

The Executed Agreement including General Conditions and Supplementary Conditions, Division 01, applicable drawings and amendments are part of and are to be read in conjunction with this Section

PART 1 - GENERAL

1.1 RELATED WORK

- .1 Structural Steel: Section 05 12 23

1.2 REFERENCES

- .1 CSA-S136, Design of Cold Formed Steel Structural Members.
- .2 CSA-W47.1, Certification of Companies for Fusion Welding of Steel.
- .3 CSA-W55.3, Resistance Welding Qualification Code for Fabricators of Structural Members Used in Buildings.
- .4 CSA-W59, Welded Steel Construction (Metal Arc Welding).
- .5 CAN/CGSB-1.181, Ready-Mixed Organic Zinc-Rich Coating.
- .6 ASTM A 653, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .7 CSSBI 10M, Standard for Steel Roof Deck.
- .8 CAN/CGSB-1.181, Ready Mixed Organic Zinc-Rich Coating

1.3 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00.
 - .2 Submit drawings stamped and signed by qualified professional engineer registered or licensed in province of construction.
 - .3 Indicate details of temporary shoring of steel deck, such as location, time and duration of placement and removal of shoring for concrete fill decks.
 - .4 Indicate deck plan, profile, dimensions, base steel thickness, metallic coating designation, connections to supports and spacings, projections, openings, reinforcement details and accessories.
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1.4 DESIGN REQUIREMENTS

- .1 Design steel deck using limit states design in accordance with CSA S136 and, CSSBI 10M and CSSBI 12M.
- .2 Steel deck and connections to steel framing to carry Dead, Live and other Loads including Lateral Loads, diaphragm action, composite deck action, and uplift as indicated.
- .3 Deflection under specified Live Load not to exceed 1/240 of span, except that when plaster gypsum board ceilings are hung directly from deck, Live Load deflection not to exceed 1/360 of span.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Zinc-iron Alloy (ZF) coated steel sheet: to ASTM-A653 structural quality with ZF75 coating, for interior surfaces not exposed to weather and where no finish painting is to occur. Where deck is to be painted on site, supply deck which has had the passivation treatment removed by either mechanical or chemical means. Refer to drawings for minimum base steel thickness.
 - .2 Zinc (Z) coated steel sheet: to ASTM-A653 structural quality, passivated, for exterior surfaces exposed to weather or at other locations as noted on drawings. Where deck is to be painted on site, supply deck which has had the passivation treatment removed by either mechanical or chemical means. Refer to drawings for minimum base steel thickness. Minimum zinc coating shall be Z275.
 - .3 Closures: in accordance with manufacturer's recommendations.
 - .4 Cover plates, cell closures and flashings: In accordance with manufactures recommendations; Steel sheet with minimum base steel thickness to match deck material. Metallic coating same as deck material.
 - .5 Primer: zinc rich, ready mix to CAN/CGSB-1.181.
 - .6 Acoustic insulation: fibrous glass 1 pound per cubic foot density profiled to suit deck flutes.
 - .7 Primer: zinc rich, ready mix to CAN/CGSB-1.181.
 - .8 Steel roof deck: Refer to drawings for minimum base steel thickness and depth of profile. Deck shall be non-cellular with interlocking side laps.
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2.2 FABRICATION

- .1 Include in work of this section cover plates, cell closures, fasteners, stiffeners and accessories as required. Fabricate sheet metal accessories of same material and finish as deck.
- .2 Fabricate to meet specified requirements of CSA-S136 and to support superimposed loading as shown on Structural Drawings.
- .3 Form deck units to provide male and female interlocking side lap joints.
- .4 Fabricate units to provide for joints between abutting panel ends with 2 inch overlap, sized to provide smooth joint. End laps to occur over supports only.
- .5 Span deck units over at least three or more supports wherever possible. Increase thickness of metal to compensate for continuity wherever fewer than three supports may occur.
- .6 Incorporate reinforcing stiffeners for unsupported edges of metal deck.

PART 3 – EXECUTION

3.1 GENERAL

- .1 Structural steel work: in accordance with CSA-S136 and CSSBI 10M and CSSBI 12M.
- .2 Welding: in accordance with CSA-W59, except where specified otherwise.
- .3 Companies to be certified under Division 1 or 2.1 of CSA-W47.1 for fusion welding of steel and/or CSA-W55.3 for resistance welding.

3.2 ERECTION

- .1 Erect steel deck as indicated and in accordance with CSA-S136, CSSBI 10M and CSSBI 12M and in accordance with reviewed erection drawings.
- .2 Butt ends: to 1/8 inch gap. Install steel cover plates over gaps wider than 1/8 inch.
- .3 Lap ends: to 2 inches minimum.
- .4 Immediately after deck is permanently secured in place, touch up metallic coated top surface with compatible primer where burned by welding.
- .5 Fasten deck to structural steel as indicated on structural drawings. Fasten sheets of deck to adjacent sheets of deck as indicated on structural drawings and as per deck manufacturer's specifications.

3.3 OPENINGS AND AREAS OF CONCENTRATED LOADS

- .1 No reinforcement is required for openings cut in deck which are smaller than 6 inches square.
- .2 For deck openings with any one dimension greater than 6 inches and for areas of concentrated load, reinforce in accordance with structural framing details indicated on structural drawings.

END OF SECTION