

## **MATERIAL SPECIFICATIONS**

**(Same as Section VIII of the General Specifications)**

*Revision Date 07/07/2009*

The following material section is intended to apply to ALL new construction, both public and private. For the purposes of ensuring overall proper workmanship and compliance to these specifications, the District makes no distinction between extensions that are to be owned and maintained by the District, and private extensions installed to serve commercial, industrial or multi-unit type projects.

### **Bolts and Nuts**

Cor-Ten Steel T bolts for M/J fittings in hot soil areas: #316 stainless steel for flange fittings; D.I. regular T bolts all other areas, Grade 5 bolts A307B heavy head bolt/heavy duty nuts.

### **Valve Boxes**

North American made Tyler, Mueller, Bibby or EJP; standard style - 3 basic component; cover marked WATER. 5-foot bury 5-1/4 slide type top section; belled base section 36 inches long.

### **Service Boxes/Foot Pieces**

North American made Tyler, Mueller, Bibby or EJP; 1 inch, 5-1/2 foot bury slide type riser, cover with solid brass plug, pentagon head with rope thread Erie style.

Foot pieces: North American made Mueller, Tyler, Bibby or Ford for 1-1/4-inch to 2-inch valves.

### **Rods**

5/8 inch #316 stainless steel for 1-1/2 inch and larger ball valves;

1/2 inch #316 stainless steel for 3/4 inch and 1 inch ball valves.

Stainless steel cotter pins.

### **Curb Stops (Ball Valves)**

Curb Stops and Service Brass must be brass and conform to AWWA Standard C-800 (latest revision).

#### **Manufacturers:**

Ford , Mueller, MacDonald and Cambridge (Pack Joint or female iron pipe)

### **Corporation Stops**

Must be brass and conform to AWWA Standard C-800 (latest revision).

#### **Manufacturers:**

Ford , Mueller, MacDonald and Cambridge AWWA taper thread (CC) inlet by Pack-Joint outlet for copper/CTS plastic.

### **Service Saddles \***

Nylon/epoxy coated D.I. body with 2 stainless steel straps or 1 single large wide strap.  
¾ inch to 2 inch service size - AWWA taper thread (CC) outlet thread.

- Brass Saddles for IPS & C-900 PVC Pipe allowed. AWWA taper thread (CC) outlet thread.

\* PVC pressure fittings for SDR-21 Class 200 pipe are **NOT ALLOWED**

#### **Manufacturers:**

Ford, Romac, Rockwell, Mueller, Smith-Blair.

(Spec does not apply to polyethelene pipe systems)

### **Service Brass/Misc. Brass**

½ inch to 2 inch Ford, Mueller, MacDonald and Cambridge. All pack joint or female iron pipe (no flare).

### **Fittings: Bends, Tees, Solid Sleeves\*, \*\***

Ductile iron – U.S. made M/J compact Class 350 cement-lined C-153.

Cast iron – U.S. made M/J Class 250, C110.

\*Note: solid sleeves shall be long-body only.

\*\* IPS sized PVC pressure fittings for SDR-21 Class 200 pipe are **NOT ALLOWED**.

\*\*AWWA C-900 PVC pressure fittings are **NOT ALLOWED**.

### **Cut-in Sleeves**

M/J Clow #349 or Mueller #840.

### **Valves M/J:**

#### **Cut-in valves: OPEN RIGHT**

Clow Resilient Wedge #F-6111 open right w/stainless steel nuts/bolts

Mueller Resilient Wedge #C-2360-44 open right w/stainless steel nuts/bolts

American Flow Control (AFC) Model 2500 Ductile Iron Gate Valve open right  
w/stainless steel nuts/bolts.

#### **Tapping valves: OPEN RIGHT**

Clow Resilient Wedge #F-6114 open right w/stainless steel nuts/bolts

Mueller Resilient Wedge #T-2360-16 open right w/stainless steel nuts/bolts

American Flow Control (AFC) Model 2500 Ductile Iron Gate Valve open right  
w/stainless steel nuts/bolts.

#### **Gate valves: OPEN RIGHT**

Clow Resilient Wedge #F-6100 open right w/stainless steel nuts/bolts

Mueller Resilient Wedge #T-2360-20 open right w/stainless steel nuts/bolts

American Flow Control (AFC) Model 2500 Ductile Iron Gate Valve open right  
w/stainless steel nuts/bolts.

#### **Butterfly valves\*: OPEN RIGHT**

Mueller Linesal III

Pratt Ground Hog

\*Note: Factory epoxy coated inside and out

### **Tapping Sleeves**

M/J: Clow #F-5205 or Mueller H-842 for all sizes Stainless steel sleeves acceptable all sizes. Must meet or exceed ASTM A-240, 304 gauge. Ductile Iron face flange **not** acceptable. Must be all stainless.

**Fire Hydrants: Must have two 2½” side nozzles and one – 4½” pumper nozzle.**

Mueller Super Centurion 200 #A-423; plugged drain hole. Open right.

Clow Eddy F-264. Plugged drain hole. Open right.

Cap & operating nut 1-1/2” pentagon.

**Mechanical Joint Restraints**

EBBA IRON “Megalug”.

ROMAC Industries “RomaGrip”.

**D.I. Pipe**

2 inch through 12 inch, Class 52 double-cement-lined. Push-on joint.

16 inch through 20 inch, Class 51 double-cement-lined. Push-on joint or approved equal.

Manufacturers: Atlantic States, U.S. Pipe, Griffin

**PVC Pipe**

1-1/2 inch through 3 inch, SDR 21 Class 200, steel O.D. \*

4 inch through 12 inch, C-900 DR-18 Class 150, D.I. O.D.\*\*

14 inch through 20 inch, C-905 DR-18, 235 psi pressure rating.\*\*

\* IPS sized PVC pressure fittings for SDR-21 Class 200 pipe are **NOT ALLOWED**.

\*\* AWWA C-900 PVC pressure fittings are **NOT ALLOWED**.

**Polyethelene Pipe and Accessories**

Polyethelene pipe systems are acceptable for special installations. Any proposed use of polyethelene pipe must be pre-approved by the Water District.