

cold-formed steel structures, the structures shall be designed and detailed in accordance with the requirements of AISI S100, ASCE 8, and AISI S110 as modified in Section 14.1.3.3.

14.1.3.3 Modifications to AISI S110

The text of AISI S110 shall be modified as indicated in Sections 14.1.3.3.1 through 14.1.3.3.5. Italics are used for text within Sections 14.1.3.3.1 through 14.1.3.3.5 to indicate requirements that differ from AISI S110.

14.1.3.3.1 AISI S110, Section D1 Modify Section D1 to read as follows:

D1 Cold-Formed Steel Special Bolted Moment Frames (CFS-SBMF)

Cold-formed steel–special bolted moment frame (CFS-SBMF) systems shall withstand significant inelastic deformations through friction and bearing at their bolted connections. Beams, columns, and connections shall satisfy the requirements in this section. CFS-SBMF systems shall be limited to one-story structures, no greater than 35 feet in height, without column splices and satisfying the requirements in this section. *The CFS-SBMF shall engage all columns supporting the roof or floor above. The single size beam and single size column with the same bolted moment connection detail shall be used for each frame. The frame shall be supported on a level floor or foundation.*

14.1.3.3.2 AISI S110, Section D1.1.1 Modify Section D1.1.1 to read as follows:

D1.1.1 Connection Limitations

Beam-to-column connections in CFS-SBMF systems shall be bolted connections with snug-tight high-strength bolts. The bolt spacing and edge distance shall be in accordance with the limits of AISI S100, Section E3. *The 8-bolt configuration shown in Table D1-1 shall be used. The faying surfaces of the beam and column in the bolted moment connection region shall be free of lubricants or debris.*

14.1.3.3.3 AISI S110, Section D1.2.1 Modify Section D1.2.1 and add new Section D1.2.1.1 to read as follows:

D1.2.1 Beam Limitations

In addition to the requirements of Section D1.2.3, beams in CFS-SBMF systems shall be *ASTM A653 galvanized 55 ksi (374 MPa) yield stress cold-formed steel* C-section members with lips, and designed in

accordance with Chapter C of AISI S100. *The beams shall have a minimum design thickness of 0.105 in. (2.67 mm). The beam depth shall be not less than 12 in. (305 mm) or greater than 20 in. (508 mm). The flat depth-to-thickness ratio of the web shall not exceed $6.18\sqrt{E/F_y}$.*

D1.2.1.1 Single-Channel Beam Limitations

When single-channel beams are used, torsional effects shall be accounted for in the design.

14.1.3.3.4 AISI S110, Section D1.2.2 Modify Section D1.2.2 to read as follows:

D1.2.2 Column Limitations

In addition to the requirements of D1.2.3, columns in CFS-SBMF systems shall be *ASTM A500 Grade B cold-formed steel* hollow structural section (HSS) members *painted with a standard industrial finished surface*, and designed in accordance with Chapter C of AISI S100. *The column depth shall be not less than 8 in. (203 mm) or greater than 12 in. (305 mm). The flat depth-to-thickness ratio shall not exceed $1.40\sqrt{E/F_y}$.*

14.1.3.3.5 AISI S110, Section D1.3 Delete text in Section D1.3 to read as follows:

D1.3 Design Story Drift

Where the applicable building code does not contain design coefficients for CSF-SBMF systems, the provisions of Appendix 1 shall apply.

For structures having a period less than T_s , as defined in the applicable building code, alternate methods of computing Δ shall be permitted, provided such alternate methods are acceptable to the authority having jurisdiction.

14.1.4 Cold-Formed Steel Light-Frame Construction

14.1.4.1 General

Cold-formed steel light-frame construction shall be designed in accordance with AISI S100, Section D4. Where required, the seismic design of cold-formed steel light-frame construction shall be in accordance with the additional provisions of Section 14.1.4.2.

14.1.4.2 Seismic Requirements for Cold-Formed Steel Light-Frame Construction

Where a response modification coefficient, R , in accordance with Table 12.2-1 is used for the design of cold-formed steel light-frame construction, the