

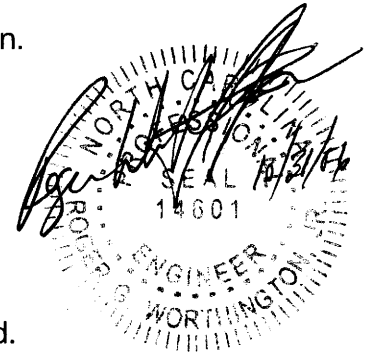
The contractor shall provide a Utility Coordinator to coordinate utility relocations with the highway project. The Coordinator shall harmonize the utility relocations with the highway project construction to expedite the project schedule and to maintain the safety of the workers and roadway users. The Coordinator shall facilitate communications between parties, i.e. the Contractor's personnel, the utility owners' personnel and contractors, and the Department's personnel.

Tasks include:

- Facilitating the exchange of information on the status of the work, the upcoming plans, and the needs of the parties.
- Maintaining a schedule of activities and of relationships between the parties.
- Documenting the status and events as they occur and the effect of events upon the parties.
- Nurturing decision makers of the parties with information to assure that timely decisions are made and actions are taken.
- Overseeing daily operations and coordinating utility relocations with project construction.
- Ensuring compliance with the "One-Call" laws for damage prevention.

Methods for accomplishing the tasks include:

- Providing facilities for meetings.
- Conducting weekly meetings.
- Publishing schedules and documents.
- Publishing minutes of meetings.
- Obtaining and updating "One-Call" tickets.
- Inspecting for maintenance of utility location markings on the ground.
- Coordinating the traffic controls of the Contractor and Utility Owners.
- Being a clearinghouse for utility related information exchange.



Required documents:

Monthly reports to the Resident Engineer detailing:

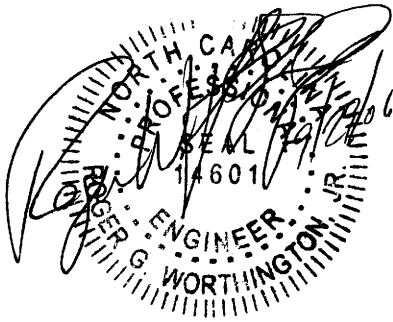
- Utility relocation activities completed for the month separated by utility owner.
- Utility relocation activities planned for the next month separated by utility owner.
- An overall assessment of utility relocation progress and the effect on the highway project.
- Critical needs and recommended actions to maintain the contract schedule.

Compensation:

The work of this provision will be paid for at the contract lump sum price for "Utility Coordinator." Partial payments will be made on each particular payment estimate based upon the percentage complete of the utility relocations. The Contractor shall submit a certified statement each month indicating the percentage of work completed. The Resident Engineer will determine if the amount indicated is reasonably correct and the Resident Engineer will pay accordingly on the next partial pay estimate.

Payment will be made under:

Utility Coordinator..... Lump Sum



Project: U-4026
County: Wake-Durham

Project Special Provisions
Utility Construction

For this project, revise the Standard Specifications for Roads and Structures July 2006 as follows:

Division 15

Page 15-8 2nd paragraph

Change: "...when pressurized at 200 ± 5 psi for 2 hours."

To: "...when pressurized at 200 ± 5 psi for 3 hours."

Page 15-8 4th paragraph

Change: "...visible after 2 hours duration."

To: "...visible after 3 hours duration."

Page 15-8 6th paragraph

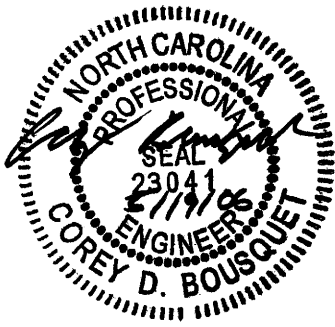
Change: "Provide certified bacteriological and contaminant test results from an approved independent testing laboratory in accordance with DENR requirements."

To: "For the City of Cary water lines, provide certified bacteriological and contaminant test results from an approved independent testing laboratory in accordance with DENR requirements. The City of Durham's chemist will perform the bacteriological and contaminant testing of Durham's water lines."

Page 15-10 add (D) on the same line and before the heading Fire Hydrants.

Page 15-10 add the following sentence after the heading Fire Hydrants.

"The City of Durham will provide a new fire hydrant for each of their fire hydrants requiring relocation. Place all existing fire hydrants that are removed from service in an area accessible by truck. Contact the owner of the fire hydrant for their pickup. Contact the Town of Cary at (919)469-4090 or the City of Durham at (919)560-4344."



Project: R-2904
County: Durham

PROJECT SPECIAL PROVISIONS
Utility Construction

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.

Lay water mains at least 10ft laterally from existing or proposed sanitary sewers.

The depth of pipeline installation may vary 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).

After the installed pipe, fittings, valves, hydrants, corporation stops and end plugs are inserted and secured, the pipe line shall be subjected to a hydrostatic pressure test of 200 psi for a period of 3 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.

Contractor shall make such arrangements, as the utility owner requires, for measuring and paying for water required to flush and test water mains.

The City of Durham's chemist shall do all bacteriological testing for new water lines. The contractor shall not activate new water mains until the City of Durham approves the bacteriological testing.

The contractor shall replace the existing fire hydrants that are relocated with a new fire hydrant supplied by City of Durham. The contractor shall stockpile the existing fire hydrant within the limits of the project and contact the City of Durham to have the fire hydrant removed.

The final and temporary connections to the existing 16" main may need to be made at night to limit the interruption to the businesses and traffic in this area.

Owner and Owner's Requirements:

The existing utilities belong to The City of Durham. The Contractor shall provide access for the owner's representatives to all phases of construction. Notify the owner two weeks before commencement of any work and one week before service interruption. The contractor shall provide the City of Durham with as built drawings for the proposed water mains installed.

The contractor shall provide a set of as built plans to the City of Durham after all the work shown on the Utility Construction Plans is completed.

The installation of the 16" water line and 30" steel encasement pipe within the North Carolina Railroad Right of Way shall conform to the requirements of NCR 102 – (Specifications for Pipeline Occupancy of North Carolina Railroad Company Property).

Utility Locations Shown on the Plans:

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.

1. RELOCATE WATER METER ASSEMBLY WITH NEW VAULT:

The relocated water meters with new vaults shall be installed at the locations shown on the utility plans, and/or as directed by the Engineer.

The relocation of water meters shall consist of the removal and installation of the existing water meter, valves, and bypass at the appropriate location with a new vault. Any pipe or fittings necessary to complete the work will be considered incidental.

All work shall be in accordance with the applicable plumbing codes, as shown on the plans, and as directed by the Engineer.

The vault shall be precast concrete (36" x 48") and shall meet the requirements of Section 1077 of the Standard Specifications. The vault shall be HS-20 traffic bearing. Plans shall be submitted as required by Section 1077 with all calculations and drawings sign by a registered North Carolina Professional Engineer. If the contractor select a precast vault from NCDOT's approved list for precast reinforced concrete utility vaults, a North Carolina Professional Engineer's seal is not required. The access door and frame shall be aluminum

with a neoprene gasket. The door leaf shall be diamond plate, HS-20 load rated, open to 90° and lock automatically in this position, and the door shall be equipped with recessed locking capability.

After the existing water meter assemblies are relocated to new vaults, the existing vaults to be abandoned shall be removed and disposed of properly.

The water meter assembly with new vault, installed in accordance with plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Relocate 2" Water Meter Assembly with New Vault". Such prices and payments will be full compensation for all materials, relocation of existing water meter, new vault, equipment, excavation, pressure testing, labor, installation, backfilling, and incidentals necessary to complete the work as required.

2. RELOCATE EXISTING RPZ BACKFLOW PREVENTION ASSEMBLY:

The existing RPZ backflow prevention assembly to be relocated shall be installed at the locations shown on the utility plans, and/or as directed by the Engineer.

The relocation of RPZ backflow prevention assembly shall consist of the removal and installation of the existing RPZ backflow device and valves at the appropriate location with the existing enclosure service box. Any pipe or fittings necessary to complete the work will be considered incidental.

RPZ Backflow prevention assembly shall be tested by an individual certified in accordance with the City of Durham Cross Connection Control Section. The tester shall obtain and complete a "Cross Connection Control Device Permit" from the City of Durham Cross Connection Control Section.

All work shall be in accordance with the City of Durham Water and Sewer Construction Specifications, as shown on the plans and as directed by the Engineer.

The existing relocated service box enclosure shall be placed on a concrete pad 4" thick and 6" larger than the perimeter of the enclosure. The concrete pad shall be Class B in accordance to section 1000 of the Standard Specifications for Roads and Structures.

The RPZ backflow prevention assembly, installed in accordance with plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Relocate 2" RPZ Backflow Prevention Assembly". Such prices and payments will be full compensation for all materials, relocation of existing backflow assembly, equipment, excavation, pressure testing, labor, installation, backfilling, and incidentals necessary to complete the work as required.

3. RELOCATE RPZ BACKFLOW PREVENTION ASSEMBLY WITH NEW VAULT:

The existing RPZ backflow prevention assembly with new vault that are to be relocated shall be installed at the locations shown on the utility plans, and/or as directed by the Engineer.

The relocation of RPZ backflow prevention assembly shall consist of the removal and installation of the existing RPZ backflow device and valves at the appropriate location with a new vault. Any pipe or fittings necessary to complete the work will be considered incidental.

RPZ backflow prevention assembly shall be tested by an individual certified in accordance with the City of Durham Cross Connection Control Section. The tester shall obtain and complete a "Cross Connection Control Device Permit" from the City of Durham Cross Connection Control Section.

All work shall be in accordance with the City of Durham Water and Sewer Construction Specifications, as shown on the plans and as directed by the Engineer.

The vault shall be precast concrete (36" x 48") and shall meet the requirements of Section 1077 of the Standard Specifications. The vault shall be HS-20 traffic bearing. Plans shall be submitted as required by Section 1077 with all calculations and drawings sign by a registered North Carolina Professional Engineer. If the contractor select a precast vault from NCDOT's approved list for precast reinforced concrete utility vaults, a North Carolina Professional Engineer's seal is not required. The access door and frame shall be aluminum with a neoprene gasket. The door leaf shall be diamond plate, HS-20 load rated, open to 90° and lock automatically in this position, and the door shall be equipped with recessed locking capability.

Vault shall be placed with the top flush with the finish grade of the project.

After the existing RPZ backflow prevention assembly is relocated to the new vault, the existing backflow vault to be abandoned shall be removed and disposed of properly.

The RPZ backflow prevention assembly with new vault, installed in accordance with plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each for "Relocate 2" RPZ Backflow prevention Assembly with New Vault". Such prices and payments will be full compensation for all materials, relocation of existing backflow assembly, new vault, equipment, excavation, pressure testing, labor, installation, backfilling, and incidentals necessary to complete the work as required.

4. GATE VALVE AND VALVE MANHOLE:

Gate valves and manholes shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans, and/or as directed by the Engineer.

Gate valves shall be resilient seat types conforming to ANSI/AWWA C509. Gate valves shall have non-rising stems with a 2" square operating nut and O-ring seals, and shall open by turning counterclockwise. Gate valves shall have mechanical joint ends conforming to ANSI/AWWA C111/A21.11 unless otherwise shown on the plans or directed by the Engineer. Gate valves shall have a design working water pressure of 200 #WP.

Water valve doghouse type manholes shall be 5' diameter precast concrete, shall conform to ASTM C478 and shall be as shown on the plans.

Joints between precast manhole sections shall be O-ring rubber gaskets conforming to ASTM C-443 or butyl rubber gaskets conforming to AASHTO M198.

Manhole frames and covers shall be of cast iron conforming to ASTM A48 Class 30, shall be traffic bearing, and shall have machined contact surfaces. Manhole frames and covers shall be as shown on plans or an approved equal.

The quantity of gate valves and valve manholes, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price per each "16" Gate Valve and 5' Dia. Manhole 200# WP". Such prices and payments will be full compensation for all materials, excavation, labor, installation, sterilization, pressure testing, valve manhole, backfilling, and incidentals necessary to complete the work as required.

5. STEEL ENCASEMENT PIPE BY OPEN CUT:

Steel encasement 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.

The steel encasement pipe shall be spiral welded steel pipe in accordance with ASTM A211.

Steel encasement pipe shall be installed with leak proof joints. The joints shall be butt-welded by a certified welder using approved techniques and materials.

The carrier pipe shall be installed inside the encasement pipe by use of spiders appropriately spaced to support the carrier pipe from deflection. Spiders shall be sized to raise the carrier pipe bells above the encasement pipe and to restrict excessive radial movement. Spiders shall be securely attached to the carrier pipe and shall be approved by the Engineer.

After the carrier pipe is installed and tested, the ends of the encasement pipe shall be plugged or capped with concrete, brick or other approved materials. The plug or cap shall have a 2-inch diameter weep hole at the bottom to facilitate drainage of the encasement pipe.

Steel encasement pipe, installed in accordance with the plans and provisions herein and accepted, will be measured along the pipe from end to end and paid for at the contract unit price per linear foot for "30" Steel Encasement Pipe, 0.500" Thick, by Open Cut". Such prices and payments will be full compensation for all materials, excavation, equipment, labor, installation, grouting, backfilling, and incidentals necessary to complete the work as required.

County: Wake /
Durham
Project: U-4026

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) Progress Energy - Power
- B) Duke Power - Power
- C) BellSouth- Telephone
- D) AT&T - Telephone
- E) Verizon - Telephone
- F) Tel Cov- Fiber Optic
- G) IBM - Fiber Optic
- H) MCI - Fiber Optic
- I) Progress Telecom (Level 3 Communications)- Telephone
- J) Public Service Natural Gas (PSNG) - Gas
- K) Time Warner – CATV
- L) Town of Cary
- M) EISAI Corporation

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 owner. 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) Progress Energy
 - 1) See Utilities by Others Plans. To be completed by date of availability.
- B) Duke Power
 - 1) See Utilities by Others Plans. To be completed by date of availability.

C) BellSouth

Will relocate buried facilities on the west side of Davis Drive from Sta. 13+64 -L- to Sta. 20+10 -L- and from Sta. 70+00 -L- to 100+00 -L- to the Right of Way by March 15, 2007

BellSouth will relocate all aerial cable from the existing Progress Energy pole line to the new pole line from Sta. 21+00 -L- to Sta. 70+00 -L- by April 15, 2007.

BellSouth will abandon the buried copper cable from Sta. 87+50 -L- to 100+50 -L-.

The fiber optic cable will remain in place at Sta. 98+00, Sta. 125+95, and Sta. 159+50 left of -L-. However, if adjustment is necessary due to conflicts with the proposed drainage, once the drainage is staked, they are to be notified in writing and will be allowed twenty (20) calendar days to complete this work.

BellSouth is located in Verizon manholes and will be adjusted by Verizon from Sta. 162+00 -L- to Sta. 260+00 -L-.

BellSouth will relocate fiber optic cable from Sta. 289+00 -L- to Sta. 303+00 -L- via directional bore under stream bed prior to date of availability.

BellSouth has committed to twenty- (20) calendar days response and resolution to any adjustment that is identified on the project after notified.

D) AT&T - Telephone

1) See Utilities by Others Plans. By date of availability.

E) Verizon -Telephone

NOTE: On Hopson Road, Contractor shall give two weeks notice and shall allow 1 week for Verizon to complete its work.

F) Tel Cov - Fiber Optic line will be completed by date of availability.

G) IBM - Fiber Optic line in-group duct bank. Will be completed by date of availability.

H) MCI - Fiber Optic

NOTE: After rough grading on East Side of Davis Drive (just inside ROW) will relocate facilities to permanent location, as shown on the plans. If a potential conflict is encountered by the Contractor (during construction for drainage work), Contractor

shall give MCI 14 days notice, and shall allow 5 calendar days for adjusting MCI's facilities.

- I) Progress Telecom (Level 3 Communication)
Will complete relocation of their facility by date of availability.
- J) Public Service Natural Gas - Gas
NOTE: From Sta. 169+51 -L- to Sta. 179+50 -L-, will require ten (10) calendar days notice for the contractor and 15 calendar days to complete the work.
- K) Town of Cary
Attached to Progress Energy and will be completed by February 15, 2007.
- L) Time Warner
Attached to Progress Energy and will be completed by date of availability.

NOTE: Time Warner will complete relocation of its facilities to the conduit system by May 30, 2007.

- L) EISAI CORPORATION
Will complete relocation of their facility by date of availability.

NOTE: All other utilities shall remain in place and will be adjusted as necessary.

PROJECT: R-2904
COUNTY: DURHAM

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 POWER - Power
- B) VERIZON - Telephone
- C) TIME WARNER CABLE - CATV
- D) PSNC ENERGY - Gas
- E) DELTACOM - Fiber Optic
- F) AT&T - Telephone

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. The utility owners will do all utility work listed herein. 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 POWER - Power
 1. Station 37+50± to Station 39+50± Line -L-
Two underground conduits will be installed and completed by the date of availability.
 2. See Utilities by Others plans for details.

- B) VERIZON - Telephone
 1. Station 53+66± to Station 54+71± Line -L-
The installation of the remaining portion of the 6-way conduit will be completed by January 01, 2007.
 2. Station 50+64± to Station 56+63± Line -L-
The installation of the Fiber Optic Cables will be completed by January 01, 2007.

3. Station 33+10± to Station 33+65± Line –L–
The 9-way conduit with Fiber Optic Cables shall be installed after the proposed Fiber Optic Cables are relocated East of the Railroad bridge.
4. See Utilities by Others plans for details.

C) TIME WARNER CABLE – CATV

1. Station 15+90± to Station 57+38± Line –L–
After rough grading, Time Warner Cable will install a Fiber Optic Cable on the South side of the project. Time Warner Cable will require thirty (30) calendar days notice from the contractor and ninety (90) calendar days to complete the work.
2. See Utilities by Others plans for details.

D) PSNC ENERGY- Gas

1. Station 50+90± to Station 56+87± Line –L–
After rough grading, PSNC will install the remaining portion of the 8" Steel Gas Main. PSNC will require fourteen (14) calendar days notice from the contractor and sixty (60) calendar days to complete the work.
2. See Utilities by Others plans for details.

E) DELTACOM – Fiber Optic

1. To adjust the existing facilities at the proposed 16" water line and the proposed drainage, DELTACOM will require two (2) calendar days notice from the contractor and five (5) calendar days to complete the work each location. Conflict areas will be determined in the field by the Engineer.
2. See Utilities by Others plans for details.

F) AT&T – Telephone

1. At each proposed drainage location, if there is a conflict, AT&T will adjust the existing facilities and will require two (2) calendar days notice from the contractor and five (5) calendar days to complete the work.
2. See Utilities by Others plans for details.