

MATERIAL SPECIFICATIONS
FOR WATERMAIN
CITY OF CUDAHY WATER UTILTY
Updated March 2009 PG 1 OF 3

MATERIALS

1 Pipe

Shall be PVC, C-900-DR18 for 8", 10", 12" and 16", DR 14 for 4" & 6"
Shall be Ductile Iron, Class 52 for 4", 6", 8", 10", 12" and 16" (cement lined)
Shall be C-901 SDR 9 HDPE Water tube or Type K Copper Soft Temper Water Tube
HDPE Water Tube for 2"

2. Joint

Shall be push-on bell with rubber gasket.

3. Fittings

Shall be Ductile Iron with mechanical joints conforming to Chapter 6.22.0 of the Standard Specifications. A.W.W.A. C-110 and C-111 with the exception of the manufacturer's design dimensions and thicknesses. Compact Ductile Iron fittings are allowed in accordance with Chapter 6.22.2 of the Standard Specifications. (USA only)

4. Services

Shall be 1" & 1 1/4" Type K Copper Soft Temper Water Tube.
Shall be 1 1/4" CTS C-901 SDR-9 HDPE Water Tube
On HDPE services, solid insert sleeves shall be included with the curb stop and corporation stop. Joints shall be with pack joint compression fitting as manufactured by Mueller, McDonald and Ford

5. Corporation Stops

	<u>1" & 1 1/4" Type K Copper</u>	<u>1-1/4" HDPE</u>
Shall be Mueller	H-15000	H-15008
Hayes	5200	
McDonalds	4701	

On 1 1/4" Services

Ford 1" F600	(1" x 1 1/4")	F1000
McDonald	4701 (1 x 1 1/4")	4701T (1 x 1 1/4)

6. Ground Key Stop Valve (Curb Stop)

	<u>For 1"</u>	<u>For 1-1/4"</u>
Shall be Mueller	H-15150	H-15150
Hayes	5155	5155
McDonald	4717	6104 (Copper)
	4717T	6104T HDPE
Ford	B22-444M	B22-444M

All with 2" Minneapolis thread.

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7. Service Box

Shall be Mueller	H-10300
Hayes	5829
McDonald	5616

For 2" Ball Valve Shall be McDonald 5615 or equal

8. Service Saddles

New Pipe - Stainless steel clamp with rubber gasket and integral services outlet
Smith-Blair 372 , Cascade Waterworks CSC2 (4"-10") CS22 (12 & 16") or
equal

Existing Ductile/Cast Iron Pipe - Smith Blair 315-317 Ductile Iron Body's with
SS straps.

Where HDPE water main is specified - Connections 2" and below use Fusion
service saddles.

9. Gate Valves – A.W.W.A. Spec C509

Shall be Ford B22-777 with a 2" Minneapolis Thread or equal for 2"

Shall be resilient wedge type for 3", 4", 6", 8", 10" or 12"

American Flow Control, Series 500, SS Bolts, all bolts shall be core blue

Clow F-6100, SS Bolts

Mueller 2370-20, SS Bolts

Kennedy Ken-seal, SS Bolts

M&H II, SS Bolts

NOTE: Any R.W.G. valve used for cutting-in must use a cutting tool that will
develop a hole not less ½" smaller than the valve. (Any test plugs included on
valves shall be replaced with stainless steel plugs)

10. Butterfly Valves – A. W. W. A. Spec. C504

Shall be for 16" & larger, Clow with SS Bolts, Pratt Groundhog with SS Bolts and
M&H 450 with SS Bolts.

11. Valve Boxes and Lids

Shall be Tyler 6860

Bibby-STC B-5001

Bingham-Taylor

12. Flush Valve Assembly

Aquarius 101 2" Flushing Hydrant or equivalent to be used on permanent dead ends where main size is less than 6" diameter.

DETAILED SPECIFICATIONS
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13. Hydrants

Shall have: bronze on bronze seat
bronze upper valve plate
break away flange
oil or grease reservoir
coated elbow
meets or exceeds A.W.W.A C502 with a 5½" valve, two 2½" hose nozzles and one pumper nozzle with stainless steel bolts underground.

And shall be: Kennedy

All parts used to modify hydrant must be from the original equipment manufacturer.

The bars on all hydrants shall be ¾"
All hydrants shall have anchor tees and 6" valve

14. Check Valve

Valmatic 1800 series globe style, 125 lbs class, with cast iron body, bronze plug and stainless steel spring.

15. Mechanical Fittings & Hydrant Assembly – Core Blue Bolts

16. Tracer Wire & Access Box

Water main Tracer wire shall be 10 awg Solid
Shall be Valvco, Inc. Access Box or equal