
Part 1 General

1.1 RELATED WORK

- .1 Painting: Section 09 91 00

1.2 REFERENCE STANDARDS

- .1 Canadian Standards Association (CSA International)
- .1 CSA G40.20-04/G40.21-04 (R2009), General Requirements for Rolled or Welded Structural Quality Steel / Structural Quality Steel.
- .2 CSA S16-09, Design of Steel Structures.
- .3 CSA W47.1-09, Certification of Companies for Fusion Welding of Steel.
- .4 CSA W59-03 (R2008), Welded Steel Construction (Metal Arc Welding).
- .2 American Society for Testing and Materials (ASTM International)
- .1 ASTM A325-10, Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength.
- .2 ASTM A563-07a, Standard Specification for Carbon and Alloy Steel Nuts.
- .3 ASTM F436-11, Standard Specification for Hardened Steel Washers.
- .3 Canadian Institute of Steel Construction (CISC)/Canadian Paint Manufacturer's Association (CPMA).
- .1 CISC/CPMA-2-75-1975, Quick-Drying, Primer for Use on Structural Steel.

1.3 AS-BUILT DRAWINGS

- .1 Maintain "As-Built" conditions on record drawings in accordance with Division 1.

1.4 SUBMITTALS

- .1 Submit three certified copies of mill test reports covering chemical and physical properties of steel used in this work. Such mill test reports shall be certified by qualified metallurgists confirming that tests conform to requirements of CAN/CSA-G40.20 and CAN/CSA-G40.21.

1.5 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Division 1.
- .2 Each drawing submitted shall bear the signature and stamp of a qualified professional Engineer registered in New Brunswick.
- .3 Clearly indicate shop and erection details including cuts, copes, connections, holes, threaded fasteners, and welds. Indicate welds by AWS welding symbols as defined in CSA W59.

- .4 All shop drawings and material lists are to contain a blank area measuring 70 mm high by 100 mm long located near the bottom right hand corner of the drawing or page. This area is to be reserved for the Engineer's review stamp.

1.6 COMPANY CERTIFICATION

- .1 Only companies certified to CSA W47.1 (Division 1 or 2) at the time of bidding this job will be considered as eligible to bid.

Part 2 Products

2.1 MATERIALS

- .1 Rolled W shapes to CAN/CSA-G40.21, 350 W.
- .2 Channels, plates and angles: to CAN/CSA-G40.21, 300W.
- .3 Bolts: to ASTM A307.
- .4 Nuts and washers to: ASTM A563 & ASTM F436
- .5 Welding materials: to CSA W59.
- .6 Shop paint primer: to CISC/CPMA 2-75.
- .7 Welding electrodes: E49XX.
- .8 Threaded rods for embedment into concrete with epoxy adhesive: CAN/CSA-G40.21, 300W, sized as shown on drawings complete with nuts and circular washers.

2.2 FABRICATION

- .1 Fabricate structural steel as indicated to CSA S16 and in accordance with reviewed shop drawings.
- .2 Do welding to CSA W59.

2.3 SHOP PAINTING STANDARD MISCELLANEOUS METALS

1. Clean, prepare surfaces by shot blasting and shop prime structural steel to CSA S16 in preparation for CISC/CPMA 2-75 primer.
- .2 Visual inspection of shop welding shall be carried out prior to shop painting.

2.4 SUBSTITUTIONS

- .1 This Contractor shall estimate the work on the basis of the member sizes shown on the drawings. Substitution of larger sizes by the Contractor will not be considered as an extra to the contract. Substitutions to be approved by the PWGSC Representative.

Part 3 Execution

3.1 ERECTION

- .1 Erect miscellaneous metals as indicated to CSA S16 and in accordance with shop drawings to minimum tolerances.
- .2 Where indicated, continuously seal members by continuous welds and grind smooth.
- .3 Obtain written permission of PWGSC Representative prior to field cutting or altering of structural members.
- .4 Touch up shop primer to bolts, welds and burned or scratched surfaces at completion of erection.

3.2 INSTALLATION OF REINFORCING STEEL/ANCHOR RODS USING ADHESIVE ANCHOR SYSTEM

- .1 Install reinforcing steel/anchor rods using adhesive anchor system in concrete at locations noted or shown on the drawings and/or as required to complete the work. Installation shall be in strict accordance with the manufacturer's written instructions.

3.3 INSPECTION AND TESTING

- .1 The Contractor shall conduct visual welding inspection on all welding as outlined in Clauses 7 and 11 of CSA W59. A written inspection report shall be provided to the PWGSC Representative.

END OF SECTION