

SPARKS

The Monthly Newsletter of the Harrisburg Chapter of PSPE

November 2009

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**Harrisburg
Chapter of
Pennsylvania
Society of
Professional
Engineers**



PRESIDENT'S MESSAGE

Richard E. Miller, P.E.

With the year well underway and with rapidly dropping temperatures, your executive board has had to adjust to its rough beginning. Family vacations, family issues, soccer games, football games, and heavier than normal work schedules have all had an impact on getting together and moving the chapter forward. As we move into the winter holiday season we still have

some hurdles to overcome. It means the PSPE Harrisburg Chapter Board will be hard at work to deal with these issues.

On a sad note, President Elect Thomas Terry, P.E., has resigned from the board and other chapter duties for personal reasons.

Director John Baldassari, P.E. is commended for his work in producing *Sparks* and continuing the quality work. This is a major effort on John's part. Thanks John, and thanks to Michael Baker Jr., Inc., for its support.

Director Paul Brandl, P.E., is busy with the building of our 2009-2010 Harrisburg Chapter Directory. In addition, Director Susan Bruns, P.E., is seeking advertisers for the Directory. Please consider asking your employer to place an advertisement in the Directory.

Director Sara Frailey, P.E., continues to solicit engineers from both the PSPE membership and local engineering firms as volunteer speakers for our Chapter's Pre-College and Career Guidance Program. Please contact Director Frailey, P.E., if you can volunteer for this initiative. When our Chapter is contacted by middle schools in the Greater Harrisburg area, we stand ready to provide speakers willing to provide career guidance about engineering as a possible life profession. This is a primary Chapter goal to inform the area's youth with aptitude and talent in math and science of the challenges, rewards and prestige of being an engineer and possibly direct them to our profession as a career choice.

Programs are still being planned by the board. Please refer to the program announcement flyers for information. Please consider attending these very interesting and informative programs that include the added benefit of the opportunity to socialize with fellow Chapter professional engineers. I hope to see many of you at these events.

Director Yves Pollart, P.E. continues to prepare for the upcoming Chapter MATHCOUNTS competition. I encourage all members of the Harrisburg Chapter to attend this year's competition. MATHCOUNTS will be held Saturday, February 13, 2010 at the Penn State Harrisburg campus, and the snow date for the event is scheduled for Sunday, February 14, 2010 at the Penn State Harrisburg campus.

As you may recall, one of the goals for this Board is to establish our funding mechanism for MATHCOUNTS for future years. Unfortunately funding will see a significant decrease for the 2010 and 2011 competitions. The Board is preparing these letters to go out shortly and we are confident we will find the support needed to carry our MATHCOUNTS program forward. As always, if you have any ideas for the Harrisburg Chapter Board, please feel free to contact me. Since this is also the final Sparks before the holidays, let me extend a Happy Holidays from the Harrisburg Chapter Board to our membership.

SPARKS

UPCOMING EVENTS & IMPORTANT DATES

Board Meeting

- 11/18/09

Board Meeting

- 12/16/09

Board Meeting

- 01/20/10

MATHCOUNTS Competition

- 02/13/10
- PSU Harrisburg

Board Meeting

- 02/17/10

CODE OF ETHICS

NSPE Code of Ethics for Engineers: Preamble

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.

Continuing Education Update

Continuing education credits will not be required for your 2009-2011 Pennsylvania engineering license renewal. Signs (both legislative and regulatory) indicate that 24 Professional Development Hours will be required prior to your 2011-2013 license renewal.

If all things continue in the direction they are headed, courses/seminars/activities with a "clear purpose and objective which will maintain, improve or expand the skills and knowledge relevant to a licensee's professional practice" taken between BETWEEN OCTOBER 1, 2009 and SEPTEMBER 30, 2011 can be applied toward license renewal. (Credit will not be given for "practice development or office management.")

More details will follow as they are available.

MATHCOUNTS

Just as a reminder to all PSPE Harrisburg Members, this year's Mathcounts competition is Saturday February 13, 2010 at PSU-Harrisburg. We are again asking you to volunteer your time and help us at the competition. If you can stop in anytime that morning, we would be grateful for a helping hand! Last year we had a fantastic turnout from the membership and it is because of our volunteers that the program is a success. Please mark the date on your calendar and try and join us. The snow date for the event is Sunday February 14, 2010 and it will be held at PSU-Harrisburg in the event of a cancellation. If you have any MATHCOUNTS questions or would like to assist with the MATHCOUNTS competition, please call Yves Pollart, PE, Chapter Coordinator; Work phone: 697-3551, email:ypollart@rettew.com. The MATHCOUNTS National Foundation website is at www.MATHCOUNTS.org.

Stephen Talian, P.E., Treasurer

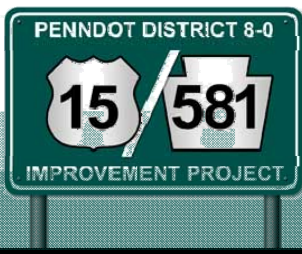
MATHCOUNTS Donations are Needed and Welcomed

The Harrisburg Chapter welcomes donations toward expenses for its February 2010 MATHCOUNTS competition. This popular and important math competition, typically involving about 30 public and private middle schools from the Greater Harrisburg Area, is particularly in need of support for 2010. With the State budget situation looking bleak, and continued State support for MATHCOUNTS looking very uncertain, contributions from Chapter Members and other supporters are needed to maintain program viability at the Chapter and State levels.

Members can mail contributions, of any desired amount, directly to Chapter Treasurer, Stephen F. Talian, P.E., at 4987 Farmington Road, Harrisburg, PA 17112. To assure contributions are tax deductible, checks should be made out to "PEF/MATHCOUNTS" ; The Pennsylvania Engineering Foundation (PEF) is a 501(c)3 organization that supports MATHCOUNTS at the Chapter and State levels.

Thank you for your support of MATHCOUNTS--Harrisburg Chapter Board of Directors

Stephen Talian, P.E., Treasurer



US 15/PA 581

Interchange Reconstruction Projects

Traffic congestion at the US 15 / PA 581 Interchange has steadily increased due to economic development in the capital area with rush hour backups becoming commonplace for motorists. To reduce congestion and improve the efficiency and safety of the interchange, PennDOT has begun reconstructing the interchange and adding lanes to US 15 and PA 581. The reconstruction will be completed under two separate, but concurrent, construction contracts.

In March 2008, PennDOT awarded the first construction contract for the interchange reconstruction. This project will reconstruct US 15 between Slate Hill Road and the PA 581 Interchange, widen PA 581 between the US 15 and Interstate 83 Interchanges, and improve the side roads in the area. Three retaining walls are being constructed to widen the highway while minimally increasing the footprint of PennDOT's right-of-way. Three new sound barrier walls will also reduce the noise levels at adjacent properties.

In December 2008, PennDOT awarded the second construction contract. This project will reconstruct the US 15/PA 581 Interchange and replace the three mainline US 15 bridges over PA 581, Norfolk Southern, and Gettysburg Road. In addition, two new concrete retaining walls and two sound barrier walls will be constructed.

One of the primary objectives of the projects is to construct a new diamond interchange at US 15 and Lower Allen Drive and permanently close the ramps at US 15 and Gettysburg Road. In order to construct the new ramps at Lower Allen Drive, approximately 19,000 cubic yards of material had to be excavated so that the ramps would meet the elevation of Lower Allen Drive. Approximately 15,000 cubic yards of the material to be removed was rock. In order to expedite the rock breaking, the contractor turned to the use of explosives. Each blast was carefully designed to use enough explosive material to achieve the required breakage without excessive ground vibrations.

Engineers designing the widening of the 17-span PA 581 viaduct bridge took numerous core borings to determine the elevation of rock solid enough to adequately support the bridge structure. While rock was encountered as expected where the borings were taken, a few feet away the rock could be significantly deeper making a spread footing unfeasible. In these situations, the engineers had to act quickly to redesign the footings for steel pile to prevent delays to construction.

Throughout construction, the project personnel have maintained a website to keep the public abreast of construction progress and major traffic changes. At www.penndot8.com, you can view a map of the project, find overviews of both construction projects, monitor progress through monthly updates and photographs, and sign up for automated emails that will alert you of major traffic changes.

By Brian Moore, P.E.



Brian Moore, P.E. is a Construction Engineer with Michael Baker Jr., Inc. Michael Baker Jr., Inc. is providing Construction Management and Construction Inspection Services for PennDOT on the US 15/PA 581 Improvement Projects.

HARRISBURG CHAPTER OF PSPE

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- Thomas R. Terry, P.E. - President Elect, *Programs*
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- Susan Bruns, P.E. - Director '10, *Advertising*
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- Yves E. Pollart, P.E., BCEE - Director '11, *MATHCOUNTS (Chair)*
- Sara F. Frailey, P.E. - Director '11, *Pre-College & Career Guidance, MATHCOUNTS (committee)*
- Vacant Director '11
- Daniel R. Giles, P.E. - Director '12, *Eweek Council, Science & Engineering Fair*
- Ron Ladyka Jr., P.E. - Director '12, *Membership Services, MATHCOUNTS (committee)*
- Paul Brandl, P.E. - Director '12, *Directory, MATHCOUNTS (committee)*

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To become a SPARKS Booster, please contact Susan Bruns, P.E. at sbruns@gfnet.com. View additional Boosters on-line at www.pspehbg.org.

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