



**TESTS ON PRESSURE SEWERS AND FORCEMAINS**

**GENERAL:**

1. FLUSH AND TEST PRIOR TO CONNECTION TO EXISTING PRESSURE SEWERS AND FORCEMAINS AS SPECIFIED BELOW, EXCEPT AS OTHERWISE AUTHORIZED BY THE ENGINEER.
2. THE LENGTH OF PIPING AND SECTIONS INCLUDED IN THE TESTS SHALL MEET THE APPROVAL OF THE ENGINEER; HOWEVER, THE LENGTH SHALL NOT EXCEED 5,000 FEET IN ANY CASE. PRESSURE TEST OF PIPE SECTION SHALL BE FROM VALVE TO VALVE REGARDLESS OF PIPE SIZE.
3. NOTIFY THE ENGINEER 72 HOURS IN ADVANCE OF TESTING.
4. EQUIPMENT IN OR ATTACHED TO THE PIPES BEING TESTED SHALL BE PROTECTED. ANY DAMAGE TO SUCH EQUIPMENT DURING THE TEST SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
5. CONDUCT ALL TESTS PER AWWA C-600 AND C-651, LATEST EDITIONS IN THE PRESENCE OF THE ENGINEER. REPEAT TESTS IN THE PRESENCE OF LOCAL AUTHORITIES HAVING JURISDICTION IF REQUIRED BY THEM.
6. CONTRACTOR SHALL HAVE SUFFICIENT PERSONNEL AT THE SITE FOR THE ENTIRE DURATION OF ALL TESTS.
7. WHEN PIPING IS TO BE INSULATED OR CONCEALED IN A STRUCTURE, TESTS SHALL BE MADE BEFORE THE PIPE IS COVERED.
8. PROVIDE OUTLETS TO FLUSH LINE, EXPUL AIR AND PERFORM SPECIFIED TESTS.
9. WHERE CONNECTIONS TO EXISTING LINES ARE CALLED FOR ONLY ONE SUCH CONNECTION WILL BE ALLOWED.
10. ALL FITTINGS, VALVES AND APPURTENANCES MUST BE PROPERLY BRACED AND HARNESSSED BEFORE THE PRESSURE IS APPLIED. THRUST RESTRAINING DEVICES WHICH WILL BECOME A PART OF THE SYSTEM MUST ALSO BE TESTED AT THE TEST PRESSURE.
11. WHEN TESTING ABSORBENT PIPE MATERIALS SUCH AS CEMENT OR CONCRETE, THE PIPELINE SHALL BE FILLED WITH WATER AT LEAST 24 HOURS BEFORE THE TEST IS MADE.
12. THE CONTRACTOR MUST SUPPLY ALL MATERIALS AND MANPOWER TO PERFORM THE TESTS AS SPECIFIED HEREIN.
13. TESTING SHALL BE ACCEPTABLE AND APPROVED BY THE AGENCY OF JURISDICTION BEFORE ANOTHER CONNECTION IS MADE.

**TESTS ON PRESSURE SEWERS AND FORCEMAINS (CONT'D)**

**PRESSURE TEST:**

1. PRESSURE TEST APPARATUS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS, AT THE LOWEST POINT IN THE LINE.
2. ALL NEW PRESSURE SEWERS AND FORCEMAINS SHALL BE TESTED AT A PRESSURE OF 115 PSI AS OUTLINED HEREIN.
3. TEST PRESSURE SHALL BE HELD ON THE PIPING FOR A PERIOD OF AT LEAST 4 HOURS, UNLESS A LONGER PERIOD IS REQUESTED BY THE ENGINEER. PRESSURE SHALL NOT FLUCTUATE BY MORE THAN 5 PSI DURING TESTING.
4. PRESSURE GAUGE SHALL BE IN GOOD WORKING CONDITION AND MUST BE DEMONSTRATED TO BE ACCURATE TO THE ENGINEER PRIOR TO ANY TESTING.
5. GAUGE SHALL HAVE MARKINGS AT NO GREATER THAN 2 PSI INCREMENTS TO ALLOW ACCURATE READINGS.
6. ENGINEER MAY TAP PRESSURE GAUGE AT EACH READING TO ENSURE NEEDLE IS MEASURING PRESSURE ACCURATELY.
7. ENGINEER SHALL RECORD PRESSURE AT 15 OR 30 MINUTE INTERVALS TO DETERMINE IF THE PRESSURE LOSS IS STABILIZING.
8. THE CONTRACTOR WILL INFORM THE ENGINEER WHEN TO BEGIN THE TEST.
9. IF THE PRESSURE DROP IS GREATER THAN 5 PSI IN 4 HOURS, OR IF THE ENGINEER BELIEVES THE LINE IS SUSPECT, THE CONTRACTOR SHALL EXPLORE FOR THE CAUSE OF THE EXCESSIVE LEAKAGE AND AFTER REPAIRS HAVE BEEN MADE, THE LINE SHALL BE RETESTED. THIS PROCEDURE SHALL BE REPEATED UNTIL THE PRESSURE LOSS IS LESS THAN THE MAXIMUM ALLOWABLE AND THE ENGINEER IS SATISFIED.
10. IF THE PRESSURE DROP IS 3 PSI OR GREATER BUT LESS THAN 5 PSI IN 4 HOURS, THE CONTRACTOR SHALL CONTINUE THE TEST FOR ANOTHER 4 HOURS. IF THE PRESSURE DROP OVER THE 8 HOUR PERIOD IS GREATER THAN 5 PSI, THE TEST FAILED AND MUST BE REPEATED AFTER THE CAUSE OF THE LEAKAGE IS EXPLORED AND THE NECESSARY REPAIRS HAVE BEEN MADE.
11. THE ENGINEER SHALL MAKE A PRELIMINARY DETERMINATION IF THE TEST PASSES OR FAILS BASED ON THE PRESSURE AND VOLUME LOSSES RECORDED DURING TESTING.
12. AFTER EACH TEST, THE CONTRACTOR MUST DEMONSTRATE THAT THE TEST APPARATUS, INCLUDING THE PRESSURE GAUGE, IS FULLY FUNCTIONAL AND ACCURATE. INACCURATE GAUGES OR NON-SATISFACTORY EQUIPMENT WILL BE GROUNDS FOR TEST FAILURE, REGARDLESS OF TEST RESULTS. CONTRACTOR WILL RESUPPLY PROPER EQUIPMENT AND RETEST, AT HIS EXPENSE.
13. THE PRESSURE LOSS RECORDED OVER THE 4- OR 8-HOUR TEST MUST BE ACCEPTABLE TO THE ENGINEER FOR FINAL HYDROSTATIC TESTING APPROVAL TO BE GIVEN.

**TESTS ON PRESSURE SEWERS AND FORCEMAINS (CONT'D)**

**LEAKAGE TEST:**

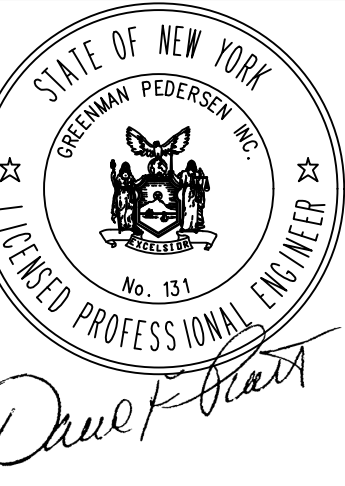
1. THE LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH THE PRESSURE TEST.
2. THE RATE OF LEAKAGE SHALL BE DETERMINED AT 15-MINUTE INTERVALS BY MEANS OF VOLUMETRIC MEASUREMENT OF THE MAKEUP WATER ADDED TO MAINTAIN THE TEST PRESSURE. THE TEST SHALL PROCEED UNTIL THE RATE OF LEAKAGE HAS STABILIZED OR IS DECREASING BELOW AN ALLOWABLE VALUE, FOR THREE CONSECUTIVE 15-MINUTE INTERVALS. AFTER THIS, THE TEST PRESSURE SHALL BE MAINTAINED FOR AT LEAST ANOTHER 15 MINUTES.
  - a. AT THE COMPLETION OF THE TEST THE PRESSURE SHALL BE RELEASED AT THE FURTHERMOST POINT FROM THE POINT OF APPLICATION.
3. ALL EXPOSED PIPING SHALL BE EXAMINED DURING THE TEST AND ALL LEAKS, DEFECTIVE MATERIAL OR JOINTS SHALL BE REPAIRED OR REPLACED BEFORE REPEATING THE TESTS.
4. THE LEAKAGE FOR PRESSURE PIPELINES SHALL NOT EXCEED THE FOLLOWING ALLOWABLE RATES IN GALLONS PER HOUR PER 1,000 FEET OF PIPE AT THE TEST PRESSURE SPECIFIED UNDER ITEM 3.1.C ABOVE:
 

PIPE DIAMETER	ALLOWABLE LEAKAGE
2-INCH HDPE (FUSED)	0.00
5. REGARDLESS OF THE ABOVE ALLOWABLES, ANY VISIBLE LEAKS SHALL BE PERMANENTLY STOPPED.
6. THE CONTRACTOR SHALL PROVIDE A METER CERTIFIED WITHIN THE LAST YEAR OR A SOURCE-WATER TANK/BARREL OF SMALL ENOUGH CROSS SECTION SO THAT MEASURABLE CHANGES IN WATER DEPTH CAN BE ACCURATELY RECORDED. IF THE CHANGE IN WATER DEPTH CANNOT BE PROPERLY MEASURED, THE ENGINEER MAY REQUIRE THE TEST TO BE RUN MORE THAN 4 HOURS UNTIL AN ACCURATE DEPTH CHANGE CAN BE RECORDED AND THE ENGINEER IS SATISFIED WITH THE RESULTS.
7. THE LEAKAGE VOLUME RECORDED OVER THE 4- OR 8-HOUR TEST MUST BE ACCEPTABLE TO THE ENGINEER FOR FINAL FORCEMAIN APPROVAL TO BE GIVEN.

**NOTE:**

1. SANITARY SEWERS TESTING SHALL BE IN ACCORDANCE WITH TOWN OF PENDELTON STANDARDS.

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REVISIONS:	BY:	DATE:		

PROPOSED SANITARY SEWER EXTENSION PLAN

FORCEMAIN SEWER EXTENSION  
 4930 Beach Ridge Road  
 Town of Pendleton, New York

SHEET NO.

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WARNING: ALTERATIONS TO THIS DOCUMENT NOT CONFORMING TO SECTION 2008 SUBDIVISION 2, STATE EDUCATION LAW, ARE PROHIBITED