



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 98th Year

March, 2011

### **ASCE, PHILA. SECTION MEETING SCHEDULE** 2010-11

Vol. 83-7

The last two ASCE, Philadelphia Section meetings of this season are upon us and information on each is provided under separate headings for these announcements. It's hard to believe that the season is nearly coming to a close, which means, after April, the one remaining Section event is the Spring Social.

The Social will be held on Friday, May 13 (bad news for you triskaidekaphobics\* and superstitious types!) at the Simeone Foundation Automotive Museum, located appropriately in the Philadelphia Auto Mall in Southwest Philadelphia (www.simeonefoundation.org). We hope you can join us for our end-of-season festivities, socializing, networking and fun at an interesting and different venue. More information on the Social will be included in the April edition of THE NEWS.

\*To save you a trip to the dictionary, triskaidekaphobia is fear of the number 13.

#### ASCE - NORTH JERSEY BRANCH

#### THE GEOTECHNICAL GROUP ANNUAL FULL **DAY SEMINAR:**

#### LRFD DESIGN, CONSTRUCTION, AND CONTRACTING OF FILL WALL SYSTEMS

This full day seminar will cover general and special topics relating to the design and construction of fill wall retaining systems. General topics will include an overview and explanation of numerous types of fill wall systems including MSE walls, T-Walls, Gabion Walls, Bin Walls, and DoubleWal walls. Additionally, special topics will include LRFD design for external structural stability and geotechnical strength and service Limit States, MSE wall internal stability and design life, fill wall construction and inspection, and seismic design of retaining walls. You are invited to join colleagues and speakers from consulting, contracting, and academia for a full day of learning and networking.

SPEAKERS: The speakers are experienced practitioners in this arena and include designers, contractors, and suppliers in the industry:

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### MARCH JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

### THURSDAY, MARCH 10, 2011

Down Town Club, Public Ledger Building, 6th and Chestnut Streets, Center City Philadelphia (enter from 6th Street)

Cocktails 5:30 PM • Dinner 6:30 PM • Meeting 7:30 PM

TOPIC: The New Barnes Museum on the Parkway

SPEAKERS: William McDowell III, AIA, Senior Building Project Executive, Barnes

Foundation, and Adam Trojanowski, PE, LEED AP, AltieriSeborWieber

#### SPECIAL FEATURE. Temple University Night

The ASCE Student Chapter, Faculty and Alumni of the Department of Civil and Environmental Engineering of Temple University will be honored at this meeting. All Faculty, Alumni and Students are cordially invited to attend and participate.

RESERVATIONS MUST BE SUBMITTED BY FRIDAY, MARCH 4. Please send your check for the number of attendees at \$40 per member or guest, \$20 per ASCE Student Member. Checks should be made payable to "Philadelphia Section ASCE" and sent to ASCE, Engineers' Club of Philadelphia, 215 S. 16th Street, Suite 16, Philadelphia, PA 19102, Reservations can also be made on the Engineers' Club message center, 215-985-5703, or via e-mail at info@ascephilly.org. You may also electronically reserve through our website (www.asce-philly.org) and pay via PayPal. 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.

With a vision firmly set on the future, the Barnes Foundation has taken several key steps to establish its new center for art education on the Benjamin Franklin Parkway in Philadelphia, which will house the world-class Barnes Foundation art collection as it relocates from its current home in Merion. The Foundation is looking ahead to its emerging future on the Parkway. Recently, Philadelphia-based Ballinger was selected as associate architect for the new facility. The nationally-recognized Ballinger joins New York-based Tod Williams Billie Tsien Architects on the design team for the Foundation's future center for art education. Additionally, the City of Philadelphia and the Barnes Foundation formally executed a 99-year lease for the 41/2-acre site on the world-famous Parkway between 20th Street and 21st Street. It is anticipated that the new venue will house will house the institution's world-renowned art collection in early January 2012.

## Resolve to attend ALL Section Meetings This Year!

### APRIL DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

## WEDNESDAY, APRIL 13, 2011

NOTE CHANGE IN DATE FROM THAT PREVIOUSLY ADVERTISED!

The Mansion at Villanova Conference Center, 601 County Line Road, Radnor, PA

Cocktails 5:30 PM • Dinner 6:30 PM • Meeting 7:30 PM

Last season, the ASCE, Phila. Section tried something different, with a dinner followed by breakout sessions on several different topics. This meeting will follow the same format. More information will be provided in the April edition of THE NEWS.

The Villanova Conference Center is NOT on the University's campus. For directions, please visit http://www.acc-villanovaconferencecenter.com/directions.cfm.



#### PRESIDENT'S MESSAGE

As President of the Philadelphia Section of ASCE, I am contacted throughout the year to write an op-ed article on issues affecting our industry. This past month, as we celebrated Engineers Week, I was asked to discuss the issue of long-term infrastructure funding. The following is an excerpt from the op-ed article.

"Safe roads, bridges, dams and railroads, towering skyscrapers and airport runways, schools and transit systems and clean water — our Commonwealth's

Engineers have built them all, and for generations we have depended on our infrastructure to help make Pennsylvania part of the most powerful economic engine in the world.

"But infrastructure isn't a bill we pay once and forget. It's an investment in our future, and in our ability to compete. And right now, our investment is way short. Just to repair our transportation systems will cost more than \$3.5 billion.

"One of the biggest obstacles to truly fixing Pennsylvania's transportation problems is that there is no plan to do so. There is no comprehensive, sustainable, long-term plan for our rising transportation needs, and while cutting the fat from the transportation budget may help, it won't come close to the kind of funding we need to keep Pennsylvania competitive in today's market.

"Even during the current wave of support for budget austerity, a recent poll found that 95% of Pennsylvanians support funding our state's infrastructure. Our citizens are aware that funding transportation infrastructure means economic recovery, short and long-term jobs, fewer injuries and deaths on our roads, and an investment in the economic future of every state resident.

"But even with this kind of public support, our current state administration has ruled out tax increases and has focused on cutting even more from our transportation budget.

"It's not just jobs that the people of Pennsylvania will lose. Construction costs rose 80% between 2003 and 2008 and continue to rise every year, while damage to our roads and bridges continues to accumulate, requiring more expensive repairs.

"What we need is a state-wide, integrated, comprehensive plan that looks at all forms of transportation and a long-term, stable funding source that is directly tied to transportation use, not arbitrary taxes. A stable funding source tied to transportation use would mean that unlike bonds or taxes on unrelated industries, funds would increase at the same rate as infrastructure usage.

"Instead of viewing transportation funding as a fight pitting cities against suburbs, or transit riders against drivers, a comprehensive transportation infrastructure plan would help ensure that investments are prioritized according to merit and competitive bidding, and that public-private partnerships help shoulder some of the cost of large projects.

"A comprehensive plan and funding source for transportation infrastructure would save the Commonwealth many millions of taxpayer dollars every year, far into the future, and make Pennsylvania more economically competitive because of its ability to plan and deploy transportation infrastructure improvements in response to changing needs."

For the fifth consecutive year, ASCE and others will participate in Legislative Day which will be held this year on Tuesday, May 10 in Harrisburg (please see the separate article on this). Visits will be scheduled with legislators so we can highlight our infrastructure needs. I encourage you to attend and ask your employer for support in this important event.

By investing now, we can create jobs, strengthen the economy, protect our environment and create a better quality of life. And if we want to truly plan for Pennsylvania's future, we also need to urge our legislators to create a long-term not an election cycle length solution.

Sincerely, Thomas W. Brady, P.E. President, ASCE, Philadelphia Section

#### SECTION SCHOLARSHIPS AWARDED

The ASCE, Phila. Section is pleased to announce that Section Scholarships will be awarded at the March Section Meeting. A total of ten applications were received in response to our call for submissions, giving the judges a tough task to select the most worthy candidates. The judges somehow managed to come through, however, and selected the following for Student Scholarship awards:

**Eric Burger**, a Junior at Swarthmore College **Patrick Callahan**, a Junior at Drexel University **Nathan Berry**, a Sophomore at Drexel University All three recipients will receive \$1000 and have been invited to be the guests of the Section at our March meeting, where they will be recognized accordingly.

Thanks to the Scholarship Committee for

handling this somewhat difficult task. The Committee is chaired by **Jeff Bade**, with assistance from members **Cathy Farrell**, **Kristen Bowman Kavanagh**, **Bill Thomsen**, **Ann Tomalavage**, **Chris Wright** and **Bob Wright**.

Also, on another scholarship "front", the Delaware Valley Engineers Week/ASCE Undergraduate Scholarship was awarded to **Jennifer Harnden**, a junior at Widener University, at the Engineers Week Awards and Proclamation Luncheon on February 18.

### ENERGY IN A NATION IS LIKE SAP IN A TREE; IT RISES FROM THE BOTTOM UP.

- Woodrow Wilson

#### ASCE, PHILADELPHIA SECTION OFFICERS AND BOARD OF DIRECTION – 2010-11 SEASON

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#### FEBRUARY JOINT DINNER MEETING

February 23, 2011

Crowne Plaza Hotel, Cherry Hill, NJ

Rehabbing an Icon — The Walt Whitman Bridge

by Robert Wright, Editor

The ASCE, Phila. Section's meeting program generally goes "on the road" in the dead of winter. Our second and last "stop" on this road trip, as has been the case for a number of years, was that far-off place more commonly known as suburban South Jersey. We joined with the **South Jersey Branch** of the New Jersey Section in the western frontier of Cherry Hill at its meeting, and about 30 Section members made the trip. To the best of our knowledge, none of them got lost in the wilds of South Jersey on their ways back home.

They were among a sizable group of over 100 coming out and warmly welcomed by the Branch to learn more about the traffic headaches they'll face during the completion of a long project to rehabilitate and restore the Walt Whitman Bridge, a facility some of those in attendance likely used to get to the meeting venue (at least one of them – yours truly – did). Coincidentally, the meeting was being held during Engineers Week, another reason for those of our profession to celebrate (as if we need one?).

South Jersey Branch President Kauser Jahan welcomed attendees and opened the meeting, recognizing the meeting sponsor, Oldcastle Precast, whose representative took the podium to speak a little about what Oldcastle does. As dinner was wrapping up, Section President Tom Brady gave a short welcome and thanks to the Branch for yet another joint meeting. Branch President Jahan then got things going and introduced the evening's presenter, Michael Venuto, the Director of Engineering/ Chief Engineer of the Delaware River Port Authority (DRPA).

#### DRPA

Mr. Venuto started with a brief introduction of DRPA and its role in local transportation as the operator of four Delaware River crossings (Commodore Barry, Walt Whitman, Ben Franklin and Betsy Ross Bridges), as well as the PATCO High-Speed Line and the seasonal Riverlink ferry between Penns Landing and the Camden Waterfront. Of the bridges, the Ben Franklin is the oldest, completed in 1926, followed by the Walt Whitman (1957), the Commodore Barry (1974) and the Betsy Ross (1976). He noted that the Ben Franklin cost \$45 million to build, while the recent project to remove all paint and completely repaint the structure was worth \$85 million itself. Similarly, the original construction cost of the Walt Whitman was \$65 million, and the effort to replace only the suspension span, the topic of the evening, will be nearly double that at \$128 million.

There are several other large projects in the current DRPA capital program and Mr. Venuto briefly highlighted these. They include infrastructure upgrades on all four bridges, notably a significant repair/restoration effort on the Franklin's anchorages, as well as three large

undertakings on PATCO, namely viaduct repairs, power supply upgrades and the complete rebuilding of its 120-car rapid transit fleet.

#### THE WHITMAN

Back to the topic of the evening, Mr. Venuto explained that, over the last ten years the Walt Whitman Bridge has had several projects completed to upgrade its approach roadways on each side of the river and the bridge spans to either side of the suspension span, at a total cost of \$110 million. The suspension span replacement will be the next major undertaking, but it will not be the last project needed on the Whitman. It will, however, likely be the most impactive.

After an evaluation of options, a lightweight concrete-filled steel grid deck was selected for the replacement span. This option will reduce the dead load on the structure and thereby result in less wear and tear on the suspension cable system. It is different from the orthotropic method used on the Ben Franklin, another option that was considered. Mr. Venuto noted that the deck will "float" on neoprene pads on the stringers and will be jointless. Many of the deterioration problems found in the existing deck are related to the expansion joints and the jointless option is expected to help avoid similar problems in the future.

While the current deck has reached its serviceable life of 50 years, it was originally thought that this could be extended through repairs, but the decision was made to replace it at this point, as Mr. Venuto explained that the repairs would not be cost-effective. The new deck will have an expected life of 60-75 years. A special asphalt mix will be overlaid on the deck to provide the finished pavement surface. Latex-modified concrete (LMC) was an option for the paving, but the asphalt proved to be more effective.

The bridge roadway will be widened by 18 inches on each side as the existing guide rail beam at each edge is replaced by a more compact barrier system. The existing 2-foot wide emergency walkway will stay at this width. The slightly wider roadway will help in the maintenance of traffic and lane shifts needed to accommodate the work.

Mr. Venuto explained that the design consultant, AECOM, worked with contractors on peer reviews and other discussions to get constructability input and related feedback on the proposed work, and this has paid off in the planning of construction in a minimal time period.

#### TRAFFIC ACCOMMODATION

Mr. Venuto stated that the Whitman is the busiest of the DRPA's four bridges and this adds a challenge to the deck replacement. The work will take out one traffic lane at a time starting on the southern side of the bridge and working northward. As there are seven lanes, this results in the basic seven phases of work that are the

planned approach to the construction. Four lanes will be required to be open to traffic in the AM peak toward Philadelphia. DRPA analyzed traffic patterns and determined that three lanes will be sufficient for the PM peak toward New Jersey, since "going home" trips are more spread out over the peak period. The current movable median barrier, often called the "zipper", will be replaced as part of the project and this will be moved as it is currently to provide the proper lane balance. The work will get trickier when it reaches Phase 4, when the four-lane pattern will need to be divided around the work area.

Some traffic diversion is anticipated to other bridges, particularly the Ben Franklin, but Mr. Venuto advised that that bridge has its own traffic backups currently, particularly in the westbound (to Philadelphia) direction because of the constraints of Center City streets that are beyond the DRPA's control. DRPA will work to discourage truck traffic from using the Whitman during peak hours to the extent it can.

The contractor for the project, American Bridge, was awarded the contract in fall 2010 and work has been underway since then, but much of this is below the deck and has not been visible to users or had any impact on traffic. Mr. Venuto warned that the impacts are coming, as the first lane closure will occur this spring. The work underway thus far involved the upgrading of the below-deck walkway and construction of work platforms needed for the redecking operation. Each phase of work has specific schedule requirements for completion and incentive/disincentive (I/D) measures are in place in the contract to keep things moving as efficiently as possible. The disincentives include substantial liquidated damages related to the timing of completion of phases and having closed lanes re-opened to traffic as quickly as possible.

In addition to the deck replacement, Mr. Venuto outlined the other items included in this contract. One is the noted new movable barrier system, which will be steel instead of the existing concrete, to better handle deflection from impacts. The steel barrier will also be narrower than the concrete version, so it will better fit in the tight confines of the lanes on the bridge. Additionally, electric service upgrades will be performed and new lane control signal gantry structures will be provided. A joint venture of Urban Engineers and URS will provide construction management services.

A project website has been established (www.deckthewalt.com) for project updates, traffic information, and other items of note.

#### **Q & A**

Mr. Venuto welcomed **Vijay Pandya**, DRPA Project Manager, to the podium to address several more technical aspects of the work and address questions posed by the audience. Mr. Venuto closed the presentation and noted that other projects upcoming on the Whitman will address the cable dehumidification issues in the anchorages, the removal of lead paint and complete structure repainting, and suspension cable/suspender replacement.

#### HAPPY ST. PATRICK'S DAY

We know how everyone is Irish on St. Pat's Day, and you may recall last year we at *THE NEWS* were challenged to provide a limerick in honor of the big day. Whether that was a good or bad thing, we'll let you decide, but we've once again been prodded and inspired to do this, so we've obliged our tens (?) of fans with not one, but TWO "ditties" for the big day.

This year's limerick, if nothing else giving you another reason to have a few green beers, and including some actual Gaelic words:

To every Section lad and lady From your officers, Board and Pres Brady On St. Pat's be a good Engineer As you hoist your mug o' green beer Offer slainte\* and tap your shillelagh\*\*.

- \* Slahn'-tcha (good health)
- \*\* Shi-lay'-lee (Irish walking stick)

We've decided to be more lame than usual and add a variation of one of our favorite Irish prayers/salutations for the Engineers in all of us:

May the road rise to meet you [in accordance with AASHTO vertical curve and geometric guidelines]

May the wind be ever at your back [using the 85th percentile velocity and direction data according to the local wind rose plot]

May the sun shine warm upon your face [at the optimal angle determined by latitude, allowing full utilization of alternate energy resources]

And the rain fall softly on your fields [to be retained and infiltrated to decrease the burden on the stormwater conveyance system]

And until we meet again,

May God hold you in the hollow of his hand. [we ain't touching that one!]

Beannachtaí na Féile Pádraig! (ban-ochth'-thee na fay'-le paw'-drig) Happy St. Patrick's Day!

# LEGISLATIVE AFFAIRS DAY IN HARRISBURG

For the fifth consecutive year, the four Pennsylvania Sections of ASCE will participate in a visit to state legislators. Legislative Day 2011 will take place in Harrisburg on Tuesday, May 10. Your participation and voice are needed to let our legislators know how important the infrastructure issue is to our economy and our daily lives. The Pennsylvania sections of the American Council of Engineering Companies (ACEC), the American Public Works Association (APWA), the American Society of Highway Engineers (ASHE), and the Pennsylvania Society of Professional Engineers (PSPE), along with the Engineers' Club of Philadelphia, will be represented.

As you are probably aware, we have a new Governor and a very different makeup of the state Senate and House of Representatives with a new agenda as compared to the past. They need to know our stand and opinions, both as professionals and citizens. Attendees will be briefed on our positions and how to have effective meetings with elected representatives. This will be followed by meetings with elected

# ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP

March Dinner Meeting
WEDNESDAY, MARCH 16, 2011

**SUBJECT: Water Quality and Permitting Issues** 

SPEAKER: Thomas Fikslin, Ph.D.; Manager of the Modeling, Monitoring and Assessment Branch of the Delaware River Basin Commission (DRBC)

*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 person / \$15.00 per full-time student. RSVP's due by Monday, March 14

Dr. Fikslin will discuss a wide variety of water quality and permitting issues concerning industrial and municipal discharges. Topics that will be discussed include Water Quality Criteria for conventional (including nutrients) and toxic pollutants, Total Maximum Daily Loads (TDMLs), DRBC's anti-degradation program (Special Protection Waters) in non-tidal waters and Total Dissolved Solids (TDS) issues. He will review the scientific modeling behind the development of permit limitations. The mission of the DRBC and its relationship to state agencies will also be addressed.

Directions to the restaurant can be found at http://www.michaelsdeli.com/directions.asp

Post reservations to the website: www.ascephilly.org. Payment by PayPal can be done from the ASCE reservation website. Payment by check can be sent in advance to: Philadelphia Section ASCE, 215 South 16th St., Suite. 16, Philadelphia, PA 19102-3349. Checks should be made payable to "Philadelphia Section ASCE." Reservation cancellations must be made 48 hours in advance or you will be charged for the meeting.

Contact **Eve D'Onofrio** at **610.630.1660** or **Eric Lindhult** at **267.464.3613** if you have any questions.

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

officials to express our support for the findings of the Governor's Transportation Funding Commission, and indicate your interest in providing your professional knowledge to support important policy decisions effecting the health, safety and welfare of Pennsylvanians. Last year's event was quite successful, with over 100 attendees from organizations statewide.

More information on the specific event schedule for the day is being assembled and will be included on our website (www.asce-philly. org). Please hold the date and check the website for more information.

With the prospect of reduced funding for transportation infrastructure, in spite of the growing needs, and no new resources in sight, our voices need to be heard, both as engineers and state residents. We encourage you to ask your employer to support you in this important event as well.

# ENGINEERS WEEK A SUCCESS!

We hope you participated in Engineers Week this year – if you didn't, we hope you plan to do so in 2012. As you may recall, it was celebrated locally from Friday, February 18 through Saturday, February 26.

The Delaware Valley Engineers Week Committee (DVEWC) events were popular and successful. The Proclamation and Awards Luncheon, conducted at the DoubleTree Hotel on February 18, drew over 250 attendees. The Young Engineers Social, at the Field House Sports Bar in Center City on February 22, and the Celebration of Engineering Reception on February 24, high atop Center City at the Pyramid Club, were similarly well attended.

The 2011 Delaware Valley Engineer of the Year, Douglas Kriebel of Kriebel Engineered Equipment, Ltd., and the 2011 Delaware Valley Young Engineer of the Year, Angela Fante, an Associate at Ballinger, were introduced and cited at these events.

As we know, the completion of this year's events only kicks off the planning for next year's. DVEWC, a committee of the Engineers' Club of Philadelphia, is always in need of volunteers to assist in many of the activities surrounding Engineers Week. DVEWC has a need for your talents and skills in several diverse areas. If you are interested in volunteering or would like information on volunteer opportunities, please visit our website at www.dvewc.org.

#### E-WEEK BANNERS - NEW ONES!

Last month, we mentioned that new banners proclaiming the celebration of Engineers Week would be making their appearances on the street light poles on Broad Street near the DoubleTree Hotel (the site of the Awards and Proclamation Luncheon on February 18) in early February. They were there and they looked great!

You may recall that the Section helped developed the design of the original banners, which were first placed for 2006 Engineers Week. The banners have a useful life of about five years and took a particular "beating" last winter. Earlier this year, the Section, in conjunction with the Engineers' Club, took a different approach and offered sponsorship of banners to all local technical societies. A new design was utilized, with 12 societies participating in the sponsorship effort. Each banner features the name of one of these societies to recognize its participation.

It is anticipated that these banners will also have a functional life of five years, so we'll be seeing these placed in advance of Engineers Week for the foreseeable future.

Thanks to Past Section President and Engineers Club Board Member **Chris Menna** for his leadership of this successful undertaking. March 2011 THE NEWS Page 5

# ANACE\*

# ENIAC DAY TO CELEBRATE DEDICATION OF PENN'S HISTORIC COMPUTER

You may not have noticed it, but Philadelphia's City Council officially declared February 15 as "ENIAC Day," celebrating the 65th anniversary of the historic computer's dedication at Penn and the beginning of the digital age.

Yes, it all started right here in the "Big Scrapple", when the Electronic Numerical Integrator and Computer (ENIAC) was built to calculate ballistic trajectories for the Army during World War II. These calculations had been a time- and labor-intensive process that had previously been performed by teams of mathematicians working with mechanical calculators. Under the direction of John Mauchly and J. Presper Eckert of Penn's Moore School of Electrical Engineering, construction of the 27-ton, 680-square-foot computer began in secrecy in July 1943 and was announced to the public on February 14, 1946.

As the first electronic general-purpose computer, ENIAC was a major step forward from its technological predecessors, which were mainly calculating machines that had their roots in ancient math tools like the abacus. ENIAC was electronic in that it stored numeric information as electrons in vacuum tubes, and was a computer in that it could be programmed to do any sort of calculation. Programming was done manually, by rearranging the wires that connected its various calculating components in a series of complicated steps.

Interestingly and notably, the six original programmers, or "computers" as they were then called, were all women — Betty Snyder Holberton, Jean Jennings Bartik, Kathleen McNulty Mauchly Antonelli, Marlyn Wescoff Meltzer, Ruth Lichterman Teitelbaum and Frances Bilas Spence.

For ENIAC's 50th anniversary, students demonstrated just how far computers have come by replicating ENIAC's design and functionality on a computer chip less than a tenth of the size of a postage stamp.

For more information on ENIAC, visit Penn Engineering's ENIAC Museum at www.seas. upenn.edu/about-seas/eniac.

Thanks to the University for this information.

#### **RESEARCHERS STUDY "SIDEWALK RAGE"**

We all know about "road rage." Apparently this has migrated to the sidewalks.

For many people, few things are more infuriating than slow walkers—those seemingly inconsiderate people who clog up sidewalks, grocery aisles and airport hallways while others fume behind them. Researchers say the concept of "sidewalk rage" is real. One scientist at the University of Hawaii (of all places!) has even developed a **Pedestrian Aggressiveness Syndrome Scale** to map out how people express

their fury, through actions such as:

- Having denigrating thoughts about other pedestrians
- Walking by a slower moving pedestrian and cutting back too soon (feels hostile or rude)
- Feeling competitive with other pedestrians
- Acting in a hostile manner (staring, presenting a mean face, moving faster or closer than expected)
- Feeling stress and impatience when walking in a crowded area (crosswalk, staircase, mall, store, airport, street, beach, park, etc.)
- Walking much faster than the rest of the people
- Not yielding when it's the polite thing to do
- Walking on the left of a crowded passageway where most pedestrians walk on the right
- Muttering at other pedestrians
- Bumping into others
- Not apologizing when expected (after bumping by accident or coming very close in attempting to pass)
- · Making insulting gestures
- Hogging or blocking the passageway, acting uncaring or unaware
- Expressing pedestrian rage against a driver (like insulting or throwing something)
- Feeling enraged at other pedestrians and enjoying thoughts of violence

At its most extreme, sidewalk rage can signal a psychiatric condition known as "intermittent explosive disorder," researchers say. On Facebook, there's a group called "I Secretly Want to Punch Slow Walking People in the Back of the Head" that boasts nearly 15,000 members.

We at *THE NEWS* ask that you be kind to your fellow pedestrian (after all, your Editor, who does a lot of walking, could be one!).

Thanks to the Wall Street Journal for this information.

\*ANACE - Almost Nothing About or Concerning Engineering

#### MARCH DINNER MEETING

Continued from Page 1

The new facility will provide increased space for art education programs, conservation and research. Placement of the new center for art education in proximity to other leading cultural institutions will enable the Barnes Foundation to ensure its long-term viability, while providing greater access to the Collection and the Foundation's educational programs. As we know locally, this move is not without controversy.

Mr. McDowell was engaged by the Foundation to serve as Senior Building Project Executive for the design and construction phase of its new building. He is responsible for day-to-day management of the project and serves as a liaison between the Foundation, its architects and numerous other consultants. He brings unique experience to the Foundation, having worked in both the public and private sectors on a variety of large, complex urban projects. He is a registered architect and for the last twenty years has concentrated on the real estate development side with particular emphasis on design and construction management. As Director of Development for Philadelphia's Brickstone Realty, he served as Project Manager for the development of two large facilities at Saint

Joseph's University. Prior to Brickstone, he served as Senior Director of Real Estate Development for the National Railroad Passenger Corporation (Amtrak) and was involved in the planning for the 30th Street rail yards and the development of the Amtrak Garage. He was also involved, as Amtrak's representative, in the development of Brandywine Realty Trust's Cira Centre tower next to 30th Street Station working with architect Cesar Pelli.

From 1993 to 2000, Mr. McDowell served as Deputy Director of Design and Construction for the City's Redevelopment Authority. Most notably, he was responsible for the redevelopment of the Reading Terminal Headhouse, which now serves as the front door of the Convention Center. He holds a Bachelor of Arts from Denison University and a Master of Science from the Columbia University Graduate School of Architecture, Planning and Preservation. He is a registered Professional Architect in the Commonwealth of Pennsylvania and serves on the Advisory Board of Design of the Redevelopment Authority. A Philadelphia native, he and his family live in Chestnut Hill.

Adam Trojanowski joined AltieriSeborWieber in early 2004 as a Senior Mechanical Engineer and was named a Principal in the firm on January 1st, 2011. Having started his career 16 years ago training in the UK for Ove Arup & Partners, he has accumulated a thorough understanding across building Engineering disciplines.

Mr. Trojanowski has a strong background in the design of specialty mechanical systems with underlying focus on low-energy, sustainable design methods. His responsibilities include conceptual design, production scheduling and coordination, detailed engineering calculations, specification preparation, and client interface.

Mr. Trojanowski holds a Master's degree in Civil & Environmental Engineering from Carnegie Mellon University as well as a Bachelor's and Master's degrees in Mechanical Engineering from SUNY, Stony Brook. He has been Professional Engineer since 1999 and LEED Accredited Professional since 2002. He is an active member of ASHRAE and CIBSE.



# WHERE'S TOM?

ASCE, Phila. Section President **Tom Brady** has raised a challenge to our members. Each month, we

will show a photo of Tom at a different location. You will be asked to keep track of the locations where Tom appears in the photos. The first photo was provided in the Summer edition. In April, you can send a list of your guesses to Tom and the participants will be entered into a drawing for a prize to be awarded at the Spring Social.

Good luck!

# UPDATE ON PROFESSIONAL DEVELOPMENT REQUIREMENTS

As you may be aware, professional engineers, land surveyors and geologists in Pennsylvania are required to obtain continued professional development (CPD) credit to renew their licenses in 2011. This is effective as of October 1, 2009.

The specific requirements for PE's, LS's and PG's are available on the Department of State's website at www.dos.state.pa.us/eng for your information.

We have been able to clarify that the State Board will require licensees to obtain the necessary 24 credits for license renewal by September 30 of this year. However, there was some confusion about a so-called "grace period" that would extend this deadline for an additional six months. The Board has decided to allow any "credit deficiencies", as it calls this, to be made up by April 1, 2012. Thus, if a candidate does not have all 24 required credits by the September 30 deadline, he/she will be permitted to obtain these by April 1, 2012 without any threat of disciplinary action by the Board.

Also, the Section has become aware that New Jersey's continuing education program has been started as of the beginning of 2011. We will obtain information on this and see how this can be met through our Section and Technical Group/ Institute meeting program and pass this along for your use. In Pennsylvania, our meeting program can be counted toward your continuing education requirement, depending on the topic (and the Section will use its judgment of this to advise if a particular meeting may not be able to qualify). A verification program, including sign-in/ attendance recording and "receipts", is in place to help you obtain your professional development hours (PDH's).

# REMINDER: SCIENCE FAIRS COMING UP

The Delaware Valley Science Fairs will be conducted on Wednesday, April 6, at the Greater Philadelphia Expo Center in Oaks. The Section will once again participate in the Fairs and offer four Special Awards for projects that have a Civil Engineering theme, with two awards for Grades 6 through 8 and two for Grades 9 through 12.

As usual, 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.

If you are interested in being a Special Awards judge for the Section please contact **Chris Rood** at **chris.rood@aecom.com**. We hope you can join us for a rewarding and interesting day.

#### YOUNGER MEMBER FORUM NEWS

Scott Ceipitz, Forum Editor Michael Wagner, Forum President 2010–11 Urban Engineers Inc. 530 Walnut Street, 14th Floor Philadelphia, PA 19106 (215) 922-8080 mgwagner@urbanengineers.co.

The YMF has had a busy several weeks, with two major events taking place in late January and early February.

As reported in the February edition of *THE NEWS*, the YMF hosted our annual Winter Social on January 24. This is the YMF's biggest and most attended event of the year. The 2011 version of this event proved to be as popular as always, with over 150 young Engineers from throughout the region taking part. As has been the case for the past few years, the YMF rented out the first floor of McGillin's Olde Ale House in Center City for the Social, and, as also has been the case, it was wall-to-wall people enjoying the libations, good food and great company. Many months of planning by all the Board members were needed in order for this event to take place, and we thank them for their efforts.

There were 31 raffle prizes, with a total value of over \$1,700, from corporate donations. The raffle brought in \$1,112, which will be dispersed to Future Cities and Philabundance. Once again, this event was a huge success and we look forward to start planning for next year's event.

On February 2, the YMF organized a tour of the Boeing Rotocraft H-47 Focused Factory Conversion Project located in Ridley Park (near Philadelphia International Airport). Members were taken through this high-security facility used to produce the CH-47 Chinook, a twinengine heavy lift helicopter used by the US Military. The tour included a walk through areas which were under construction (Phase 2) as well as areas where construction has been completed (Phase 1 & 1A). The project includes upgrading the complex's century-old buildings and facilities which will enable Boeing to double production of these helicopters. Renovation work was being completed while normal operations continue. As a bonus to the construction tour, members witnessed production work of the helicopters (also called "birds" by Boeing staff). The tour was given by STV Incorporated's construction managers, Andy Munter and David Wersinger.

Upcoming events of note are listed below. Event flyers are posted on the YMF website (www.ymfphilly.org).

# ASCE MID-ATLANTIC STUDENT CONFERENCE - APRIL 15-17

Drexel University will be hosting this years **Mid-Atlantic Student Conference**. The student chapter is looking for volunteers & judges for the **Steel Bridge and Concrete Canoe competitions**.

#### PHILLIES VS. METS - AUGUST 23

Come celebrate the 2011 season with our neighboring YMF chapters by watching the Phillies take on the Mets. Ticket price of \$27

# TRAINING/SEMINAR OPPORTUNITIES

# AISC SEMINAR: PRACTICAL CONNECTION DESIGN FOR ECONOMICAL STEEL STRUCTURES

You either design connections or review them on submittals. This course will help you do both. With recent national emphasis on new structural integrity requirements for connections, your understanding of connection design and behavior is even more critical.

This seminar will de-mystify connection behavior and design and show you how to make connection choices that are economical and constructible. You will learn the appropriate limit states for common connections, how the load path progresses through the elements of these connections, and how to simplify the design and review of these connections in your practice. You also will understand how to apply the principles learned for common connections to other more complex connections.

The seminar will be conducted on **Thursday**, **May 26** at a local site to be announced.

AUTHOR AND SPEAKER: Larry Muir, P.E., Consultant

ASCE members may register at AISC member prices. This seminar is worth 8 PDH's.

Please visit **www.aisc.org/seminars** for more information.

#### INTRODUCTION TO HEC-RAS

NTM Engineering's course on this subject will teach you how to use the Army Corps of Engineers' Hydraulic Engineering Center River Analysis System (HEC-RAS) software for modeling steady, gradually-varied, one-dimensional open channel flows. Topics will include hydraulic modeling, flow resistance, steady flow, bridge and culvert hydraulics and modeling, and others.

The course will be conducted on **April 5-7** at **Harrisburg Area Community College**. The cost is \$950 per person, with discounts available for multiple attendees from one organization. This is worth 24 PDH's.

Please visit **www.ntmtraining.com** for more information.

includes tailgate and discount from regularly priced tickets.

#### **ICRI FACADE SYMPOSIUM – MARCH 4**

Confused about the new Facade Ordinance in Philadelphia? Learn all about the requirements at the upcoming Facade Symposium hosted by the International Concrete Repair Institute to be held at the WHYY building in Independence Mall West. Visit the event website (http://www.icridelval.com/events.php?event\_id=58) for more details.

#### **TECHNICAL GROUPS/CHAIRS**

Information on the ASCE, Philadelphia Section's Technical Groups is given below. Director Keith Yamatani 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.

#### CONSTRUCTION

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

#### **DELAWARE VALLEY GEO-INSTITUTE (DVGI)**

Ara G. Mouradian Gannett Fleming, Inc. 1010 Adams Avenue Audubon, PA 19403 610-650-8101 amouradian@gfnet.com

#### **ENGINEERING MANAGEMENT**

The Chair position is currently open (see below).

#### **ENVIRONMENTAL AND WATER RESOURCES**

Eve D'Onofrio E S Design LLC 128 Regency Dr Norristown, PA 19403-1755 610-630-1660 edonofrio@esdesignllc.com

#### STRUCTURAL ENGINEERING INSTITUTE (SEI)

Dr. Mohiuddin Ali Khan 1200 Lenox Drive, Suite 101 Trenton, NJ, 08648 609-512-3415 mohidin@temple.edu

#### TRANSPORTATION AND **URBAN DEVELOPMENT**

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

We are still looking for a chair for the Engineering Management Group. Please contact President Tom Brady (contact information is given on page 2) for more information on this or if you are interested in this esteemed position.

### THE ADVANTAGE OF A BAD **MEMORY IS THAT ONE ENJOYS** SEVERAL TIMES THE SAME GOOD THINGS FOR THE FIRST TIME.

- Friedrich Nietzsche

#### **MEMBERS IN THE NEWS**

#### NAWN DELCO ENGINEER OF THE YEAR

John Nawn was cited as the 2011 Delaware County Engineer of the Year by the Pennsylvania Society of Professional Engineers (PSPE), Delaware County Chapter. This recognition was awarded to John at the Chapter's 2011 Engineers Week dinner on February 17. John is a vice president at KSE Engineers local office in Center City Philadelphia and was one of the first engineers to become certified internationally as a Professional Traffic Engineer (PTOE). Operations Congratulations to John on yet another honor!

#### **MCATEE CITED BY DREXEL**

The Drexel Construction Management Advisory Council (CMAC) will present Joseph McAtee with a Lifetime Achievement Award at the 3rd Annual CMAC Awards Reception on March 14 at 6:00 PM in the Bossone Atrium. Joe is the Executive Vice President of Urban Engineers. This award cites his substantial contributions to Drexel's Construction Management Program and to the Philadelphia region's construction industry and beyond. Through this award, Joe joins a select group of recipients whose contributions to the construction industry and to Drexel's CMGT Program are quite significant.

#### **GEOTECHNICAL GROUP**

Continued from Page 1

Jim Withiam, PE, PhD (D'Appolonia) Dov Leschinsky, PE, PhD (University of Delaware)

Bob Gladstone, PE (Association of Metallically Stabilized Earth)

Sherif Aziz, PE (RECo)

David McKittrick (EarthTec)

Richie Preis (Maccaferri)

Rev Esteban, PE (CONTECH)

Representative (DoubleWal)

Representative (Neel Company (T-Wall®))

DATE/TIME: March 24, 7:50 am - 5:00 pm, 7:00 am Registration

LOCATION: The Newark Club, Newark, New Jersey (The Newark Club is adjacent to a parking garage and is easily accessible from NJ Transit and the PATH Train.)

COST: \$275 per person/\$250 per person if payment received by March 11.

REGISTER: By March 11 at www.ascenorthjerseybranch.org

PDH CREDIT: Up to Six PDHs pending

INCLUDED: Continental Breakfast, Buffet Lunch, Coffee Breaks, and Seminar Proceedings Handout

### IF AT FIRST YOU DON'T SUCCEED, FIND OUT IF THE LOSER GETS ANYTHING.

- Bill Lyon





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