

## 1 GENERAL

### 1.01 REFERENCE STANDARDS

- .1 ASTM International
  - .1 ASTM C 645-14e1, Standard Specification for Nonstructural Steel Framing Members.
  - .2 ASTM A 653/A 653M-07, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvanized) by the Hot-Dip Process.
  - .3 ASTM C 754-15, Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
- .2 Underwriter's Laboratories (UL) Environmental Standards
  - .1 UL-2768-2011, Architectural Surface Coatings.
  - .2 , Surface Coatings - Recycled Water-Borne. UL-2760-2011
- .3 The Master Painters Institute (MPI)
  - .1 Architectural Painting Specification Manual - current edition.
    - .1 MPI #26, Primer, Galvanized Metal, Cementitious.
- .4 South Coast Air Quality Management District (SCAQMD), California State, Regulation XI. Source Specific Standards
  - .1 SCAQMD Rule 1168-A2005, Adhesives and Sealants Applications.

### 1.02 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for metal framing and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Samples:
  - .1 Submit duplicate 300 mm long samples of non-structural metal framing.

### 1.03 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.

## 1.04 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials indoors and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect metal framing from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse of pallets crates, padding, and packaging materials as specified in Construction Waste Management Plan Waste Reduction Workplan in accordance with Section 01 74 19 - Waste Management and Disposal.

## 2 PRODUCTS

### 2.01 MATERIALS

- .1 Non-load bearing channel stud framing: to ASTM C 645, mm stud size, roll formed from 0.53 0.91 mm thickness hot dipped zinc-coated (galvanized) steel sheet in accordance with ASTM A 653, Z180, for screw attachment of gypsum board lath.
  - .1 Knock-out service holes at 460 mm centres.
- .2 Floor and ceiling tracks: to ASTM C 645, in widths to suit stud sizes, and as follows:
  - .1 Slotted Deflection Track for Fire Separations: Premanufactured slotted top runner with 63 mm down standing legs and having 6 mm wide x 38 mm high slots spaced at 25 mm on centre along length of runner; tested and certified for use in fire rated wall construction.
  - .2 Double Runner Deflection Track: Outside runner using 50 mm 75 mm flanges; inner runner 33 mm; maintaining 25 mm minimum deflection space.
  - .3 Deep Leg Deflection Track: Top runner having 50 mm 75 mm down standing legs; maintaining 13 mm minimum deflection space.
  - .4 Base Runner: Bottom track with 33 mm upstanding legs.
- .3 Non-load bearing truss stud framing system: to consist of:
  - .1 Studs: mm size; truss-type bent rod web with double rod chords 12 x 6 mm x 1.2 mm channel chords; welded together at contact points.
    - .1 Make rod of minimum 4.5 mm diameter cold drawn steel wire having tensile strength of 620 MPa.
    - .2 Design studs for clip attachment of gypsum lath or wire tying of metal lath.
  - .2 Floor track: snap-in type formed to hold studs securely in place at 50 mm intervals; fabricated from 0.5 mm thick steel sheet; size to suit studs.

- .3 Ceiling track: channel shaped track for use with stud shoes and 1.2 mm diameter double wire ties; size to suit studs.
- .4 After fabrication apply one shop coat of MPI #26 primer to steel surfaces.
  - .1 Descale and clean surfaces before painting.
- .4 Furring Channels: Commercial steel sheet in accordance with ASTM A 653, Z180, hot dipped zinc-coated (galvanized), as follows:
  - .1 Hat Shaped, Rigid Furring Channels: ASTM C 645, 0.75 mm thickness x 22 mm deep.
  - .2 Resilient Furring Channels: 0.46 mm thickness x 13 mm deep members designed to reduce sound transmission having asymmetrical face attached to single flange by a slotted leg (web).
- .5 Curving Tracks: Commercial steel sheet with ASTM A 653, Z180, hot dipped zinc-coated (galvanized), complete with flexible sliding straps to allow for curvature indicated on drawings; width to suit framing, and as follows:
  - .1 Width: 65 mm 92 mm.
  - .2 Minimum base metal thickness: 0.75 mm.
- .6 Metal channel stiffener: x mm size, 1.4 mm thick cold rolled steel, coated with rust inhibitive coating.
- .7 Acoustical sealant: in accordance with Section 07 92 00 - Joint Sealants.
- .8 Sealants: VOC limit 30 70 250 g/L maximum to SCAQMD Rule 1168 GS-36.
- .9 Insulating strip: rubberized, moisture resistant 3 mm thick cork foam strip, 12 mm wide, with self sticking adhesive on one face, lengths as required.

### 3 EXECUTION

#### 3.01 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for non-structural metal framing application in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Departmental Representative.
  - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

#### 3.02 ERECTION

- .1 Erect partitions in accordance with framing requirements of ASTM C 754.
- .2 Align partition tracks at floor and ceiling and secure at 600 mm on centre maximum.
- .3 Install damp proof course under stud shoe tracks of partitions on slabs on grade.

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- .4 Place studs vertically at mm on centre and not more than 50 mm from abutting walls, and at each side of openings and corners.
    - .1 Position studs in tracks at floor and ceiling. Cross brace steel studs as required to provide rigid installation to manufacturer's instructions.
  - .5 Erect metal studding to tolerance of 1:1000.
  - .6 Attach studs to bottom ceiling track using screws crimp method pop rivets.
  - .7 Co-ordinate simultaneous erection of studs with installation of service lines. Align web openings when erecting studs.
  - .8 Co-ordinate erection of studs with installation of door/window frames and special supports or anchorage for work specified in other Sections.
  - .9 Provide two studs extending from floor to ceiling at each side of openings wider than stud centres specified.
    - .1 Secure studs together, 50 mm apart using column clips or other approved means of fastening placed alongside frame anchor clips.
  - .10 Install heavy gauge single jamb studs at openings.
  - .11 Erect track at head of door/window openings and sills of sidelight/window openings to accommodate intermediate studs.
    - .1 Secure track to studs at each end, in accordance with manufacturer's instructions.
    - .2 Install intermediate studs above and below openings in same manner and spacing as wall studs.
  - .12 Frame openings and around built-in equipment, cabinets, access panels, on four sides. Extend framing into reveals. Check clearances with equipment suppliers.
  - .13 Provide 40 mm stud or furring channel secured between studs for attachment of fixtures behind lavatory basins, toilet and bathroom accessories, and other fixtures including grab bars and towel rails, attached to steel stud partitions.
  - .14 Install steel studs or furring channel between studs for attaching electrical and other boxes.
  - .15 Extend partitions to ceiling height except where noted otherwise on drawings.
  - .16 Maintain clearance under beams and structural slabs to avoid transmission of structural loads to studs.
    - .1 Use 50 mm leg ceiling tracks. Use double track slip joint as indicated.
  - .17 Install continuous insulating strips to isolate studs from uninsulated surfaces.
  - .18 Install two continuous beads of acoustical sealant insulating strip under studs and tracks around perimeter of sound control partitions.

- .19 Curved Partition Tracks:
  - .1 Cut top and bottom track (runners) through leg and web at 50 mm intervals for arc length. In cutting lengths of track, allow for uncut straight lengths minimum 300 mm at ends of arcs. Shape curving tracks to profiles indicated on drawings in accordance with manufacturer's instructions.
  - .2 Bend track to uniform curve and locate straight lengths so they form a true tangent to arcs.
  - .3 Support outside (cut) leg of track by clinching steel sheet strip, 25 mm high, by thickness of track metal, to inside of cut legs using metal lock fasteners.
  - .4 Begin and end arc with a stud and space intermediate studs equally along arcs at stud spacing recommended in writing by gypsum board manufacturer for radii indicated. On straight lengths of minimum 2 studs at ends of arcs, place studs at 150 mm on centre.

### 3.03 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal 01 35 21 - LEED Requirements.
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

### 3.04 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by non-structural metal framing application.

**END OF SECTION**