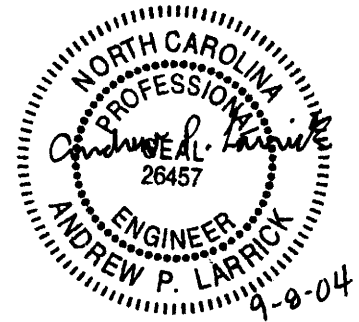


PROJECT SPECIAL PROVISIONS
Utility Construction



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 January 2002, 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 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 3.05 meters laterally from existing or proposed sanitary sewers. Minimum separation between proposed water mains and existing or proposed storm sewers shall be 305 millimeters.

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 and sewer facilities along Guilford College Road (-L-) belong to the City of High Point. The existing water facilities along Hilltop Road (-Y14-) from STA. 10+00 to STA. 12+53 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 City of High Point facilities, contact the City of High Point Service Center at (336) 883-3111 or the City of High Point Water and Sewer Administration at (336) 883-3166.

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 1.38 MPa (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 1.38 MPa (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 300mm 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 the City of High Point water and sewer inspectors.

All new fire hydrants shall receive a final coat of paint, after installation, according to the City of High Point'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. This shall be considered incidental to other pay items in the contract.

City of High Point water and sewer inspectors shall witness all tests performed on their water and sewer facilities. All test results shall be provided to the City of High Point for their respective water and sewer 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.

The proposed sewer facilities that will be installed along Hilltop Road (-Y14-) will become property of the City of Greensboro after installation and acceptance. 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. Property owners who will be connected to the proposed sewer system shall also be notified two weeks prior to commencement of any work on their property and one week prior to service interruption.

After installation, proposed sewer lines shall be visually inspected using remote television cameras. The Contractor shall be responsible for performing these video inspections. City of Greensboro water and sewer inspectors shall be present during the video inspections, and a copy of the video tapes shall be given to the City of Greensboro for their records. Payment for video inspection of the sewer lines shall be incidental to other pay items in the contract.

For work involving City of Greensboro facilities, contact the City of Greensboro Service Center at (336) 373-2033 or the City of Greensboro Water Resources Administration at (336) 373-2055.

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.

1. #67 BEDDING STONE

#67 Bedding Stone shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

The quantity of bedding material to be paid for will be the actual number of metric tons of material, other than local material, weighed in trucks on certified platform scales or other certified weighing devices, which has been used for shaping the pipe foundation.

#67 Bedding Stone, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per metric ton for "#67 Bedding Stone". Such prices and payments will be full compensation for all materials, labor, excavation and backfilling, installation, and incidentals necessary to complete the work as required.

2. BREAKDOWN AND FILL ABANDONED SEPTIC TANK

All existing septic tanks in the construction area that will be abandoned shall have all connecting sewer pipe plugged, the top of the tank removed to an elevation of 600mm below subgrade or below the spring line, the sewage removed, and the septic tank filled with select earth material properly tamped. Septic tank pipes that do not require filling with cement grout shall be plugged in a manner acceptable to the Engineer before the septic tank is filled with earth material. All sewage shall be pumped out of the existing septic tank and properly disposed of as directed by the Engineer.

The quantity of abandoned septic tanks broken down, filled and abandoned will be measured and paid for at the contract unit price each for "Breakdown and Fill Abandoned Septic Tank". Such prices and payments will be full compensation for all materials, plugging pipe openings, breaking down septic tanks, excavation, backfilling, and incidentals necessary to complete the work as required.

3. PVC SEWER PIPE, SCHEDULE 40:

Polyvinyl chloride (PVC) sewer pipe shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

PVC sewer pipe schedule 40 is to be used for sewer laterals only.

PVC sewer pipe and fittings shall be glue joint type conforming to ASTM D-1785 and ASTM D-2665, shall be the size and schedule as noted on the utility plans and shall be installed in accordance with approved bedding methods.

The pipe shall be assembled in accordance with the recommendations of the manufacturer and in accordance with the specifications.

PVC pipe shall have its location marked by using a detectable marking tape, installed 450mm to 600mm below finished grade. Such tape shall be as approved by the Engineer.

Polyvinyl chloride (PVC) sewer pipe and fittings installed and accepted will be measured and paid for at the contract unit price per linear meter for "____mm PVC Sewer Pipe, Schedule 40". Such prices and payments will be full compensation for all labor, equipment, material, pipe accessories, fittings, detectable marking tape, pipe plugs, excavation, backfilling, and incidentals necessary to complete the work as required.

PROJECT: 34886.1.1 (U-2913B)
COUNTY: GUILFORD

PROJECT SPECIAL PROVISIONS
UTILITY

GENERAL:

THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES THAT WILL BE IN CONFLICT WITH THE CONSTRUCTION OF THIS PROJECT:

- A. DUKE ENERGY CORPORATION**
- B. NORTH STATE COMMUNICATIONS**
- C. BELLSOUTH TELECOMMUNICATIONS**
- D. TIME WARNER**
- E. PIEDMONT NATURAL GAS**
- F. COLONIAL PIPELINE**

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.

A. DUKE ENERGY CORPORATION

- 1. ALL FACILITIES ALONG THE PROJECT SHALL BE IN PLACE BY MAY 31, 2005 WITH THE EXCEPTION OF THE FACILITIES ALONG HILLTOP ROAD BETWEEN STATION $\pm 12+80$ -Y14- AND STATION $\pm 15+40$ -Y14-. THESE FACILITIES SHALL BE INSTALLED AFTER THE SEWER LINE HAS BEEN INSTALLED. DUKE ENERGY WILL REQUIRE 14 CALENDAR DAYS NOTICE PRIOR TO WHEN THEY CAN BEGIN WORK AND 14 CALENDAR DAYS TO COMPLETE WORK IN THIS AREA. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.**

B. NORTH STATE COMMUNICATIONS

- 1. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.**

C. BELLSOUTH TELECOMMUNICATIONS

- 1. SEE DUKE ENERGY WRITE-UP AND SEE UTILITIES BY OTHERS PLANS FOR DETAILS. ALONG HILLTOP ROAD (Y-14-) BETWEEN STATION 12+80 AND 15+40, BELLSOUTH WILL REQUIRE 14 CALENDAR DAYS NOTICE PRIOR TO TIME WARNER COMPLETING THEIR WORK AND 14 CALENDAR DAYS TO COMPLETE WORK IN THIS AREA. ALL OTHER WORK WILL BE COMPLETED BY JULY 31, 2005.**

D. TIME WARNER CABLE

- 1. ALL FACILITIES ALONG THE PROJECT SHALL BE INSTALLED BY THE END OF JUNE 30, 2005, EXCEPT ALONG HILLTOP ROAD (-Y14-) BETWEEN STATIONS 12+80 AND 15+40. TIME WARNER CABLE WILL REQUIRE 14 CALENDAR DAYS NOTICE PRIOR TO DUKE ENERGY COMPLETING THEIR WORK AND 14 CALENDAR DAYS TO COMPLETE WORK IN THIS AREA. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.**

E. PIEDMONT NATURAL GAS

- 1. PIEDMONT NATURAL GAS WILL REMAIN IN PLACE AND BE ADJUSTED AS NECESSARY. CONTACT PERSON IS MR. MIKE STANLEY, TELEPHONE NO. (336) 378 – 1831.**

F. COLONIAL PIPELINE

- 1. ALL WORK TO BE COMPLETED BY JANUARY 1, 2006. CONTACT PERSON IS MR. THOMAS CRUSENA, TELEPHONE NO. (336) 931 – 6027. SEE UTILITIES BY OTHERS PLANS FOR DETAILS.**