



PROJECT SPECIAL PROVISIONS
Utility Construction

Revise the *Standard Specifications for Roads and Structures*, July, 2006, as follows:

Division 15

Utility Owner's Contact Information:

Page 15-1, Article 1500-2 Cooperation with the Utility Owner, paragraph 2, add the following sentences:

The water and sewer lines on this project are owned by Tuckasee Water and Sewer Authority. The contact person is Johnny Allison. He can be reached by phone at (828) 586-5189.

Ductile Iron Rigid Restrained Joint Water Pipe:

Ductile Iron Restrained Joint Water Pipe shall be installed in accordance with the applicable utility provisions herein, as shown on the utility plans or as directed by the Engineer.

Ductile Iron Rigid Restrained Joint Water Pipe shall be of the thickness class and pressure rating shown on the utility plans and shall conform to ANSI A21.51 (AWWA C151). Push-on joints for such pipe shall be in accordance with ANSI A21.11 (AWWA C111). Pipe thickness shall be designed in accordance with ANSI A21.50 (AWWA C150) and based on laying conditions and internal pressures as stated on the plans.

Cement mortar lining and seal coating for pipe shall be in accordance with ANSI A21.4 (AWWA C104). Bituminous outside coating shall be in accordance with ANSI A21.51 (AWWA C151).

All Ductile Iron Rigid Restrained Joint Water Pipe shall be installed in accordance with the laying condition Type 2 as stated in ANSI A21.51 (AWWA C151) unless otherwise shown on the plans or for aerial installation. Pipe shall be installed with rigid restrained joints as noted on the utility plans. Rigid restrained joints are required where minimal or no movement is allowed. Bolts for such joints shall be high strength, low alloy steel. Such pipe and joints shall be of a type recommended by the manufacturer for use in long span aerial crossings. When installed, tighten bolts to allow no deflection of the pipe.

Ductile Iron Rigid Restrained Joint Water Pipe, installed in accordance with the plans and provisions herein and accepted, will be measured along the pipe from end to end, with no deductions for fittings or valves. Such prices and payments will be full compensation for all materials, including pipe accessories, excavation, labor, pressure testing, sterilization, backfilling, and incidentals necessary to complete the work as required.

Payment will be made under:

| Pay Item | Pay Unit |
|--|-----------------|
| ____" Ductile Iron Rigid Restrained Joint Water Pipe | Linear Foot |

Steel H Pile Pier:

Steel pile piers shall be furnished and installed as shown on the plans, as described in the provisions herein and in the contract and/or as directed by the Engineer.

Pier locations as shown on the plans shall be considered a guide only, with the final determination made at the time of construction by the Engineer. Pier spacing center to center will be shown on the plans, but all pier locations may be adjusted by the Engineer due to field conditions.

Piers will be placed parallel to the flow of the creek unless otherwise directed by the Engineer.

The work covered by this section consists of furnishing and driving piles, as indicated on the plans, the standard details, and as approved by the Engineer, in conformity with the specifications and to the bearing and penetration required.

Installation: General - The pilings shall be driven to obtain a bearing capacity of 10 tons based on the Standard Specifications and to a minimum depth of 10 feet in undisturbed earth below the bottom of the creek channel or existing ground when not adjacent to the creek. Steel pile piers shall be of the size and configuration noted on the utility construction plan sheets.

Piles Lengths: Full length piles shall be used where practicable and not more than 2 pieces (1 splice) of steel pile will be permitted in making up one full length pile unless approved by the Engineer. Splices, where necessary and approved by the Engineer, shall be made as to maintain the true alignment and position of the pile sections. Both pieces of a spliced pile shall be the same shape.

Splices should develop not less than 100 percent of the bending strength of the pile and not less than 100 percent of the axial load strength of the pile. All welded splices will be of butt weld type with back-up plates welded to the flanges and web of the steel piles. All welding of structural steel in the shop or in the field shall meet the requirements of the AWS and be done by qualified welders.

Certification of welders and welds will be required by the Engineer in accordance with the AWS Code.

Painting Steel Piers: Unless otherwise directed, all steel in the piers shall have a coal tar epoxy coating consisting of two coats of coal tar epoxy as specified. All surfaces of the steel to one foot below the disturbed ground shall receive the coating system and shall be thoroughly sand blasted prior to application to remove rust, dirt, grease, and other foreign material and to provide a clean surface to receive the coating. Each coat of paint shall be approved by the Engineer prior to application of the next coat. The total dry film thickness shall be at least 16 mils. Areas with coatings less than 16 mils shall be recoated as required to provide the specified film thickness.

Testing and Inspection: The Engineer will provide inspection and will determine bearing capacity of the driven piles. The Contractor shall submit the required hammer information as specified in the Standard Specifications to the Engineer.

Test piles which are not to be incorporated in the completed structure shall be removed to at least 2 feet below the surface of the ground or the stream bed, and the remaining hole backfilled with earth or other suitable material.

Pipe cradle shall be welded to steel plate as noted on the utility construction plan sheet details; spacing shall be sufficient to cradle pipe without lifting pipe from steel plate. Pipe cradle shall be welded to the steel piles. All welds shall be fillet welds and in conformance with the applicable AWS Structural Welding Code.

Straps and bolts shall be galvanized steel and straps shall be hot asphalt dipped. Straps shall be a 2" wide and 1/2" thick. Radius shall be 1/2 outside diameter of pipe.

Holes shall be drilled in strap and shall be 1/16" larger than bolt diameter. Bolts shall be 3/4" diameter, 4" long, fully threaded, with flat washers top and bottom, and 3/4" nuts. All steel shall be ASTM A36 steel.

Pipe cradles, straps, bolts, nuts and washers shall be considered incidental to steel pile piers.

Steel pile piers furnished and installed as required and accepted will be measured and paid for at the contract unit price per each for "Steel H-Pile Pier", such price and payments will be compensation in full for all materials, labor, equipment and incidentals necessary to complete the work.

Pay Item

Steel H Pile Pier

Pay Unit

Each

PROJECT: B-4163
COUNTY: Jackson

PROJECT SPECIAL PROVISIONS

Utilities

UTILITY CONFLICTS:

General:

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

- A. Duke Energy
- B. Verizon
- C. Balsam West

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

- 1. See "Utilities By Others Plans" for utility conflicts.
- 2. The contact for Duke Energy is Roger Bishop. He can be reached by telephone at ((828) 421-3743.
- 3. All poles and lines to be relocated by May 10, 2010.

B. Verizon

- 1. See "Utilities By Others Plans" for utility conflicts.
- 2. The contact for Verizon is Tina Rutherford. She can be reached by telephone at (828) 631-4068.
- 3. All power poles and facilities will be relocated by May 24, 2010.

C. Balsam West

- 1. The contact for Balsam West is Danny Haines. He can be reached by telephone at (828) 399-9760.
- 2. These facilities are to be adjusted as necessary during construction. Balsam West requires one week's notice to begin work and one week to complete the work.