

ASCE Newsletter

Central Ohio Section

October 2010
Volume 15, Issue 2

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OCTOBER ASCE LUNCHEON

Date /Time: Thursday, October 21, 2010-11:30am Registration-12:00pm Lunch

Location: Lincoln Theatre • 769 East Long Street • Columbus, OH 43203

Speakers: Richard E. Geers, P.E – President, Jezerinac Geers & Associates

Topic: **Nationwide Children's Hospital Patient Tower**

The new Inpatient Tower is a 13-story, 720,000 S.F. addition to Nationwide Children's Hospital. Design studies began during early in 2007, and construction is scheduled for completion in 2012. Costs for the building will be in the range of \$275 million. The tower is designed with radial and circular column lines, with a maximum radius of about 475 feet. Structural framing primarily consists of wide-module concrete joists for the first six levels, then 7 levels of structural steel framing. Building lateral loads are resisted by both internal and external moment frames, with some heavy diagonals added for stiffness on taller stories.

Framing also includes areas of conventionally-reinforced flat plate construction, a post-tensioned dining room roof below the main entry drive, and a two-level steel-framed bridge connection that cantilevers about 65 feet over portions of the existing hospital. The presentation will include numerous pictures, from sub-basement tunnels to the heli-pad.

Menu: Buffet-Style Lunch.

CPD Hours: A certificate for one (1) Continuing Professional Development (CPD) hour will be issued at the conclusion of the program.

Reservations: For reservations contact Mike Mazzoli at mike.mazzoli@psiusa.com or (614) 876-8000 or register and pay [online](#) with a credit card. **Registration is due by 5 PM on Friday, October 15, 2010.** Late registrations and walk-ins may not be accepted. Registration fees may still be required for no-shows and registrants canceling after October 15, 2010.

Cost: \$20 ASCE Members & Guests - \$15 ASCE Life Members \$10 Students.

Payment: The preferred method of payment is [online](#) before October 15, 2010 or on the day of the event by cash or check. If you need to pay for multiple registrations, please pay by check. Checks should be made payable to Central Ohio ASCE.

Parking: Free Parking is available for this event in the west parking lot of the facility, in the north parking lot across the street and in the street surrounding the theatre.

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LETTER FROM THE PRESIDENT

It was great to see so many of you at our September luncheon at the OSU Golf Club! We had a full house and enjoyed a very interesting presentation by Tim Chylik of Carmeuse Lime and Stone and our own website editor, Peter Narsavage of ODOT. Thanks again to Carmeuse Lime and Stone for sponsoring the luncheon and allowing each of us to attend for half price!

We had such a great number of people RSVP for the September luncheon that we had to close down the event registration early. It's wonderful to have such a great response for our luncheons, but at the same time, it's unfortunate that we sometimes have to turn people away! So, please remember to get your reservations in early for the luncheons!

Speaking of the luncheons, our October luncheon will be held on Thursday, October 21st

at the Lincoln Theater in Columbus. The presentation will be on the *Nationwide Children's Hospital Patient Tower*. It will be a joint meeting with the *Structural Engineers Association of Ohio (SEAO)* and the *American Concrete Institute (ACI)*, so we expect another great turnout. Attendees will earn 1 Continuing Professional Development (CPD) hour for attending. For more details, please see page 1 of this newsletter.

Hope to see you at the luncheon on the 21st! Have a wonderful October!

Thank you,

Julie L. Pickering, PE, M.ASCE
Julie.Pickering@Stantec.com

OSU LICHTENSTEIN DISTINGUISHED LECTURE SERIES

The second Lichtenstein Distinguished Lecture of the academic year will be given by Dr. R. Shankar Nair on Friday, **November 5, at 3:30 P.M.** At Dreese Labs Room 260 on the OSU Campus, 2015 Neil Avenue, Columbus, Oh. The lectures are free and attendees will receive one hour of PDH for each lecture.



Dr. R. Shankar Nair

Dr. Nair will discuss some unusual and innovative solutions from his bridge engineering practice. These include an unbalanced bascule bridge, where elimination of the counterweight and associated pit more than compensated for the additional lifting effort required (a design that has been awarded a US patent); a skewed hanging pedestrian bridge; an unusual minimum-area design for a Single Point Urban Diamond Interchange; innovations in the design of the world's longest tied-arch bridge; and the top-down construction of a subway station under an existing multi-story building. Also included will be an exploration of the evolution of arch bridge bracing systems

and the application to bridge bracing of the new Direct Analysis Method of design for stability.

Dr. Nair received his Ph.D. in civil engineering from the University of Illinois at Urbana-Champaign in 1969. In his more than 40 years of engineering practice, Dr. Nair developed the structural designs of many major bridges and buildings including the longest tied arch in the world and a 90-story, 1047-foot tall building now partly constructed in Chicago. His projects have won numerous awards, including four AISC/NSBA *Prize Bridge* awards and six Structural Engineers Association of Illinois *Most Innovative Structure* awards. He has won a Lifetime Achievement Award from AISC. He is a former chairman of the Council on Tall Buildings and Urban Habitat and is currently the chairman of the AISC Committee on Specifications. Dr. Nair was elected to the National Academy of Engineering in 2005.



RICH STREET BRIDGE PRESTRESSED CONCRETE TOUR

Two complimentary tours of Prestress Services Industries, LLC's Grove City plant were held on September 9 and September 28. Interest in the tours was strong, and both dates were filled to the 20 person capacity.



The tour included a discussion on all aspects of the concrete structural members from the initial forming through QA/QC and delivery of the members to the jobsite. Structural concrete members for the new Rich Street Bridge in downtown Columbus, Ohio were being fabricated at the time of the tour, and these members were used as the basis of the detailed discussion about the fabrication process. Over 68 individual precast concrete members are required for the 5-span structure.



(LEFT): Center portion of arch in fabrication- The rebar cage, which provides mild reinforcement for the member, is in place on top of the bottom of the arched form. All forms were custom made for the Rich Street project. The prestressing strands, which provide the major structural reinforcement, are present in the middle of the beam and are prestressed to over 30 kips per strand. The white ducts will create the void to place the post-tensioning cables after the arched beam segments are field installed. The post-tensioning cables will bind the three segments of each arch to act as a composite member.

(RIGHT): Finished between arch section- Structural member complete and waiting for transport. Typically members are assembled and poured every 24 hours. This exterior section was completed with ribbed form liner on the exposed surface. Rebar extends beyond end of member to extend into the field cast-in-place concrete closure pour to be placed between each precast segment to tie them together. Prestressed strands are present in the middle, center of the section; post-tension ducts on the outer, center. Raised rebar stirrups extend above the member to tie-in the cast-in-place concrete bridge deck to the superstructure.



(LEFT & RIGHT): Leg arch sections: Lower leg sections of the arched structure fabricated and hoisted to be loaded for delivery to the jobsite.



(BOTTOM): Portions of bridge erected and supported with falsework on a causeway in the Scioto River.



ASCE CONTINUING EDUCATION WORKSHOPS

ASCE is pleased to provide the upcoming ASCE Continuing Education seminars and workshops in the Midwest Region. These in-depth, practice-oriented programs are produced by ASCE's Continuing Education Department and may be of interest to you. Please click on the links below for additional information.

DATES	SEMINARS AND COMPUTER WORKSHOP LINKS	Location
Nov. 4-5, 2010	Load Rating of Highway Bridges	Chicago, IL
Nov. 4-5, 2010	Wind Loads for Buildings and Other Structures	Chicago, IL
Nov. 17-19, 2010	HEC-HMS Computer Workshop	Cincinnati, OH
Dec. 8-10, 2010	Streambank Stabilization for Restoration and Flood Control	Chicago, IL
Feb. 17-18, 2011	Design of Lateral Force Resisting Systems in 2009 International Building Code	Cincinnati, OH
Feb. 24-25, 2011	Upgrading Treatment Plants and Pumping Stations	Chicago, IL
March 10-11, 2011	Earth Retaining Structures, Design, Construction and Inspection: Now in LRFD	Cincinnati, OH
March 10-11, 2011	HEC-HMS Computer Workshop	Chicago, IL
March 16-18, 2011	Design of Foundations for Dynamic Loads	Cincinnati, OH
March 17-18, 2011	Design of Cold Formed Steel Structures The New 2007 Specification	Chicago, IL
March 23-25, 2011	Design and Construction of Microtunneling Projects	Chicago, IL
March 24-25, 2011	Low Impact Development Applications for Water Resource Management	Madison, WI
March 24-25, 2011	Modern Detectors for Traffic Surveillance Management/Traveler Information	Chicago, IL

OSU ENGINEERS WITHOUT BORDERS BANQUET

The Ohio State University chapter of Engineers Without Borders invites you to attend their first annual Banquet and Silent Auction on October 20, 2010 at the Ohio State Faculty Club.

EWB-OSU students will present their work on a latrine project in El Salvador. The design promotes sustainable technology and it will allow the community to receive treated drinking water in the future.

Tickets are \$40 and are being sold until October 14th.

To purchase tickets online, visit <http://ewb.osu.edu/banquet.html>

For further questions or to purchase tickets by check, email kauppila.7@osu.edu.

OHIO TRANSPORTATION ENGINEERING CONFERENCE



From October 19-20, 2010, the 64th annual Ohio Transportation Engineering Conference will take place at the Greater Columbus Convention Center. Sponsored by the Ohio Department of Transportation and The Ohio State University, the conference is one of the nation's largest transportation conferences.

This years theme is *Igniting Ohio's Economic Engine*. Investments in transportation and infrastructure lead to job creation, economic growth, and improved quality of life for all Ohioans. Ohio has world-class transportation assets that are truly an engine for economic growth.

The program addresses the latest policy and technical information, as well as covering new ideas in transportation policy, planning, environmental, design, construction, maintenance, operation, local government, and management of transportation resources. The conference features exciting speakers, technical sessions, and an exhibit area. Meet other professionals in your specialty area and share stories of innovations in transportation and related fields.

2010-2011 CENTRAL OHIO ASCE MEETINGS

Meeting Date	Topic	Location	Person Responsible
Thursday, September 16, 2010 Lunch	Lime Stabilization/ ODOT Projects	OSU Golf Club	Peter Narsavage
Thursday, October 21, 2010 Lunch	Childrens Hospital Projects	Lincoln Theater	Ryan Konst/ Tom Rozsits
Thursday, November 18, 2010 Lunch	Engineers Without Borders	OSU Longaberger Alumni House	Andrian Lee
Thursday, December 16, 2010 Dinner	Columbus Zoo Polar Bear Exhibit	Columbus Zoo	Tom Rozsits/ Bob Heady
Thursday, January 20, 2011 Lunch	City of Columbus Combined Sewer Overflows & Mitigation Projects	Crowne Plaza North	Michael Navabi
Thursday, February, 2010 TBA	Engineers Week	TBA	E-Week Organizer
Thursday, March 17, 2011 Lunch	West Main Street Bridge - Westerville	Villa Milano	Michael Bashor/ Jim Pajk
Thursday, April 21, 2011 Dinner	Ohio University Projects	Ohio University - TBA	Bob Heady
Thursday, May 19, 2011 Lunch	President Elect Lunch	OSU Blackwell Inn	Mike Mazzoli
June, 2011	Planning Meeting	TBA	Adam Rich

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BOARD MEETING

Our Next Board Meeting Will Be Held at 11:30 A.M. Thursday, November 4, 2010. Stantec Consulting Services 1500 Lake Shore Drive Columbus, OH

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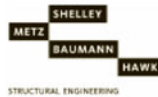
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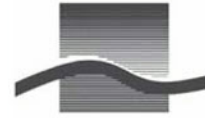


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