

# **Appendix G**

## Useful Life Summary



## Useful Life Summary

### Document History

Version	Summary of Changes	Document Status	Date
1	First-generation document for AM Strategy	Final	June 2023

Asset Type	Asset Group	Useful Life (Years)	Sources	Notes
Drainage	Box Culvert	30-100	Drainage Asset Management - Preliminary Asset Replacement Forecast Results (Final), Urban Systems (December 7, 2021)	Depends on material (see below)
	Culverts			
	Laterals (from house)			
	Mains			
	Asbestos Cement	75		
	Cast Iron	60		
	Concrete Liner	45		
	Corrugated Metal Pipe	30		
	Corrugated Metal Pipe Smooth Flow	45		
	Corrugated Steel Pipe	60		
	Ductile Iron	60		
	Flex Lox	45		
	High Density Polyethylene	100		
	Hyperscon	50		
	Non-Reinforced Concrete	60		
	Perforated	60		
	Permalock	100		
	Polypropylene	45		
	Polyvinyl Chloride	100		
	Reinforced Concrete	100		
Resin Impregnated Liner	45			
Sclairpipe	100			
Steel	75			
Vitrified	100			
Wood Stave	30			
Weholite Polyethylene	100			
Pump Stations		50	See Wastewater Pump Stations	Average useful life of all pump station components is 20 years (Sewer Master Plan)
Facilities	Municipal Facilities	20 to 75	VFA Facility software for Major Facilities, and Saanich TCA Policy for other Facilities	Depends on type; for Major Facilities used an average useful life of all components of 44 years estimated based on Municipal Hall (see below for components based on Unifomat II)
	Park Buildings	20 to 75	Saanich TCA Policy	Depends on type



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	Concrete Slab-On-Grade	75	VFA Facility software	A - Substructure
	Foundation Wall and Footings - No Basement	75		A - Substructure
	Multi-Story - Concrete	75		B10 - Superstructure
	Exterior Stairs - Concrete	50		B1015 - Exterior Stairs and Fire Escapes
	Concrete Walls - (CIP)	75		B2010 - Exterior Walls
	Precast Concrete Panels	75		B2010 - Exterior Walls
	Exterior Soffits	20		B2016 - Exterior Soffits
	Curtain Wall System	40		B2020 - Exterior Windows
	Windows - Aluminum	30		B2020 - Exterior Windows
	Door Assembly - 3 x 7 HM	30		B2030 - Exterior Doors
	Door Assembly - 3 x 7 Storefront	30		B2030 - Exterior Doors
	Door Assembly - 6 x 7 HM	30		B2030 - Exterior Doors
	Door Assembly - 6 x 7 Storefront	30		B2030 - Exterior Doors
	Overhead Rolling Doors	30		B2030 - Exterior Doors
	SBS Modified Bitumen Membrane	20		B30 - Roofing
	Skylights - Metal Frame	30		B3021 - Glazed Roof Openings
	Skylights - Metal Frame Atrium	30		B3021 - Glazed Roof Openings
	Roof Hatches	40		B3022 - Roof Hatches
	CMU Block Walls - Plain	50		C1010 - Partitions
	GWB on Metal Stud	75		C1010 - Partitions
	Windows/Glazed Partitions	50		C1010 - Partitions
	Swinging Doors Wood and Metal	50		C1020 - Interior Doors
	Swinging Doors Wood and Metal - Original	50		C1020 - Interior Doors
	Metal Partitions Washrooms	40		C1030 - Fittings
	Washroom Accessories	25		C1030 - Fittings
	Signage Room Numbering and Identification)	10		C1035 - Identifying Devices
	Stairs Typical	75		C20 - Stairs
	Ceramic Wall Tile	25		C3010 - Wall Finishes
	Painted Finish - Average	10		C3010 - Wall Finishes
	Carpeting - Broadloom	10		C3020 - Floor Finishes
	Carpeting - Broadloom - Original	10		C3020 - Floor Finishes
	Ceramic Floor Tile	25		C3020 - Floor Finishes
	Concrete - Painted or Sealed	15		C3020 - Floor Finishes
	Terrazzo - Cast-in-Place	50		C3020 - Floor Finishes
	VCT - Average	10		C3020 - Floor Finishes
	GWB Taped and Finished	30		C3030 - Ceiling Finishes
	Suspended ACT	20		C3030 - Ceiling Finishes
	Traction Geared Passenger Elevator	35		D1010 - Elevators and Lifts
	Custodial/Utility Sinks	30		D2010 - Plumbing Fixtures
	Drinking Fountain	20		D2010 - Plumbing Fixtures



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	Kitchen Sinks	30		D2010 - Plumbing Fixtures
	Restroom Fixtures	30		D2010 - Plumbing Fixtures
	Water Distribution	30		D2020 - Domestic Water Distribution
	Water Heater - Elec - 284 L	15		D2020 - Domestic Water Distribution
	Sanitary Waste - Gravity Disch - Average	50		D2030 - Sanitary Waste
	Roof Drainage - Gravity - Average	50		D2040 - Rain Water Drainage
	Natural Gas Supply for Bldg	40		D2090 - Other Plumbing Systems
	Pump System - Water Feature	25		D2090 - Other Plumbing Systems
	Trench Drain - Covered Parking	30		D2090 - Other Plumbing Systems
	Boiler HW - Gas-Fired - Cleaver Brooks	30		D3020 - Heat Generating Systems
	Air Handling Unit - Mezzanine	25		D3040 - Distribution Systems
	Air Handling Unit - Trane - Main Supply	25		D3040 - Distribution Systems
	Ceiling Fans - Council Chambers	15		D3040 - Distribution Systems
	Distribution Ductwork	30		D3040 - Distribution Systems
	Exhaust System - General Building	25		D3040 - Distribution Systems
	Exhaust System - Restroom	20		D3040 - Distribution Systems
	Heating Water Distribution	30		D3040 - Distribution Systems
	Perimeter Heat System - Hydronic Fin Tube	18		D3040 - Distribution Systems
	Return Air Ductwork and Fan	20		D3040 - Distribution Systems
	Force Flow Heater - Hot Water	25		D3050 - Terminal and Package Units
	Pneumatic Controls - Average	20		D3060 - Controls and Instrumentation
	Fire Extinguishers	30		D40 - Fire Protection
	Electrical Distribution System	30		D5010 - Electrical Service and Distribution
	Main Electrical Service - 1200A 208Y/120V	30		D5012 - Low Tension Service and Dist.
	Lighting - Exterior - Front and Back Entrance	20		D5020 - Lighting and Branch Wiring
	Lighting - Exterior - LED	20		D5020 - Lighting and Branch Wiring
	Branch Wiring - Equipment & Devices	30		D5021 - Branch Wiring Devices
	Lighting Fixtures - Interior	20		D5022 - Lighting Equipment
	Telephone System	10		D5033 - Telephone Systems
	Clock System	10		D5036 - Clock and Program Systems
	Fire Alarm System	10		D5037 - Fire Alarm Systems
	Security System	10		D5038 - Security and Detection Systems
	Security System - Card Access System	10		D5038 - Security and Detection Systems
	LAN System	15		D5039 - Local Area Networks
	Emergency Battery Pack Lights	10		D5092 - Emergency Light and Power Systems
	Exit Signs	10		D5092 - Emergency Light and Power Systems
	Casework	30		E - Equipment and Furnishings
	Access Ladders	30		E10 - Equipment



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Asset Type	Asset Group	Useful Life (Years)	Sources	Notes
Information Technology	IT assets (hardware and software)	4 to 20	Saanich TCA Policy	Depends on type
Park & Trail Structures	Courts	10 to 20	Saanich TCA Policy	Depends on type
	Foot Bridges	15-100	Saanich TCA Policy	Depends on material
	Irrigation Systems	20	Saanich experience	
	Parking Lots	20-40	Saanich TCA Policy	Depends on material
	Playgrounds	20	Saanich experience	
	Roads	60 (surface), 160 (base)	Saanich experience	
	Sports Fields	15 to 40	Saanich TCA Policy	Depends on material
	Trails	12 to 50	Saanich TCA Policy	Depends on material
Transportation	Bridges	15 to 75	Saanich experience	Depends on type and material
	Bus Stops	20 (bus shelters), 30 to 80 (bus pads)	Saanich experience	Depends on material
	Controlled Crosswalks	30	Saanich experience	
	Pedestrian Signals	25	Saanich experience	
	Roads - Residential	60 (surface), 160 (base)	Saanich experience	
	Roads - Collector	20 (surface), 100 (base)	Saanich experience	
	Roads - Major	20 (surface), 80 (base)	Saanich experience	
	Sidewalks	30 to 80 (surface), 80-160 (base)	Saanich experience	Depends on type and material
	Street Lights	5 (light), 30 (pole/base)	Saanich experience	
	Street Signs	7 to 50	Saanich experience	Depends on type and material
	Traffic Signals	25 to 50	Saanich experience	Depends on type (primary or secondary)
Vehicles & Equipment	Vehicles and Equipment - Fire	7 to 25	Saanich experience	Depends on type
	Vehicles and Equipment - Fleet	5 to 25	Saanich experience	Depends on type
	Vehicles - Police	4 to 15	Saanich experience	Depends on type
	Equipment - Cedar Hill Golf Course	10	Saanich experience	
	Equipment - E-bikes	5	Saanich estimate	
	Equipment - EV Charging Stations	10	Saanich estimate	
	Equipment - Fitness	4-8	Saanich experience	Depends on type
	Wastewater	Force Mains	45 to 100	Sewer Master Plan 2022 (raw data)
Asbestos Cement (AC)		75		
Ductile Iron (DI)		75		
Polyvinyl Chloride (PVC)		100		
Reinforced Concrete (RC)		100		
Resin Impregnated Liner (RIP)		45		
Gravity Mains		45 to 100	Depends on material (see below)	
Non-Reinforced Concrete (NRC)		45		
Resin Impregnated Liner (RIL)		45		



## Useful Life Summary

Asset Type	Asset Group	Useful Life (Years)	Sources	Notes	
	Sclairpipe (SCL)	45			
	Unknown (UNK)	45			
	Ductile Iron (DI)	75			
	Asbestos Cement (AC)	75			
	High Density Polyethylene (HDPE)	100			
	Polyvinyl Chloride (PVC)	100			
	Reinforced Concrete (RC)	100			
	Vitrified Clay Pipe (VIT) (VCP)	100			
	Pump Stations	50		Sewer Master Plan - Final, Urban Systems, (November 7, 2022)	Average useful life of all pump station components is 20 years (Sewer Master Plan)
	Water	Mains		40 to 100	Water Master Plan 2022 (raw data spreadsheets), Urban Systems (July 27, 2022)
Cement Mortar Liner		45			
Copper		45			
Epoxy Liner		45			
Galvanized		45			
Polyethylene		45			
Cast Iron		60			
Ductile Iron		75			
Asbestos Cement		75			
HDPE		100			
PVC		100			
Pump Stations		50	Water Master Plan - Final, Urban Systems, (September 8, 2022)	Average useful life of all pump station components is 20 years (Water Master Plan)	
Pressure Reducing Valve Chambers		50			
Reservoirs		60			
Water Meters		15 (<=25 mm) to 20 (>25 mm)	Water Metering Strategy - Final, Urban Systems (August 13, 2020)	Depends on size	