

**SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND
SMALLER**

(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence, or bullet, then include them in the project. The specifications may be modified to include project specific specifications, but all additions, deletions, or modifications must be sent to the ODOT Technical Resource and Senior Specifications Engineer for review and approval.)

Comply with ~~Replace~~ Section 01170 of the Standard Specifications with the following Section 01170.

**SECTION 01170 - POTABLE WATER SERVICE CONNECTIONS, 2 INCH AND
SMALLER**

Description

01170.00 Scope - This work consists of furnishing and installing service connections, 2 inch in diameter and smaller, from the main to the water meter, and furnishing and installing sampling stations. The water meter will be furnished and installed by others unless specified otherwise in these Special Provisions or on the plans.

Materials

01170.10 Materials - Furnish materials meeting the following requirements:

Angle Meter Valve.....	02490.60
Bronze Nipples and Fittings	02490.60
Copper Tubing Service Pipe	02490.40(a)
Corporation Stops.....	02490.30
Customer Service Valves.....	02490.60
Meter Boxes.....	02490.70
Meter Setters	02490.50
Polyethylene Tubing Service Pipe.....	02490.40(b)
Saddles.....	02490.20
Sampling Stations.....	02490.80
Service Fittings	02490.40(c)

Construction

01170.40 General - Except for class 52 or greater ductile iron pipe, make all service connections to water mains, using saddles as specified and of the size and type suitable for use with both the water main and the pipe being installed. For class 52 and greater ductile iron pipe, make direct taps for corporation stops according to the recommendations of the Ductile Iron Pipe Research Association (DIPRA), unless direct taps are prohibited by these

Special Provisions. Install service pipe lines perpendicular to the main, unless otherwise shown.

(a) Trench Depth - Construct the depth of trench for service connection piping to provide a minimum of 30 inches of cover over the top of the pipe. Ensure that the main is not damaged during installation of the service. Excavate and backfill for service connections according to Section 00405, except install the service pipeline under existing pavement, curbs and sidewalks by boring methods approved by the agency having jurisdiction over the roadway. Resurface the trench according to Section 00495.

(b) Installation - Furnish and install water service assemblies at the locations shown, or as directed. Service pipe, meter assemblies, fittings, and appurtenances shall conform to the details and standards of the agency having jurisdiction. As shown, install the water service saddle, corporation stop, water service pipe, meter assembly, and meter, and reconnect the customer service pipe to the installed meter assembly.

Cut customer service pipes using tools specifically designed to leave a smooth, even, and square end on the pipe. Ream cut ends to the full inside diameter of the pipe. For pipes that will be connected using couplings that seal to the outside surface of the pipe, clean pipe ends to a sound, smooth finish before installing couplings.

Make service connections to water mains according to the recommendations of the pipe manufacturer and appropriate AWWA standard for water service installation. All water services shall be continuous without splices between the main and the meter unless otherwise approved by the agency having jurisdiction.

Install water service assemblies to match finished lines and grades, and maintain proper clearances and cover for the entire service connection. Adjust the meter box to the finished grade after the surface has been acceptably restored. When meter boxes are to be installed in driveways or a vehicular traveled way, use approved traffic rated meter boxes.

01170.41 Reconnecting Existing Services - Where shown, construct new service connections and angle valves to reconnect existing meter assemblies to the new mains. Verify the location of existing service connections and meter assemblies in the field. Notify affected customers of the service interruption at least 24 hours prior to service interruption. Use insulating couplings at all connections between existing galvanized steel or iron pipe and new copper pipe. All fittings, appurtenances, and other miscellaneous materials on the sections of existing pipe that have been removed become the property of the Contractor.

01170.42 Sampling Stations - Install sampling stations according to the manufacturer's recommendations and at the locations and depths shown or as directed. Install service connections and perform trenching, backfilling and surface restoration according to 01170.40.

Field Testing Installations

01170.50 Flushing and Disinfecting - Before tapping the main for installation of service connections and sampling stations to existing water mains, liberally treat the exterior of the existing main with hypochlorites. Before making connections, swab or spray the ends of all service pipes, the connection points of all appurtenances, and the sampling stations with a

1 percent hypochlorite solution. Thoroughly flush the service connections and sampling stations. For installation of service connections and sampling stations concurrent with new water mains, flush and disinfect service connections and sampling stations according to Section 01140.

01170.51 Hydrostatic Testing - For installation of service connections and sampling stations that connect to existing water mains, apply system pressure to new installations prior to backfilling and repair any visible leaks. For installation of service connections and sampling stations concurrent with new water mains, perform hydrostatic testing of service connections and sampling stations according to Section 01140. Correct all defects in materials or workmanship and retest until satisfactory results are obtained.

Measurement

01170.80 Measurement - The quantities of water service connection piping and water service line will be measured on the length basis.

The quantities of reconnecting existing services, sampling stations, water meter assemblies, and relocating meter assemblies will be measured on the unit basis.

Payment

01170.90 Payment - The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

(Delete pay items from the list that do not apply, but do not change the alpha characters next to the pay items.)

<u>Pay Item</u>	<u>Unit of Measurement</u>
<u>(a) Inch Water Service Connection Piping</u>	<u>Foot</u>
<u>(b) Reconnecting Existing Water Services, Inch.....</u>	<u>Each</u>
<u>(c) Water Sampling Stations</u>	<u>Each</u>
<u>(d) Inch Water Service Line</u>	<u>Foot</u>
<u>(e) Inch Water Meter Assembly</u>	<u>Each</u>
<u>(f) Relocate Inch Water Meter Assembly</u>	<u>Each</u>

(Use the following paragraph if pay items (a) or (b) are included in the pay item list. Delete pay item letters that are not included in the list above. Delete the parentheses or "(s)" from the word "item(s)" and the word "and" as necessary.)

In item(s) (a) and (b), the nominal pipe diameter will be inserted in the blank.

(Use the following paragraph if pay item (d) is included in the pay item list.)

In item (d), the nominal pipe diameter will be inserted in the first blank. The type of pipe will be inserted in the second blank.

(Use the following paragraph if pay items (e) or (f) are included in the pay item list. Delete pay item letters that are not included in the list above. Delete the parentheses or "(s)" from the word "item(s)" and the word "and" as necessary.)

In item(s) (e) and (f), the nominal size of the meter will be inserted into the blank.

(Use the following paragraph and bullet list if pay items (a) or (d) are included in the pay item list. Delete pay item letters that are not included in the list above. Delete the parentheses or "(s)" from the word "item(s)" and the word "and" as necessary.)

Item(s) (a) and (d) include excavating, tapping the main, laying and jointing the pipe and fittings, corporation stop, saddle, appurtenances, backfilling, surface restoration, testing, and flushing and disinfection of the water service.

(Use the following paragraph if pay item (b) is included in the pay item list.)

Item (b) includes excavating, tapping the main, laying and jointing the pipe and fittings, appurtenances, backfilling, surface restoration, testing, and flushing and disinfection of the reconnected service connection.

(Use the following paragraph if pay item (c) is included in the pay item list.)

Item (c) includes excavating, tapping the main, water sampling station, laying and jointing the pipe and fittings, curb stops, valve box, appurtenances, backfilling, surface restoration, concrete pad, testing, and flushing and disinfection of the sampling station.

(Use the following paragraph if pay item (e) is included in the pay item list.)

Item (e) includes excavating, installation of meter box when specified, angle meter valve, meter setter, customer service valve and appurtenances, backfilling, surface restoration, testing, and flushing and disinfection.

(Use the following paragraph if pay item (f) is included in the pay item list.)

Item (f) includes meter when specified, angle meter valve, customer service valve, meter box, meter setter, fittings, and appurtenances necessary to install the meter assembly, and abandoning the existing water service at the mainline.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.