

1 GENERAL

1.01 REFERENCE STANDARDS

SPEC NOTE: Edit the following paragraphs for this specific project.

- .1 ASTM International
 - .1 ASTM A123/A123M-15, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - .2 ASTM B210/B210M-12, Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes
- .2 CSA International
 - .1 CSA G40.20/G40.21-13, General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CSA S16-14, Design of Steel Structures.
 - .3 CAN/CSA-S157/S157.1-05 (R2015), Strength Design in Aluminum/Commentary on CAN/CSA-S157, Strength Design in Aluminum.
 - .4 CSA W47.2-11 (R2015), Certification of Companies for Fusion Welding of Aluminum.
 - .5 CSA W59-13, Welded Steel Construction (Metal Arc Welding).
 - .6 CSA W59.2-1991(R2008), Welded Aluminum Construction
- .3 American Welding Society (AWS)
 - .1 AWS - A5.10/A5.10M - 17, Welding Consumables – Wire Electrodes, Wires and Rods for Welding of Aluminum and Aluminum Alloys

1.02 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 – Submissions and Shop Drawings
- .2 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Nova Scotia, Canada.
 - .2 Submit shop drawings to include fabrication and erection documents consisting of connection and design details, shop details, erection diagrams, erection procedures and material lists.
 - .3 Indicate cuts, copes, connections, holes, threaded fasteners, rivets, welds and other items. Indicate welds using welding symbols as shown in Appendix A of CSA W59.2.

1.03 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certifications: 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 – Materials and Equipment 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 off ground in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Replace defective or damaged materials with new.

2 PRODUCTS

2.01 MATERIALS

- .1 Steel sections, plates and bar: to CSA G40.20/G40.21, Grade 350W.
- .2 Welding materials: to CSA W59.
- .3 Welding electrodes: to CSA W48 Series.
- .4 Aluminum drawn tubes: to ASTM B 210M
- .5 Aluminum welding wire: to AWS - A5.10/A5.10M.

2.02 FABRICATION

- .1 Fabricate aluminum to CAN/CSA-S157 and in accordance with approved shop drawings.
- .2 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .3 Where possible, fit and shop assemble work, ready for erection.
- .4 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.
- .5 Companies to be certified under Division 1 or 2.1 of CSA W47.2 for fusion welding of aluminum.
- .6 Galvanize all miscellaneous steel items, anchors, bolts and inserts.

2.03 FINISHES

- .1 Galvanizing: hot dipped galvanizing with zinc coating 600g/m².
- .2 Aluminum Finish: plain mill

3 EXECUTION

3.01 ERECTION

- .1 Do welding work in accordance with CSA W59 unless specified otherwise.
- .2 Erect structural aluminum as indicated and to CAN/CSA-S157.
- .3 Field cutting or altering structural members: to approval of Departmental Representative.
- .4 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- .5 Deliver items over for casting into concrete together with setting templates to appropriate location and construction personnel.
- .6 Touch-up bolts and scratched surfaces after completion of erection with zinc primer.

3.02 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal fabrications installation.

END OF SECTION