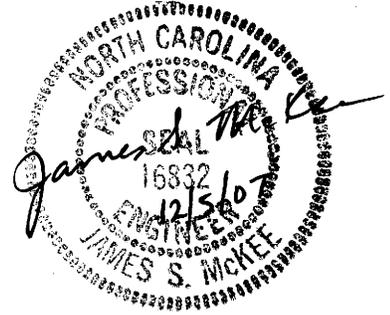


PROJECT SPECIAL PROVISIONS  
Utility Construction



I. GENERAL CONSTRUCTION REQUIREMENTS:

Specifications:

The proposed utility construction shall meet the applicable requirements of the NC Department of Transportation's "Standard Specifications for Roads and Structures" dated July 2006 and the following provisions.

Owner and Owner's Requirements:

The existing utilities belong to the City of Raleigh. The Contractor shall provide access for the owner's representatives to all phases of construction. The owner's shall be notified two weeks prior to commencement of any work and one week prior to service interruption. The Contractor must call Public Works at 890-3030 and Public Utilities at 857-4540 to give the location, project name, individual's name, company name, start date and indicate if it involves sanitary sewer relocations.

Interior Linings for Force Mains, Sewer Mains, Interceptors, and Sewer Service Pipe

All force mains, gravity interceptors, and fittings shall be lined with an amine cured novalac ceramic epoxy containing at least 20% by volume of ceramic quartz pigment. The lining material shall have a permeability rating of zero when tested in accordance with Method A - ASTM E96-66, Procedure A with test duration of 30 days. The lining shall be applied by a competent firm with a successful history of applying linings to the interior of ductile iron pipe and fittings. Within 8 hours of surface preparation, the interior of the pipe shall receive 40 mils nominal DFT. No lining shall take place when the substrate or ambient temperature is below 40° F. The surface shall also be dry and dust free. The lining shall not be used on the faces of the flanges (if applicable).

Due to the tolerances involved, the gasket area and spigot end up to 6-inches back from the end of the spigot end must be coated with 6 mils nominal, 10 mils maximum of ceramic epoxy lining material. The Joint Compound shall be applied by brush to ensure coverage. Care should be taken that the Joint Compound is smooth without excess buildup in the gasket seat or on the spigot ends. Coating of the gasket seat and spigot ends shall be done after the application of the lining.

The number of coats of lining material applied and the touch up and repair of the lining shall be as recommended by the manufacturer. The pipe manufacturer shall provide a certification attesting that the application meets or exceeds the requirements of these specifications.

### Sealed As Built Plans:

Certified surveyed "As built" plans and profiles, sealed by a Professional Land Surveyor, shall be furnished to the Public Utilities Department, by the Engineer who inspects the utility installation, upon completion and acceptance of the public main by the City and completion of private systems. The surveyed "as built" plans shall have North Carolina Geodetic Survey grid coordinates to all meter boxes, valves, manholes, and mains along with the depth information. The water permit number information must also be included. Surveyed "As built" plans of installed utilities shall be furnished to the City prior to issuance of the letter of acceptance. All service stubs shall be shown on the surveyed "as built" plans.

Certified surveyed "As built" should be provided in a digital format. The digital file of utilities needs to show the overall water and sewer system layout along with the property of subdivision boundaries and connecting manhole. The water distribution system drawings should show mains sizes, material, hydrants, valves, blow-off assemblies, and any other relevant information (backflow preventers, air release valves, etc.). The digital file should be delivered in DXF format. If this is not possible, then, DWG, DGN, and SHP are also acceptable formats.

### II. COMPENSATION:

No direct payment will be made for utility construction work required by the preceding provisions, which are general requirements applying to utility construction, and all of the requirements stated will be considered incidental work, paid for at the contract unit prices of these various utility items included in the contract.

The location, size, and type material of the existing utilities shown on the plans are from the best available information. The Contractor will be responsible for determining the exact location, size, and type material of the existing facilities necessary for the construction of the proposed utilities and to avoid damage to existing facilities.

PROJECT SPECIAL PROVISIONS

## Utilities by Others

## General:

The following utility companies have facilities that will be in conflict with the construction of this project:

- A. Duke Energy - Power
- B. Time Warner - Cable Television
- C. Verizon - Telephone
- D. Level 3 - Telephone
- E. PSNC Energy - Gas

The conflicting facilities of these concerns will be adjusted prior to the date of availability, unless otherwise noted and are therefore listed in these special provisions for the benefit of the Contractor. All utility work listed herein will be done by the utility owners. All utilities are shown on the plans from the best available information.

The Contractor's attention is directed to Article 105.8 of the Standard Specifications.

## Utilities Requiring Adjustment:

- A. Duke Energy - Power
  - 1. See Utilities by Others plans for details.
- B. Time Warner - Cable Television
  - 1. Time Warner will share the aerial alignment with Duke Energy utility poles. Time Warner will complete their installation by May 16, 2008. See Utilities by Others plans for details.
- C. Verizon - Telephone
  - 1. Verizon plans to install the new telephone fiber optic conduit by horizontal directional drilling within the PUE outside the existing right of way and abandon the existing facilities. Verizon shall require two (2) weeks notice prior to delay of entry claims being released and three (3) weeks to complete the installation. See Utilities by Others Plans for details.
- D. Level 3 - Telephone
  - 1. See Utilities by Others Plans for details.
- E. PSNC Energy - Gas
  - 1. PSNC Energy plans to plug the existing 8" plastic gas main at both ends during the life of the project. Proposed 8" plastic gas main will be installed after fill is placed to rough grade and prior to final grade and pavement being installed. PSNC Energy requires four (4) weeks notice and five (5) days to complete the installation. See Utilities by Others Plans for details.