

PART III – CSU FACILITIES PLANNING, DESIGN AND CONSTRUCTION STANDARDS

DIVISION 03 – CONCRETE

Housing and Dining Facilities (HDS) has adopted amendments for all HDS facilities. Confirm applicable standards with Project Representative on a per Project basis. Refer to HDS amendments here – <https://housing.colostate.edu/about/construction/>.

DIVISION 03 – CONCRETE

03 00 00 – GENERAL INFORMATION

- A. 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.
- B. Refer to Division 32 – Exterior Improvements for requirements for paving, ramps, walks, and pads.
- C. Comply with the following applicable provisions unless Specifications indicate otherwise:
 - 1. American Concrete Institute (ACI) 301 "Specifications for Structural Concrete Buildings"
 - 2. ACI 318 "Building Code Requirements for Reinforced Concrete"
 - 3. Sampling – ASTM C 172
 - 4. Slump – ASTM C 143
 - 5. Air Content – ASTM C 173
 - 6. Compressive Strength – ASTM C 39
 - 7. Portland Cement – ASTM C 150
 - 8. Aggregates – ASTM C 33
 - 9. Water – Drinkable
 - 10. Air Entraining Admixture – ASTM C 260
 - 11. Water-Reducing Admixture – ASTM C 494
 - 12. Cold Weather – ACI 306
 - 13. Hot Weather – ACI 305
 - 14. Liquid Type Membrane-Forming – ASTM C 309
 - 15. Type I, Class A

03 35 00 – CONCRETE FINISHING

- A. Concrete Finishes:
 - 1. Slab Trowel Finish:
 - a. 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.
 - b. Consolidate concrete surfaces by finish troweling, free of trowel marks, flat, with uniform texture and appearance.

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- c. Machine finishing is acceptable on Colorado State University (CSU) Projects.
 - d. Specifications must include tolerances for flatness.
2. Exterior Finish:
- a. Apply light broom finish to exterior slabs unless noted otherwise.
 - b. Exposed aggregate finish may be used as special design feature when approved by Facilities Management (FM) Planning, Design, Construction and Engineering through the Project 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 luxury vinyl tile (LVT) 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.
- a. Sealer shall be a polyurethane product that is available from FM 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.

03 38 00 – POST-TENSIONED CONCRETE

- A. As a rule, post-tensioned concrete is not desired for University buildings and must be specifically approved by the Associate Vice President through the Project Representative.

END OF DIVISION