

CHAPTER 75

WATER SERVICES AND CONNECTIONS

1. **PROVISIONS GOVERN.** The provisions of this Chapter shall regulate, govern and control the installation, construction, repair or modification of water services in the City of Decatur, Illinois (City) and the connection thereof to water mains in the City, other than that done by the City through the City of Decatur employees or contractors thereof, and may be construed with, but take precedence over any other provision of Code or ordinance of the City except the provisions of City Chapters 37, 38, 64, and 65 to which the provisions hereof shall be subject.

2. **WATER MAIN CONNECTIONS.** All connections of water service pipe with water mains of the City shall be made in the side of the body of the main and in no case within 15 inches of the bell end of the pipe or within 6 inches of the plain end of the pipe. Three-fourth and one inch service connections shall be made by inserting a corporation stop into the main under pressure by a tapping machine in proper working condition. Service connections larger than one inch shall be as described in Section 3 of this Chapter. All components of corporation stops shall be manufactured of low-zinc bronze cast in conformance to AWWA Standard C800, Section 1, paragraph 1.2 (ASTM B62). Inlet threads shall be in accordance with AWWA C800, Figure 1, Table 1 (Standard Corporation Stop Thread). Outlet threads shall be as described in Section 6 of this Chapter. Corporation stop key and body seating surfaces shall be accurately machined and individually fitted to a taper of 1-3/4 inches per foot. The key, washer and nut

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components shall be so designed to be capable of being turned as a single unit with no loosening or tightening effect, and so designed that failure from overtightening of the nut results in threads stripping rather than stem fracture. There shall be no evidence of staking or chisel marks on the nut after assembly. Each corporation stop shall be tested by the manufacturer with not less than 85 psi. air pressure with the stop submerged in water in both the open and closed positions. No top, bottom, or port leaks are permitted.

3. **WATER TAPS.** Water main taps shall be not less than 3/4 inch and any tap larger than one inch normal size shall be made by means of attaching to the main a bronze service saddle provided with an integral service outlet accurately machined and pre-tapped by the manufacturer to receive a full-sized corporation stop of equal size to the service line. The service saddle shall be of the double strap type with body and nuts cast of ASTM B62 bronze; straps shall be silicon bronze with rolled threads, shall be accurately curved to conform to the main, and shall be flattened to provide large bearing surfaces. The outlet portion of the body shall be encircled with an O-ring type pressure seal cemented and confined in a corresponding groove on the inside of the body. The pressure tap for services larger than one inch shall be made by drilling through the corporation stop in the fully open position, using the proper type drilling machine and attachments and using the maximum possible drill size for the corporation stop.

4. **WATER SERVICE - CORPORATION STOPS.** The corporation stop shall be protected by a box construction with clean whole brick placed on a solid bottom extending not less than two feet six inches from the main with brick joints overlapping and with a brick cover providing at least four inches of clearance above the stop so that there shall be no weight thereon in case of settling.

5. **WATER SERVICE PIPE.** Water service pipe from the corporation stop to the building other than for services larger than two inches in diameter shall be cold drawn, soft annealed, seamless copper suitable for underground service with proper bending temper with quality and properties equal to A.S.T.M. Class K specifications. For services of two inches in diameter or less, from the outlet side of the curb stop to the meter only, polyethylene pipe with copper tracing wire may also be used that meets all specifications for, and is installed per the Illinois Plumbing Code and AWWA standards for polyethylene pipe. For services larger than two inches in diameter materials as are approved in the City of Decatur specifications for water main installations may be used with the approval of the Public Works Director. Between water main tap and curb stop there shall be a continuous unspliced run of pipe. (Amended, Ordinance No. 2017-08, February 6, 2017) (Amended, Ordinance No. 2006-85, September 5, 2006)

6. **WATER JOINTS AND FITTINGS.** All joints and fittings for service lines between main and meter shall be manufactured of ASTM B62 bronze. They shall be provided with generous wrench surfaces to permit the joints to be easily and firmly made. The spud end of 3/4 and one inch corporation stops, curb stops, and couplings shall fully conform to AWWA C800, Figures 2 and 3, Tables 2 and 3 (Flared Copper Service Connections); or they shall be compression connections as described below for service lines larger than one inch. Corporation stops, curb stops, and couplings for service lines larger than one inch shall be provided only with compression connections specifically designed for use with copper service pipe for direct burial, flared copper service connections, or silver soldered joints. No other types of solder joints are permitted. Spuds and nuts of said compression connections shall be cast of ASTM B62 bronze with all threads and bearing surfaces accurately machined and so designed that the joint is properly made when the nut is tightened to the point where it contacts a machined shoulder on

the spud, thereby providing for a final visual inspection without need for torque wrenches or guesswork. Compression connection sealing gaskets shall be totally confined to prevent cold flow or creep and shall contain an integral hardened stainless steel gripper band that is compressed by the gasket to provide high resistance to pull out forces caused by line pressure, back-filling, ground settlement, or accidental disturbance from digging equipment. Compression connections shall be capable of withstanding tension loads without failure as outlined in the following table:

| Size of connection | Required Tension Load (Lbs.) |
|--------------------|------------------------------|
| 3/4 in. ----- | 2100 lbs. |
| 1 in. ----- | 3400 lbs. |
| 1 1/4 in. ----- | 3950 lbs. |
| 1 1/2 in. ----- | 4500 lbs. |
| 2 in. ----- | 5000 lbs. |

7. **BURIAL OF WATER SERVICE PIPES.** All service pipes shall in all cases be buried not less than three feet six inches under the surface of the ground laid with due regard for danger from freezing, and if on unimproved streets, shall be laid on a level with the bottom of the main from the main to within one foot of the curb stop, as the case may be, and in no case less than three feet six inches below the surface of the ground. Service pipes shall not be placed where either pipe or curb stop will be in a driveway.

8. **SEPARATE WATER SERVICES.** Each lot shall have a separate main tap and corporation stop and a separate curb stop and box which curb stop and box shall be placed at grade within one foot of the sidewalk line or if the main tapped is in an alley, at grade within six

inches of the lot line and if there are two or more houses or buildings on a single lot, separate taps and separate curb stops shall be placed as above for each building served.

9. WATER SERVICE CURB STOPS. Curb stops for 3/4 and one inch services shall be of the inverted key design with body, key, base cap, combined cap and tee head components cast with ASTM B62 bronze and shall be precision machined, individually fitted and tested in the same manner as described for corporation stops (Section 2 of this Chapter); or, they shall be of the bronze, quarter turn, cylindrical plug type as described below for water service lines larger than one inch. Three-fourths and one inch curb stops shall be provided with threads at or near the top of the body so as to receive a Minneapolis Pattern base, extension type service box. Said threads shall be provided with a vertical channel for water drainage. Curb stops larger than one inch shall be installed with arch pattern base, extension type service boxes. Curb stops larger than one inch shall be of the cylindrical plug, closed bottom, quarter turn design with body and plug (key) cast of ASTM B62 bronze. Pressure sealing shall be accomplished by means of resilient pressure actuated seals and shall not depend on metal to metal fits whether lubricated or not for sealing properties. Pressure seals shall be of the O-ring type seated in accurately machined grooves in the plug (key) part, bearing against a smoothly machined body bore. Quarter turn operation shall be controlled by internal check lugs that are cast as integral parts of the body and plug (key). Each curb stop larger than one inch shall be individually tested by the manufacturer at both 10 psi. and 175 psi. air pressure with the valve submerged in water in both the open and closed positions. No top or port leaks are permitted in either test.

10. WATER CURB STOP BOXES. Curb stop boxes for water services shall be of the Minneapolis Pattern base, extension type, consisting of two telescoping sections, the lower of which shall be cast of ASTM A126 Grade B gray iron and shall be provided with accurately

machined inside threads of corresponding size and type to those of the outside threads at the top of the curb stop body. The upper section (stand pipe) shall be made from schedule 40 steel pipe with a 1 1/4 inch minimum diameter and shall be provided with a lid made of ASTM A126 gray iron with the word "WATER" clearly cast on its top surface. Said lid shall have a cast gray iron pentagon nut and plug. The lid shall have an integrally cast bronze bushing to facilitate easy removal of the pentagon plug with the proper wrench. Upper and lower sections of curb stop boxes shall be coated inside and out with a tar base enamel and shall be provided with not less than 12 inch telescopic adjustment for grade variations. They shall be sized for bury depths in accordance with Section 7 of this Chapter.

11. **OPENING OR SHUTTING SERVICE LINES.** No person shall have in his possession any key, instrument or device designed or intended to be used for manipulating a stop connected with the water service supplying any premises or building or shall any person open or shut any such stop other than a duly authorized employee of the City of Decatur or a duly authorized plumber. Whenever a plumber makes necessary repairs or tests work done after completing such work he shall leave any such stop as he found the same.

If water service has been shut off for non-payment of bill or fee, no person shall open a stop other than an authorized City of Decatur employee.

12. **REPLACEMENT OF WATER SERVICE.** Whenever a water service or any part thereof is repaired or altered, all provisions of this Chapter shall be complied with and any replacement of pipe in such service shall be done with seamless, unspliced copper pipe complying with the standards set out elsewhere herein and a new curb stop so complying shall also be installed.

13. **RULES AND REGULATIONS.** The City Manager is hereby authorized to cause to be established, promulgated, published and enforced such reasonable rules, regulations, standards, specifications or procedures, not in conflict with the provisions hereof, as may to said officer appear to be necessary or convenient to administer the same and to carry out the intent and purpose hereof.

14. **PERMIT REQUIRED.** No service shall be connected or reconnected to a water main nor shall any such connection be repaired or modified unless and until a permit from the City has been issued for the same.

15. **APPLICATION FOR PERMIT.** Application for such permits shall be made upon forms furnished by the City requiring such information as may be necessary or desirable to facilitate the administration and enforcement of the provisions of law, code or ordinance applicable to such connections, services and utilities, which application shall be accompanied by payment, or proof of payment, of any applicable connection charges established by said provisions in Chapter 65 and the payment of an inspection fee established by said provisions in Chapter 37 for each such permit.

16. **INSPECTION.** No such work shall be buried or covered until the same has been inspected and approved by the City and should any work be buried or covered without so being inspected and approved, in addition to any other cost or penalty provided herein, the cost of uncovering the same shall be borne by the owner of such service or the person or entity found to so have done, or both.

17. **PENALTY.** It shall be unlawful to install, construct, repair or modify a water service, or connect the same to the City water distribution system other than in conformity and compliance with the provisions hereof, and any person or entity, other than those excluded in

Section 1 hereof, shall be fined in an amount not less than One Hundred Fifty Dollars (\$150.00) nor more than Five Hundred Dollars (\$500.00) for each offense, and each day on which a violation occurs or continues shall be considered a separate offense.

(Amended, Ordinance No. 2011-75, October 31, 2011)

18. **OTHER REMEDIES.** The provisions or imposition of the penalty aforesaid shall not preclude the institution of appropriate action to prevent, abate or stop acts, activities, work or maintenance of services or connections not in compliance with the provisions of this Chapter, including the disconnection of non-complying services from either of said systems of the City and the denial of access thereto until such compliance is attained.