STEEL NEWS & EVENTS

AESS Guidelines Available for Download

A comprehensive guideline called Architecturally Exposed Structural Steel (AESS) is now available to be downloaded from AISC’s web site, www.aisc.org/aess. The guideline was also featured in the May 2003 issue of Modern Steel Construction.

The guideline includes three key elements:
- A sample board, which includes small pieces of fabricated structural steel that represent the range of finishing techniques for AESS.
- A cost matrix, which helps balance project budget with project scope, and provides designers with the cost associated with specifying techniques to achieve the appearance of AESS.
- The specification: The SEAC/RCSCA prepared a generic specification that includes common fabrication and erection techniques to help designers communicate expectations to the fabricator in a common language.

ASTM Develops a New Standard for Inspecting Building Façades

ASTM International recently developed and passed E2270, “Standard Practice for Periodic Inspection of Building Façades for Unsafe Conditions.” The new standard outlines the requirements and procedures for conducting façade inspections. The standard is intended for adoption by model building codes, local municipalities, or private owners of multiple buildings, such as universities. The availability of this standard will help cities without a façade ordinance to adopt one, and assist cities with existing ordinances to adapt their current ordinances to reflect improved practices.

According to Michael Petermann and Jeff Erdly, co-chairs of the ASTM Façade Inspection Task Group, some cities have very stringent requirements for their façade inspections, others require only visual inspections, and still others don’t have any regulations. Masonry falling off building façades can cause injuries and even death.

“ASTM’s new standard is the result of six years of work by industry members who, without the pressures of politics and special interests, created a practical standard using the rigorous consensus process that is the hallmark of ASTM,” said Thomas Schwartz, chair of the ASTM Subcommittee on the Performance of Exterior Wall Systems that approved the new standard practice. “The new standard provides cities with a comprehensive benchmark that draws on the best existing façade ordinances in cities across the United States and the expertise and experience of members of the ASTM task group and subcommittee.”
Future City Competition Draws Students & Engineers

Thousands of engineers annually volunteer to serve as mentors for students in the National Engineers Week Future City Competition™. During the competition, engineers guide students as they design and construct future cities. They participate in order to help students better understand the engineering world—but the students also help their mentors gain perspective as engineers.

“It’s helped me not be so narrowly focused,” says Tony Arikol, P.E., an engineering consultant in Baton Rouge, LA, who coached a team of middle school students from St. Thomas More School. The team won the state’s regional competition and took second place in the national finals in Washington, D.C. “Sometimes you get tunnel vision. Young people are a lot more creative as thinkers. They help you look outside for novel solutions. And when you look for novel solutions, you find them.”

“Kids always have an idea,” agrees John Medler, a mechanical and environmental engineer. In 2003, Medler advised a student team from Atascocita Middle School in nearby Humble all the way to first place in the Texas-Houston regional and third place at nationals. “What’s that term—thinking outside the box? Well, that’s what these students do naturally.”

In the competition, seventh and eighth graders design future cities, first on computer and then in three-dimensional scale models. The students usually work in teams of three, and with the help of a teacher, they must devise a functioning city using SimCity 3000 software. They must write an essay and defend their city model before a panel of judges. In 2002-03, more than 30,000 students from 1,000 schools in 31 regions around the United States participated. Thirty-six regions are expected in the 2003-04 competition.

Students begin to create their cities at the beginning of the school year, working during and after school and through holiday breaks. Once an extracurricular activity, Future City is now part of some math, science and technology courses. Regional competitions are held in January. First-place teams (including the engineer mentor) win all-expense-paid trips to Washington, D.C., for national finals during National Engineers Week, February 22-28, 2004. National Engineers Week 2004 is co-chaired by the Institute of Electrical and Electronics Engineers (IEEE) and Fluor.

Engineer mentors bring their expertise from every walk of the profession. For more information or to participate, contact Carol Rieg, National Director, by calling 877.636.9578 or by e-mailing CRieg@futurecity.org. Read more at www.futurecity.org.

New Cable-Stayed Bridge Spans the Mississippi

The two sides of the new cable-stayed Bill Emerson Memorial Bridge in Cape Girardeau, MO and East Cape Girardeau, IL over the Mississippi River. The bridge includes an eastern approach and a 2,086’ cable-stayed unit, with a 1,150’ main span. Currently, 14,000 vehicles daily cross the existing Mississippi River Bridge. By 2015, it is projected that 26,000 vehicles will use the two crossings. The bridge’s estimated cost is $100 million.

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The two sides of the new cable-stayed Bill Emerson Memorial Bridge in Cape Girardeau, MO were connected on Aug. 12, 2003 without any special jacking or counterweights for the closure. The entire deck structure is a composite steel frame, all plate girders with pre-cast deck slabs for a roadway surface. AISC-member Vincennes Steel Corporation of Vincennes, IN was the steel fabricator for the project. T.Y. Lin International (TYLI), of San Francisco performed the erection engineering to create the sequence of deck erection and cable adjustments for a seamless connection at the middle of the river. The bridge is scheduled to be opened for traffic by early 2004.

The bridge is a 4,000’-long, 100’-wide structure linking Cape Girardeau, MO and East Cape Girardeau, IL over the Mississippi River. The bridge includes an eastern approach and a 2,086’ cable-stayed unit, with a 1,150’ main span. Currently, 14,000 vehicles daily cross the existing Mississippi River Bridge. By 2015, it is projected that 26,000 vehicles will use the two crossings. The bridge’s estimated cost is $100 million.