

THE METROPOLITAN DISTRICT APPROVED MATERIALS

All material must be manufactured in a North American Free Trade Agreement (NAFTA) country, specifically the United States (domestic), Canada or Mexico unless specified otherwise. All gaskets must be manufactured in the United States. Inclusion of a manufacturer on the approved materials list does not automatically guarantee acceptance of their materials unless they can comply with the manufacturing requirement above.

SANITARY SEWER & STORM DRAIN INSTALLATIONS

| PRODUCT | CLASS/MODEL | SPEC SECTION |
|--|--|---|
| SDR-35 PVC GRAVITY SEWER PIPE (6" - 15") | Diamond IPEX (IpeX USA) National Pipe North American Pipe Corporation Royal Pipe Systems JM Eagle | ASTM D3034 Type PSM; ASTM F679 Type PS-46 ASTM D3034 Type PSM (Ring-Tite) ASTM 1760 (Enviro-Tite) ASTM D3034 Type PSM; ASTM F679 Type PS-46 ASTM D3034 Type PSM; ASTM F679 Type PS-46 ASTM D3034 Type PSM; ASTM F679 Type PS-46 ASTM D3034 Type PSM; ASTM F679 Type PS-46 |
| | | 02622 |
| PVC GRAVITY SEWER PIPE (18" - 24") | Diamond IPEX (IpeX USA) National Pipe North American Pipe Corporation Royal Pipe Systems JM Eagle | ASTM F679, Type PS-46 ASTM F679, Type PS-46 Ring-Tite ASTM F679, Type PS-46 ASTM F679, Type PS-46 ASTM F679, Type PS-46 ASTM F679, Type PS-46 |
| | | 02622 |
| PVC CLOSED PROFILE GRAVITY SEWER PIPE (30" - 48") | Diamond Vylon (Duraline, Prime Conduit) JM Eagle | ASTM F1803, F794, Type PS-46 ASTM F1803, F794, Type PS-46 ASTM F949/F794 & AASHTO M304, PS-46 |
| | | 02622 |
| C900 PVC PRESSURE SEWER PIPE (6" - 12") | Diamond IPEX (IpeX USA) National Pipe North American Pipe Corporation Royal Pipe Systems JM Eagle | ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, AWWA DR 18 |
| | | N/A |
| C905 PVC PRESSURE SEWER PIPE (18" and 24") | Diamond IPEX (IpeX USA) National Pipe North American Pipe Corporation Royal Pipe Systems JM Eagle | ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, SDR-18 ASTM D1784, AWWA DR 18 |
| | | N/A |
| HIGH DENSITY POLYETHYLENE PIPE Fusion Welded, Solid Wall | KWH National Pipe Performance Pipe JM Eagle | ASTM F714, AWWA C906, PE 3408/4710 ASTM F714, AWWA C906, PE 3408/4710 ASTM F714, AWWA C906, PE 3408/4710 ASTM F714, AWWA C901/906, PE 4710 |
| | | N/A |
| DUCTILE IRON SEWER PIPE (Class 52) | ACIPCO McWane Ductile U.S. Pipe | ASTM A-746, Protecto 401 ASTM A-746, Protecto 401 ASTM A-746, Protecto 401 |
| | | 02615 |
| PRESTRESSED CONCRETE CYLINDER PRESSURE PIPE | Forterra Vianini | AWWA C-301 AWWA C-301 |
| | | N/A |
| REINFORCED CONCRETE SEWER PIPE | Concrete Systems, Inc. Vianini | ASTM C-76, Class IV or V AWWA C-300 |
| | | 02612 |
| STORM DRAIN PIPE | ADS/Hancor Con-Tech Lane | AASHTO M252 and M294, HDPE Type S, N-12 AASHTO M252 and M294, HDPE Type S AASHTO M252 and M294, HDPE Type S |
| | | N/A |

| PRODUCT | | CLASS/MODEL | SPEC SECTION |
|---|---|---|--------------|
| PRECAST MANHOLE CONNECTIONS | A-Lok Products, Inc. NPC Inc. (Trelleborg) | X-Cel Connector; ASTM C-923 Kor-N-Seal Connector; ASTM C-923 | 02605 |
| EXISTING MANHOLE CONNECTIONS | A-Lok Products, Inc. NPC Inc. (Trelleborg) Fernco Press-Seal Corporation | Water Stop w/ SS Clamp Kor-N-Seal Connector LDCMA WS Waterstop | |
| MANHOLE MONOLITHIC LINING SYSTEM | The Strong Company IPA Systems, Inc. AP/M Perma Form Quadex, Inc. | Strong-Seal MS-2C Octrocrete Permcast Quadex QM-1s Restore | 02768 |
| MANHOLE INTERNAL CHIMNEY LINING | Sealing Systems, Inc. Primeline Products, Inc. Sani-Tred | Flex-Seal Primeliner Permaflex | 02769 |
| PRECAST SEWER CHIMNEY | Arrow Concrete Superior Products United Concrete Products, Inc. | | N/A |
| PRECAST STRUCTURES | Arrow Concrete Concrete Systems, Inc. Connecticut Precast Cromwell Concrete Oldcastle Precast, Inc. (Rotundo) United Concrete Products, Inc. | ASTM C-478 and C-443 ASTM C-478 and C-443 ASTM C-478 and C-443 ASTM C-478 and C-443 ASTM C-478 and C-443 ASTM C-478 and C-443 | N/A |
| SEWER BRICK | Cromwell Concrete Products, Inc. K.F. Brick, Inc. McAvoy Vitrified Brick Co. Stiles & Hart Brick Company | Concrete Building Brick (not for inverts or water tables), 2-1/4 x 3-3/8, x 7-5/8 ASTM C-139-05, Grade P-II Red Pavers , ASTM C-32, Grade SM or SS 2-1/4 Cob Set Sewer Brick, ASTM C-32, Grade SS Solid Brick with S&H Frog, ASTM C-32, Grade SM | N/A |
| STORM SEPARATION UNITS | ConTech Stormceptor (Rinker) Stormwaterworks | Vortechs and/or VortSentry Inline Stormceptor and/or Inlet Stormceptor Terre Kleen Hydrodynamic Separator | N/A |
| KITCHEN FATS, OIL & GREASE SEPARATION UNITS | Green Turtle Arrow Concrete United Concrete Products, Inc. | 1,000-gallon Proceptor GMC 1000(2) | N/A |
| BACKWATER VALVES: INTERIOR | Oatey PlumBest | 4" PVC Backwater Valve, Product No. 43904 Extension Kit for 4" BWV, Part No. B04-403 8" Schedule 40 PVC Riser Pipe by Contractor 8" Cast Iron Lid, Part No. B04-008 4" PVC BWV with Extension Kit, No. B04-400K | N/A |
| BACKWATER VALVES: EXTERIOR | Clean Check (Rector Seal) | 6" PVC Extendable BWV, Catalog No. 94136 Contractor add Schedule 40 PVC 6" Insert Pipe, 8" Riser Pipe, Female Adaptor and Threaded Plug at surface | N/A |
| TRAP HOOD | Best Management Products, Inc. Campbell Foundry Neenah Foundry East Jordan Iron Works | Snout Oil - Debris Hood | |

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WATER MAIN INSTALLATIONS

| PRODUCT | MANUFACTURER | CLASS/MODEL | SPEC SECTION |
|--|---------------------------------------|---|-----------------|
| DUCTILE IRON PIPE Double cement lined | ACIPCO | AWWA C151, Class 54, Push On/MJ PIPE | 02651 |
| | McWane Ductile | AWWA C151, Class 54, Push On/MJ PIPE | |
| | U.S. Pipe | AWWA C151, Class 54, Push On/MJ PIPE | |
| RESTRAINED JOINT PIPE Double cement lined | ACIPCO | AWWA C151, Class 54, Flex Ring Joint | 02651 |
| | McWane Ductile | AWWA C151, Class 54, TR Flex® | |
| | U.S. Pipe | AWWA C151, Class 54, TR Flex® | |
| PRESTRESSED CONCRETE CYLINDER PRESSURE PIPE | Forterra | AWWA C-301 | N/A |
| | Vianini | AWWA C-301 | |
| DUCTILE IRON MJ FITTINGS Double cement lined | ACIPCO | AWWA C153, CL350, AWWA C110, CL250 | 02651 |
| | Metalfit | AWWA C153, CL350, AWWA C110, CL250 | |
| | Star Pipe Products | AWWA C153, CL350, AWWA C110, CL250 | |
| | Tyler Union (McWane) | AWWA C153, CL350, AWWA C110, CL250 | |
| | U.S. Pipe Infact Corporation | AWWA C153, CL350, AWWA C110, CL250 Foster Adapter | |
| BOLTED COUPLINGS <i>Domestic Only</i> Epoxy or nylon coated DI body with stainless steel nuts and bolts | Dresser Pipeline Solutions | Style 38 | N/A |
| | Ford Meter Box Co. | Style FC Series | |
| | JCM Industries | No. 210 and No. 212 | |
| | Mueller Co. | Bolt on couplings | |
| | Powerseal Pipeline Products | Model 3501 | |
| | Romac Smith Blair | Model 501 No. 441 (2"-16"); No. 411 (18" and larger); No. 461 (transition) | |
| JOINT RESTRAINT | EBBA Iron Sales, Inc. | Megalug Series 1100 (MJ); Series 1700 (push-on); Series 1100HD (bell joints) | 02651 |
| | Ford Meter Box Co. | Uni-Flange Series 1400 (MJ); Series 1450 (push-on); Style 1390-C (bell joints, 4-inch thru 12-inch) | |
| | Romac | Style 612 (MJ); Style 611 (push-on) | |
| | Star Pipe Products | Stargrip Series 3000 (MJ); Series 3100P (push-on) | |
| TAPPING SLEEVES <i>Domestic Only</i> All stainless steel with stainless steel nuts and bolts including stainless steel MJ flange outlet | Ford Meter Box Co. | Style FTSS MJ | 02656 |
| | JCM Industries | Model 439, 459 | |
| | Mueller Co. | H-304MJ | |
| | Powerseal Pipeline Products | Model 3490MJ | |
| | Romac | Model SSTIII-MJ | |
| | Smith Blair Total Piping Solutions | Model 665MJ Triple Tap MJ | |
| GATE VALVES Resilient Seat | American Flow Control | AWWA C515, Series 2500 – Reduced Wall D.I. | 02642 and 02656 |
| | AVK Valves | AWWA C509, Series 45 – Full Wall Ductile Iron | |
| | Clow Valve (McWane) | AWWA C509, Series 2633/2640 – C.I. or Full D.I. | |
| | | AWWA C515, Series 2638 – Reduced Wall D.I. | |
| | Kennedy Valve (McWane) | AWWA C509, Series 8571 | |
| | | AWWA C515, Series 7571 – Reduced Wall D.I. | |
| | Mueller Co. | AWWA C509, Series 2360 – Cast Iron | |
| | | AWWA C515, Series 2361 – Reduced Wall D.I. | |
| | | AWWA C509, Series 2362 – Ductile Iron | |
| | U.S. Pipe, Valve & Hydrant Div. | AWWA C509, Series A-USPO – Cast Iron AWWA C515, Series A-USPI – Red. Wall D.I. | |

| PRODUCT | MANUFACTURER | CLASS/MODEL | SPEC SECTION |
|---|---|---|--------------|
| BUTTERFLY VALVES | Clow Valve (McWane) Kennedy Valve (McWane) Mueller Co. Henry Pratt Co. | AWWA C504, Style 4500 or Style 1450 AWWA C504, Style 4500 or Style 1450 AWWA C504, Lineseal III 150B, Lineseal XPII 250B AWWA C504, Groundhog | 02644 |
| GATE BOXES Dwyer Style | Bibby-Ste-Croix (McWane) Bingham & Taylor EJ USA, Inc. | ASTM A48, MDC "Dwyer" Style, cover 8-3/8" or 6-3/8" and must read "water" ASTM A48, MDC "Dwyer" Style, cover 8-3/8" or 6-3/8" and must read "water" ASTM A48, MDC "Dwyer" Style, cover 8-3/8" or 6-3/8" and must read "water" | 02642 |
| GATE BOXES 5-1/4 INCH 2 PIECE SLIDING TYPE ADJUSTABLE TOP FLANGE | Bibby-Ste-Croix (McWane) Bingham & Taylor Tyler Union | Fig. No. 5664S, Code V683, Cover must read "water" Fig. No. 4908, Size No. 5664-S, Cover must read "water" No. 7126 Slip Type , 26" top, 36" bottom, Cover must read "water" | 02642 |
| GATE BOX EXTENSIONS | Bibby-Ste-Croix (McWane) Bingham & Taylor EJ USA, Inc. Turner Co., Inc. - Not for New Construction | ASTM A48, MDC "Dwyer" Style ASTM A48, MDC "Dwyer" Style ASTM A48, MDC "Dwyer" Style Injection-molded polypropylene fiberglass riser | 02642 |
| REPAIR CLAMPS <i>Domestic Only</i> Stainless steel with epoxy or nylon coated DI lugs with stainless steel nuts and bolts | GE (Dresser Pipeline Solutions) Ford Meter Box Co. JCM Industries Mueller Co. Powerseal Pipeline Products Romac Smith Blair Total Piping Solutions | Style 360 Style F Series Model 171, 172 Model 500, 510 Model 3121, 3122 Model CL1, CL2 Model 226, 227 Quick Cam Repair Clamp | N/A |
| HYDRANTS | American Darling Valve (American Flow) Kennedy Valve (McWane) Mueller Co. | AWWA C502 and ULFM C550, B-84-B5, open left, red with yellow bonnet, 3-way nst AWWA C502 and ULFM C550, K-81-A,D Guardian, open left, red with yellow bonnet, 3- way nst AWWA C502 and ULFM C550, A-423, Super Centurian 250, open left, red with yellow bonnet, 3-way nst | 02645 |
| PRECAST HYDRANT COLLARS | United Concrete Products, Inc. | Precast Concrete Hydrant Collar | 02645 |
| CORPORATION <i>Domestic Only</i> <i>Corporations for Air Valves to be rated 250 psi minimum.</i> | A.Y. McDonald Manufacturing Co. Ford Meter Box Co. Mueller Co. | AWWA C800 and ASTM B-62, Outlet Ball Type AWWA C800 and ASTM B-62, Outlet Ball Type AWWA C800 and ASTM B-62, Outlet Ball Type, No. B25008 or H15008 | 02657 |
| SERVICE SADDLE <i>Domestic Only</i> Double strap service saddles with epoxy or nylon coated DI body with stainless steel straps nuts and bolts. Taps shall be CC (Mueller) thread | Smith Blair Romac Mueller Co. JCM Industries Powerseal Pipeline Products Ford Meter Box Co. Total Piping Solutions | Model 317; Model 366 w/stainless steel bands (large diameter pipe) Model 362 w/stainless steel bands (concrete cylinder pipe) Model 202NS Model DR2S Model JCM 406 Model 3417DI Model FCD202 Series T3 all stainless steel w/ stainless steel bolts | |
| CURB STOP <i>Domestic Only</i> | A.Y. McDonald Manufacturing Co. Ford Meter Box Co. Mueller Co. | AWWA C800 and ASTM B-62, Compression-Ball AWWA C800 and ASTM B-62, Compression-Ball AWWA C800 and ASTM B-62, Compression-Ball Type; B25209 or H15209 | 02657 |
| CURB BOX or SERVICE BOX and ROD | Bibby-Ste-Croix (McWane) Clow Canada (McWane) Ford Meter Box Co. Mueller Co. Bingham & Taylor | R-150, Erie, 2-hole water lid w/35" SS rod R-150, Erie, 2-hole water lid w/35" SS rod EA Series, HS 2-hole water lid w/35" SS rod H-10314, Erie, 2-hole water lid w/35" SS rod E-100, Erie/Eclipse, 2-hole water lid w/35" SS rod | 02657 |

| PRODUCT | MANUFACTURER | CLASS/MODEL | SPEC SECTION |
|---|---|---|-----------------|
| COPPER TUBING | Cambridge Lee Industries Cerro Howell Metal Company Mueller Co. Weiland Werke (Halstead) | ASTM B 88-96, Type "K" soft ASTM B 88-96, Type "K" soft ASTM B 88-96, Type "K" soft ASTM B 88-96, Type "K" soft ASTM B 88-96, Type "K" soft | 02641 and 02657 |
| BRASS SERVICE FITTINGS <i>Domestic Only</i> | A.Y. McDonald Manufacturing Co. Ford Meter Box Co. Mueller Co. | AWWA C800 and ASTM B-62 Compression AWWA C800 and ASTM B-62 Compression AWWA C800 and ASTM B-62 Compression | 02641 and 02657 |
| PRODUCT | MANUFACTURER | CLASS/MODEL | SPEC SECTION |
| BACKFLOW PREVENTERS | Conbraco (Apollo) Febco Flowmatic Watts Zurn Wilkins | AWWA C510 and C511 AWWA C510 and C511 AWWA C510 and C511 AWWA C510 and C511 AWWA C510 and C511 | N/A |
| DETECTOR CHECK VALVES | Hersey | Model EDC IV (operated by a weighted lever) | N/A |
| METER BOXES (Plastic - 5/8" – 1") | Ford Meter Box Co. Mueller Co. | | 02651 |
| METER PITS (Concrete - 1.5" - 10") | United Concrete Products, Inc. Arrow | | N/A |
| MANHOLE CASTINGS, FRAMES & COVERS ASTM A 48/A 48M, A 536 AASHTO M 105, M 306 24-1/4" gasketed cover opening with standard 36" frame and old style 24" frame | Bibby-Ste-Croix (McWane) EJ USA, Inc. Neenah Foundry Co. Turner Co., Inc. - Not for New Construction US Foundry & Manufacturing Corp. | Class 35/35B Class 35B Gray Iron Frame with one pick notch (36" MH opening)/00220513 Class 35B Gray Iron "WATER" Cover/ 00220549 (vented); 00220525 (solid) Class 35B Gray Iron Riser Ring/00220591(1-1/2"); 00220593(1-3/4"); 00220595(2-0") Compression 41420025W01 Class 35/35B Class 35/35B Class 35B Gray Iron Frame with one pick notch (36" MH opening) and cover ("WATER")/ 135-IR (solid cover); 135-IR V (center vent hole in cover); 135-IR ORS (solid cover w/gasket seal) | 02605 |
| MANHOLE RISERS FRAMES, COVERS, & RISERS ASTM A 48/A 48M, A 536 | Bibby-Ste-Croix (McWane) EJ USA, Inc. Neenah Foundry Co. Turner Co., Inc. - Not for New Construction US Foundry & Manufacturing Corp. | Class 35/35B Class 35B Gray Iron Riser Ring/00220591(1-1/2"); 00220593(1-3/4"); 00220595(2-0") Class 35/35B Injection-molded polypropylene fiberglass riser Class 35/35B | 02605 |

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GENERAL

| PRODUCT | MANUFACTURER | CLASS/MODEL | SPEC SECTION |
|--|---|---|---------------------------|
| GEOTEXTILE for PIPE INSTALLATION Non-woven Filter Fabric | Carthage Mills Contech (Propex; Synthetic Ind.) Mirafi, Inc. (TenCate) Mutual Industries, Inc. Thrace-LINQ US Fabrics ADS | FX-40HS GEOTEX 401 140N, 4 oz. NW60 140EX US 120 NW 451 | 02200, 02605 and 02721 |
| GEOTEXTILE for EROSION CONTROL Woven Filter Fabric | Mutual Industries, Inc. Thrace-LINQ US Fabrics | MISF 180 Spec. GTF 180SF or GTF 190SF US 670 or US 830 | 02270 |
| GEOTEXTILE for EROSION CONTROL Silt Fence | Carthage Mills Contech (Propex; Synthetic Ind.) Mirafi, Inc. (TenCate) U.S. Silt & Site Supply / Getsco | FX-11 or FX-11M 104F FW500 or FW700 DOT Series, P3611M | 02270 |
| MATTING BLANKET Excelsior Matting | American Excelsior | AMXCO Curlex Blanket | 02270 |