

## ITEM 805 WATER SERVICE TAPS

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**805.01 Description.** Provide all work necessary to furnish and install or transfer water service taps complete and ready for use where shown on the plans or otherwise required and in accordance with these specifications. The City defines water "tap" and "service line" as stated in Columbus City Code 1105.01.

Provide new water service taps consisting of all pipe, valves, fittings and appurtenances required from and including the water main connection to and including the control valve and box. Wrap new service lines with an approved polyethylene wrap or dielectric tape material for a minimum clear distance of 3 feet away from the water main, in accordance with Standard Drawing L-1004. Prior to constructing any new water service tap, obtain a tap permit from the Division of Power and Water.

Provide a transferred water service tap consisting of all pipe, valves, fittings and appurtenances required from and including the water main connection to and including the control valve and connection to the service line and the abandonment of the existing service tap. Relocate the existing curb box to the new curb stop location. If the Contractor discovers a box damaged due to no negligence of the Contractor, provide and install a new curb box. The City will pay for the new curb box separately under this item. Replaced boxes damaged by the Contractor at no additional expense to the City. Verify the location of the curb box prior to installing the corporation stop on the new or existing main.

Complete surface restoration in accordance with the requirements of the appropriate bid items. The City will pay for this work also in accordance with the requirements of the appropriate bid items.

**805.02 Water Main Connection.** For water service taps 2 inch and smaller make the water main connection using a corporation stop listed on the current Approved Materials List. Do not install corporation stops in the top or bottom 1/4 of the water main. Locate corporation stops no closer than 24 inches to any other corporation stop, valve, bend, tee, or joint.

For water service taps 3 inch and larger use a tee and gate valve for the water main connection if installed with the water main or a tapping sleeve and valve and if installing the tap on an existing water main. Secure valves to the water main by anchoring tees, anchoring pipe of minimum length, or by other means approved by the Engineer. Use anchoring tees and anchoring pipe as listed on the current Approved Materials List.

Provide service clamps or tapping saddles for all water service taps made under pressure into 3 inch and smaller water mains and for other main and tap sizes as follows:

<b>Size and Type of Water Main</b>	<b>Maximum Water Service Tap Size Permitted Without Use of Saddle</b>
4 Inches Cast or Ductile Iron	3/4 Inch
6 Inches Cast or Ductile Iron	1 Inch
8 Inches Cast or Ductile Iron	1 1/2 Inches

Provide service saddles for 2 inch and smaller water lines of single strap design, and as listed on the current Approved Materials List.

Provide service saddles for 3 inch and larger water lines of double strap design, and as listed on the current Approved Materials List.

**805.03 Pipe and Fittings.** For water service taps 2 inch and smaller, use Type K, soft temper copper tubing conforming in all respects to ASTM B 88 or Federal Specification WW-T-799 for all pipe from the water main connection to the control valve, unless specifically called for differently on the plans.. Use fittings of high quality copper brass with approved compression type joints. Do not use fittings between the water main connection and the control valve, unless otherwise approved by the Division of Power and Water.

Use ductile iron pipe for water service taps 3 inch and larger up to the meter inlet and valve on the meter by-pass line. Provide ductile iron pipe and fittings that conform to requirements of Item 801.

**805.04 Control Valves and Boxes.** Use curb stops without drain in accordance with the current Approved Materials List for control valves for 2 inch and smaller water service taps. Provide boxes in accordance with the current Approved Materials List. Provide box lids with the word "WATER" cast neatly and legibly on it and held securely in place by a bronze or brass bolt. Provide a box with an enlarged base section, in accordance with the current Approved Materials List when using a 2 inch curb stop. Include a Columbus standard ferrule box and cover in the top section of the curb box where installing 2 inch and smaller curb stops within traveled areas. shall

Provide control valves for 3 inch and larger water service taps that conform to requirements of Item 802. Provide valve boxes that conform to Items 802 and 804. Provide a control valve and box, in addition to the valve and box installed with the water main connection, for all water service taps 3 inch or larger. Install and restrain the control valve at the location shown on the plans or approved by the Engineer.

For 3 inch and larger water service taps not under pavement or traveled portion of right-of-way use the valve installed at the water main connection as the control valve and provide with a valve box in conformance to Item 802.

**805.05 Installation.** Install 3 inch and larger taps in accordance with Items 801, 802 and 803. Install water service taps 2 inch and smaller by jacking or open cut methods, unless the plans specify one method or the other. Do not bend or kink the service pipe nor strain the pipe joints when jacking the pipe . Install the pipe from the water main connection to the control valve to the grade and elevations shown on the plans, but in no case provide less than 3 feet 6 inches of cover. Minimize bends in taps and obtain bending approval, if necessary to bend, from the Engineer prior to installation. Wrap new service lines with an approved polyethylene wrap or dielectric tape material for a minimum clear distance of 3 feet away from the water main, in accordance with Standard Drawing L-1004. Locate curb boxes 1 foot from the edge of the proposed or

**805.06**

existing sidewalk between the sidewalk and the curb, 2 feet inside the right-of-way or easement line in areas with no existing or proposed sidewalk, or as indicated on the construction plans.

Prior to backfilling, pressure test all water service taps from the water main connection to the control valve and repair all leaks. Test water service taps 2 inch and smaller at normal city water pressure, unless installed with the construction of a water line, in which case test per Item 801. Test water service taps 3 inch and larger at 150 psi in accordance with requirements of Item 801 up to the meter inlet and valve on the meter by-pass line.

After completing testing, connect the transfer water tap to the existing service line and abandon the existing water tap.

After performing a successful pressure test backfill all excavations in accordance with the requirements of Item 801.

**805.06 Method of Measurement.** The City will measure individual water service tap components as specified herein separately as to size and use as a basis for payment or the City will use the entire water service tap as defined herein as the basis of payment.

**805.07 Basis of Payment.** The City will pay the unit price shown in the proposal and will consider the payment as complete compensation for providing all work necessary to furnish and, install or transfer, the water service tap complete and ready for use or any component part thereof.

The City will make payment at the contract price for:

<b>Item</b>	<b>Unit</b>	<b>Description</b>
805	Each	_____ Inch Corporation Stop
805	Each	_____ Inch Curb Stop
805	Each	Curb Box
805	Linear Foot	_____ Inch Water Tubing
805	Each	_____ Inch Water Service Tap, Complete
805	Each	_____ Inch Water Service Tap, Transferred