

1. **Design Criteria:**

- a. **Preconstruction Meeting:** Prior to the start of concrete work, a pre-construction meeting shall be held at which representatives of the Owner, Architect, Structural Engineer and Testing Agency and key personnel of the Contractor and Subcontractor, including Polishing or Finishing Subcontractor, shall be present.
 - i. Discussions at the meeting shall form the basis for the performance and inspection of concrete work.
- b. Interior concrete floors that remain exposed to view should be reviewed with Custodial Services to determine acceptable sealing or protective finishes.
- c. All Exterior concrete shall be 5000 PSI except Curbing which shall be 4000 PSI.
- d. The design consultant or project engineer shall provide information for the consultant-prepared and code-required statement of special inspections related to cast in place concrete.

2. **References**

- a. "Building Code Requirements for Structural Concrete" (ACI 318-11), American Concrete Institute.
- b. "Specifications for Structural Concrete for Buildings" (ACI 301-10), American Concrete Institute.
- c. "Detailing Manual" (ACI SP-66), 2004, American Concrete Institute.
- d. "Manual of Standard Practice" (10MSP 27th Edition), Concrete Reinforcing Steel Institute (CRSI).
- e. "Structural Welding Code - Reinforcing Steel" (AWS D1.1-2010), American Welding Society.
- f. "Manual of Concrete Practice 2008", Volumes 1 through 5, American Concrete Institute for ACI Standards and Recommended Practices referred to in this Section.
- g. American Society for Testing and Materials (ASTM) Standards referenced in this Section.

3. **Required Submittals:**

- a. Samples for pigmented concrete.
- b. Any other submittals required by the consultant-prepared and code-required statement of special inspections related to inspection of concrete work during construction.

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- c. Tests for approval of concrete mixtures shall be paid for by the Contractor.
 - d. Product Data: For each type of product indicated.
 - e. Design Mixtures: For each concrete mixture.
 - f. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement. Draw all walls and grade beams in elevation; coordinate and show MEP and Architectural penetrations. Draw all slabs on metal deck and on grade in plan. Show control and construction joints in walls and slabs with joint details or assemblies.
 - g. Welding certificates.
 - h. Formwork: Panel layout and ties at all wall sides exposed to view.
4. **Products, Materials & Equipment:**
- a. Exterior flatwork finish: Brushed
 - b. Dowell sleeves: smooth epoxy coated rebar
 - c. Exterior Expansion joint: asphaltic impregnated flexible, and non-extruding fiber joint
 - d. Interior Concrete and Exterior Concrete to Granite Joints: ¼" Deck-o-Foams – WR Meadows (Please confirm for indoor use)
 - e. Exterior Concrete Curing: Spec Chem - Cure shield ex
 - f. Tool Joints north of main Street – Saw Cut south –
 - g. Where tooled joints are used, edges shall be tooled.
 - h. Where sawcut is used, edges shall be rounded/dulled.
5. **Installation, Fabrication, and Construction:**
- a. Joint locations shall be indicated on the drawings by the design consultant.
 - b. Construction and installation of cast in place concrete shall conform to the relevant sections of the Vermont Agency of Transportation specifications 541 – Structural Concrete.
 - c. Non-slip Broom Finish
 - i. Inspection and testing of cast-in-place concrete work will be performed by an independent Testing Agency, under a separate contract with the Owner.

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- ii. Notify Architect and Testing Agency prior to start of any phase of concrete work to afford them reasonable opportunity to schedule site visit. Such notification shall be made at least 36 hours in advance.
 - iii. GC will coordinate and schedule the work of the testing agency.
 - d. Ready-mix concrete trucks can be cleaned out at the project site, provided that a designated and approved washout basin has been approved within the project limits. Ready-mix trucks will be required to have a self-contained reserve water washout basis or be directed back to the ready-mix plant in order to be cleaned out. Hardened washout material shall be removed from site afterwards.
6. **Warranties:**
- a. Provide manufacturer's standard lifetime warranty (commonly offered by most manufacturers).
 - b. Provide installers' standard 1-year warranty for installation and workmanship.