



PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS 215 S. 16th Street, Suite 16, Philadelphia, PA 19102 Telephone/Reservations: (215) 985-5701 Web site: http://www.asce-philly.org National ASCE Central Number 1-800-548-ASCE • Toll Free

The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Vol. 83-3

Our 98th Year

November, 2010

ASCE, PHILA. SECTION MEETING SCHEDULE 2010—11

The ASCE, Philadelphia Section Meeting program for the upcoming season is falling into place, and the dates shown below are the Section meetings remaining for this season. We would suggest that you use this to mark your calendar at this time and hold the dates. In coming issues of *THE NEWS*, we will provide updates as information becomes available. We also suggest you visit the Section website for the latest changes in our meeting program.

We also noted the success of the varied locations of meetings and will continue to schedule a mix of Center City and suburban venues to make them as convenient as possible for you. More details will be provided on meeting locations in upcoming editions of *THE NEWS*.

Dinner meetings generally follow a schedule of a cocktail hour starting at 5:30 PM, dinner at 6:30 PM, and the meeting presentation following at approximately 7:30 PM, unless otherwise noted. We also intend to follow our second-Thursday pattern except where joint meetings will preclude this. As always, you are welcome to attend the meeting presentation without dinner at no cost if you prefer to do so.

REMAINING DATES, all in 2011, are:

Wednesday, January 19, 2011 Joint meeting with American Society of Highway Engineers

Thursday, February 10

Thursday, March 10

Thursday, April 14

IF EVERYONE IS THINKING ALIKE, THEN SOMEBODY ISN'T THINKING.

– General George S. Patton Jr.

NOVEMBER DINNER MEETING

Engineers' Club of Philadelphia

American Society of Civil Engineers, Philadelphia Section Construction Management Association of America (CMAA)

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

THURSDAY, NOVEMBER 4, 2010

Down Town Club • Public Ledger Building, 6th & Chestnut Streets, Center City Philadelphia Cocktails 5:30 pm • Dinner 6:30 pm • Meeting 7:30 pm

SUBJECT: Communicating Technical Issues with Levity and Panache

SPEAKER: Fred H. Kulhawy, Professor Emeritus, School of Civil and Environmental Engineering, Cornell University, Ithaca, NY

RESERVATIONS MUST BE SUBMITTED BY FRIDAY, OCTOBER 29. Reservations can be made through the Engineers' Club of Philadelphia in one of three ways — online (**reservations@ engrclub.org**), by calling 215-985-5703, or sending a check payable to Engineers' Club of Philadelphia to the Club (215 S. 16th Street, Suite 16, Philadelphia 19102). The cost of the event is \$55 per attendee.

SPECIAL FEATURE: Swarthmore College Night

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

Discounted parking is available at the 7th & Ranstead Streets garage (7th Street north of Chestnut Street). Parking stubs must be validated at the meeting registration table.

Continued on Page 6

DECEMBER JOINT DINNER MEETING

Society of American Military Engineers, Philadelphia Post American Society of Civil Engineers, Philadelphia Section Construction Management Association of America, Mid-Atlantic Chapter

Engineers' Club of Philadelphia

Project Management Institute, Delaware Valley Chapter Pennsylvania Society of Professional Engineers, Philadelphia Chapter Association for the Advancement of Cost Engineering, Delaware Valley Chapter (Sponsoring societies tentative as of presstime)

WEDNESDAY, DECEMBER 1, 2010

Down Town Club • Public Ledger Building, 6th & Chestnut Streets, Center City Philadelphia Cocktails 5:30 PM • Dinner 6:30 PM • Meeting 7:30 PM

SUBJECT: Panama Canal Expansion Program

SPEAKER: David Nisula, Assistant Program Manager, CH2M Hill

The presentation will cover the following items:

• Overview of the Panama Canal Expansion Program, the components that make up the program, and the various ramifications of the expansion outside of Panama, particularly on the US East Coast

• A status update on the key projects within the Canal Expansion

• Discussion of the project management of the Expansion, and the roles of the various parties and some of the tools being used in this effort.



PRESIDENT'S MESSAGE

As I described in last month's message, the Board has established the following goals for this upcoming year: have social events outside our monthly dinner meetings, provide PDH meetings, revitalize the Reading Branch, plan for the 100th Anniversary, hold multidiscipline meetings, and plan outreach efforts regarding the recent release of the PA Infrastructure Report Card. In the upcoming month, our Social Committee is planning a Happy Hour, and we are offering several PDH opportunities at our dinner meetings and Technical Group and

Institute meetings. The Reading Branch plans to have several activities to reach out to our Upper Montgomery County, Chester County and Berks County members.

In 2012, our Section will have its 100th Anniversary. **Jennifer Walsh** is chairing the committee for our 100th Anniversary celebration. If interested in assisting, please contact Jenn at **Jennifer.Walsh@** mcmtrans.com.

Our October dinner meeting discussed the Reconstruction of the Reflecting Pool in Washington, D.C., and the discussion covered several areas of Civil Engineering. Our next few monthly dinner meetings will be joint dinner meetings with other societies and have multidisciplined topics.

In May, we released the updated of the PA Infrastructure Report Card (see http://www. pareportcard.org for more information). As the November election approaches, we all need to reach out to our public officials and emphasize that they need to address our infrastructure funding crisis early in the new term.

As members of ASCE, we need to be involved. We are still in need of a Chairperson for our Engineering Management Technical Group and an Assistant Secretary to serve on our Section Board. We also are in search of speakers who can assist our Technical Groups and Institutes by providing a 1-hour presentation that would provide a PDH to our members. If interested in serving in any of these opportunities, please contact me at **tbrady@louisberger.com**.

Our Section website **www.asce-philly.org** has been updated to better serve all of you. It will also contain a current list of activities and sign-in sheets from PDH meetings. Check it out!

Happy Halloween and Go Phillies!

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

OCTOBER SOCIAL EVENT

On October 2nd members of our ASCE, Phila. Section attended a Philadelphia Union Soccer Game. Although the Union tied the Houston Dynamo at 1–1, it was an exciting game. This game marked the end of the inaugural season at PPL Park in Chester. Everyone in attendance had a great time, perhaps because of meeting other civils in a laid back setting, or maybe it was because of watching professional soccer up close. Or maybe everyone enjoyed themselves because of the free hot dog and beer! Thanks to **Guy DiMartino, Joe Platt** and **Cathy Farrell** for planning the event.

HOW BIG ARE WE?

As of the end of September, our ASCE, Phila. Section has 2242 assigned members, in case you were curious. This number has continually been slowly increasing despite the economy and other factors. Thanks for helping us grow!

THERE IS NO FAILURE Except in no longer trying.

– Elbert Hubbarad, American Writer

PROFESSIONAL DEVELOPMENT REQUIREMENTS SECTION MEETINGS WILL HELP YOU MEET THESE

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.

The ASCE, Phila. Section's meeting program will be able to be counted toward your continuing education requirement, depending on the topic (and the Section will use its judgement of this to advise if a particular meeting may not be able to qualify). A verification program, including signin/attendance recording and "receipts", has been implemented as of last meeting (October) to help you obtain your professional development hours (PDH's).

Please keep in mind that the accounting and record-keeping necessary for your professional development hours remains YOUR individual responsibility as the license holder. The ASCE, Phila. Section's records are available as backup and can be used in the event you may be audited by the State Board. You will NOT need to send receipts, documents, certificates, etc. with your renewal to show you have earned the required number of PDH's, but you may be asked to produce this in the event of an audit.

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

PRESIDENT

Thomas W. Brady, Louis Berger Group PRESIDENT ELECT

> Ann M. Tomalavage, Malarkey Consulting, Inc.

VICE PRESIDENT Jeremy Colello, Pennoni Associates, Inc.

SECRETARY AnnMarie L. Vigilante, Langan Engineering & Environmental Services

TREASURER Joseph Platt, Traffic Planning and Design, Inc.

> ASSISTANT TREASURER Guy DiMartino, Traffic Planning & Design, Inc.

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

DIRECTORS

Vicki L. Brown, Widener University ('09-'11) Spencer Finch, Pennsylvania Environmental Council ('10-'12) Soheila Rahbari, RGE LLC ('09-'11) Theodore Thomson, Pennoni Associates ('10-'12) Jennifer K. Walsh, McMahon Associates Inc. ('10-'12) Keith Yamatani, Kleinfelder ('09-'11)

PAST PRESIDENTS

Kristen Bowman Kavanagh, Flow Science, Inc. Mark J. Tiger, Michael Baker, Jr., Inc. James P. Markham II, Pennoni Associates, Inc.

PRESIDENT, READING BRANCH E.J. Walsh, McCarthy Engineering

President – Thomas W. Brady, P.E. Manager, Transportation Engineering The Louis Berger Group, Inc. 350 Eagleview Blvd., Suite 250 Exton, PA 19341 (610) 280-4018 tbrady@louisberger.com Secretary – AnnMarie L.Vigilante, P.E.

Project Manager Langan Engineering & Environmental Services P.O. Box 1569, Doylestown, PA 18901-0219 (215) 491-6500 avigilante@langan.com

PUBLICATIONS COMMITTEE Editor of *THE NEWS* Robert Wright Staff Writers James Markham Joe Syrnick SEND COPY TO: ASCE, c/o Engineers' Club of Philadelphia 215 S. 16th Street, Suite 16 Philadelphia, PA 19102

> COPY DEADLINE FOR DECEMBER '10 ISSUE NOVEMBER 12, 2010

October 14, 2010

ANACE*

MANURE COULD POWER DATA CENTERS, HEWLETT-PACKARD SCIENTISTS SAY...

Giving new meaning to the term "server farm," a team of Hewlett-Packard researchers has come up with a plan for combining cow chips and computer chips to build an environmentally friendly data center — powered by manure. HP scientists have proposed using a biogas recovery system that would convert livestock waste into methane, to be used as fuel to generate electricity for data centers — those cutting-edge computer facilities that serve as the nerve centers for an increasingly Internet-dependent world. In turn, the system would use the heat produced by the banks of server computers — sometimes referred to as server farms — to assist the process of converting the animal waste into fuel.

Chandrakant Patel, a scientist at HP Labs, recalls collecting buffalo droppings for fuel as a boy in rural India. He says the ancient practice of burning manure for energy can be updated with new technology, in a process his team has outlined in a paper presented at a conference on energy sustainability convened in Phoenix by the American Society of Mechanical Engineers.

HP says it has no immediate plans to build a dung-powered data center.

Modern data centers require vast amounts of electricity, both to power their high-tech components and to run air conditioners that keep the computers from overheating. That translates to high energy bills and a big carbon footprint at a time when corporations face growing pressure to be green. Some big tech companies, including Google and Microsoft, have built large data centers in the Pacific Northwest, where power from hydroelectric dams is plentiful and less costly.

But that's not always an option, and Patel said that ideally a data center should be able to tap multiple energy sources, depending on whether solar, wind or biogas power is available, while using non-renewable power as a backup.

Patel is not the only team member who has firsthand experience with livestock and manure. One of his co-authors, computer scientist Martin Arlitt, comes from a Canadian ranching family and, according to Patel, "shoveled a lot of the stuff" as a young man.

The average dairy cow produces 20 metric tons of manure a year, according to the researchers, who say they'd need 10,000 cows to power a 1-megawatt data center, which they describe as a small- to medium-sized facility. They propose converting the waste into methane gas through a biological process called anaerobic digestion, which is more efficient and less smelly than simply burning the manure. The methane would then be used as fuel in gas-fired generators to create power.

The science behind their idea is well established, said Steffen Mueller, principal *Continued on Page 6*

OCTOBER DINNER MEETING

Lincoln Memorial Reflecting Pool Rehabilitation by Robert Wright, Editor

The 2010-11 meeting season opened on a rainy night in King of Prussia, meaning that many attendees sat in slower-than-normal-moving traffic to get there. However, about 50 brave souls endured the trip and enjoyed an interesting presentation on a project many of us know little about even though we are all very familiar with the location.

President **Tom Brady** opened his first meeting and welcomed the audience, bringing up Newsletter Editor **Bob Wright** to talk about the Section's professional development hour (PDH) reporting to help members meet the State's requirements (see the related article elsewhere in this edition of *THE NEWS*), followed by President Elect **Ann Tomalavage** who led the invocation, using a modified Army Corps of Engineers prayer relating to Engineering.

During dinner, Region 2 Director **Ray Darvishian** conducted the official inauguration of the new Reading Branch officers. Those present – **E.J. Walsh** (Branch President), **Nicholas Johnson** (Secretary) and **Philip Harter** (Treasurer) were sworn in and recognized. President Walsh brought those present up to speed on the Branch's revitalization efforts as it celebrates its 35th anniversary.

The Student Chapter of Drexel University was highlighted this evening (unfortunately, this was not included in the meeting announcement in *THE NEWS* – your Editor apologizes and insists it wasn't an intentional slight, despite what some Drexel alumni might suspect!). Dr. Joseph Martin took the podium and noted that Drexel will be hosting the 2011 Student Regional Competitions this spring. He additionally introduced several students, including Chapter President Sam Steffens and Architectural Engineering Institute (AEI) President Alex Stadel, who presented updates on the Chapter's activities.

THE REFLECTING POOL

Following these formalities, President Brady introduced the evening's speaker, Gary Moore, Project Manger of the Louis Berger Group, Inc., to begin his presentation on the Reflecting Pool. Mr. Moore presented a number of facts and figures on the Pool, including that it has over 25 million visitors annually. The Pool rehabilitation project started as an accessibility/ADA and security enhancement program in December 2009. Because it was identified as a "stimulus" project under the American Reinvestment and Recovery Act (ARRA), the final construction documents were requested to be completed by the design team in May 2010. The work obviously had to be on a fast track to meet this schedule.

Mr. Moore identified the myriad of "players" on the design team and also the numerous

agencies that would need to be consulted and have review responsibilities on the effort. The project is under the direct jurisdiction of the National Park Service (NPS).

Crowne Plaza Hotel, King of Prussia, PA

The design team quickly found issues that needed to be addressed outside of the original scope, such as Pool leakage, differential settlement, and collection of organic debris related to the Pool's lack of filtration and recirculation capabilities. An asbestos bituminous/tar layer, probably a sealant, was found beneath the Pool's slab, and the scope of work dictated that it would need to be removed. The concrete slab could be "rubblized", using a specialized machine, to reuse the existing concrete. The slab rests on former wetlands, which explains the settlement problems. Mr. Moore noted that the structure would be modified with the introduction of over 2000 piles to bedrock to properly support the Pool.

The water system design was another key consideration. NPS required that the Pool's surface needed to be still, to properly reflect the monuments (its basic purpose), and measures to dissuade waterfowl needed to be investigated. A new system designed with supply and drainage piping that introduced a laminar flow was developed. Mr. Moore indicated that the supply came from a potable source (city water), and other options were identified to use Potomac River water, Tidal Basin water, and groundwater from the nearby World War II Memorial area. There were many problems associated with using the Potomac feed, particularly downstream from the Pool, but NPS continued to insist that this be considered as an option. This led to the recommendation to use a combination of Tidal Basin/World War II Memorial sources with a redundant (and probably never to be used) feed from the city water supply. Drainage would be diverted to the city sanitary system to carry away filtered material.

Mr. Moore noted that water treatment was needed to maintain the quality of the Pool water. The desire to not use chlorine led to an ozone-based system. Because of aesthetic sensitivities, always a consideration in this area, the treatment building was designed to look like the barn used for the Park Police's horses in the same area.

Mr. Moore touched on the civil/landscape design. The Pool's walkway lighting fixtures would be upgraded with LED luminaires. A new curvilinear walkway network would be introduced. The existing dirt paths adjacent to the Pool will be paved, as called for in the original plans for the Pool but never built.

Design was completed on schedule. The construction contract was awarded in August with a \$30.7 million low bid. Mr. Moore stated that demolition work will begin in November,

CONSTRUCTION TECHNICAL GROUP AND Engineers' Club of Philadelphia

Luncheon Meeting TUESDAY, NOVEMBER 16

SUBJECT: Delay Claims from the Owner and Contractor's Perspectives

SPEAKER: **Dennis M. MacBride, P.E.,** Manager, Project Scheduling and Claims, Southeastern Pennsylvania Transportation Authority (SEPTA)

TIME: 12:00 NOON-1:30 PM

LOCATION: Municipal Services Building, 16th floor, Conference Room Y, 15th Street and Kennedy Boulevard, Philadelphia COST: \$15

When a project is delayed due to an owner's actions, a contractor may incur extra costs and seek compensation for those losses. When a project is delayed by a contractor's actions, the owner may seek compensation in the form of liquidated or actual damages. In each case, it is important for owners, contractors, design consultants, constructions managers and other construction professionals to understand the basics of delay claims. Mr. MacBride will discuss contract language related to delays, the types of delays and damages, and the requirements for a successful claim. The presentation will also include an interactive case study.

Participation in this presentation entitles each attendee to one (1) PDH for the Commonwealth of Pennsylvania's Professional Engineer Continuing Education Requirements. PDH certificates will be distributed at the end of the presentation.

Lunch will be served starting at 12:00 noon.

For reservations, please contact the Engineers' Club of Philadelphia at **reservations@engrclub. org** or (**215**) **985-5703** no later than **Wednesday**, **November 10.**



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!

ENVIRONMENTAL AND WATER RESOURCES TECHNICAL GROUP

Luncheon Meeting WEDNESDAY, NOVEMBER 17

SUBJECT: Upcoming Changes to Chapter 102 – Erosion & Sedimentation Control Manual and Regulations

SPEAKER: **Domenic Rocco, P.E.,** Chief, Stormwater Section, Pennsylvania Department of Environmental Protection, Southeast Regional Office

TIME: 12:00 NOON-1:15 PM (11:45 AM registration)

LOCATION: **Temple University** – Fort Washington Campus, Rooms 124-126, 401 Commerce Drive (corner of Commerce Dr. and Delaware Ave.), Fort Washington, PA

COST: \$20 (including lunch), \$10 students

Mr. Rocco will give an overview of the updated Chapter 102 – Erosion and Sedimentation Control Manual and Regulations. The revised manual will coordinate with the current PA Stormwater Best Management Practices Manual. Please send **Eve D'Onofrio** (edonofrio@ esdesignllc.com) any questions or items that you would like addressed during this program.

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

RSVP: November 11, by noon. Reservations and payment can be made by **PayPal** on our 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 (267) 464-3613 or Eve D'Onofrio at (610) 630-1660 if you have any questions.

DIRECTIONS: Location Map for the Temple, Fort Washington Campus can be found at **www.** temple.edu/ambler/about/documents/

Ambler Map.pdf. The Temple University, Fort Washington Campus is located just off the Fort Washington Interchange of the Pennsylvania Turnpike.

PSPE PHILADELPHIA ENGINEERS WEEK BANQUET

The Pennsylvania Society of Professional Engineers (PSPE), Philadelphia Chapter, will conduct its **2011 National Engineers Week Banquet** on **Saturday, February 26, 2011** 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.

The price per person is \$60.00 for reservations received before **December 31, 2010**, \$65.00 for reservations received afterward. Reservations can be made on the Chapter's website, **www.pspephilly.org**, using PayPal. Sponsorships and table-top exhibits are also available.

STRUCTURAL ENGINEERING INSTITUTE

Dinner and Technical Meeting WEDNESDAY, OCTOBER 27

SUBJECT: Underpinning and Stabilization of Older Structures

SPEAKERS: Constantine Doukakis, P.E. and Thomas Normile, P.E., Keast & Hood Inc.

TIME: 5:30 рм Social (cash bar); 6:15 рм Dinner; 7:00 рм Program

LOCATION: Radisson Valley Forge Hotel at the Scanticon Hotel & Conference Center,

1160 First Avenue, King of Prussia

COST: \$50 ASCE members; \$55 non-members; \$15 students

Attendees are eligible to earn two (2) Professional Development Hours (PDH).

Older buildings along the east coast usually have relatively shallow foundations. Where basements exist, the head-height was often only eight feet or so for residences and ten to twelve for commercial buildings because excavation was costly and difficult. When one designs a modern building or other structure adjacent to an older building, undermining the existing foundations is a significant concern that is too often not given the attention required. This presentation will review the fundamental principles and proper methods for successful underpinning, and touch on related situations of foundation improvement for increased column or wall loading.

To register, contact **Dr. M. Ali Khan** at **mohidin@temple.edu** or (609) 332-1136 by **October 25**.

Make your check payable to SEI-Phila Chapter and mail to **SEI Treasurer Vijay Gupta, PhD, P.E.**, c/o A.D. Marble & Co. 375 E. Elm St, Suite 200, Conshohoken, PA 19428.

Please advise of any dietary or accessibility requirements. There will be a choice of dinner entrees (chicken, fish or vegetarian) available.

MEMBERS IN THE NEWS THOMSON JOINS PENNONI

ASCE Section Director **Dr. Theodore Thomson, Jr.**, has recently joined Pennoni Associates, Inc. as a Geotechnical Division Manager in the Wilmington office. Dr. Thomson most recently served as a Senior Project Manager for Duffield Associates.

Dr. Thomson has 15 years of experience in foundation design and construction, and geotechnical instrumentation. He studied Civil Engineering and received his bachelor's and master's degrees from the University of Delaware, and received his Ph.D. from the University of Massachusetts. He has served as adjunct faculty at the University of Delaware teaching classes in Foundation Design to both undergraduate and graduate students. You may recall that he was recognized as the Section's 2010 Geotechnical Engineer of the Year.

We wish Dr. Thomson (or as we know him, Ted) well in his new endeavor.

TAKE A RIDE ON THE READING (BRANCH)

This segment will appear on a periodic basis to highlight the events and history of our Section's Reading Branch.

THE SWINGING BRIDGE

The Swinging Bridge was built in 1887 by John Roebling and Sons, a name that should sound familiar to most engineers (if not, this firm built the Brooklyn Bridge, completed four years earlier). It was a suspension bridge designed to carry pedestrians. It had a 275-ft. span with two 50-ft. lattice structural steel towers, with cut sandstone blocks serving as the exposed tower foundations. It functioned to carry pedestrians across the tracks of the Reading Railroad.

Because it swayed slightly under foot traffic, it acquired its name from its users and became a local landmark of sorts. Its use declined over the years, until 1964 when it was officially closed, with its steps removed to restrict access.

In 1983, the Reading Branch, led by member Joel Caves, conducted a study which showed that the bridge's suspension cables were in good condition with only some minor surface rusting. The vertical rods, cast iron fittings in the stiffening trusses, suspender rods and eyebars and turnbuckles were in either good or satisfactory shape. Only the timber work in the deck was beyond repair.

However, that same year, without notice, Conrail ordered it removed as it was not in use, in disrepair, and a safety hazard. Conrail had absorbed the Reading Company (renamed from the Reading Railroad in the 1960's), along with six other railroads in the Northeast United States, in 1976.

When Branch members learned of this they mobilized to salvage what they could. While much of this material consisted of photographs, drawings and reports, the Branch had managed to gather actual parts of the bridge, such as sections of wire rope, cast iron connectors and sheet metal. These items sat in storage and in several members' garages, waiting for the day that they could be displayed and put to good use.

That day came this past August, when the Branch donated the items it had collected from the Swinging Bridge to the fledgling Reading Railroad Heritage Museum in Hamburg, PA (www.readingrailroad.org). The Museum is a project of the Reading Company Technical and Historical Society and is an interesting site to visit if you are curious about local railroad history.

FORGET YOUR OPPONENTS; ALWAYS PLAY AGAINST PAR.

– Sam Snead, Professional Golfer

SECTION SCHOLARSHIP PROGRAM OPEN FOR APPLICATIONS

The Section's Scholarship Program is open for applications for the 2010-11 season. It will follow the same format as it did last season, when it changed slightly from previous years as far as schedule of submissions and awards.

The Section offers three distinct undergraduate scholarships annually:

- ASCE Delaware Valley Engineers Week Scholarship
- ASCE Student Scholarship
- ASCE Section Member Scholarship

Scholarship winners will be recognized as the Section's guests at our March 2011 dinner meeting.

ENGINEERS WEEK SCHOLARSHIP

As part of the Delaware Valley Engineers Week celebration, the Section will continue to offer one \$2,000 undergraduate scholarship. Completed applications must be submitted by November 22, 2010. Please visit the Engineers Week website, www.dvewc.org, for applications and specific requirements.

STUDENT SCHOLARSHIP

At least 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 fulltime Civil Engineering or Architectural Engineering program at one of the five colleges which have Student Chapters in the Philadelphia Section: 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:

- The applicant's name, GPA and/or class rank, and an address/telephone number where they can be reached must be included with the scholarship application. Additional information for consideration (such as need) is allowed. A letter and/or resume is an acceptable means to provide this information.
- A recommendation letter from the applicant's faculty advisor is not required but is strongly suggested.
- The applicant will be required to submit an essay, limited to 1,000 words, on ONE of the following topics:

(1) With the heightened need for additional infrastructure funding and the increased political and public awareness of this need, how would you suggest that Civil Engineers capitalize on this and use their knowledge to increase political and public support of additional funding without sounding self-serving?

(2) How do you explain what Civil Engineering is to Non-Engineers? How can some of those ideas be expanded to enhance the public knowledge of the Civil Engineering profession so that people understand what we do and students are attracted to the field?

SUBMITTAL DEADLINE:

- Applications (including recommendations) must be submitted by **January 31, 2011**.
- Scholarship winners will be notified by February 28, 2011.
- Applications and recommendations should be submitted by mail or email to:
 - Mr. Jeff Bade, Scholarship Committee Chair American Society of Civil Engineers 215 South 16th St., Ste. 16 Philadelphia, PA 19102 jbade@hardesty-hanover.com (609) 538-8233

SECTION MEMBER SCHOLARSHIP

At least one \$1,000 scholarship will be awarded by the Section an undergraduate civil engineering student who is the child of an active Philadelphia Section member and meets the following requirements.

ELIGIBILITY REQUIREMENTS:

- The applicant must be the child of an active Philadelphia Section member.
- The applicant must be matriculating in a fulltime Civil Engineering or Architectural Engineering program at an accredited college or university.
- The applicant must be an active participant in the ASCE Student Chapter at his/her school.
- The applicant must be in their sophomore or junior year (and Pre-Juniors at Drexel).

Application requirements and submittal deadline are the same as for the Student Scholarship above.

We encourage all eligible students to apply. *Good luck!*

OCTOBER DINNER MEETING

Continued from Page 3

with a 2-year construction duration anticipated for the overall effort.

An interesting question and answer period followed. Mr. Moore was presented with a token of the Section's appreciation from President Brady for a job well done.

As a last order of business, Membership Secretary **Cathy Farrell** advised that all participating tables in the trivia contest conducted during dinner had the correct answer, and after a tie-breaker, an overall winner was determined, with those at the winning table receiving a variety of candy, gum and Slim Jims to split among them.

HUMOR IS JUST ANOTHER DEFENSE Against the Universe.

– Mel Brooks

NOVEMBER MEETING

Continued from Page 1

Walk-ins will be subject to acceptance on a space-available basis, and the per-attendee cost without a reservation at the door, as well as any reservations accepted after the October 29 deadline, will be \$65. THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE.

How many boring and seemingly never-ending presentations have you had to endure in your career? And, possibly, more painfully, how many of these have you and your team given and made others endure? Your audience might say it was good, but their facial expressions, demeanor, and other reactions might be saying otherwise.

If you want people to be "wowwed" by your Powerpoints and speeches, you need to make them more interesting and memorable. Effective communications need effective methods. Dr. Kulhawy originally prepared this session as the Hal Hunt Lecture of the Deep Foundations Institute to focus on improvements in interactions in the construction industry, with a particular concentration on the use of levity and panache to enhance these often dry and uninteresting interactions.

Dr. Kulhawy will begin with a description of some basic communication tools, including critical writing skills, the importance of clear and precise punctuation, and the elimination of boring writing trends. Examples are used to highlight and explain the various basic communication principles. He uses a wide range of illustrations to explore Civil, Ground, and Geotechnical Engineering themes, in particular, which are applicable in the broader base of the technical and construction fields. Advertisements,

ANACE*

Continued from Page 3

economist for a U.S. Department of Energy program at the University of Illinois that advises farmers on using biogas systems to produce their own electricity and heat.

Thanks to the *Los Angeles Times* for this information.

HOW TO TELL WHO WAS YOUR CONDUCTOR

A railroad conductor on a passenger train was (and is today) the supervising officer of the train and supervisor of the entire train crew (hence the name – he "conducts" the operation). In addition to this supervisory role, the passenger-train conductor serves as the pursar, in charge of seeing to it that all fares are collected, either by himself personally or by his assistants, the uniformed trainmen on board. After fares are collected, the conductor does the accounting. A passenger-carrying railroad company was (and is) thus dependent on responsible and diligent conductors for its income.

A conductor's punch cancelled the passenger's ticket stub and also cancelled the main portion of the ticket retained by the conductor. Each conductor had his own punch, which made a specifically shaped hole; the hole shape differed

cartoons, society publications, daily cartoon commentaries, and promotional works are used to portray a variety of communications possible using levity and panache, both positive and negative. Dr. Kulhawy will conclude with some suggestions to enhance our communication skills utilizing the tools described.

Dr. Fred Kulhawy served on teaching and/or research staffs at the New Jersey Institute of Technology, the University of California, and Syracuse University prior to joining the Cornell faculty in 1976. He has also been a visiting professor at Cambridge, Sydney, Hawaii, Hong Kong, Queensland, and Singapore Universities. At Cornell, he is the senior member of the geotechnical engineering group. He has extensive experience in professional practice as a Geotechnical Engineer and as an active private geotechnical consultant to government, industry, and Engineering firms, with over 420 assignments completed on six continents.

Dr. Kulhawy is a Licensed Professional Engineer, Civil Engineer, and Geotechnical Engineer. He is a Distinguished Member [formerly known as Honorary Member] of ASCE, a Fellow of the Geological Society of America, an Honorary Technical Affiliate of the International Association of Foundation Drilling (ADSC), a Senior Member of the IEEE Power Engineering Society, and a Member of more than ten other professional societies. He is the author of over 340 published technical reports and papers. He also has received numerous awards for his work from ASCE, ADSC, IEEE, and others, including the ASCE Karl Terzaghi Award and Norman Medal, and is a sought-after lecturer and keynoter at national and international venues, with over 1300 presentations to date.

from punch to punch. In this way, if a passenger presented a stub and claimed his ticket had already been taken, a conductor could verify who in fact cancelled the ticket.

In the days before laptop computers and scanned tickets, the passenger-train conductor carried redeemed tickets or stubs, as well as cash, in a locked case. On a passenger train, a conductor appropriated an unassigned passenger compartment as his office, and the ticket case was kept locked in the compartment when the conductor made his rounds.

Thanks to the Smithsonian Institution for this information.

*ANACE – Almost Nothing About or Concerning Engineering

THANKS TO OUR SPONSORS!

As you have seen, the ASCE, Phila. Section Sponsorship Program is moving along smoothly. We have jumped to a total of 17 firms participating so far. This is especially notable in the difficult economic times we have, so we'd like to extend our special and collective *THANKS* to each sponsor for their financial commitment and support.

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

ADVANCE PLANNING FOR ENGINEERS WEEK

The Delaware Valley Engineers Week Committee will be offering slightly different events for Engineers Week 2011 compared to those in previous years. Please note this information in your calendar and plan to participate. Prices and other details will be provided and updated as these are finalized.

AWARDS AND PROCLAMATION LUNCHEON FRIDAY, FEBRUARY 18, 2011

Doubletree Hotel, Center City Philadelphia

The Awards and Proclamation Luncheon will include:

- A poster session with presentation of student paper winners from 10:00 am to 12 noon prior to the Luncheon
- The Awards and Scholarships presented at the Banquet in previous years will now be featured at the Luncheon
- 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

YOUNG ENGINEER SOCIAL EVENT TUESDAY, FEBRUARY 22, 2011

(Location to be determined)

This event will follow the format of last year's Social with a happy-hour/networking setup geared to younger engineers instead of a formal dinner. The Young Engineer of the Year will make brief remarks.

CELEBRATION OF ENGINEERING RECEPTION THURSDAY, FEBRUARY 24, 2011

(Location to be determined)

The culminating event of Engineers Week will be a social/networking gala event to celebrate Engineering, as was conducted last year in place of a formal banquet, 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 Hall of Fame, Outstanding Service, and Engineering Achievement award recipients

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.

Additionally, while not officially an Engineers Week event, the **Philadelphia Future City Competition** will be conducted on **Saturday**, **January 22, 2011** at the **Sheet Metal Workers Hall** in **South Philadelphia**. This will be the 16th successful year of the competition in our area. Mentoring opportunities are available now and many volun-teers will be needed the day of the competition.

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.**

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 JMT Inc. 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

You won't see many Want Ads in *The News*, but here's one. As reported last month, the ASCE, Phila. Section is still looking for an energetic, enthusiastic and driven individual to take on the chair of the Engineering Management Technical Group. Our current Chair, **Bill Mulloy**, has stepped down after several successful years at the "helm" of the Group.

The basic duties of the Chair are the direction of the Group, the planning of a program of events for the season (meetings, tours, etc.), coordination with the Section Board and other Technical Groups, and related duties.

Anyone who may have an interest or has questions about the position should contact President **Tom Brady** (contact information is given on page 2).

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.com

YMF UPDATE

The YMF hosted a Welcome Back Happy Hour and Bowling Night for the current members and college students returning back to school. The event took place on September 29 at North Bowl in Northern Liberties. The majority of the students in attendance were from the Temple University Student Chapter. It was an outstanding opportunity for the college students to meet the YMF members as well as to socialize with their fellow classmates in a relaxed setting. Everyone had a great time and this event did a great job at reaffirming our commitment to the student chapters.

Upcoming events include the **Green Building Celebration** on **Thursday, October 21**. This event is hosted by DVGBC to highlight the regional companies who are leading the way to a more sustainable design for the Delaware Valley. Another is the **Future City Competition** on **January 22, 2011**. The YMF is looking for volunteers to become mentors to middle school student teams which will be participating in the competition.

INSIGHTS

ASCE National offers *Insights*, a monthly podcast series with noted Civil Engineering industry leaders discussing their perspectives and insights into the successful practice of Civil Engineering. Featuring honest, straightforward viewpoints, based on unique experiences and interests, these discussions tackle a wide range of compelling issues. The series is sponsored by the ASCE Industry Leaders Council and can be accessed on **www.asce.org**.

The November 1 *Insights* episode will feature **Governor Edward G. Rendell**, who will speak on the importance of the nation's infrastructure — do we fix and fund what we already have or begin a radical new approach? He shares his thoughts on how Civil Engineers can make the difference!

DELAWARE VALLEY GEO-INSTITUTE MEETINGS

DVGI has scheduled the following meetings for this season:

- November 16, 2010 Yeager Airport Reinforced Slope
- January 18, 2011 Double-Lined Grout Curtain
- February 22, 2011 Student Night
- March 15, 2011 Short course and Dinner by Geo-Structures
- May 17, 2011 Geothermal Systems

More information will be provided in future editions of *THE NEWS* and on our website.



STRUCTURAL GROUP NOW Structural Engineering Institute (SEI)

Last spring, our Structural Group completed the lengthy and rigorous process necessary to become recognized as part of National's Structural Engineering Institute and successfully achieved that status. As with the Delaware Valley Geo-Institute (DVGI), the first such ASCE, Phila. Section Technical Group to reach Institute status, the SEI will continue to be a part of our Section's overall Technical Group network.

Thanks to the Section's SEI Chair **Dr. Ali Khan** and his committee for undertaking the task to obtain this recognition.





PHILADELPHIA SECTION AMERICAN SOCIETY OF CIVIL ENGINEERS 215 S. 16th Street, Suite 16, Philadelphia, PA 19102 Telephone/Reservations: (215) 985-5701 Web site: http://www.asce-philly.org National ASCE Central Number Toll Free 1-800-548-ASCE