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Woods McRoy, P.E.
Senior Staff Engineer
ICC Evaluation Services, Inc.
Birmingham Regional Office
9000 Montclair Road
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January 19, 2010

Dear Mr. McRoy;

Re: Comments and Suggested Revisions to AC86-0210 (WM/DM)

This is in response to your December 29, 2009 document - SUBJECT: *"Proposed Revisions to the Acceptance Criteria for Cold-Formed Steel Framing Members-Interior Nonload-Bearing Wall Assemblies, Subject AC86-0210 (WM/DM)"*. ***Item 18 is the most important.***

ITEM 1 (Section 1.3.5)
Include 2009 Supplement as follows - *"AISI S100-07 (including 2009 Supplement)"*

ITEM 2 (Sections 1.4.5 and 1.4.6)
I agree with the definition of a Test Specimen in Section 1.4.5 - *"A single assembly being tested"*, but have some difficulty with the definition of a Test Assembly in Section 1.4.6 - *"A set of three or more identical test specimens"*. This seems as though one is going around a circle with the word *assembly* also contained in the definition of a Test Specimen. Perhaps a better term instead of Test Assembly would be either ***"Test Set" or "Test Group".*** On the other hand, is a definition of a Test Assembly really required? Having worked with the AC86 document extensively in recent years, I never had a problem with what constitutes a test specimen and how many identical specimens need to be tested. It is quite clear that a wall panel made up of steel studs and gypsum board on both sides is typically referred as a wall assembly.

ITEM 3 (Section 2.3.1)
Based on my comments in ***ITEM 2***, I feel that the suggested change is not required. The word "specimens" is quite clear.

ITEM 4 (Section 3.1.2)
To be consistent with AISI S100-07 (including 2009 Supplement), I suggest to change the word *"yield strength"* to *"yield stress"*.

ITEM 5 (Section 3.2)
I suggest to change the title to "***Limiting Heights Based on Test Specimen Stiffness***". In Section 3.2.1, I suggest to start the sentence with "*Specimen bending stiffness, EI....."*

ITEM 6 (Section 3.2.1)
Suggested rewrite. *"The test specimen bending stiffness, EI,.....*

ITEM 7 (Section 3.2.1.1)
In the third line down, I suggest to change *"assembly*" to *"test set/group"*. Also, I suggest to revise the second sentence as follows: *"When the deviation of any specific average deflection target EI value of a test*

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set/group does not exceed ± 15% of the test set/group's average EI value, the overall average EI value of the test set/group shall be used".

***ITEM 8* (Section 3.2.1.2)**

Here is my suggested rewrite. *"When the deviation of any specific average deflection target EI value of a test set/group does exceed 15% of the test set/group's average EI value, the specific average deflection target EI values of that test set/group shall be used individually. The averaged specific deflection target EI values of that test set/group shall be used to calculate the limiting heights.*

***ITEM 9* (Section 3.2.1.3)**

I find that this section is confusing and does not add any additional new information to the document, hence, I recommend that it be removed.

***ITEM 10* (Section 3.2.2)**

Suggested rewrite starting with line one. *"The test set/group's controlling EI value based on Section 3.2.1..."*. Since AISI S100-07 (including 2009 Supplement) only permits a maximum design load of 10 psf, should the 15 psf design load be removed?

***ITEM 11* (Section 3.2.3)**

Suggested rewrite starting with second line down. *"interpolation between the derived limiting height from the short-span specimen (H_1) and the derived limiting height from the long-span specimen (H_2):* Also suggest revising the definition of H_1 and H_2 in last line. *"span specimen, ft (m).* As well, I suggest to revise the definition of L_1 and L_2. *"L_1 = Actual span of short test specimen, ft (m); L_2 = Actual span of long/taller test specimen, ft (m)*

***ITEM 12* (Section 3.2.3.1)**

Suggested rewrite starting with third line down. *"height of the long-span specimen, then the calculated limiting height based on the long-span specimen shall be used instead of the interpolated value".*

***ITEM 13* (Section 3.2.3.2)**

Suggested rewrite starting with fourth line down. *"the short-span test specimen, the calculated limiting height shall be discarded".*

***ITEM 14* (Section 3.2.4)**

Suggested rewrite starting with third line down. *"than up to twice the height of the long-span specimen tested".*

***ITEM 15* (Section 3.2.5)**

Suggested rewrite starting with third line down.

***ITEM 16* (Section 3.3.1.1)**

To be consistent with AISI S100-07 (including 2009 Supplement), in line one I suggest to change the word *"yield point"* to *"yield stress"*.

***ITEM 17* (Section 3.3.1.2)**

Suggested rewrite second line down. *"test set/group.....*

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***ITEM 18* (Section 3.3.1.3)**

In first line, the letter "S" should be "Ω". In the second and fourth line it should read AISI S100-07 (including 2009 Supplement). The remaining part of this section needs to be changed to reflect the recent changes that were made in AISI S100-07 (including 2009 Supplement). My recommendation is to simply rewrite Section 3.3.1.3 as follows. ***"The safety factor, Ω, shall be determined in accordance with Section F1.1 of AISI S100-07 (including 2009 Supplement)".***

This I feel is the major change that needs to be addressed. As it is now, the smallest safety factor, Ω, is 2.33, which is quite unrealistic given the consequence of failure of an interior partition wall that is subjected to a uniformly distributed load resulting from a possible internal suction or pressure. It is my understanding that this issue has been resolved by AISI, or am I missing something?

***ITEM 19* (Section 3.3.1.4)**

See ITEM 10.

***ITEM 20* (Section 3.3.1.5)**

Suggested rewrite of third line. *"test sets/groups....*

***ITEM 21* (Section 3.3.2)**

In definition of Ω, rewrite AISI S100. *"AISI S100-07 (including 2009 Supplement)".*

***ITEM 22* (Section 4.1.1)**

Suggested rewrite of start. *"Two different specimen heights shall be tested, where the taller specimen can be one-half the maximum.....".*

***ITEM 23* (Section 4.1.2)**

Suggested rewrite of first line. *"A test set/group shall.....".*

***ITEM 24* (Section 4.1.3)**

Suggested rewrite of first line. *"A test set/group, consisting.....".*

***ITEM 25* (Section 4.1.4.1)**

Suggested rewrite of second line. *"be applied to seat the test specimen".*

***ITEM 26* (Section 4.1.4.7)**

Suggested rewrite of first line. *"Test specimens.....".*

***ITEM 27* (Section 4.1.4.7)**

Suggested rewrite of third line. *"spacing shall be 24 inches (610 mm).....".*

***ITEM 28* (Section 6.1.3)**

Rounding to 3 inch increments is overly restrictive and unnecessary.

I trust that this will be received and dealt with in the spirit in which it is intended.

Reinhold Schuster

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January 19, 2009

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Agenda item 18: AC86: *Acceptance Criteria for Cold-Formed Steel Framing Members – Interior Nonload-Bearing Wall Assemblies*

Dear Mr. McRoy,

Thank you for updating Acceptance Criteria AC86. Based on the input of the SSMA Technical Committee, our only comment deals with the requirement added to section 6.1.3, for tabulated wall heights rounded to the nearest 3-inch increment. Our concern is that this would cause confusion: both in the enforcement community, as well as in the development of reports. We see no need for the rounding to 3 inch increments, and would like the rounding to one-inch increments to be maintained. It would be acceptable to maintain the added wording, but change "3" to "1." Thus, the new sentence would read, "Tabulated wall heights in evaluation reports shall be rounded to the nearest ~~3~~1-inch (~~76~~25 mm) increment."

Thank you for the opportunity to comment; feel free to call or email to discuss. I plan on attending the February hearings to represent SSMA.

Sincerely,
STEEL STUD MANUFACTURERS ASSOCIATION

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Technical Director

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