

Steel has always been reliable as a building material – durable, strong, resilient and sustainable. Steel is also an innovative material, and there are new products and practices available to architects, engineers, building owners, contractors and others to streamline the design process and speed up the time of construction. Here are some examples.

Fire, Acoustic and Thermal Design Solutions

To meet the growing demand for new and improved solutions, the number of tested assemblies included in the online tool, *A Guide to Fire and Acoustic Data for Cold-Formed Steel Floor, Wall and Roof Assemblies*, has been expanded. The guide is updated and maintained by the Steel Framing Alliance (SFA) and is available to use free of charge at www.steelframing.org. More than 350 assemblies have been captured, with additional solutions added regularly.

The SFA design guide, *Thermal Design and Code Compliance for Cold-Formed Steel Walls, 2015 Edition*, was just published. It aids designers in meeting and often exceeding the latest requirements in the building codes, and is available to download free of charge at www.steelframing.org. The guide integrates the results of extensive hot box tests of cold-formed steel wall assemblies to provide the most up-to-date and accurate methods for determining their thermal performance. It also addresses compliance paths and requirements for the 2015 International Energy Conservation Code® and ASHRAE 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*. The design guide's chapters provide: a) background and overview of the Energy Code, b) base code U-factors for cold-formed steel assemblies, c) methods for determining U-factors of cold-formed steel walls, and d) code compliance options and examples.

New Ways to Connect

Technology advancements in cold-formed steel connections that offer lower-cost solutions, increase speed of construction, and eliminate any guesswork relating to connection design are being developed at a rapid pace. Several companies offer these connections.

New cold-formed steel analysis and design software to streamline the design process and advanced panelized systems to reduce construction time are also available to maximize return-on-investment results for owners and developers. More information on these and other innovations is included in an interesting article by Larry Kahaner in the March 2015 issue of STRUCTURE magazine titled *Steel and Cold-Formed Steel Construction*.



Making it Easy to Design with Steel

Many cold-formed steel associations offer technology transfer tools for building design professionals. An example is the Cold-Formed Steel Engineers Institute (CFSEI), which regularly offers AIA-accredited technical webinars and seminars for PDH credit. CFSEI also issues Technical Notes on specific topics related to durability and corrosion protection, fasteners and connection hardware, component assemblies (trusses and wall panels), floor and joist systems, wall systems, roof and ceiling systems, thermal/fire/acoustics, lateral systems, and more. Issue papers on a variety of topics are available. The annual CFSEI Expo is a two-day event offering technical sessions and networking opportunities for architects, engineers, building officials and contractors. The expo benefits newcomers to cold-formed steel design, as well as those with years of experience. All of these resources are available at www.cfsei.org.

For design professionals who are seeking information on specific projects, a Steel Hotline is available at 1-800-79-STEEL or www.steelframing.org. The Steel Hotline connects inquirers with cold-formed steel framing professionals who can assist them, with hundreds of requests handled each year.

In the building codes arena, AISI is fast-tracking new cold-formed steel standards addressing seismic and energy issues. AISI Standards are now available for downloading free of charge at www.aisistandards.org.

Steel is Worth Another Look!

As a building material, steel has a solid, durable and reliable track record. The steel industry is committed to providing state-of-the-art solutions to the challenges faced by today's building design and construction professionals. This results in cost-effective and time-saving benefits to the building construction marketplace. Feel free to contact any of the steel organizations for more information. ■

INSIGHTS

new trends, new techniques
and current industry issues

Have You Checked Us
Out Lately?

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