## 1.0 <u>GENERAL</u>

### 1.1 Requirements

.1 Cooperate and coordinate with the requirements of other units of work specified in other sections.

### 1.2 Related Work Specified Elsewhere

.1 Cast-in-Place Concrete Section 03300

#### 1.3 Referenced Standards

- .1 Conform to CAN3-S16.1 for Steel and CSA S157 for aluminum.
- .2 Welding, fabrications and erection for steel to conform to CSA W59 and CSA W47.1 (Qualification Code).
- .3 Welding aluminum: use inert-gas-arc processes and use appropriate filler rod, CSA W47.2 Aluminum Welding Qualification Code.

#### 1.4 Shop Drawings

- .1 Submit shop drawings in accordance with Section 01300.
- .2 Clearly indicate materials, core thicknesses, finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details and accessories.

### 2.0 PRODUCTS

#### 2.1 Materials

- .1 Steel sections and plates: to CSA G40.21, Type 300W.
- .2 Aluminum sections and plates: Alloy 6061-T6.
- .3 Galvanizing: hot dipped galvanizing with minimum zinc coating of 600 g/m<sup>2</sup> (3.4 mils) to CSA G164.
- .4 Shop coat primer: to refer to Section 09900 for surface preparation.
- .5 Galvanized primer: zinc rich, ready mix to CAN/CGSB-1.181.
- .6 Anchor Bolts: Stainless Steel Anchors, to AISI 303/304.

# 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 Use self-tapping shake-proof countersunk flat headed screws on items required to be assembled by screws or as indicated.
- .4 Where possible, work to be fitted and shop assembled, ready for erection.
- .5 Exposed welds to be continuous for length of each joint. File or grind exposed welds smooth and flush.

## 2.3 Shop Painting

- .1 Apply one shop coat of primer to metal items, with exception of those to be galvanized or encased in concrete.
- .2 Use primer unadulterated, as prepared by manufacturer. Paint on dry surfaces, free from rust, scale, and grease. Do not paint when temperature is lower than 7° C.
- .3 Protect primed surfaces and re-apply prime coats, which have been damaged.
- .4 Clean surfaces to be field welded; do not paint.
- .5 Aluminum surfaces in contact with concrete to be coated with bituminous paint.

### 3.0 EXECUTION

### 3.1 Erection

- .1 Erect metal work square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- .2 Provide suitable and acceptable means of anchorage, such as dowels, anchor clips, bar anchors, expansion bolts and shields, toggles.
- .3 Make field connections with high tensile stainless steel bolts, or weld to CSA S16-1969 and S16S1-1975.
- .4 Touch up rivets, field welds, bolts and burnt or scratched surfaces after completion of erection.
- .5 Touch up galvanized surfaces with zinc primer where burned by field welding.

# 3.2 Miscellaneous Metal Work Items

.1 Examine drawings and specifications and furnish miscellaneous metalwork items required for proper execution of this project.

# **END OF SECTION**