

GENERAL PROVISIONS
OF THE
SPECIFICATIONS

MATERIALS SPECIFICATION LIST

General Note: All material that comes in contact with potable water shall be “lead free” to the extent defined in California Assembly Bill 1953 Chapter 853 and NSF 61 approved. All products shall be produced, manufactured and assembled domestically using manufacturer’s facilities in the United States unless otherwise approved.

1. DICL PIPE: U.S. Pipe, McWane, American or Electrosteel with Tyton or NXT Gaskets in accordance with AWWA C151. Use Thickness Class indicated below unless otherwise specified or shown on drawings.

<u>Pipe Size</u>	<u>ANSI Thickness Class</u>
4”	Class 52
6”, 8” and 10”	Class 50
12” – 48”	Class 51

- 1a. DICL PIPE (ZINC COATED): Same as item 1 with a minimum zinc mass of 130 g/m² per ISO 8179-1.
2. DICL PIPE RESTRAINT FITTINGS:

Gasket System:	4” – 24”	U. S. Pipe Field Lok, Electrosteel Tyton, Field Lok or McWane Sure-Stop 350
	4” – 30”	American Pipe Fast-Grip
Joint System:	12” – 24”	McWane Thrust Lock, U. S. Pipe TR-Flex or NXT-R
	> 24”	McWane Super Lock, U. S. Pipe TR-Flex or NXT-R
3. FLANGE GASKETS: 4” - 24” EPDM (1/8” Cloth Insert SBR for recycled water), U.S. Pipe Full Face Flange-Tyte Gasket or Garlock Multi-Swell Style 3760U.
4. POLYENCASEMENT: 8 mils unless otherwise specified, purple for recycled water or V-Bio (white) for potable water.
5. MARKER TAPE “RESTRAINED PIPE”: 3” width - blue tape with black lettering for potable and purple tape for recycled water.
6. TRACER WIRE: Agave Wire 12 AWG HMW PE 45 Direct Burial Tracer Wire 600 Volts E-246360.
7. GATE VALVE: Resilient Wedge Type. Gate valve are FLG, MJ, or FLG x MJ. Mueller, Clow, M & H or American Flow Control in accordance with AWWA C515 or AWWA C509 (ductile iron only). Use EPDM (SBR for recycled water) for o-rings and wedge coating. Minimum 200 psi pressure rating unless otherwise specified on SJWC drawings.
8. BUTTERFLY VALVE: Mueller/Pratt or DeZurik in accordance with AWWA C504. Use “Seat-in-Body” design, EPDM (SBR for recycled water) for o-rings and seat coating. Class 150 unless otherwise specified on SJWC drawings.

9. AIR VALVE: APCO or Crispin. APCO 55 only for below grade installation per standard drawing MAIN-AVpvt.
10. VALVE BOX & LID: Tyler Union ductile iron.
11. PIPE CASING VALVE RISER BOX: SDR 35 PVC plastic pipe.
12. TEES, REDUCERS, ELBOWS, CROSSES, SOLID SLEEVES, FLG and MJ fittings: Tyler/Union, U.S. Pipe or ROMAC in accordance with AWWA C-153.
13. INSULATING KIT: Calpico 150 lb. full faced gaskets with Red Devil #940 gasket material and double washers (ERDW).
14. SADDLE TAP FAB: Use SJWC Standard Drawing D-2-325. Fabricated by local metal shop.
15. SLEEVE TAP MJ: AC Pipe: Mueller, Smith-Blair or ROMAC up to 16". Smith-Blair for sizes 16" and larger. CI or DI Pipe: Mueller or ROMAC.
16. SLEEVE TAP O-RING: Smith-Blair, Ford or ROMAC. Epoxy coated with stainless steel nuts and bolts.
17. SPACER DICL FLG x PE: Tyler/Union, U.S. Pipe or ROMAC.
18. ADAPTER COUPLING w/o STUDS: Smith-Blair, Ford, or ROMAC.
19. ADAPTER MJ x FLG: Tyler/Union, U.S. Pipe or ROMAC.
20. MEGALUG: EBAA Iron or TUFgrip by Tyler Union (MJ Restraint Follower)
21. FIRE HYDRANT: Clow Medallion or Mueller Centurion dry barrel fire hydrant in accordance with AWWA C502. Use SJWC Standard Drawing MAIN-HYD unless otherwise shown on drawings. Use EPDM for o-rings and seats.
22. BOLTED COUPLING: Ford, Smith Blair, or ROMAC. Epoxy coat with stainless steel bolts. Use couplings with the following sleeve lengths:

<u>Pipe Size</u>	<u>Sleeve Length</u>
4" – 10"	7" Min.
12"–16"	10" Min.
> 16"	14" Min.

23. CASING SEALS & SKIDS: With Stainless Steel bands. Calpico or approved equal.
24. STEEL PIPE type DCCL: Zinc coated cement lined (DCCL) welded steel pipe. ASTM A53 grade B steel (minimum), U.S. Steel or Pacific Pipe. Thickness per general plan. The coating shall be factory primed with a 3-mil organic zinc rich coating (Carboline 893 primer or approved equal) and the finish coat shall be factory applied Flexxide Acrylic Elastomer or approved equal. Above grade steel pipe color shall be Carboline number CWS D395 "Grouse Tan".
25. PIPE CASING: Bare steel, ASTM A53 grade B steel (minimum), SCH 40, 0.375" wall, (minimum).

26. NON-METALLIC PIPE: With specific project approval from SJWC Engineering
- HDPE – C906-99 (class per general plans)
PVC – C900 (4” – 12”) and C905 (14” – 48”) (class per general plans)
PVC Restraint: EBAA series PV Megalugs, RomaGrip by ROMAC or Smith-Blair
PVCO – C909-02 (class per general plans)
PVCO Restraint: EBAA Iron (Series 1600), RomaGrip by ROMAC or Smith Blair
27. NEOPRENE MAT: Commercial grade, 1” minimum thickness per SJWC Standard Drawing SEP-MAT.
28. COMBINED DOMESTIC AND FIRE SERVICE METERS: Neptune Protectus III or Badger Recordall FSAA-01
29. COPPER SERVICE: Use Mueller Blue Plastic Streamline Plumbshield Type K soft copper tube (25 Mil LDPE) per general plans . Refer to SJWC Standard Drawings SER-1c, SER-2c or larger.
30. PLASTIC SERVICE: AWWA C901, PE 4710 CTS, 250 psi, SDR9, ASTM D2737 blue pipe. Refer to SJWC Standard Drawings SER-1p and SER-2p.

31. CORP STOPS (Ball Type)

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford (x=size)</u>	<u>Jones</u>	<u>Std. Dwg.</u>
All	CC x FLR	B-25000N	FB-600-x NL	E-1930	Ser-1c, 2c, 2M
All	MIPT x FLR	B-25025N	FB-700-x NL	E-1929	Ser-1c, 2c, 2M, MAIN-BO
3/4” & 1”	CC x COM	B-25006N	FB-1000-xU NL	E-1937SG	Ser-1p
1-1/2” & 2”	CC x COM	B-25008N	FB-1000-xG NL	E-1937SG	Ser-1p, 2p, 2M
3/4” & 1”	MIPT x COM	B-25024N	FB-1100-xU NL	E-1935SG	Ser-1p
1-1/2” & 2”	MIPT x COM	B-25028N	FB-1100-xG NL	E-1935SG	Ser-1p, 2p, 2M

Mueller COM (3/4” & 1”) = Insta-Tite & Mueller COM (1-1/2” & 2”) = Mueller 110 Compression
Ford, size x = 3 (3/4”), 4 (1”), 6(1-1/2”) or 7 (2”) COM, U = Ultra-Tite & G = Grip-Joint
Jones COM = 110 Compression Connection (SG)

<u>Service (meter)</u>	32. METER BOXES: Old Castle		Sidewalk (*) or Driveway
	Landscape Area		(H-20 Loading)
	<u>Box & Lid</u>		<u>Box & Lid</u>
3/4”	B9x with B9XD		B1017 with B1017-61GH (non-skid) cover
1”	B16 with B16D		B1324 with B1324-61GH (non-skid) cover
3/4” w/ Check Valve	B16 with B16D		B1324 with B1324-61GH (non-skid) cover
1” w/ Check Valve	N30 with B30E		B1324 with B1324-61GH (non-skid) cover
Regulated 3/4”	N40 w/ B40E2 & RL		B2436 w/ Lock Lid (2 – 7” x 13” RLs)
Regulated 1”	N48 w/ B48E2 & RL		B3048 w/ Lock Lid (2 – 7” x 13” RLs)
1-1/2” & SER-2r (tandem)	N30 with B30E		B1324 with B1324-61GH (non-skid) cover
2”	N36 with B36E		B1730 with B1730-51GH (non-skid) cover

1-1/2" w/ Check Valve	N36 with B36E	B1730 with B1730-51GH (non-skid) cover
2" w/ Check Valve	N40 w/ B40E2 & RL	B2436 with B2436-62JH (non-skid) cover
1-1/2" Regulated (SER-2r)	N48w/ B48EF3 Cover & RL	B3048 w/ Lockdown Cover – RLs cut into top
2" Regulated (Ser-2r)	N52 w/ B52M3 Cover & RL	R17P24 w/ R17-52HT Cover – RLs cut into top
2" Manifoldded (SER-2M)	N36 w/ B36E	B1730 w/B1730-51GH (non-skid) cover
3" Service	N36 with B36E	B1730 with B1730-51GH (non-skid) cover
3" Service w/ Check Valve	N48 w/ B48EF3 Cover & RL	B3048 w/ Lockdown Cover – RLs cut into top
3" Service w/ Regulator & CV	N52 w/ B52M3 Cover & RL	R17P24 w/ R17-52HT Cover – RLs cut into top
4" Service (Compound Meters)	N48 w/ B48EF3 Cover & RL	B3048 w/ Lockdown Cover – RLs cut into top
4" Service (Turbo Meters)	N40 w/ B40E2 & RL	B2436 w/ Lock Lid (2 – 7" x 13" RLs)
6" Service (Compound Meters)	N48 w/ B48EF3 Cover & RL	B3048 w/ Lockdown Cover – RLs cut into top
6" Service (Turbo Meters)	N40 w/ B40E2 & RL	B2436 w/ Lock Lid (2 – 7" x 13" RLs)
8" Service (Compound Meters)	N52 w/ B52M3 Cover & RL	R17P24 w/ R17-52HT Cover – RLs cut into top
8" Service (Turbo Meters)	N48 w/ B48EF3 Cover & RL	B3048 w/ Lockdown Cover – RLs cut into top

RL = Reading Lid

* = Box can be non-traffic-rated in sidewalk (if no vehicular traffic is expected) if it has a bolt-down vandal-resistant cover with a reading lid.

33. STRAIGHT METER COUPLING (Flange Meter Coupling)

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford</u>	<u>Jones</u>	<u>Std. Dwg.</u>
3/4"	MSN x MIPT	H-10890N	MN-2 NL	E134	Ser-1c, 1p, 1r
1"	MSN x MIPT	H-10890N	MN-4 NL	E134	Ser-1c, 1p, 1r
1-1/2"	Meter Flange x MIPT	None	CF38-66-2 NL	E129M Ser-2c, 2p & 2r	
2"	Meter Flange x MIPT	None	CF38-77-1-937 NL	E129M Ser-2c, p, r, Ser-3	

Short Lengths typical

34. ANGLE METER STOPS

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford (x=size)</u>	<u>Jones</u>	<u>Std. Dwg.</u>
3/4"	MSN x FLR	B-24255N	BA23-332W NL	E1964W	Ser-1c, MAIN-AVpavt
1"	MSN x FLR	B-24255N	BA23-444W NL	E1964W	Ser-1c
3/4"	MSN x COM	B-24267N	BA63-332WU NL	E1963WSG	Ser-1p
1"	MSN x COM	B-24267N	BA63-444WU NL	E1963WSG	Ser-1p
3/4" & 1"	FIPT x FLR	B-24275N		E1965W	Ser-1r
1-1/2"	METER FLG x FLR	B-24277N	BFA23-666W NL	E1973W	Ser-2c & 2r
2"	METER FLG x FLR	B-24277N	BFA23-777W NL	E1973W	Ser-2c, 2r & 3
1-1/2"	METER FLG x COM	B-24276N	BFA43-666WG NL	E1975WSG	Ser-2p & 2r
2"	METER FLG x COM	B-24276N	BFA43-777WG NL	E1975WSG	Ser-2p, 2r & 3

Mueller COM (3/4" & 1") = Insta-Tite & Mueller COM (1-1/2" & 2") = Mueller 110 Compression

Ford COM, U = Ultra-Tite & G = Grip-Joint

Jones COM = 110 Compression Connection (SG)

35. COUPLINGS (Extensions)

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford</u>	<u>Jones</u>	<u>Std. Dwg.</u>
All	FLR x COM	H-15450N + H-15428N			Ser-1c, 2c
3/4"	FLR x COM	H-15450N + H-15424N	C26-33U NL		Ser-1c
1"	FLR x COM	H-15450N + H-15424N	C26-44U		Ser-1c
All	FLR x FLR	H-15400N		E1528	Ser-1c, 2c
1-1/2" & 2"	COM	H-15403N	C44-66G & C44-77G NL	E2609SG	Ser-1p, 2c
3/4" & 1"	COM	H-15406N	C44-33U & C44-44UNL	E2609SG	Ser-1p
3/4" & 1"	MIPT x COM	H-15424N	C86-33U & C86-44UNL	E2605SG	Ser-1p
1-1/2"	MIPT x COM	H-15428N	C84-66G NL	E2605SG	Ser-2p
2"	MIPT x COM	H-15428N	C84-77G NL	E2605SG	Ser-2p
2"	MIPT x Flr	H-15450N	C28-77 NL	E1531	MAIN-BO
2" Ext	COM x COM	H-15403N	C44-66G NL		
1-1/2"	COM	H-15403N	C44-66G NL	E2609SG	Ser-1p

Mueller COM (3/4" & 1") = Insta-Tite & Mueller COM (1-1/2" & 2") = Mueller 110 Compression

Ford COM, U = Ultra-Tite & G = Grip-Joint

Jones COM = 110 Compression Connection (SG)

36. REGULATORS

<u>Size</u>	<u>Type</u>	<u>Model</u>	<u>Std. Dwg.</u>	<u>Notes</u>
3/4" to 2"	Watts	223HP	Ser-1r & 2r	HP = High Pressure

37. STRAINERS

<u>Size</u>	<u>Type</u>	<u>Model</u>	<u>Std. Dwg.</u>	<u>Notes</u>
3/4" to 2"	Watts	300 WSP	Ser-1r & 2r	WSP = Working Std. Pressure

38. TAPPING SLEEVE

<u>Size</u>	<u>Type</u>	<u>Make & Model</u>	<u>Std. Dwg.</u>
3"	Tapping Sleeve	Romac SST III	Ser-3

39. STRAIGHT METER VALVE (Ball Type)

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford</u>	<u>Jones</u>	<u>Std. Dwg.</u>
3/4" to 2"	FIPT x FIPT	B-20200N		E1900W	Ser-1r & 2r
3/4"	FIPT x FIPT		B11-333W NL		Ser-1r & 2r
1"	FIPT x FIPT		B11-444W NL		Ser-1r & 2r
1-1/2"	FIPT x FIPT		B11-666W NL		Ser-1r & 2r
1-1/2"	METER FLG x FLR	B-24334N	BF23-666W NL	E1933W	Ser-2M
2"	FIPT x FIPT		B11-777W NL		Ser-1r & 2r
2"	METER FLG x FIPT	B-24337N	BF13-777W NL	E1913W	Ser-2r & Ser-3

All Straight Meter Valves shall have padlock wings (W)

40. CHECK VALVE w/ RESILIENT SEAT

<u>Size</u>	<u>Connection</u>	<u>Make & Model No.</u>	<u>Std. Dwg.</u>
3/4" to 2"	FIPT x FIPT	NIBCO T-413-LF	All

41. BLOW-OFF VALVES

<u>Size</u>	<u>Type</u>	<u>Mueller</u>	<u>Ford</u>	<u>Jones</u>	<u>Std. Dwg.</u>
2"	Reduced Port MIPT x FIPT	N/A	N/A	J-1998 L/C	MAIN-BO

END OF SECTION