

**Part 1            General**

**1.1            RELATED SECTIONS**

- .1        Section 06 10 11 Rough Carpentry: Sheathing for horizontal surfaces.
- .2        Section 06 16 43 Gypsum Sheathing: Sheathing for vertical surfaces.

**1.2            REFERENCES**

- .1        American Society for Testing and Materials (ASTM)
  - .1        ASTM A879/A879M-06, Specification for Steel Sheet, Zinc-Coated by the Electrolytic Process for Applications Requiring Designation of the Coating Mass on Each Surface
  - .2        ASTM A653/A653M-06, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .3        ASTM A792/A792M-06, Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process
- .2        Canadian General Standards Board (CGSB)
  - .1        CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating
- .3        Canadian Sheet Steel Building Institute (CSSBI)
  - .1        CSSBI 59-05 Lightweight Steel Frame House Construction Handbook.

**Part 2            Products**

**2.1            MATERIALS**

- .1        Steel: to CSA S136, fabricated from ASTM A653/A653M, Grade A to D steel.
- .2        Zinc coated steel sheet: quality to A653M, with Z275 designation zinc coating.
- .3        Screws: pan head, self-drilling, self-tapping sheet metal screws, corrosion protected to minimum requirements of CSSBI, length to suit application.
- .4        Anchors: concrete expansion anchors or other suitable drilled type fasteners.

**2.2            STEEL STUD DESIGNATIONS**

- .1        Colour code steel studs in accordance with CSSBI 50M. Alternatively the base metal steel thickness may be marked on each member by embossing or stamping with indelible ink.

**2.3            COMPONENTS**

- .1        Lightweight steel framing system shall include the following:
  - .1        Axial loadbearing studs including:
    - .1        Wall studs.
    - .2        Single top and bottom track.
    - .3        Connections.
  - .2        Floor, roof and ceiling joists including:

- .1 Joists.
- .2 Headers and trimmers.
- .3 Connections.

## **2.4 METAL FRAMING**

- .1 Steel studs and roof joists: to CSA S136, fabricated from zinc coated steel, depth as indicated. Minimum steel thickness of 0.879 mm.
- .2 Stud tracks : fabricated from same material and finish as steel studs, depth to suit.
  - .1 Bottom track: single piece.
  - .2 Top track: single piece.
- .3 Angle clips: fabricated from same material and finish as studs, 38 x 38mm x depth of steel stud, 1.22 mm minimum thickness.

## **Part 3 Execution**

### **3.1 GENERAL**

- .1 Do work in accordance with CSSBI Lightweight Steel Frame House Construction Handbook.

### **3.2 SPACING**

- .1 The spacing of members shall not exceed the following:
  - .1 Wall studs: 400 mm.
  - .2 Roof joists: 400 mm.

### **3.3 ERECTION**

- .1 Anchor tracks securely to structure at 400 mm oc maximum.
- .2 Erect studs plumb, aligned and securely attached with two screws minimum, or welded in accordance with manufacturer's recommendations.
- .3 Seat studs into bottom tracks and single piece top track.
- .4 Install studs at not more than 50.0 mm from abutting walls, openings, and each side of corners and terminations with dissimilar materials.
- .5 Frame openings in stud walls to adequately carry loads by use of additional framing members and bracing as detailed on shop drawings.

### **3.4 ERECTION TOLERANCES**

- .1 Erect framing true and plumb to within the specified tolerances. Provide temporary bracing wherever necessary.
- .2 Tracks:
  - .1 Accurately locate wall tracks and secure at 400 mm OC unless closer spacing required in accordance with reviewed and accepted shop drawings.
  - .2 Provide complete and continuous bearing under tracks.

- .3 Studs:
  - .1 Erect metal studding plumb level and square to tolerance of 1:500.
  - .2 Place studs vertically at 406 mm oc to within 3 mm and not more than 50 mm from abutting walls, and at each side of openings and corners.
  - .3 Attach studs to bottom and top tracks with minimum two screws.
  - .4 Splicing of studs is not permitted.
- .4 Locate joists or rafters or their end stiffeners directly over studs. Alternatively a load distribution member may be used to transfer loads. Track may not be used as a load distribution member.

**END OF SECTION**

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