PART 1 GENERAL

1.1 SUMMARY

A. Section Includes: Cast-in-place concrete indicated on drawings and specified in this section.

B. Related Sections:

   1. 02201 - Earthwork for Buildings.
   2. 04220 - Concrete Unit Masonry.
   3. 06100 - Carpentry.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

   1. A185 Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
   2. A615 Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
   3. D994 Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).

1.3 SUBMITTALS

A. Submit the following items and processes for review:

   1. Shop drawings for reinforcement and accessories.
   2. Concrete materials and mix designs.

1.4 STANDARDS

A. ACI 301 "Standard Specifications for Structural Concrete for Buildings".

   1. Contractor shall keep one copy on the job, for reference.
PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Floor Sealing Compounds:
   1. Kure-N-Seal by Sonneborn, Inc.
   2. Crystal Clear Seal by Lambert Corp.
   3. other A/E approved product.

2.2 MATERIALS

A. Concrete Strengths (Normal weight concrete):
   1. Exterior or Interior Slabs on Fill: 2,500 psi.
   2. Footings: 3,000 psi.
   3. Unspecified Concrete: 3,000 psi.

B. Reinforcing: Deformed bars according to ASTM A615, Grade 60FY=60,000 psi, domestic manufacture.

C. Form Ties: Form ties leaving plastic tube lined holes through members are not allowed.

D. Welded Wire Mesh: According to ASTM A185, galvanized smooth wire, sizes as indicated.

E. Expansion Joint Filler: According to Paragraphs 6.2.2.1 of ACI 301 and ASTM D1752 non-bituminous Type I compatible with polysulfide joint caulking compound for joints with caulking or sealant. Other joints, without caulking, bituminous treated fiber board type according to ASTM D994 and ASTM D1751.

F. Adhesion and Patching Material: Proprietary materials for adhesion or patching are allowed.

PART 3 EXECUTION

3.1 INSPECTION

A. Do not proceed with the work of this section until conditions detrimental to the proper and timely completion of the work have been corrected in an acceptable manner.

3.2 CONCRETE WORK

A. Comply with ACI 301, Specifications for Structural Concrete for Buildings, except as otherwise specified.
   1. Proportioning: ACI 301, Method 2 for normal weight concrete.
   2. Bond Development at Construction Joints: Comply with Paragraphs 6.1.4.3 and 8.5 of ACI 301.
   3. Placing of concrete under water is not allowed.
   4. The use of earth cuts as forms is not allowed.
3.3 FIELD QUALITY CONTROL TESTING

A. Perform field quality control testing according to following requirements: Comply with Chapter 16 of ACI 301.

B. Mold 2 additional cylinders for 3 and 7 day tests (total of 5 cylinders required per batch tested).

C. Tests specified in ACI 301 Paragraphs 16.3.4 and 16.5 will be performed by the Board Testing Laboratory.

3.4 FINISHES

A. As specified in ACI 301, Paragraphs 10.4 and 11.8, unless otherwise specified or noted on drawings.

B. Floor Sealing Compound: Apply on concrete floor slabs unless otherwise specified or noted on drawings.

C. Exterior Platforms, Sidewalks, Curbs, and Ramps: Light broom finish unless otherwise specified or noted on drawings.

D. Maximum allowable tolerances for floor slabs not receiving ceramic or quarry tile shall be 1/8” in a 10 foot radius.

3.5 TESTING LABORATORY NOTIFICATION

A. Notify the Board Testing Laboratory and the Board’s building code inspectors (BCI) 48 hours before scheduled time of each concrete pour.

END OF SECTION