

## Steel News and Events

### Focus on Wind and Low-Seismic Design

Halfway through its national touring schedule, AISC's latest lecture series is generating strong positive feedback.

The lecture series, "Streamlining Your Steel Design Process: Lateral Framing Systems East of the Rockies," is aimed at engineers designing framing systems in wind and low-seismic applications.

The initial series of surveys, which included respondents in Las Vegas, Nashville, Memphis and Birmingham, reported that nearly nine out of 10 attendees agreed that the course was well worth the money paid, and more than 90% of the attendees noted that the course was beneficial to them as professionals. The data showed that more than seven out of 10 attendees had more than a decade of professional experience and nearly 80% of the attendees were structural engineers.

The course focuses on the 2000 International Building Code, which incorporates ASCE 7, the 1997 NEHRP Provisions and the 1997 AISC *Seismic Provisions*. These documents form a consistent design basis for the building codes that are being implemented nationally.

As Steve Aston, senior engineer for Continuing Education at AISC explained, "In using current building codes, you will need to become much more familiar with seismic design," "In many situations, special seismic detailing is required or desirable, even when the design is controlled by wind effects."

The five-hour course provides information on two distinct groups of framing systems: normal ductility and high ductility. Framing systems of normal ductility are designed to meet the requirements of the AISC *Specification for Structural Steel Buildings*, while framing systems of high ductility are designed to meet the requirements of both the AISC *Specification for Structural Steel Buildings* and the AISC *Seismic Provisions for Structural Steel Buildings*.

The seminar is designed to provide a wide-range of useful information. For normal ductility designs, attendees will learn:

- A streamlined design sequence for moment-frame systems and braced-frame systems;
- What seismic and code information applies to the various lateral-load resisting systems;
- Typical connection details that are used in the various lateral-load resisting systems;
- Useful and cost-effective moment connection details;
- Useful and cost-effective bracing configurations and bracing connection details; and
- How to identify special considerations for unusual structures.

Those interested in high ductility will learn:

- Advantages and implications of selecting higher levels of ductility for your designs;
- How to apply AISC *Seismic Provisions*, including testing requirements for moment connections;
- Connection details that have already been qualified by testing;
- Differences between ordinary (OMF), intermediate (IMF) and special (SMF) moment frames; and
- Differences between special (SCBF) and ordinary (OCBF) concentrically braced frames.

Registration for the course, which offers 0.5 CEUs (5 PDH), is \$200 (\$150 for AISC members) with discounts for multiple attendees from one firm.

For more information, see AISC's web site at [www.aisc.org](http://www.aisc.org) or fax 312/670-5403.

### International Conference on High Performance Materials in Bridges

July 29 – August 3, 2001  
Kona, Hawaii

Sponsored by the United Engineering Foundation (UEF) and the National Bridge Research Organization (NaBRO) this conference is for designers, researchers, contractors, fabricators and government officials involved in the use of high performance materials in bridge structures. The conference themes include:

- Advances in high performance material research as applied to bridges;
- Design issues and related research studies in high performance steel, concrete, fiber reinforced polymers and advanced wood composites;
- Code provisions related to the use of high performance materials in bridges;
- Case Studies in utilizing high performance materials;
- Innovative use of high performance materials;
- Contractors' and Fabricators' experiences in using high performance materials in bridge fabrication and construction;
- Results from monitoring performance of bridges constructed using high performance materials;
- Theme presentations and providing a summary of active national projects in countries promoting the use of high performance materials; and
- Future trends in using high performance materials in bridges.

Attendance is limited; please complete and return the application form found at [www.engfnd.org](http://www.engfnd.org).

## New Seismic Publications Online

The California Seismic Safety Commission has put two new publications on-line.

- SSC 00-03 Seismic Safety Commission Findings: A Report to the Governor and the Legislature on Lessons Learned from Recent Earthquakes in Turkey, Greece and Taiwan and
- SSC 00-02 2000 Status of California's Unreinforced Masonry Building Law.

To access either of the publications, please visit:

[www.seismic.ca.gov/sscpubs.htm](http://www.seismic.ca.gov/sscpubs.htm)

## Welding Seminars

There are still several seats available in the upcoming Lincoln Electric seminars (CEUs offered):

### Schedule-at-a-Glance

Sept. 13.....	St. Louis, MO
Sept. 14 .....	Kansas City, MO
Sept. 27 .....	Pittsburgh, PA
Sept. 28.....	Columbus, OH
Oct. 4.....	Rochester, NY
Oct. 5 .....	Albany, NY
Oct. 18 .....	Meriden, CT
Oct. 19 .....	Boston, MA
Oct. 24 .....	Washington, DC
Oct. 25 .....	Philadelphia, PA
Nov. 1 .....	Edison, NJ
Nov. 2.....	New York, NY
Nov. 15 .....	Houston, TX
Nov. 16.....	Dallas, TX

- Blodgett's Design of Steel Structure, [www.lincolnelectric.com/services/educate/struct2000/default.asp](http://www.lincolnelectric.com/services/educate/struct2000/default.asp); and
- Fracture and Fatigue Control in Structures (NEW), [www.lincolnelectric.com/services/educate/fracture.asp](http://www.lincolnelectric.com/services/educate/fracture.asp).

Registration information can also be obtained by calling Jackie Marley at (216) 383-2240. For information on our other seminars, please visit:

[www.lincolnelectric.com/services/educate/educate.asp](http://www.lincolnelectric.com/services/educate/educate.asp).

## West Coast Wins Overall at Bridge Competition

The American Institute of Steel Construction (AISC) sponsored its ninth annual Student Steel Bridge Competition this year at Texas A&M University in College Station, TX. Cosponsors included the American Society of Civil Engineers (ASCE), the American Iron and Steel Institute (AISI), the National Steel Bridge Alliance (NSBA), The James F. Lincoln Arc Welding Foundation, Nucor Corporation and TXI Chaparral Steel.

From May 20-21, 43 universities from across the country gathered to compete in the contest. Civil engineering students designed and shop-fabricated their steel bridge creations and then brought them to the competition to assemble and have them tested. The bridges were judged in the following categories: construction speed, economy, stiffness, efficiency, lightness and aesthetics. Each bridge must carry 2,500 lbs.

The top three overall winners for this year are California State University-Chico, Southern Polytechnic State University and Oregon State University.

The first place winners for each category are as follows: construction speed, University of Florida; economy, California State



University-Chico; stiffness, California State University-Sacramento; efficiency, California State University-Chicago; lightness, Old Dominion University and aesthetics, Oregon State University.

The Student Steel Bridge Competition gives civil engineering students experience in solving real-life design and construction problems commonly encountered. The students are given site conditions, spans, member sizes, weight limitations and design loads representative of a real bridge

## HSS Product News

Stalutube Oy of Lahti, Finland is a producer of stainless square and rectangular tubing measuring up to 12"x12"x1/2" or 16"x8"x1/2". Exporting to about 35 countries around the world, Stalutube's product range includes cut lengths, various polishes, ultra strong and fire resistant tubing. For more information, contact David Stone at 610/525-7706 or fax to 610/525-5717.

## E-Business Strong in Construction Industry

A/E/C Systems 2000, the Internet show for the entire design and construction industry, hosted 16,236 attendees June 5-8 at the

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Washington Convention Center, Washington, DC, a substantial increase over last year's show in Los Angeles.

The exhibit hall lured the attendees in like bees to honey. Some displays towered towards the ceiling of the exhibit hall, while others offered multi-media presentations, including one that resembled a Broadway review. Many booths drew attendees in by auctioning off prizes—everything from compasses to a VW beetle.

The crowded conference along side the exhibit hall provided AEC professionals first-hand access to the latest innovative hardware and software in today's changing industry. "I felt the buzz the second I stepped out of the cab," noted David Jordani, president of Jordani Consulting Group.

### Comprehensive Conference and Captivating Keynotes

The targeted conference program consisted of seven tracks: internet, architecture, civil design, construction, facilities management, A/E firm management, IT and technical information management, and GIS/mapping. Industry leaders drew capacity filled rooms at sessions such as: "e-Commerce in the Construction Industry," "Design and Delivery in an Electronic World," "Project Collaboration on the Internet," "Effective Internet Application's for AECs" and "Mobile Architecture."

Internet keynotes provided unique perspectives on the future of the industry. On Monday, Dr. Joel Orr, president of Orr Associates and John Macomber, president and CEO of Collaborative Structures, explained why project web sites, or extranets, are now becoming an everyday part of construction jobs. Dr. Orr also announced the organization of the Extranet Vendors Association,

an industry trade group formed to educate the market on extranets.

On Tuesday morning, "The AEC Internet Revolution" keynote, featured the CEOs of leading dot-com vendors Bentley Systems, Bidcom, Bricnet, buzzsaw.com, Cephren and Revit Technology Corporation. All announced their moves to position themselves in the fast moving AEC Internet marketplace.

Wednesday's keynote, "Industry Leaders Embrace the Internet Age," addressed the need for companies to grasp and utilize the Internet to succeed in the future, and the urgency to integrate web applications with existing software. Dave Weisberg, president of Technology Automation Services, led a panel of industry leaders from Bentley Systems, Graphisoft, and PrimeContract.com (a division of Primavera).

### What's in it for the Engineer

The main revelation about the conference centered on the importance of e-business in the construction industry. Expanding the use of technology and information management tactics can maximize profitability and save time. For instance, placing drawings and other information on an extranet (such as the websites listed at the end of this article) can allow information to be exchanged more quickly and with less paper. The entire building team is involved: from the architect and engineer to the sub-consultants and construction companies. Each website has extensive security, and documents that used to take weeks to make the rounds to various parties now can be on a website in a matter of seconds. Extranets are definitely leading the construction industry into the future and should not be ignored.

### Building on the Buzz

A/E/C Systems 2001 moves to McCormick Place - Lakeside Center, Chicago, IL, June 18-21, 2001. In addition, Computers for Construction 2000 & A/E/C Systems Fall is coming to the Anaheim Convention Center,

Check out some of these dot-com vendors in the construction industry:

[www.bentley.com](http://www.bentley.com)  
[www.bidcom.com](http://www.bidcom.com)  
[www.bricnet.com](http://www.bricnet.com)  
[www.buildpoint.com](http://www.buildpoint.com)  
[www.buzzsaw.com](http://www.buzzsaw.com)  
[www.cephren.com](http://www.cephren.com)  
[www.constructware.com](http://www.constructware.com)  
[www.e-idc.com](http://www.e-idc.com)  
[www.mps.com](http://www.mps.com)  
[www.netclerk.com](http://www.netclerk.com)  
[www.onebuild.com](http://www.onebuild.com)  
[www.ProjectGrid.com](http://www.ProjectGrid.com)  
[www.revit.com](http://www.revit.com)

Anaheim, CA, November 7-9, 2000. For more information on any of these events, please visit their web site at [www.aecsystems.com](http://www.aecsystems.com), or call (800) 451-1196, fax (610) 458-1553. For more information on exhibiting, call (610) 458-7070, fax (610) 458-7171.

Stay tuned for the February 2001 issue of *Modern Steel Construction* when we will focus on e-business and extranets.

## Steel Bridge Design and Construction for the New Millennium with Emphasis on High Performance Steel

*November 30-December 1, 2000  
Baltimore, Maryland*

This conference, sponsored by the Federal Highway Administration (FHWA) and the National Bridge Research Organization (NaBRO), will bring together design professionals, state and federal agencies, fabricators, contractors, steel producers and academia to share in the latest developments of steel bridge design and construction with emphasis on high performance steel. Presentations will include topics to be presented for the first time, such as cost comparison of bridges designed using 50 and 70 ksi steels, a work that is being prepared by HDR, Inc.

For those who are interested in becoming familiar with the design of steel bridges using the latest (2000 interim) AASHTO LRFD Bridge Design Specification, a six hour long short course will be taught, the day before the conference starts, on November 29, 2000. This class will be taught by Dr. Atorod Azizinamini, P.E., associate professor of Civil

Engineering at the University of Nebraska-Lincoln and Dr. Dennis Mertz, P.E., associate professor of Civil Engineering at the University of Delaware.

The conference and short course will be held at the Hyatt Regency Baltimore on the Inner Harbor. The registration for the conference is \$200 after August 25, 2000. The registration fee includes a continental breakfast, lunch and breaks for both days, social hour and conference proceedings. The registration for the short course \$200 after August 25, 2000. The registration fee includes refreshments, a notebook containing the material to be covered in class and a certificate of attendance that could be used for continuing education credit. A complete program and registration form for this conference can be viewed by visiting the FHWA web page at

[www.fhwa.dot.gov/bridge](http://www.fhwa.dot.gov/bridge) or

[www.nabro.unl.edu](http://www.nabro.unl.edu).

## SEAOI Announces Refresher Course

The Structural Engineers Association of Illinois (SEAOI) Committee on Continuing Education is developing plans to present the 2000-2001 Structural Engineers (SE) Refresher Course. The refresher course provides an in-depth review of structural engineering principles and applications. It is intended to help prepare candidates for the Illinois Structural Engineers State Board Examination (SE license).

Sessions will be held on Monday and Thursday evenings at a downtown Chicago location from 6:00 p.m. to 7:45 p.m.. The course is scheduled to begin on November 9, 2000 and ending on March 29, 2001 for a total of 35 sessions.

This high-value refresher course has been offered for almost ten years. Feedback from the candidates in previous courses has been positive. The course features 61 hours of classroom interaction with experienced instructors, providing an excellent

forum for concentrated review. The discussion provides a broad range of structural engineering topics necessary for one to take the SE examination.

Further information regarding the course is available by contacting the SEAOI office at 312.372.4198. Early registration is strongly encouraged. Additional information as it becomes available will be posted at [www.SEAIOI.org](http://www.SEAIOI.org).

## Correction to July 2000 HSS Listing

Valmont Industries, Inc. of Tulsa, OK, also produces the following HSS:

24 x 24-5/8, 1/2, 3/8

22 x 22-5/8, 1/2, 3/8

These HSS were unintentionally omitted from the July issue.