

SECTION 1407

TAPS INTO WATERLINES

1407.0100 GENERAL

1407.0101 Description of Work. The work under this section shall consist of furnishing all labor, tools, and equipment and performing all operations necessary for drilling and tapping of 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 prestressed concrete cylinder pipe.

All submittals shall reference the project plan number.

1407.0104 Delivery, Storage and Handling. Tapping sleeves, valves, HDPE, 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.

1407.0200 PRODUCTS. (None Specified)

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" and be in accordance with the manufacturers recommendation and must be approved by the Engineer.

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

Drilling or tapping of any water main shall be undertaken only with equipment having active purging means or shall be modified in accordance with Standard Detail SD317 to continually flush away pipe shavings.

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

Ductile iron, steel, or cement asbestos pipe may be drilled for taps 2 inches and less in diameter. Taps of 4 inches diameter and larger 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 which will retain the coupon (cookie) and shall be designed to accommodate the wall thickness of the pipe being cut.

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Shell cutters and pilot bits shall be maintained sharp and of proper dimension to minimize damage to the pipe and to preserve the integrity of the remainder of the pipe wall. 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 recommendations of the manufacturer of the tapping machine.

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

Service connection taps shall be in accordance with standard detail SD 309.