SECTION 03201
SITE WORK CONCRETE REINFORCEMENT

PART 1 – GENERAL

1.01 DESCRIPTION

A. Includes all metal reinforcement, wire mesh and metal supports placed in cast-in-place concrete.

B. Consult drawings for location, size, extent, and arrangement of reinforcing.

1.02 QUALITY ASSURANCE

A. Comply with the following standards:

1. Title 24, Part 1 and 2, California Code of Regulations.

2. California Building Code, particularly Chapters 16 and 19.

B. Tests required for reinforcing steel:

1. Sample and test reinforcing steel.

1.03 SUBMITTALS

A. Submit shop drawings of all Work in this Section.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Reinforcing Steel:

1. Bars: Conform to ASTM A615, bars #4 and smaller: Grade 40 or 60, bars #5 and larger: Grade 60.

2. Wire Mesh: Welded mesh conforming to ASTM A185.

B. Adhesive Anchoring Systems for Concrete:

1. Adhesive Anchoring systems shall be Hilti HIT-RE500-SD (ICC ESR-2322) System, Simpson SET-XP (ICC ESR-2508) or Approved Equal. Installation of Anchors an d adhesive including Drilling and cleaning of holes shall be in accordance with the current ICC Report. Adhesives shall be used only in Applications permitted by the Adhesive’s ICC Report.
C. Non-shrink Grout:

1. Non-shrink grout shall be slowable, with a Minimum 7 day compressive Strength of 5000 psi. Non-Shrink Grout shall be Masterflow 928 Grout as manufactured by Chemrex or Approved Equal.

PART 3 – EXECUTION

3.01 PLACING OF REINFORCING STEEL

A. In accordance with the drawings. The Contractor shall submit bending and placing details of all reinforcing for approval. The details shall include slab chair, bolster, and bar support layout. The details shall be shown in a clear and orderly manner so as to facilitate checking the details and inspection of reinforcing on the job.

B. Detailing, fabrication, and placement of reinforcement shall be at least equal to that set forth in the “Manual of Standard Practice for Detailing Reinforced Concrete Structures” of the American Concrete Institute, and/or better where required by the drawings and specifications.

C. Hold in place with galvanized metal supports, except that mesh reinforcement for slabs on grade shall be wire tied to concrete blocks to provide proper clearance.

D. Reinforcement in bottom of footings shall be hung with wire from the forms, or supports at top of footings, and shall not depend on concrete blocks, bricks or other materials for their final support.

E. Reinforcing steel at time of placing concrete shall be free from rust scale, loose mill scale, paint or other coating that will destroy or reduce bond between steel and concrete.

F. Reinforcing steel shall not be bent or straightened in a manner that will injure the materials. Bars with kinks or bends not shown on the plans will not be used.

G. Clear spacing between paralleled bars shall not be less than 1-1/2”. Reinforcing steel shall be in place before concreting is begun.

H. Bars shall be lapped as shown or noted on the drawings. Bars shall be wired together at laps, except at points of support. Splices in bars shall be staggered wherever possible. Splices in mesh shall not be less than six (6) inches.
3.02 WELDING

A. All welding of reinforcing bars shall conform to ASTM A706, and to “Recommended Practices for Welding Reinforcing Steel, Metal Inserts and Connections in Reinforced Concrete Construction”. All welding shall be performed under the continuous inspection of a qualified welding inspector.

END OF SECTION