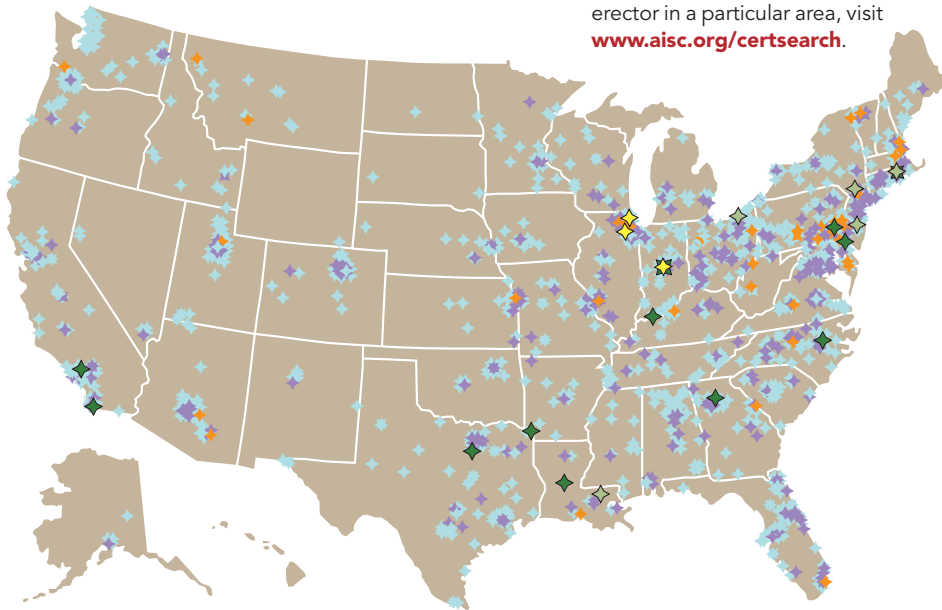


JANUARY 2011

## This Month in MSC

- Sometimes planning for a structure's future removal plays a significant role in its design and construction. One example is the new concessions building in the shadow of the Statue of Liberty uses an all-steel frame—including steel pile caps—with bolts for all the field connections. "Built for Deconstruction" begins on page 48.
- The 2010 *Code of Standard Practice* includes a new alternative for handling connection design. This month's SteelWise offers a comparison of the three options as well as helpful guidance in using each. Turn to page 54 for "Connection Design Options in the Real World."
- Were you on the mailing list for the first issue of *Modern Steel Construction* in 1961? Jog your memory, or see what you missed, in "50 Years of Steel," which starts on page 23. Also note that all the old issues are available online for your perusal at [www.modernsteel.com/backissues](http://www.modernsteel.com/backissues).

## Newly Certified Facilities: November 1–30, 2010



To find a certified fabricator or erector in a particular area, visit [www.aisc.org/certsearch](http://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 Bridge Component Facilities

### Newly Certified Fabricator Facilities

The Audette Group, LLC, Providence, R.I.  
 Champion Steel Company LLC, Alexandria, La.  
 Construct, Inc., Wilson, N.C.  
 King Steel, Inc., Lawrenceville, Ga.  
 L. Liberato Steel Fabricating Co., Inc.,  
 Spring City, Pa.  
 Mid-Atlantic Steel, LLC, New Castle, Del.  
 Remco Machining & Fabrication, Inc.,  
 Bloomington, Calif.  
 Rossin Steel, Inc., Chula Vista, Calif.  
 Sabre Tubular Structures, Alvarado, Texas  
 Superior Fabrication, Inc., Rockport, Ind.

P.H. Drew Inc., Indianapolis, Ind.  
 Parks Metal Fabricators, Inc., Wake Village,  
 Texas

### Newly Certified Erector Facilities

Aetna Bridge Company, Pawtucket, R.I.  
 C. Pyramid Enterprises, Inc., Robbinsville, N.J.  
 Gabriel Steel Erectors, Inc., Rock Tavern, N.Y.  
 Industrial First, Inc., Cleveland, Ohio  
 Southland Steel Fabricators, Inc., Greensburg, La.

### Newly Certified Bridge Component Facilities

J.H. Botts, Inc., Joliet, Ill.  
 P.H. Drew Inc., Indianapolis, Ind.  
 Tobi Engineering Inc., Glenview, Ill.

## People and Firms

- Bridge engineering firm **Modjeski and Masters** has relocated to a larger corporate headquarters across town. The firm's new headquarters address is 100 Sterling Parkway, Suite 302, Mechanicsburg, Pa.
- Pittsburgh-based structural steel distributor **Triad Metals** has announced plans to build a new 170,000-sq.ft facility in Columbia City, Ind. Its first Midwest location, the facility will have both rail and highway access, as well as being very close to one of its suppliers, Fort Wayne, Ind.-based Steel Dynamics Inc.
- **William J. Moran** has been named president and chief executive officer of **Trinity Steel Fabricators, Inc.**, Trinity, Texas, effective January 3, 2011. He replaces **Roy Karnes**, who is retiring after 19 years as president and chief executive, but will remain as vice chairman of the board and as liaison to a number of Trinity's major customers.
- **Gregory L. Crawford** is the new executive director of the Steel Recycling Institute, effective December 1, 2010. Crawford was most recently SRI's vice president of operations. He succeeds **William M. Heenan, Jr.** who has stepped down due to health reasons after a distinguished career including 20 years with SRI and 19 years with United States Steel Corporation.

Crawford

Heenan, Jr.



- **David C. Jeanes**, P.E., former president of the Steel Market Development Institute, has received the first annual University of Massachusetts Amherst College of Engineering Outstanding Senior Alumni Award. It is given to alumni who have brought recognition and honor to the college through their professional achievements, leadership and service to the profession, university and society.

## RESEARCH

## Seismic Research Gets the Spotlight

A system using sacrificial fabricated steel “fingers” to absorb earthquake energy and protect steel-framed buildings recently received a *Popular Mechanics* 2010 Breakthrough Award. The Controlled Rocking Frame system was developed by Gregory Deierlein, Stanford University, and Jerome Hajjar, previously at the University of Illinois at Champaign-Urbana and now at Northeastern University.

The system allows buildings to sway with the motion of earthquakes and then return to their original positions. Engineered replaceable shock absorbers absorb energy as the building moves laterally and vertically, shielding the rest of the framing from damage. The system was described more fully in the news section of the April 2010 *MSC*, which is available online at [www.modernsteel.com/backissues](http://www.modernsteel.com/backissues).

## MARKETING

## Online Service Communicates Opportunities

The recently launched ContractorAssets.com online communications platform provides advertising and marketing for contractors in four key areas—construction equipment, building materials, construction jobs and project opportunity—with little to no out of pocket cost.

The construction equipment category allows contractors to advertise and search

“Deierlein and Hajjar asked for our comments on their plan,” said Tom Schlafy, AISC director of research, “which led to a discussion of how to come up with a large-scale model for testing.” Ultimately AISC members Tefft Bridge & Iron, Wheatfield, Ind., and Atlanta-based Infra-Metals provided expertise as well as donating a significant amount of materials and financial support for a pseudo-dynamic test at the University of Illinois at Urbana-Champaign. To watch a short video of the test online, go to <http://bit.ly/d8J8Fp>.

*Popular Mechanics’* editors cited the system for being able to quickly replace the steel “fuses” and restore building integrity within a matter of days. To read the article on the *Popular Mechanics* website, go to <http://bit.ly/bGvelJ>. View all of the top 2010 breakthroughs selected by *Popular Mechanics* at <http://bit.ly/d7CLd7>.

surplus construction equipment and tools. The building materials section allows contractors to list or locate excess or reclaimed building materials. The construction jobs and project opportunities categories are similarly self-explanatory.

Website registration is free. For more information and to view listings, visit [www.contractorassets.com](http://www.contractorassets.com).

## STANDARDS

## Comments Sought on Addition of Prequalified Moment Connection

Supplement No. 1 to the 2010 AISC standard *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications* (AISC 358-10) is now available for public review. This document adds an additional prequalified connection, the ConXtech ConXL moment connection, to the standard.

The draft standard is available for review by downloading the document at [www.aisc.org/AISC358s1pr](http://www.aisc.org/AISC358s1pr). A paper copy of the standard can also be requested

for a fee of \$15 by contacting Janet Cummins at 312.670.5411 or by emailing [cummins@aisc.org](mailto:cummins@aisc.org).

All comments are due by January 31, 2011 and should be submitted to Keith Grubb using the comment form attached to the downloaded document. Send your completed comment form to Keith A. Grubb, P.E., S.E., American Institute of Steel Construction, 1 E. Wacker Drive, Suite 700, Chicago, IL 60601, or by email to [grubb@aisc.org](mailto:grubb@aisc.org).

## SPECIFICATIONS

## New Format Materials from CSI

The Construction Specifications Institute has released new tables for its OmniClass Construction Classification System. More information is available on the OmniClass website, [www.omniclass.org](http://www.omniclass.org). You can download the new tables simply by registering on the site.

CSI also has released a new edition of

its UniFormat. UniFormat harmonizes with CSI’s suite of standards and formats, including MasterFormat’s 50 divisions and the new Preliminary Project Description Format (PPDF), which guides the development of preliminary project descriptions. For more information go to [www.csinet.org](http://www.csinet.org).

## COMMUNITY INVOLVEMENT

## AISC Members Help Build Tallest U.S. Christmas Tree

The annual “Bentleyville Tour of Lights” in Bayfront Festival Park, Duluth, Minn., opened to the public on Saturday, November 20, and this year included a 120-ft-tall steel-framed Christmas tree, the tallest in the country.

This tree, which is more than double the height of the famous Rockefeller Center Christmas tree in New York City, was designed by AISC members from Krech Ojard & Associates.

The structure was created from 17 tons of steel, and was illuminated with 50,000 LED lights. Fabrication for the monstrous 12-story tree was provided by AISC member Dynamic Structural Steel, Proctor, Minn., and all erection and welding was donated by Iron Workers Local 512.

To watch a time lapse video of the tree’s framework being erected, go to <http://bit.ly/ewaTd6>.

The Bentleyville Tour of Lights is named after its founder, Nathan Bentley, and features a free walk-through lighted experience including visits with Santa and live musical entertainment from Elfis (a 50/50 blend of elf and Elvis) on the weekends.

For more information on Bentleyville, visit [www.bentleyvilleusa.org](http://www.bentleyvilleusa.org). The website also has a section relating the origins of this free family-oriented fun experience. (Click on the “Bentleyville History” tab.)



## TECHNOLOGY

### Fiber Laser System Reaches the Final Round

Hanover, N.H.-based Hypertherm's newly introduced HyIntensity Fiber Laser HFL015 system was recently named one of five finalists in the New Hampshire High Technology Council's 2010 Product of the Year awards program. The competition recognizes high-tech products and services

that demonstrate excellence in innovation, performance, functionality, value, uniqueness, and ties to New Hampshire.

The fiber laser system offers several advantages over CO<sub>2</sub> laser systems. It requires virtually no maintenance, is more energy efficient, and takes up less space.

The power supply is much smaller than CO<sub>2</sub>, yet fiber delivery enables the beam to travel greater distances allowing for installation on larger tables. For more information, visit [www.hypertherm.com](http://www.hypertherm.com).

## ECONOMY

### Manufacturers Show Signs of Recovery

The results of a new poll of factory executives, supervisors and engineers conducted by the Fabricators & Manufacturers Association, International (FMA) indicate the manufacturing sector is already on its way to an economic recovery. More than seven in ten manufacturers surveyed at the Fabtech trade show in Atlanta in early November reported business is either "much better" (31%) or "somewhat better" (41%) in 2010 when compared to 2009. Another 18% said business was neither better nor worse and only 10% said

it was worse.

This bullish result positively impacted hiring, according to the poll. Nearly half of the respondents (47%) said their companies added permanent full-time staff in 2010 and another 30% hired temporary workers to handle the increased manufacturing work. Some 17% said although no new employees were hired as of yet, the current staff is working additional hours. Eleven percent reported no staff cutbacks and a mere 3% said their firms have laid people off in 2010.

"Economic reports have indicated the manufacturing sector is adding to capacity despite the still weak consumer demand in the United States," said Chris Kuehl, economic analyst for FMA. "The fact is that consumers in other parts of the world have been active, and the U.S. manufacturing community has been getting more skilled at reaching those markets."

## AWARDS

### AISC Honors Four for Distinguished Industry Achievements

Raymond A. Phillips, chairman of Cives Steel Company, and Fernando Friás, president of the Mexican Institute of Steel Construction (IMCA) received Lifetime Achievement Awards from the American Institute of Steel Construction (AISC) at its 88th Annual Meeting in Boston, October 21-22. These awards provide special recognition to individuals who have provided outstanding service over a sustained period of years to AISC and the structural steel design/construction/academic community and who have made a difference in the success of the fabricated structural steel industry.

A long-time member of the AISC board of directors, Phillips has provided consistent and continuous leadership on the Committee on Research. Under his leadership, AISC has successfully conducted research programs on such topics as the qualification of bolts, flange plates, and end-plate connections for special and intermediate moment frames; tests confirming the load capacity of columns under high rotations; and tests of large-scale connections of slip-critical connections. In addition, under his leadership fellowships were granted supporting innovation in seismic design, effectiveness of structural shapes, fire design, and design in areas of low seismicity. He has also supported research outside of AISC including tests at Virginia Tech confirming design procedures for single-plate shear connections. In addition to donating his time and energy, Phillips has been generous in encouraging his staff to participate in steel industry related activities.

Friás has long been the driving force behind IMCA and has been instrumental in establishing positive relationships between AISC and IMCA. As such, in addition to his success as a steel fabricator, he has helped grow and advance the fabricated structural steel industry in Mexico including the use of the AISC *Specification*.

Also honored at this year's meeting were Ronnie

Medlock, vice president of technical services at High Steel Structures, Inc., and David Ware, CEO of Tennessee Galvanizing, who received Special Achievement Awards. These awards give recognition to individuals and firms who have demonstrated notable singular or multiple achievements in structural steel design, construction, research, or education and who have made a positive and substantial impact on the structural steel design and construction industry.

Medlock is being honored for his vision in initiating the AASHTO/NSBA Steel Bridge Collaboration as a means to develop and implement standards for the construction of steel bridges, and for his continuing effort in shepherding the Collaboration to a highly regarded position within the community of bridge owners and designers.

Ware accepted the award for Tennessee Galvanizing, honored for its efforts to reduce hazardous waste generation among steel galvanizers. The company invested \$750,000 to develop "the skim machine," which reduced waste generation by 100%. The self-contained system now produces more than 1.5 million pounds of ferrous sulfate annually, which in turn is sold for use in livestock feed or fertilizer. Rather than patenting the system, they hosted 15 other galvanizers from around the country to encourage them to also use the system. Annual benefits include the elimination of 2,300 tons of hazardous waste in the form of spent sodium hydroxide solution, reduced "virgin" sulfuric acid use by 228 tons annually, reduced water consumption by 315,000 gallons annually, reduced natural gas consumption by 20% via boiler replacement with tank heaters, and the elimination of more than 100 trucks from the road that were no longer needed to haul spent acid offsite as a hazardous waste.

For more information on AISC awards and past recipients, please visit [www.aisc.org/awards](http://www.aisc.org/awards).



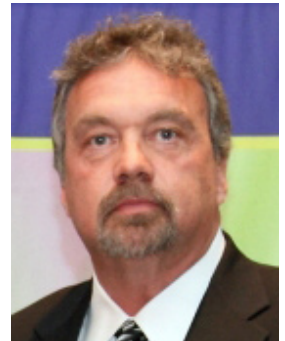
RAYMOND A. PHILLIPS



FERNANDO FRIÁS



RONNIE MEDLOCK



DAVID WARE

## letters

**A New Source of Old Data Sheets**  
USD used to publish handy design aids for metal deck as advertisements in *Modern Steel Construction*. They disappeared from the Internet after the company was bought out, and now I can't find any good references beyond the scope of typical deck catalogs. Is there any way I can get the old USD ads from previous issues of *MSC*?

—Alex Bonnar,  
McNamara/Salvia, Inc., Boston

Shortly after *MSC* started accepting paid advertising, in 1982, Nicholas J. Bouras

Co. began running a series of ads that provided data regarding the various aspects of the steel deck products that they produced. It was identified by the name of United Steel Deck, which was simply the trade name they used for that product line.

The USD data sheets were numbered sequentially, but they sometimes circled back, republishing a prior data sheet. We don't have a comprehensive compilation. However in recently going over all the old issues, I saw that in 1995 they had gotten to No. 20 in the deck data series.

Earlier this year we had all of the earlier issues of *MSC* scanned and all are

now available as PDF files in the archives section of the *MSC* website at [www.modernsteel.com/backissues](http://www.modernsteel.com/backissues).

At least in the early years, the USD Data Sheets generally were within the first few pages of the magazine, so it would be possible to go issue by issue starting with 1982 and collect them. That's not quite as daunting a project as it first sounds, because at that time there were just four issues per year. However the company continued its data sheet series through the 1987-1990 period where *MSC* went to six times a year and beyond, when it became a monthly magazine.