
PART 1 - GENERAL

1.1 Reference Standards

- .1 CAN/CSA-G40.21-13 (or latest edition), Structural Quality Steels.
- .2 CSA W59-13 (or latest edition), Welded Steel Construction (Metal Arc Welding).
- .3 ASTM A307-14 (or latest edition), Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile.
- .4 CAN/CSA-G164-M92 (or latest edition) - Hot Dip Galvanizing of Irregularly Shaped Articles.
- .5 CAN/CGSB-1.181-92 (or latest edition), Ready-Mixed Organic Zinc-Rich Coating.
- .5 CAN/CSA-S16.1-14 (or latest edition), Limit States Design of Steel Structures.
- .6 ASTM A123/A123M-15, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

1.2 Shop Drawings

- .1 Submit shop drawings in accordance with Section 01 33 00.
- .2 Shop drawings:
 - .1 Clearly indicate the following items:
 - .1 General arrangements, dimensions, clearance locations and directions of assemblies as installed on structures.
 - .2 Locations, sizes and installation tolerances of anchor bolts, eye bolts and embedded parts.
 - .3 Types of material used, finishes and core thickness.
 - .4 All other pertinent details and accessories.
- .3 Test Results"
 - .1 Provide test results for the galvanized items

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- .4 Submissions:
.1 Provide submissions in accordance with section 01 33 00.
- 1.3 Measurement for Payment
.1 Measurement for payment will be in accordance with Section 01 29 00.
- PART 2 - PRODUCTS
- 2.1 Materials
.1 Steel Sections: to CAN3-G40.21, Grade 350W.
.2 Steel plate and angles: to CAN3-G40.21, Grade 350W.
.3 Welding materials: to CSA W59.
.4 Bolts and anchor bolts: to ASTM A307.
.5 Galvanizing: hot dipped galvanizing with zinc coating 600 g/m² to CSA G164.
.6 Zinc primer: Zinc rich, ready mix to CGSB 1-GP-181.
.7 Do not use items manufactured or fabricated from scrap steel of unknown chemical composition or physical properties.
.8 For adhesive anchors see Cast-in Place concrete, Section 03 30 00.
- 2.2 Fabrication
.1 Build work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
.2 Fabricate items from steel unless otherwise noted.
.3 Where possible, fit and shop assemble work, ready for installation.
.4 Ensure exposed welds are continuous for length.
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- 2.3 Miscellaneous
Metal Work Items
- .1 Miscellaneous anchors, bolts and inserts:
 - .1 Where size, spacing and the like are not indicated, provide as necessary for the purpose.
 - .2 Galvanize all miscellaneous anchors, bolts and inserts.
 - .2 Miscellaneous Steel:
 - .1 Provide miscellaneous steel as required for guide units and the like to the shape, size and details required.
 - .2 Galvanize all miscellaneous steel items.

PART 3 - EXECUTION

- 3.1 Erection
- .1 Install metalwork square, plumb, straight and true, accurately fitted, with tight joints and intersections.
 - .2 Make field connections with bolts to CAN/CSA-S16.1, or weld.
 - .3 Touch-up bolts and scratched surfaces after completion of erection with zinc primer
- 3.2 Miscellaneous
- .1 Fabricate and install shrouds, ice shield, expansion joint and curb quarter round, All items are to be galvanized with the exception of the ice shield.
 - .2 Shrouds are to be galvanized and painted.
 - .3 Install metalwork square, plumb, straight and true, accurately fitted, with tight joints and intersections.
 - .4 Make field connections with bolts to CAN/CSA-S16.1, or weld.
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- .5 Touch-up bolts and scratched surfaces after completion of erection with zinc primer.
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