331100 PRESSURE TESTING OF WATER DISTRIBUTION SYSTEMS

PART 1: GENERAL

1.01 TEST REQUIREMENTS

A. All water mains shall be tested in accordance with AWWA Standard C600. The following procedure shall be used:

1. All newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure 50 percent in excess of the working pressure at any point on the section being tested, but in no case less than 150 pounds per square inch for a period of two hours.

2. The Contractor shall accomplish the required tests on the pipeline by individually testing each component section of the installed main. The maximum length of section permitted to be tested at any one time will be approximately one mile, and normally will be less.

B. Test Pressure Restrictions - Test pressure shall:

1. Not be less than 150 psi at the highest elevation along the test section.

2. Not exceed pipe or thrust restraint design pressures.

3. Be at least two-hour duration.

4. Not vary by more than ±5 psi.

5. Not exceed twice the rated pressure of the valves when the pressure boundary of the test section includes closed gate valves.

1.02 PROJECT RECORD DOCUMENTS

A. A Disinfection, Testing and Flushing Datasheet, provided by Utilities Water Distribution Manager for recording the results of the tests. Engineer shall fill out the form at time of testing, both Contractor and Engineer shall sign upon completion, submitted to the Utilities Water Distribution Manager.

1.03 REGULATORY REQUIREMENTS

A. Submit proof of testing as required by local, county or State agencies.
1.04 COORDINATION

A. Provide 48-hour notice to the Cornell University’s water system or local water purveyor when water for flushing, testing and disinfection is required.

PART 2: EXECUTION

2.01 TESTING

A. Pressure and leakage tests shall be conducted on all water main pipes.

B. The Engineer shall witness all tests.

C. Air Removal - Before applying the specified test pressure, air shall be expelled completely from the pipe and valves.

D. When flushing, de-chlorination is required for all water.

E. Flushing and disinfecting shall be distinct operations performed separately from the testing covered by this specification.