

## SELECTING STRUCTURAL STEEL SYSTEMS

**M**ORE AND MORE, OWNERS AND CONTRACTORS are favoring fast-track construction. As a result, the pressure to use tried-and-true methods overwhelms the benefits of adopting new and innovative ideas. AISC's 1996 Steel Seminar Series, which begins this June, is designed to present some of these new ideas and to increase designer's familiarity and comfort level with innovative steel designs that can reduce costs and speed construction.

The four-part lecture includes:

- **Wind & Seismic Loads for Buildings:** Changing codes for wind and seismic design need not complicate the design of structural steel frames. This lecture focuses on simplifying the determination of seismic and wind loads in accordance with NEHRP '94 Recommendations and ASCE Standard 7-95.
- **Choosing Steel Framing Systems:** Because of its versatility, structural steel provides a wide array of framing options. This lecture will focus on innovative designs for structural utility and low-cost constructability. It will include braced, unbraced, seismic and special systems.
- **Criteria for Connection Selection:** A wide variety of factors can influence the cost and constructability of connections. This lecture will discuss many of these issues and offer guidelines for a wide variety of connection types, as well as design/detailing criteria and shop/field criteria.
- **Communicating Connection Information:** A good flow of information is critical to a project's success. This lecture discusses different processes for communicating information

on drawings & specs, standard connections, connection loads, and incomplete/changed information.

The seminar will provide a thorough review of several time-tested framing and connection systems and provide insights into the benefits of each. The seminar costs \$120 (\$90 for AISC members; \$40 for students) and has a value of 5.0 Professional Development Hours (PDH) or 0.5 CEUs.

### Middle Atlantic

D.C./Baltimore . . . . . Aug. 13  
Philadelphia . . . . . Aug. 14  
Pittsburgh . . . . . Oct. 16  
Charleston, WV . . . . . Oct. 17  
Cleveland . . . . . Oct. 29  
Columbus . . . . . Oct. 30  
Cincinnati . . . . . Oct. 31

### West

San Diego . . . . . July 9  
Orange County . . . . . July 10  
Los Angeles . . . . . July 11  
Portland, OR . . . . . Sept. 30  
Seattle . . . . . Oct. 1  
Phoenix . . . . . Oct. 22  
Salt Lake City . . . . . Oct. 23  
Boise . . . . . Oct. 24  
Sacramento . . . . . Dec. 11  
San Francisco . . . . . Dec. 12

### South

Raleigh . . . . . June 25  
Norfolk . . . . . June 26  
Richmond . . . . . June 27  
Charlotte . . . . . July 30  
Greenville . . . . . July 31  
Atlanta . . . . . Sept. 4  
Memphis . . . . . Sept. 24  
Nashville . . . . . Sept. 25  
Birmingham . . . . . Sept. 26  
Miami . . . . . Dec. 4  
Orlando . . . . . Dec. 5

### Midwest

St. Louis . . . . . June 18  
Minneapolis . . . . . June 20  
Omaha . . . . . July 18  
Detroit . . . . . Aug. 20  
Indianapolis . . . . . Aug. 22

Chicago . . . . . Nov. 20  
Milwaukee . . . . . Nov. 21

### Southwest

New Orleans . . . . . June 11  
Albuquerque . . . . . June 13  
Kansas City . . . . . July 16  
Dallas . . . . . Sept. 10  
Houston . . . . . Sept. 12  
Denver . . . . . Jan. 16, 1997

### Northeast

Hartford . . . . . July 23  
Boston . . . . . July 24  
Portland, ME . . . . . July 25  
Rochester . . . . . Aug. 7  
Albany . . . . . Aug. 8  
New York City . . . . . Nov. 13  
Edison . . . . . Nov. 14

For more information, contact: AISC Seminars, One East Wacker Dr., Suite 3100, Chicago, IL 60601-2001 or phone 312/670-5422 (fax: 312/670-5403).

## Steel Bridge Symposium

**T**HE NATIONAL STEEL BRIDGE SYMPOSIUM, OCTOBER 15-17 IN CHICAGO, OFFERS ENGINEERS, BRIDGE DESIGNERS, CONSULTANTS, FABRICATORS, ERECTORS, CONTRACTORS, INSPECTORS AND EDUCATORS a unique opportunity to learn more about state-of-the-art steel bridge design and construction.

In addition to presentations on such fascinating bridge projects as the United States Naval Academy Bridge, the Columbus Indiana Gateway Arch Bridge and the Clark Bridge, the Symposium features sessions on the attributes of high-performance steel for bridges, weathering steel bridges, integral abutments for jointless steel bridges and bridge aesthetics. The Symposium also offers a unique Innovative Steel Bridge

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Concepts panel discussion featuring such notables as John Kulicki from Modjeski & Masters, Jean Muller from J. Muller International, Walter Podolny with the FHWA, Jerry Potter with the Florida DOT, and Vince Roney of the Virginia DOT.

Of special note is a session on bridge aesthetics by Santiago Calatrava. Calatrava is one of Europe's best known designers of both bridges and buildings and his work is rapidly gaining an impressive following in the U.S. He is known for such notable projects as Trinity Bridge in Salford (UK), The Reichstag conversion in Berlin, The Cathedral of St. John the Divine in New York, and BCE Place in Toronto.

At this year's National Steel Bridge Symposium, Calatrava, who has degrees in both architecture and civil engineering, will speak on bridge aesthetics. According to Calatrava, "There is a certain exercise in engineering aesthetics to be undertaken in the design of a bridge and I feel that the integration of technology and aesthetics deserve special attention."

Three optional workshops allow attendees to receive detailed, in-depth information on:

- **Steel Bridge Design Using LRFD**

In 1993, AASHTO adopted the Load and Resistance Factor Design (LRFD) specifications as an alternative to the AASHTO Standard Specifications for Highway Bridges.

This full-day workshop is designed to aid engineers in gaining familiarity with the new provisions for the design of steel-girder superstructures. The workshop will include:

- An overview of the LRFD specifications
- A discussion of the new live-load models and lateral distribution factors in the specification
- An explanation of the revisions that have been made to the fatigue-design

provisions

- A general overview of the LRFD steel design provisions through the presentation of several design examples
- A presentation of AISI's software package for the design of short-span steel bridges by current AASHTO Load Factor Design procedures.

- **Seismic Design & Construction of Steel Bridges**

This half-day session is designed to provide bridge designers and fabricators with essential information for designing and retrofitting bridges in seismic areas.

Sessions include:

- Performance of Steel Bridges in Recent Earthquakes
- Seismic Design of Steel Bridges
- Use of Isolation Systems in the Seismic Design of Bridges
- Seismic Retrofitting of Steel Bridges
- Seismic Design of Steel Bridges Based on R-Factors

- **Economical/Functional Steel Details and Bearing Design**

This half-day workshop will take an in-depth look at the pertinent design information required by a detailer to efficiently prepare shop and erection drawings that will accurately reflect a designer's intent. In addition, information will be provided on electronic data transfer of designs and details.

Recommendations also will be provided for economical and durable details for cross frames, bearings, girder configuration, field splices, material usage, weathering steel, paint systems and other critical items for bridge design and construction.

And finally, the Symposium features a Student Steel Bridge Building Demonstration and the Presentation of the Prize Bridge Awards.

For more information, please call 312/670-5413 or fax 312/670-5403.