

Prepared by:

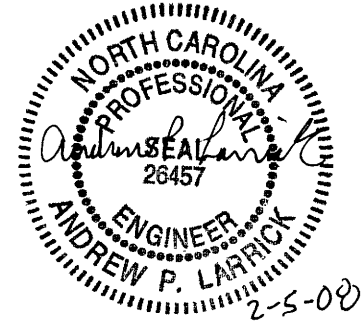
**DAVIS-MARTIN-POWELL & ASSOCIATES, INC**  
ENGINEERING - LAND PLANNING - SURVEYING  
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Project: U-2702  
County: Randolph/Guilford

February 5, 2008

PROJECT SPECIAL PROVISIONS  
Utility Construction



I. GENERAL CONSTRUCTION REQUIREMENTS

Specifications:

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

The Contractor is herein forewarned as to the possibility of having to vary the depth of pipeline installation to achieve minimum clearance of existing or proposed utilities or storm drainage while maintaining the minimum cover specified (whether existing or proposed pipelines, conduits, cables, mains, and storm drainage are shown on the plans or not).

Water mains shall be laid at least 10 feet horizontally from existing or proposed sanitary sewers. Where the minimum horizontal separation between water and sewer mains cannot be achieved, or where water and sewer lines cross, the top of the sewer line shall be at least 18 inches below the bottom of the water line. In cases where water lines must cross underneath sewer lines, both the water and sewer lines shall be constructed of ferrous pipe, and tested in accordance with state regulations. Minimum separation between proposed water mains and existing or proposed storm sewers shall be at least 12 inches.

The Contractor shall locate all existing water and sewer services and relocate, connect, or reconnect as directed by the Engineer. New water and sewer services shall be installed as indicated on the plans and/or as directed by the Engineer.

Payment for the cutting and plugging of existing water and sewer lines to be abandoned shall be considered incidental to other pay items in the contract.

"Gate Valves" as noted on the plans shall be resilient-seat type valves conforming to ANSI/AWWA C509.

Owner and Owner's Requirements:

The existing water facilities belong to the City of High Point, the City of Archdale, and Davidson Water, Inc., and the existing sewer facilities belong to the City of High Point. The Contractor shall provide access for the owner's representatives during all phases

of construction. The owners shall be notified two weeks prior to commencement of any work and one week prior to service interruption.

For work involving the City of High Point's facilities, the Contractor shall contact the City of High Point Service Center at (336) 883-3111 or the City of High Point Water and Sewer Department at (336) 883-3166.

For work involving the City of Archdale's facilities, the Contractor shall contact the City of Archdale Public Works Department at (336) 861-4913.

For work involving the Davidson Water's facilities, the Contractor shall contact Davidson Water, Inc. at (336) 475-8229.

It shall be the Contractor's responsibility to notify customers affected by necessary shut downs of the existing water system at least 24 hours in advance.

After the installed pipe, fittings, valves, hydrants, corporation stops, and end plugs are inserted and secured, the pipeline shall be subjected to a hydrostatic pressure of 200 PSI for 2 hours by pumping the section full of clean water using an approved pressure pump. Cross connection for flushing and chlorination shall be made by means of a temporary connection from the supply pipe with an approved backflow prevention device. Taps for the cross connection piping shall be made to the portion of the existing water main that will be removed from service. The proposed water main shall be laid to within one pipe length of the point of final connection prior to flushing and testing. All flushing and chlorination work shall be performed in accordance with AWWA C651-99. All fittings, valves, and backflow prevention devices required for chlorination and testing shall be incidental to the cost of the proposed pipe being tested.

Any cracked, damaged, or defective pipe, fittings, valves, hydrants, or other attachments discovered as a result of the pressure test, shall be removed and replaced with sound material. The tests shall be repeated until test results are satisfactory.

After the pressure test is complete, the Contractor shall make a leakage test. Such leakage test shall last at least 2 hours at a pressure of 200 PSI.

The pressure test and leakage test may be performed concurrently.

All valves on the lines being sterilized shall be opened and closed several times during the chlorination period. The pipeline shall then be flushed with clean water until the residual chlorine is reduced to 1.0 ppm or at the same level as in the existing water mains. Samples of water shall be taken at representative points along the pipeline by the Contractor in approved containers and submitted to a certified testing laboratory for bacterial and chlorine content.

Connections made to the existing water system for the purpose of loading and testing new water mains shall also be large enough to provide adequate flushing velocity. Water mains 12" and larger will also require a hydrant (temporary if one is not designated) for the purpose of flushing the water main. This shall be considered incidental to other pay items in the contract.

All work involving pipe restraint for connecting new water mains to the existing water mains shall be coordinated with inspections department for each respective water system owner.

All new fire hydrants shall receive a final coat of paint, after installation, according to the respective water system owner's standard color scheme for fire hydrants.

Existing water meters, fire hydrants, and related appurtenances which are removed from service shall become property of the Contractor, and the Contractor shall properly dispose of these items. The City of High Point desires for the Contractor to stockpile existing fire hydrants which are removed from service, and City of High Point staff will remove the hydrants from the project. This shall be considered incidental to other pay items in the contract.

The respective utility owners shall witness all tests performed on their water and sewer facilities. Test results shall be provided to the respective owners of the water and sewer systems for any tests involving their respective facilities.

The owners shall be notified in advance of any interruption of water service with ample time to make arrangements. Interruption of water service on main lines shall be limited to a maximum of four (4) hours or as approved by the Engineer.

#### Utility Locations Shown on the Plans:

The location, size, and type of 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 of material of the existing facilities necessary for the construction of the proposed utilities and to avoid damage to existing utilities.

## 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 the various utility items included in the contract.

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PROJECT: U-2702  
COUNTY: Randolph/Guilford

February 6, 2008  
(Rev. March 25, 2008)

PROJECT SPECIAL PROVISIONS  
Utility

UTILITIES BY OTHERS:

General:

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

- A. Duke Energy Corporation – Power
- B. North State Communications – Telephone
- C. Time Warner Cable – CATV
- D. Piedmont Natural Gas – Gas
- E. Hendrix Batting, Inc. – Private water system

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. For utility relocations, see the Utilities By Others Plans.

The Contractor's attention is directed to Article 105-8 of the Standard Specifications.

Utilities Requiring Adjustment:

A) Duke Energy – Power

- 1. This work will be complete by the date of availability.
- 2. See Utilities By Others Plans for details.

B) North State Communications – Telephone

- 1. This work will be complete by the date of availability.
- 2. See Utilities By Others Plans for details.

C) Time Warner – CATV

- 1. This work will be complete by the date of availability.
- 2. See Utilities By Others Plans for details.

## D) Piedmont Natural Gas – Gas

1. Adjustments to existing gas lines at the detour area will be complete by the date of availability.
2. Potential conflicts between existing gas lines and proposed storm drain pipes may occur at -L- Sta. 21+78.61, 12.4' LT. and -Y2- Sta. 17+69.44, 23.2' LT. Where adjustments to existing gas lines are necessary, Piedmont Natural Gas shall be given two (2) weeks notice prior to when they can begin work, and three (3) days per location to complete their work. Contact is either Parrish Reddick at (336) 862-8519 or Mark Clodfelter at (336) 862-8503.
3. See Utilities By Others plans for details.

## E) Hendrix Batting, Inc. – Private water system

1. The existing above-ground backflow prevention assembly for Hendrix Batting's fire protection system shall be relocated by others. This device is located near -Y2- Sta. 17+78, 105' RT. Relocation of this device is scheduled to occur while Hendrix Batting shuts down their plant operations during the week of July 4, 2008. This work is expected to be complete by July 7, 2008. Contact is Ed Cornwell at (336) 431-1181.
2. See Utilities By Others plans for details.