

Toho Water Authority Approved Materials & Manufacturers (March 2023)

Sanitary Sewer Gravity and Force Main Materials

Sanitary Sewer Valves

Air Release Valve Enclosures Sewer - Green	Water Plus Corp	131632 H30-G, 44" Tall 171730 H40-G, 30" Tall
	Hot Box Vent Guard	AVG 2036 Top, 36" Tall, GP 3232 Base AVG 2041 Top, 41" Tall, GP 3232 Base
	Safety-Guard / Hydro-Guard	15100, 34" Tall
	ARI Flow Controls	D-020 - Stainless Steel D-025 - Stainless Steel D-025L - S.S., Lift Station 986 - Stainless Steel
Air Release Valves	H-Tech	RGX 2
	Vent O Mat	RGX 2
	Kennedy – McWane	1106AW
	M&H – McWane	159-02A
Check Valves	Mueller	A-2600-6-01B1
	Clow – McWane	1106AW
	GA Industries	220
	Clow – McWane	AWWA C509, Resilient Wedge, Fusion Bond Epoxy Coating
Mueller		
American		
Valve Box Lids	Cast Iron, Round	
Valve Box Risers	Valve Box Extensions (screw type)	

Sanitary Sewer Manholes

Precast Polymer Manholes & Wetwells	Armorock	
	Rockhard	
Concrete Admix	Kryton International	KIM K-301R (with red dye)
	Xypex Chemical Corp	Xycrylix (with red dye)
	Xypex Chemical Corp	Admix C-1000Red (with red dye)
Manhole Frame and Cover	U.S. Foundry	USF-663-AB-MK
	EJ	1079Z
Manhole Inflow Barrier	USSI	Inflow Defender w/Stiffening Ribs
Manhole Jointing Material	Henry	RN-101
	ConSeal	RN-103
	Martin Asphalt Co.	CS-102B
Manhole External Joint Sealer	Canusa-CPS	Evergrip 990
	GPT	Wrapid Seal
Pipe to Manhole Seal	Trelleborg	Riser Wrap
	Tylox	Kor-N-Seal
	A-Lok	Cobra Boot
	Z-Lok	A-Lok
Manhole Drop Connection Transition Coupling	SDR35 or SDR26 to SCH-80 PVC	

Sanitary Sewer Pipe & Fittings

Mechanical Joint Fittings	Tyler Union	Protecto 401 or Permax CTF Lining Required
	U.S. Pipe – Mueller	
	American	
	Star Pipe	
	Clow - McWane	
	Sigma	
PVC Fittings	SDR 26 Minimum	
Pipe, PVC Force Main	Diamond Sanderson Westlake CertainTeed JM Eagle National Pipe	C900 / C905 DR25 Minimum Unrestrained DR18 Minimum Restrained
Pipe, PVC Gravity	SDR 35 Minimum	
Pipe, HDPE	C906 DR17 Minimum	

PVC Bell Restraints	Smith Blair	Bell-Lock Series 165
	Tyler Union	Series 3000
	Romac	600 Series
	EBAA Iron	Tru-Dual 1500
	Ford	Uni-Flange Series 1390
	Star Pipe Products	Series 4400
	Sigma	PV-Lok Series PVP
DIP Bell Restraints	SIP	EZ Grip PTPVC/PTPS
	Tyler Union	Series 3000
	Romac	600 Series
	EBAA Iron	Tru-Dual 1500
	Ford	Uni-Flange Series 1390
	Sigma	PV-Lok Series PWP
Mechanical Joint Restraints	SIP	EZ Grip PTPVCDI
	Tyler Union	TufGrip
	Romac	Field Lok
	EBAA Iron	GripRing
	Ford	Megalug
	Star Pipe Products	Uni-Flange
	Sigma	StarGrip
Casing Spacers	SIP	One-Lok
	Cascade Waterworks	EZ Grip EZD (DI)
	GPT	EZ Grip EZPVC (PVC)
	BWM Company	Fusion Bonded Coating, 2" Runners, 12" Band
	Advance Products	
Expansion Joints	CCI Pipeline	
	Mercer Rubber	Rubber Flex
	Metraflex	Rubber Flex
Locate Tape	EBAA Iron	Sliding Seal
Marker Tape	3M	EMS 7900-XT
Locator Ball	Metallic	
Locator Wire	3M	
	Extended Range Ball Marker	
Direct Bury – 14 Gauge Insulated Solid Copper		
Directional Drill - 2 - 8 Gauge, 1 Insulated Solid Copper & 1 Insulated Copper Clad Steel Core		
Sanitary Sewer Tapping Sleeves & Saddles		
Service Saddles	JCM	406
	Ford	FC202
	Romac	202NS
	Mueller	DR2S
	Smith-Blair	317
	Robar	2408
	Total Piping Solutions	T3-316
Tapping Sleeves, Fabricated Steel	JCM	412
	Romac	FTS420 w/ Stainless Hardware
	Ford	FTSC
Tapping Sleeves, Full Body Ductile Iron Mechanical Joint	American Flow Control	2800
	Mueller	
Tapping Sleeves, Full Body Stainless Steel	JCM	432
	Cascade	CST-EX
	Total Piping Solutions	Triple Tap
Lift Station Materials		
Conduit (wet well to panel)	Rigid Aluminum	
Generator Circuit Breaker	Square D	
Generator Systems	Caterpillar	
	Onan (Cummins)	
Automatic Switch Gear	Onan	
	Zenith – General Electric	
Pressure Gauges	Ashcroft	4" Fluid filled dial with isolator/ Range per plans
	H.O. Trerice Co.	

Submersible Pumps	Flygt (Xylem)	
	Sulzer	
Aluminum Pump-out Discharge	Coupling Co., Inc.	4" & 6" Piping - 4" Male Cam & Groove 8" or Greater Piping - Dixon 8" Flange
Wetwell Access Frames and Covers	Halliday	W2S with fall protection, slam lock, EPDM gasket and bit coating
Control Panels (CP)	Multitrode	
	Flygt	
	Stacon, Inc.	
Alarm Horn (AH)	Edwards	ALA43T-GA-115S
	Wheelock	31T-115-R
Alarm Light (AL)	Red Dot	ALVLRX-40
Area Light	Atlas Lighting	DD175M
Control Circuit Breaker	Square D – Schneider Electric	QOU120
Control Circuit Transformer	Square D – Schneider Electric	EO-18
Duplex Receptacle/GFI	Square D – Schneider Electric	GFSR-115-IC
	Hubbel	GF-52621
	Pass & Seymour	2095BKCC10
Elapse Time Meter	Cramer	635G
	Hecon - Daneher	TO621134
Emergency Circuit Breaker	Square D – Schneider Electric	QOU, FAL, KAL, LAL
Enclosure	Hoffman - Pentair	
	Tanco – Thomas & Betts	
Flasher	MPE	025-120-13SP
	SSAC	FS-126
Transducer	JDA	2000S
Float Regulator	Roto-Float	N. C.
Fuses	Cooper Bussmann	
	Gould-Ferraz-Shawmut	
Generator Receptacle	Crouse-Hinds	AR2042: (230V,200A, 3P,4W)
		AR2042S22: (460V,200A,3P,4W)
Ground Test Enclosure	Quazite - Hubbell	AC111817KEO
Hand-off-auto Selector	Square D – Schneider Electric	9001-SKS
Horn Silence Button	Square D – Schneider Electric	9001-SKR-1U
Interior Panel Light	American Lighting	LXC1H-WH
Magnetic Flow Meter	Endress-Hauser ProMag 500	Ethernet IP & 4-20 ma.
Main Circuit Breaker	Square D – Schneider Electric	QOU, FAL, KAL, LAL
Main Circuit Transformer	Square D – Schneider Electric	500SV43F
Moisture and Temperature Light	Dialight	803-1710
	General Electric	LMP1819, LMP120MB
Motor Circuit Breaker	Square D – Schneider Electric	QOU, FAL, KAL, LAL
Motor Starter	Square D – Schneider Electric	D-8536, NEMA Size 1, 2, 3
Overload Heater	Square D – Schneider Electric	
Phase Monitor	Diversified	LSU-100-ASA
Pilot Light	Square D – Schneider Electric	9001
	Dialight	803-1710
	General Electric	LMP1819, LMP120MB
Pump Automatic Alternator	Diversified – Marsh Bellofram	BRA-120-ACA (Duplex)
Relay	Potter Brumfield - Tyco	KRPA-11AN
	Eagle Signal - Danaher	22 Series
Resistor		5 watt, 2500 ohm
Run Indicator Light	Square D – Schneider Electric	9001
	Dialight	803-1710
	General Electric	LMP1819, LMP120MB
Safety Mat	NoTrax	Safety Stance 549 - 36"x64"
Surge Protector	General Electric	
	Edco - Emerson	
Terminal Strips	Square D – Schneider Electric	9070-GR6
	Marathon – Regal Beloit	Series 200
	Phoenix	UKK B3
Odor Control System	Biorem	
	BioAir Solutions	
	Evoqua - Siemens	ZABOCS
Geotextile Fabric	U.S. Fabrics	US 315

Water & Reuse Main Materials

Water & Reuse Main Valves

Air Release Valve Enclosures Water -Blue Reuse Pantone Purple	Water Plus Corp	131632 H30, 44" Tall 171730 H40, 30" Tall
	Hot Box Vent Guard	AVG 2036 Top, 36" Tall, GP 3232 Base AVG 2041 Top, 41" Tall, GP 3232 Base
	Safety-Guard / Hydro-Guard	15100, 34" Tall
	ARI Flow Controls	D-020 - Stainless Steel D-025 - Stainless Steel
Air Release Valve	H-Tech	986 - Stainless Steel
	Dezurik	440
	Ventomat	RBX
	Ames	LF910GD
Pressure Reducing Valve	Kennedy – McWane	1106AW
	M&H – McWane	159-02A
Check Valves	Mueller	A-2600-6-01B1
	Clow – McWane	1106AW
	GA Industries	220
	Clow – McWane	AWWA C509, Resilient Wedge, Fusion Bond Epoxy Coating
Mueller		
American		
Gate Valves	Zurn Wilkins	
	Valve Box Lids	Cast Iron, Water - Round, Reuse - Square
Valve Box Risers	Valve Box Extensions (screw type)	

Water & Reuse Main Tapping Sleeves

Tapping Sleeves, Fabricated Steel	JCM	412
	Romac	FTS420 w/ Stainless Hardware
	Ford	FTSC
	Robar	6908
Tapping Sleeves, Full Body Ductile Iron Mechanical Joint	American Flow Control	2800
	Mueller	
	JCM	
	US Pipe	H-615
Tapping Sleeves, Full body Stainless Steel	JCM	432
	Cascade	CST-EX
	Robar	6606BB
	Ford	FTSS-xxxx
	Total Piping Solutions	Triple Tap
Line Stop	JCM	A440-0905

Water & Reuse Main Pipe and Fittings

Mechanical Joint Fittings	Tyler Union	Cement Lined
	U.S. Pipe – Mueller	
	American Ductile Iron Pipe Co. - ACIPCO	
	Star Pipe	
	Clow - McWane	
	Sigma	
Pipe, Ductile Iron	SIP	Cement Lined
	American	
	U.S. Pipe	
Pipe, PVC	McWane	C900/C905 DR18
	Diamond	
	Sanderson	
	WestLake	
	CertainTeed	
	U.S. Pipe – Mueller	
	JM Eagle	
	National Pipe & Plastic	
Pipe, HDPE	North American	C906 DR11

PVC Bell Restraints	Smith Blair	Bell-Lock Series 165	
	Tyler Union	Series 3000	
	Romac	600 Series	
	EBAA Iron	Tru-Dual 1500	
	Ford	Uni-Flange Series 1390	
	Star Pipe Products	Series 4400	
	Sigma	PV-Lok Series PVP	
	SIP	EZ Grip PTPVC/PTPS	
DIP Bell Restraints	Tyler Union	Series 3000	
	Romac	600 Series	
	EBAA Iron	Tru-Dual 1500	
	Ford	Uni-Flange Series 1390	
	Sigma	PV-Lok Series PWP	
	SIP	EZ Grip PTPVCDI	
Mechanical Joint Restraints	Tyler Union	TufGrip	
		Field Lok	
	Romac	GripRing	
	EBAA Iron	Megalug	
	Ford	Uni-Flange	
	Star Pipe Products	StarGrip	
	Sigma	One-Lok	
	SIP	EZ Grip EZD (DI) EZ Grip EZPVC (PVC)	
Casing Spacers	Cascade Waterworks	Fusion Bonded Coating, 2" Runners, 12" Band	
	GPT		
	BWM Company		
	Advance Products		
	CCI Pipeline		
Locate Tape	3M	EMS 7900-XT	
Marker Tape	Metallic		
Locator Wire	Direct Bury – 14 Gauge Insulated Solid Copper		
	Direction Bore - 2 - 8 Gauge, 1 Insulated Solid Copper & 1 Insulated Copper Clad Steel Core		
Fire Hydrants	Mueller	Super Centurion	
	Kennedy	Guardian K-81A	
		Guardian K-81D	
	Waterous	Pacer 250	
	Clow	Medallion	
	U.S. Pipe	M94	
American Flow Control	B84B		
Automatic Flushing Device	Environmental Enhancement Technologies USA	Hydro Guard HG-1	
Water & Reuse Service Lines			
Polyethylene Tubing	Endot	EndoPur - Water EndoCore - Reuse	
	Charter Plastics	Blue Ice – Water Lavender Ice - Reuse	
		Vanguard Pipe & Fittings	Bruiser - Water Purple - Reuse
	ADS		Poly Flex - CTS
	Corporation Stops (Pressure Tested with a Larger Overall Distribution System)	Mueller	MIP Inlet to Pack Joint Outlet, No Lead Brass, Ball Valve
		Ford	
A.Y. McDonald			
Corporation Stops (Not Pressure Tested with a Larger Overall Distribution System)	Mueller	MIP Inlet to FIP Outlet, No Lead Brass, Ball Valve	
	Ford		
	A.Y. McDonald		
Curb Stops	Mueller	Pack Joint to Swivel Meter Nut, Padlock Wing, No Lead Brass, Ball Valve	
	Ford		
	A.Y. McDonald		
Service Wye	Mueller	Pack Joint, No Lead Brass	
	Ford		
	A.Y. McDonald		

Meter Box	NDS	D1500-OLSB – Water
		D1200-OLSB – Water
		D1500-DVOLSP – Reuse
		D1200-OLSP – Reuse
Service Saddles	Ford	FC202
	Romac	202NS
	Mueller	DR2S
	Smith-Blair	317
	Robar	2408
	Total Piping Solutions	T3
Service Saddles for HDPE	Smith-Blair	317, 4" - 16" Pipe
	Ford	FCP202, 4" - 12" Pipe
	JCM	406, 4" - 24" Pipe
	Romac	202N-H, 4" - 12" Pipe
	Total Piping Solutions	T3, 2" – 48" Pipe

Water & Reuse Meter and Backflow Assembly (3" And Larger)

Potable	Neptune	Mach 10
Reuse	Neptune	Mach 10
Flanged Meter Strainer	Neptune (3" - 4")	53107, Rilsan Nylon-Coated DI
	Neptune (6" - 10")	52000, Rilsan Nylon-Coated DI
Flanged RPZ Backflow	Wilkins	3-3750SY
	Apollo	4ALF
Flanged OS&Y Gate Valve	AFC	2500, Fusion Bond Epoxy Coated DI
	Mueller	R-2361-6, Fusion Bond Epoxy Coated DI
Flanged Fittings	Tyler Union	DI Fusion Bond Epoxy Coating
	Sigma	
	Matco Norca	
Flange Kit	Zinc plated w/ Red Rubber Gasket	
Pipe Supports	Cold Spray Galvanized	

Paint, Coatings, Ad-Mixtures and Liners

Miscellaneous

Concrete Admix	Kryton International	KIM K-301R (with red dye)
	Xypex Chemical Corp	C-1000 (with red dye)
	Xypex Chemical Corp	Xycrylix (with red dye)
Manhole Interior Surface Liner (Existing Structures with minimal concrete deterioration)	Sauereisen	SewerGard 210
	Raven Lining Systems	Raven 405
	CCI Spectrum, Inc	SpectraShield
	Kerneos, Inc.	SewperCoat
	Quadex, Inc.	Aluminaliner
	GML Coatings, LLC	Green Monster Liner
	Sprayroq, Inc.	Spraywall
Wet Well and Manhole Rehabilitation Coating (Existing Structures with significant concrete deterioration)	Sauereisen	F120/121 Underlayment + 210 Liner
	Raven Lining Systems, Inc.	Raven 405
	Quadex, Inc	Aluminaliner
	Kerneos, Inc.	SewperCoat
	GML Coatings, LLC	GML30/60 Underlayment + GML Primer + Green Monster Liner

Coatings for Wet Well Fittings

Field primer	Sauereisen	Conoweld 501
	Tnemec	Zinc 90-97
Topcoat	Sauereisen	SewerGard 210G
	Tnemec	Typoxy 27WB

Coatings for Above Ground Pipe & Fittings (Water, Reuse & Sewer)

Field primer	Alkyd metal primer
Topcoat	Alkyd gloss enamel
Toho Fire Hydrants	Gray
Private Fire Hydrants	Per Owner