

## 2003 T.R. Higgins Lecture—"Structural Failures: Effects of Joint Design"

The T.R. Higgins Award Jury selected John M. Barsom as the winner of the 2003 award for his paper, "Development of Fracture Toughness Requirements for Weld Metals in Seismic Applications," printed in the *Journal of Materials in Civil Engineering*, Vol. 14, No. 1, February 1, 2002. Barsom will present the 2003 T.R. Higgins lecture, "Structural Failures: Effects of Joint Design" on Friday, April 4, 2003, at the NASCC in Baltimore, MD.

Barsom is president of Barsom Consulting, Ltd., a forensic engineering company in Pittsburgh, PA. He is a member of several AISC committees, including the Committee on Specifications, and is the recipient of the AISC Lifetime Achievement Award.

Barsom is a Fellow of the American Society of Metals (ASM International), the American Society of Mechanical Engineers (ASME), the American Welding Society (AWS) and the American Society for Testing and Materials



John M. Barsom

(ASTM International). Barsom is the recipient of the Edgar C. Bain Award in metallurgy from the Pittsburgh chapter of ASM International and of the Fracture Mechanics Medal from ASTM Committee E08 on Fracture and Fatigue. He received the medal for having exerted a profound and positive effect on the scientific development of fracture mechanics and "in recognition of his outstanding contribution to

application of fracture mechanics and its usefulness to the practicing engineer."

Barsom spent most of his career at U.S. Steel in Pittsburgh, where he was named Research Fellow and Director of the Material Technology Division. He is a specialist in properties and behavior of steels and weld metals; fracture mechanics; failure analysis of structures and equipment, including metallographic and fractographic investigations, accident reconstruction, and integrity and life extension of structures and equipment; and behavior of fabricated components under slow and rapid loading conditions. Barsom is also an adjunct professor in the Civil and Environmental Engineering Department at the University of Pittsburgh.

Barsom received a B.S. in Physics, a MS in Mathematics, and a Ph.D. in Mechanical Engineering from the University of Pittsburgh. ★

## AISC Continuing Education—Spring 2003 Schedule

### Seismic Design and the 2002 AISC Seismic Provisions

Featured Speaker: Thomas A. Sabol, Ph.D., S.E., President of Englekirk & Sabol Consulting Engineers, and Adjunct Associate Professor at UCLA.

#### April

22 - San Diego, CA

25 - Anchorage, AK

#### May

6 - San Francisco, CA

8 - Pasadena, CA

### Practical Steel Design: 2 - 20 Stories

Speakers will vary by location. Check [www.aisc.org/seminars](http://www.aisc.org/seminars) for information on the speaker in your area. This seminar will also be featured as a tutorial at the 2003 NASCC, April 2-5, in Baltimore, MD.

#### April

22 - Stillwater, OK

23 - Dallas, TX

For more information on AISC continuing education opportunities, visit

[www.aisc.org/seminars](http://www.aisc.org/seminars). ★

## New AISC Shapes Database Features Historic Shapes

AISC has just released its updated *Shapes Database V3.1*, that provides electronic access to dimensions and properties of structural steel shapes, as given in the *AISC LRFD Manual of Steel Construction*, 3rd Edition. The *Shapes Database V3.1H* is the compilation of all of the structural steel shape dimensions recorded by AISC from 1873-1994.

Also included in the CD is the new AISC Search Utility 3.1, an advanced search engine for retrieving data from the *Shapes Database 3.1* and *3.1H* regarding dimensions and properties. AISC Search Utility 3.1 allows users to look up shapes properties based on *Manual* edition, type of shape and shape designation. There is also a quick-find feature as well as footnotes providing additional historic shape information, as printed in the out-of- print text *Iron and Steel Beams 1873-1952*.

To order, visit [www.aisc.org/bookstore](http://www.aisc.org/bookstore) or call 800.644.2400. ★

## Detailing for Steel Construction, 2nd Edition

AISC's *Detailing for Steel Construction*, 2nd Edition, is now available for purchase. This manual is a handbook for steel detailers, keyed to the 3rd Edition *LRFD Manual of Steel Construction*. It contains instruction, explanations, problem solutions, and typical shop details and drawings. Subjects covered include the detailing process, contract

documents, common connection details, basic detailing conventions, project set-up and control, erection drawings, shop drawings and bills of materials, detailing quality control and assurance, engineering fundamentals, and electronic data transfer.

To order, visit [www.aisc.org/bookstore](http://www.aisc.org/bookstore) or call 800.644.2400. ★

## AISC Scholarships and Fellowships Available

AISC announces that it is now accepting applications for its 2003 undergraduate scholarships and graduate fellowships. Different awards are offered for various regions of the country, depending on the location of the applicant's university.

A total of \$54,500 in awards will be granted, with scholarships of up to \$3,000 available to undergraduate students, and fellowships of up to \$5,000 available to graduate students. Four undergraduate scholarships and eight graduate fellowships are being offered. All applications are due no later than April 18, 2003.

For more information, please visit the "University Programs" page on the Training and Education section of the AISC web site, [www.aisc.org](http://www.aisc.org); or contact AISC University Relations Director Fromy Rosenberg at [rosenberg@aisc.org](mailto:rosenberg@aisc.org), or Coordinator Kelly Mullins at [mullins@aisc.org](mailto:mullins@aisc.org). ★

### 2003 Undergraduate Scholarships

AISC/Carolina Steel	\$3000
AISC/Southern Association of Steel Fabricators	\$2,500
AISC/Associated Steel Erectors of Chicago	5×\$3,000
AISC/Indiana Fabricators Association	3×\$500

### 2003 Graduate Fellowships

AISC/Structural Steel Fabricators of New England	\$3,000
AISC/US Steel	\$5,000
AISC/Kingelhofer	\$5,000
AISC/Great Lakes Fabricators and Erectors Association	\$5,000
AISC/Southern Association of Steel Fabricators	\$2,500
AISC/Rocky Mountain Steel Construction Association	\$3,000
AISC/Fred R. Havens	\$5,000
AISC/Structural Steel Education Council	\$4,000

## China International Steel Construction Expo 2003

June 5-8, 2003

Beijing Exhibition Centre

Don't miss a chance to see the thriving Chinese construction market with your own eyes!

The China Iron and Steel Association (CISA), China Steel Construction Society (CSCS) and China Construction Metal Structure Association are hosting the China International Steel Construction Expo 2003 in Beijing, China, on June 5-8, 2003. The exposition is the biggest of its kind in China and is expected to feature 260 exhibitors. Many companies from China and abroad will participate in this event. The Expo will embrace steel structures, membrane structures, steel structure housing, curtain wall, and auxiliary products and equipment.

For more information on attendance and participation, please visit [www.constex.com](http://www.constex.com). ★

## Facts About China and Structural Steel

- By the year 2005, the demand for structural steel for building construction in China will reach about 6 million tons.
- China's relevant governmental departments have ratified the popularization of steel construction in residential housing.
- Many new large projects in Beijing and elsewhere will use steel construction, such as Central Business District (CBD), the Beijing University Science and Technology Park, Tsinghua University Science and Technology Park, Zhonguancun Western Science and Technology park, Beijing Mall, Beijing Museum, the third phase project of the 330-meter-high China World Trade Center, and Olympics 2008.

## AISC Offers Online Connection Seminar

AISC is offering a new online connection design seminar, so users can log on, listen and learn at their own pace and their own computer.

The seminar, "Fundamentals of Connection Design," was developed by Prof. Thomas M. Murray, P.E., Ph.D. and AISC's continuing education staff. It was created to provide an understanding of the behavior, design philosophy and design requirements for common connections in building design projects. The seminar is practice-oriented and focuses on information engineers need to design connections or evaluate the connections shown in submittals, in both LRFD and ASD. More than 1,300 engineers attended the original seminar in 2001-2002.

Other topics include shear, moment and bracing connections, and connections for tension and compression. The seminar also features problem sets for engineers and a printable slide presentation for further study.

To access the seminar, visit [www.aisc.org/onlineseminars](http://www.aisc.org/onlineseminars). The seminar is offered on both Broadband and 56K data connections, with an introductory cost of \$100 for AISC members and \$150 for non-members. ★

## New Seismic Downloads

In response to requests from the steel design and construction community, AISC has produced two interim versions of the *Seismic Provisions for Structural Steel Buildings* that are available for free download on the AISC web site. One version incorporates Supplement No. 1 into the 1997 *Seismic Provisions* and the other version incorporates Supplements No. 1 and 2 into the 1997 *Seismic Provisions*. Even though the 2002 *Seismic Provisions* are now available, certain building code authorities continue to specify the earlier versions. In these interim documents, a sidebar is shown in the outside margins where revisions have occurred based on the supplements incorporated.

These documents will not be available in print. To download the document, go to [www.aisc.org](http://www.aisc.org) and click on "Free Downloads: Including AISC Codes and Specifications." ★



## AISI Web Site Offers Education, Design and Steel Bridge Information

The Winter 2003 edition of *Steel Bridges*, the Steel Bridge Forum newsletter, is now available. Featured articles include:

- Designing Steel Bridges to Survive Earthquakes
- Chairman's Message: HPS Grows Nationwide
- High Performance Steel Builds 33 Bridges in Massachusetts
- Steel Piles Support the New Woodrow Wilson Bridge

### Design-Cross-frames

Design of intermediate cross-frame diaphragms of tangent steel bridges is presented by Dr. Dennis Mertz, P.E. in the Designers' Guide to Crossframe Diaphragms.

### Educational Opportunities

For more information, or to register for seminars go to: [www.steel.org/infrastructure/seminars.htm](http://www.steel.org/infrastructure/seminars.htm)

### 2003 Steel Bridge Forum

**May 29– Seattle, WA**

(in conjunction with the ASCE Structures Congress)

**June 11– Pittsburgh, PA**

(in conjunction with the International Bridge Conference)

**September (tentative) –Albany, NY**

**October (tentative) –Raleigh, NC**

### Online Education

- Use of Uncoated Weathering Steel in Bridge Structures

- Design of Bolted Splices for Steel Bridges
- Computer-Aided Design and Detailing of Short Span Steel Bridges
- Design of Short Span Steel Bridges
- Fabricator's Economic Perspective on Steel Bridges

For general information about steel bridges, please visit our web site at [www.steel.org/infrastructure/bridges](http://www.steel.org/infrastructure/bridges).

## In Memoriam

### Richard G. Gewain

Richard G. Gewain, a renowned fire protection engineer and building code expert, died on Feb. 13, 2003. He was a senior engineer with consulting firm Hughes Associates, Inc. in Baltimore, MD.

Gewain served as chief fire protection engineer for the American Iron and Steel Institute (AISI) from 1965-1986, where, among other accomplishments, he directed a multi-million dollar research program that resulted in beneficial code allowances for use of unprotected steel in unsprinklered open parking garages. Gewain served on the FEMA/ASCE-SEI Building Performance Assessment Team on the World Trade Center disasters, and was an active member of the AISC Fire Safety Committee, National Fire protection Association (NFPA), ASTM E5, Society of Fire Protection Engineers (SFPE), and ACI. Dick was liked and respected for his knowledge and experience, and for his readiness to answer questions with a smile on his face.

The Gewain family has requested that any donations in Dick's memory be made to the local chapter of the American Heart Association. ★