

## CHAPTER 93

# SPECIFICATIONS FOR WATER SERVICE LINES

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**93.01 PURPOSE.** This chapter governs the construction of new water service lines and the replacement of existing water service lines in the City.

**93.02 SERVICE INTERRUPTIONS.** In the event the contractor's operation interrupts service to the Water Department's customers and they do not promptly restore such services, the Department reserves the right to enter the work and restore the service with Department personnel. The labor and machine time required for restoration of service shall be charged to the contractor.

**93.03 UTILITY LOCATIONS.** Prior to beginning excavation, the contractor shall notify all utility companies of the location of the excavation work and request field location of their facilities. The contractor shall exercise care in excavating near all utilities or service connections to these utilities. They shall be protected, supported and maintained in service or restored to the condition in which they were found. Where such utilities cannot be replaced so as to occupy their original location, they shall be relocated by the respective utility company with the cooperation and assistance of the contractor. In the case of drain tile or sewers, the contractor shall relocate such facilities under the direction of the City. No excavation shall be made near any water main until Water Department personnel are on hand to shut off the main and authorize the contractor to proceed. The contractor shall not operate valves on existing water mains.

**93.04 TRENCH EXCAVATION.** The contractor shall excavate all trenches to provide a minimum cover of five and one-half (5.5) feet above the top of the water service line. Excavation may be carried on by any reasonable method preferred by the contractor which shall insure systematic progress without danger to the completed work or the private or public property adjacent to the work. Whenever the contractor shall excavate below the grade of the water service line, they shall backfill the trench to grade with selected sand tamped in place.

**93.05 WATER SERVICE TAPS.** Corporation stops shall be located at the ten o'clock or two o'clock position on the circumference of the pipe unless this would

result in any part of the service line attached to the corporation to have less than five feet of cover. Where five feet of cover is not available, the location of the corporation may be rotated downward, but no lower than the mid-point of the main to be tapped. Water Department personnel shall make all taps on all department water mains.

**93.06 OPERATION OF VALVES AND HYDRANTS.** The operation of all valves and hydrants shall be under the control of the Water Department at all times. The contractor shall notify the Department when the contractor is ready for a valve or hydrant to be operated and this work shall be performed by employees of the Department.

**93.07 WATER USED.** All water required for flushing, testing or sterilization of service lines will be furnished by the Water Department at no cost to the contractor. The contractor will be allowed to use City water at regular meter rates for all other purposes, but before any water is used, the contractor shall notify the Water Department office. A suitable meter will be provided by the Department upon payment of the standard charge. No water shall be used other than that water required for the items listed above without a meter. Opening and closing of the fire hydrants shall be performed only by an authorized employee of the Water Department.

**93.08 CORPORATION STOP.** Corporation stop shall be a Mueller H-15000 or A.Y. McDonald 4701 with a flared copper outlet. The corporation stops shall be limited to  $\frac{3}{4}$ -inch.

**93.09 SERVICE LINES TAPPING SADDLE CLAMPS.** Tapping saddles shall be SMITH-BLAIR Model 317 and of the pipe size of the water main, minimum 4-inch. Saddle size shall be the same as the water main.

**93.10 WATER SERVICE PIPE.** Service pipe shall be Type K copper. The diameter shall be  $\frac{3}{4}$ -inch.

**93.11 CURB STOP.** Curb stop shall be Mueller H-15201 with a 1½-inch Minneapolis pattern on the top of the valve. Flared copper inlet and outlet, minimum diameter  $\frac{3}{4}$ -inch.

**93.12 CURB STOP BLOCKING.** A concrete block shall be placed under the curb stop against unexcavated earth. The concrete block shall be 4" x 8" x 16". All curb boxes shall be plumb so Water Department personnel can place their wrenches on the valve.

**93.13 CURB BOX.** Curb box shall be constructed of five feet of 1½-inch galvanized pipe threaded with coupling to be screwed into the top of curb stop.

Three feet of 2-inch galvanized pipe shall be placed over the 1½-inch section of pipe and is to be level with the ground surface of the property when the job is completed. The curb box lid shall be threaded into the 1½-inch pipe and shall be A. Y. McDonald Model #5623L, 1½-inch Brass Pentagon Plug (#4511-204). The word "WATER" in raised letters shall be on the top. When using the Mueller H-15201 curb stop, a 1½" x 2" reducer coupling is needed, which screws on to the curb stop.

**93.14 INSPECTION.** All material found during the progress of the work to have cracks, flaws or other defects shall be rejected. All defective materials furnished by the contractor shall be promptly removed by the contractor from the site.

**93.15 BACKFILL MATERIAL.** All backfill material shall be free from cinders, ashes, refuse, vegetable or organic material, boulders or other material that in the opinion of the Superintendent is unsuitable. From three feet above the top of the pipe, the backfill material may contain stones up to four inches in their largest dimension.

**93.16 COMPACTION OF EXCAVATED AREA.** Backfill material should be compacted every nine inches for the first eighteen inches and every twelve inches thereafter to a point twelve inches below the surface. A crushed stone (Class A) ¾-inch Road Rock base material, eight inches thick, shall be compacted into the trench.