



01 Feb 2000

CCFSS News February 2000

Wei-Wen Yu Center for Cold-Formed Steel Structures

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Recommended Citation

Wei-Wen Yu Center for Cold-Formed Steel Structures, "CCFSS News February 2000" (2000). *CCFSS News*.
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CCFSS NEWS

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Volume 10, Number 2

February 2000

Update on AISI Website

By Helen Chen, AISI

What's new on AISI website? Here is an update:

1. Errata of the AISI Cold-Formed Steel Design Manual (Free download at <http://www.steel.org/publications/construction/coldsteel.htm>)

2. Public Review of Supplement No. 1 to the 1996 Specification for the Design of Cold-Formed Steel Structural Members. The review document is available on the web page: <http://www.steel.org/construction/design/review/review.htm>

3. A new Learn and Design section is established under AISI website: <http://www.steel.org/construction/design/learn/> This new section currently includes the following contents:

* Cold-Formed Steel Design Kit, which contains 21 Mathcad examples of calculating gross and effective section properties of C-, Z- and hat sections, flexural

and compressive strengths, and connection designs. The Design Kit can be downloaded from: <http://www.steel.org/construction/design/learn/>

* Link to the technical publications on the website of North American Steel Framing Alliance (www.steel-framing-alliance.com). The following technical publications can be downloaded free of charge:

- (a) Prescriptive Method for Residential Cold-Formed Steel Framing (Second Edition);
- (b) Shear Wall Design Guide;
- (c) Thermal Design Guide for Exterior Walls;
- (d) Design Guide for Cold-Formed Steel Trusses;
- (e) Design Guide for Cold-Formed Steel Beams with Web Penetration;
- (f) Residential Steel Beam and Column Load/Span Tables;

- (g) Builders' Steel Stud Guide;
- (h) Fasteners for Residential Steel Framing;
- (i) Fire Resistance Rating of Load Bearing Steel Stud Walls;
- (j) Durability of Cold-Formed Steel Framing Members;
- (k) Monotonic Tests of Cold-Formed Steel Shear Walls with Openings; and
- (l) Cold-Formed Steel Back-to-Back Header Assembly Tests

* Link to the Cold-Formed Steel Design Software listed on the website of the Center for Cold-Formed Steel Structures (www.umr.edu/~ccfss)

*Link to PDHonline (www.PDHonline.org) - a website offering professional development courses (including cold-formed steel design) for engineers.

AISI COS Held Meetings in Miami

The AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members and its subcommittees held their meetings in Miami, FL on February 17-18, 2000. Prior to the committee meeting, progress reports on various research projects were presented by Ben Schafer, Teoman Pekoz, Reini Schuster, Tom Murray, Jim Fisher, Steve Fox, and Tom Trestain. The Committee on North American Specifications also held its meeting on February 17.

At these two-day meetings, all subcommittees reviewed their ballots and

considered the need for improving the design provisions and test methods relative to general provisions, element behavior, flexural members, compression members, wall studs, and connections. The future plans for educational programs and the design manual were also discussed. In addition, the potential research projects were identified for consideration of the Subcommittee on Strategic Planning and Research.

The ballots approved by the Committee included: (a) application for ANSI recognized national standard, (b)

procedures for the organization, development, and operation of AISI standards, (c) revision of Table E3.3-1, (d) revision of Sections A1 and B5 for effective width of uniformly compressed stiffened elements with multiple intermediate stiffeners, (e) addition of a footnote to Section C3.1, and (f) revision of Section C6.1 on bending of cylindrical tubular members.

The next meeting of the Committee will be held in Toronto, Canada on July 27-28, 2000.

AISI COFS and Subcommittees Met in Chicago

By Kevin Bielat, AISI

The AISI Committee on Framing Standards (COFS), the Executive Subcommittee (EXSC), the Steering Committee, and all five of the subcommittees met at the Hyatt Rosemont in Rosemont, IL on November 4th & 5th, 1999. All of the meetings were well attended and extremely productive as the committee closes in on developing and submitting its first round of standards to ANSI's Board of Standard Review (BSR) for final approval. The COFS plans to submit the following standards to the BSR during the 2000 calendar year:

1. General Provisions for the Construction of Cold-Formed Steel Framing
2. Design Standard for Cold-Formed Steel Truss Construction
3. Base Standard for the Design of Cold-Formed Steel Framing

Base Standards Subcommittee: Chairman Rick Haws, American Building Company, focused his subcommittee's attention around resolving outstanding negatives on Load Combinations and Design Assumptions. A contractor has been selected to run the engineering analysis and develop the standard language for the first edition of

the Base Standard. The first ballot should be out before the May 2000 meeting.

High Wind Subcommittee: Chairman John Matsen, Matsen-Ford Design Associates, Inc., focused his subcommittee's attention around developing a design process for the High Wind Design Standard. His committee is also gathering high wind details and shearwall testing needs anticipating special requirements for high wind conditions.

High Seismic Subcommittee: Chairman Neal Peterson, Metal Stud Manufacturers Association focused his subcommittee's attention around developing a design process for the High Seismic Design Standard. His committee plans on using the newly approved IRC seismic requirements as a starting point for the standard. The subcommittee continues gather details, diaphragm and shearwall information to expand upon the current IRC document.

General Provisions Subcommittee: Chairman Don Allen, BLB Consulting, focused his subcommittee's attention around resolving outstanding negatives on the first ballot of the General Provisions for the

Construction of Cold-Formed Steel Framing. As several negatives were found persuasive the subcommittee has formed small task groups to resolve the issues and plans to reballoon before the next meeting.

Truss Subcommittee: Chairman John Carpenter, Alpine Engineered Products, focused his subcommittee's attention around resolving outstanding negatives on the first ballot of the Design Standard for Cold-Formed Steel Truss Construction. As several negatives were found persuasive the subcommittee has formed small task groups to resolve the issues and re-balloted in mid December.

The Committee on Framing Standards, and all five of the subcommittees intend to meet on May 2 & 3, 2000 in Las Vegas, NV in conjunction with AWCI Conference. For more information, please contact Kevin Bielat (202-452-7215) or Monsumola Adeboyeku (202-452-7119) to get on the mailing roster of the COFS to receive meeting reports and general correspondence. There is annual \$100 administration fee for all parties receiving the mailings.

Metal Construction Association

The Metal Construction Association held its Annual Meeting on January 22-25, 2000. All activities were conducted in the Rancho Las Palmas Resort & Spa, Rancho Mirage, California. Mr. Don Wexler, who has designed both residential and commercial buildings using metal-in-construction, was the featured MCA luncheon speaker on January 24.

A new architectural student design competition was announced by MCA to schools of architecture in the United States and Canada for the design of Chicago Transit System Elevated Station. All entries are due in April 2000, for consideration by an architectural jury. Winners selected will be announced in May 2000 as a part of the MCA Merit and Presidents's Award Program at the METALCON International

Conference in Atlanta, GA, on October 31, 2000. For further information contact MCA Student Competition, Metal Construction Association, 104 S. Michigan Avenue, Suite 1500, Chicago, IL 60603. Telephone: (312) 201-0193; Fax: (312) 201-0214; e-mail: 74733-1624@compuserve.com.

A total of 11 seminars on the use of standing seam metal roof systems (CCFSS NEWS, August 1999) were presented in the United States and Canada during 1999 under the auspices of the Roofing Coalition made of the American Iron and Steel Institute, the Metal Building Manufacturers Association, and the Metal Construction Association. Future Seminars for the year 2000 will be announced as soon as the schedule is available.

Center's Steering Committee Met in February

The Steering Committee of the Center for Cold-Formed Steel Structures met in Miami on February 16, 2000. The meeting was held in conjunction with the meetings of the AISI Committee on Specifications.

The Committee reviewed the Center's recent activities and considered future projects. The agenda of the meeting included publications, the Center's webpage, educational program, (specialty conference, short course, and seminar), corporate membership, survey on teaching cold-formed steel design, and the feasibility of adding the database of the Center's Library on the webpage.

Awards and Honors

The Center for Cold-Formed Steel Structures congratulates the following AISI committee members who have recently received special awards and honors:

Mr. Roger Brockenbrough recently won two gold medals in international competition. At the International Triathlon Union (ITU) World Triathlon Championships in Montreal on September 11, he won the 65-69 age group, completing a 1500 meter swim, 40 k bike, and 10 k run in 2:32.

Then, at the ITU World Duathlon Championships in Huntersville, North Carolina, on October 15, he won the same age group, completing a 10 k run, 40 k bike, and 5 k run in 2:25. Following this, he competed in the Senior Olympics in Orlando October 25 - 28, winning a gold medal in the triathlon and silver medals in the 5k and 10 k road races. As a result of these accomplishments, he was honored by USA Triathlon, the national governing body for multi-sport, by being selected as Athlete of the Year - Grandmaster.



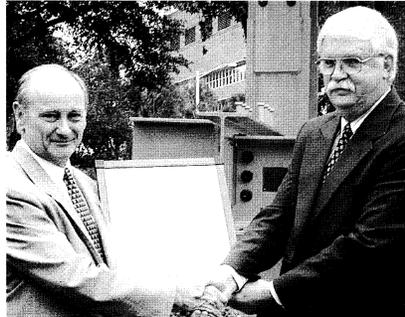
Roger Brockenbrough

Mr. Brockenbrough is President of R. L. Brockenbrough & Associates in Pittsburgh, PA. He is Chairman of the AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members and Chairman of the Center's Steering Committee.

Professor Duane Ellifritt of the University of Florida received a Special Achievement Award from AISI at its 1999 North American Steel Construction Conference to recognize his initiative in creating the first Steel Sculpture for University Education. This very successful program is a coordinated effort between universities and local fabrication groups to create on campus a large sculpture illustrating the major types of connections used in steel design. Currently, more than 80 campuses have the steel sculpture teaching aid on their campuses.

On October 7, 1999 more than 50 faculty, students and guests attended the dedication of the original steel sculpture teaching aid at the University of Florida in Gainesville. Mr. Lou Gurthet, AISI President, presented Professor Ellifritt with a plaque recognizing his achievement. Five university and industry

representatives also spoke at the dedication to honor Professor Ellifritt.



Lou Gurthet, (left), AISI President, presenting Duane S. Ellifritt a plaque recognizing his achievement.

Dr. James M. Fisher, Vice President of Computerized Structural Design, was presented with an AISI Lifetime Achievement Award at the North American Steel Construction Conference 2000 held in Las Vegas Convention Center on February 23-26. Dr. Fisher is recognized as the leading expert



James M. Fisher

nationally on industrial building design, and is regarded as an "engineer's engineer," a professional whose advice and knowledge is sought after by other practitioners. He is a member of the AISI Specification Committee and is the author of the AISI Design Guide #7 (Industrial Building's Roofs to Column Anchorage), #3 (Serviceability Design Considerations for Low-Rise Buildings), and #10 (Erection Bracing of Low-Rise Structural Steel Frames).

For the AISI Specification, Dr. Fisher is former Vice Chairman of the Committee on Specifications and is currently Chairman of the AISI Subcommittee on General Provisions. He is the author of several documents related to the design of cold-formed steel structures.

Professor Ted Galambos, Professor Emeritus of Structural Engineering at the University of Minnesota, was awarded the AISI Geerhard Haaijer Educator Award at the 1999 North American Steel Construction Conference in Toronto. The award was presented in special recognition to Professor Galambos' teaching and important contributions to structural stability and

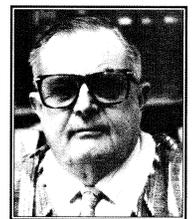
structural reliability together with his leading role in the development of AISI, AISI, SJI, and ASCE-7 Standards. He is best known in the structural steel industry for his work on the development of the 1986 AISI LRFD Specification. Among his better known books are "Structural Members and Frames," and "Basic Steel Design with LRFD." He is the Editor of the 4th and 5th editions of the SSRC "Guide to Stability Design Criteria for Metal Structures."



Ted Galambos

For cold-formed steel structures, Professor Galambos has served as a member of the AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members for many years. He is a principal contributor for the development of the AISI LRFD Specification, which was published in 1991.

In recognition of his more than 50 years of involvement with steel design and structural engineering, AISI awarded **Mr. Clarkson Pinkham**, President of S.B. Barnes Associates in Los Angeles, a Lifetime Achievement Award at its 1999 North American Steel Construction Conference. Mr. Pinkham is a long-time member of the AISI Specification Committee and a leader in the design and construction of composite systems as well as seismic design.



Clarkson Pinkham

With regard to cold-formed steel, Mr. Pinkham started the design and use of diaphragm action in light gage steel construction in the 1950's. He is also a long-time member of the AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members. Currently, he is Chairman of the AISI Editorial Subcommittee. He is also very active for the committee work and leadership positions for American Society of Civil Engineers, Building Seismic Safety Council, American Concrete Institute, American Welding Society, the Masonry Society and many other engineering societies and organizations.

Continued from page 3

Professor Reinhold Schuster of the University of Waterloo (UW) in Canada was presented with the Cross of the Order of Merit of the Federal Republic of Germany to honor his involvement with a number of German exchange student programs of Faculty of Engineering for the past 15 years. The award was presented by Dr. Wiprecht von Treskow, Toronto-Based Consul-General of Germany, on November 30, 1999. "A major reason for him being honored was his ongoing work on the Braunschweig program" said David Burns, former Dean of Engineering at UW. Professor Schuster was also involved in the student exchange program between the province of Ontario and the State of Baden Württemberg. Recently, his work has extended to the creation of a German-speaking student exchange program with the Technical University of Vienna.



Reinhold M.
Schuster

Professor Schuster is a long time member of the AISI Committee on Specifications. He is Chairman of the North American Specification Committee and Chairman of the Committee on Canadian Standards for the Design of Cold-Formed Steel Structural Members.

Ray Albrecht Remembered

By Richard B. Haws, ABC

Ray Albrecht passed away on October 4, 1999 at the age of 72.

Ray was born in Winthrop, Minnesota. He played high school football and baseball, hunted pheasant and duck, nearly fished out the local lakes, sang in the school chorus, and played trumpet in the band. In his spare time, he became an Eagle Scout.

He played his first college football for Gustavus Adolphus College in St. Peter, Minn. With Ray as defensive center and defensive linebacker, Gustavus Adolphus was undefeated and won the conference championship. After two years, Ray transferred to the University of Minnesota and pursued his interest in Civil Engineering. He was invited to join two engineering honorary fraternities, Tau Beta Pi and Chi Epsilon, and earned his degree with "high distinction".

After graduation, he was a field engineer for the Minnesota Highway Department. When the Korean War broke out in 1950, he was a road and airfield design instructor while in the U.S. Army at Ft. Belvoir, Va. Upon discharge in 1952, he came to Pittsburgh as an engineer in Neville Island's Dravo Corp. In six years with Dravo, he worked on the design of bridges and dams throughout the U.S. While at Dravo,

he persuaded his secretary, Margaret, to marry him and set up residence in Sewickley, Pennsylvania. He then took a new job with H.H. Robertson in Ambridge so he could be home more with his new bride.

While at H. H. Robertson, Ray joined the AISI Committee on Specifications for the Design of Cold-Formed Steel Structural Members. Ray earned a reputation of being very detailed and thorough. Ray was considered an expert on welding with respect to the Specification, but he also had a very comprehensive understanding of the entire Specification. Ray had a technical expertise that was unequalled within the company. Many of Ray Albrecht's business associates knew him as an "engineer's engineer". A man of exceptional engineering talent.

After retiring in 1992 at age 65 from H.H. Robertson, Ray then started his second career - volunteerism. Ray approached retirement with the same enthusiasm as he did his working career, and was equally successful. His real love was the Sewickley Senior Men's Club. He recently received a Volunteer of the Year Award from Adult Resources in Coraopolis for "service and leadership in promoting positive aging through volunteerism".

Ray will be sorely missed.

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