PART 1 – GENERAL

1.1 RELATED WORK

.1 Refer to Section 01 33 00 for Shop Drawing/Submission requirements.

1.2 REFERENCE STANDARDS

.1 Perform concrete reinforcement work in accordance with CSA standard A23.1-14 (or latest edition), Concrete Materials and Methods of Concrete Construction, except where stricter standards specify otherwise.

.2 Reinforcing Steel Manual of Standard Practice (Second Edition – 1995) (or latest edition) by Reinforcing Steel Institute of Ontario.

.3 CSA G30.18 (or latest edition), Billet-Steel Bars for Concrete Reinforcement.

.4 CSA G30.3-M1983 (R1991) (or latest edition), Cold-Drawn Steel Wire for Concrete Reinforcement.

1.3 SOURCE SAMPLING

.1 Upon request, provide the Departmental Representative with certified copy of mill test of steel supplied showing physical and chemical analysis not less than 3 weeks prior to commencement of work.

1.4 SUBMISSIONS

.1 Shop Drawings:
.1 Clearly indicate bar sizes, spacing, location and quantities of reinforcement, mesh, chairs, spacers and hangers with identifying code marks to permit correct placement without reference to structural drawings; to Reinforcing Steel Manual of Standard Practice.

.2 Detail placement of reinforcing where special conditions occur.
.3 Design and detail lap lengths and bar development lengths to CSA standard A23.1, unless otherwise specified on drawings. Provide Class B tension lap splices unless otherwise indicated.

.2 Product Data/Samples:
.1 Provide product data for supports and spacers.

.3 Test Results:
.1 Provide Mill Test Certificates cross referenced to the product supplied to the site.

.4 Provide submissions in accordance with Section 01 33 00.

1.5 STORAGE

.1 Store reinforcing steel on racks or sills that will permit easy access for identification and handling and prevent it from becoming coated with material which would adversely affect bond.

.2 Do not store reinforcing steel in direct contact with the ground.

1.6 MEASUREMENT OF PAYMENT

.1 This item will not be measured separately.

.2 Supply and placing of reinforcement, wire ties and spacers to be considered incidental to the work.

PART 2 – PRODUCTS

2.1 MATERIALS

.1 Reinforcing steel: to CSA G30.18; billet steel grade 400W deformed bars.

.2 Wire ties: to CSA G30.3 plain, cold drawn annealed steel wire.

.3 Spacers: PVC, Fabricated to suit site dimensions.

2.2 REINFORCING STEEL FABRICATION

.1 Fabricated reinforcing to CSA standard A23.1.

.2 Fabrication tolerances for reinforcing steel to Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada.

.3 Obtain the Departmental Representative's acceptance for location of reinforcement splices other than shown on steel placing drawings.

.4 Ship bundles of bar reinforcement clearly identified in accordance with bar list.

.5 Do not weld reinforcing steel.

PART 3 – EXECUTION

3.1 PLACING

.1 Accurately place reinforcing in positions indicated and hold firmly during placing, compacting and setting of concrete.

.2 Tie reinforcement where spacing in each direction is:
.1 Less than 300 mm: - tie at alternate intersections.
.2 300 mm or more: - tie at each intersection.

.3 Ensure cover to reinforcement is maintained during concrete pour.

3.2 FIELD BENDING

.1 Do not field bend reinforcement except where indicated or authorized by the Departmental Representative.

.2 When authorized, bend reinforcement without heat, by applying slow and steady pressure.

.3 Replace bars which develop cracks or splits.

3.3 CLEANING

.1 Clean reinforcing before placing concrete.

3.4 INSPECTION

.1 Do not place concrete until the Departmental Representative has inspected and accepted reinforcement work in place.

3.5 SURFACE CONDITIONS

.1 Reinforcement (at time concrete is placed) to be free from mud, oil or other nonmetallic coatings that adversely affect bonding capacity.

.2 Reinforcement with rust, mill scale, or combination of both to be considered as satisfactory provided minimum dimensions, including height of deformations, and mass of hand wire brushed test specimen are not less than specified requirements in applicable CSA Standards.

END OF SECTION