

DIVISION 15

UTILITY CONSTRUCTION

SECTION 1500

GENERAL UTILITY REQUIREMENTS

1500-1 DESCRIPTION

Construct various utilities as required by the contract or as directed.

Apply the applicable provisions of the rules and regulations of the NCDENR, Division of Environmental Health to the construction of water lines. Apply the rules and regulations of NCDENR's Division of Water Quality to the construction of sanitary sewer lines. Perform all work in accordance with the applicable plumbing codes.

1500-2 COOPERATION WITH THE UTILITY OWNER

The utility owner owns the existing utility facilities and will own the new utility facilities after acceptance by the Department. The Department owns the construction contract and has administrative authority. Communications and decisions between the contractor and utility owner are not binding upon the Department or this contract unless authorized by the Engineer. Agreements between the utility owner and contractor for work that is not part of this contract or is secondary to this contract are allowed, but are not binding upon the Department.

Provide access for Department personnel and the owner's representatives to all phases of construction. Notify Department personnel and the utility owner 2 weeks before commencement of any work and one week before service interruption. Keep utility owners' representatives informed of work progress and provide opportunity for inspection of construction and testing.

Except in an emergency, do not operate any of the controls on the existing systems without prior approval of the owner.

Notify the utility owner at least 24 hours in advance of all arrangements for temporary service and for agreement with the owner as to the time that service may be interrupted.

1500-3 UTILITY LOCATIONS AND CONTRACTOR'S RESPONSIBILITY

The plans depict the best available information for the location, size and type of material for all existing utilities. Make investigations for determining the exact location, size and type of material of the existing facilities as necessary for the construction of the proposed utilities and for avoiding damage to existing facilities. Repair any contractor caused damage of existing facilities to the original or better condition at no additional cost to the Department.

1500-4 WEEKEND, NIGHT AND HOLIDAY WORK

Make connections between existing and proposed utilities at times most convenient to the public, without endangering the utility service and in accordance with the utility owner's requirements. Make connections on weekends, at night and on holidays, if necessary.

1500-5 RELATION OF WATER MAINS TO SEWERS

Lay water mains at least 10 ft laterally from existing or proposed sewers. If local conditions or barriers prevent a 10 ft separation, lay the water main with at least 18" vertical separation above the top of the sewer pipe either in a separate trench or in the same trench on a bench of undisturbed earth.

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When a proposed water main crosses over a proposed or existing sewer, lay the water main with at least 18" vertical separation above the top of the sewer. If local conditions or barriers prevent an 18" vertical separation, construct both the water main and the sewer for a distance of 10 ft on each side of the point crossing with ferrous pipe having water main quality joints.

When a proposed water main crosses under a proposed or existing sewer, construct both the water main and the sewer of ferrous materials with joints that are equivalent to water main standards for a distance of 10 ft on each side of the point of crossing. Center the section of water pipe at the point of crossing.

1500-6 PROTECTION OF PEDESTRIAN AND VEHICULAR TRAFFIC

During the progress of the work, keep sidewalks and crossings open for the passage of pedestrians. Take necessary measures to keep roadways open for traffic unless lane or roadway closures are approved.

Construct and maintain adequate and approved bridges over excavations as necessary for the purpose of accommodating pedestrians or vehicles.

When open cut installation is allowed across a roadway and traffic is to be maintained, construct the installation in sections so that half the width of the roadway will be available to traffic. Provide all traffic control measures necessary to provide for safe traffic passage.

1500-7 SUBMITTALS AND RECORDS

Deliver only approved materials to the project. Provide sufficient information as required under Sections 105 and 106 to demonstrate the materials meet the specifications and intended use. Provide 2 copies to the utility owner and 6 copies to the Engineer. Identify each item's intended use. As a minimum, the submitted information shall show the material description, brand name, stock number, size, rating and manufacturing specification.

Provide working drawings of thrust restraint designs and connection details along with schedules for performing the work.

Provide as-built plans of the installed utility. The plans shall include notations of the size and type material installed, coordinates of utility controls and horizontal and vertical locations of the piping. Provide 2 copies to the utility owner and 2 copies to the Engineer.

1500-8 LOCATING AND MARKING

Tape a continuous locator wire along the top of all piping. Mechanically fasten locator wire to valve boxes, meter boxes, fire hydrants, manhole covers and other above grade appurtenances. Install marking tape 18" to 24" below finished grade above all pipelines.

1500-9 PLACING PIPELINES INTO SERVICE

Make final connections of the new work to the existing mains where indicated in the plans, as required to fit the actual conditions or as directed. Provide sufficient work crews, equipment and materials on site to assure quick and efficient connections.

Schedule and notify owners and customers in advance of any interruptions of water service with ample time to make arrangements. Limit interruption of service to water customers to no more than 8 hours. Provide temporary connections as needed to maintain service.

1500-10 MEASUREMENT AND PAYMENT

The general utility construction work will be incidental and will be paid at the contract unit prices of the various utility items included in the contract.