

CCFSS NEWS

Wei-Wen Yu Center for Cold-Formed Steel Structures at the University of Missouri-Rolla

Email: ccfss@umr.edu; <http://www.umr.edu/~ccfss>

Director: Roger A. LaBoube, Ph.D, P.E.

Founding Director: Wei-Wen Yu, Ph.D., P.E.

Butler-Carlton Civil Engineering Hall

1870 Miner Circle

Rolla, MO 65409-0030

Telephone: 573-341-4471

Fax: 573-341-4476

Volume 12, Number 1

August 2001

AISI Committee on Framing Standards Update

by Jay Larson, Bethlehem Steel

The AISI Committee on Framing Standards (COFS) and its subcommittees met in Las Vegas, NV on July 9 and 10, 2001 and in Baltimore, MD on September 4 and 5, 2001. Significant progress was made at these meetings. Work continued towards the updating of three existing COFS standards on *General Provisions*, *Header Design* and *Truss Design*. These standards are intended to apply to both engineered and prescriptive designs. The *General Provisions* document applies to the design, construction and installation of structural and non-structural cold-formed steel framing members where the specified base metal thickness is between 18 mils and 118 mils. The *Header Design* document applies to conventional box and back-to-back C-section headers, as well as the new double L-header beam. The *Truss Design* document applies to design of cold-

formed steel trusses for load carrying purposes in buildings, as well as manufacturing, quality criteria, installation and testing as they relate to the design. Work also continued towards the development of a *Prescriptive Method for One and Two Family Dwellings*, including areas subject to high wind and high seismic. Once completed, the above documents will form a solid foundation from which the COFS and the light-gauge steel framing industry can build.

With the completion of the above efforts rapidly approaching, the COFS initiated a process to update their strategic plan. Input is being solicited to identify standards development and research needs, including 1) items which should be improved in an existing COFS standard, 2) items which

should be addressed in a new COFS standard, 3) items which need further research, and 4) other items which should be considered in the COFS strategic plan. Please forward suggestions to Mosunmola Adeboyeke at AISI (Fax: 202-463-6573 or E-Mail: madeboyeke@steel.org).

The COFS develops and maintains consensus standards for cold-formed steel framing. The COFS mission is to eliminate regulatory barriers and increase the reliability and cost competitiveness of cold-formed steel framing in residential and commercial building construction. For more information about the COFS, please contact Kevin Bielat at AISI (202-452-7215) or check the AISI website (<http://www.steel.org/construction/framing/>).

CCFSS Short Course on Cold-Formed Steel Design

The Wei-Wen Yu Center for Cold-Formed Steel Structures is planning its 17th Short Course on Cold-Formed Steel Structures, to be held October 16, 17, & 18, 2001, in St. Louis, MO.

The short course will discuss the behavior of cold-formed steel members and connections. The course is structured to provide an introduction to behavior and design for the engineer unfamiliar with cold-formed steel. For engineers experienced with cold-formed steel design, the course will strengthen their understanding of the fundamental behavior of both members and connections, as well as provide a better understanding of the AISI

design specification. A preview of future specification changes will also be provided. Both commercial and residential applications of cold-formed steel will be discussed.

Lectures will be based on information contained in the *AISI Specification for the Design of Cold-Formed Steel Structural Members*, 1996 edition, with the 1999 *Supplement and its Commentary*. The text *Cold-Formed Steel Design*, 3rd edition, by W.W. Yu will also serve as a course reference.

Additional information regarding the course may be obtained by contacting Ms. Christina Stratman, Wei-Wen Yu Center for Cold-

Formed Steel Structures, Tel: (573) 341-4471, Fax: (573) 341-4476, email: CCFSS@umr.edu or Dr. Roger LaBoube, Tel: (573) 341-4481, Fax: (573) 341-4476, email: laboube@umr.edu.

A copy of the brochure, complete with schedule, hotel info and registration form may be obtained from the Center's website www.umr.edu/~ccfss.

FOR MORE ON CONTINUING EDUCATION,
PLEASE TURN TO PAGE 2.

Continuing Education...

Seminars on Cold-Formed Steel Design

The six-hour seminar on cold-formed steel design was developed to explain the intricacies of designing structures using cold-formed steel members and connections. The contents of the lectures provide an overview of the 1996 AISI Specification, but will also highlight the new provisions contained in the 1999 Supplement to the AISI Specification. Seminar attendance would be beneficial for practicing engineers, engineering professors, and students.

For details watch the Center's website www.umn.edu/~ccfss, or contact Christina Stratman at the Wei-Wen Yu Center for Cold-Formed Steel Structures, Tel: (573) 341-4471, Fax: (573) 341-4476, email: CCFSS@umn.edu, or Dr. Roger LaBoube, Tel: (573) 341-4481, Fax: (573) 341-4476, email: laboube@umn.edu.

Cold-Formed Steel Design for the Practical Engineer

The use of cold-formed steel and the volume of technical information, for residential and commercial construction, is growing at an ever-increasing rate. Chances are, if you haven't already been using cold-formed steel, you may have the opportunity in the future. This seminar introduces the latest developments in cold-formed steel framing and presents practical and invaluable design tips and techniques, for use on a future cold-formed steel project. Seminars are scheduled for the following venues:

Honolulu, HI	September 13, 2001
Los Angeles, CA	September 17, 2001
San Francisco, CA	September 18, 2001
Seattle, WA	September 19, 2001
Atlanta, GA	December 12, 2001
Nashville, TN	December 13, 2001
Birmingham, AL	December 14, 2001

For details contact Larry Williams, Managing Director, Light Gauge Steel Engineers Association, Tel: (202) 263-4486, Fax: (202) 785-3856, email: lgsea@aol.com.

16th International Specialty Conference: Call for Papers

The Sixteenth International Specialty Conference on Cold-Formed Steel Structures is scheduled for October 17 & 18, 2002 in Orlando, FL. Recent research discoveries, as well as industry applications and developments, will be discussed. It is anticipated that approximately 40 technical papers will be selected for presentation during the two-day conference.

Abstracts should be postmarked by November 1, 2001. For detailed information regarding the call for papers, or registration for the conference, visit the Center's website at www.umn.edu/~ccfss.



Photo courtesy of LGSEA

2002 Annual Stability Conference

The 2002 Annual Structural Stability Research Council Technical Conference is scheduled for April 24-27, 2002, in Seattle, WA. Presentations will relate to aspects of stability of metal or composite metal-and-concrete structures.

For more information contact the Structural Stability Research Council, Christine Schwing, Administrator, Tel: (352) 846-3874, Fax: (352) 846-3978, email: ssrc@ce.ufl.edu. Or, visit the SSRC website at www.ce.ufl.edu/~ssrc.

3rd International Conference on Advances in Steel Structures

The 3rd International Conference on Advances in Steel Structures will be held December 9-11, 2002 in Hong Kong, China. The conference is intended to provide a forum for discussion and dissemination by researchers and designers of recent advances in analysis, behaviour, design and construction of steel, aluminum and composite steel-concrete structures.

Abstracts should be submitted by November 1, 2001. For more information contact Prof. S.L. Chan, Hong Kong Polytechnic University, Tel: (852) 2766 6040, Fax: (852) 2334 6389, email: ceslchan@polyu.edu.hk.

METALCON International

METALCON International 2001 offers access to expertise and the opportunity to question industry leaders. Conference topics range from manufacturing and peripheral products and services to equipment, technology, and business practices. METALCON will offer a five-part series of seminars taken from the LGSEA daylong course titled "Practical Design of Cold-Formed Steel", as well as showcasing the latest developments and applications of residential and commercial metal roofing, steel framing, architectural sheet metal, and wall panels. For more details and registration information for this October 23, 24, 25, 2001 industry event visit www.metalcon.com.

Wei-Wen Yu Updates Textbook

The Third Edition of *Cold-Formed Steel Design* by Wei-Wen Yu is available from the Center at the discounted price of \$100. The order form can be accessed at the Center's website (<http://www.umn.edu/~ccfss>).

AISI Committee on Specifications Meets

The Committee on Specifications for the *Specification for the Design of Cold-Formed Steel Structural Members* and its subcommittees met for their semi-annual meeting on July 26 and 27 in San Diego, CA. The busy three-day meetings consisted of updates on ongoing research as well as discussions on proposed changes to the Specification.

Research reports were presented on several industry sponsored research projects. Dr. T. B. Pekoz updated the Committee on the progress of a study pertaining to cold-formed steel beam-column design. This is a project jointly funded by AISI and the Rack Manufacturers Association. Dr. T.M. Murray briefed the Committee on the progress of a study to better define the anchorage forces for purlin roof systems, a project that is jointly funded by AISI and the Metal Building Manufacturers

Association. Test verification of webs with stress gradients is an AISI and MBMA jointly funded project directed by Dr. Ben Schafer. Dr. Schafer also reported on the progress of an AISI funded project to develop a Specification appendix for the Direct Strength Method. Dr. R.M. Schuster updated the Committee on the progress of projects to develop a web crippling test protocol, a project to review and re-evaluate the Specification equations for combined bending and web crippling, and a project to update the AISI six-hour lecture for the 1999 Supplement. Dr. R.A. LaBoube provided a summary of an MBMA funded project to study the influence of an overhang/cantilever on the end-one-flange loading web crippling strength.

The emphasis of the meetings was the ongoing development of the 2001 edition of the North American Specification. This

edition of the Specification will be historically significant because the document will reflect a harmonizing of the design provisions in North America. The 2001 edition of the Specification will be applicable to cold-formed steel design in the United States, Canada, and Mexico.

Enhancements to and/or additions to the Specification that were adopted at the July meetings pertain to screw and welded connections, compression elements having a stress gradient, lateral-torsional buckling of beams, updates of materials applicable to cold-formed steel design, and allowance for rational analysis.

The draft 2001 edition of the Specification is scheduled for public review in November 2001. Information regarding the public review of the 2001 Specification will be available on the AISI website, www.steel.org, by that time.

Renovations Underway for University and CCFSS

The end of January 2001 marked the official end of Phase 1 (of 3) in the renovation of the Bulter-Carlton Civil Engineering Hall at the University of Missouri-Rolla. Additions to the building, which houses the Wei-Wen Yu Center for Cold-Formed Steel Structures, include 29 classrooms totaling over 34,000 square feet. Also included are labs for geotech, hydraulics, materials, structures, and surveying.

Phase 2 is currently underway and is scheduled to be completed in the summer of 2002. This phase features a three-story addition which will add 16 classrooms, as well as much-needed office space. Phase 3 will involve the renovation of the original structure.

Upon completion of Phase 2, the Center ofices and library will be relocated to the third floor of the new addition. The move will allow for the expansion of the technical library and will hopefully facilitate its use.



Cold-formed steel framing being used in the renovation of the Bulter-Carlton Civil Engineering Hall at the University of Missouri-Rolla. The Center offices and technical library will be housed in the front section of the third floor which can be seen at the right in the photograph.

Metal Construction Association Relocates and Announces New Staff

Glenview, IL – Bill Hippard, president of the Metal Construction Association (MCA), has announced a new staff team and location for MCA effective immediately. “We are pleased to announce the selection of Mark Engle to serve as MCA’s Executive Vice President and the relocation to the Chicago-O’Hare suburb of Glenview with our new headquarters,” reported Hippard. “With our aggressive agenda for expanding the use of metal in construction we welcome Mark to the team,” added Hippard.

Engle has prior service in the iron and steel association arena as he served for nearly 10 years as president and chief staff executive of the American Coke and Coal Chemicals Institute in Washington, DC. Daniel Weinstock will serve as the Senior Manager for MCA.

Through Engle and Weinstock, MCA will have the staff resources of Association Management Center (AMC) supporting its marketing promotion and association management needs. With a staff of nearly 150, AMC provides marketing, PR and other vital as-

sociation management services to 25 national and international organizations.

The Metal Construction Association brings together a diverse metal-in-construction industry for the purpose of expanding the use of metal-in-construction through marketing, technology, and education. MCA’s membership includes manufacturers of building systems, buildings, components, hardware, primary producers of iron and steel, conduits and tubing, roll forming equipment, builders, coil coaters, contractors, coating manufacturers, chemical suppliers, erectors, trade publications and trade associations, as well as others interested in promoting metal-in-construction.

New offices effective immediately:

Metal Construction Association (MCA)
Metal Roofing Alliance (MRA)
The Roofing Coalition (TRC)
4700 W. Lake Avenue
Glenview, IL 60025
847/375-4718
Fax: 877/665-2234
www.metalconstruction.org

Don Moody Leaves NASFA as Steel Framing is Primed for Widespread Residential Use

NASFA has announced that Don Moody, NASFA’s president, accepted a position with Nucor Corporation and has left NASFA effective May 11, 2001. Moody continued working with NASFA on a part-time basis until June 30, 2001, after which he was designated to serve as Nucor’s representative on NASFA’s Board of Directors.

“Don did a great job with NASFA, and by all measures and accounts, NASFA has done a great job in the marketplace”, said Burt Caldwell, NASFA’s chairman. “Three years ago we brought Don in from industry to help us put NASFA together and to direct its activities toward creating an environment in which steel framing can be a viable product for everyone in the home building industry. We knew from the start that once NASFA was well established and its work well underway, Don would be returning to industry”.

New Cold-Formed Steel Publications Available

SDI Manual Now Available

The new Steel Deck Institute Manual (Publication No. 30) is ready for use. It contains design information and example problems on composite deck, form deck and roof deck. Short form specifications on each deck type are given and all ASTM references have been updated.

In this new issue, a “white paper” on acoustics is also included. This paper is an example of the problem-solving help made available to designers with the SDI white papers. The cost of the new manual is \$34.50. To order, call the Steel Deck Institute at (847) 462-1930, or visit the SDI website at www.sdi.org.

New Cold-Formed Steel Reference

The recently published book *Cold-Formed Steel Structures to the AISI Specification* covers the behavior and design of cold-formed steel structures, connections, and systems. The authors, Dr. Gregory J. Hancock, Thomas M. Murray, and Duane S. Ellifritt have an extensive background in the design and research of cold-formed steel members, connections, and systems. The book contains extensive coverage of the Direct Strength Method and the design of metal building roof systems. For more information contact Marcel Dekker, Inc., 1-800-228-1160.

Calendar

October 16-18, 2001
UMR Short Course on Cold-Formed
Steel Structures
St. Louis, MO
Contact: (573) 341-4471 or
cfss@umr.edu

October 23-25, 2001
Metalcon International
Las Vegas, NV
Contact: (800) 537-7765

October 24-25, 2001
LGSEA Meetings
Las Vegas, NV
Contact: (202) 279-9251 or
lgsea@aol.com

February 21-22, 2002
Meeting of the AISI Committee on
Specifications
Baltimore, MD
Contact: madeboyeku@steel.org

April 24-27, 2002
SSRC Annual Technical Session and
Meeting
Seattle, WA
Contact: ssrc@ce.ufl.edu

April 24-27, 2002
AISC North American Steel Construction
Conference
Seattle, WA
Contact: (312) 670-2400

October 17-18, 2002
16th International Specialty Conference
on Cold-Formed Steel Structures
Orlando, FL
Contact: (573) 341-4471 or
cfss@umr.edu

December 9-11, 2002
3rd International Conference on Advances
in Steel Structures
ICASS 2002
Hong Kong, China
Contact: ceslchan@polyu.edu.hk

June 23-25, 2003
ASSCCA '03
Advances in Structures
Sydney, Australia
Contact: www.civil.usyd.edu.au/asscca03