

SECTION 1407

TAPS INTO WATER LINES

1407.0100 GENERAL

1407.0101 Description of Work. The work under this Section shall consist of furnishing all labor, tools, and equipment, as well as performing all operations necessary for drilling and tapping any water main—new or existing—in accordance with the details shown on the plans and the requirements of these specifications.

1407.0103 Submittals. Shop drawings, details, and calculations shall be submitted for all taps into concrete cylinder pipe and welded steel pipe.

All submittals shall reference the Tucson Water project plan number. Tucson Water must approve CCP taps in writing prior to any taps.

1407.0104 Delivery, Storage, and Handling. Tapping sleeves, valves, copper service materials, and tapping equipment used in the tapping operation shall be delivered to the site and stored in a manner such that it is protected from damage.

1407.0300 EXECUTION

1407.0301 General. All work shall be in accordance with the applicable provisions as specified herein.

Direct tapping is not allowed.

Dry tapping of new water mains shall only be permitted when approved in writing by the Engineer. Requests to dry tap shall include the proposed methods of flushing to ensure removal of all debris from the line.

Taps into concrete cylinder pipe shall be a minimum of 8 inches and in accordance with the manufacturer's recommendation; they must also be approved by the Engineer.

Prior to any drilling or tapping, the main shall be purged of all entrapped air and then pressurized to a minimum of 40 pounds per square inch or the normal system operating pressure, whichever is higher.

The drilling or tapping of any water main shall be undertaken only with equipment having active purging means, or shall be modified to continually flush away pipe shavings, in accordance with TW Standard Detail 313.

Taps into PVC pipe shall be made with a shell-type cutting tool only.

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Ductile iron, steel, or cement-asbestos pipe may be drilled for taps 2 inches or less in diameter. Taps 4 inches or more in diameter shall be made with a shell cutter.

Taps into HDPE shall be in accordance with the manufacturer's recommendation.

The cutting tool shall be a shell-type cutter that will retain the coupon (cookie) and shall be designed to accommodate the wall thickness of the pipe being cut.

Shell cutters and pilot bits shall be maintained sharp and of proper dimension to minimize damage to the pipe and preserve the integrity of the remainder of the pipe wall. Shell cutters shall have a minimum diameter of 90 percent of the required tap size. Shell cutters shall produce clean and even entry cuts under normal drilling machine stresses or they shall be replaced.

Tapping sleeves and tapping equipment shall be supported independently from the pipe during tapping operations.

Placement of the tapping machine on the pipe shall be done in accordance with the tapping-machine manufacturer's recommendations.

Tapping sleeves and valves shall be used when a service connection or lateral larger than 2 inches in diameter must be installed in a water main.

Size on size tapping for pipe 12 inches in diameter and larger will not be accepted.

Service connection taps shall be in accordance with TW Standard Detail 309.