

SECTION 3860 - SEWER FORCE MAIN LEAKAGE TEST

PART 1 - GENERAL

1.1 SCOPE OF WORK:

Provide all labor, materials, equipment and services required for sewer force main leakage testing specified herein.

PART 2 - EXECUTION

2.1 FORCE MAIN LEAKAGE TESTING:

As a minimum, all sewer force mains shall be tested in accordance with the Hydrostatic Testing Requirements of AWWA C600.

- A. All force mains shall be given a hydrostatic test of 150 psi. Loss of water pressure during test shall not exceed 5 psi in a 2-hour period. Variations of the test pressure may be required by the Engineer.
- B. Where practicable, pipelines shall be tested between line valves or plugs in lengths of not more than 1500 feet.
- C. The pipe shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a manner satisfactory to the ENGINEER. The pump, pipe connection, and all necessary apparatus except the gauges shall be furnished by the CONTRACTOR. The ENGINEER will furnish the gauges for the test, but the CONTRACTOR shall furnish all necessary assistance for conducting the test. Before applying the specified test pressure, all air shall be expelled from the pipe. If permanent air vents are not located at all high points, the CONTRACTOR shall install corporation cocks at such points so the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied.
- D. Duration of test shall not be less than two hours.
- E. The test pressure shall not exceed the rated pressure of the valves in the pipeline.
- F. Where leaks are visible at exposed joints and/or evident on the surface where joints are covered, the CONTRACTOR shall repair the joints, retighten the bolts, relay the pipe, or replace the pipe until the leak is eliminated--regardless of total leakage as shown by the hydrostatic test. Polyethylene encasement damaged from repairs must also be properly repaired or replaced to the satisfaction of the ENGINEER.
- G. All pipe, fittings and other materials found to be defective under test shall be removed and replaced at the CONTRACTOR's expense.
- H. Lines that fail to meet test requirements shall be repaired and retested as necessary until test requirements are complied with.
- I. The OWNER will provide water for testing the force mains; however, the CONTRACTOR will be responsible for piping or hauling the water if necessary. If water is to be used from fire hydrants, the CONTRACTOR should familiarize himself with the Butler County Department of Environmental Services Fire Hydrant Meter Rental Rules and Regulations. The OWNER will waive all fees except the security deposit for approved uses on Butler County Department of Environmental Services projects. The CONTRACTOR shall not operate any valves on existing water mains. This shall be done by the OWNER.

PART 3 - BASIS OF PAYMENT

Testing of sewer force mains is not a pay item.

END OF SECTION