

**MODIFICATION TO TUCSON WATER STANDARD WATERWORKS SPECIFICATION
NO. 1431, HYDROSTATIC PRESSURE TESTING OF WATER FACILITIES**

1431.0301 General.

ADD THE FOLLOWING TO PARAGRAPH FOUR:

Where thrust blocks are authorized due to modifications to existing water lines, a minimum of 24 hours must elapse and concrete must attain a minimum compressive strength of 2500 psi prior to hydrostatic pressure testing. Contractor shall provide proof of concrete mix design to District Engineer prior to construction. The Contractor may use a 'High Early' concrete mix design that achieves a compressive strength of 2500 psi in a submitted specified time. The Contractor may hydrostatic pressure test against a thrust block when the MDWID District Engineer is satisfied that minimum strength has been achieved.

ADD THE FOLLOWING TO PARAGRAPH FIVE:

Only valves restrained according to MDWID Standard Detail MW-600, Table 1, page 6 may be used for hydrostatic pressure testing. Valves restrained only for isolation during normal operating conditions according to MDWID Standard Detail MW-600, Table 2, page 6 shall not be closed during hydrostatic pressure testing.

ADD THE FOLLOWING TO PARAGRAPH SEVEN:

After all entrapped air has been expelled and prior to the start of hydrostatic pressure testing, air release ports shall be closed. Upon satisfactory completion of hydrostatic pressure testing, air release components shall be removed and the hole plugged as directed by the District Engineer.

1431.0302 Hydrostatic Testing.

REMOVE THIS SECTION AND REPLACE WITH THE FOLLOWING:

Hydrostatic testing shall be conducted only after all new work has been installed. Hydrostatic testing shall be conducted only in the presence of the MDWID Inspector. The minimum hydrostatic pressure test for each type of class of pipe shall not be lower than 200 psi at the highest elevation along the test section and shall be maintained for a period of two hours. The test pressure shall not vary by more than ± 5 psi during the duration of the test.

Test sections shall be adjusted to maintain a maximum elevation change of twenty-five (25) psi between the highest and lowest elevation along the test section. If valves are not shown on the design plans at appropriate locations, the Contractor shall install additional valves as may be necessary or as directed by the District Engineer. These components shall be considered incidental to the cost of the pipe and testing of the waterline. The location of permanent additional valves shall be shown on the shop drawings and included on the "As-Built" plans.

Acceptance shall be based on successful completion of the hydrostatic pressure test. Should any test of installed pipe or valves disclose a loss of pressure in excess of acceptable limits, the Contractor shall, at no additional cost to MDWID, locate and make repairs as approved by the District Engineer and inspected by MDWID.

Re-testing of segments shall be with the identical test boundaries used for the initial test. The cost of re-testing shall be at the Contractor's sole expense.