



APPROVED PRODUCTS LIST

This Reference Document lists materials and products that are either approved, restricted, or not allowed, for Works and Services performed within the City of Courtenay.

If a material or product is not listed in relation to an MMCD or a Supplementary Specification, any product meeting the listed specified requirements of such specification shall be accepted, specifications shall prevail Brand & Model.

Where specified brand names are specified for a product, any proposal for an alternate product requires the approval of the Cities Approved product committee.

MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
03 40 01 Precast Concrete					
		Concrete Fence for Arterial Roads	<ul style="list-style-type: none"> American Technocrete Approved equal 	<ul style="list-style-type: none"> Woodcrete Wall, Buffer Color 	<ul style="list-style-type: none"> Posts at 1.5m c/c
		Concrete Fence for Wet Detention Pond	<ul style="list-style-type: none"> American Technocrete Approved equal 	<ul style="list-style-type: none"> Woodcrete Rail, Buffer Color 	<ul style="list-style-type: none"> Post at 2.44 c/c & 2 Rail Fence
		Concrete MSE Retaining Wall	<ul style="list-style-type: none"> Langley Precast Ocean Precast 		
26 56 01 Roadway Lighting					
	<i>Products</i>	LED Luminaires	<ul style="list-style-type: none"> Philips 	<ul style="list-style-type: none"> Roadfocus 	3000 K, RFS, RFM and RFL Series, as applicable



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31 11 45 Shrub and Tree Preservation					
		Snow Fence	• Dupont	• L-70	
32 92 19 Hydraulic Seeding					
	Fertilizer		• Direct Solutions	• 20-2-16	
32 93 01 Planting of Trees, Shrubs and Ground-covers					
		Tree Guy Anchors	• Tree Guy Systems	• Arrow Anchor	
		Tree Trunk Protection	• Deep Roots Products	• Arborgard	
		Tree Ties	• Deep Roots Products	• Arbor Tie	
	Misc. Products	Root Barrier	• Deep Roots Products	• UB 18-2	
		Adhesive	• OSI Sealants	• PL 200	
		Drain Mat	• Nilex Geotextile	• Nudrain WD/15	
		Filter Fabric	• Nilex Geotextile	• Nilex 4545	
32 94 01S Irrigation System					
	Backflow Prevention Device		• Watts	• Model 007-QT	• CSA, FUS, AWWA C511
	Electronic Control Valves		• Rain Bird	• EFB CP Series Brass • 300 BPES Series Brass	• < 75mm • ≥ 75mm
	Master Valve		• Rain Bird	• EFB CP Series Brass • 300 BPES Series Brass • PEB Series Valves	• < 75mm • ≥ 75mm
	Pressure Regulating Modules		• Toro • Rain Bird	• EZR-100 • PRS-Dial	
	Automatic Controllers		• Toro	• Sentinel Satellite Controller	
	Control Wire	Wire	• Paige Wire	• P7079D	Common Wire to be min. 14-gauge Master Valve Wire to be min. 14-gauge



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
		Flow / pulse transmitter wiring	<ul style="list-style-type: none"> Belden 	<ul style="list-style-type: none"> PE39 	8mm Aluminum Polyester Shield Black HDPE Jacket
		Wire splice	<ul style="list-style-type: none"> 3M Rainbird 	<ul style="list-style-type: none"> DBY connector WPSK 20 	
	Sprinkler Heads		<ul style="list-style-type: none"> Toro Rain Bird Hunter 		Additions to existing irrigation systems to be same product
33 11 01	Waterworks				
	Water Main Ductile Iron	<ul style="list-style-type: none"> Ductile Iron 	<ul style="list-style-type: none"> McWane Group US Pipe 		CL 50 for all mains less than 400mm dia. and Pressure Class 350 for all mains larger than 400mm dia.
	Water Main PVC	<ul style="list-style-type: none"> PVC PVCO 	<ul style="list-style-type: none"> Ipex Westlake Pipe & Fittings 	<ul style="list-style-type: none"> Blue Brute Bionax 	PVC pipe to AWWA C900 / DR18 Minimum. Compliance with MMCD updated Section 33 11 01 2.2.2.2 for thickened bell and spigot pipe. All PVC / PVCO water mains shall be pigmented blue. AWWA C900, C909 CSA B137.3 Nitrile gasket shall be used when hydro carbon is encountered in surrounding soil. Bionax to be accepted for use in seismic condition
	Water Main HDPE	<ul style="list-style-type: none"> HDPE 	<ul style="list-style-type: none"> KWH Pipe Isco Pipe Polytubes 	<ul style="list-style-type: none"> Sclairpipe WL Plastics 	ASTM F714 AWWA C906
	Water Main Fitting Ductile Iron	<ul style="list-style-type: none"> Ductile Iron 	<ul style="list-style-type: none"> Terminal City Iron Works Sigma 		AWWA C153 AWWA C110
	PVC Injection Molded Fittings	<ul style="list-style-type: none"> PVC PVCO 	<ul style="list-style-type: none"> IPEX Westlake Proline 		AWWA C907 CSA B137.2
	PVC Fabricated Fittings	<ul style="list-style-type: none"> PVC PVCO 	<ul style="list-style-type: none"> IPEX Westlake Galaxy Plastics Proline 		AWWA C900 CSA B137.3
	Nuts and Bolts	Stainless Steel ASTM A194 type 304			
	Tie Rod	Zinc or Cadmium Plated ASTM A354 Grade BC Steel	<ul style="list-style-type: none"> Cor-ten Steel 		



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	<i>Couplings and Flange Coupling Adapters</i>	Plain End Coupler	<ul style="list-style-type: none"> • Robar • Smith-Blair • Mueller • Ford 	<ul style="list-style-type: none"> • Robar 1506 • Robar 1696 • Smith-Blair 441,421 • Mueller MRC • Ford FC1 	<p>Meets applicable portions of AWWA C219</p> <p>Meets requirements of AWWA C213</p> <p>Certified to NSF-61</p> <p>Certified to NSF-372</p>
		Flanged Adapter	<ul style="list-style-type: none"> • Robar • Smith-Blair • Mueller • EBAA • Clow 	<ul style="list-style-type: none"> • Robar 7504/06 • Robar 7906 • Smith-Blair912 • Mueller • EBAA Iron 1000 • Clow Series 40, DI • Clow Series 90, PVC 	<p>Meets applicable portions of AWWA C219</p> <p>Meets requirements of AWWA C213</p> <p>Certified to NSF-61</p> <p>Certified to NSF-372</p>
		Restrained Flange Adaptors	<ul style="list-style-type: none"> • Uniflange • EBAA • Smith Blair 	<ul style="list-style-type: none"> • Uniflange RFAP • EBAA 2100 • Smith Blair 920-PVC, 911-DI 	<p>Meets applicable portions of AWWA C207</p> <p>Meets requirements of AWWA C213</p> <p>Certified to NSF-61</p> <p>Certified to NSF-372</p>
		Repair Clamps	<ul style="list-style-type: none"> • Canpac/Proline • Mueller • Robar • Clow 	<ul style="list-style-type: none"> • Canpac CR-2 • Mueller 520 • Robar 5600 Rc • Clow 100, 200, 300 	<p>Meets applicable portions of AWWA C230</p> <p>Certified to NSF-61</p> <p>Certified to NSF-372</p> <p>Repair clamps shall be stainless steel</p>
	<i>Joint Restraint Ductile Iron Mains</i>		<ul style="list-style-type: none"> • UniFlange Series 1400 • EBAA Iron • Clow 	<ul style="list-style-type: none"> • UniFlange Series 1400 • EBAA Iron Megalug1700 • Clow Tufgrip TDG 	<p>ANSI/AWWA C111/A22.11</p> <p>ANSI/AWWA C153/A21.53</p> <p>All joint restraints shall have a pressure rating equal or greater than the mainline pipe.</p>
	<i>Joint Restraint PVC / PVCO Mains</i>		<ul style="list-style-type: none"> • UniFlange • EBAA Iron • Clow 	<ul style="list-style-type: none"> • UniFlange Series 1300 • EBAA Iron MJ Series 1500 • EBAA Iron 1900 • 300 Series 	<p>ASTM A536</p> <p>ANSI/AWWA C111/A21/11</p> <p>ASTM A36</p> <p>No wedge action type for PVC or PVCO pipes.</p> <p>Restraint systems for PVC or PVCO pipe shall be approved by the pipe manufacturer to not reduce the pipe recommended working pressure.</p>
	<i>Restrained Joint Pipe Systems (PVC)</i>		<ul style="list-style-type: none"> • Ipex • Westlake 	<ul style="list-style-type: none"> • Ipex Terra Brute • Westlake Certa-Lok 	
	<i>Restrained Joint Pipe Systems (DI)</i>		<ul style="list-style-type: none"> • US Pipe • McWane 	<ul style="list-style-type: none"> • Field-Lok Gasket 	



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
				<ul style="list-style-type: none"> SureStop Gasket 	
	Valves	75 mm – 300 mm Resilient-seated	<ul style="list-style-type: none"> Mueller Clow Canada Terminal City 	<ul style="list-style-type: none"> Mueller A2362 Clow 6100 	All valves shall have epoxy coated ductile iron body with Stainless Steel Bolts
	Blow off Valve	50mm Resilient Seat Gate Valve	<ul style="list-style-type: none"> Mueller Clow 	<ul style="list-style-type: none"> Mueller A2360 Clow F6103 	
	Air Valve		<ul style="list-style-type: none"> Apco Val-Matic Crispin ARI 	<ul style="list-style-type: none"> APCO 143C Val-Matic 201C Crispin UL 	Internally Coated or Composite
	Water Valve Box		<ul style="list-style-type: none"> Terminal City Dobney Sigma 	<ul style="list-style-type: none"> Square Robar 	Square type Cover shall be marked with "Water".
	Curb Stop Box		<ul style="list-style-type: none"> Dobney Trojan Mueller 		Circular Telescoping
	Joint Protection	Petrolatum Tape & Mastic	<ul style="list-style-type: none"> Petrowrap Trenton Tec Tape Denso PCS 		AWWA C209 AWWA C214 AWWA C217-90 AWWA C217-16
	Water Service Connection	Type K Copper – 19mm to 75mm			ASTM B88M
		Polyethylene	<ul style="list-style-type: none"> Rehau 	<ul style="list-style-type: none"> Rehau Municipex (Pex A) Aquapure 	With 10 Gauge Tracer Wire (AWG) AWWAC904 ASTM F1807 / 2159 / 2098 / 2080
	Saddles for Ductile Iron Mains		<ul style="list-style-type: none"> Robar Canpac Mueller 	<ul style="list-style-type: none"> Canpac 313 Mueller DR2A Romac 202BS 	Meets applicable AWWA C800 standards Meets requirements for AWWA C213 NSF-61 Certified NSF-372 Certified
	Saddles for PVC / PVCO Main		<ul style="list-style-type: none"> Canpac Robar Cambridge Brass 	<ul style="list-style-type: none"> Series 812 SCZ 2616 	Meets applicable AWWA C800 standards Meets requirements for AWWA C230 NSF-61 Certified NSF-372 Certified Saddles required for service installation on all PVC / PVCO mains - Bronze body with stainless steel straps or Full SS Wrap
	Tapping Sleeve for PVCO		<ul style="list-style-type: none"> JCM 	<ul style="list-style-type: none"> Ford FS313 JCM 422 Series SST Series 	Meets applicable portions of AWWA C223 Meets requirements for AWWA C213 Certified to NSF-61 Certified to NSF-372



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	Abandon Service Sleeve		<ul style="list-style-type: none"> • Robar 	<ul style="list-style-type: none"> • 6636AS 	NC T 304 SS Const Bolted bracket or lifter bar
	Hydrant		<ul style="list-style-type: none"> • Terminal City • Mueller Co. • Clow 	<ul style="list-style-type: none"> • C71P – H105 • Modern Centurion (A-442) • 2780 • M93 	Must have 100mm Storz fitting on pumper port Paint colors shall be as follows: <ul style="list-style-type: none"> • Red body • White top • 2 white side ports • black Storz
	Corporation Stop	Full Port Ball Valve	<ul style="list-style-type: none"> • Cambridge • Ford • Mueller • Al-MacDonald 	<ul style="list-style-type: none"> • Cambridge 301 • Ford FB600 • Mueller B25008 • Al-MacDonald 4700 	Shall be full-port ball valve to 50 mm only. Use mainline gate valve for sizes >50 mm AWWA C800, NSF 61, NSF 372, ASTM B584 & B62
	Curb Stop	Full Port Ball Valve	<ul style="list-style-type: none"> • Cambridge • Ford • Mueller • AY-MacDonald 	<ul style="list-style-type: none"> • Cambridge 202 • Ford B44-343G • Mueller B25209 • AY-MacDonald 6100 	Shall be full-port ball valve to 50 mm with 90° turn stop. Use mainline gate valve for larger sizes > 50mm AWWA C800, NSF 61, NSF 372, ASTM B584 & B62
	Meter Setters		<ul style="list-style-type: none"> • Cambridge Brass 	<ul style="list-style-type: none"> • 1" 6031 Series • 1 ½" – 2" 6020 series 	C/W Stop, DC & Extend LEG AWWA C800, NSF 61, NSF 372, ASTM B584 & B62
	Idler Bar		<ul style="list-style-type: none"> • Cambridge Brass 	<ul style="list-style-type: none"> • 450 Plastic (25mm Service Connection) • 450NL Copper (50mm Service Connection) 	AWWA C800, NSF 61, NSF 372, ASTM B584 & B62
	Meter Pits		<ul style="list-style-type: none"> • Langley Concrete • AE Concrete • Armtec 	<ul style="list-style-type: none"> • Type#66 with cast iron Lid for 25mm • 5686 with steel lid for 50mm 	
	Meter Chambers		<ul style="list-style-type: none"> • Armtec 	<ul style="list-style-type: none"> • 2121.5 	With Aluminum spring assisted double lids.
	Casing Spacers	As shown on contract drawings	<ul style="list-style-type: none"> • Uniflange • Calpico • APS 	<ul style="list-style-type: none"> • Uniflange • Calpico • APS Casing Spacers 	No AWWA standard for this part
	Pressure Reducing Valve Stations (PRV)	<ul style="list-style-type: none"> • PRV Valve • Limit Switch Indicator • Valve Position Indicator • Strainer • Domestic flow indicator 	<ul style="list-style-type: none"> • Singer • Singer • Singer • Singer • Singer 	<ul style="list-style-type: none"> • Singer 106-PR • Singer X129 • Singer X156 • J1521M Arion Strainer • SPI-MV Flow Meter 	Epoxy coated



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		<ul style="list-style-type: none"> Pressure Transducer PLC HMI Router 	<ul style="list-style-type: none"> Emerson-Rosemount Scada pack Maple Systems, or equivalent SonicWall 	<ul style="list-style-type: none"> 2088 Scada pack 334 	
33 30 01	Sanitary Sewers				
	Fabricated PVC Fittings				CSA B181, CSA B182.1, CSA 182.2, CSA B182.4
	Fittings		<ul style="list-style-type: none"> Galaxy Pro-line Ipex Westlake 		CSA B182.2
	Concrete				Not permitted
	PVC Pipe, Mainline Smooth Profile	PVC SDR35	<ul style="list-style-type: none"> IPEX Westlake JM Eagle 	<ul style="list-style-type: none"> IPEX Ring-Tite Gasketed Sewer 	Sizes > than 750 mm to be approved by City CSA B182,2 ASTM D3034, ASTM D 3212 ASTM F477
	Sanitary Service Pipe	PVC SDR28 Min 100mm diameter	<ul style="list-style-type: none"> IPEX Royal JM Eagle 	<ul style="list-style-type: none"> IPEX Ring-Tite Gasketed Sewer 	New PVC main: use manufactured wyes. Existing mains: use manufactured wyes, strap saddles or insertable tees. Protrusion saddles not approved.
	Sanitary Service Connections		<ul style="list-style-type: none"> Romac Clow 	<ul style="list-style-type: none"> Romac Sewer Saddle Clow D-50 	CSA B182,2 ASTM D3034, ASTM D 3212 ASTM F477
	Inspection Chamber	Inspection Chamber	<ul style="list-style-type: none"> Westlake Pro-line Galaxy Plastics 		CSA B182,2 ASTM D3034, ASTM D 3212 ASTM F477
		Inspection Chamber Back-flow check valve	<ul style="list-style-type: none"> Westlake Pro-line Galaxy Plastics 		B181 & CSA 182.1
	Service Connection Boxes		<ul style="list-style-type: none"> AE Concrete 	Series B937	
	Repair Couplers		<ul style="list-style-type: none"> Rollee, Fernco, 		Couplers shall have appropriate adaptor gaskets to suit OD of pipe material being coupled – full stainless steel wrap
33 34 01	Sewage Forcemains				
	Pipes, Joints and Fittings				
		HDPE with fusion welded joints	<ul style="list-style-type: none"> Sclairpipe Drisco Pipe ISCO Pipe 	<ul style="list-style-type: none"> Sclairpipe DriscoPlex WL Plastics 	AWWA C906
	Valves	Air Valves	<ul style="list-style-type: none"> ARI 		Composite



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	<i>Valve Chamber</i>		<ul style="list-style-type: none"> Dobney 	<ul style="list-style-type: none"> Dobney C20 	
33 40 01	Storm Sewers				
	Fabricated PVC Fittings				CSA B181, CSA B182.1, CSA 182.2, CSA B182.4
	<i>Fittings</i>		<ul style="list-style-type: none"> Galaxy Proline Ipex Westlake 		B182.2
	Concrete Pipe	Non-reinforced Concrete C14-3 Reinforced Concrete C76-III, IV, and V	<ul style="list-style-type: none"> Langley Concrete and Tiles Ocean Pipe 		PPP or Q-Cast Certified
	PVC Pipe, Mainline Smooth Wall	PVC SDR35	<ul style="list-style-type: none"> IPEX Westlake JM Eagle 	<ul style="list-style-type: none"> IPEX Ring-Tite Gasketed Sewer 	Sizes > than 750 mm to be approved by the City Engineer
	PVC Pipe, Mainline Profile		<ul style="list-style-type: none"> Ipex Westlake 	<ul style="list-style-type: none"> Ipex UltraRib Westlake Kor-Flo 	Concentric ribbed pipe only is permitted to 900 mm, No spiral ribbed pipe will be allowed. CSA B 182.4
	HDPE Pipe, Mainline Open Profile		<ul style="list-style-type: none"> Armtec ADS 	<ul style="list-style-type: none"> Armtec Boss 2000 ADS N-12 	CSA B182.8 with Type 1 Water tight joint
	Service Connection pipe	PVC SDR28 Min 150mm diameter	<ul style="list-style-type: none"> IPEX Westlake JM Eagle 	<ul style="list-style-type: none"> IPEX Ring-Tite Gasketed Sewer 	CSA B182.2 ASTM D3034
	Storm Service Connections		<ul style="list-style-type: none"> ADS Galaxy 	<ul style="list-style-type: none"> ADS Inserta Tee ADS One fit Inserta Tee Galaxy EZ-Tee 	CSA B182.2
	Inspection Chamber	Inspection Chamber	<ul style="list-style-type: none"> Westlake Pro-line Galaxy Plastics 		CSA B182.2 ASTM D3034, ASTM D3212 & ASTM F474
	Service Connection Boxes		<ul style="list-style-type: none"> AE Concrete 	<ul style="list-style-type: none"> Series 937 	
33 42 13	Pipe Culverts				
	End Walls	Concrete	<ul style="list-style-type: none"> Langley Concrete and Tiles Ocean Pipe 		Q-Cast Certified PPP Certified
		Fiberglass Composite	<ul style="list-style-type: none"> CIF Composites 	<ul style="list-style-type: none"> Ecolite 	
		Mechanically Stabilized Earth (MSE)	<ul style="list-style-type: none"> Flex MSE 	<ul style="list-style-type: none"> Flex MSE 	
33 44 01	Manholes and Catchbasins				



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
	Manhole Frame and Cover		<ul style="list-style-type: none"> Dobney Westview Sales Ltd. TC 	<ul style="list-style-type: none"> C-18 C-18ADJ C-18LP 	Sanitary Sewer manhole lids shall be marked "SANITARY SEWER" Storm Sewer manhole lids shall be marked "STORM SEWER" MMCD
	Catch Basin and Other Castings	CB Frame	<ul style="list-style-type: none"> Dobney Westview Sales Ltd. Terminal City 	<ul style="list-style-type: none"> B50 B24 ADJ B24D 	MMCD
		CB Grate	<ul style="list-style-type: none"> Dobney Westview Sales Ltd. Terminal City 	<ul style="list-style-type: none"> B50 B23 left or right B24 Hood Only 	MMCD
		Lawn Basin Grate (1050mm Barrel)	<ul style="list-style-type: none"> Dobney Westview Sales Ltd. TC 	<ul style="list-style-type: none"> 	MMCD
	Hydro-dynamic grit Separator		<ul style="list-style-type: none"> Langley Concrete and Tiles Contech 	<ul style="list-style-type: none"> Stormceptor Vorsentry CDS 	
33 49 23	Storm Drainage Water Retention Systems				
	Polypropylene Arched Chamber				
	Polyethylene Arched Chamber		<ul style="list-style-type: none"> Contech Brentwood Industries 	<ul style="list-style-type: none"> Chambremaxx Stormtank 	
34 41 13	Traffic Signals		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
	Siren Activated Emergency Pre-emption		Traffic Systems LLC	Sonem 2000	
		Audible Signals	<ul style="list-style-type: none"> Polar Enterprises 	<ul style="list-style-type: none"> Navigator APS 	
		LED Luminaires	<ul style="list-style-type: none"> Philips 	<ul style="list-style-type: none"> Roadfocus 	3000 K, RFS, RFM and RFL Series, as applicable
		Traffic Controllers	<ul style="list-style-type: none"> Econolite 	<ul style="list-style-type: none"> Cobalt 	
	Sanitary Lift Station Components		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	
	Standards for Sanitary Lift Stations				
	Submersible Pumps	Flygt	<ul style="list-style-type: none"> 	Specific model to be approved by Utilities Manager	Non-Clogging
		Flush Valve	<ul style="list-style-type: none"> Flygt 	Model 4901	Or Approved Equal

ADS



MMCD Section	Section Description	Product	Manufacturer	Approved Model	Restrictions/Additional Specifications
		Wet Well	<ul style="list-style-type: none"> Xylem 	FRP	Engineered & Prefabricated
		Portable Lifting Davit	<ul style="list-style-type: none"> DBI SALA 	<ul style="list-style-type: none"> 8510311 w/ Davit Arm 8517412 including tie off 8516691 8510816 	
		HMI			To be confirmed by the City
		Controller	<ul style="list-style-type: none"> Allen Bradley 	5069 Compact Logix with Compact IO	To be confirmed by the City
		SCADA	<ul style="list-style-type: none"> Flygt / Allied Control Systems 		Must be compatible with City Scada system to be approved by City
		Float Switches	<ul style="list-style-type: none"> Xylem 	tree type (mercury)	Or Approved Equal (must be CSA certified)
	Walkway Bridges	Vehicle Access			Min 3.2m Wide Min. 3500Kg Capacity Engineered Aluminum construction or other no Wood construction.
		Pedestrian			Min 2.0m Wide or to Trail Specification as approved by City Engineered Aluminum construction or other not Wood