

Winter Park Water and Wastewater Department
STANDARDS AND CONSTRUCTION SPECIFICATIONS MANUAL

GENERAL INFORMATION

Pages 1

SECTION ONE- WATER

Pages 2 through 6

SECTION TWO- WASTERWATER

Pages 7 through 12

WATER CATEGORY 1 OF 7: VALVES AND ACCESSORIES

Air Release Valves

- | | |
|------------------|-----------------|
| 1. Dezurik | 1. 200 |
| 2. ARI | 2. D-040, S-050 |
| 3. GA Industries | 3. 920 |
| 4. Val-Matic | 4. VM-38, VM-45 |

Butterfly Valves- 42" and above- 8 mil epoxy coated and lined (AWWA)

- | | |
|------------|-----------------|
| 1. Dezurik | 1. BAW |
| 2. Mueller | 2. Lineseal III |
| 3. Clow | 3. 1450, 4500 |

Gates Valves- 16" through 48"- resilient seat/wedge only w/side actuators

- | | |
|--------------------------|------------------|
| 1. Clow | 1. Series F-6100 |
| 2. Mueller | 2. Series A2361 |
| 3. American Flow Control | 3. Series 2500 |

Gate Valves- 12" and smaller- resilient seat/wedge only

- | | |
|--------------------------|------------------|
| 1. Clow | 1. Series F-6100 |
| 2. Mueller | 2. Series A2360 |
| 3. American Flow Control | 3. Series 2500-1 |

Tapping Valves- resilient seat/wedge only

- | | |
|--------------------------|---------------------------|
| 1. Clow | 1. Series F-6114 |
| 2. Mueller | 2. Series T-2360 & A-2361 |
| 3. American Flow Control | 3. Series 2500 |

Blow Off Valves

- | | |
|-------------------------|-----------------------|
| 1. Hydro Guard | 1. Automatic Blow Off |
| 2. Kupferle Foundry Co. | 2. Series TF 550 |
| 3. Water Plus | 3. Series VB 2000 |

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Sample Station (Above ground)

- | | |
|---------------|----------------|
| 1. Water Plus | 1. Series 200A |
|---------------|----------------|

Valves Boxes

- | | |
|----------|-------------------|
| 1. Sigma | 1. Series 262X VB |
| 2. Tyler | 2. Series 6850 |

WATER CATEGORY 2 OF 7: SERVICE MATERIALS

Corporation Stops (CTS)

- | | |
|---------|-------------------|
| 1. Ford | 1. F1000-4NL (1") |
| 2. Ford | 2. B84-777NL (2") |

Straight Curbstops (CTS)

- | | |
|---------|---------------------|
| 1. Ford | 1. B41-444W/NL (1") |
| 2. Ford | 2. B41-777W/NL (2") |

Straight Curbstops x Meter flange (CTS)

- | | |
|---------|-------------------------------|
| 1. Ford | 1. BF43-777W/NL (1 ½" and 2") |
|---------|-------------------------------|

Angle Curbstops (CTS)

- | | |
|---------|------------------------|
| 1. Ford | 1. KV43-342W/NL (3/4") |
| 2. Ford | 2. KV43-444W/NL (1") |

Angle Curbstops x Meter flange (CTS)

- | | |
|---------|-------------------------------|
| 1. Ford | 1. FV43-777W/NL (1 ½" and 2") |
|---------|-------------------------------|

Ball Valves (IP)

- | | |
|---------|-----------------------|
| 1. Ford | 1. B11-333W/NL (3/4") |
| 2. Ford | 2. B11-444W/NL (1") |
| 3. Ford | 3. B11-666W/NL (1 ½") |
| 4. Ford | 4. B11-777W/NL (2") |

Polyethylene Tubing- Blue w/UV Protection (SDR-9), 1" and 2"

- | | |
|----------|---------------------|
| 1. Endot | 1. PE 4710 Endopure |
|----------|---------------------|

Service Saddles-1"AWWA/CC taper thread, 2" IP male thread

- | | |
|----------------|---------------|
| 1. Smith-Blair | 1. Series 313 |
| 2. Ford | 2. Series 202 |

U-Branch Assemblies

- | | |
|---------|--------------------------|
| 1. Ford | 1. U48-43NL (Horizontal) |
| 2. Ford | 2. UVB43-42NL (Vertical) |

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WATER CATEGORY 3 OF 7: PIPE MATERIAL

DI/CI- cement lined (4" - 12" = Class 350, 16" - 24" = Class 250, 30" - 64" = Class 200)

1. U.S Pipe
2. McWane
3. American
4. Clow

PVC- blue (4" - 12" AWWA C-900, DR14, DR18)

- | | |
|----------------------------|------------------|
| 1. CertainTeed | 1. Certalok RJIB |
| 2. J-M Eagle | 2. Eaglelok |
| 3. National Pipe | |
| 4. Diamond Plastic | |
| 5. North American Pipe Co. | |

WATER CATEGORY 4 OF 7: PIPE FITTINGS

Fittings C153 SSB/C110 Flg (Cement or Epoxy fusion bonded)

1. Tyler-Union
2. Star
3. Sigma
4. U.S. Pipe
5. American

Joint Restraints (Ductile iron pipe)

- | | |
|-----------------|-------------------------------------|
| 1. EBAA | 1. Mega lug series 1100, 1700, 3800 |
| 2. Tyler- Union | 2. Tuf Grip series 2000, 3000 |
| 3. Ford | 3. Series 1300, 1400 |
| 4. Star | 4. Star Grip series 3000, 4000 |

Joint Restraints (PVC pipe)

- | | |
|-----------------|-------------------------------------|
| 1. EBAA | 1. Mega lug series 1500, 1600, 3800 |
| 2. Tyler- Union | 2. Tuf Grip series 2000, 3000 |
| 3. Ford | 3. Series 1300, 1400 |
| 4. Star | 4. Star Grip series 3000, 4000 |

Tapping sleeves (Ductile iron pipe)

- | | |
|----------------|-------------------------|
| 1. Smith Blair | 1. Series 662, 665 |
| 2. JCM | 2. Series 412, 422, 432 |
| 3. Mueller | 3. Series H-304 S/S |

Tapping sleeves (PVC)

- | | |
|----------------|-------------------------|
| 1. Smith Blair | 1. Series 662, 665 |
| 2. JCM | 2. Series 412, 422, 432 |
| 3. Mueller | 3. Series H-304 S/S |

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WATER CATEGORY 4 OF 7: PIPE FITTINGS- Continued

Tapping sleeves (A/C pipe)

- | | |
|----------------|-------------------------|
| 1. Smith Blair | 1. Series 662, 665 |
| 2. JCM | 2. Series 412, 422, 432 |

Tapping sleeves (Mechanical joint)

- | | |
|--------------------------|-------------------------------|
| 1. Clow | 1. Series F-5205, F-5207 |
| 2. US pipe | 2. Series T-9 |
| 3. Mueller | 3. Series H-615, H-616, H-619 |
| 4. American Flow Contral | 4. Series 2800 |

Tapping sleeves (HDPE)

- | | |
|--------|---------------|
| 1. JCM | 1. Series 452 |
|--------|---------------|

Expansion joints

1. EBAA
2. Mercer
3. Metraflex
4. Proco

WATER CATEGORY 5 OF 7: HYDRANTS

Hydrants

- | | |
|-----------|--------------------|
| 1. Clow | 1. Medallion |
| 2. Mueler | 2. Super Centurion |

WATER CATEGORY 6 OF 7: BACKFLOW PREVENTION DEVICES

3/4" > 2 1/2" Domestic/Water- Residential & Commercial

- | | |
|------------|------------|
| 1. Wilkins | 1. 975 XL2 |
|------------|------------|

3" > above Domestic/Water- Residential & Commercial

- | | |
|------------|---------|
| 1. Wilkins | 1. 375 |
| 2. Wilkins | 2. 375A |

3/4" > 2 1/2" Irrigation- Residential & Commercial

- | | |
|------------|------------|
| 1. Wilkins | 1. 975 XL2 |
|------------|------------|

3" > above Irrigation- Residential & Commercial

- | | |
|------------|---------|
| 1. Wilkins | 1. 375 |
| 2. Wilkins | 2. 375A |

3/4" > 2" Fireline- Residential & Commercial

- | | |
|------------|---------------|
| 1. Wilkins | 1. 950 XLT2 |
| 2. Watts | 2. LF719 |
| 3. Wilkins | 3. 950 XLTDA2 |

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WATER CATEGORY 6 OF 7: BACKFLOW PREVENTION DEVICES-Continued

2 1/2" > above Fireline- Residential & Commercial

- | | |
|--------------------------|---------------|
| 1. Wilkins | 1. 350 DA |
| 2. Wilkins | 2. 350 ADA |
| 3. Ames | 3. 3000 SS |
| 4. Watts | 4. 774 DCDALF |
| 5. Watts (8" > 10" only) | 5. 757 DCDA |

WATER CATEGORY 7 OF 7: MISCELLANEOUS ITEMS

Casing spacers (all sizes) stainless steel w/vinyl runners

- | | |
|---------------------|------------------------|
| 1. Advance Products | 1. Series SSI |
| 2. Cascade | 2. Series CCS |
| 3. Power Seal | 3. Model 4810 |
| 4. GPT Industries | 4. Ranger II |
| 5. CCI Pipe | 5. Model CSS-8, CSS-12 |

Vault frame and cover for air release valves

- | | |
|---------------|----------------|
| 1. US Foundry | 1. USF 7665-HH |
| 2. Water Plus | 2. #30, #40 |

Primer paint: Aerial pipe, fittings & valves

- | | |
|-----------------|-----------------------|
| 1. Color Wheel | 1. 635 Primer red |
| 2. Glidden | 2. Alkyd metal primer |
| 3. Porter/Int'l | 3. 286 U-primer |
| 4. Tnemec | 4. 37H-77 Chem-primer |

Finish paint: Aerial pipe, fittings & valves

- | | |
|-----------------|----------------------|
| 1. Color Wheel | 1. 600 Alkyd enamel |
| 2. Glidden | 2. Alkyd Ind. Enamel |
| 3. Porter/Int'l | 3. 2749 Alkyd gloss |
| 4. Tnemec | 4. Tnemec 2H gloss |

Tracing wire

- | | |
|-------------------------|----------------------|
| 1. Copperhead | 1. Solo Shot Extreme |
| 2. Regency Wire & Cable | 2. UF-TWU 10 ga. |

Tracing wire test stations

- | | |
|---------------|------------------------|
| 1. Copperhead | 1. LD-14, RB-14, CD-14 |
|---------------|------------------------|

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WASTEWATER CATEGORY 1 OF 6: VALVES AND ACCESSORIES

Air Release Valves (epoxy lined)

- | | |
|------------------|-----------------------|
| 1. Dezurik | 1. 400, 450 |
| 2. ARI | 2. S-020, S-022 |
| 3. GA Industries | 3. Durovent SS |
| 4. Val-Matic | 4. VM-48S-M, VM-49S-M |

Air Release Valves/ Vacuum Relief Valves (epoxy lined)

- | | |
|------------------|--------------|
| 1. Dezurik | 1. 445 |
| 2. ARI | 2. ARI-D-020 |
| 3. GA Industries | 3. 942 |
| 4. Val-Matic | 4. 802 ABW |

Service Saddles for Air Release Valves (epoxy lined w/stainless steel straps)

- | | |
|----------------|-----------------|
| 1. Smith-Blair | 1. Series 317 |
| 2. Mueller | 2. DE 25 |
| 3. Ford | 3. Series FC202 |
| 4. JCM | 4. Series 406 |

Check Valves-4" > larger (8 mil epoxy lined)

- | | |
|------------------|----------------|
| 1. Dezurik | 1. NR-040 |
| 2. Clow | 2. 106 |
| 3. Val-Matic | 3. Series 9800 |
| 4. GA Industries | 4. 220 |

Plug Valves- MJ & Flanged (8 mil epoxy lined)

- | | |
|------------|---------------|
| 1. Dezurik | 1. Series PEC |
|------------|---------------|

Valve Boxes w/locking Lids

- | | |
|--|-------------------|
| 1. Sigma | 1. Series VB-2600 |
| 2. Tyler-Union | |
| 3. American Flow Control | 3. Trench Adapter |
| #3. For mains equal to or greater than 16" diameter,
Or equal to or greater than 6' depth | |

Vault Frames and Cover for Air Relief Valves

- | | |
|---------------|----------------------------|
| 1. US Foundry | 1. USF 7665-HH-HJ |
| 2. Water Plus | 2. 30 (131632, 40 (171730) |

WASTERWATER CATEGORY 2 OF 6: PIPE MATERIALS

Pipe (DI) for Valve Vaults (Class 200, 250, 300)

- | | |
|---------------------|-----------------|
| 1. American DI pipe | 1. Protecto 401 |
| 2. US DI pipe | 2. Protecto 401 |
| 3. Griffin | 3. Sewper Coat |

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WASTEWATER CATEGORY 2 OF 6: PIPE MATERIALS (Continued)

Pipe (PVC) for Force Mains AWWA C900, C905, DR25 (Green)

1. Certainteed (DR18 restraint pipe)
2. J-M Eagle (DR18 restraint pipe)
3. National Pipe
4. Diamond Plastics

Pipe (PVC) for Gravity SDR35 (Green)

1. National Plastics
2. J-M Eagle
3. Diamond Plastics
4. Certainteed

WASTEWATER CATEGORY 3 OF 6: PIPE FITTINGS

Fittings-DI (epoxy lined)

1. Tyler-Union
2. US Pipe
3. Sigma
4. Star
5. Griffin

Fittings –PVC

1. Multi/Ipex
2. Harco
3. Fernco

Restrained Joints-DI

1. EBAA
2. Tyler-Union
3. Ford
4. Star
5. Sigma

Restrained Joints-PVC

1. EBAA
2. Tyler-Union
3. Ford
4. Star
5. Sigma

Expansion Joints

1. Mercer
2. Metraflex
3. EBAA
4. Fernco
5. Proco

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WASTEWATER CATEGORY 4 OF 6: MANHOLES AND ACCESSORIES

Manholes (Precast)

1. Allied Precast
2. Atlantic Precast
3. Dura Stress
4. Mack Precast
5. Standard Precast
6. Hanson Pipe & Prod.
7. Oldcastle Precast
8. Delzotto Precast

Manhole frame and covers

1. US Foundry
2. East Jordan Iron Works

Manhole jointing material

1. K.T. Synder Co, Inc.
2. Conseal
3. NPC

Pipe seals, manhole- gravity < 12"

1. Atlantic Concrete
2. NPC

Pipe seals, manhole- gravity 12" or greater

1. Atlantic Concrete

Pipe seals, force mains- wetwells and valve box

1. Link Seal

Manhole encapsulation

- | | |
|-----------|-----------------------------|
| 1. CANUSA | 1. Wrapid Seal/ Srapid Tape |
|-----------|-----------------------------|

Manhole surface coatings- exterior

- | | |
|--------------|--------------------|
| 1. Carboline | 1. Bitumastic 300M |
| 2. Conseal | 2. CS-55 |

Manhole surface coatings- interior

- | | |
|-----------------------|--------------------------------|
| 1. Sauereisen | 1. 210 |
| 2. Aquata Poxy | 2. |
| 3. Quadex | 3. Alumina liner |
| 4. THO ROC | 4. HBS 100 epoxy liner systems |
| 5. Lafarge Aluminates | 5. Sewpercoat |
| 6. CCI Spectrum Inc. | 6. Spectrshield |

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WASTEWATER CATEGORY 5 OF 6: WASTEWATER PUMP STATIONS MATERIALS AND ACCESSORIES

Generators

1. Onan (Cummins)

Generator transfer switch

1. Onan
2. Square D

Flow meters

1. Siemens-Sitrans
1. FM Mac 5100W

Submersible Pumps w/enclosed impellers

1. Flygt

Wetwell and valve vault access frame and covers

1. Halliday Products
2. US Foundry

Control panels

1. Sta-Con, Inc.

Alarm horn (AH)

1. Wheelock (w/Back box WBBR)

Alarm light (AL)

1. Federal signal
2. LP3M-120R (strobe)

Control circuit breaker

1. Square D

Supplemental protector breaker (3 pole)

1. Square D

Control circuit transformer

1. Square D

Duplex receptacle/GFI (DR)

1. Square D
2. Hubble

Emergency circuit breaker (ECB)

1. Square D

Enclosure

1. Hoffman
2. Hubbell

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WASTEWATER CATEGORY 5 OF 6: WASTERWATER PUMP STATION MATERIALS AND ACCESSORIES- Continued

Fuses

1. Bussman
2. Gould-Shawmut

Float regulator (FR)

1. Roto-float

Pressure transducer- 0 -15 psi range

1. Blue Ribbon Ind.

Generator receptacle (GR)

- | | |
|------------------|----------------------------------|
| 1. Pyle National | 1. JRE-4100 (230V, 100A, 3P, 4W) |
| 2. Leviton | 2. 4100B7W (480V, 100A, 3A, 4W) |

Hand- auto- off- selector (HOA)

- | | |
|-------------|-------------|
| 1. Square D | 1. 9001-SKS |
|-------------|-------------|

Horn silence button (HSS)

- | | |
|-------------|----------------|
| 1. Square D | 1. 9001-SKR-IU |
|-------------|----------------|

Main service disconnect breaker

1. Square D

Main circuit breaker (MCB)

- | | |
|-------------|-------------|
| 1. Square D | 1. 500SV43F |
|-------------|-------------|

Main circuit transformer (MCT)

- | | |
|-------------|-------------|
| 1. Square D | 1. 500SV43F |
|-------------|-------------|

Motor circuit breaker (MB)

1. Square D

Motor starter (MS)

1. Square D

Overload heater (OL)

1. Square D

Phase monitor (PM)

1. MPE
2. Diversified

Pump automatic alternator (PAA)

1. MPE
2. Diversified

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WASTEWATER CATEGORY 5 OF 6: WASTEWATER PUMP STATION MATERIALS AND ACCESSORIES-Continued

Relay (R)

1. Porter Brumfield
2. Eagle Signal

Run Indicator (RL)

1. Dialco
2. LC & D

Surge Protector

(UL1449-2nd Edition listed and labeled), (Nema LS-1 and OEEE C62.41 tested) with Nema 4X enclosure, Internal fusing, voltage and phase to match service, rated 80,000 amps per mode (Min. 10 year warranty)

- | | |
|------------------------------|-------------------|
| 1. Innovative Technologies | 1. PTE 160 series |
| 2. Surge Suppressors, Inc. | 2. LSE series |
| 3. Current Technology/Joslyn | 3. ST 160 series |
| 4. Intermatic | 4. PG 3000 series |
| 5. APT | 5. S50A240V3H |

Terminal Strips (TS)

- | | |
|----------|----------------------|
| Square D | 1. 9070GR6, 9080-GR6 |
|----------|----------------------|

Radio telemetry & associated equipment

1. Data Flow Services

