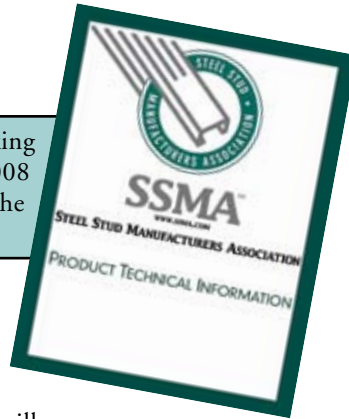


SSMA Technical Updates

By Don Allen, P.E., SECB

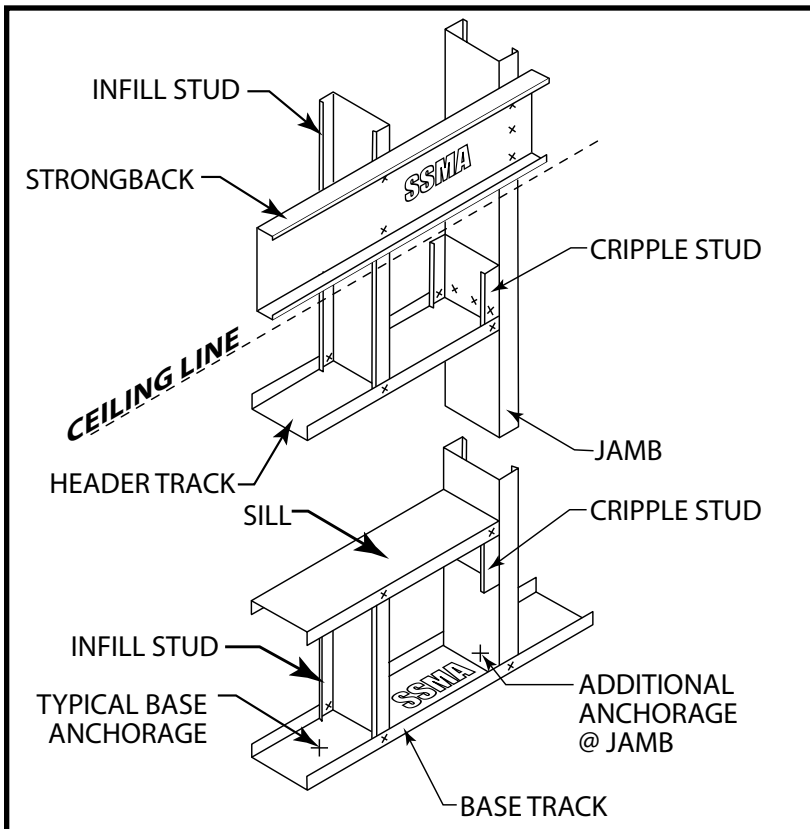


The Steel Stud Manufacturers Association (SSMA) is making some major changes to its technical library during the 2008 calendar year. Beginning with its flagship publication, the *Product Technical Information Catalog* (PTIC),

SSMA is revising all technical documents to reflect changes in the building codes, referenced standards, and current best practices in framing applications. All data has been updated to be in conformance with the 2006 International Building Code (IBC) and International Residential Code (IRC). This means that section properties and span tables have been calculated in accordance with the 2004 supplement to the 2001 *North American Specification for the Design of Cold-Formed Steel Structural Members*. The calculation methodology for section properties for the 2004 supplement is slightly different from previous versions of the code; therefore, although the member sizes and shapes will remain the same, product data will appear slightly different for some sections.

Span and load tables will appear in the same format as earlier versions of the PTIC, with separate tables for interior partitions, exterior curtain walls, floor joists, and axially loaded studs and columns. Additional tables will be included in the 2008 edition of the PTIC for 2-span exterior curtain walls, since many commercial curtain wall projects are employing single studs for bypass wall conditions. All tables will be based on Allowable Stress Design (ASD) load combinations. Detailed information on specific combination requirements will be included with design examples in the

upcoming FAQ section of the SSMA website. Note that this is a significant issue: prior versions of the SSMA publication incorporated methodologies such as the 1/3 stress increase, which is no longer allowed in most load combinations in the current code. The new SSMA document will no longer include the note, "lateral loads multiplied by 0.75 for strength determination..." For serviceability, the SSMA tables will incorporate the requirements of section 1604.3 of the IBC. Most notably, tabulated values will be based on the code statement that "The wind load is permitted to be taken as 0.7 times the (component and cladding) loads for the purpose of determining deflection limits..." This comes from footnote "f" of table 1604.3, *Deflection Limits*, and applies only to wind loads on roof and wall members. If the user wants to apply a different load (say a live or snow load) to these members, he or she would have to divide the table-listed tabulated wind load by 0.7 to convert it to an equivalent live or snow load.



Advantages:

- 1) Use of cripple stud to receive head/sill tracks at the jamb studs helps maintain alignment of finishes.
- 2) Strongback header minimizes number of members to be installed vs. back to back or boxed header.
- 3) Using a wider flange and thicker jamb stud material reduces cost of installation compared to built-up jamb studs.
- 4) Using a wider flange reduces possibility of installing a wall stud as a jamb stud.
- 5) Provides good vertical load transfer at each strongback header into jamb stud.
- 6) Reduces web-crippling reinforcement being required at end of strongback header.

Disadvantages:

- 1) Requires a ceiling being installed to hide vertical strongback.
- 2) Strongback would interfere with installing interior wall covering at the strongback.
- 3) Back to back headers will not provide for attaching window covering support.
- 4) May require a thicker or wider flange head track member with only one member being installed to resist the horizontal load from the opening.

SSMA is planning other changes to their website and technical documents, which will start happening later this year. The association has formed a task group on Technical Documents, which has reviewed all of the current SSMA Technical Notes and Details. Plans include:

- Total revision of the technical notes on single and double slip track, to match the requirements and analysis method included in the current *AISI Standard for Cold-Formed Steel Framing – Wall Stud Design* (AISI S211-07).
- Update the *Technical Note on Unsheathed Flange Bracing*, to reflect current code and analysis requirements.
- The SSMA *Technical Note on Metric Conversion* will receive only minor changes, so references will match the updated SSMA PTIC. Note that conversion data is current and accurate for both old and new versions of the PTIC; only page references will change.
- The technical note on 30 mil composite will remain unchanged until SSMA performs and publishes new composite tests on this material.

SSMA framing details are currently free downloads in both DWG and PDF format

from the SSMA website. These details will remain, with added and expanded details designed to enhance and augment the details program being developed by the Steel Framing Alliance's Cold-Formed Steel Engineers Institute (CFSEI). SSMA updates will include:

- Enhancements to current details, including additional pros/cons to help guide both the builder and designer, with tips on better design and construction techniques and best practices.
- Specific "caution" and "warning" notes, letting builders and designers know that specific actions or inactions with respect to certain details could cause injury or life-safety situations.
- Expanded floor framing details.
- Expanded shearwall details.
- Additional bridging and bracing details: primarily for floors and walls, but some can apply to other systems such as truss webs and chords, as well as ceiling joists and rafters.

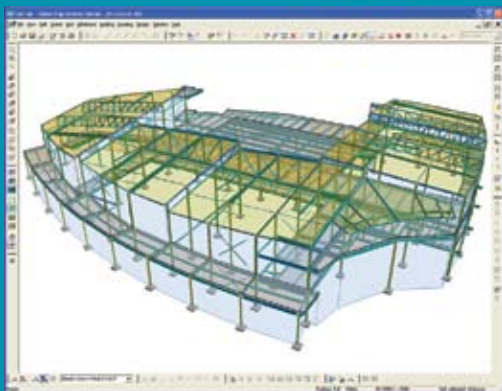
The SSMA continues to grow as it partners with other organizations in the framing industry, such as the Steel Framing Alliance, the Cold-Formed Steel Engineers Institute, and the Wei-Wen Yu Center for Cold-

Formed Steel Structures. Look for future updates on SSMA technical resources, and check www.ssma.com for live updates as they are made available. Note that, now and for the foreseeable future, all resources on the SSMA website are free downloads, not restricted to members, and do not require login or registration. As with all design aids and resources, suitability for any particular purpose is the responsibility of the design professional who uses or specifies these details. If you feel a specific detail or design document requires changes or updates, share your comments at ssma@steelframing.org.

Don Allen, P.E., SECB, is the Technical Director of the Steel Stud Manufacturers Association, Secretary of the Cold-Formed Steel Engineers Institute, and Director of Engineering for the Steel Framing Alliance. Allen has a particular interest in the role of structural materials in sustainable construction, and is a member of the ASCE SEI Committee on Sustainability. He may be reached at dallen@steelframing.org.

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