

**Part 1            General**

**1.1                PRICE AND PAYMENT PROCEDURES**

- .1        Measurement and Payment:
  - .1            No measurement will be made under this Section.

**1.2                REFERENCES**

- .1        American Concrete Institute (ACI)
  - .1            SP-66-04, ACI Detailing Manual 2004.
- .2        CSA International
  - .1            CSA-A23.1-14/A23.2-14c, Concrete Materials and Methods of Concrete Construction/Test Methods and Standard Practices for Concrete.
  - .2            CAN/CSA-A23.3-14, Design of Concrete Structures.
  - .3            CSA-G30.18-R2014, Carbon Steel Bars for Concrete Reinforcement.
  - .4            CSA-G40.20/G40.21-13(R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
- .3        Reinforcing Steel Institute of Canada (RSIC)
  - .1            RSIC-2017, Reinforcing Steel Manual of Standard Practice.

**1.3                ACTION AND INFORMATIONAL SUBMITTALS**

- .1        Submit in accordance with Section [01 33 00 - Submittal Procedures].
- .2        Prepare reinforcement drawings in accordance with RSIC Manual of Standard Practice.
- .3        Shop Drawings:
  - .1            Submit drawings stamped and signed by professional engineer registered or licensed in the Northwest Territories of Canada.
    - .1                Indicate placing of reinforcement and:
      - .1                    Bar bending details.
      - .2                    Lists.
      - .3                    Quantities of reinforcement.
      - .4                    Sizes, spacings, locations of reinforcement and mechanical splices if approved by Consultant, with identifying code marks to permit correct placement without reference to structural drawings.
      - .5                    Indicate sizes, spacings and locations of chairs, spacers and hangers.
  - .2            Detail lap lengths and bar development lengths to CAN/CSA-A23.3.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Storage and Handling Requirements:
  - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Replace defective or damaged materials with new.

### **Part 2 Products**

#### **2.1 MATERIALS**

- .1 Substitute different size bars only if permitted in writing by Consultant.
- .2 Reinforcing steel: billet steel, grade 300, deformed bars to CSA-G30.18, unless indicated otherwise.
- .3 Reinforcing steel: weldable low alloy steel deformed bars to CSA-G30.18.
- .4 Cold-drawn annealed steel wire ties: to ASTM A82.
- .5 Welded steel wire fabric: to ASTM A185.

#### **2.2 FABRICATION**

- .1 Fabricate reinforcing steel in accordance with CSA-A23.1/Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada.
- .2 Obtain Consultant's written approval for locations of reinforcement splices other than those shown on placing drawings.

#### **2.3 SOURCE QUALITY CONTROL**

- .1 Upon request, provide Consultant with certified copy of mill test report of reinforcing steel, showing physical and chemical analysis, minimum 1 weeks prior to beginning reinforcing work.
- .2 Upon request inform Consultant of proposed source of material to be supplied.

### **Part 3 Execution**

#### **3.1 FIELD BENDING**

- .1 Do not field bend or field weld reinforcement except where indicated or authorized by Departmental Representative.
- .2 When field bending is authorized, bend without heat, applying slow and steady pressure.
- .3 Replace bars, which develop cracks or splits.

**3.2 PLACING REINFORCEMENT**

- .1 Place reinforcing steel as indicated on placing drawings in accordance with CSA-A23.1.
- .2 Prior to placing concrete, obtain Consultant's approval of reinforcing material and placement.
- .3 Ensure cover to reinforcement is maintained during concrete pour.

**3.3 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse or recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

**END OF SECTION**