

Town of The Blue Mountains - Materials Specifications

May 2023

Wastewater Collection

Product/Use	Type	Standards/Specifications	Approved Manufacturer	Description/Model	Requirements/Comments
Sanitary Sewer Main (Non-Pressure)	Polyvinyl Chloride (PVC) Solid Wall 200 mm to 525 mm diameter	CSA B 182.2 ASTM D3034 or ASTM F679 Minimum DR 35 Minimum pipe stiffness 320 kPa OPSS.MUNI.1841	IPEX	Ring Tite	Must be green in colour Bell and spigot joints Rubber gasket Connections shall be made with manufactured gasketed tee
			Napco (Royal Pipe)	Royal Seal	
	Reinforced Concrete 300mm and larger	CSA A257.2 and A257.3 Minimum Class 65-D OPSS.MUNI.1820	Coldstream Hanson Munro Con Cast		Manufactured at a plant certified under the Ontario Concrete Plant Prequalification Program (must have triangular "prequalification stamp") For sewers smaller than 450 mm DIA service connections shall be made with factory made tees, Approved saddles may be used for pipe greater than 450mm DIA
Sanitary Service Connections (Non-Pressure)	Polyvinyl Chloride (PVC) Solid Wall	DR 35 CSA B 182.2 ASTM D3034 Minimum DR 28 Minimum pipe stiffness 625 kPa OPSS.MUNI.1841	IPEX	Ring Tite	Must be green in colour Bell and spigot joints Rubber gasket
			Napco (Royal Pipe)	Royal Seal	
Saddles	For Polyvinyl Chloride (PVC) Solid Wall		Trelleborg (NPC Inc)	Kor-N-Tee Saddle Connector	Factory made tees are to be used in new construction
			IPEX	Inseta Tee (2 strap)	
			Romac Industires	CB Sewer Saddle	
	For Reinforced Concrete 300mm and larger	ASTM C923	Galaxy Plastics Trelleborg (NPC Inc) Romac Industires	Corebell Adaptor Coupling Kore-N-Tee Connector CB Sewer Saddle	Factory made tees are to be used in new construction for up to and including 450 mm DIA
Couplings	For Polyvinyl Chloride (PVC) Solid Wall		Fernco Inc	RC Series	
			Fernco Inc	5000 Series	
			Mission Rubber Company	Flex Seal ® ARC	
	For Reinforced Concrete 300mm and larger				
Repair Clamps	For Polyvinyl Chloride (PVC) Solid Wall		Cambridge Brass	425	All repair clamps to be provided with Stainless Steel Nuts and bolts. Gaskets to be tapered.
		Stainless Steel	Mueller	500 Series	
			Robar	5616 and 5626	
	For Reinforced Concrete 300mm and larger				In consultation with the Town
Test Fittings	DI and PVC 100mm to 400mm	Mechanical Joint, Ductile Iron Body and glands to AWWA C104/A21.4	Tyler Union/Bibby		
			SIGMA	As per Manufacturer	
			STAR		
MJ GRIP RINGS (restraining rings)	DI and PVC 100mm to 400mm SERIES 160 and DR26		Romac	black ring(DR18/DI) red ring(160/dr26)	100mm to 300mm
			STAR	Stargrip 4000 Series	100mm to 400mm
			SIGMA	One-Lok	100mm to 400mm
Maintenance Hole and Components	Precast Concrete	CSA A 257.3 CSA A 257.4 ASTM C-478	Coldstream Hanson Munro		MH's must be pre-benched Kor-n-seal pipe to MH connectors (to ASTM C923M)

Product/Use	Type	Standards/Specifications	Approved Manufacturer	Description/Model	Requirements/Comments
		OPSS.1351	Concast		
Maintenance Hole Frame and Cover	Standard Cast Iron	ASTM A536 CSA S-6 OPSD.401.01 Type A OPSS 1850	Bibby-Ste-Croix	JW150	Closed cover Non locking Stamped Sewer or Sanitary
			SIGMA Corporation	401.01 A	
			STAR® Pipe Products	401.01 A	
	Cast Iron Watertight Cover	ASTM A536 CSA S-6 OPSD.401.03 OPSS 1850	Bibby-Ste-Croix	JW153	When specified
			SIGMA Corporation	401.03	
			STAR® Pipe Products	401.03	
	Self Leveling		Bibby-Ste-Croix	AutoStable Model C50M1	

Sewage Forcemain

Sewage Forcemain (Pressure Pipe)	Polyvinyl Chloride (PVC) Solid Wall 150mm to 450 mm	Minimum DR 18 (Class 235) AWWA C900 CSA B137.3 ASTM D3139 OPSS.MUNI.412			FM pipe shall not be blue in colour Bell and Spigot Joints *Materials for FM over 450 mm must be selected in consultation with the Town
	High Density Polyethylene (HDPE) 100 mm to 450 mm	Minimum DR 11 CSA B137.1 AWWA C906 OPSS.MUNI.412 and 1842	KWH Pipe Ltd	Sclairpipe	Thermal fusion or flanged joints per manufacturers recommendation *Only to be used in specialized installations with approval by Town
Fittings	Ductile Iron	AWWA C153/A21.53 AWWA C110/A21.10 AWWA C104/A21.4 Minimum Pressure Class 350 OPSS.MUNI.412 and 1842			
Valves	Resiliant Wedge Gate Valves	AWWA C509 AWWA C550 ASTM A536 & A126 OPSS.MUNI.412 and 1842	Mueller	A-2360 OR A-2361	
			Clow	F-6100 (A2369/2340)	
			AVK	Series 45/ Series 65	

Product/Use	Type	Standards/Specifications	Approved Manufacturer	Description/Model	Requirements/Comments
Air Release	Combination Air & Vacuum Release Valves		CLA VAL	Stainless Steel	
			VAL MATIC	Stainless Steel	
			PRATT	Stainless Steel	
			VENT - TECH		
Coupling					
Repair Clamps					
Warning Tape	For all Forcemain		Supplied by Seton Canada or approved equal		3.5 mm polyethylene underground warning tape 75mm wide, green in colour with 50mm black lettering "CAUTION: BURRIED FORCEMAIN BELOW"
Valve Box					Valve box cover must be stamped "SEWER"
Anodes	All metallic pipe, fittings, and appurtenances	ASTM B-418 Type II or ASTM B-843 Type M1			
Sacrificial Nuts	On all bolts	ASTM B-418 Type II	Maple Agency	Protecto Cap 175P190	
Insulation	For direct burried pipes with <1.7m cover		Dow Chemical Co.	Styrafoam Highload 100	Extruded polystyrean Minimum 50mm thick
Tracer Wire	For all non-metalic pipe				#10 Gauge TWU multi-stranded copper White plastic coating Splices made with DryConn waterproof connectors For Horizontal Direction Drilling applications additional requirements apply.

Product/Use	Type	Standards/Specifications	Approved Manufacturer	Description/Model	Requirements/Comments
Low Pressure Sewage Force mains					
Sewage Force main (Sizes vary per design)	SDR 11 HDPE Pipe Schedule 40 PVC DR 11	SDR ASTM D 3035 Series 160			Pressure up to 160 psi
					All fittings shall be same class pipe, all joints fusion welded
Service Connection Typically 38 or 32 mm	SDR 11 HDPE Pipe Schedule 40 PVC DR 11	SDR ASTM D 3035 Series 160			Pressure up to 160 psi
Tracer Wire	For all LPFM pipe				#10 Gauge TWU multi-stranded copper White plastic coating Splices made with DryConn waterproof connectors
Lateral Kit	Check and Isolation Valve	NAO330P02 NAO330P03 NAO330P04 NAO330P05	E-ONE	Stainless Steel Lateral	SDR 11 HDPE 1-1/4 Pipe SDR 11 HDPE 1-1/2 Pipe SCHEDULE 40 PVC 1-1/4 Pipe Stainless Lateral Only
			E-ONE	Stainless Steel Lateral	
			E-ONE	Stainless Steel Lateral	
			E-ONE	Stainless Steel Lateral	
Compression Fittings	1-1/2 to 1-1/4 threaded end 1-1/4 to 1-1/4 threaded end	1-1/4 in Male NPT x 1-1/2 in SDR11 1-1/4 in Male NPT x 1-1/4 in SDR11	E-ONE		Compression fittings with Buna-N O-ring
			E-ONE		Compression fittings with Buna-N O-ring
Curb Boxes		ASTM-D 1788	E-ONE	ABS Pipe with Cast Iron Lid	Stamped SEWER
Flushing Connections				Stainless Steel isolation ball valves and fittings	

Product/Use	Type	Standards/Specifications	Approved Manufacturer	Description/Model	Requirements/Comments
Pump Station Material					
Pumps		Various	Flygt	Various	
Flow Meter	Electromagnetic		ABB	Stainless Steel internals Minimum	
			ENDER HAUSER		
Air Release Valves			Val Matic	Stainless Steel internals Minimum	
			VENT – TECH		
			PRATT		
			CLA – VAL		
Check Valves			Val Matic	Stainless Steel Hardware	
			Flo-Matic		
			PRATT		
			BRAY		
Swing Check Valves			Val Matic	Stainless Steel Hardware	
			Pratt		
			DeZURIK		
Knife Gate Valve			ORBINOX	Stainless Steel Hardware	
			Trueline		
Gate Valves		AWWA C509	J&S	Stainless Steel Hardware	
			Mueller		
Plug Valves			Val Matic Pratt DeZURIK		
Sluice Gates			ORBINOX	Stainless Steel	
SCADA/PLC/CABINETS					To be Approved by Town and Town Integrator
VFD's			Schneider		
Motor Control Center	MCC		Schneider		
			Eaton		
			Allan Bradley		
Surge Protector			Total Protection Solutions	TK-ST120-600NN	
Level Transmitter			Dwyer	PBLTX-15-60-PU	
Power Meter			Allan Bradley		Ethernet Communication
			Schneider	PM5563	
Electric Actuators			ROTORK		
			AUMA		