

**SECTION 32 13 13.03**  
**CONCRETE (Cement Concrete for Utility Construction)**

**PART 1 GENERAL****1.1 DESCRIPTION**

- A. The work of this section includes, but is not limited to:
  - 1. Reaction and support blocking
  - 2. Cradles and encasements
  - 3. Miscellaneous utility related cast-in-place cement concrete construction
- B. Related Work Specified Elsewhere:
  - 1. Earth Moving (Trenching, Backfilling, and Compacting): Section 31 20 00.02
  - 2. Concrete (Plain and Reinforced Cement Concrete): Section 32 13 13.01
  - 3. Concrete (Trench Paving and Restoration): Section 32 13 13.02
  - 4. Facility Storm Drainage Piping: Section 33 05 16.13
  - 5. Facility Water Distribution Piping (Water Mains): Section 33 11 16.00
  - 6. Facility Water Distribution Piping (Valves and Fire Hydrants): Section 33 11 16.02
  - 7. Facility Sanitary Sewers (Sanitary Sewer Pipe): Section 33 31 00.00
- C. Definitions: NONE
- D. Applicable Standard Details:  
As shown on the Contract Drawings and in accordance with Publication 408 Specifications.

**1.2 QUALITY ASSURANCE**

- A. Reference Standards:
  - 1. Pennsylvania Department of Transportation (PennDOT), latest revision:  
Publication 408, Specifications
- B. Inspections:
  - 1. Inspections by the ENGINEER will, at a minimum, be made of the subgrade, formwork, supports, and reinforcement prior to placement of the concrete; and of the concrete prior to backfilling.
- C. Testing:
  - 1. As specified in Section 32 13 13.01.

**1.3 SUBMITTALS**

- A. Submit concrete mix designs, including strength test records, for review and approval.
- B. Submit certified results of compressive strength cylinder tests.
- C. Submit copies of concrete batch slips.

**PART 2 PRODUCTS****2.1 CEMENT CONCRETE**

- A. As specified in Section 32 13 13.01.
- B. For work involving a time constraint, use PennDOT Class HES (High Early Strength).

**2.2 REINFORCEMENT STEEL**

- A. As specified in Section 32 13 13.01.

**PART 3 EXECUTION****3.1 CONSTRUCTION**

- A. Comply with Section 32 13 13.01 for construction requirements including placement, curing, and protection of cement concrete.
- B. Excavate and shape trench bottoms and sides to accommodate encasements, manhole bases, drop connections, inlets and vaults.
- C. Support pipes, valves and fittings at the required elevation with brick or concrete block. Do not use earth, rock, wood, or organic materials as supports.
- D. Provide spacers, chairs, bolsters, ties and other devices for properly placing, spacing, supporting and fastening reinforcement in place.
- E. Place concrete utilizing all possible care to prevent displacement of pipes or fittings. Return displaced pipes or fittings to line and grade immediately.
- F. Insure tie rods, nuts, bolts and flanges are free and clear of concrete.
- G. Do not backfill structures until concrete has achieved its initial set and forms are removed.
- H. Perform backfilling and compaction as specified in Section 31 20 00.01.

**END OF SECTION**