



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.

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

The Chowan County Water Authority chemist shall do all bacteriological testing for new water lines. The contractor shall not activate new water mains until the Chowan County Water Authority approves the bacteriological testing.

All existing fire hydrants to be relocated will be replaced with new fire hydrants supplied by Chowan County Water Authority. The existing fire hydrants shall be disposed of by the contractor and will be considered incidental to the cost of relocating existing fire hydrants.

All work shall be performed in accordance with NCDOT, Chowan County Water Authority and the Town of Edenton, as shown on the plans and as directed by the Engineer.

Owner and Owner's Requirements:

The existing utilities belong to Chowan County Water Authority and the Town of Edenton. The Contractor shall provide access for the owner's representatives to all phases of construction and shall notify the owners two weeks before commencement of any work and one week before service interruption. The contractor shall provide Chowan County Water Authority and the Town of Edenton as built drawings.

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 EXISTING WATER METER (1" SERVICE):

The existing water meters that are to be relocated shall be installed at the locations shown on the utility plans or as directed by the Engineer.

The relocation of water meters shall consist of the installation at the appropriate location of an existing - meter yoke, meter valve, and meter box, new - service line, corporation stop and tapping saddles. All materials necessary to reconnect the relocated meter to the proposed water line will be considered incidental.

Once the new water main is tested, chlorinated and activated, the existing water meter can be relocated.

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

Meter boxes shall be placed with the top of the meter box flush with finish grade of the project.

The quantity of water meters relocated and accepted will be measured and paid for at the contract unit price each for "RELOCATE EXISTING WATER METER (1" SERVICE)". Such price and payment will be full compensation for all materials, labor, excavation, removing, installing and reconnecting, backfilling, and incidentals necessary to complete the work as required.

2. RELOCATE EXISTING WATER METER (2" SERVICE):

The existing water meters that are to be relocated shall be installed at the locations shown on the utility plans or as directed by the Engineer.

The relocation of water meters shall consist of the installation at the appropriate location of an existing - meter yoke, meter valve, and meter box, new - service line, corporation stop and tapping saddles. All materials necessary to reconnect the relocated meter to the proposed water line will be considered incidental.

Once the new water main is tested, chlorinated and activated, the existing water meter can be relocated.

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

Meter boxes shall be placed with the top of the meter box flush with finish grade of the project.

The quantity of water meters relocated and accepted will be measured and paid for at the contract unit price each for "RELOCATE EXISTING WATER METER

(2" SERVICE)". Such price and payment will be full compensation for all materials, labor, excavation, removing, installing and reconnecting, backfilling, and incidentals necessary to complete the work as required.

3. RELOCATE EXISTING 1" WATER METER AND RPZ BACKFLOW PREVENTION ASSEMBLY:

The existing water meters and RPZ backflow prevention assemblies that are to be relocated shall be installed at the locations shown on the utility plans or as directed by the Engineer.

The relocation of water meters shall consist of the installation at the appropriate location of an existing - meter yoke, meter valve, and meter box, new - service line, corporation stop, and tapping saddles. All materials necessary to reconnect the relocated meter to the proposed water line will be considered incidental.

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. All materials necessary to complete the work will be considered incidental.

RPZ Backflow prevention assembly shall be tested by an individual certified in accordance with Chowan County Water Authority Cross Connection requirements.

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 Existing 1" Water Meter and 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.

4. AIR AND VACUUM RELEASE VALVE WITH 4' PRECAST MANHOLE:

Air and vacuum release valves with 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.

Air and vacuum release valves with manholes shall consist of an 2" air and vacuum release valve (2" inlet (NPT)), 2" bronze ball valves (NPT connections),

2" brass nipples, necessary fittings, and a 4' diameter precast flat top doghouse manhole.

The air and vacuum release valves shall be design for sanitary sewer service. The air and vacuum release valve body shall be cast iron body conforming to ASTM A126, Class B with bronze or rubber seals with stainless steel working parts. Air and vacuum release valves shall have a hydrostatic pressure rating of 150# WP. The air and vacuum release valves shall have a 2" inlet (NPT). The air and vacuum valve is designed to permit the automatic exhaust of large amounts of air during filling, small amounts of accumulated air during operation and admits large amounts of air under vacuum during draining.

The air and vacuum release valves shall be float operated with both the air vacuum and air release functions housed in one body. All leverage mechanism parts and spherical float shall be stainless steel. Air and vacuum release valves shall have an elongated body to keep solids and debris away from the valve seating mechanism.

The contractor will be required to install a 2" sewer air and vacuum release valve with a 3/16" orifice. The air and vacuum release valve shall be placed at the location shown on 6" force main profile.

Backflushing attachments shall be supplied on all air and vacuum release valves. The backflushing attachment shall include: 1/2" rubber hose assembly, brass nipples, 1/2" brass shut off valve and all necessary fittings needed to make the connections.

Bronze ball valves shall conform to AWWA C800 (ASTM B62) with a wheel handle. The ball valves shall open counterclockwise. The valves shall have hydrostatic pressure rating of 200# WP.

The precast concrete doghouse manholes with flat tops shall conform to ASTM C478. Joints between precast manhole sections shall be o-ring rubber gaskets conforming to ASTM C-443 or butyl rubber gaskets conforming to AASHTO M198. Use No. 57 stone for the manhole base as shown on plans or as directed by the Engineer.

Sewer manholes over 3 feet in depth shall have steps spaced 16" on center, of the type shown in Standard Detail 840.66. The steps shall be cast iron shall conforming to ASTM A48 Class 30. Steps shall be installed in accordance with the plans or standard details and shall be tested as required in ASTM C478.

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 Standard Detail 840.54B or an approved equal. Covers shall have 2-1" diameter air vents.

The air and vacuum release valves shall be Val-Matic, Model 301BWA or equal.

The quantity of Air and Vacuum Release Valves with Manholes, installed in accordance with the plans and provisions herein and accepted, will be measured and paid for at the contract unit price each for "2" AIR AND VACUUM RELEASE VALVE WITH 4' PRECAST MANHOLE ". Such price and payments will be full compensation for all materials, labor, excavation, backfilling, equipment, and incidentals necessary to complete the work as required.

PROJECT: WBS 39417
COUNTY: Chowan

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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. Town of Edenton (Power)
- B. Embarq (Telephone)
- C. Charter Communications (CATV)
- D. Piedmont Natural Gas

The conflicting facilities will be adjusted prior to the date of availability except where 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. Town of Edenton (Power)
 - 1. The Aerial Power Pole Line will be relocated to the left side of Line -L- from Sta. 10+00 to Sta. 86+42. All work will be completed by June 15, 2008.
- B. Embarq (Telephone)
 - 1. The Aerial Telephone Lines will be relocated to the New Power Poles from Sta. 10+00 to Sta. 86+42. All work will be completed by August 4, 2008
- C. Charter Communications (CATV)
 - 1. The Cable TV lines will be relocated to the New Power Poles from Sta. 10+00 to Sta. 86+42. All work will be completed by August 4, 2008

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D. Piedmont Natural Gas

1. All Gas Lines will remain in place and be adjusted as necessary; the Gas Company will have a representative assigned to the Resident Engineer to coordinate all Gas Line adjustments. The Gas Company will need three days to adjust the Gas Line at each location.