PUBLICATIONS

Blast-Resistant Structures Guide Now Available

Design professionals now have a valuable new resource on blast-resistant structures in AISC Design Guide No. 26, *Design of Blast Resistant Structures*, co-authored by Ramon Gilsanz of Gilsanz Murray Steficek LLP, Ronald Hamburger of Simpson Gumpertz & Heger, Inc., Darrell Barker of ABS Consulting, Joseph L. Smith of Applied Research Associates, Inc., and Ahmad Rahimian of WSP Cantor Seinuk. The publication provides guidance for the design of blast-resistant structures and progressive collapse mitigation and is available in hard copy or as a PDF download at **www.aisc.org/dg**.

"The purpose of this guide is to disseminate knowledge of blast resistance and progressive collapse mitigation to the structural engineering community, presenting basic theory with design examples so engineers can achieve simple and effective designs," said Gilsanz, lead author of the guide.

Design Guide 26 explores an approach that will help structural engineerd effectively interact with a security or blast consultant. Background information and basic principles are reviewed, and design examples are presented.

The major topics covered in this guide are: blast loading, design criteria for buildings and where to find it, structural response to blast loads, blast-resistant design and analysis and resistance to progressive collapse.

Design Guide 26 is available as a free download to AISC members, and nonmembers can purchase it for $60 (visit **www.aisc.org/designguides** to download this and other AISC Design Guides). The printed copy is available at **www.aisc.org/dg** or by calling 800.644.2400 (product code: AISC 826-13); the cost for the printed copy is $40 for AISC members and $80 for nonmembers.

NSSBC

2014 NSSBC Rules Posted

The official rules for the 2014 ASCE/AISC National Student Steel Bridge Competition (NSSBC) are now posted at **www.aisc.org/steelbridge**.

Now in its 23rd year, the competition convenes engineering students from across North America to build their designed and fabricated steel bridges under the pressure of the clock. Structured to simulate a real-world project, teams build a 1:10 scale model bridge to meet a particular challenge, which is different each year.

Throughout the academic year, student teams work for months perfecting the design, fabrication and construction of each bridge. To reach the national event, each team must place among the top schools in one of 18 regional competitions held across the country each spring.

You can read about the results from this year's national competition in the August issue of MSC. In addition, several photos of the competition are available on AISC's Facebook page at **www.facebook.com/AISCdotORG** in the "NSSBC 2013" photo album, and a video showing highlights from the competition is available on AISC's YouTube channel at **www.youtube.com/AISCSteelTV**.

The 2014 NSSBC finals will be held on May 23-24 at the University of Akron in Akron, Ohio, and coincides with the 100th anniversary of the university's Department of Civil Engineering. To learn more, visit **www.aisc.org/steelbridge**.

People and Firms

- **Thornton Tomasetti** has promoted **Michael J. Squarzini**, P.E., LEED AP, to managing principal. Based in the New York office, he is Thornton Tomasetti's East U.S. region leader and also oversees the growth of its São Paulo office. He has been with the firm since 1993.
- **Michael Purchase** has become the new president of **Anchor Lamina America, Inc.**, a manufacturer of tool, die and mold components for the metalworking and plastics industries. Based out of the company's Farmington Hills, Mich., headquarters, Purchase will oversee the company's operations in the U.S. and China.
- **FabTrol Systems** has recently released **FabTrol Pro** Version 2.1, an update to Version 2.0 of its production and project management software, which was released this past spring. The latest upgrade includes new production, purchasing, material management and internationalization capabilities.
- **BIMForum**, a nationwide group of building information modeling users, has released a first-of-its-kind standard that establishes definitions for the level of completion a model needs to be at for different stages of the design and construction process. The new standard, known as the **Level of Development Specifications (LOD)**, was developed under an agreement with the American Institute of Architects. For more information and to download the new specification, go to **www.bimforum.org/lod**.

FABRICATORS

Future Leaders Ideas Lab Prepares Next Generation of Fabricators

Who is the next generation of senior management at your fabrication company? Are they ready for the job? The AISC Future Leaders Ideas Lab is designed for fabricators under the age of 45 who have either recently moved into, or anticipate moving into, a senior management position during the next decade. The two-day event, for full member fabricators only, will be held in Nashville, October 24–25, 2013, at the Omni Hotel Nashville.

To register or view the preliminary agenda, visit **www.aisc.org/ideaslab**.

Participants will learn about a wide range of issues, from workers' comp to a look at the best ideas from several fabricators. They'll gain valuable insight into contracting as well as management, and will also have a chance to discuss common issues with employees from other fabrication companies at a series of casual networking events. It's a great opportunity to brainstorm with peers about problems and solutions. And since this is the inaugural Future Leaders Ideas Lab, attendees will help to set the direction for future meetings.

The Future Leaders Ideas Lab is intended to help prepare the next generation of fabrication leaders. However, space is limited, and prospective attendees are required to apply for attendance. If your application is not accepted, your payment ($150, including meals but not hotel) will be refunded in full.

If you have any questions about the Lab, you can contact AISC's Carly Hurd at **hurd@aisc.org** or 312.670.5442.

PUBLICATIONS

New Edition of Structural Steel Standards Collection

The 2013 edition of *Selected ASTM Standards for Structural Steel Fabrication* (AISC 503-13) is now available from AISC in paper format for $225 for AISC members and $450 for nonmembers. AISC also has a limited number of CD-ROM-based electronic copies available for the same price as the printed copy. This valuable resource contains virtually all ASTM standards that apply in the design and construction of structural steel buildings and bridges.

"We collaborate with ASTM to produce this compilation of standards as a service to the design community and structural steel industry," said AISC vice president and chief structural engineer, Charlie Carter, S.E., P.E., Ph.D. "If purchased individually from ASTM, these standards would cost more than $2,000."

The compilation was last published in 2011. The new edition includes updated versions of many of the standards as well as one that has been added to the collection since then: A1085–13 *Standard Specification for Cold-Formed Welded Carbon Steel Hollow Structural Sections (HSS)*. This new standard is a big step forward in simplifying HSS design and usage. Benefits include tighter material tolerances and a single minimum yield stress of 50 ksi, maximum specified yield stress of 70 ksi, and standard requirement for notch toughness.

The new 575-page volume includes 59 ASTM standards relating to structural steel fabrication and selected by AISC.

To purchase the book or to view a list of all of the ASTM standards included, please visit **www.aisc.org/astm**. The individual standards in this compilation are published and copyrighted by ASTM International.

SAFETY

Hazard Communication Training Seminar

The AISC Safety Committee will present a free webinar on "Hazard Communication Training for Fabricators and Erectors" with a focus on the new Globally Harmonized System (GHS). The Occupational Safety and Health Administration (OSHA) recently adopted GHS under its hazard communication standard and the changes require steel fabricators and erectors to provide training to their employees on the new requirements by December 1, 2013. This webinar details what the new GHS requirements are, how to comply with them and how to meet the training requirements.

The 75-minute webinar will be conducted by Lawrence Kruth, P.E., of Douglas Steel Fabricating Corporation (an AISC member and AISC certified fabricator) on October 30 at 11:30 a.m. (Central Time). To register for this free webinar, go to **www.aisc.org/hazcomwebinar**. There is no fee to attend the webinar but registration is required. Registrants will also receive access to a PDF of the presentation slides prior to the webinar.

To learn more about AISC's live webinars, visit **www.aisc.org/webinars**. For more information on safety in the fabricated and erected structural steel industry, visit **www.aisc.org/safety**.

STEEL SCULPTURE

Libya's First Steel Teaching Sculpture

Libya's first steel teaching sculpture was recently built at the University of Tripoli's engineering building courtyard. Professors Mustafa Taghdi and Ezzedine Jaluta and a crew of their civil engineering students assembled the sculpture this spring.

Taghdi, a graduate of the University of Ottawa in Canada, always had his sights set on bringing an AISC Steel Sculpture to Libya and using it to teach his students about different steel structural shapes and connections. He contacted AISC for help, and although they weren't able to provide him with the structure (given the distance between the two countries), they did provide several detailed drawings of the steel teaching sculpture and recommended that he contact a local steel fabricator as well as sponsors and donors for the project. Senior engineer Ali Salem Bani in Tripoli was intrigued by the idea and agreed to support the project.

This project is one of the first of its kind in North Africa and the Middle East. Since the North American shapes used in the drawings supplied by the AISC were not available locally, they were replaced by equivalent European shapes.

After the welded pieces were fabricated, they were coated with two layers of anti-corrosion materials (galvanized then painted). The choice of color for the structure was influenced by educational considerations. "I chose the gray scale so that students can focus," said Taghdi. "The colorful option would have distracted them."

"The fruits of this structure will be Libyan engineers who will soon build steel skyscrapers and bridges that will contribute to the advancement of our country."

PROJECTS

Sustainability Treehouse

Last month, more than 40,000 Scouts and Scouters visited the Summit Bechtel Reserve in West Virginia for its inaugural event: the 2013 National Boy Scout Jamboree. Making its debut at this national event was the Sustainability Treehouse, a 6,000-sq.-ft facility that embodies the Summit Bechtel Reserve's site-wide goal of sustainable design, infrastructure and construction practices.

Towering 125 ft above grade, the structure is supported by a weathering steel frame designed by Tipping Mar and fabricated by SteelFab (an AISC member and AISC certified fabricator/advanced certified steel erector), creating a seamless fusion of architecture and structural engineering. Completed this summer, visitors can ascend multiple indoor and outdoor platforms and experience the forest of the Summit Bechtel Reserve from many vantages, from the forest floor to the canopy.

The interactive learning facility is targeting the Living Building Challenge, a green building certification program, and it was designed to harvest its own energy through grid-connected cogeneration using photovoltaics, wind turbines and fuel cells. Some of its other sustainable attributes include an HVAC system that includes radiant cooling/heating with displacement ventilation air supply, as well as geothermal wells with ground-coupled heat pumps that generate chilled and hot water; energy-recovery and desiccant dehumidification strategies used to reduce ventilation cooling loads; capturing, treating and using rainwater for a grey-water system for public restrooms; composting toilets and solar-heated water; and low-level lighting with efficient fluorescent or LED sources.

SEISMIC DESIGN

Symposium Marks 20th Anniversary of Northridge Earthquake

The Northridge 20 Earthquake Symposium will take place in Los Angeles January 16-17, 2014.

Organized by FEMA, the symposium commemorates the 20th anniversary of the magnitude 6.7 earthquake in Northridge, Calif., on January 17, 1994 that resulted in 57 deaths, thousands injured and over $20 billion in direct damage. The earthquake spurred important changes to the current practice of earthquake engineering and risk mitigation worldwide. These changes included modifications to building codes for vulnerable steel structures and multi-unit wood buildings, reexamination of near-field and basin effects for seismic sources and radical modifications to the risk assessment and insurance sectors. AISC is a sponsor of the event and has organized a track of steel sessions, which are scheduled for January 17.

Northridge 20 will open with a multi-disciplinary plenary session, "Northridge Earthquake: Impacts, Outcomes and Next Steps," and continue with concurrent technical and educational sessions on a wide variety of related topics. Attendees will have the opportunity to discuss the impacts of the earthquake, highlight accomplishments of the past two decades and identify necessary steps moving forward to make our communities more resilient to future earthquakes.

More information, including registration details, speakers list, agenda and participating organizations, will be available soon on the event website at **www.northridge20.org**.

MEMBER NEWS

Medlock Honored by AISI and AASHTO

The American Iron and Steel Institute's Steel Market Development Institute (SMDI) Steel Bridge Task Force and the American Association of State Highway and Transportation Officials (AASHTO) Technical Committee for Structural Steel Design have named Ronald D. Medlock, P.E., as the recipient of the 2013 Richard S. Fountain Award. Medlock is vice president of technical services at High Steel Structures, Inc. (an AISC member and AISC certified fabricator/advanced certified steel erector).

Named for the founder of the Steel Bridge Task Force, the Richard S. Fountain Award recognizes leadership in steel bridge research and outstanding efforts to advance AASHTO specifications. Medlock received the award at the Steel Bridge Task Force's recent meeting in Baltimore.

"We are pleased to present this award to Ronnie Medlock, who has made many outstanding contributions to the steel bridge industry through his fabrication and welding-related code activities," said Alex Wilson, chairman of SMDI's Steel Bridge Task Force and manager of customer technical services for ArcelorMittal USA (an AISC member), and one of the presenters of the award. "He co-founded and leads the AASHTO/National Steel Bridge Alliance Collaboration, a group of steel bridge professionals who have published standards that make it easier for bridge owners, designers and engineers to choose steel for cost-effective bridge design solutions."

The AASHTO/NSBA Collaboration has published more than a dozen standards related to steel bridge detailing, shop drawing review, fabrication, inspection, coatings, bearings, erection and analysis.

As vice president of technical services at High Steel, Medlock is responsible for steel bridge fabrication engineering and quality control and leads advances in technology, particularly with respect to welding and modeling. Before joining the company in 2006, he worked for the Texas Department of Transportation (TxDOT), where he was responsible for steel bridge fabrication inspection. At TxDOT, he initiated the Texas Quality Council, a multi-disciplined group that established best practices for design, fabrication and erection of steel bridges in Texas. He also participated in the AASHTO Technology Implementation Group Panel on accelerated bridge construction. He is active in the following organizations and serves in committee leadership positions for several: NSBA, the AASHTO Subcommittee on Bridges and Structures, American Welding Society, American Railway Engineering and Maintenance-of-Way Association and the Transportation Research Board. In 2010, Medlock was recognized with a Special Achievement Award by AISC.

Ronald D. Medlock, P.E. (third from left), receives the 2013 Richard S. Fountain Award from Gregory R. Perfetti (far left), Professor Dennis Mertz from the University of Delaware (second from left) and Alex D. Wilson (far right).