

SPECIFICATIONS

Supplement to the Cold-Formed Spec

The newly published Supplement No. 1 to AISI S100, *North American Specification for the Design of Cold-Formed Steel Structural Members*, 2007 Edition, is available as a free download on the American Iron and Steel Institute (AISI) website, www.steel.org. (Select the "Shop AISI" tab or go to www.bit.ly/bzRPIF.)

The supplement adds the provision for determining the safety and resistance factor for partition walls, and updates the

reference to Supplement No. 1 of AISI S123, the *North American Cold-Formed Steel Framing Standard-Lateral*. The *Specification* harmonizes cold-formed steel design technology among the U.S., Canada and Mexico, allowing faster introduction of new technologies and opening up the marketplace for a wide variety of derivative products such as design aids and educational materials.

PUBLICATIONS

Bridge Symposium Proceedings Now Available

Proceedings from the 2009 World Steel Bridge Symposium held November 2009 in San Antonio, Texas, are now available for free download at www.aisc.org/wsbs. Topics covered include pre-fabricated bridges, accelerated construction, skewed and curved bridges, and many others. All available presentations can be downloaded at once by selecting "Download All Papers With One Click." They also can be downloaded individually.

The symposium also featured a presentation of NSBA's Prize Bridge Awards, which bi-annually honor the most inno-

vative steel bridges. Multimedia presentations on the latest winners, as well as presentations on winning entries going back to 2005, are available under Multimedia in the Resources section of the NSBA website, www.steelbridges.org. A list of all prize winning steel bridges (back to 1928) is available in the Bridge Competitions section of the website, or you can go to www.bit.ly/PrizeBridges.

To read the November 2009 *MSC* article about the 2009 NSBA prize bridge winners, visit www.bit.ly/aD4Jt.

EDUCATION

Home Depot Offers Scholarships

The Home Depot 2010 Trade Scholarship Program will award \$1,000 scholarships to 500 trade school students to help offset the rising cost of tuition, books and tools for their chosen trade. The program is open to all students nationwide who are currently enrolled in a building and construction trade school program at a vocational/technical school, college or university.

Scholarship applications will be accepted through April 30, 2010

online at www.homedepot.com/tradescholarship. Winners will be selected based on a combination of academic performance, leadership and work experience.

Attention Educators: The schools of the scholarship recipients will receive additional funds for classroom tools from The Home Depot Foundation through matching gifts of \$1,000 for each scholarship awarded to one or more of its students.

AISC 2010-2011 Scholarships and Fellowships

University juniors, seniors and graduate students in civil, architectural and construction engineering are invited to apply for AISC Scholarships/Fellowships for the 2010-2011 academic year. This year's program has been expanded to offer more than \$75,000 of aid to university students. There are 20 different scholarships avail-

able ranging from \$2,500 to \$5,000.

The application deadline is April 25, 2010. More information about the program is available at www.aisc.org/universityprograms. For questions please contact Nancy Gavlin at gavlin@aisc.org, 312.670.5408, or Shanna Quinn at quinn@aisc.org, 312.670.5418.

People and Firms

- The international engineering firm **Buro Happold** has welcomed a new partner, **Erleen Hatfield, P.E., LEED AP**. Hatfield, who is based in New York, has nearly 20 years experience in the structural design of commercial, residential and sports projects. She is actively involved in the advancement of Building Information Modeling (BIM) and Integrated Project Delivery (IPD).

- **Lawrence W. Kavanagh** is the new president of the **Steel Market Development Institute (SMDI)**, a business unit of the American Iron and Steel Institute (AISI). Most recently AISI vice president of environment and technology, Kavanagh assumed his new responsibilities March 1. Kavanagh succeeds **David C. Jeanes** who retired after a distinguished 34-year career with AISI, during which he was responsible for developing and implementing an industry-wide strategic plan to advance the competitive use of North American steel in the marketplace.

- **Randy Hudgings, P.E.**, vice president, has been named senior engineer in charge of all aeronautics projects at AISC member firm Barge Waggoner Sumner & Cannon, Inc. (BWSC). The company maintains offices in Tennessee, Alabama, and Ohio.



- **Thomas W. Whittow**, 60, died February 11, 2010. President of Computerized Structural Design, S.C., Bayside, Wis., he also was an active member of the community and of Bethany Lutheran Church, Milwaukee.

- **Richard J. Ragan, P.E.**, has been appointed senior vice president and general manager of Cleveland, Ohio-based **Middough, Inc.** He will direct



the daily operations and management of the firm's technology group and be responsible for architectural, engineering and design personnel in all office locations.

RESEARCH

Controlled Rocking Frame System Withstands Powerful Earthquake Test

A newly proposed steel-framed system designed to allow buildings to sway with the motion of earthquakes and then return to their original positions may help avoid lasting damage to buildings in future earthquakes. The system is based on a ground-breaking study, led by researchers from Stanford University and the University of Illinois at Urbana-Champaign (UIUC), and was successfully tested on the world's largest shake table in Japan last summer.

Principal researchers include Gregory G. Deierlein, director of the John A. Blume Earthquake Engineering Center at Stanford, and Jerome F. Hajjar, professor and Narbey Khachaturian Faculty Scholar in the Department of Civil and Environmental Engineering at UIUC. The research team also included students and faculty from both universities, and collaborative researchers from Japan.

The American Institute of Steel Construction contributed technical support and funding; Tefft Bridge and Iron, an AISC member, provided steel fabrication for the project; and Infra-Metals, an AISC member, donated a significant amount of materials and financial support for a pseudo-dynamic test at UIUC.

The Controlled Rocking Frame system is designed with a self-centering steel structure and engineered with replaceable shock diffusers that absorb energy as the building moves laterally and

vertically, shielding the rest of the framing from damage. According to an article published by UIUC, tests have been very successful. When a two-thirds-scale model of a multi-story building was shaken on top of a 7.0-magnitude earthquake simulator, the only damage recorded in the frame was right where it was supposed to be—in the replaceable fuses.

“In moderate to large earthquakes, today's buildings can sustain significant damage throughout their structural framing systems,” explained Hajjar. “While they are designed to accept this damage and not collapse, many structures are permanently damaged after such an event. In extreme cases, they may need to be condemned, even if they were designed to satisfy the building code.”

The controlled rocking test results prove the worth of this pioneering performance-based seismic technology, which can make buildings more resilient in earthquake-prone communities, and keep them habitable after earthquakes happen. This project also shows the value and importance of international research collaboration and large-scale design method testing before actual earthquake events occur.

To view a video of the shake table testing, visit www.bit.ly/d8J8Fp. More information on the Controlled Rocking Frame project is available from the Stanford University website at www.bit.ly/9F4VjA and the University of Illinois at Urbana-Champaign website at www.bit.ly/dyOicC.

CERTIFICATION

Draft Bridge Fabrication Standard Offered for Public Review

A draft of a new AISC *Certification Standard for Steel Bridges* is now available for public review during a 45-day period that began March 15, 2010. This is the initial public review of a new standard under development by an AISC Certification Committee Task Group. A copy of the draft standard and instructions for submitting comments are available on the AISC website, www.aisc.org, under the News tab.

The *Certification Standard for Steel Bridges* is expected to be completed in mid-2011. Once that occurs, the standard will be implemented as the criteria for the AISC Certification Program for Steel Bridge Fabricators, replacing the current

checklist-based criteria.

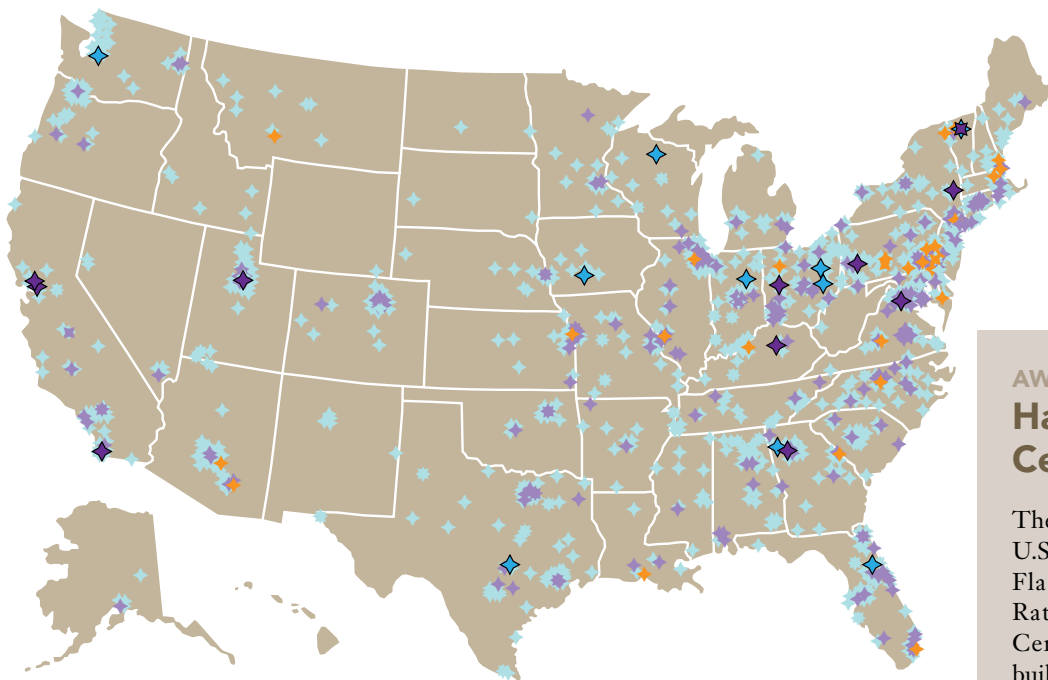
Current and new facilities participating in the program will be evaluated to the base requirements of the standard. Supplemental requirements will be provided for facilities to certify for fracture critical work and for two elevated achievement levels for steel bridge fabrication.

The standard-based Steel Bridge Fabricator Certification will strengthen confirmation to owners, the design community, the construction industry, and the public that a certified steel bridge fabrication facility has the personnel, organization, experience, procedures, knowledge, equipment, and commitment to produce fabricated steel of the qual-

ity required for steel bridge construction. The program is expected to continue to provide a valuable means for qualifying firms, and to serve as a more effective way for steel bridge fabricators and manufacturers participating in the program to communicate their commitment and capability with respect to quality.

This initial review period provides individuals and organizations that may be affected by implementation of the standard an opportunity to share concerns and offer value-enhancing suggestions. Comments submitted during this public review period, which concludes April 29, 2010, will be given full consideration by the AISC Certification Committee Task Group.

Newly Certified Facilities: February 1–28, 2010



To find a certified fabricator or erector in a particular area, visit www.aisc.org/certsearch.

Existing Certified Fabricator Facilities

Existing Certified Erector Facilities

Existing Certified Bridge Component Facilities

Newly Certified Fabricator Facilities

Newly Certified Erector Facilities

Newly Certified Erector Facilities

Olson Steel, San Leandro, Calif.
Fast Trek Steel, Inc., Coxsackie, N.Y.
SSW Erectors, LLC., Morrisville, Vt.
Phoenix Steel Erectors, Inc., Haymarket, Va.
McCullar Welding, LLC., Wilmore, Ky.
California Erectors, Inc., Benicia, Calif.
Steel Construction Specialists, Inc., Austell, Ga.
McMahon Steel Co., Inc., San Diego, Calif.
J & M Steel Solutions, Inc., Lehi, Utah
Ferguson Construction Company, Sidney, Ohio
American Erection, LLC., Rankin, Pa.

Newly Certified Fabricator Facilities

Precision Iron Works, Inc., Pacific, Wash.
CCS Constructors, LLC., Morrisville, Vt.
Majona Steel Corporation, Osceola, Iowa
Dennis Steel, Inc., Leander, Tex.
Liverett Fabricating Company, Inc., Rome, Ga.
Structural Steel Services, Inc., Marion, Ind.
V&S Schuler Engineering, Inc., Canton, Ohio
Daigle Brothers, Inc., Tomahawk, Wis.
Champion Steel Corp of Central Florida, Deland, Fla.
Buckeye Steel, Inc., Barnesville, Ohio

AWARD

Hangar Project Certified Green

The P-302V Hangar project at the U.S. Naval Air Station in Jacksonville, Fla., has achieved a LEED Silver Rating from the Green Building Certification Institute. A design/build team lead by M.A. Mortenson Construction, Minneapolis, was selected by Navy Facilities Engineering Command (NAVFAC) Southeast to deliver a new \$123.5 million hangar, administrative offices and aircraft parking apron project. HNTB Corporation, Kansas City, Mo., was the lead architect and civil engineer for the design of the project. This is the Navy's first LEED Silver Certified Hangar Project. It also is the Navy's largest LEED Silver Certified Project and one of only a few hangar projects in the world, military or civilian, that have achieved a LEED Silver Certification.

Were Concerns With the Green Building Standard Resolved?

Recently the topic of ASHRAE Standard 189.1 came up in our office and I recalled the AISC objection to some of the provisions regarding recycled content.

After briefly reviewing the standard, I see there was a representative from AISC listed as a member of the Standard Project Committee and in reviewing the provisions concerning recycled content it appears that the concerns expressed by AISC have been addressed. Is this an accurate assessment?

Nathan Johnson, LEED AP

John Cross, P.E., of AISC replies:

I want to thank you for your question and interest in ASHRAE 189.1. You are correct that AISC had some serious issues with the first two drafts of the 189.1 standard. We did file numerous comments on the second draft including several that included the names of several hundred AISC members that wished their names

added to our comments.

Following the comment period for the second draft, the ASHRAE board recognized that the 189.1 committee needed to broaden its membership in order to develop a balanced and consensus-based standard. The committee was expanded and work began on a third draft in early 2009. During that committee expansion I was invited to participate as voting member of the committee along with representatives of the wood and concrete industries. The committee approved significant changes to the materials section that were published in the third draft of the standard. Those changes reflect a much more balanced approach to building materials. AISC actively supported those changes. The third draft did generate other comments that the committee evaluated. Some of those comments resulted in changes that were published in fourth draft that went out for public review in the fall of 2009. After evaluating comments on the fourth draft, the committee voted that the standard be recommended for publication.

The boards of the three sponsoring organizations (ASHRAE, USGBC and IES) also voted for publication and the standard was published in January of 2010.

AISC applauds the efforts of ASHRAE to develop and publish Standard 189.1, *Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings*, as the first code-intended consensus-based commercial green building standard in the United States and encourages local jurisdictions to consider adopting 189.1 into their local building codes. This standard provides the foundation for those who strive to design, build and operate green buildings and covers issues from site location to energy use to recycling. The energy savings accomplished by following the provisions of 189.1 compared to ASHRAE Standard 90.1 are substantial and will significantly move us forward in the design and construction of sustainable structures, a goal strongly supported by the structural steel industry.