 to be raised to support our plans for this season. Your help to get us to the top is very much appreciated.

As has been done for the past several years, sponsor logos are displayed in a special Sponsors section of our website. Through a click on the particular sponsor's logo, we provide direct links to its own website so prospective employees can review all available and up-to-date positions being offered by that firm.

The "enhanced" sponsorship available for this season includes several levels of contribution, as follows:

Section Sponsor: \$300 ("standard" Section Sponsorship, the same as what has been offered for the past several years); Company business card ad in *THE NEWS*; Company logo listed on Section website

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Same benefits as City Hall sponsor, plus... One table of 10 to the 100th Anniversary Gala Event; One copy of the Published Landmark Guide; Spotlight article on your Company in an edition of *THE NEWS*.

And, as noted above, we have opened the Individual Level of sponsorship. For a donation of at least \$100 (and we'll accept more than this!), individuals and/or firms will have their names listed in the 100th Anniversary Events Program.

In the March edition of *THE NEWS*, we will begin to list the sponsors to date to thank them for their generosity.

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

TECHNICAL GROUPS/CHAIRS

Information on the ASCE, Philadelphia Section's Technical Groups is given below. Director Eve D'Onofrio will be coordinating the activities of the Groups. 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.

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ENVIRONMENTAL AND WATER RESOURCES **TECHNICAL GROUP**

MARCH DINNER MEETING TUESDAY. MARCH 12

SUBJECT: Manayunk Combined Sewer **Overflow Mitigation Project**

SPEAKER: Mark Bottin, P.E., Philadelphia Office Director, Hazen & Sawyer

TIME: 5:30 PM - Registration/Networking

6:00 PM - Dinner 6:45 PM – Presentation

LOCATION: Michael's Restaurant and Delicatessen, 130 Town Center Rd., Valley Forge Center, Route 202, King of Prussia, PA

COST: \$25.00 per member / \$15.00 per fulltime student

The project involved the design and construction of a stormwater detention tank and pumping system designed to remove peak stormwater flows from the combined sewer system and prevent combined sewer overflow into the Schuylkill River. It is a part of the overall program to reduce combined sewer outfalls (CSO's) being undertaken by the Philadelphia Water Department.

DIRECTIONS to the restaurant can be found at http://www.michaelsdeli.com/directions.asp RSVP: 1:00 PM, Sunday, March 10

Post reservations to the website: www.ascephilly.org. Payment by PayPal can be done from the ASCE reservation website. Payment by check or cash can be provided at the meeting. Checks should be made payable to "Philadelphia Section ASCE." Contact Eve D'Onofrio at 610.630.1660 if you have any questions or if you have to cancel your reservation.

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

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