

NEWSLETTER

APRIL 2011



CFSEI
COLD-FORMED STEEL
ENGINEERS INSTITUTE



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UPCOMING EVENTS:

CFSEI Florida Chapter Spring Meeting – Galvanize It!
Championsgate, FL Apr 28, 2011

Mid-Atlantic Steel Framing Expo and National CFSEI
Conference and Annual Meeting, Annapolis, MD May 23–24, 2011

Seminar: ASCE 7–10 – Changes from ASCE 7–05
ASCE/SEI East Central Branch, Orlando, FL Jun 17, 2011

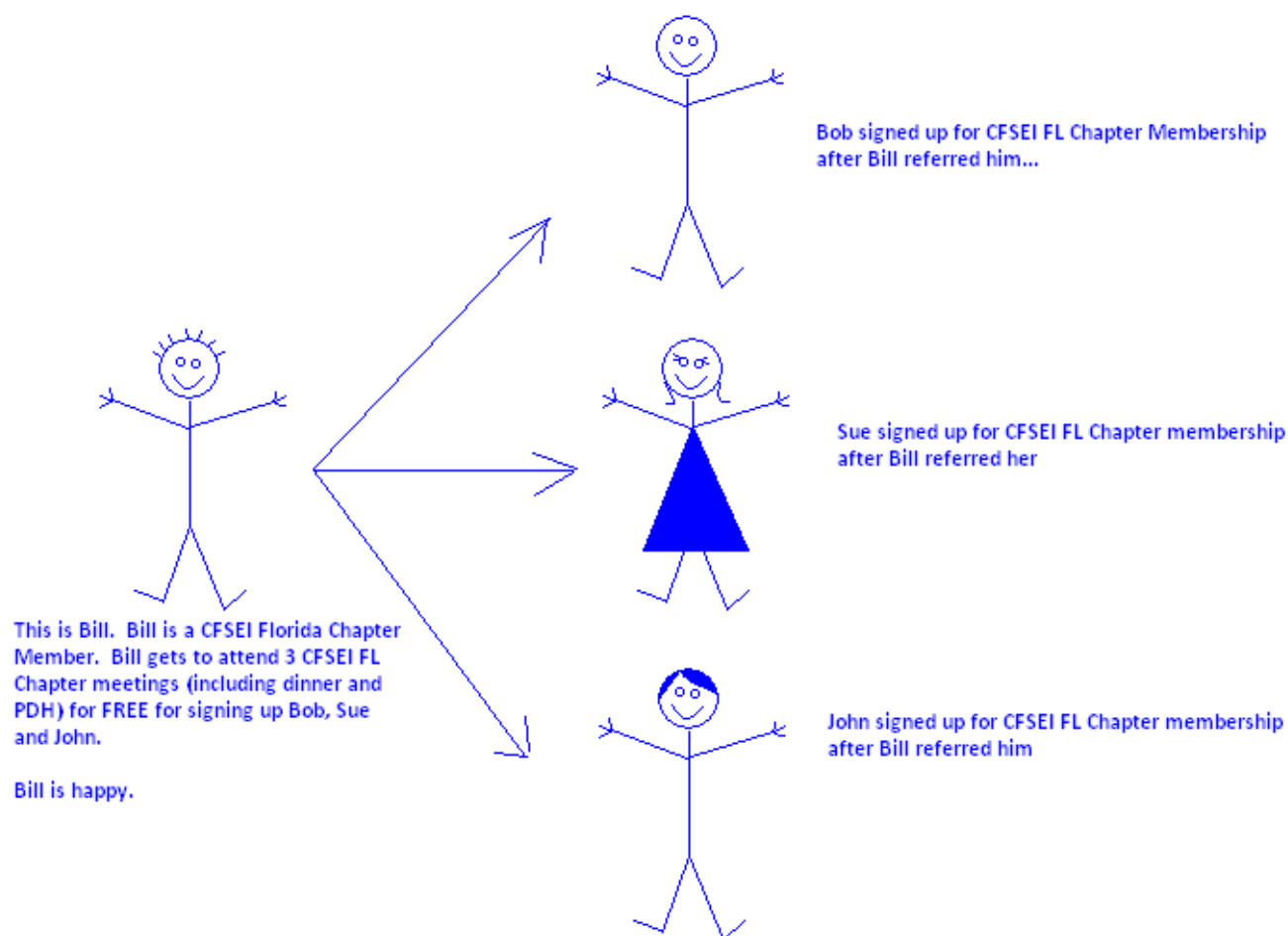
METALCON International, Atlanta, GA Oct 11–13, 2011

22nd Short Course on Cold-Formed Steel Structures
St. Louis, MO Oct 25–27, 2011

ATTENTION ALL CFSEI FLORIDA CHAPTER MEMBERS¹

Sign up new members and get free dinners!

How would you like to get your dinners and PDH's completely free of cost at our Chapter meetings? Starting immediately, for every new person that you (as a CFSEI Florida Chapter Member) get to sign up for CFSEI Florida Chapter membership, you get a free dinner! It benefits you to get your co-workers and colleagues involved, so bring them to our next meeting!



If you have any questions, please contact Julie Lowrey at jlowrey@itwbcg.com.

¹ Julie Lowrey, E.I., TrusSteel, ITWBCG, Inc.
Vice-President (2011), CFSEI Florida Chapter



LOCATION **ChampionsGate Golf Resort**
Presentation in Champ's Hall
1400 Masters Boulevard
ChampionsGate, FL 33896



TITLE **Galvanize It!**

CREDITS 1.0 PDH Available (SFA FBPE Provider # 0005013 and FBPE Course # 0006296)

SPEAKERS



Our special guest speakers, Tim Lockhart and Mark Mellon, will be representing the American Galvanizers Association (AGA). Mr. Lockhart, from Orlando, is Sales Manager for Industrial Galvanizers Group. He has 16 years of experience in the metals distribution industry, and 4 years of experience in the hot-dip galvanizing industry. Mr. Mellon, from Apollo Beach, is Sales and Marketing Manager for Industrial Galvanizers Group and Co-chairman of the Market Development Committee for AGA. He has 34 years of experience in the hot-dip galvanizing and galvanized products Industry.

DATE / TIME **April 28, 2011 (Thursday)**
Registration and Happy Hour (*cash bar*): 6:00 PM to 7:00 PM
Appetizer Extravaganza served from 6:00 PM to 7:30 PM
Presentation and Discussion: 7:00 PM to 9:00 PM

COST **Members & Guests: \$25.00 in advance or \$30.00 at the door**
(Dinner included)

Appetizer Extravaganza to be served from 6:00 PM to 7:30 PM including

Empanadas

Vegetarian and chicken, onion, corn, and green chili filled Argentinean pastries

Flank Steak Skewers

Teriyaki, ginger sesame and lightly seasoned

Mediterranean Spreads

Hot artichoke, hummus and caponata dips with assorted breads

cookies and cannolis

OVERVIEW This educational seminar will assist you in the design and integration of corrosion protection into your project. The seminar material includes corrosion theory, design of galvanized steel products for quality galvanizing, discussion and video footage of the actual galvanizing process, pertinent ASTM specifications, inspection and painting over the galvanized coating, cathodic protection, electrochemical and galvanic corrosion, and much more.

Hot Dip Galvanized Project Examples



Bergen County Bridge - Fairlawn/Patterson, NJ



Calipso Water Park - Limoges, ON



Candelabra Tower - Miami, FL

For more information about these and other featured HDG projects, visit www.galvanizeit.org

For reservations, register online with your credit card (Visa/MasterCard/American Express) at <http://www.cfsei.org/florida.htm>

Note: To receive a refund or to have payment applied to the next meeting, cancellations must be made at least (3) days prior to the event.

Otherwise, payment is forfeited.

Upon registration, an e-mail confirmation and receipt will be sent to you. If you have any questions, contact Julie Lowrey at (800) 755-6001 (X4768)

This meeting made possible by our valued sponsors:



SPECIFYING WELDS WITH COLD-FORMED STEEL¹

Engineers designing and specifying welded connections for cold-formed steel need to make sure they are providing the correct information for the weld to be done properly. In the past, specifying E70XX electrodes for welding was adequate but is that still the case today? The requirements for designing welded connections are given in section E2 and E2a of the AISI Standard S100 'North American Specification for the Design of Cold-Formed Steel Structural Members' 2007 edition and in section D2 of AISI Standard S200 'General Provisions' 2007 edition. Sections E2a and D2 both required compliance with AWS D1.3. While AISI requires designers to check various equations to design a weld, the only reference to the weld electrode is Fxx which is the tensile strength of the electrode. So what electrode should the engineer specify if any? When dealing with electrodes for welding, we need to look at AWS D1.3, 2008 edition.

Section 1.3 has 5 approved processes that may be used:

- Shielded Metal Arc Welding (SMAW)
- Gas Metal Arc Welding (GMAW)
- Flux Cored Arc Welding (FCAW)
- Gas Tungsten Arc Welding (GTAW)
- Submerged Arc Welding (SAW)

Section 1.4 of AWS D1.3 discusses weld metal requirements for the different weld processes and refers to Table 1.2. Based on Table 1.2, certain weld types require certain filler metal specifications as noted in the table below.

WELD TYPE & AWS FILLER METAL SPECIFICATION	AWS FILLER METAL SPECIFICATION	SECTION
SMAW - A5.1	E60XX, E70XX	1.4.4
SMAW - A5.5	E70XX-XX, E70XX-X, E80XX-X, E90XX-X	1.4.4
SAW - A5.17	F6AX-EXXX, F7AX-EXXX, F6AX-ECXXX, F7AX-ECXXX	1.4.5
SAW - A5.23	F7AX-EXXX-XX, F7AX-ECXXX-XX, F8AX-EXXX-XX, F8AX-ECXXX-XX, F9AX-EXXX-XX, F9AX-ECXXX-XX	1.4.5
GMAW/GTAW - A5.18	ER70S-X, E70C-XC, E70C-XM	1.4.6
GMAW/GTAW - A5.28	ER70S-XXX, E70C-XXX, ER80S-XXX, E80C-XXX, ER90S-X, E90C-XXX	1.4.6
FCAW - A5.20	E7XT-X, E7XT-XC, E7XT-XM	1.4.6
FCAW - A5.29	E6XTX-X or XC or XM, E7XTX-X or XC or XM, E8XTX-X or XC or XM, E9XTX-X or XC or XM	1.4.6




¹ Paul Dalia, P.E., LGSEG, Inc.
Board Member (2010-2011), CFSEI Florida Chapter

Per Table 1.2 and the table above, specifying an E70XX electrode would require a SMAW weld (stick weld). While on certain occasions there may be a need to specify the type of welding to use, typically the engineer should not get into means and methods and therefore should not specify an electrode but rather a minimum strength of electrode. When using welds with steel that is 0.1" thick or less, the strength of the electrode needs to exceed the tensile strength of the sheet steel as shown in section E2.2.2 of the AISI standard which requires $F_{xx} > F_u$. This requirement ensures that the sheet steel will always fail before the weld.

An example of a common welding specification appropriate for cold-formed steel is as follows:







"Welding shall be in accordance with AWS D1.3-08 and D1.1-10, using an AWS filler metal with a minimum tensile strength of 70 ksi."

If you have any questions about this guide, please contact me at pauld@lgseg.com.

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COLD-FORMED STEEL FRAMING PRODUCTS	MID-RISE COMMERCIAL DESIGN-BUILD	AUTOMATED STEEL FRAMING SYSTEMS	AUTHORIZED FABRICATOR PROGRAM	PRE-DESIGNED STEEL FRAMING PACKAGES	ARCHITECTURAL & ENGINEERING TECHNICAL DATA

Light Gauge Metal Solutions to Fit Your Needs

Nuconsteel is a leading manufacturer of light gauge steel framing products, systems and roll forming equipment for commercial and residential construction. Wholly owned by NUCOR, America's largest steel producer and steel recycler, Nuconsteel is a proven innovator and developer of cold-formed steel framing. Let us show you the many ways you can build your future with Nuconsteel.





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NATIONAL CFSEI CONFERENCE AND ANNUAL MEETING¹

The 2011 Mid-Atlantic Steel Framing Alliance Expo and National CFSEI Conference and Annual Meeting will be held on May 23rd (Monday) and 24th (Tuesday) in Annapolis, Maryland. This is one of the greatest places to learn about advancements in the cold-formed steel framing industry for all design professionals, architects, contractors and students. This conference includes 16 continuing education sessions, presented by industry leaders and experts and covers a wide range of topics such as green building, code and standards, design/build and insurance liabilities, CFSEI Tech Notes, CFS designs, etc.

A glimpse of the meeting schedule is shown on page 07. For detailed information about the presentation topics, presenters and conference registrations, please check out <http://www.cfsei.org/annualmtg2011.htm>. Please make a note to attend the National CFSEI annual meeting on May 24th between 5:15 PM and 6:30 PM.



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¹ Tamil Samiappan, TrusSteel, ITWBCG, Inc., Board Member (2010-2011), CFSEI Florida Chapter

Mid-Atlantic Steel Framing Conference and Expo and Cold-Formed Steel Engineers Institute Conference and Annual Meeting
May 23-24, 2011
Annapolis, Maryland
SCHEDULE AT A GLANCE

MONDAY, MAY 23, 2011

Room	10:00 to 5:30	11:30 – 1:00	1:30 – 2:30	2:45 – 3:30	3:30 – 4:30	5:00 – 5:45	6:00 to 9:00
Abram Claude	Registration Atrium Foyer Expo Hall Open	Opening Luncheon and Keynote Address State of the Industry Mike Anderson, Vice President Northeast Operations Gypsum Management and Supply, Inc.	SFAM02 Navigating Green Building with Cold-Formed Steel Maribeth Rizzuto, Steel Framing Alliance	Break in Expo hall	SFAM04 Design/Build And Insurance Liabilities Frances Railey, Vice President and Partner and Mike Heatwole, Partner Ames & Gough	Expo Hall Open Assemble for Dinner Cruise at 5:30	Dinner Cruise On the Chesapeake Bay Sponsored by: Aegis Metal Framing And ClarkDietrich Building Systems
Jonas Green			SFAM03 Frequently Asked Questions - Application and Design of Cold-Formed Steel Roger LaBoube, PhD, P.E.		SFAM05 Brick Veneer Supported by Cold-formed Steel Framing Don Allen, P.E. Steel Framing Alliance		

Tuesday, MAY 24, 2011

Room	7:30 – 8:30	8:30 – 9:30	9:30 – 10:15	10:30-11:30	11:45-1:15	1:30 – 2:30	2:30 – 2:45	2:45 – 3:45	4:00 – 5:00	5:15-6:30
Abram Claude	Registration Atrium Foyer Breakfast in Expo Hall	SFAM06 Delegated Design Jeff Klaiman, P.E. Principal & Vice President – Specialty Engineering ADTEK Engineers	Break In Expo Hall	SFAM08 Sheathing Braced Design – Bracing a Wall Stud with Sheathing Luiz Vieira, PhD Candidate Johns Hopkins University	SFAM10 Luncheon Keynote Address Energy Codes and Structural Design Mark Nowak, President Steel Framing Alliance	SFAM11 Testing of Anchor Bolts Connecting CFS Track to Concrete Bill Gould, Director of Codes and Approvals, Hilti, Inc.	Break In Expo Hall Exhibits Close At 3:00 PM	SFAM13 "Structural Food For Thought" Lateral Load Resisting Systems Steve Tipping, S.E., President Tipping Mar + Associates	SFAM15 Curtain Wall Considerations Sutton Stephens, PhD, P.E., S.E. Kansas State University	CFSEI Annual Meeting
Jonas Green		SFAM07 How Strong is Your Cold-Formed Steel Column or Joist with Holes? Cris Moen, PhD, P.E. Virginia Tech		SFAM09 New Twists for Cold-formed Steel Designs Ted Welti, P.E., Division Manager Structural Engineering SWSG		SFAM12 Solutions for Cold-formed Steel Framing through Innovation Panel Presentation		SFAM14 International Opportunities Nader Elhaji P.E. Director Middle East and Africa FrameCad Solutions	SFAM16 Lessons Learned Truss Design and Installation to Avoid Disaster Sowri Rajan, P.E., Jacob Thompson, P.E. TrusSteel	