CFSEI Publishes New Technical Note on Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs

WASHINGTON, D.C. — The Cold-Formed Steel Engineers Institute (CFSEI) has published a new Technical Note, “Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs” (Tech Note W400-16). It provides a detailed discussion of the design requirements and methods to laterally brace (bridge) axially loaded cold-formed steel stud walls.

Cold-formed steel studs provide a cost-effective and extremely efficient structural solution for a typical mid-rise building. In recent years, the height of a typical cold-formed steel building has increased due to advancements gained through comprehensive research and testing on the behavior and design parameters of cold-formed steel. To ensure the integrity of the structure, the design engineer must fully understand the behavior and bracing requirements of a cold-formed steel load-bearing stud. This Technical Note examines the bridging and anchorage requirements, the methods to achieve them, and the current code requirements for buckling resistance.

The Technical Note covers:

• Design requirements for the bridging components of axially loaded cold-formed steel studs.
• A discussion of the methods to accomplish effective bracing of axially loaded cold-formed steel studs against both flexural and torsional buckling modes.
• A demonstration of bridging anchorage using flat strap cross-bracing, a welded diagonal brace, a strong-back stud, and a built-up section.

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• A design example that compares two bracing design alternatives available to designers.

The Technical Note was written by Nabil Rahman, Ph.D., P.E., The Steel Network, Inc. This Technical Note is the latest in CFSEI’s continuing series of instructional documents on topics related to cold-formed steel framing for commercial and residential construction.

CFSEI Technical Notes are available free of charge to CFSEI members at www.cfsei.org. Non-members can purchase them at the AISI Steel Store. For more information on joining CFSEI, visit www.cfsei.org.

CFSEI maintains a Steel Framing Hotline to answer inquiries from construction professionals seeking cold-formed steel solutions for their projects. Suggestions for additional Technical Note topics are welcomed. The Steel Framing Hotline is accessible at 1-800-79-STEEL.

The Cold-Formed Steel Engineers Institute comprises hundreds of structural engineers and other design professionals who are finding a better way to produce safe and efficient designs for commercial and residential structures with cold-formed steel. CFSEI members work together to develop and evolve industry standards and design methods, produce and issue technical bulletins, and provide seminars and online training to improve the knowledge and skills base of engineers and design professionals. For more information, visit www.cfsei.org.

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