03 00 00 - CONCRETE

A. Standards and Testing:

1. Testing of concrete shall be budgeted, arranged and performed for each project as required by code and specified for Contractor quality control and Owner quality assurance.

2. Refer to Division 32 – Exterior Improvements for specifications on paving, ramps, walks, and pads.

3. Comply with the following applicable provisions unless specifications indicate otherwise:

   - ACI 301 "Specifications for Structural Concrete Buildings"
   - ACI 318 "Building Code Requirements for Reinforced Concrete"

   **Sampling**
   - ASTM C 172

   **Slump**
   - ASTM C 143

   **Air Content**
   - ASTM C 173

   **Compressive Strength**
   - ASTM C 39

   **Materials:**
   - Portland cement: ASTM C 150
   - Aggregates: ASTM C 33
   - Water: Drinkable
   - Air Entraining Admixture: ASTM C 260
   - Water-Reducing Admixture: ASTM C 494

   **Weather Protection:**
   - Cold Weather: ACI 306
   - Hot Weather: ACI 305

   **Curing Compound**
   - Liquid Type Membrane-Forming: ASTM C 309

   **Type I, Class A**

03 20 00 - CONCRETE REINFORCING

A. As a rule, post-tensioned concrete is not desired for University buildings and must be specifically approved by the Director of Facilities Management through the University Representative.

03 30 00 - CAST-IN-PLACE CONCRETE

A. Concrete Finishes:

1. Slab Trowel Finish - Apply trowel finish to monolithic slab surfaces that are exposed-to-view or are to be covered with resilient flooring, paint or other thin-film coating. Consolidate concrete surfaces by finish troweling, free of trowel marks, flat, with uniform texture and appearance. Machine finishing is acceptable on CSU projects. Specifications must include tolerances for flatness.

2. Exterior Finish - Apply light broom finish to exterior slabs unless noted otherwise. Exposed
aggregate finish may be used as special design feature when approved by Facilities Management-Design and Construction through the University Representative.

3. All exterior flat work shall be treated with a clear curing and sealing compound.

4. Interior slabs that will not receive a finish such as VCT or carpet shall be water-cured with absorptive mats.

5. Interior slabs that will not receive a floor finish shall be sealed after the concrete is fully cured. Sealer shall be a polyurethane product that is available from Facilities Management Building Services.

6. Concrete stairs that do not have a stringer shall be tooled along the side of each tread to form a groove that channels cleaning water down the riser face and not over the side.