

SUBDIVISION SERVICING BYLAW APPROVED PRODUCTS LIST
Administrative Procedure No. 23/22

PURPOSE:

To ensure that quality materials are used in the construction of City infrastructure and to ensure that standard equipment is installed for ease of maintenance and to keep the supply of needed replacement/repair parts to a minimum.

PROCEDURE:

		Item Description	Approved Product	Standard	Comments/ Restrictions
1. Waterworks					
1.1 Pipe	1.1.1	Polyvinyl Chloride Pipe	Ipex	CSA B137.3	C900 Sizes 100 – 300 mm
			Northern Pipe Products Royal Group	AWWA C900 DR25, 18 and 14 AWWA C905 DR51, 41, 32.5, 25, 21 and 18	C905 Sizes 350 – 1200 mm
1.2 Fittings	1.2.1	Cast Iron Fittings	McAvity	ASTM C110-82	North American Controlled Manufactured
			Terminal City	ASTM B16.1-1975	Push on/Hub fittings only
			Canada Pipe Union Foundry Co.	Epoxy to ANSI/AWWA C116/A21.16.03 Exterior Epoxy Coating to ANSI/AWWA C116/A21.16.03	17 pound magnesium anodes
	1.2.2	Ductile Iron Fittings	Terminal City	ASTM C153-84	North American Controlled Manufactured
			Union Foundry Co. Canada Pipe	ASTM B16.1-1975 Epoxy to ANSI/AWWA C116/A21.16.03	Push on/Hub fittings only 17 pound magnesium anodes
			Star Pipe Products Sigma Corp.	Exterior Epoxy Coating to ANSI/AWWA C116/A21.16.03	

	Item Description	Approved Product	Standard	Comments/ Restrictions
1.2.3	PVC Extruded Fittings	Ipex Inc. Galaxy Plastics LTD.	CSA B137.2 and B137.3 AWWA C907 (100-300 mm)	Bends must be Long Radius Type
1.3 Couplings	1.3.1 Couplings	Hymax Romac Ind.		Epoxy coated Type 304 SS Bolts Must be manufactured with an anode connection point 17 pound magnesium anodes
1.4 Restraining Devices		Must meet standards listed	ASTM A536 Grade 65-45-12 ANSI/AWWA C111/A21.11 ANSI/AWWA C153/A21.53	Epoxy coated Type 304 SS Bolts
1.5 Tapping Sleeves		Robar Terminal City Hymax	Stainless Steel or Epoxy to ANSI/AWWA C116/A21.16.03 Exterior Epoxy Coating to ANSI/AWWA C116/A21.16.03	
1.6 Fire Hydrants		Terminal City Clow Canada	AWWA C502	Painted Yellow (Hydrant) Compression Type 2.75 m Minimum Bury 17 pound magnesium anodes Plug Drain holes No stainless steel bolts
1.7 50 mm Standpipes		Terminal City Clow Canada Mueller		Compression Type 2.75 m Minimum Bury 17 pound magnesium anodes

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1.8 Valves	1.8.1	Mainline Gate Valves	Clow Canada Terminal City Mueller	AWWA C509 Interior to AWWA C550 Exterior - Electrostatically Applied Fusion Bonded Epoxy Coated	Resilient Seat Sizes 100 – 350 mm Push on/Hub connections only 17 pound magnesium anodes
	1.8.2	Nelson Type Valve Boxes	Terminal City Iron Works Star Pipe Products Dobney		Terminal City Nelson Type C900 Pipe Riser
	1.8.3	Adjustable Valve Box	EJ Castings		5 – 1/4:" valve box and lid In asphalt surface only.
1.9 Water Service	1.9.1 a	Water Service Pipe 25 mm copper	Noranda Wolverine Hai Liang Great Lakes Copper	ANSI H23.1 ASTM B88 AD WWT-799 ASTM F1281 CSA 137.1 AWWA C901	Type K Soft Copper
	1.9.1 b	Water Service Pipe 25 mm PEX (cross link polyethylene)	Ipex Blue 904 Rehau	AWWA C904, ASTM F876, ASTM F877, ASTM F2023	Copper tube size
	1.9.2	Water Service Pipe 50 mm	Polytubes - Series 200 Ipex – Gold901	Can/CSA B137.1	200 PSI HDPE Copper Tube Size
	1.9.3	Compression Coupling	Mueller Cambridge	AWWA C907 CSA B137.2 AND B137.3	Compression to compression
	1.9.4	Water Service Saddles	Robar Mueller	2706 CD2 or SC2	Double Strap Stainless Steel CC Thread Epoxy Coated

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1.9.5	Corporation Stops	Mueller Cambridge		Sizes 19 – 50 mm CC Thread and Compression
1.9.6	Curb Stop Residential (Stop & Drain) Irrigation (Stop & Drain)	Mueller Cambridge		Sizes 10 – 50 mm Full Flow, Full Port Comp x Comp
1.9.7	Service Box	Mueller Trojan	CSB1 A726 and A728	2.75 m Bury Epoxy Stand pipe Epoxy Coated Boot Internal Rod 300 to 600 mm below surface

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2. Sewer					
2.1 Storm Pipe	2.1.1	Concrete Pipe	Ocean Construction	ASTM C14, C76	600 mm and Larger
			Langley Concrete Group	A443, C655	Type 50 Cement
			Kon Kast		
	2.1.2	Polyvinyl Chloride Pipe	Ipex.	CSA B182.2	DR28 100 – 150 mm
			Royal Group	ASTM D2412 AD	DR35 200 – 900 mm
			JM Manufacturing Northern Pipe	NQ3624-060	
	2.1.3	Ultra-Rib Kor Flo	Ipex	CSA B182.4	300 mm and Larger
			Royal Group	ASTM F794	
	2.1.4	Perma-Loc Class 5 Kor Flo	Ipex	CSA B182.4	600 mm and Larger
			Royal Group	ASTM F794	
	2.1.5	Corrugated High Density Polyethylene Pipe	Armtec – Boss 2000	ASTM D3350, CSA B182.8	Bell and Spigot with Gaskets
				ASTM D1248, F667	
	2.1.6	Corrugated Steel Pipe	Armtec (Culverts Only with the exception of round Ultra-flo which may be used as storm sewer)	CSA CAN3-G401, M81	Minimum 2.0mm thickness
			Spir-L-Ok (Culverts Only)		Coating as per Canadian Durability Guideline for CSP - CSPI
	2.1.7	Steel Reinforced Poly-ethylene Pipe	Armtec – Boss 300	CSA B182.14, CSA B182.15	900 mm and larger
			Contech – Duromax	ASTM 2562	Soil tight or low head joints not approved
	2.1.8	Large Diameter High Density Polyethylene Pipe	KWH – Weholite	ASTM F894	900 mm and larger
					Thermal fusion welded joints

	Item Description	Approved Product	Standard	Comments/ Restrictions
2.2	Vaults	Pre-Cast Reinforced Concrete	Grosso Kemp A & E Kon Kast Langley Concrete Group	Precast Concrete Minimum 960 Opening H20/CS-600 Loading Type 50 Cement
2.3	2.3.1	Catchbasins Barrels	Grosso Kon Kast Ocean Langley Concrete Group	ASTM C478 Pre-Cast Concrete 600mm Diameter 1500mm Deep H20/CS-600 Loading Type 50 Cement
	2.3.2	Complete Bases and Lids	Grosso Kemp Kon Kast Ocean Langley Concrete Group	ASTM 478 Pre-Cast Concrete 360 maximum 640 mm Opening H20/CS-600 Loading Type 50 Cement
	2.3.3	Lawn Basin	Langley Concrete Group Ocean Le-Ron Plastics Inc.	Dobney B22A grate Type 50 Cement
	2.3.4	Frame and Grate	Dobney Foundry Langley Concrete Group Norwood Foundry	Type 1 B23 Grate and 24 Frame LH or RH Type B18 Grate and 19 Frame LH or RH Grate to indicate that stormwater drains to fish habitat or stream
2.4	Headwalls	Pre-Cast Concrete	Grosso Kemp Kon Kast Langley Concrete Group J&J Drainage Products	Pre-Cast Concrete Type 50 Cement

		Item Description	Approved Product	Standard	Comments/ Restrictions
2.5 Storm and Sanitary Manholes	2.5.1	Barrels-Storm	Grosso	ASTM C478	Pre-Cast Concrete Minimum 1050 mm H20/CS-600 Loading Type 50 Cement
			Kemp Kon Kast Ocean Langley Concrete Group		
		Barrels-Sanitary	Ipex	ASTM C478 (concrete)	PVC 1200 mm diameter Pre-Cast Concrete H20/CS-600 Loading Type 50 Cement Concrete barrels must have an approved riser wrap to reduce infiltration
			Grosso Kemp Kon Kast Ocean Langley Concrete Group		
		Riser wrap – Sanitary Manholes	Wrapid Seal Boa Tape RiserWrap		300 mm wide centered on joints
	2.5.2	Concrete Lid-Storm	Grosso Kemp Kon Kast Ocean	ASTM C478	Pre-Cast Concrete Minimum 1050 mm H20/CS-600 Loading Type 50 Cement
	2.5.3	Pre-Cast Bases-Storm	Grosso Kemp Kon Kast Ocean Langley Concrete Group		Type 50 Cement
		Pre-Cast Bases-Sanitary	As per approved Barrels with HDPE liner (Predl)		Lined with HDPE Type 50 Cement
	2.5.4	Frame and Cover	Dobney Foundry Langley Concrete Group Norwood Foundry		C18 Frame and Cover C18D Frame and Cover H20/CS-600 Loading TF-39 Boulevard and landscaped areas only

		Item Description	Approved Product	Standard	Comments/ Restrictions
	2.5.5	Adjustable Frame and Cover	EJ Castings	ASTM A536	AJ633ESR In asphalt surfaces only
2.6 Sanitary Sewer Pipe	2.6.2	PVC Pipe	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM D2412 and NQ3624-060	DR28 100 – 150 mm DR35 200 – 1050 mm
2.7 Services – Sanitary & Storm	2.7.1 - Sanitary	PVC Pipe	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM B2412 AD NQ 3624-060	DR28 100 – 150 mm
	2.7.2 - Storm	PVC Pipe	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM D2412 and NQ3624-060	DR28 100 – 150 mm DR35 150mm and up
	2.7.3	Service Wyes and Fittings	Ipex Le-Ron Plastics Inc. Galaxy Plastic Ltd	CSA B182.2 ASTM D3034, AD F1336	DR28/35 Bell and Spigot All new mainline construction
	2.7.4	Saddles	Ipex Le-Ron Plastics Inc. Galaxy Plastics Ltd	CSA B182.2 ASTM D3034 ASTM F1336	Double Strap Wye Only on existing mains
2.8 Forcemains	2.8.1	PVC Pipe & Fittings	Ipex Northern Pipe Products Royal Flex-Loc	CSA B137.3 AWWA C900 DR25, 18 and 14 AWWA C905 DR51, 41, 32.5, 25, 21 and 18	C900 Sizes 100 – 300 mm C905 Sizes 350 – 1200 mm
	2.8.2	High Density Polyethylene (HDPE) Pipe and Fittings	KWH Pipe Global Poly Systems Inc. Performance Pipe	AWWA C906	DR7.3 to DR32.5

	Item Description	Approved Product	Standard	Comments/ Restrictions
2.8.3	Valves	Clow Terminal City Mueller	Gate valves to AWWA C509	Resilient Seat Sizes 100 – 350 mm
2.8.4	Services	See 1.9 Water Services		

	Item Description	Approved Product	Standard	Comments/ Restrictions
3. Street Lighting				
3.1	Roadway Lighting	NXT Series		NXT – 36S or larger on roadways
3.2	Poles	Nova Pole West Coast Engineering Or approved equal	CAN/CSA S6-2006 ANS CSA 22.2 NO. 206	Hot dipped galvanized steel in accordance with SSPC-SP7
3.3	Conduit	IPEX Or equivalent	CSA C 22.2 NO. 211.1	RPVC as per Canadian Electric Code
3.4	Fittings	IPEX Or equivalent	CSA C22.2 NO. 85	RPVC as per Canadian Electric Code
3.5	Junction Boxes	Nova Pole	Confirm to section 201 plastic junction boxes	Large size only
3.6	Service Panel	Valid Manufacturing	CSA type 3R rated	Model# BSD6A24CQ Marine grade aluminum. Powder coated grey. Wired to MMCD E 7.5 40/60 amp
3.7	Service Base	Nova Pole West Coast Engineering		Hot dipped galvanized steel in accordance with SSPC-SP7
3.8	Conductors		CSA C22.2 NO. 38	Single conductor 600V Stranded copper with RW90 polyethylene insulation. Colour coded per Canadian Electric Code.
3.9	Conductor Connectors		Rated 105C as per Canadian Electric Code	Screw on type
3.1	Fuse Holders	Tron	CSA 6225-01 UL IZLT2	5 amp fuse with 2 insulating boots
3.11	Concrete Bases		As per MMCD drawing CE1.3	Pre-Cast Concrete Type C for 9m davit Type C1 for 8.1m davit on service base

		Item Description	Approved Product	Model #	Supplier	Comments
4.Furnishings						
4.1 Benches	4.1.1	Park & Trail Benches	Contemporary 6' Bench-Port/Surf Mt-Diamond	CN420D Green	Sudden Fun	includes mounting plate MC104N set of 4
	4.1.2	Woodlawn Cemetery Benches	Green Valley 6' Bench with black recycled plastic lumber Portable /surface mount	GV420G	Sudden Fun	Colour Cedar with Black frame
4.2. Garbage Cans	4.2.1	32 Gallon Receptacle	Flare top- Diamond	FR4000D	Sudden Fun	Colour Green - comes with 32 gallon liner # LR310N
	4.2.1	Flat Top Solid Bonnet	Outward Opening	SB105N	Sudden Fun	
4.3 Deep Garbage	4.3.1	Max 30	EQNX 48" x 128"	05-05-0262	Equinox Environment Products	
4.4 Picnic Tables	4.4.1	Signature 6' Table	2 3/8" Legs- Diamond	SG106D Green	Sudden Fun	
	4.4.2	Surface Mount Package	2 3/8" Legs	SG135N	Sudden Fun	Set of 2

Approved Plantings for City of Fort St John

S=sensitive M=moderate T=tolerant

Deciduous					
Common Name	Latin Name	Zone	Salt	Wet	Notes
Maple	Acer negundo 'Sensation'	2			Fall Colour
Tartarian Maple	Acer tartaricum spp. Ginnala	3	M		small tree, F.C.
Silver Maple	Acer saccharinum	3	M	M	needs space
Dakota Pinnacle Birch	Betula papyrifera 'Dak. Pin.'	3			med. tree, F.C.
Paper Birch	Betula papyrifera 'Snowy'	2	M		white bark
Northern Hackberry	Celtis occidentalis	3	S		large tree
Hawthorn	Crataegus var. 'Snowbird'	3	S		small tree
Foothills Green Ash	Fraxinus 'Foothills Gr. Ash	3			
Black Ash	Fraxinus Nigra	2			
Fall Gold Ash	Fraxinus Nigra 'Fall Gold'	3			
Green Ash	Fraxinus pennsylvanica	3	S		aka Manchurian Ash
Prairie Spire Ash	Frax. Penns. 'Rugby'	2	S		good ground clearance
Patmore Ash	Frax. Penns. 'Patmore'	2			street tree
Northern Treasure	Fraxinus X	2			very tall canopy
Northern Gem Ash	Frax. X 'Northern Gem'	2			tall canopy
Seabuckthorn	Hippophae rhamnoides	3	T		grey colored leaves
Royalty Flow. Crab	Malus 'Royalty'	2			dark purple leaves
Spring Snow Fl. Crab	Malus 'Spring Snow'	2			
Thunderchild Fl. Crab	Malus 'Thunderchild'	3	M		purplish/red leaves
Starlite Flow. Crab	Malus X 'Jeflite'	2			
Okanese Poplar	Populus 'Okanese'	2	M	T	tolerates drought
Prairie Sky Poplar	Populus 'Prairie Sky'	2	T	T	Interspecific Hybrid
Swedish Aspen	Populus tremula erecta	2			columnar
Trembling Aspen	Populus tremuloides	1	T	T	drought tolerant
Assiniboine Poplar	Populus X Assiniboine	2	M	M	
Tower Poplar	Populus X Canescens	2	T	M	colum., full sun, bigger
Early Gold Pear	Pyrus Ussuriensis 'Early Gold'	2	M		
Bur Oak	Quercus macrocarpa	3	M		
Laurel Leaf Willow	Salix pentandra	3	M		needs space
European Mtn. Ash	Sorbus aucuparia	2		S	small tree, berries
Japanese Tree Lilac	Syringa reticulata	3	T		sunny location

Common Name	Latin Name	Zone	Salt	Wet	Notes
Americana Linden	Tilia Americana	3	S		Bee tree
Little Leaf Linden	Tilia cordata 'Little Leaf'	3	M		water if salt (b.tree)
Greenspire Linden	Tilia cordata 'Greenspire'	3			stem girdling (b.tree)
Dropmore Linden	Tilia X flavescens 'Dropmore'	3			Interspecific Hybrid
Evergreen					
Common Name	Latin Name	Zone	Salt	Wet	Notes
Balsam Fir	Abies Balsamea	3			
Eastern Red Cedar	Juniperus virginiana	3	M		
Tamarack	Larix laricina	2	T	T	deciduous evergreen
Siberian larch	Larix siberica	2	M		
White Spruce	Picea gaica	2	S		
Colorado Blue Spr	Picea pungens	2	S		
Norway Spruce	Picea p. 'Norway'	2	S	T	
Lodge pole Pine	Pinus 'Lodgepole'	1			
Red Pine	Pinus 'Red'	1	S		
Scots Pine	Pinus 'Scots'	2	S		
Eastern White Cedar	Thuja occidentalis	3	S		

Grass Hydroseed Mix

<p>Parks and Greenspaces <u>Borealis Lawn Mix</u> 60% Creeping Red Fescue 20% Kentucky Bluegrass 20% Perennial Rye Grass</p>	<p>Very hardy in northern region Dark color blue-green Good for longer dry spells, good for high foot traffic</p>
<p>Boulevards For boulevards near salt roads, the grass blend shall include alkaligrass. Some of the other grasses may not survive right next to the road where there is high pH soil but will support erosion control, and help the alkaligrass to establish. 30% Alkaligrass 30% Creeping Red Fescue 20% Kentucky Bluegrass 20% Perennial Rye grass</p>	<p>For high pH soil</p>
<p>Roadside Allowances Roadside allowances (E.g. Alaska highway) and/or MOTI ditches as of 2020 uses the following. The City can utilize this blend in specific areas. (E.g. Bypass ditches) North East General Mix 25% Creeping Red Fescue 30% Perennial Ryegrass 30% Tall Fescue 15%</p>	