Wind and Low-Seismic Design...

Steel News & Events

Focus on Wind and Low-Seismic Design

AISC's latest 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 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.

"In using current building codes, you will need to become much more familiar with seismic design," explained Steve Ashton, Senior Engineer-Continuing Education at AISC. "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 the 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** or fax 312/670-5403.

Schedule-at-a-Glance

May 3.....Greenville, SC	Sept. 13.....St. Louis, MO
May 4 .....Charlotte, NC	Sept. 14 .....Kansas City, MO
May 10 .....Richmond, VA	Sept. 27 .....Pittsburgh, PA
May 11.....Raleigh, NC	Sept. 28.....Columbus, OH
May 24 .....Minneapolis, MN	Oct. 4.....Rochester, NY
May 25 .....Omaha, NE	Oct. 5 .....Albany, NY
June 7 .....Cleveland, OH	Oct. 18 .....Meriden, CT
June 8 .....Detroit, MI	Oct. 19 .....Boston, MA
June 21 .....Cincinnati, OH	Oct. 24 .....Washington, DC
June 22 .....Indianapolis, IN	Oct. 25 .....Philadelphia, PA
June 28 .....Stillwater, OK	Nov. 1 .....Edison, NJ
June 29 .....Denver, CO	Nov. 2.....New York, NY
Sept. 6 .....Chicago, IL	Nov. 15 .....Houston, TX
Sept. 7 .....Grand Rapids, MI	Nov. 16.....Dallas, TX

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Composite Construction in Steel and Concrete

May 28-June 2, 2000
Banff, Alberta, Canada

The latest advances in the research, design, and construction will be examined at the United Engineering Foundation's fourth conference in its series on Composite Construction. Topics include: Buildings, Floor Systems, Innovative Structural Systems, Bridges, Columns, Seismic Applications, Codes and Standards, Connections, High-Performance Materials, Construction Innovations, and Fire.

For more information on the conference, contact United Engineering Foundation, Three Park Avenue, 27th Floor, New York, NY 10016-5902, Tel: 212-591-7836, Fax: 212-591-7441, E-mail: engfnd@aol.com, **http://www.engfnd.org/engfnd/0af.html.**

Seismic Conference

STESSA 2000 - Montreal, Canada
August 21-24, 2000

The Third International STESSA 2000 Conference on the Seismic Behavior of Steel Structures in Seismic Areas will be held in Montreal on August 21-24, 2000. This conference will bring together researchers, specialists, and practitioners from Europe, Asia, and North America for presentations and discussions on the seismic performance and design of steel structures.

Special sessions will be devoted to the presentation of the latest findings of large research projects such as the SAC Steel Project in the US and the Copernicus-RECOS project in Europe. For registration or more information, visit the conference web site or contact Robert Tremblay at **tremblay@struc.polymtl.ca.**

Correspondence

Dear Editor:

I live in the Seattle Area and have been to Safeco Field several times. I enjoyed your article in this month's edition. However all of the pictures of the project are backwards in this article. The Kingdome is directly north of Safeco Field (At least until 3-26-00) and the water is on the east side of your picture and it should be on the west side. And all the lettering is backward. Even so the pictures are great and the article was well done. Keep up the good work.

Thank You
Mel Graham
(Via email)

As Mel and a whole bunch of other readers noticed, the photos in the Safeco article were accidentally flopped. In addition, it should be noted that the correct engineer-of-record for the project is Skilling Ward Magnusson Berkshire, Inc. in Seattle, WA. We apologize for the errors.

Value Engineering vs. Design-Build for Bridges

Design-Build is recognized as a way to get a bridge built faster than the traditional design-bid-build method, while value engineering is known for saving a bridge owner money by redesigning a project after the bid has been awarded to take advantage of the selected contractor's special skills and abilities. So what do design-build and value engineering have in common?

According to nearly one-third of the contractors responding to a survey by Finley McNary Engineers in Tallahassee, FL, value engineering is a "natural outgrowth of design-build." The *Survey on Value Engineering* found a difference of opinion on the issue, however—only 19% of those from design firms agreed that value engineering is an outgrowth of design-build. Respondents from departments of transportation or toll/turnpike authorities landed near the middle, with 26% saying that value engineering is an outgrowth of design-build.

"These results are not surprising to me," says Craig Finley, P.E., president of Finley McNary Engineers. "The traditional approach of design-bid-build, which allows very little input on construction during the design process is not the best solution anymore. The more progressive designers, owners, and contractors understand how important it is to look for a better way if they are going to be successful in today's highly competitive marketplace. Value engineering and design-build encourage design and construction teams to work together for the better solution. Clearly, more and more people are beginning to see the benefits of these delivery methods."

Finley believes design-build and value engineering are related because both promote the use of "engineered construction," a method of engineering that incorporates and stresses the constructability of a project. "Design-

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build incorporates engineered construction right from the start, while value engineering brings engineered construction in after the original design is done and the bid has been awarded," he says.

Here are more results from the survey:

- A total of 29% of the 150 respondents (including contractors, designers, owners, suppliers and others) said value engineering is a natural outgrowth of design-build.
- More than three-quarters (76%)of designers said value engineering is unrelated to design-build, and about two-thirds of owners agreed.
- A few (4%) designers said value engineering is an "unfortunate mutation" of design build. That figure is in line with the overall sample.

For more information, contact: Susan Van Hoeij, Finley McNary Engineers (ph: 850/422-0000; fax: 850/422-3373 or email: bridges@fmetall.com).

In Memorium

The steel industry lost a great friend with the passing of Gunther Baresel, president of the Baresel Corporation. He was one of the county's most respected detailers and was heavily involved with the National Institute of Steel Detailing. In addition, Baresel served on the planning committee for the North American Steel Construction Conference.

Welding Publications

The 2000 AWS Catalog is now available. Some of the new titles included are:

- D1.1:2000 Structural Welding Code
- The Professional's Advisor on Welding Stainless Steels
- Certification Manual for Welding Inspectors
- Specification for Underwater Welding.

For more information, contact: AWS Customer Service (ph: 800/334-9353) or visit AWS' web site at: **www.aws.org**.

Steel Industry Issues

The Steel-Link web site (**www.steel-link.com**) recently polled steel detailers and fabricators about the most important issues facing detailing businesses today. The results, from more than 600 respondents, were as follows:

Incomplete design drawings	47%
Low detailing prices	7%
Slow payment from customers	7%
Shortage of qualified detailers	18%
Inadequate software solutions	4%
Shortage of available work	3%
Fast track schedule demands	11%

Not surprisingly, design drawing problems led the way, with a shortage of qualified detailers a distant second.