



Section 002310

**PIPE REMOVAL, DISPOSAL, ALTERATION,
MODIFICATION OR PIPE ABANDONMENT**

PART 1 - GENERAL

The following specification is intended for use for the removal, disposal, alteration, modification or abandonment of existing pipe.

1.1 SCOPE

1.1.1 General

- a. This specification provides the requirements for the removal, disposal, alteration, modification or abandonment of existing pipe where required by the contracts documents.
- b. Asbestos-Cement Pipe special requirements: Removal, disposal, alteration, modification or abandonment of existing asbestos-cement pipe shall meet the requirements of the most current revisions of the Florida Department of Environmental Protection (FDEP), the current publication entitled "AWWA Work Practices for Asbestos-Cement Pipe" or subsequent revisions and in accordance with the requirements provided in the current standard entitled "OSHA Asbestos Construction Standards" or subsequent revisions for the removal, disposal, or abandonment of all asbestos-cement pipes as shown on the plans and/or encountered in the field during construction and any other applicable federal, state or local regulation.

1.2 WORK INCLUDED

The Contractor shall, unless specified otherwise, furnish all labor, materials, equipment, tools, and all other associated appurtenances necessary to do the work required under the contract, including removal, disposal, alteration, modification or abandonment of pipe, spill/emergency clean-up, transportation, temporary storage, containment and housekeeping activities on the site where construction activities are performed.

1.3 LOCATION OF THE WORK

The location of this work is as shown on the Contract Document plans and/or encountered in the field during construction.

1.4 COORDINATION OF THE WORK

The Contractor shall be responsible for the satisfactory coordination of the pipe removal, disposal, alteration, modification or abandonment of pipe with other construction and activities in the area. Delays in work resulting from lack of such harmony shall not in any way be a cause for extra compensation by any of the parties.

1.5 WORKING HOURS

The work shall be carried out in accordance with local ordinance and not to cause any unreasonable nuisance to affected residents. Under emergency conditions, this limitation may be waived by the consent of Charlotte County Utilities (CCU).

1.6 METHOD OF MEASUREMENT AND PAYMENT

The work shall be measured and the compensation determined in the following manner:

1.6.1 Pipe Removal and Disposal

1.6.1.1 Asbestos-Cement Pipe

Asbestos-Cement Pipe removal and disposal shall be paid for at the contract bid price per linear foot for each size, irrespective of the depth of the main, which shall include the cost of removing and disposing all pipe material, pipe bend sections, jointing material, restraints, stainless steel stiffeners and all other appurtenances, and of handling, hauling, dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the County (unless separate bid item is provided), necessary permits, and all material or work necessary to remove and dispose of the pipe as specified in the Contract Documents and/or as directed by CCU, all of which shall be in accordance with all applicable federal, state and local regulations and requirements.

1.6.1.2 All other type of pipe

All other type of pipe removal and disposal shall be paid for at the contract bid price per linear foot for each size, irrespective of the depth of the main, which shall include the cost of removing and disposing all pipe material, pipe bend sections, jointing material, restraints, stainless steel stiffeners and all other appurtenances, and of flushing, handling, hauling, dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the County (unless separate bid item is provided), necessary permits, and all material or work necessary to remove and dispose of the pipe as specified in the Contract Documents and/or as directed by CCU, all of which shall be in accordance with all applicable federal, state and local regulations and requirements.

1.6.2 Pipe Abandonment With Grout

All type of pipe abandonment with grout, including asbestos-cement pipe, shall be paid for at the contract bid price per linear foot for each size, irrespective of the depth of the main, which shall include the cost of removal of the content within the pipe, cleaning, grouting, plugging, capping, and abandoning all pipe, pipe bend sections, and all other appurtenances, and of dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the County (unless separate bid item is provided), necessary permits, and all material or work necessary to properly abandon the pipe as specified in the Contract Documents and/or as directed by CCU.

1.6.3 Pipe Abandonment Without Grout

All type of pipe abandonment without grout, including asbestos-cement pipe, shall be paid for at the contract bid price per linear foot, irrespective of size or depth of the main, which shall include the cost of removal of the content within the pipe, cleaning, plugging, capping, and abandoning all pipe, pipe bend sections, and all other appurtenances, and of dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the County (unless separate bid item is provided), necessary permits, and all material or work necessary to properly abandon the pipe as specified in the Contract Documents and/or as directed by CCU.

1.6.4 Pipe Alteration, Modification

All type of pipe alteration and/or pipe modification, including asbestos-cement pipe, irrespective of the depth of the main, shall be considered incidental to the project and no direct payment will be made therefore which shall include all labor, materials, equipment, dewatering, trenching, sheeting, excavating and backfilling, restoring the surface equal to or better than the original condition to the satisfaction of the County (unless separate bid item is provided), necessary permits and all other appurtenances to construct the pipe alteration and or pipe modification as specified in the Contract Documents or as directed by CCU.

1.6.5 Miscellaneous

All other items required for the completion of the project and not included as a specific bid item shall be considered incidental to the project and no direct compensation will be made therefore.

1.7 REFERENCED STANDARDS (Latest Revisions)

AWWA Work Practices for Asbestos-Cement Pipe
OSHA 1926.1101 and 1910.1001
Federal, State, and Local regulations

1.8 PARTIAL LISTING OF RELATED SECTIONS

001570 – Erosion and Sediment Control
001760 – Survey Record Drawings
001770 – Record Drawings
002240 – Dewatering
002320 – Gravity Sewer System
002325 – Force Mains
002330 – Low Pressure Sewer System
002335 – Potable Water and Reclaimed Mains
002340 – Valves
002345 – Fire Hydrants
002445 – Jack and Bore

Note: This is only a partial listing of related sections. The Contractor shall be responsible to review the entire contract documents.

PART 2 - PRODUCTS

2.1 SUBMITTALS

2.1.1 Grout Mix

Grout for filling abandoned mains shall consist of at least 15 percent Portland Cement by volume and shall be mixed to a consistency suitable for pumping. Sand used in the mixture shall be composed only of hard, strong, durable, uncoated grains of quartz and shall be free from extraneous substances.

PART 3 - EXECUTION

3.1 GENERAL

- a. Any work involving asbestos cement pipe shall be completed in accordance with all the latest applicable federal, state and local requirements and regulations as well as the applicable AWWA standards.
- b. Existing pipe shall be removed when so designated on the plans or directed by CCU. When existing pipe is encountered which is not shown on the plans, it shall not be removed until CCU has been notified of its presence and has directed its removal.
- c. Where traffic is to be maintained, the removal of pipe shall be done in sections so that half the width of the roadway will be available to traffic.
- d. Existing pipe shall be removed in such a manner that any nearby facilities will not be damaged.
- e. The area disturbed by the removal of an existing pipe shall be backfilled in accordance with the sections of these specifications applicable to the adjacent construction.
- f. Removed pipe shall become the property of the Contractor unless otherwise indicated by the special provisions.
- g. Disposal of Debris: All material not salvaged by the Contractor shall be considered debris and disposed of by hauling to an approved disposal site. The Contractor shall be responsible for legally disposing of all debris and associated costs.
- h. CCU shall be notified of the permitted disposal site and shall be provided verification that the material that has been accepted at the permitted disposal site.

3.2 ABANDONMENT

3.2.1 Abandonment by Capping-Plugging

When called for on the Contract Drawings, abandoned mains shall be plugged with a plugged fitting at points specified. All plugs shall be appropriately sized and shall conform as applicable

to other sections of these specifications. In the event that a specific abandonment method is not called out on the plans, abandonment shall be by capping-plugging.

3.2.2 Abandonment by Grout Filling

When called for on the Contract Drawings, the abandoned main shall be grout filled by pumping a grout mixture into the main with an approved mix. The main shall be completely filled, leaving no voids or air spaces. Grout mix shall be as specified in this specification. In the event that a specific abandonment method is not called out on the plans, abandonment shall be by capping-plugging.

END OF SECTION