

Section 02516

CLEANING AND FLUSHING OF WATER LINES

PART 1 GENERAL

1.01 SUMMARY

This Section includes performing all operations for cleaning and flushing.

1.02 MEASUREMENT AND PAYMENT

A. Unit Prices

1. No separate measurement or payment for Work performed under this Section. Include cost in unit price of water lines being cleaned and flushed.
2. Refer to Section 01270 – “Measurement and Payment” for unit price procedures.

- B. Stipulated Price (Lump Sum). If Contract is a Stipulated Price Contract, payment for Work in this Section is included in total Stipulated Price.

1.03 REFERENCES

This specification references the following publications in their current editions. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

- A. AWWA C651-14: Standard for Disinfection Water Mains
- B. AWWA C655-09: Standard for Field Dechlorination
- C. TCEQ 30 TAC 290.38-47: Public Drinking Water: Subchapter D: Rules and Regulations for Public Water Systems

1.04 SUBMITTALS

- A. Contractor shall submit cleaning plan for large diameter water lines, including use of equipment the contractor wishes to employ.
- B. Flushing plans. Contractor shall submit flushing plans in accordance with AWWA 651-14. As a minimum it should include method of flushing, flushing schedule and locations where water is being flushed out of the system and flushing valve operation sequence which will detail what valves need to be opened and closed and its duration.

1.05 RELATED REQUIREMENTS

- A. Section 1270 - “Measurement and Payment”

- B. Section 01330 – “Submittal Procedures”
- C. Section 01454 – “Testing Laboratory Services”
- D. Section 01755 – “Pipeline Start-Up”
- E. Section 02514 – “Disinfection of Water Lines”
- F. Section 02515 – “Hydrostatic Testing of Water Lines”
- G. Section 02990 – “Dechlorination Activities”

1.06 – 1.13 NOT USED

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.01 GENERAL

- A. All water lines smaller than 24 inches shall be flushed prior to disinfection.
- B. For water lines 30 through 36 inches, Contractor shall inspect with the aid of TV cameras prior to disinfection.
- C. All water lines 42 inches and larger shall be physically cleaned prior to disinfection to remove any sediment or debris that may have entered the water line during construction.

3.02 PREPARATION

- A. Water lines 24 inches and smaller:
 - 1. Contractor shall flush to remove any sediment, sand and other debris through flushing hydrants.
 - 2. The Contractor shall furnish, install and remove all pumps, fittings and pipes necessary to perform the flushing; shall provide all additional excavation and backfill; and shall dispose of all water and debris flushed from the water lines.
 - 3. The Contractor shall be responsible for obtaining any permits necessary for flushing operations.
 - 4. Water lines shall be flushed at a minimum of 2.0 fps and a maximum velocity of 10.0 fps.
 - 5. Flushing of water mains shall not be allowed after ambient temperature has exceeded 85 degrees Fahrenheit, unless approved by the Project Manager.
 - 6. The Contractor shall ensure that the chlorinated water is disposed of in a proper manner as per Specification 02990 – Dechlorination Activities.

B. Water Lines 30 inches through 36 inches:

1. All water lines shall be inspected from inside with the aid of TV cameras before filling with water. All debris shall be removed by mechanical or other means.

C. Water Lines 42 inches and larger:

1. All water lines shall be cleaned and all debris removed prior to disinfection. An acceptable cleaning method is to broom-sweep the main, carefully removing all sweepings prior to chlorinating the main.
2. All water lines shall be inspected from inside with a walk thru by competent personnel trained in assessing the interior of the pipe, and promptly remove any sediment, debris and other objects.

3.03 - 3.10 NOT USED

END OF SECTION