

**TOWN OF GLENVILLE  
TECHNICAL SPECIFICATIONS  
FOR  
WATER WORKS MATERIALS**

**NOTE:** All reference to standard ANSI, AWWA OR ASTM specifications shall be the latest edition.

**1. DUCTILE IRON PIPE AND FITTINGS:**

- A. All pipe for water mains shall be ductile iron pipe furnished 18 or 20 foot nominal laying lengths.
- B. All ductile Iron pipe shall be centrifugally cast in metal molds or sand-lined molds with all details of manufacture and supply in complete conformance with ANSI/AWWA C151/A21.51. All ductile iron pipe shall be designed and selected in accordance with ANSI/AWWA C150/A21.50. All ductile iron pipe shall be minimum pipe wall thickness of 0.25 inches (Class'52) per ANSI/AWWA C150/A21.501.
- C. All pipe shall have push-on joints in complete conformance ANSI/AWWA C111/A21.11. The pipe manufacturer shall furnish the required rubber joint gaskets and joint lubricant together with four (4) Silicon Bronze Wedges with each length of pipe.
- D. All pipe fittings shall be ductile iron and shall be short body in complete conformance with ANSI/AWWA C110. All fittings shall have a minimum pressure rating of 350 pounds per square inch (psi). All fittings shall have mechanical joints in complete conformance with ANSI/AWWA C111/A21.11. The pipe manufacturer shall furnish the required joint accessories consisting of ductile iron and required joint lubricant.
- E. All ductile iron pipe and ductile iron fittings shall be cement mortar lined and paint seal coated in conformance with ANSI/AWWA C104/AS1.4. The thickness of the lining shall be twice the standard and shall be not less than 1/8-inch thick for all pipes.
- F. All mechanical joints shall have retainer gland connections (Grip Ring, MegaPlug, etc.) with fluorocarbon bolts.
- G. Thrust blocking shall be used for all mechanical joint directional change fittings.

**2. GATE VALVES AND TAPPING SLEEVES AND VALVE BOXES**

- A. All gate valves shall be Eddy Clow F-6100 residual wedge or approved equal.

- B. All gate valves for water mains shall conform to ANSI/AWWA C500 and shall be suitable for a minimum working pressure of 200 psi after having been hydrostatically tested to 400 psi after manufacture. All valves shall open left with a standard 2 inch square operating nut. All valves shall be furnished with mechanical joint ends complete with ductile iron retainer glands Clow F-6100. All T-headed bolts shall be fluorocarbon bolts.
- C. All gate valves shall be R/W, iron body, bronze mounted, non-rising stem, and shall be furnished with double O-Ring packing.
- D. All tapping sleeves shall be Smith Blair 663 stainless steel for cast iron or ductile iron pipe. The tapping valve shall be Eddy Clow F-205 or approved equal with (O-Ring seal and shall open left).
- E. All valves boxes shall be of cast iron, telescopic pattern, at least five and one quarter inch (5-1/4") in diameter. Valve boxes for 6-inch diameter valves shall generally have a 26 Inch top section and a 36-inch bottom section, but in all cases, all valve boxes shall be furnished to match the specific valve dimensions and trench depth Involved (5 feet of cover over pipe barrel).
- F. All valve boxes shall be furnished with a cast iron cover, drop style, with both the word "WATER" and an arrow indicating the direction of the valve opening (open left) cast on the cover in raised characters. Valve boxes shall be Clow F-2452 Model 664-A with a F-2490 cover or approved equal.

### 3. FIRE HYDRANTS

- A. **All fire hydrants shall be Eddy F-2640.**
- B. All -Fire hydrants shall conform to ANSI/AWWA C302 with five and one quarter inch (5-1/4") main valve opening and six Inch (6") mechanical joint inlet connection furnished complete with ductile iron retainer glands Clow F-2640, only fluorocarbon bolts and nuts, plain backed rubber gaskets, and required Joint lubricant. Hydrants shall be suitable for a five and one half foot (5-1/2') deep trench. Each hydrant shall have two (2) two and one half inch (2-1/2") hose connections and one (1) four and one half inch (4-1/2") pumper connection, all with National Standard hose threads and with outlet nozzle caps and cap chains. All hydrants shall have double O-Ring packing, and shall be with a National Standard five sided operating nut measuring one and one half inch (1-1/2") flat to point. The outlet nozzle cap nuts shall be the same as the operating nut.

- C. All fire hydrants shall be true traffic type with break flange construction with a frangible break flange located slightly above the ground line and a cast iron break coupling on the stem at the same location, which shall be so designed that in case of breakage, only the break flange and cast iron coupling need be replaced to complete repair.
- D. All hydrants shall receive a finish coat of weather resistant paint above the ground line after installation. The finish coat must meet the Town of Glenville requirements.
- E. All hydrants shall have a bolt on spring loaded hydrant marker with minimum 4 foot length.
- F. Anchor pipe shall be used between hydrant and valve. Thrust blocking shall be used behind hydrant.

#### 4. CORPORATION STOPS

- A. Corporation stops shall be 3/4-inch in diameter with compression connections and shall be Mueller H-15000 series or approved equal by Town of Glenville Water Department Inspector.

#### 5. CURB STOPS AND BOXES

- A. Curb stops shall be 3/4-inch in diameter for copper service pipe and shall be non-draining Mueller H-15201 Oriseal or approved equal by Town of Glenville Water Department Inspector. Curb boxes for these curb stops shall be of the extension type with a stationary rod and arch pattern base suitable for a 5-foot deep trench and having a 1-inch inside diameter upper section. Curb boxes shall be Mueller H-10314; 5-1/2 feet extended length telescoping to 4-1/2 feet, with matching #82867 stationary rods and #87081 lids or approved equal by Town of Glenville Water Department Inspector.

#### 6. COPPER SERVICE PIPE

- A. Water service lines shall be 3/4-inch in diameter made with copper service pipe. All copper service pipes shall be soft temper Type K seamless copper tubing conforming to ASTM Specifications B88 and Federal Specifications WWT-799.