

SUBDIVISION SERVICING BYLAW APPROVED PRODUCTS LIST

Administrative Procedure No. 23/24

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 (PVC)	Ipex Northern Pipe Products Royal Group	CSA B137.3 AWWA C900 DR 25, 18 and 14 AWWA C905 DR 51, 41, 32.5, 25, 21 and 18	C900 Sizes 100 – 300 mm. C905 Sizes 350 – 1200 mm.
1.2 Fittings					
	1.2.1	Cast Iron Fittings	McAvity Terminal City Canada Pipe Union Foundry Co.	ASTM C110-82 ASTM B16.1-1975 Epoxy Coating ANSI/AWWA C116/A21.16.03	North American Controlled Manufactured Push on/Hub fittings only. 17 pound magnesium anodes are required to be installed on fittings.
	1.2.2	Ductile Iron Fittings	Terminal City Canada Pipe Union Foundry Co. Star Pipe Products	ASTM C153-84 ASTM B16.1-1975 Epoxy Coating ANSI/AWWA C116/A21.16.03	North American Controlled Manufactured. Push on/Hub fittings only. 17 pound magnesium anodes are required to be installed on fittings.
	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 are required to be installed on fittings.
1.4 Restraining Devices					
	1.4.1		Must meet standards listed.	ASTM A536 Grade 65-45-12 ANSI/AWWA C111/A21.11 ANSI/AWWA C153/A21.53	Type 304 SS Bolts.

Item Description		Approved Product	Standard	Comments/Restrictions
1.5 Tapping Sleeves				
	1.5.1	Tapping Sleeves	Robar Terminal City Hymax	Stainless Steel or Epoxy Coating ANSI/AWWA C116/A21.16.03
1.6 Fire Hydrants				
	1.5.1	Fire Hydrant	Terminal City Clow Canada	AWWA C502 Painted Yellow (Hydrant). Compression type. 17 Pound magnesium anodes. Plug drain holes. No Stainless steel bolts.
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
	1.8.2	Nelson Type Valve Boxes	Terminal City Iron Works Dobney	C900 pipe riser.
1.9 Water Service				
	1.9.1a	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
	1.9.1b	Water Service Pipe 25 mm PEX (cross link polyethylene)	Polytubes – Series 904 Rehau Municipex	AWWA C904 ASTM F876 ASTM F877 ASTM F2023
	1.9.2	Water Service Pipe 50 mm	Polytubes – Series 200 Iplex – Gold901	Can/CSA B137.1
	1.9.3	Compression Coupling	Mueller Cambridge	AWWA C907 CSA B137.2 and B137.3
	1.9.4	Water Service Saddles	Robar Mueller	2706 CD2 or SC2
	1.9.5	Corporation Stops	Mueller Cambridge	200 PSI. HDPE. Copper Tube Size.
	1.9.6	Curb Stop	Mueller Cambridge	Compression to Compression.
	1.9.7	Service Box	Mueller Trojan	Sizes 19 – 50 mm. CC Thread and Compression.
				Sizes 19 – 50 mm. Full Flow, Full Port. Compression to Compression.
				2.75 m Bury. Epoxy Stand Pipe. Epoxy Coated Boot. Internal Rod 300 to 600 mm below surface.

Item Description		Approved Product	Standard	Comments/Restrictions	
2. Sewer					
2.1 Storm Pipe					
	2.1.1	Concrete Pipe	Ocean Construction Langley Concrete Group Kon Kast	ASTM C14, C76, A443, C655	600 mm and larger. Type 50 Cement.
	2.1.2	Polyvinyl Chloride Pipe	Ipex Royal Group JM Manufacturing Northern Pipe	CSA B182.2 ASTM D2412 AD NQ3624-060	DR28 100mm – 150 mm diameter (typ). DR35 200 – 900 mm.
	2.1.3	Ultra Rib/Kor Flo	Ipex Royal Group	CSA B182.4 ASTM F794	300 mm and larger.
	2.1.4	Perma-Loc Class 5 Kor Flo	Ipex Royal Group	CSA B182.4 ASTM F794	600 mm and larger.
	2.1.5	Corrugated High Density Polyethylene Pipe	Armtec – Boss 2000	ASTM D3350 CSA B182.8 ASTMD1248 F667	Bell and spigot with gaskets.
	2.1.6	Corrugated Steel Pipe	Armtec Spir-L-Ok (Culverts only)	CSA CAN3-G401, M81	Minimum 2.0 mm thickness. Coating as per Canadian Durability Guideline for CSP – CSPI. For driveway crossings only.
	2.1.7	Steel Reinforced Polyethylene Pipe	Armtec – Boss 300 Contech – Duromax	CSA B182.14 CSA B182.15 ASTM 2562	900 mm and larger. 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 must be used.
2.2 Vaults					
	2.2.1	Pre-Cast Reinforced Concrete	Grosso Kemp A & E Kon Kast Ocean Langley Concrete Group	ASTM C478	Pre-cast concrete. Minimum 960 opening. H2O/CS-600 Loading. Type 50 Cement.
2.3 Catchbasins					
	2.3.1	Barrels	Grosso Kon Kast Ocean Langley Concrete group	ASTM C478	Pre-cast Concrete. 600 mm Diameter. 1500 mm Deep. H2O/CS-600 Loading. Type 50 Cement.
	2.3.2	Bases and Lids	Grosso Kemp Kon Kast Ocean Langley Concrete Group	ASTM C478	Pre-cast Concrete. 360 maximum 640 mm Opening. H2O/CS-600 Loading. Type 50 Cement.

		Item Description	Approved Product	Standard	Comments/Restrictions
	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.
2.4 Headwalls					
	2.4.1	Pre-Cast concrete	Grosso Kemp Kon Kast Langley Concrete Group J&J Drainage Products		Pre-Cast Concrete. Type 50 Cement. Grill required for 450mm and larger diameter.
2.5 Storm and Sanitary Manholes					
2.5.1 Barrels					
	2.5.1a	Barrels – Storm	Grosso Kemp Kon Kast Ocean Langley Concrete Group	ASTM C478	Minimum 1050 mm. Pre-Cast Concrete. H2O/CS-600 Loading. Type 50 Cement.
	2.5.1b	Barrels – Sanitary (concrete)	Grosso Kemp Kon Kast Ocean Langley Concrete Group	ASTM C478	1200 mm Diameter. Pre-Cast Concrete. H2O/CS-600 Loading. Type 50 Cement. Concrete barrels must have an approved riser wrap to reduce infiltration.
	2.5.1c	Riser Wrap – Sanitary Manholes	Wrapid Seal Boa Tape Riser Wrap Conrap		Minimum 300 mm wide centered on joints. Install to ensure no infiltration.
	2.5.2	Concrete Lid- Sanitary and Storm	Grosso Kemp Kon Kast Ocean	ASTM C478	Pre-Cast Concrete. Minimum 1050 mm. H2O/CS-600 Loading. Type 50 Cement.
2.5.3 Precast Bases					
	2.5.3	Bases - Sanitary and Storm	Grosso Kemp Kon Kast Ocean Langley Concrete Group		Type 50 Cement.

		Item Description	Approved Product	Standard	Comments/Restrictions
	2.5.4	Frame and Cover	Dobney Foundry Langley Concrete Group Norwood Foundry		C18 Frame and Cover. C18D Frame and Cover. H2)/CS-600 Loading. TF-39. Boulevard and landscaped area only.
	2.5.5	Adjustable Frame and Cover	EJ Castings	ASTM A536	AJ633ESR. Required in asphalt surfaces only.
2.6 Sanitary Sewer Pipe					
	2.6.1	PVC Pipe	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM D2412 and NQ3624-060	DR28 100 mm – 150 mm diameter (typ). DR35 200 – 1050 mm.
2.7 Services – Sanitary and Storm					
	2.7.1	Sanitary Service (PVC)	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM B2413 and NQ3624-060	DR28 100 – 150 mm.
	2.7.2	Storm Service (PVC)	Ipex Northern Pipe Products Royal Group	CSA B182.2 ASTM B2413 And NQ3624-060	DR28 100 – 150 mm. DR35 150 mm and up.
	2.7.3	Service Wyes and Fittings	Ipex Le-Ron Plastics Inc. Galaxy Plastics Ltd.	CSAB182.2 ASTM D3034 and F1336	DR28/35 Bell and Spigot. Required on new main construction.
	2.7.4	Saddles	Ipex Le-Ron Plastics Inc. Galaxy Plastics Ltd.	CSAB182.2 ASTM D3034 and F1336	Double strap Wye, permitted only on existing mains
2.8 Force Mains					
	2.8.1	PVC Pipe and 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 350 – 1200 mm. Blue coloured pipe - not accepted.
	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.
	2.8.3	Valves	Clow Terminal City Muller	Gate Valve 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. Electrical					
	3.1a	Roadway Lighting	NXT Series		NXT – 36s or larger on roadways.
	3.1b	Trail lighting	NXT Series		NXT Compact Series
	3.2a	Poles	Nova Pole or approved equal	CAN/CSA S6-2006 ANS CSA 22.2 No. 206	Hot dipped galvanized steel in accordance with SSPC-SP7.
	3.2b	Trail poles	Nova Pole 5x5 square or approved equal	CAN/CSA S6-2006 ANS CSA 22.2 No. 206	Hot dipped galvanized steel in accordance with SSPC-SP7.
	3.2c	Ornamental Trail Lighting Arm	Nova Pole	CAN/CSA S6-2006 ANS CSA 22.2 No. 206	2.5 m Newport Arm. Hot dipped galvanized steel in accordance with SSPC-SP7.
	3.3	Conduit	Ipex or equivalent	CSA C22.2 No.211.1	RPVC as per Canadian Electric Code. Minimum size is 50 mm (2").
	3.4	Fittings	Ipex or equivalent	CSA C22.2 NO. 85	RPVC as per Canadian Electric Code.
	3.5	Junction Boxes	Nova Pole	Conform to section 201 plastic junction boxes	Large size only.
	3.6	Service Panel	Valid Manufacturing	CSA type 3R rated	Model# BSD6A24CQ. Marine grade aluminum or Stainless steel. Powder coated grey. Wired to MMCD E7.5 100 amp.
	3.7	Power Pedestal	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. No solid conductor. Colour coded per Canadian Electric Code.
	3.9	Conductor Connectors		Rated 105C as per Canadian Electric Code	Screw on type. Split bolts for ground only. Nimbus pre-insulated connectors.
	3.10	Fuse Holders	Tron Mersen FEB11-11	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 Number	Supplier	Comments/Restrictions	
4. Furnishings						
4.1 Benches						
	4.1.1	Park and Trail Benches	Contemporary 6’ Benchport/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	CAN/CSA S6-2006 ANS CSA 22.2 No. 206	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.
	4.2.2	Flat Top Solid Bonnet	Outward opening	SB105N	Sudden Fun	
4.3 Deep Garbage						
	4.3.1	Max 30	EQNX 24” x 128”	05-05-0262	Equinox Environment Products	
4.4 Picnic Table						
	4.4.1	Signature 6’ Table	2 3/8” Legs – Diamond	SG106D	Sudden Fun	Colour.
	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, crack concrete-shallow roots
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, leaf scorch
Little Leaf Linden	Tilia cordata 'Little Leaf'	3	M		water if salt (b.tree), leaf scorch
Greenspire Linden	Tilia cordata 'Greenspire'	3			stem girdling (b.tree), leaf scorch
Dropmore Linden	Tilia X flavescens 'Dropmore'	3			Interspecific Hybrid, leaf scorch
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>	