

**Part 1            General**

**1.1                CONNEXS SECTIONS**

- .1        Section 03 30 00.01 - Cast-in-place Concrete short form

**1.2                REFERENCES**

- .1        American Concrete Institute (ACI)
  - .1        SP-66-04, ACI Detailing Manual 2004.
    - .1        ACI 315-99, Details and Detailing of Concrete Reinforcement.
    - .2        ACI 315R-04, Manual of Engineering and Placing Drawings for Reinforced Concrete Structures.
  - .2        Canadian Standards Association (CSA International)
    - .1        CSA-A23.1-09/A23.2-09, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
    - .2        CSA-A23.3-04(R2010), Design of Concrete Structures.
    - .3        CAN/CSA-G30.18-M92(R2002), Billet-Steel Bars for Concrete Reinforcement, A National Standard of Canada.
    - .4        CSA-G40.20/G40.21-04(R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
    - .5        CSA W186-M1990(R2007), Welding of Reinforcing Bars in Reinforced Concrete Construction.
  - .3        Reinforcing Steel Institute of Canada (RSIC)
    - .1        RSIC-2004, Reinforcing Steel Manual of Standard Practice.

**Part 2            Products**

**2.1                MATERIALS**

- .1        Substitute different size bars only if permitted in writing by Departmental Representative.
- .2        Reinforcing steel: billet steel, grade 400, deformed bars to CAN/CSA-G30.18, unless indicated otherwise.
- .3        Cold-drawn annealed steel wire ties: to ASTM A497/A497M.
- .4        Chairs, bolsters, bar supports, spacers: to CSA-A23.1/A23.2.

**2.2                FABRICATION**

- .1        Fabricate reinforcing steel in accordance with CSA-A23.1/A23.2 and Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada.

- .2 Obtain Departmental Representative's approval for locations of reinforcement splices other than those shown on placing drawings.
- .3 Upon approval of Departmental Representative, weld reinforcement in accordance with CSA W186.
- .4 Ship bundles of bar reinforcement, clearly identified in accordance with bar bending details and lists.

### **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 and in accordance with CSA-A23.1/A23.2.
- .2 Use plain round bars as slip dowels in concrete.
- .3 Prior to placing concrete, obtain Departmental Representative's approval of reinforcing material and placement.

#### **2.3 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/recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

**END OF SECTION**