

PHILADEL PHIA SECTION

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

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The Sidney Robin Memorial Newsletter of the Philadelphia Section ASCE

Our 102nd Year

January 2015



Vol. 87-5

SECTION'S CHRISTMAS/ HOLIDAY MESSAGE

Last month, you may recall that we opened up a contest for submissions for our Lightly

Amusing Yuletide Message (known by its acronym, LAYM), which would allow others to participate in the process and save us from having to endure one that your Editor would crank out. For the second year in a row, we have seen no entries on this, so we have no winners. And carrying that statement to another context, here is the "winner" from your Editor, who was forced to do this as a result of no "scribes" coming forth. We hope you enjoy this, and it may be the start of a thought to resolve to stop drinking in the new year?

2014's almost gone, where did it go It started out cold with lots of snow But it's that time for the jolly guy who says ho-ho-ho

Happy Merry Whatever you celebrate

What a winter we had, lots of ice and car wrecks Too many slips and falls, surprised not more broken necks

Don't even think about another polar vortex Happy Merry Whatever you celebrate

It was nice to see spring after winter got old Success in the Olympics this summer, some medals of gold

Then we watched our beloved Phils as they grew

Happy Merry Whatever you celebrate

Not much hope for the Sixers, another "rebuilding" year

At least the Eagles and Flyers are teams for which we can cheer

If things don't go as planned, we can always cry in our beer

Happy Merry Whatever you celebrate

We tried to spare you this by having a contest But no one came forth, hoping for something from the rest

This drivel is one of a few bad ones, surprisingly the best

Happy Merry Whatever you celebrate

With no entries submitted, from your Editor this came

Compare it to previous ones, it's hardly the same You're right on the money if you thought this would be lame

Happy Merry Whatever you celebrate

We wonder what our contest motivation is for

JANUARY JOINT DINNER MEETING

American Society of Civil Engineers, Philadelphia Section American Society of Highway Engineers, Delaware Valley Section

WEDNESDAY, JANUARY 21, 2015

Radisson Hotel/Valley Forge Casino, 1st Avenue and Gulph Road, Valley Forge, PA Cocktails 6:00 PM, Dinner 7:00 PM, Meeting Presentation 8:00 PM

COST: \$35 through January 16 (\$20 for government employees and students),

\$45 January 17 and after and at the door

SUBJECT: ASCE 2014 Infrastructure Report Card for Pennsylvania

SPEAKER: Ann M. Tomalavage, PE, PMP, President, Malarkey Consulting

PLEASE NOTE: RESERVATIONS MUST BE MADE THROUGH **DELAWARE VALLEY SECTION, ASHE**. The Philadelphia Section will NOT be accepting any reservations for this meeting. Reservations will be accepted in one of three ways:

BY MAIL – please send your check with the names of attendees to Delaware Valley Section ASHE, c/o Contractors Association, 1500 Walnut Street, Suite 1105, Philadelphia, PA 19102;

BY FAX – please fax the names of attendees to the Contractors Association, 215-546-2259, with payment to follow;

BY E-MAIL – please e-mail the names of attendees to **Jena Hudson** (jhudson@caoepa.com) or **Diana Perez** (dperez@caoepha.com) with payment to follow.

Payment will be accepted at the door with no penalty for faxed and e-mailed reservations received before the RSVP deadline.

We encourage you to reserve ahead to ensure a place at the meeting. Walk-ins will be accepted on a space-available basis. THERE IS NO GUARANTEE THAT SPACE WILL BE AVAILABLE IF YOU DO NOT RESERVE A SPACE. This has always been a popular meeting and a significant turnout is expected.

Most of us take infrastructure for granted in our daily lives, whether it's an easy commute across roads and bridges, clean drinking water and streams, or reliable energy to power our electronics. Infrastructure also moves our economy taking goods from ports to roads to store shelves and moves workers from their homes to their workplace. In fact, Pennsylvania's roads carry 34% more goods

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A JOYOUS HOLIDAY SEASON TO ALL

While we recognize the collective celebrations observed this time of year as the "holidays" and the "holiday season", whether you celebrate Christmas, Hanukkah, Kwanzaa, or your own particular event (or all of them), the Officers and Board of Directors of the Philadelphia Section extend our best wishes to all Section Members, their families and friends for a safe, enjoyable and memorable season full of good cheer.

Also, we offer our best wishes for a great new year and hope that 2015 brings good things your way.

The staff of *THE NEWS*, along with your Editor, would also like to send the same good wishes along, and leave you with the special gifts of bad puns, lame attempts at humor, and an endless supply of run-on sentences for your diagramming delight – the gifts that literally keep on giving, all year round, over and over, because we know it's much better to give than to receive (and here's our first "gift" – this seemingly never-ending sentence!). And, as an added bonus (since it's the season of giving), see the Section's alternative holiday message to the left. It's the least we can do. (And we mean that sincerely!)



PRESIDENT'S MESSAGE

With 2014 having nearly run its course, I wanted to take a moment to share something I have learned over the last year... There was this one thing I have heard over and over since my involvement in the Philadelphia Section. For years I have heard that the young engineers are the lifeblood of our Section and our profession and I never really understood that (probably because for a majority of that time I was one of those Young Engineers). Many of us know of the Younger Member Forum (YMF). For some, when you think of them

that may evoke thoughts of social events and Phillies games. However, among the technical presentations, construction tours, mentoring programs, and community service, they do so much more. For example, our YMF has an extensive **Outreach Program** that reaches children in elementary schools through graduating college seniors. With these successful programs they have developed over time, ASCE has constantly called on our group to attend Regional and National conferences to give presentations to other groups and share the successes they have achieved. If not for the energy and enthusiasm that the YMF brings, these activities would not be possible.

Now having the chance to stand back and watch the group work, I finally do understand how they are the lifeblood of our Section and our profession. When called upon, they do not hesitate to volunteer, taking a new initiative and making it their own. When you stand back and watch them, you can see they are a hard-working, focused and committed group of young professionals. Having this new perspective, I would like to take a minute to thank the YMF for all they do for the Section and let you know that we truly appreciate all of that hard work. I'll even give them a free plug here and encourage everyone to attend the 19th Annual ASCE YMF Winter Social on January 26 (details can be found at www.ymfphilly.org/events.htm). Please come out and support this group and help raise some money for local charities.

Before closing, I would be remiss in failing to mentioning a very important event that took place recently. Back on November 23, ASCE Past National President **Andrew Herrmann** was featured on a CBS broadcast of *60 Minutes* as part of a 14-minute news story discussing those troubles facing America's Infrastructure today. By my highly unscientific research, over 17 million people tuned into *60 Minutes* that night and heard firsthand the critical issues facing our nation's infrastructure and the need for action. Civil Engineers are the stewards of America's Infrastructure. No matter where your career path falls on the civil engineering spectrum, not only do we all have a responsibility to keep our nation's infrastructure in good working order, but we also need to raise awareness when action is needed. Those 17 million viewers were a good start, and now we need to continue that momentum. The legislators alone cannot fix this problem (and you may have noticed the legislators approached by the reporter in this segment declined any comment). It is going to take the coordinated effort of everyone to get things moving in the right direction.

Wishing everyone very happy holidays,

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

JANUARY DINNER MEETING

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across the Commonwealth than the average state making it critical that roads and bridges are able handle the loads and keep us moving.

While we may not think about infrastructure every day, Pennsylvania's Civil Engineers do because they've pledged to build it, maintain it, and keep the public safe. To mimic what the American Society of Civil Engineers (ASCE) has been doing on a national level every four years, the four Pennsylvania Sections of ASCE have been providing a Report Card on Pennsylvania's Infrastructure. This effort started in 2006 and, like its national counterpart, is updated every four years. The Report Card provides a concise review and evaluation of conditions, problems and programs so that each citizen and decision maker can understand how Pennsylvania's infrastructure is doing. The 2014 Report Card shows that our leaders have taken big steps forward to address the immediate and long-term infrastructure needs of the Commonwealth, but the work to improve our aging infrastructure is just beginning. From water to roads to waterways, our infrastructure grades show that we must prioritize strategic assets and build infrastructure that protects our economic prosperity and our citizens. By tackling our infrastructure's needs today, we can start building bridges to the future.

Ann Tomalavage, PE, PMP, LEED AP, led the team for the 2014 Report Card update. Over 55 civil engineering experts in 16 different topic areas across Pennsylvania contributed to the effort.

Mrs. Tomalavage is a Past President of our Section as well as Past President of the Delaware Valley Chapter of the Project Management Institute (PMI). She is President of Malarkey Consulting, Inc., a project management consulting and training company, where she helps to develop world-class project managers. She has conducted project management classes for several public sector transportation organizations and assists engineering firms minimize their project management risk. She additionally provides all the in-person training on project management

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

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> COPY DEADLINE FOR FEBRUARY 2015 ISSUE JANUARY 23, 2015

YOUNGER MEMBER FORUM NEWS

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

DELAWARE I-495 EMERGENCY BRIDGE REPAIR PRESENTATION DECEMBER 9

The YMF hosted a technical presentation on the recent emergency repairs on Bridge 1-813 on I-495 over the Christina River in Delaware at the Municipal Services Building in Center City. Barry Benton, DelDOT Bridge Engineer, presented a timeline of events of the I-495 bridge emergency, from discovery of the problem to construction of the solution. Approximately 40 guests were in attendance, with a good cross section of representation of Section, YMF and local Student Chapter members. The presentation was very informative and very well received by all.

YMF AND ASHE YOUNG MEMBERS JOINT HAPPY HOUR DECEMBER 11

Rock Bottom Brewery, King of Prussia

The YMF combined "forces" with ASHE Delaware Valley Young Members and hosted this joint happy hour at Rock Bottom Brewery in King of Prussia, the third annual celebration (for those keeping count). Roughly 40 attendees were there to partake in good food, the Brewery's beer offerings, and networking (not necessarily in that order), as well as the opportunity for a little holiday shopping, since the K of P Mall is right outside the door.

YOUNG GOVERNMENT EMPLOYEES LUNCHEON DECEMBER 18

The YMF hosted a luncheon specifically targeted to young government engineers and employees at the Municipal Services Building in Center City. This opportunity for networking and presentations from current and former City staff on the benefits and advantages of ASCE membership was well attended. Similar events may be in the works for other agencies.

NETWORKING SEMINAR: HOW TO MAKE THE MOST OUT OF NETWORKING EVENTS JANUARY 13

Field House, Center City Philadelphia

The YMF will welcome in 2015 with a Networking Seminar. The evening will start with a happy hour from 5:30–6:30 PM and a seminar from 6:30–7:30 PM. The seminar, presented by **Scott D. Butcher, FSMPS, CPSM**, will focus on the "ins and outs" of networking events, tips and tricks for working these events, and the importance of networking events to our industry and your personal development. This event is a must-attend for professionals of all experience levels. Whether you are trying to gain a stronger comfort level at networking events or need to sharpen your current skills, this event is for you.

WINTER SOCIAL JANUARY 26

McGillin's Olde Ale House, Center City Philadelphia

Just A Reminder! The YMF's annual Winter Social event will be held at McGillin's once again from 5:30–8:30 PM. RSVP's are due by January 20 at http://tinyurl.com/2015Winter Social to reserve your \$20 ticket (\$25 at the door). Ticket includes food and beverages for the duration of the Social! All guests must be 21 or over to attend. As you may be aware, this is an extremely popular event, so reserve now to avoid getting shut out!

SECTION SCHOLARSHIP PROGRAM OPEN FOR APPLICATIONS

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

The Section offers three distinct undergraduate scholarships annually:

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

ENGINEERS WEEK SCHOLARSHIP

The application process for this Scholarship closed on November 17. This will be awarded at the Engineers Week Awards Luncheon on February 20, 2015.

STUDENT SCHOLARSHIP

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

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

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

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

Application Requirements:

Cover letter containing:

- The applicant's name
- The applicant's institution
- GPA and/or class rank
- Address/telephone number

Additional information for consideration (such as need):

- Resume
- Letter of Recommendation from faculty advisor
- Essay (limited to 1,000 words) on the following topic:

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

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

Scholarship winners will be notified by February 27, 2015. Recipients will be invited to attend our March 2015 dinner meeting (tentatively scheduled for March 12, 2015) to be recognized accordingly.

SECTION MEMBER SCHOLARSHIP

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

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

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

We encourage all eligible students to apply. Good luck!

PHILADELPHIA SECTION 2015 AWARDS OPEN FOR NOMINATIONS

Hard to believe it's that time again, but the Section's Awards Program for 2015 is now open for nominations. Our Awards recognize Section members and others for their contributions to the Civil Engineering profession. All Awards will be presented at the Spring Social/Dinner Dance, which remains to be scheduled. More information on the Spring Social will be included in upcoming issues of *THE NEWS*.

We encourage you to submit nominations for those deserving individuals who should be recognized for their various contributions, achievements and career milestones appropriately.

GUIDELINES/RULES

- Nominations must be received by the close of business (5:00 PM) on Friday, January 30. Nominations should be submitted on forms which are available from the Committee Chair.
- Individuals may be nominated for awards by a member in any grade of membership.
- Individuals may receive only one award in a single year, but may be nominated for more than one award in a single year.
- Award recipients are subject to the approval of the Section's Board of Directors.
- All awards are presented only in years in which, in the judgement of the Selection Committee or the Board, there is at least one suitable candidate.
- The Selection Committee, at its discretion, may nominate an alternate for each Award for Board consideration.

DECEMBER DINNER MEETING

December 8, 2014

DoubleTree by Hilton Hotel – Center City

Infrastructure Challenges in Transforming the Navy Yard from Military Use to a Thriving Business Center

by Robert Wright, Editor

The "Multi-Society Meeting" has been coordinated by the Engineers' Club for the past four years, and each time, our Section has joined in, this time with 4 corporate sponsors and 17 other local chapters of technical societies. This conglomeration of "alphabet" groups, looking on paper as if someone spilled a box of Scrabble tiles, brought a crowd of over 220 folks to the Ormandy Ballroom at the DoubleTree Hotel, right on Broad Street in the heart of the Avenue of the Arts/ Theater District, to hear about a place just a few miles to the south, at the far end of that same street. A blustery evening, made even more so by the wind's ability to whip down the wide expanse of Broad Street, helped encourage folks to spend a Monday evening out of the cold and hearing about what's happening at the Navy Yard (PNY).

The holiday spirit was in evidence, helped by the traditional Toys for Tots collection conducted as part of the meeting. A veritable mountain of toys was donated, meaning that Santa may need some additional reindeers this time to help distribute them all (with some help from the Marines, as noted below).

Engineers' Club President (and Past Section President) Jim Markham coaxed the attendees away from the networking area and into their seats to get the meeting started, no easy task, and recognized the society sponsors as well as the committee members responsible for the event. He also took a photo of the crowd and tweeted it to the Engineers' Club's followers to record this for posterity. He then brought Ron Kerins of the Mid-Atlantic Chapter of the Construction Management Association of America (CMAA) to the podium. Mr. Kerins introduced the two Marine sergeants whose duty it was to come to the meeting and move the pile of donated toys to their respective recipients. The Marines spoke briefly and thanked the crowd for its generosity, to later complete their toy delivery duty.

Following dinner, President Markham returned to the podium to advise all that his photo was successfully tweeted and making the rounds in cyberspace. Meanwhile, back in reality, he called Engineers' Club Past President (and Past Section President) Bob Wright to front and center to introduce the event's speakers, Will Agate, Senior Vice President, Navy Yard Development and Management, and Carmen Zappile, Vice President/Planning and Project Management, both from the Philadelphia Industrial Development Corporation (PIDC), the administrator of PNY.

Mr. Agate started at the beginning with some history and background of PNY. It served as an active military base and shipyard at its League Island location at the extreme southern edge of Philadelphia for 125 years, moving from a location upriver in 1871, before its closure as an active military installation in 1996. While three

separate Navy functions remain, PNY was completely repurposed for private commercial and industrial uses. Its location made it a centralized place for a regional workplace and a workforce of better than 3 million with good transportation access potential. At present, the 145 companies with facilities at PNY employ over 11,000 workers, with over 7 million square feet of building space either occupied or in active development. This represents \$700 million in private investment coupled with \$130 million in public infrastructure improvements to support the new uses.

In the development of a master plan for the reuse of PNY, Mr. Agate noted that key components were a smart and sustainable infrastructure, integrated and expansive open space, and the ability to take advantage of the unique opportunity to "build" a city system using modern concepts and methods. The extensive waterfront areas offered interesting capabilities for open space and 6 separate parks have been provided. PNY has the flexibility to accommodate heavy industry (Aker, Tastykake), preserve and reuse historic buildings (Vitetta, URBN), offer space for port-related expansion (Southport), and provide modern and progressive sustainable office campuses (GSK). Among the newest additions are a hotel and bar/restaurant, the latter being a personal source of pride to Mr. Agate who is pleased to be able to say he managed to attract a bar to PNY.

Mr. Zappile outlined several infrastructure items. PNY has provided an opportunity for considerable research and development activity with electric microgrids. Peco electric service basically stops at PNY's gate and the largest unregulated electric microgrid in the US takes it from there for distribution throughout the facility. Over \$33 million has been expended on upgrades and modernization of PNY's distribution network in a public/private partnership effort and some on-site generation has been accomplished. PNY is nationally recognized for its innovation as a smart energy campus and has partnered with local colleges in the field of energy research.

The network of roadways in the Yard is an old but extensive one and Mr. Zappile noted that there is considerable paved-over railroad track that continues to be found during roadway improvements. Specific efforts have been focused on projects to rebuild Langley Avenue west of Broad Street and replace the quay wall on Broad Street alongside the Reserve Basin just south of the Main Gate, where wall structural issues have forced the closure of the west sidewalk and two of the four traffic lanes. Work is currently in design and construction is hoped to start in the next 2-3 years on each of these projects. Efforts are underway to study the extension of the Broad Street Subway south of its

terminus at AT & T (Pattison) Station into PNY and options are being explored, with a possible price tag of \$450 million. Ironically, the extension to Pattison Avenue, opened in 1973, has provisions for further movement southward, but the Navy stopped any consideration of that at that time, citing security concerns.

An advantage that PNY offers to employees is a good deal of free parking. While the Subway gets one close to PNY should he/she decide not to drive, Mr. Zappile explained that good transit options are available. A subsidized bus shuttle service has replaced a SEPTA route from the Subway and a second express route connects to Center City, providing free transit to PNY employees and visitors on weekdays. The noncar option has proved to be a very popular one.

Mr. Zappile added that, while PNY does have more than its share of undesirable materials that have been dumped in various sites over the years, the Navy has been cooperative in the assistance of remediation and removal of the involved substances, which has helped PIDC in its redevelopment initiatives. Mr. Agate remarked that PNY was also in the market for acceptance of clean fill from contractors, in the magnitude of 100,000 cubic yards, to help its efforts to regrade and raise parcels for coming undertakings.

Mr. Agate returned to the podium to wrap up the presentation, outlining the proposed Canal and Mustin Park Districts element of the master plan, which will add a residential component to PNY, with a value of \$65 million. This will add to the overall positive economic impact of PNY, which has an ultimate full-build-out goal of 30,000 employees and 1500 new residential units.

A number of interesting questions came from the audience and good responses were offered by the speakers.

President Markham took center stage to thank Messrs. Agate and Zappile for their informative presentation, report on a few more re-tweets of his photo, and close the meeting.

FRANKLIN INSTITUTE – KARABOTS PAVILION/ EXPANSION TOUR

Our ASCE, Phila. Section, in partnership with the Pennsylvania Society of Professional Engineers, Philadelphia Chapter, the Engineers' Club of Philadelphia, and the Institute for Electrical and Electronics Engineers, will offer a tour of the **Franklin Institute's Karabots Pavilion**, its most recent addition. This will be conducted on **Thursday, January 8**, starting at 5:45 PM. It will highlight the Architectural and Engineering challenges faced in the addition of the Pavilion.

The tour is limited to the first 30 respondents. It will meet the requirements for 1 PDH. The cost is \$15.

Please visit **www.pspe-philly.org** for more information and registration.

NJ TURNPIKE EXPANSION PROJECT WINDS DOWN \$200M UNDER BUDGET (IT CAN BE DONE!)

A five-year, \$2.3 billion project to widen the New Jersey Turnpike is winding down on schedule and more than \$200 million under budget (unusual in both respects, especially for large projects which are often late and over budget). The 35-mile widening of the highway between Exit 6 (the Pennsylvania Turnpike connector) and north of Exit 8A will result in a 12-lane section, with 2 3-lane roadways in each direction (the outer section for trucks, the inner section for cars). The northbound segment was opened on October 25 and the southbound on November 8. Work began in July 2009 and involved 17 construction contractors as well as over 320 subcontractors. It was funded by the New Jersey Turnpike Authority.

At the peak of construction, the widening program was reported to be the largest ongoing roadway project in the Western Hemisphere. It was covered in our Section meeting program over the past couple of years, and, given its size and scope, warranted two presentations (at the start of work in February 2010, and at about the midpoint in January 2012).

To no one's surprise, this program can be described by several "superlatives". It added 170 lane miles of roadway. In addition to the completely new 3-lane roadways added, the existing (now inner) roadway was resurfaced, and repairs were made to existing bridge decks and median barriers. A new toll plaza was built at Interchange 8, and the toll plaza at Interchange 7A was widened by three lanes. A total of 102 bridges and culverts were modified or constructed. Four miles of noise barriers were built, 140 new sign structures were erected, 123 miles of guardrail were installed, 140,000 cubic yards of concrete and 2.4 million tons of asphalt were placed, and 17 miles of petroleum pipeline was relocated.

Five construction management firms and 21 utility companies were involved in construction.

The first major challenge faced on the job involved the initial relocation of more than 17 miles of major gas pipeline (Colonial Sunoco and Tranco) to accommodate the widening. Another was the coordination of 31 separate contracts with competing interests for temporary lane closures to accommodate the demolition of existing bridge structures over the Turnpike and the subsequent construction of new bridge structures. An additional challenge was the coordination with local utility companies to relocate their facilities including major fiber optic lines and electric and gas lines.

The widening was needed to respond to the frequency of periodic traffic congestion experienced by the Turnpike. Between 2005 and 2032, population and employment growth in central New Jersey is expected to increase by 17.5 percent and 28.2 percent, respectively. The volume of goods moving from Port Newark and

Port Elizabeth will continue to grow; expansions at the Port of NY/NJ and growth at Newark Liberty International Airport (EWR) also will contribute to increased traffic. As a result, by 2032 northbound traffic volume is expected to increase by nearly 68 percent; southbound traffic is forecasted to increase by 92 percent.

As originally constructed, the New Jersey Turnpike was a 118-mile direct route between the Delaware Memorial Bridge and Route 46 in Ridgefield Park, where it connects to the George Washington Bridge and New York City. Construction of this "roadway of the future" began in January 1950, and the roadway opened to traffic in November 1951, only 21 months later. It is unique among highways of its time as it was constructed with full-depth bituminous (asphalt) material instead of the more-common concrete roadway seen on interstate highways.

ASCE, PHILA. SECTION MEETING SCHEDULE 2014–15 UPDATE

The ASCE, Philadelphia Section Meeting program for the upcoming season continues to take shape. Our meeting program committee is busy finalizing speakers and topics for what we hope will be an interesting and informative series of meetings. The dates scheduled as of this printing have been provided below for your planning purposes.

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

Dinner meetings generally follow a schedule of a cocktail hour starting at 5:30 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 meetings (besides those already covered elsewhere in this issue) will be conducted on March 12 and April 9.

HOLIDAY MESSAGE

Continued from Page 1

When we allegedly have a talented *NEWS* editor Maybe next time the competition you won't ignore

Happy Merry Whatever you celebrate

From our Section we sincerely wish you All good things for your holiday and the new year too

It's amazing what inspiration is in a six-pack of brew

Happy Merry Whatever to yours and you!

AWARDS OPEN

Continued from Page 3

- The Selection Committee will recommend to the Board whether the recipient should also be nominated for applicable National or Regional awards by the Section.
- A nominee for any award MUST be a member in good standing of the Philadelphia Section in the year in which the nomination is made. There are two exceptions to this – Government Service Award and Philadelphia History and Heritage Award – and nominees for these awards need not be members of ASCE and/or the Philadelphia Section.

AWARDS

The Section has a total of 14 awards which cover various specialty areas. In addition, the Section President can nominate an individual for the Presidential Award at his/her discretion. The awards are as follows:

- Philadelphia Civil Engineer of the Year
- Philadelphia Young Civil Engineer of the Year
- Philadelphia Government Engineer of the Year
- Philadelphia Young Government Engineer of the Year
- · Government Service Award
- · Educator of the Year
- Philadelphia History and Heritage Award
- · Community Outreach and Service Award

Individual Technical Awards:

- Civil Engineering Manager of the Year
- Construction Engineer of the Year
- Geotechnical Engineer of the Year
- Structural Engineer of the Year
- Transportation Engineer of the Year
- Water Resources Engineer of the Year

If you are interested in submitting a nomination for consideration, please contact **Bob Wright**, Committee Chair, at **215-922-8081**, **x1647** (or via e-mail at **newseditor@asce-philly.org**) to obtain a nomination form. You may also call Bob if you have any questions or need any additional information on the Section Awards Program.

JANUARY DINNER MEETING

Continued from Page 2

foundations for ASCE nationwide and is consistently ranked among the top four of all ASCE instructors.

Mrs. Tomalavage received both her Bachelors and Masters degrees in Civil Engineering from the University of Delaware. She has been a practicing project manager since 1984. She is a registered Professional Engineer in Pennsylvania and a Project Management Professional certified by the Project Management Institute.

Once again, we come to the Holiday Season, a deeply religious time that each of us observes, in his own way, by going to the mall of his choice.

- Dave Barry

N-ASCE*

100 YEARS LATER, THE CALHOUN STREET BRIDGE REMAINS A SMALL LINK IN A COAST-TO-COAST QUEST

As many "roads scholars" already know, the first transcontinental roadway (New York to San Francisco) was a "P3" project way ahead of its time. This route, the Lincoln Highway, was put together as a patchwork of roadways by a team of businessmen and automobile enthusiasts (the precursor of today's AAA). The Highway passed through our area primarily on what are today parts of US 1 and US 30, and in some places still carries this name. Part of this route involved Calhoun Street through Trenton and the Calhoun Street bridge that crosses the Delaware River. On October 31, the highway was cited on its 100th anniversary of existence in a local ceremony on the Morrisville, PA side of the bridge, attended by officials from Bucks County (PA) and Mercer County (NJ) as well as many others.

The original intended route of the Lincoln Highway had it going through Burlington County and its riverside towns to Camden, where it would cross the Delaware via ferry into Philadelphia. As noted, however, this was a private venture, and officials in the towns along that route did little to improve the roads that would be part of the Lincoln. Thus, several businessmen in Trenton, recognizing the potential of the route to bring business, pitched to have the Highway's route changed, and it was switched to the Pennsylvania side of the river and through Trenton. In Trenton, it followed sections of State Street, Broad Street and eventually Calhoun Street before crossing into Morrisville. The Calhoun Street bridge, a nearly 1300-foot wrought iron truss structure built by the Phoenix Iron Company, had been completed in 1884 as one of the first roadway links across the Delaware in the Trenton area. (It is not to be confused with the Bridge Street bridge downstream, the one with the iconic "Trenton Makes - The World Takes" statement on its side).

The Lincoln Highway was designated by red, white and blue signs with the letter "L" on them, and these were posted along the highway to guide motorists. Replicas of these signs were unveiled on the bridge at the noted ceremony.

The Lincoln Highway unfortunately did not achieve its goal, as localities particularly in the western part of the US were unable to build substantial roads through the mountains and across the deserts. In 1919, an Army commander named Dwight Eisenhower would attempt to lead a convoy along the same route, and after a difficult trip, brought publicity to the lack of highways that were needed for national commerce and defense. After Eisenhower's experiences with the Autobahns in Germany during World War 2, the need for such highways became particularly sensitive to him. As President in the 1950's, he pushed the agenda to build what would become the Interstate Highway System.

Thanks to the *Trentonian* for this.

LONDON HONORS UNSUNG ENGINEER WHO SAVED IT FROM FLOODS DURING SECOND WORLD WAR

Every day, boats full of tourists and commuters float by a pale patch on the wall that lines the River Thames near Britain's Houses of Parliament. Few notice the concrete mark, or recognize it as evidence of how close London came to drowning during World War 2. It is a piece of history that has been rediscovered by a team of professional and amateur archaeologists, coming up on 70 years since the war ended.

The patch was left by a secret squad of engineers and laborers who worked night after night during the war to repair flood defenses hit in German air raids. As bombs fell and fires raged, the teams organized by engineer Thomas Peirson Frank used rubble, sandbags and finally concrete to mend breaches in the Thames wall that threatened the inundation of thousands of businesses and homes.

"It could have brought London to its knees very, very easily," said Gustav Milne, director of the Thames Discovery Program, a project that brings together experts and volunteers to explore the archaeology of London's river. "Not just people drowning — we would have lost buildings, it would have flooded the sewers and brought up all the sewage, it would have contaminated the water supplies, cut off gas and electricity. There would have been widespread devastation and huge loss of life."

London burned during the war, but it never flooded, due in large measure to Frank, chief engineer for London County Council, and his crews. But their story is little known — obscured first by wartime secrecy, then by gradual forgetting. That began to change when Milne and his team noticed the large concrete patch, 9 meters (30 feet) across at its widest, in the 19th-century river wall. Chunks of the wall's granite parapet lie scattered along the muddy river foreshore nearby. The researchers suspected the damage had been done by a Luftwaffe bomb, but the agency in charge of the river did not have any record of it.

Deep in the London Metropolitan Archives, the researchers found files revealing the truth that had been hidden from Londoners during the war and later forgotten — the river wall was hit 121 times between 1940 and 1945, 84 of them during the Blitz of September 1940 to May 1941. The number of bomb strikes on the river was suppressed at the time so as not to alarm Londoners or alert Nazi Germany to the city's vulnerability.

London was fortunate to have Frank, a ferociously well-organized and industrious civil servant who had served in World War I and by the 1930's was warning of the city's vulnerability to floods. When war broke out, Frank was put in charge of maintaining London's roads and utilities. He set up four depots along the river, staffed by engineers and road-repair crews, augmented by troops from the Royal Engineers. Each time the river defenses were hit, Frank's teams were sent in, often while bombs were still falling and with little protective equipment. The

workers were part of a civilian army — along with nurses, air raid wardens, volunteer firefighters, police and more — that kept the city running during the onslaught.

Frank was knighted in 1942 for his work, though details of his job were kept under wraps. He was later president of the Institution of Civil Engineers. Frank died in 1951. Clive Cockerton of the Institution of Civil Engineers said Frank "is very much an unsung hero. He was recognized, but within a very small circle because it was secret." He only recently received recognition, when a group of engineers and civic dignitaries unveiled a plaque commemorating Frank's work near the patch on the wall. Londoners who come across it may pause and reflect on how narrowly the city avoided disaster.

Milne said the pilot who dropped the bomb was likely aiming for Parliament. He probably didn't realize that a hole in the river wall could have inflicted far worse damage. Milne said the Germans seem not to have realized that "water is a weapon." "They never guessed that all they had to do was knock out the parapet and they could flood all of London."

Thanks to the Associated Press for this info.

 $*{\it N-ASCE-not\ always\ something\ concerning\ engineering}\dots$

THANKS TO OUR SPONSORS (AND, STILL TIME TO SIGN UP)!

We thank those firms who have made the financial commitment to Section Sponsorship for this season. The business cards of these firms (15 total thus far) are included in the sponsor section of *THE NEWS*. Sponsor logos are also displayed in a special Sponsors section of our website. Through a click on the particular sponsor's logo, we provide direct links to its own website so prospective employees can review all available and up-to-date positions being offered by that firm.

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

MEMBERS IN THE NEWS TOMALAVAGE RECOGNIZED FOR PA REPORT CARD EFFORTS

Section Past President Ann Tomalavage was recognized by the ASCE Region 2 and PA Council for her efforts in leading the "charge" on the 2014 PA Infrastructure Report Card. An engraved award, in appreciation of her exemplary leadership as the Chair of the Report Card undertaking, was presented to Ann at the Region 2 Assembly conducted at Penn State Harrisburg campus on November 8. You can listen to Ann tell you all you ever wanted to hear and know about the Report Card at our January Section meeting (see the meeting announcement on page 1 of this issue for more information). Good job, Ann!

The main reason Santa is so jolly is because he knows where all the bad girls live.

George Carlin

TECHNICAL GROUPS/CHAIRS

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

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ENGINEERING MANAGEMENT

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ENVIRONMENTAL AND WATER RESOURCES

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STRUCTURAL ENGINEERING INSTITUTE (SEI)

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ENGINEERS WEEK EVENTS — FRIENDLY REMINDER

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

AWARDS LUNCHEON FRIDAY, FEBRUARY 20, 2015

DoubleTree Hotel, Center City

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

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

All Delaware Valley Awards and Scholarships will be presented.

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

The 2015 Engineer of the Year, **Dr. Adam Fontecchio** of Drexel University, and Young Engineer of the Year, to be selected shortly, will make brief remarks.

YOUNG ENGINEER SOCIAL EVENT TUESDAY, FEBRUARY 24, 2015

Manayunk Brewery, Philadelphia/Manayunk

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

CELEBRATION OF ENGINEERING RECEPTION THURSDAY, FEBRUARY 26, 2015

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

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

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

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

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

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

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

A REMINDER ON YOUR DUES... AND A FREE (!) BENEFIT

Your dues statement/invoice for 2015 was dutifully delivered to you from National in mid-September. Dues are payable by December 31, so if you haven't taken care of this, as they say, tick tock... As noted on the invoice, you can pay by check or electronically.

Your Philadelphia Section dues is also included in the overall owed amount. These are vital to the support of our Section's activities.

You may have noticed that you can earn up to 5 PDH's by choosing to attend up to 5 on-demand webinars offered by National as a free benefit of your membership. There is a list of over 60 such webinars from which you can choose. You will receive login information for these webinars once you renew your membership. (Keep in mind that your Pennsylvania PE will be up for renewal in September...)

FEBRUARY DINNER MEETING

American Society of Civil Engineers, Philadelphia Section

Our February meeting is still in the planning stages as of this printing.

More information will be provided in the February edition
of *THE NEWS* and in our e-mail blast in mid-January.



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