

505.6.2 WATER SERVICES LARGER THAN 2”

For the water services larger than 2” the valve shall be installed on the water service line adjacent to the water main. (Figure 22) The valve shall be installed in a roadway box.

505.6.3 Any valves, roadway boxes and precast concrete manhole vaults must have the approval of the Des Moines Water Works.

505.6.4 Curb stop boxes, roadway boxes and precast concrete manhole vaults shall be installed so that they will function properly and so that an access to the shut-off device is maintained. All shall be set vertically so the top is flush with the surrounding surface so as not to be a hazard to the public.

505.6.5 All service lines shall have a shut-off device or valve inside the building where the service enters the building. There shall be no appurtenances between this valve and the main, other than the curb stop, or valve as previously described, or when an outside meter is approved. (Figures 1-2)

505.6.6 Tracer wire shall be installed with all water service lines except when the water service line is type K copper or red brass. The tracer wire shall be installed according to Des Moines Water Works’ specifications (see figures 17, 18, 20, 20A, 24, 26, and 35). Tracer wire specifications shall be as follows:

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- a. For open cut installations the tracer wire shall be No. 12 AWG solid single copper conductor with a minimum tensile strength of 150 pounds. Insulation shall be 45 mil, high-density, high molecular weight polyethylene (HDPE) and rated for direct burial, 30 volts, and blue in color.
- b. When Directional Drilling/Boring the tracer wire shall be No. 12 AWG, extra-high strength copper clad steel conductor (EHS-CCS) with a minimum 1,150 pounds break load. Insulation shall be 45 mil, high-density, high molecular weight polyethylene (HDPE) and rated for direct burial, 30 volts, and blue in color.

- c. When conduit is used the tracer wire shall be placed inside the conduit. When conduit is not used tracer wire shall be installed alongside the pipe and shall be fastened to pipe with zip ties a minimum of every 5 feet.
- d. Anode Ground Rod shall be 3/8-inch minimum diameter, 8-foot minimum length steel rod uniformly coated with metallically bonded electrolytic copper. Anode Ground Rod shall be spliced to tracer wire using a high-strength, corrosion resistant copper alloy ground rod clamp.
- e. Splice Kits, when approved, shall be DryConn Direct Bury Lug Aqua (SKU 90220)
- f. Tracer wire connectors shall be Rhino TriView, TracerPed, or approved equal. Wire connectors shall contain three internal terminals with two shunts, be 5 feet in length, white in color, and triangular in shape. Removable top cap, three 2-7/8-inch by 14-inch custom vinyl decals No. SD-5594K, and tri-grip anchor.