

NEWSLETTER



STRUCTURAL
ENGINEERING
INSTITUTE
Philadelphia
Chapter

INSIDE THIS ISSUE:

PA Cont. Ed. Reqs.	2
NJ Cont. Ed. Reqs.	3
Get PDHs at SEI	3
Khan Lecture	3
About SEI	4
July Meeting Recap	4
Contact Info	4

MEETING INFO

- Tuesday, Sept 28, 2010, 6:00 – 8:00pm
- Conf Rm. Y, 16th floor, Municipal Services Building 15th St & JFK Blvd. Philadelphia
- \$50 for ASCE Members, \$55 Non-members, \$15 Students; includes dinner
- Reservations through ASCE: make check payable to Phila. Section ASCE c/o Engineers' Club of Phila 215 S. 16th St, Suite 16 Philadelphia, PA 19102
- For more info, contact M. Ali Kahn, Chairman of Phila SEI Mohidin@temple.edu
- 2 PDHs will be awarded to attendees.

NJ Turnpike Widening Program Dinner / Technical Meeting

On Sept 28, John Tan and Kevin Healy will give a presentation on the very important Widening Program of the NJ Turnpike between interchanges 6 and 9.

The ongoing Widening Program will extend the twelve-lane dual-dual roadway north of Interchange 9 southward to Interchange 6 interconnection with Pearl Harbor Memorial Turnpike Extension, using the most advanced technology in USA.

The presentation will provide an overview of the Widening Program, its current status, followed by a discussion of curved and complex bridges with unique structural ele-

ments. It will include Preliminary Bridge Study and Standardization of Structural Details and the design and constructability implications including the PSE&G High voltage transmission lines parallel to the NJ Turnpike corridor.

Speakers:

John Tan, PE, is Director of Structural Engineering of the Louis Berger Group, Inc. He is the Structural Task Group Leader for Section 4 and is responsible for the design of 13 new or replacement bridges. John is a graduate of Stevens Institute of Technology, and holds an MBA from Montclair State University.

Kevin Healy, PE, joined the NJ Turnpike Authority in 2007 as a Project Engineer after working with several engineering firms. He is responsible for all phase reviews of the 23 construction contracts. Kevin is a graduate of Stevens Institute of Technology.

Reservations are required as space is limited. The information is included in the sidebar.

Welcome to Philadelphia SEI!

We are thrilled to have you join us. The Philadelphia Chapter of SEI was formerly the Structural Technical Group of the Philadelphia Section of

ASCE. It has been reorganized to take advantage of all the benefits available through the Structural Engineering Institute of ASCE.

This is the inaugural issue of the Philadelphia Chapter SEI newsletter, which will be published quarterly. We trust you will find it informative.

PA CONTINUING ED UPDATE

*24 CREDITS MUST BE
COMPLETED BY SEPT.
30, 2011*

On May 12, 2010, the legislature enacted and Governor Rendell signed into law Act 25 which amended the Engineer, Land Surveyor and Geologists Registration Law (the Law) to clarify the requirements for mandatory continuing education (CE) and to provide more choice in CE courses, seminars, workshops and conferences.

The State Registration Board for Professional Engineers, Land Surveyors and Geologists updated licensees on the requirements for mandatory CE to be set forth in regulations of the Board. Act 25 specifically eliminated the need for the Board to pre-approve CE courses. Now the Board

CE requirements are based upon the provision of the model law and rules of the National Council of Examiners in Engineering and Surveying (NCEES). This change in the Law expands the number of CE courses and activities that will be acceptable for credit.

In addition, Act 25 specifies that the first CE cycle of 24 credits must be completed, “no ifs, ands or buts,” by the Sept. 30, 2011 renewal cycle. This is a change from the prior directive. But the Board has come up with a way to smooth the transition so that no one is disadvantaged or is unfairly disciplined for any CE deficiencies that may result from confusion over the CE deadline.

In order to accommodate licensees who are just now learning of this deadline, the Board has decided to grant a moratorium from disciplinary action for anyone who has not completed the 24 CE credits by the Sept. 30, 2011, renewal date provided any and all CE credits short of the mandatory 24 are completed by April 1, 2012. If you fail to make up the CE deficit by the April 2012 deadline, you will be facing disciplinary action. (You will not be permitted to double count CE earned after the September deadline for the following renewal cycle.) Any CE credits that you have earned as far back as Oct. 1, 2009, will be acceptable at the time of renewal.

The best course of action is to begin doing your CE today, and of course one great source is through SEI Chapter meetings and seminars!



NJ CONTINUING ED UPDATE

On January 18, 2010 Governor Corzine signed into law the Mandatory Continuing Professional Competency (MCPC) act for Professional Engineers. NJSPE worked with the legislature to ensure that the regulations would not be overly onerous and would be compatible with other states, notably Pennsylvania. The intent is to allow comity between the two states for those who have both licenses.

The bill requires PEs to complete 24 credits of continuing professional competency relating to the practice of engineering every two years, coinciding with their biennial license renewal. The law goes into effect in January 2011 and is overseen by the Board of Professional Engineers and Land Surveyors. Those whose first renewal date occurs before January 2012 would not have to complete the required professional

competency credits to renew their license. Those whose first renewal falls more than 12 but less than 24 months after the effective date of the law (i.e. by January 2013) would be required to complete the required credits on a pro rata basis. The law allows up to 12 credits to be carried over into the next biennial license period. There are special rules for those with dual survey or landscape architecture licenses.

*THOSE RENEWING
BEFORE JAN 2012 ARE
EXEMPT ...*

How to Meet the Continuing Education Requirements for Licensure

The Philadelphia Chapter of SEI holds monthly meetings that will help members meet the continuing education requirements needed for renewal of professional licensure.

An annual special-topic seminar is also being planned. SEI members have the opportunity to attend the annual Structures Congress at a reduced rate, where many

short courses and seminars are offered.

If you have a suggestion for a speaker or topic, please contact Hisham A. Himmet at 215-686-5183.

*SAVE THE DATE!
CHAPTER MEETINGS WILL
BE THE 4TH WED OF THE
MONTH.*

Concepts in Tall Building Design

On July 22, Professor M. Ali Khan, Chapter President, gave a lecture on the above topic, subtitled "The Legacy of Fazlur Khan to Structural Engineering." It was given as part of the NEDAA East Coast Seminar Series.

Dr. Khan gave an overview of the advancements, many invented or refined by F. Khan, that have allowed the supertall modern buildings that dot the world. Topics such as framed tubes, tube in tube structures, and shearwall-frame inter-

action systems were explained. Ali Khan has applied Fazlur's techniques to structures in England, Iran, and the U.S.

*FAZLUR KHAN HAS BEEN
CALLED "THE EINSTEIN OF
STRUCTURAL
ENGINEERING"*

PHILADELPHIA, PA CHAPTER
STRUCTURAL ENGINEERING
INSTITUTE

215 South 16th Street, Suite 16
Philadelphia, PA 19102

Phone: 215-985-5701 (Engineers'
Club of Philadelphia Message Center)



DIRECTORS

Chairman

Mohiuddin Ali Kahn, PhD, PE

Vice Chairman

Nazhat Aboobaker, PhD, PE,
PMP

Secretary

Khalid Shaikh

Treasurer

Vijay Gupta, PhD, PE

Social Secretary

Hisham A. Himmet

Editor

Frederick Baumert, PE

At Large

volunteers needed!

Business card ads can be placed for \$50 / year (July - June). Send the hi-res image and payment to Phila SEI at the address above.

About the Organization ...

The Structural Engineering Institute is one of the Institutes within the American Society of Civil Engineers. It has over 20,000 members internationally. SEI is positioned to provide services effectively to the structural engineering profession while also influencing change on the broader issues that shape the entire civil engineering community.

Because SEI consists of leaders in both structural engineering practice and academia, SEI provides very good networking opportunities that will stimulate the practical application of cutting-edge research.

SEI members receive subscriptions to *Structure* magazine, a joint publication of SEI, NCSEA, and CASE; *Modern Steel Construction* (AISC); *SEI Update*, the e-newsletter; and discounts on SEI and ASCE publications. Members can also take advantage of ASCE group insurance opportunities.

Arching Action in Bridge Decks

Professor Aftab Mufti, PhD, PE, FASCE, FCSCE gave the inaugural presentation to the new Philadelphia SEI chapter on July 12.

The lecture reviewed an analytical approach for arching action and availing of the compressive membrane action (CMA) in deck slab design.

AASHTO LRFD Specification C9.7.2.1 states that in the light of extensive nonlinear finite element analysis, internal arching action does occur in deck slabs and an internal compressive dome is created.

Also, the compression zone in the beam above its neutral axis is deeper than the composite total slab depth and influences the extent of overall compression at slab boundary. As in aircraft structures, compressive T-beam action and effective flange width of beam are also governed by eccentricity of slab-beam connection generating local CMA.

A correct analysis will help in evaluating slab and beam deflections correctly and in the detailing of re-bars in the deck slab. It is likely to reduce any long term deck cracking.

The Canadian Highway

Bridge Design Code (CHBDC) uses an ultimate load approach. It allows a CMA based design and has taken a lead in its implementation. Accordingly, the parameters that affect the ultimate design are transverse stiffness provided by the bottom transverse reinforcement and the ratio of thickness to girder spacing. The deck overhang seems to behave more like an arch than a cantilever.

The presentation was very well attended, as over 50 people packed out the meeting room!