

## NETWORKING

### The New steelTOOLS.org Takes Off

The activity on the new steelTOOLS website is exceeding expectations. Launched by the AISC Steel Solutions Center on September 18, the site is home to more than 135 software utilities and programs related to steel design and construction that have been contributed by site members.

AISC's director of technical marketing Tabitha Stine reports that in its first week alone the site saw nearly 5,000 separate user visits, 50,000 page views, and more than 2,200 downloads. By mid-October, the number of "tools" downloaded had climbed to 6,800. Among the most popular is the wind load calculation spreadsheet program posted by Alex Tomanovich.

In addition to file sharing, the new steelTOOLS site provides free social and

business networking opportunities for design and construction professionals in the form of a multi-faceted online community. Capabilities include discussion boards, blogs, and other connectivity tools.

"People have been very busy logging in and setting up profiles to blog on various hot topics," Stine says. She says special interest groups have been set up focusing on bridge design and construction, sustainability, and detailing, to name just a few. Each group is outfitted with its own library which, as documents and other files are added, will serve as a valuable reference repository.

Everyone involved in the structural steel industry is encouraged to participate. Registration is free at [www.steeltools.org](http://www.steeltools.org).

## RESOURCES

### Performance-Based Plastic Design Explained

A new book published by Schuff Steel Company, the National Council of Structural Engineers Associations (NCSEA) and the International Code Council (ICC) explains how to design buildings for desired seismic performance using the new Performance-Based Plastic Design (PBPD) method. The authors of "Performance-Based Plastic Design Earthquake-Resistant Steel Structures" are Subhash C. Goel, Ph.D., P.E., professor emeritus in structures and materials engineering at the University of Michigan, Ann Arbor, Mich., and Shih-Ho Chao, Ph.D., assistant professor of civil engineering at the University of Texas, Arlington, Texas. Professor Goel will give a presentation on this subject at NASCC in May, 2010.

The book is a collaborative effort based on research conducted by Goel and

Chao at the University of Michigan and sponsored by the American Institute of Steel Construction; NUCOR Research and Development; and Nabih Youssef Associates, Structural Engineers. An advisory group consisting of 13 leading academics and engineers from across the country read and commented on the manuscript.

"This book offers clear explanations of design methodology. It also applies the methodology to different structural systems while clearly demonstrating each step of the process through numerous design drawings, formulas and tables," said Jay Allen, S.E., executive vice president of sales and engineering for Schuff International, which helped underwrite the book's publication.

The book is available at [www.iccsafe.org](http://www.iccsafe.org) or by calling 888-422-7233.

## EDUCATION

### Live Webinars Launch and Hit the Mark

The first AISC live webinar, presented on SteelDay, September 18, was well received by engineers across the country. Well over 1,000 people logged in to hear AISC vice president and professor emeritus at Penn State University, Louis F. Geschwindner, present *Design for Stability Using the 2005 AISC Specification*. This relevant topic garnered good questions and participation from the audience.

AISC's next live webinar will occur on December 10. *Introduction to Seismic Steel Design and the AISC Seismic Provisions* will

be presented by Thomas A. Sabol, Ph.D., S.E. Sabol is a principal with Englekirk & Sabol Consulting Structural Engineers, Inc., Los Angeles, and adjunct professor in the civil engineering department at UCLA.

AISC live webinars are presented using an internet and phone connection. Purchase a single site connection and an unlimited number of people within your office can attend at that site. All attendees will earn continuing education credits. More information on registration and pricing can be found at [www.aisc.org/webinars](http://www.aisc.org/webinars).

## People and Firms

- **ESAB Welding & Cutting Products** has added two new wire drawing lines at its Ashtabula, Ohio, manufacturing facility. The new lines will produce wire for high production submerged arc welding (SAW) applications, significantly increasing the company's SAW wire capacity. To learn more, visit [www.esabna.com](http://www.esabna.com).
- **Raymond F. Messer, P.E.**, president and chairman of the board of Walter P Moore, has been presented with The Alumni Hall of Fame Award of Carroll College. The award honors alumni of the Helena, Mont., institution who have given outstanding contributions of stewardship—sharing of time, talent and treasure in distinguished service to the community and/or to Carroll College. One of three alumni to receive the honor this year, Messer was presented the award on Friday, September 25 at Carroll College's Centennial Homecoming.
- **Independence Tube Corporation** is expanding its Marseilles, Ill., manufacturing facility, with production to begin in the fourth quarter of 2009. The new mill will produce HSS from 1.66-in. OD to 5-in. OD. Headquartered in Chicago, Independence Tube also has operations in Decatur, Ala. [www.independencetube.com](http://www.independencetube.com).
- **Delbert F. Boring, P.E.**, has been selected as the 2009 recipient of the Outstanding Civil Engineering Alumni Award presented by The Ohio State University (OSU) Civil Engineering Alumni Association. Boring joined the American Iron and Steel Institute (AISI) in 1976 as regional director of construction codes and standards. In 2003, he was promoted to vice president of construction market development, where he was responsible for developing and implementing the Market Development Strategic Plan for AISI's Construction Market program. He is a recognized authority on structural fire endurance and co-authored the book *Fire Protection Through Modern Building Codes*, published by AISI in 1981.
- **American Punch Company** is now certified to ISO 9001:2008. Based in Euclid, Ohio, the firm manufactures punches, dies and shear blades used in steel fabrication. More information is available at [www.americanpunchco.com](http://www.americanpunchco.com).
- **Trilogy Machinery, Inc.**, Belcamp, Md., is now the exclusive North American agent for Belgium-based DERATECH, offering the company's press brakes and shears. For more information, visit [www.deratech.be](http://www.deratech.be) and [www.trilogy-machinery.com](http://www.trilogy-machinery.com).

## AWARDS

## Malley Selected as 2010 T.R. Higgins Lecturer

James O. Malley, P.E., S.E., senior principal of Degenkolb Engineers, San Francisco, is the 2010 recipient of the prestigious AISC T.R. Higgins Lectureship Award. Malley is being honored for his paper on *The 2005 AISC Seismic Provisions for Structural Steel Buildings*, which was published in the First Quarter 2007 AISC *Engineering Journal*.

The award is presented annually by the American Institute of Steel Construction (AISC) and recognizes an outstanding lecturer and author whose technical papers are considered an outstanding contribution to the engineering literature on fabricated structural steel.

Malley has more than 26 years of experience in structural design, seismic evaluation, and seismic strengthening of existing buildings. His projects include a variety of healthcare facilities and several research efforts funded by institutions like the Federal Emergency Management Agency (FEMA) and the National Science Foundation (NSF).

He has made numerous presentations on earthquake effects, seismic design of steel structures and the AISC *Seismic Provisions*. The author of more than 50 technical papers, Malley was co-recipient with the late Egor Popov of the 1986 American Society of Civil Engineers (ASCE) Raymond C. Reese Research Prize for their paper *Shear Links in Eccentrically Braced Frames*.

In addition to his role at Degenkolb Engineers, Malley also served as the Project Director for Topical Investigations of the SAC Joint Venture. In that position, he was responsible for directing studies of the steel frame buildings damaged by the Northridge Earthquake and all of the analytical and testing investigations performed as part of the SAC Steel Project. SAC has published guides on how to design, inspect, evaluate, and repair steel moment frame connections, reflecting Malley's nationally recognized expertise in the seismic design of steel structures. Much of this

work formed the basis for the development of the AISC *Seismic Provisions* and related standards and publications.

Malley is a member of the AISC Committee on Specifications and chair of its subcommittee responsible for developing the AISC *Seismic Provisions*. He has served as a member of the Structural Engineers Association of Northern California (SEAONC) board of directors, including a term as president from 2000-2001. He also has served as a member of the Structural Engineers Association of California (SEAOC) board of directors, also including a term as president from 2003-2004. He was named a SEAOC Fellow in 2007. Currently, he is a member of the National Council of Structural Engineers Associations (NCSEA) board of directors, and will become its president in 2010.

## AWARDS

## Student Photos Capture the SteelDay Spirit

Jennifer Jernigan, a student at North Lake College, Irving, Texas, is the winner of AISC's 2009 Student Photo Contest. Students were invited to submit three photos demonstrating the combination of structural steel and the SteelDay theme, "Interact. Learn. Build." Jernigan's photos to the right show two welders working together, a lesson in layout, and the fit-up assembly of a truss in the fabrication shop prior to shipping the pieces.

Jernigan, who will receive her associates degree in construction management next May, says she has enjoyed photography as a hobby for many years. In addition to being a student at North Lake, she also works full time as an estimator at Hirschfeld Steel Group in Irving. She selected these photos from recent visits to Hirschfeld facilities where she was photographing various operations to update the company's brochures and website.

**Above, top:** Interact

Two welders work together to attach a large base plate to a column, an operation where teamwork is critical.

**Above, middle:** Learn

A long-time employee teaches the art of marking up steel plate for fabrication, a very important part of the process.

**Above, bottom:** Build

After being fabricated in three separate parts, a 185-ft rolled truss is assembled in the shop to ensure a perfect fit in the field.

All photos by Jennifer Jernigan, North Lake College, Irving, Texas. Photos taken at Hirschfeld Industries facilities, San Angelo and Abilene, Texas.

# Letters

## More Agreement on the Value of Hand-Checks

I want to compliment you for printing, and Matt Thomas for writing, the Topping Out article ["If You Want it Done Right, Do it Yourself"] in the July 2009 edition of MSC.

As a "senior" member of the structural engineering profession, I heartily agree with Matt's opinion. He is on target when it comes to "feeling a structure." I am very impressed with his insight and practical approach.

I graduated in 1970, and during my early years calculations were done by hand, which helped to develop a "feel for structures." As my career progressed I used analysis programs which reinforced my "feel for structures." I envy the young keyboard jocks, but would not trade my apprenticeship years for anything. There are times when the most obvious item is entrusted to a program, but in fact not included in the analysis checking.

As I mentor young engineers, I continually convey embracing their craft and understand why structures behave as they do. Now I have a great article to give to them to bring that concept home.

Please forward my gratitude to Matt for expressing his thoughts so well. It's comforting to know that there are Matts out there to continue the profession.

**Dennis Schiffer, P.E., S.E.**

## Great Advice on Double Checking

As a corrosion consultant for URS Washington Division in Princeton, N.J., I work a lot with consulting structural engineers, probably more than any other engineering discipline. While not an S.E. myself—I'm a chemical engineer—I work with structural steel and reinforced concrete daily. They are two of my favorite materials of construction.

The article "If You Want it Done Right, Do it Yourself" by Matt Thomas (July MSC, page 66) is a good reminder of the great benefits of hand calculations in checking computer models and assumptions. In discussing the article with a P.E. I know who worked on the Hartford Civic Center, he replied, "Thanks for the great article by Matt Thomas. This brings back memories in my work with Ewing Cole Engineers who designed the HCC." He and I fully agree with Matt that young engineers should be wary of trusting the "black boxes" without double checking them by doing hand calcs. After all, the computer analysis is only as good as the engineers' assumptions and data. Good job, Matt!

**Robert E. Moore, P.E.**