

504 TAPS AND CONNECTIONS

504.1 GENERAL

- 504.1.1 All taps and/or connections to water mains, public and private, shall be made by the Des Moines Water Works or its authorized contractors. This includes the installation of the corporation cock, tee, or tapping sleeve and gate valve at the main. Taps will be made only after application is completed by a Plumbing Contractor and the property owner as outlined in Section 503 of these Rules and Regulations.
- 504.1.2 All corporations and tapping valves will be considered to be in good operating condition after installation unless the contractor notifies the Des Moines Water Works of any defects within 1 year of installation.
- 504.1.3 The Des Moines Water Works will assess charges for more than one trip to the same tap location unless notification is given that the Plumbing Contractor is not ready for the tap to be made prior to the arrival of the tapping crew.
- 504.1.4 No new tap shall be installed where a water service or stub already exists unless prior approval has been obtained from the Des Moines Water Works. If there are water service stubs serving the property which will not be used these stubs must be disconnected from the main before a new tap will be made.
- 504.1.5 A minimum of 24-hour advance notification is requested for taps. Before a tap request is made, the appropriate paperwork must have been completed in accordance with Section 503 of these Rules and Regulations.
- 504.1.6 Lot lines must be clearly identifiable by Des Moines Water Works staff prior to any new taps. If not clear, lot pins must be exposed, or property corners shall be staked by a licensed land surveyor in the State of Iowa upon request by Des Moines Water Works.
- 504.1.7 Mains 16" and larger cannot be tapped without prior approval from the Des Moines Water Works.

504.2 LOCATION OF TAP (Revised January 2024)

- 504.2.1 Generally, taps will be made for 1" services at 45° angles on the main in front of and within the projected lot lines of the property to be served. Plumbing Contractor shall install a 90° elbow facing downward off the corporation, 45° elbows may be permissible in some instances where a 90° elbow will not allow sufficient space to bend the pipe. Taps 2" and larger will be made at a 90° angle.
- 504.2.2 Taps on the backside of the main will be made only after the proper side of the main has been exposed and the Des Moines Water Works has verified that obstacles make it impossible to tap the house side of the main.
- 504.2.3 Taps shall not be located:
- (1) On hydrant branches; or
 - (2) Within an intersection.
- 504.2.4 Taps 1" in size shall not be located closer than 18" from another tap, joint, or pipe fitting.
- 504.2.5 Taps 2" in size shall not be located closer than 2' from another tap, joint, or pipe fitting.
- 504.2.6 Tapping sleeve & valve (TS&V) or tee service connection shall not be located closer than 3' from another TS&V, pipe, joint, or fitting.

504.3 SIZE OF TAP

- 504.3.1 Minimum size tap allowed is 1".
- 504.3.2 Maximum size corporation allowed is as follows:
- a. 1" on 2" main
 - b. 1" on 3" main
 - c. 1" on 4" main
 - d. 2" on 6" main

- 504.3.3 Taps 2" and larger must have prior approval from the Des Moines Water Works.
- 504.3.4 Taps larger than 2" will be made by the installation of a tapping sleeve and valve at the main, or in a similar manner, as prescribed by the Des Moines Water Works.
- 504.3.5 Taps of a size equal to the main may be allowed.

504.4 EXCAVATION FOR TAP

- 504.4.1 The Plumbing Contractor shall make the excavation required for the tapping of a water main. The top and bottom of the excavation for a 1" tap shall be a minimum of 3' by 5'. When shoring is required, the minimum work area shall be 3' x 5'. Floor of excavation shall be level leaving a clearance of at least 12" around the main. (Figure 1). For larger taps see Figures 2 & 22.
- 504.4.2 The excavation shall be shored in accordance with OSHA and the Iowa Occupational Safety & Health Standards for the Construction Industry (IOSH) rules. Des Moines Water Works will not enter an excavation or trench which does not conform to OSHA and IOSH requirements. Plumbers and contractors shall be solely responsible for compliance with OSHA and IOSH excavation and trench protection regulations.
- 504.4.3 Tapping of a main with structures or obstructions overhead will be permitted only if IOSHA standards are met.

504.5 REMOVAL OF TAP OR CONNECTION

- 504.5.1 Services having a ½", ¾", or 1" corporation tap are to be disconnected from the corporation stop and the stop box removed in accordance with these Rules and Regulations (Figure 3). This work shall be performed at the owner's expense by a Plumbing Contractor and inspected by Des Moines Water Works.

- 504.5.2 The Des Moines Water Works will assess charges for more than one trip to the same location for a tap cut inspection if the work is not ready for inspection when the water works representative arrives for the inspection unless notification is given that the work is not ready for the inspection prior to the arrival of Des Moines Water Works.
- 504.5.3 When services are connected to the main by a 2" corporation, a tee, or a tapping sleeve and valve, Des Moines Water Works shall permanently disconnect the service from the water main by an appropriate method determined by Des Moines Water Works, at the owner's expense. (see Uniform Tap Retirement Charges, Section 511.8)
- 504.5.4 The excavation shall be prepared by the plumber or contractor and shored in accordance with OSHA and the Iowa Occupational Safety & Health Standards for the Construction Industry (IOSH) rules. Des Moines Water Works will not enter an excavation or trench which does not conform to OSHA and IOSH requirements. Plumbers and contractors shall be solely responsible for compliance with OSHA and IOSH excavation and trench protection regulations.
- 504.5.5 Removal of taps or connections through a tunnel, with dirt or concrete overhead, will not be permitted due to the hazard incurred by workers.
- 504.5.6 Upon proper application by customer, approved by Des Moines Water Works, an existing ¾", 1", or 2" service connection may be temporarily plugged at the stop box with the understanding that the service connection so stubbed must be reused in one year. Such service lines may be stubbed only if the service line is copper, and the curb valve meets current curb valve requirements. A new curb stop shall be installed at the time the service line is stubbed if the existing curb stop does not meet these standards. (see required application, Figure 31).

- 504.5.7 Upon proper application by customer, approved by Des Moines Water Works, an existing service connection 4” and larger may be temporarily plugged with the understanding that the service connection so stubbed must be reused in one year. Such service lines may be stubbed only if the service connection was made using an O-ring style gate valve. Split services shall be plugged in public right-of-way upstream of the tee. Service connections 3” in diameter shall not be stubbed.
- 504.5.8 For removal of a service from a private main, see Figure 4.
- 504.5.9 Water service lines that have been removed may not reuse the corporation tap for a future water service.