

## CUSTOMER WATER SERVICE LINES

### GENERAL

Maine Water Company (Company) shall review the size of the service line, including that portion to be owned by the customer. The service line shall be no smaller than 1-inch in diameter.

All materials are supplied by the customer or contractor with the exception of the water meter and remote reading device.

Only Company personnel are authorized to operate water system valves, including curb stop valves.

The Company must be contacted with a minimum 72 hour advanced notice of the connection to Company owned water pipe and installation of water service pipe. If MWC personnel do not witness the connection and service line installation prior to backfilling, MWC will require passing pressure testing results. MWC reserves the right to conduct the pressure testing with Company personnel and charge the project at the Company jobbing rates.

The Company must be contacted with a minimum 72 hour advanced notice for the meter installation.

### MATERIALS

#### SERVICE PIPE

All 1-inch diameter service line connections from the corporation main valve to the curb stop valve shall only be type "K" copper, unless approved in advance by the Company. 2-inch diameter customer service pipes may be plastic or copper material.

Copper service pipe shall be type "K", soft seamless copper tubing with no soldered joints underground.

Plastic pipe may be used on the customer side of the curb valve, if approved by the Company in advance. Plastic pipe shall be PE 3608 polyethylene copper tubing size (CTS) rated for 200 psi working pressure with this information and the NSF seal appearing on the pipe, in accordance with AWWA C901-02.

All plastic polyethylene pipe installation requires use of stainless steel insert stiffeners at brass compression fittings. Plastics fittings are prohibited.

Nonmetallic pipe must be paralleled by a metallic tracer wire grounded to metal at the curb stop valve and interior plumbing for ease of locating. Said wire shall be 12AWG stranded copper with an HMW-PE jacket.

Customer service lines that are required to be greater than 2-inches in diameter shall be increased by 2-inch increments and the material shall be ductile iron or continuously fused HDPE with tracer wire. 2-inch diameter pipe shall be installed with a tapping saddle, corporation and gate valve.

### **STRAP SERVICE SADDLES**

Double strap service saddles shall have epoxy or nylon coated body and stainless steel nuts, bolts and double straps. Taps shall be CC (Mueller) Thread unless otherwise noted.

#### Approved Manufacturers

Smith-Blair #313 or #317

Romac #202N

Ford FCD 202

Mueller #DE2S

U.S. Pipe #DR2S

### **CORPORATION STOPS (valves)**

Corporation stops shall be Mueller ball type B-25008 series bronze body, rated for 300 psi and manufactured in the United States or Canada in accordance with ANSI/AWWA Standard C800-05. The inlet shall have a standard AWWA corporation valve inlet thread (Mueller - CC) and the outlet shall be a compression connection for copper tubing.

### **CURB STOPS (valves)**

Curb stop valves shall be ball valve, bronze-body, rated for 300 psi and manufactured in the United States or Canada in accordance with ANSI/AWWA Standard C800-5. Both ends of curb stop valves shall be compression connections for copper service tubing.

#### Approved Manufacturers

Mueller 300 Ball Valve B-25209

Ford B44-444-Q

A.Y. McDonald – 6100-Q

### **CURB BOXES**

Curb boxes shall be iron-body with close fitting, dirt tight or screw type covers. The top of the cover shall be flush with the top of the box rim with the word "WATER" clearly marked. Curb boxes shall be Erie Style with stainless steel rod lengths specific to each MWC system.

Valve box top extensions with cover are required over curb boxes, when curb stop valves are located in a traveled way, i.e. driveway, sidewalk, road, etc.

<u>Curb Box Rod Length</u>	
<u>MWC Systems</u>	<u>MWC Contracts</u>
Biddeford Saco – 24-inches	South Freeport – 24-inches
Camden Rockland – 24-inches	Waldoboro – 24-inches
Union & Warren – 24-inches	Vinalhaven – 24-inches
Skowhegan – 24-inches	
Oakland – 24-inches	
Hartland – 24-inches	
Bucksport – 24-inches	
Millinocket – 24-inches	
Greenville – 24 or 36-inches*	
Freeport – 24-inches	
Kezar Falls – 24-inches	

\* - Final approval must be obtained from the Company.

**MAIN LINE RESILIENT-SEATED GATE VALVES**

Resilient-seated gate valves are required for 2-inch valves. They shall be full weight ductile iron body, threaded (FIP), non-rising stem complete with stainless steel trim, as specified, O-ring seal with a 2-inch x 2-inch operating nut, manufactured in the United States or Canada and in accordance with ANSI/AWWA C509-09 or the latest revision thereof.

*Note: Lightweight/thin wall ductile iron body valves are **not** accepted by MWC.*

As a minimum, the inside of the valve body and bonnet are to be coated with a fusion bonded epoxy in accordance with ANSI/AWWA C550-13 or the latest revision thereof. All bolts shall be stainless steel ASTM F593.

Valves shall meet the following required working pressure rating:

<u>Pipe Diameter (inches)</u>	<u>Working pressure rating (psig)</u>
Up to 12	200

Gate valves opening direction should be ordered specific to each MWC System.

CUSTOMER WATER SERVICE LINE SPECIFICATIONS

<u>Gate Valve Opening Direction</u>	
<u>MWC Systems</u>	<u>MWC Contracts</u>
Biddeford Saco – Open Right	South Freeport – Open Right
Camden Rockland – Open Right	Tenants Harbor – Open Left
Union & Warren – Open Right	Vinalhaven – Open Left
Skowhegan – Open Right	Waldoboro – Open Right
Oakland – Open Left	
Hartland – Open Right	
Bucksport – Open Left	
Millinocket – Open Left	
Greenville – Open Left	
Freeport – Open Right	
Kezar Falls – Open Left	

Approved Manufacturers and Products

Mueller Company A-2360  
 U.S. Pipe Resilient Seat Valve

**VALVE BOXES**

Valve box top extensions with cover are required over curb boxes, when curb stop valves are located in a traveled way, i.e. driveway, sidewalk, road, etc.

The valve box shall be iron-body with close fitting dirt-tight covers, 2-piece (26-inch or 36-inch top, 36-inch or 48-inch bottom,) 5 ¼-inch shaft adjustable slide type. The top of the cover shall be flush with the top of the box rim with the word “WATER” clearly marked.

All Boxes for MWC lengths shall be sized as indicated above with the exception of:

Approved Manufacturers

Bingham & Taylor #4908  
 Bibby St. Croix #V683 (5664)  
 Tyler/Union Foundry #7126

**METER HORNS**

Meter horns shall be copper corner style for sizes 5/8 - inch x 3/4-inch, 3/4-inch or 1-inch.

Meter horn use is not standard practice in the Camden Rockland, Union, or Warren Divisions, Waldoboro Water Department, and Tenants Harbor Water District.

Approved Manufacturers:

Mueller Company  
Ford Meter Box Co.  
A.Y. McDonald

**METERS**

The Company shall approve the water meter size. The plumbing shall be constructed to allow the meter to be installed in a horizontal position. The meter, remote reading device, and wiring shall be supplied and installed by the Company. The Company must be contacted with a minimum 72 hour advanced notice for meter installations. The customer is responsible for the protection of the water meter, including freeze protection. Water meter damage requiring meter replacement is the customer's financial responsibility.

**BACKFLOW PREVENTER**

Residential buildings shall install a non-testable, double check valve after the water meter. Watts Model 7 or an equivalent device is recommended.

Commercial buildings shall install a testable backflow prevention device after the meter, with prior product approval by the Company. The customer is responsible for maintenance and testing of all backflow preventers.

**INSTALLATION**

**TRENCH EXCAVATION & BACKFILL**

Trench excavation shall provide, at the finished grade, between five and six feet of cover over the top of the service line. If existing conditions limit cover to less than five feet, then subsurface insulation over the top of the pipe is required. The insulation material and configuration requirements are specified on a case by case basis. Contact MWC directly for design review and approval.

The trench bottom shall be smooth and of good material. Where ledge or rock is encountered, it shall be removed to provide at least six inches of clearance below and on each side of the pipe.

Where groundwater enters the trench bottom, crushed rock shall be put in the trench bottom to allow the pipe to be above groundwater.

Backfill for the first two feet from the bottom of the trench shall not contain any stones larger than 2" in diameter.

Backfill from two feet above the service line to the rough grade of the road bed, shall not contain any rocks larger than 6-inch in diameter.

Only proper approved backfill materials shall be used.

All trenches shall be thoroughly compacted using mechanical equipment in 8-inch to

12-inch layers, leaving the finished grade as near as possible to the original grade.

The contractor, when installing the Company's portion of the pipe, shall be responsible for any settling of the trench (to include repaving) for a period of two years from the date of acceptance by the Water Company.

### **CONNECTION TO COMPANY OWNED WATER PIPE**

All connections to Company owned water pipes and service lines shall be made by Company personnel or an agency authorized by the Company.

All materials used in any connections to Company owned water pipes shall be approved by the Company, and shall meet the specifications contained herein.

Direct service connections to polyethylene encased ductile iron pipe shall be made by applying two or three wraps of polyethylene adhesive tape completely around the pipe to cover the area where the tapping machine and chain will be mounted. After the tapping machine is mounted, the corporation stop is installed directly through the tape and polyethylene. After the tap the entire circumferential area must be inspected for damage and repaired, as necessary.

Direct service connections to all pipe materials, excluding ductile iron and cast iron, require use of a bolt-on mechanical style tapping saddles.

Domestic water service lines shall not be tapped from a fire protection/sprinkler service line, but shall be a separate connection at the distribution main. It is possible under unusual circumstances and with prior approval from the Water Company to tap a fire service line for domestic service. This connection would have to be made outside of the building with an appropriate valve configuration so that Water Company personnel can shut off the service lines independently.

### **UTILITY SEPARATION AT THE CUSTOMERS PROPERTY LINE**

Water service pipes shall be laid at least 10 feet horizontally from any sanitary sewer, storm sewer or sewer manhole, shall be measured edge to edge.

When local conditions, (e.g. permanent structures) prevent a horizontal separation of 10 feet, a water service pipe may be laid closer to a storm or sanitary sewer provided that:

The bottom of the water service pipe is at least 18 inches above the top of the sewer and minimum of 5 feet, edge to edge is horizontally provided.

### **SEPARATION OF CATV, TELEPHONE, ELECTRIC CABLES AND GAS**

#### **PARALLEL INSTALLATION**

All underground cable without exception shall be installed with at least a 10 foot separation from the nearest side of the water service pipe.

### **CROSSINGS**

All underground cable that has to cross a water service pipe shall be installed with the following conditions.

The angle of crossing shall not be less than 45 degrees. The distance between the cable and the crossing side of the water main shall be at least 18 inches. At the point of crossing the cable shall be housed in a steel or iron conduit with at least six feet of conduit either side of the water service pipe. This is to be marked with locating or caution tape.

### **ACCEPTANCE**

The Company reserves the right to refuse service if the terms and conditions of these Standards and Specifications are not met.