DOMESTIC WATER

A. COPPER TUBING

a. 1-inch copper tubing, K-soft
   Approved Manufacturers
   1) Cerro
   2) Mueller
   3) Halstead
   4) Cambridge Lee

b. Factory Coated Copper Tubing
   Approved Manufacturer
   1) Kamco Aqua Shield

c. 1½-inch or 2-inch Copper Tubing, Rigid Pipe
   Approved Manufacturers
   1) Cerro
   2) Mueller
   3) Halstead
   4) Cambridge Lee

B. SERVICE LINE FITTINGS

a. Corporation Stops
   1-, 1½- and 2-inch; IPTx110 Compression
   Approved Manufacturers
   1) Mueller #B-25028
   2) AY McDonald #4704BQ
   3) Jones #J1935SG
   4) Cambridge Brass #301NL series
   5) Ford #FB1100-Q-NL
b. **Angle Meter Stops**

1-inch; 110 Compression x Swivel
Approved Manufacturers
1) Mueller #B-24258-1 (no lip on swivel)
2) Ford #BA43-444WQ
3) Jones #J1963WSG
4) AY McDonald #4602BQ
5) Cambridge #210NL-H4T4

1½-inch; 110 Compression x Flange
Approved Manufacturers
1) Mueller #B-24276
2) Ford #BFA43-666WQ
3) Jones #J1975WSG
4) AY McDonald #4602BQ
5) Cambridge #210NL-H6MF6

2-inch; 110 Compression x Flange
Approved Manufacturers
1) Mueller #B-24276
2) Ford #BFA43-777WQ
3) Jones #J1975WSG
4) AY McDonald #4602BQ
5) Cambridge #210NL-H7MF7

c. **Ball Valves, Brass, for Meters Only**

1-inch, 1½-inch and 2-inch (all to be lever handle, with no lip on swivel)
Approved Manufacturers
1) Mueller B-24351-1
2) AY McDonald #6101 MWHB3
3) Cambridge # 212NL Series
4) Ford #13-444W-NL w/HB24S (1”), #13-666W-NL w/HB67S (1 ½”), #13-777W-NL w/HB67S (2”)

d. **Service Saddles**
For 12-inch pipe and smaller, copper alloy body and double strapped bronze
Approved Manufacturers
1) Jones #J-979
2) Mueller
3) Ford #202B
4) Smith-Blair #232
5) Cambridge Brass #810

For 18-inch pipe and larger, ductile iron service saddle epoxy coated or copper alloy body with triple stainless steel straps or extra wide single strapped stainless steel.
Approved Manufacturers
1) Muller #366
2) Smith-Blair
3) Romac
4) Baker
5) Jones
6) Ford
7) Power Seal

e. **Straight Couplings**
Approved Manufacturers
1-inch; 110 Compression
1) Mueller #H-15403
2) Jones #J609SG
3) Cambridge #119NL-H4H4

1½-inch; 110 Compression
1) Mueller #H-15403
2) Jones #J2609SG
3) Cambridge #119NL-H6H6

2-inch; 110 Compression

Approved Manufacturers
1) Mueller #H-15403
2) Jones #J2609SG
3) Cambridge #119NL-H7H7

C. METER BOXES

a. Meter Boxes for 1-inch Service Lines (Nontraffic Areas)

Approved Manufacturers
1) J&R Concrete #P4-0-CVWD
2) Armorcast
   Box: P6000486
   Cover: A6000483 DQ-CVWD
   Drop-in: A6000487-CVWD

b. Meter Boxes for 1-inch Lines (Traffic Areas)

Approved Manufacturers
1) Armorcast
   Box: P6000486SA
   Cover: A6000483TDQ
   Drop-in: A6000487T

c. Meter Boxes for 1½-inch and 2-inch Lines (Nontraffic Areas)

Approved Manufacturers
1) J&R Concrete #PW6-B-CVWD
2) Armorcast
   Box: P600153X12
   Cover: A6001643DZ-CVWD
   Drop-in: A6000482-CVWD
d. **Meter Boxes for 1½-inch and 2-inch Lines (Traffic Areas)**
   
   Approved Manufacturers
   
   1) J&R Concrete-W6-T-CVWD
   
   2) Armorcast
      
      Box: A6001640PCX12
      
      Cover: 60001643TDZ
      
      Drop-in: A6000482T

D. **FIRE HYDRANTS**

a. **Dry Barrel**
   
   Approved Manufacturers
   
   1) Muller A423
   
   2) Kennedy K-81A
   
   3) Clow F-2545
   
   4) American Darling (AFC) #B-84-B

b. **Wet Barrel-Bronze Fire Hydrants**
   
   Approved Manufacturers
   
   1) James Jones #J-3765
   
   2) Clow #2060
   
   3) AVK 2464

c. **Wet Barrel-Ductile Iron Fire Hydrants**
   
   Approved Manufacturers
   
   1) James Jones #J4060
   
   2) Clow #860
   
   3) AVK 24/90

d. **Wet Barrel - Check Valve Fire Hydrants**
   
   Approved Manufacturers
   
   1) Clow #40
   
   2) Long Beach #LB400
E. AIR AND VACUUM RELIEF VALVES AND FITTINGS

a. 1-inch Air Relief Valves
   Approved Manufacturers
   1) Crispin Model #UL10
   2) Vent-O-Mat Model 025RBX2521
   3) ARI Model D-040-1”-P Threaded

b. 2-inch Air Relief Valves
   Approved Manufacturers
   1) Crispin Model #UL20
   2) Vent-O-Mat Model 050RBX2521
   3) ARI Model D-40-2”-P Threaded

c. Copper Tubing Elbows 1-inch or 2-inch Compression x FIPT
   Approved Manufacturers
   1) Mueller IP H15533
   2) Jones J2621SG
   3) Ford L14-44-Q
   4) AY McDonald 4779Q
   5) Cambridge 105NL Series

d. Copper Tubing Elbows 1-inch or 2-inch Compression x Compression
   Approved Manufacturers
   1) Mueller H-15526
   2) Jones J26115G
   3) Ford L44-77-Q
   4) AY McDonald 4761Q
   5) Cambridge 105NL Series
e. *Copper Tubing Ball Valve 1-inch or 2-inch*
   
   Approved Manufacturers
   1) Mueller B25209
   2) Jones J1949S6
   3) Cambridge Brass 212NL – F4T4H (1 inch); 212NL –F7MF7H (2 inch)

f. *Copper Tubing – Corporation Stop; 1-inch or 2-inch IPT x 110 Compression*
   
   Approved Manufacturers
   1) Muller B-25028
   2) Jones J1935SG
   3) AY McDonald #46704BQ
   4) Cambridge Brass 301NL series

g. *Air/Vac Covers*
   
   Approved Manufacturers
   1) Armorcast
      P6002001-XXX; 24-inch
      P6002002-XXX; 20-inch
      P6002003-XXX; 12-inch
   2) Pipeline Products Advantage Series
      COAC-1624
      COAC-1830
      COAC-2030
      COAC-2430

h. *Threaded Red Brass Fittings*
   
   1) Per ASTM B43 and containing a maximum of 0.25% lead
F. PIPE

a. Ductile Iron Pipe
   Approved Manufacturers
   1) U.S. Pipe
   2) Pacific States
   3) American CI
   4) Clow
   5) Griffin Pipe

b. CML&CMC Steel Pipe
   1) Northwest Pipe Company

G. PIPE FITTINGS

a. Flanged to Mechanical Joint Pipe adaptors (Ductile Iron)
   Approved Manufacturers
   1) U.S. Pipe
   2) Union/Tyler
   3) Star
   4) Sigma
   5) Pipeline Components, Inc. (PCI)
   6) Griffin Pipe
   7) SIP Industries

b. Pipe Restraints - Tyton Joint Restraining Gaskets (18 inches or smaller)
   Approved Manufacturers
   1) U.S. Pipe - Field Lok Gaskets
   2) Griffin Pipe - Talon Restraining Gaskets
   3) Pacific States - Sure Stop 350
   4) Romac – Piranha Restraint Gasket
c. *Pipe Restraints - MJ Restraint Joints with wedge-action cleats*
   
   Approved Manufacturers
   1) Ebba Iron - Megalug
   2) Ford - Uniflange
   3) Star – Stargrip and 4000 series
   4) Romac - Romagrip
   5) Sigma - Onelok

d. *Pipe Restraints - Manufactured Self Restraining Joints*
   
   Approved Manufacturers
   1) U.S. Pipe - TR Flex
   2) Pacific States – Thrust Lock
   3) Griffin Pipe – Snap Lock
   4) Romac – Alpha Restraint Coupling

e. *Flexible Expansion Joints*
   
   Approved Manufacturers
   1) EBBA Flex Tend #408F21 (8-inch only)
   2) Star #SFPJ5008
   3) Romac – Flexijoint

f. *Repair Coupling*
   
   Approved Manufacturers
   1) PowerSeal – Power Clamp, 3506 Powermax Cast Coupling, and 3490 Power Sleeve
   2) Smith Blair – Top bolt repair coupling
   3) Romac – Macro Coupling, 501 and XR501 Coupling

g. *Flange Gaskets*
   
   Approved Manufacturers
   1) 1/16-inch Thick Laminated Nonasbestos Fiber, Cranite
H. VALVES

a. Gate Valves (Ductile Iron Body with Resilient Seal)
   Approved Manufacturers
   1) American Flow 2500-1
   2) U.S. Pipe Metroseal 250R
   3) Mueller (M&H) #A2362 Series
   4) Clow #F61
   5) American AVK Series 45 & 55

b. Butterfly Valves (Ductile Iron Body)
   Approved Manufacturers
   1) Mueller
   2) Pratt
   3) Dezurik

c. Single Check Detector Valves
   Approved Manufacturers
   1) Hersey #EDC III
   2) Hersey #EDC IV

d. Reduced Pressure Detector Check
   Approved Manufacturers
   1) Apollo Valves RP4nLF
   2) Apollo Valves RP4A LF
   3) Apollo Valves RPDA 4ALF
e. Double Check Detector Valves
   Approved Manufacturers
   1) Febco #876 NRS valves only
   2) Apollo Valves DC4A LF
   3) Apollo Valves DCDA 4ALF
   4) Apollo Valves DCDA 4nALF

f. Valve Locking Devices (for Gate Valves)
   Approved Manufacturers
   1) Protech (for gate valves)
      A1200
      A2400
      A3600
      A4800
   2) Protech (for butterfly valves)
      B1200
      B2400
      B3600
      B4800

g. Valve Wells
   Valve Well Triangular Lid
   Approved Manufacturers
   1) Brooks
   2) J&R Concrete #V4-T
   3) South Bay Foundry #4-T

h. Valve Well
   1) 8-inch PVC C-900 CL-150
i. **Protective Coatings**
   Approved Manufacturers
   1) Polyethylene Wrap - Clear or black as per AWWA C-105
   2) Cement Mortar Coatings - Class E mortar with Type V cement
   3) Other Coatings - NO-OX-ID manufactured by SanChem, Inc.
   4) Pipe Tape -10 mil pipe-wrap tape

I. **CONCRETE VAULTS**
   a. **200 Series Vaults:**
      Approved Manufacturers
      1) Jensens #K3048-FH45-27T (BR200-CVWD2)
      2) J&R Concrete #3500-IW
   b. **400 Series Vaults:**
      Approved Manufacturers
      1) Jensens #K3660-FH45-27T (BR400-CVW2)
      2) J&R Concrete #2640-IW
   c. **500 Series Vaults:**
      Approved Manufacturers
      1) Jensens #K466-FH45-27T (BR500-CVW2)
      2) J&R Concrete #4660-IW

J. **PIPE SPACERS**
   Approved Manufacturers
   1) Cascade CCS series
   2) CCS
   3) BWM
K. UTILITY MARKER POSTS
   Approved Manufacturers
   1) Flexstake, Inc. (No. EZWC206W – white with reflective strip)

L. CONSTRUCTION METERS
   Approved Manufacturers
   1) Sensus #125
   2) Performance Meter
   3) Badger

SANITATION (WASTEWATER)

A. PIPELINE PRODUCTS
   Approved Manufacturers:
   1) Clay Pipe
   2) Cast Fiberglass Reinforced Pipe - Hobas pipes in 18”-126”

B. ECCENTRIC PLUG VALVES
   Approved Manufacturers
   1) Dezuric Series 100
   2) Pratt or Mueller
   3) Crispin K-Flo Model Number:
      800 Series 2-1/2” – 12”
      900 Series 14” – 48”

C. AIR-VAC VALVES
   Approved Manufacturers
   1) Vent-O-Mat
   2) A.R.I

D. CONCRETE VAULTS
   Approved Manufacturers
   1) Brooks Series 500 Quickset
E. WET WELL AND VAULT COATINGS
Approved Manufacturers
1) Sancon Epoxy 100
2) Kopper's Bitumastic 300-M
3) Engard 463

F. POLY LINING
Approved Manufacturers
1) Scancon Polyurethane 100
2) Cosmic Quick Seal CIPP

G. CLEAN-OUTS
Approved Manufacturers
1) Alhambra A-1240

H. EPOXY COATING & LINING
Approved Manufacturers
1) 3M Primer & Skotchkote 206N

I. MANHOLE RING AND COVER
Approved Manufacturers
1) South Bay Foundry #1253/A1254 “CVWD SEWER”
2) Alhambra #A1254
3) Norfolk Casting #NC 253 CVWD ASTM A48
4) CL 35B
J. MID-RANGE PIPE LOCATORS

Approved Manufacturers
1) 3M Electrical Products Division
2) Scotchmark Market Locator (EMS) #1258

K. UTILITY MARKER POSTS

Approved Manufacturers
1) Flexstake, Inc. (No. EZWC206W – white with reflective strip)

IRRIGATION (Canal Water)

A. PIPELINE MATERIALS

Approved Materials

- 10 and 12-inch diameter PVC – C900
- 18 through 42 inch diameter PVC – C905
- 42 inch diameter and greater – Ductile Iron Pipe

Approved Manufacturers
1) U.S. Pipe
2) Pacific States
3) American CI
4) Clow
5) Griffin Pipe

B. FLOW METER

Approved Manufacturers
1) Water Specialties Model ML-04-D with Flow-Com Digital Register or McCrometer Model SW500 with Flow-Com Remote Read Digital Register
2) 150 psi flanged tube meter
3) CFS flow indicator
4) Acre-foot totalizer with remote mount kit
C. **PLUG VALVE**
   Approved Manufacturers
   1) Dezuric Series 100
   2) Pratt or Mueller
   3) Crispin K-Flo Model Number:
      - 800 Series 2-1/2” – 12”
      - 900 Series 14” – 48”

D. **VAULTS**
   Approved Manufacturers
   1) **Jensen - K466-FH48-08TH precast water vault with spring assisted galvanized traffic cover.**

E. **PIPE CONNECTOR**
   Approved Manufacturers
   1) **Weko-Seal:** An internal joint sealing technology used to eliminate infiltration/exfiltration in piping ranging in sizes from 18” through 96”
   2) Joints Caulder Repair Coupling
   3) Fernco Large Diameter Series Coupling

F. **AIR-VAC VALVES**
   Approved Manufacturers
   1) Vent-O-Mat
   2) ARI
   3) Crispin Model #UL2c

G. **UTILITY MARKER POSTS**
   Approved Manufacturers
   1) Flexstake, Inc. (No. EZWC206W – white with reflective strip)
Electrical and Telemetry

AUTOMATIC TRANSFER SWITCH (ATS)

Approved Manufacturers
1) Eaton

EMERGENCY ELECTRIC GENERATING SYSTEMS

Approved Manufacturers
1) Caterpillar
2) Cummins

MOTOR CONTROL CENTERS (MCC)

Approved Manufacturers
1) Allen Bradley
2) Eaton
3) Square D

VALVE ACTUATORS (MOV)

Approved Manufacturers
1) Auma
2) EIM
3) Rotork

PROGRAMABLE LOGIC CONTROLERS (PLC)

Approved Manufacturers
1) GE RX3i’s programmed in GE Proficy ladder logic

VARIABLE FREQUENCY DRIVES (VFD)

Approved Manufacturers
1) US Drives