



DESIGN SPECIFICATIONS

SECTION 7 - DRAWING REQUIREMENTS (GIS SYMBOLOGY)

SECTION 7.5.2
MARCH 2024

WATER SYSTEM

	GIS Revision Tracking Point		Water Rechlorination Station		Water Reservoir
	Pressure Tank	Water Fittings		Hydrants	
	Unknown FCODE		Adaptor		Hydrant
	Air and Vacuum Valve		Bend		Private Hydrant
	Air Release Valve		Blind Flange	Other Water Service Features	
	Altitude Valve		Cap		Water Service Point
	Ball Valve		Chamber Flow Arrow		Leaks and Breaks
	Butterfly Valve		Chamber Vent	Water Pumps	
	Butterfly Valve Operator Side		Coupling		Domestic Pump
	Check Valve		Cross		Fire Pump
	Corporation Stop		Denso Tape	Water Pipes	
	Curb Stop		Link Seal on a Pipe Sleeve		Unknown Pipe
	Drain Valve		M.J. Restraint Device		Drain
	Gate Valve		Non-shrink Fill on a Pipe Sleeve		Distribution Main
	Globe Valve		Plug		Transmission Main
	Hydrant Valve		Reducer		Private Drain
	Pressure Reducing Valve		Sleeve		Private Distribution Main
	Service Valve		Strainer		Private Transmission Main
	Surge Relief Valve		Tapping Sleeve		Unknown Lateral
	Private Air Release Valve		Tee		Service Lateral
	Private Air and Vacuum Valve		Test Meter Pit		Hydrant Lead
	Private Altitude Valve		Victaulic Coupling		Private Service Lateral
	Private Ball Valve		Wye		Private Hydrant Lead
	Private Butterfly Valve		Wye Left		Pipe Mask
	Private Butterfly Valve Operator Side		Wye Right	Water Pipe Protection	
	Private Check Valve	Structure Points			Pipe Protection - Temp
	Private Corporation Stop		Unknown Water Structure Point		Concrete Slab
	Private Curb Stop		Booster Station		Styrofoam Insulation
	Private Drain Valve		Bulk Fill Station		Pre-Insulated External Wrap - Buried
	Private Gate Valve		Water Supply Plant		Pre-Insulated External Wrap - Above Ground
	Private Globe Valve		ARV Chamber		Casing Pipe - Buried
	Private Hydrant Valve		Control Chamber		Casing Pipe - Above Ground
	Private Pressure Reducing Valve		Drain Chamber		Pipe Protection Unknown
	Private Service Valve		General Chamber		Pipe Protection Other
	Private Surge Relief Valve		Meter Chamber	Water Pipe Cleaning and Lining	
	Closed Valve		PRV Chamber		Cleaning and Lining
	Isolation Valve		Reservoir Chamber		Cleaned Pipe
	Private Isolation Valve		Surge Relief Chamber	Structure Polygons	
	Backflow Preventer		Water Intake Structure - In Bank Filtration		Unknown Water Structure
	Flowmeter		Water Intake Structure - Intake Structure		Bulk Fill Station
	Water Quality Station		Water Intake Structure - Low Lift		Booster Station
	Water Quality Instrument		Water Intake Structure - Travelling Screen		Reservoir
			Water Intake Structure - Well		Water Intake Structure
					Chamber
					Water Supply Plant



WASTEWATER COLLECTION SYSTEM

- GIS Revision Tracking Point
- Collection System Spot Repair

Wastewater Manholes and Outfalls

- Public Manhole
- Private Manhole

Wastewater Chambers

- Wastewater Diversion Chamber
- Wastewater Diversion Point
- Wastewater Force Main Valve Chamber
- Wastewater Junction Chamber
- Wastewater Pump Chamber
- Wastewater Regulating Chamber
- Wastewater Storage Basin
- Wastewater Tide Chamber
- Wastewater Vortex Chamber
- Outfall

Wastewater Fittings

- Bend
- Cap
- Cleanout
- Coupling
- Eccentric Reducer
- Flexible Coupling
- Flex Joint
- Grouted Connection
- Long Radius Bend
- Mechanical Joint Restraint
- Reducer
- Saddle
- Tap
- Tee
- Wye
- Vent

- Service Point
- Legacy Service Point
- Cathodic Protection Test Station
- Control Structure
- Identified Deficiency (Pipes/Laterals)
- Tracewire Access Point
- Force Main Flow Meter
- Gravity Flow Meter
- Gravity Flow Meter - Removed
- Wastewater Corp Stop
- Wastewater Curb Stop

Wastewater Pumping Stations

- Public Pumping Station
- Private Pumping Station

Wastewater Holding Tanks

- Heat Recovery Tank
- Holding Tank
- Overflow Tank

Wastewater Valves

- Air Release Valve
- Altitude Valve
- Butterfly Valve
- Ball Valve
- Cone Valve
- Check Valve
- Drain Valve
- Gate Valve
- Plug Valve
- Pressure Release Valve
- Surge Relief Valve
- Valve

- Sewer Pump
- Treatment Facility
- Casing
- Lining
- Tracewire
- Vent Line
- CCTV Televised Main

Wastewater Insulation

- Concrete Slab
- Pre-Insulated Pipe
- Styrofoam Sheet

Wastewater Pipes

- Public Force Main
- Public Gravity Pressure Pipe
- Public Pressure Pipe
- Public Inverted Siphon
- Public Pipe
- Private Force Main
- Private Gravity Pressure Pipe
- Private Pressure Pipe
- Private Inverted Siphon
- Private Pipe
- Public Lateral
- Private Lateral
- Wastewater Structure Polygon



STORMWATER COLLECTION SYSTEM

Stormwater Manholes

- Public Manhole
- Private Manhole

Stormwater Inlets

- Public Catchbasin
- Public Double Catchbasin
- Public Triple Catchbasin
- Private Catchbasin
- Private Double Catchbasin
- Private Triple Catchbasin

Stormwater Headwalls and Outfalls

- Headwall
- Outfall

Stormwater Fittings

- Bend
- Cap
- Cleanout
- Coupling
- Eccentric Reducer
- Flexible Coupling
- Flex Joint
- Grouted Connection
- Long Radius Bend
- Mechanical Joint Restraint
- Reducer
- Saddle
- Tap
- Tee
- Wye

Stormwater Chambers

- Other Chamber
- Stormwater Diversion Chamber
- Stormwater Diversion Point
- Stormwater Force Main Valve Chamber
- Stormwater Junction Chamber
- Stormwater Pump Chamber
- Stormwater Regulating Chamber
- Stormwater Storage Basin
- Stormwater Tide Chamber
- Stormwater Treatment Unit
- Private Stormwater Treatment Unit
- Stormwater Vortex Chamber

- Service Point
- Control Structure

Stormwater Valves

- Air Release Valve
- Altitude Valve
- Butterfly Valve
- Ball Valve
- Cone Valve
- Check Valve
- Drain Valve
- Gate Valve
- Plug Valve
- Pressure Release Valve
- Surge Relief Valve
- Valve

Stormwater Management Structures

- Other (No Remarks)
- Berm
- Private Berm
- Constructed Wetland
- Private Constructed Wetland
- Lake
- Private Lake
- Oversize Pipe
- Private Oversize Pipe
- Underground Storage
- Private Underground Storage
- Wet Pond
- Private Wet Pond
- Dry Pond
- Private Dry Pond
- Unknown
- Private Unknown
- Other (See Remarks)
- Private Other (See Remarks)

- Identified Deficiency (Pipes/Laterals)

- Force Main Flow Meter
- Gravity Flow Meter
- Gravity Flow Meter - Removed
- Stormwater Corp Stop
- Stormwater Curb Stop

Stormwater Pumping Stations

- Public Pumping Station
- Private Pumping Station
- Casing
- Lining
- Ditch
- CCTV Televised Main

Stormwater Insulation

- Concrete Slab
- Pre-Insulated Pipe
- Styrofoam Sheet





Stormwater Pipes

- Public Catchbasin Lead
- Public Culvert
- Public Drain
- Public Force Main
- Public Gravity Pressure Pipe
- Public Pressure Pipe
- Public Inverted Siphon
- Public Pipe
- Private Catchbasin Lead
- Private Culvert
- Private Drain
- Private Force Main
- Private Gravity Pressure Pipe
- Private Pressure Pipe
- Private Inverted Siphon
- Private Pipe
- Public Lateral
- Private Lateral
- Stormwater Structure Polygon


















COMBINED COLLECTION SYSTEM




Combined Manholes and Outfalls

-  Public Manhole
-  Private Manhole
-  Outfall
-  Combined Sewer Overflow (CSO) Structure



Combined Fitting

-  Bend
-  Cap
-  Cleanout
-  Coupling
-  Eccentric Reducer
-  Flexible Coupling
-  Flex Joint
-  Grouted Connection
-  Long Radius Bend
-  Mechanical Joint Restraint
-  Reducer
-  Saddle
-  Tap
-  Tee
-  Wye

Combined Holding Tanks

-  Heat Recovery Tank
-  Holding Tank
-  Overflow Tank

Combined Pumping Stations

-  Public Pumping Station
-  Private Pumping Station



Control Structure



Identified Deficiency (Pipes/Laterals)



Force Main Flow Meter



Gravity Flow Meter



Gravity Flow Meter - Removed



Combined Corp Stop



Combined Curb Stop

Combined Chambers



Combined Diversion Chamber



Combined Diversion Point



Combined Force Main Valve Chamber



Combined Junction Chamber



Combined Pump Chamber



Combined Regulating Chamber



Combined Storage Basin



Combined Tide Chamber



Combined Vortex Chamber

Combined Valves



Air Release Valve



Altitude Valve



Butterfly Valve



Ball Valve



Cone Valve



Check Valve



Drain Valve



Gate Valve



Plug Valve



Pressure Release Valve



Surge Relief Valve



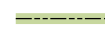
Valve



Casing



Lining



CCTV Tevised Main

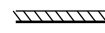
Insulation



Concrete Slab



Pre-Insulated Pipe



Styrofoam Sheet

Combined Pipes



Public Force Main



Public Gravity Pressure Pipe



Public Pressure Pipe



Public Inverted Siphon



Public Pipe



Private Force Main



Private Gravity Pressure Pipe



Private Pressure Pipe



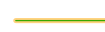
Private Inverted Siphon



Private Pipe



Public Lateral



Private Lateral





Combined Structure Polygon





UNKNOWN COLLECTION SYSTEM
















Unknown Manholes

-  Public Manhole
-  Private Manhole




Unknown Headwalls and Outfalls

-  Headwall
-  Outfall



Unknown Fittings










-  Bend
-  Cap
-  Cleanout
-  Coupling
-  Eccentric Reducer
-  Flexible Coupling
-  Flex Joint
-  Grouted Connection
-  Long Radius Bend
-  Mechanical Joint Restraint
-  Reducer
-  Saddle
-  Tap
-  Tee
-  Wye

Unknown Holding Tanks










-  Heat Recovery Tank
-  Holding Tank
-  Overflow Tank

Unknown Pumping Stations













-  Public Pumping Station
-  Private Pumping Station

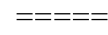


-  Service Point
-  Cathodic Protection Test Station
-  Control Structure
-  Identified Deficiency (Pipes/Laterals)
-  Force Main Flow Meter
-  Gravity Flow Meter
-  Gravity Flow Meter - Removed
-  Unknown Corp Stop
-  Unknown Curb Stop

Unknown Chambers



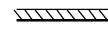
-  Unknown Diversion Chamber
-  Unknown Diversion Point
-  Unknown Force Main Valve Chamber
-  Unknown Junction Chamber
-  Unknown Pump Chamber
-  Unknown Regulating Chamber
-  Unknown Storage Basin
-  Unknown Tide Chamber
-  Unknown Vortex Chamber

Unknown Valves














-  Air Release Valve
-  Altitude Valve
-  Butterfly Valve
-  Ball Valve
-  Cone Valve
-  Check Valve
-  Drain Valve
-  Gate Valve
-  Plug Valve
-  Pressure Release Valve
-  Surge Relief Valve
-  Valve

-  Casing
-  Lining
-  CCTV Televised Main

Unknown Insulation

-  Concrete Slab
-  Pre-Insulated Pipe
-  Styrofoam Sheet

Unknown Pipes

-  Public Force Main
-  Public Gravity Pressure Pipe
-  Public Pressure Pipe
-  Public Inverted Siphon
-  Public Pipe
-  Private Force Main
-  Private Gravity Pressure Pipe
-  Private Pressure Pipe
-  Private Inverted Siphon
-  Private Pipe
-  Public Lateral
-  Private Lateral
-  Unknown Structure Polygon




































































ABANDONED WATER SYSTEM

	Abandoned Valves		Water Supply Plant		Blind Flange
	Abandoned Hydrants		ARV Chamber		Cap
	Abandoned Water Rechlorination Station		Control Chamber		Chamber Flow Arrow
	Abandoned Water Reservoir		Drain Chamber		Chamber Vent
	Abandoned Flowmeter		General Chamber		Coupling
	Abandoned Water Pipe		Meter Chamber		Cross
	Abandoned Water Drain		PRV Chamber		Denso Tape
Abandoned Structure Polygons			Reservoir Chamber		Link Seal on a Pipe Sleeve
			Surge Relief Chamber		M.J. Restraint Device
			Water Intake Structure - In Bank Filtration		Non-shrink Fill on a Pipe Sleeve
Abandoned Structure Points			Water Intake Structure - Intake Structure		Plug
	Unknown		Water Intake Structure - Low Lift		Reducer
	Booster Station		Water Intake Structure - Travelling Screen		Sleeve
	Bulk Fill Station		Water Intake Structure - Well		Strainer
			Abandoned Service Point		Tapping Sleeve
			Abandoned Service Lateral		Tee
		Abandoned Fittings			Test Meter Pit
			Unknown FCODE		Victaulic Coupling
			Adaptor		Wye
			Bend		Wye Left
					Wye Right


















ABANDONED COLLECTION SYSTEM

Abandoned Manholes			Abandoned Cathodic Protection Test Station		Abandoned Treatment Facility
	Combined Manhole		Abandoned Control Structure		Abandoned Pumping Station
	Wastewater Manhole		Abandoned Stormwater Management Structure		Abandoned Casing
	Stormwater Manhole		Abandoned Tracewire Access Point		Abandoned Lining
	Unknown Manhole		Abandoned Sewer Pump		Abandoned Ditch
	Abandoned CSO Structure		Abandoned Corp Stop		Abandoned Insulation
Abandoned Inlets and Outfalls			Abandoned Curb Stop		Abandoned Tracewire
	Catchbasin	Abandoned Chambers			Abandoned Vent Line
	Double Catchbasin		Diversion Chamber	Abandoned Pipes	
	Triple Catchbasin		Diversion Point		Combined Force Main
	Abandoned Headwall		Force Main Valve Chamber		Combined Gravity Pressure Pipe
	Abandoned Outfall		Junction Chamber		Combined Pressure Pipe
Abandoned Fittings			Pump Chamber		Combined Inverted Siphon
	Bend		Regulating Chamber		Combined Pipe
	Cap		Storage Basin		Catchbasin Lead
	Cleanout		Tide Chamber		Culvert
	Coupling		Stormwater Treatment Unit		Drain
	Eccentric Reducer	Abandoned Valves			Stormwater Force Main
	Flex Joint		Air Release Valve		Stormwater Gravity Pressure Pipe
	Flexible Coupling		Altitude Valve		Stormwater Pressure Pipe
	Grouted Connection		Butterfly Valve		Stormwater Inverted Siphon
	Long Radius Bend		Ball Valve		Stormwater Pipe
	Mechanical Joint Restraint		Cone Valve		Unknown Force Main
	Reducer		Check Valve		Unknown Gravity Pressure Pipe
	Saddle		Drain Valve		Unknown Pressure Pipe
	Tap		Gate Valve		Unknown Inverted Siphon
	Tee		Plug Valve		Unknown Pipe
	Wye		Pressure Relief Valve		Wastewater Force Main
	Vent		Surge Relief Valve		Wastewater Gravity Pressure Pipe
Abandoned Holding Tanks			Valve		Wastewater Pressure Pipe
	Heat Recovery Tank		Abandoned Collection System Structure		Wastewater Inverted Siphon
	Holding Tank				Wastewater Pipe
	Overflow Tank				Lateral
Abandoned Service Points					
	Unknown				
	Stormwater				
	Wastewater				

LAND FEATURES





	Traffic Pole		Bennery Lake		BED		Beaver Bank
	Utility Pole		Bomont		CHEB		Bedford Commons
	Survey Monument		Chain Lakes		CHW		Bedford Highway
	Natural Gas Lateral		Collin's Park		DART		Bedford South
	Natural Gas Pipeline		Five Islands		DHFX		Bedford West
	Property Boundary		Lemont Lake		DRTDO		Beechville - Lakeside - Timberlea
	Land Owned by Halifax Water		Lake Major		EPCW		Birch Cove North
	Community Boundary		Middle Musquodoboit		ESE		Fall River - Windsor Junction
	Halifax Water Sewershed Boundary		Pockwock Lake		ESW		Geizer Hill
	Halifax Water Stormwater Service Boundary		Silversands		HMAIN		Hammonds Plains - Pockwock
HRM Service Requirements			Tomahawk Lake		HPEN		Herring Cove
	Water Service Only				HPSBB		Kingswood - Blue Mountain
	Wastewater Service Only				LEPL		MacLaughlin Road
	Water and Wastewater Service				LTWN		Middle Musquodoboit
Protected Water Areas					MVDS		Middle Sackville - Lively
					NPLM		Morris - Russell Lake
Provincial Tertiary Watersheds					PROS		Portland Hills
					SACK		
					SCKDR		
					SHUB		
					SMB		
					TLB		

BASEMAP





	Power Pole / Transmission Tower		Building
	Municipal Boundary		Property Boundary
	Railroad		Lake
	Rivers / Stream		Parks / Recreational Areas
	Streets and Highways (1:100 - 1:8,000)		Land Owned by University
	Streets and Highways (1:16,000: - 1:64,000)		Coastline
	Streets and Highways (1:128,000 - 1:256,000)		
	Major Highway		
	Minor Highway		
	Primary Street		
	Street		

ZONES AND REGIONS

Distribution System Regions












































-  Unknown
-  East
-  Central
-  West

Collection System Regions

-  Unknown
-  East
-  Central
-  West

Pressure Zones

-  Unknown Pressure Zone
-  24 East High
-  Aerotech
-  Atholea Low
-  Beaver Bank Boosted
-  Beaver Bank Intermediate
-  Bedford Intermediate
-  Bedford Low
-  Bedford South Intermediate
-  Berry Hills Boosted
-  Bluewater Intermediate
-  Broadholme Intermediate
-  Brunello Boosted
-  Burnside Boosted
-  Burnside High
-  Burnside Low
-  Caldwell Road Boosted
-  Charles Road Boosted
-  Churchill Intermediate
-  Collins Park Low
-  Cowie High
-  Dartmouth Intermediate East
-  Dartmouth Intermediate West
-  Dartmouth Low
-  Eaglewood Boosted
-  Eastern Passage/Woodside Low
-  Fairview Clayton High
-  Fall River Intermediate
-  Farnhamgate Intermediate
-  Flamingo Intermediate
-  Geizer 123 High
-  Geizer 158 High
-  Geizer Boosted

-  Glenforest Intermediate
-  Hemlock High
-  Hemlock Intermediate
-  Hemlock Super High
-  Herring Cove Low
-  Kearney Lake Intermediate
-  Kingswood High
-  Lake Major High
-  Lakeside Intermediate
-  Leiblin Boosted
-  Lively Boosted
-  Lucasville High
-  Miller Lake High
-  Miller Lake Low
-  Monarch/Rivendale High
-  Montague High
-  Mount Edward Boosted
-  Mowatt Intermediate
-  No. 7 Highway Boosted
-  North Preston
-  Orchard High
-  Peninsula High
-  Peninsula Intermediate
-  Peninsula Low
-  Pockwock Boosted
-  Pockwock High
-  Princess Margaret Low
-  Ritcey Low
-  Robie Reservoir
-  Rockingham Low
-  Rockmanor Intermediate
-  Ross Road Low
-  Sackville High
-  Sackville Intermediate
-  Siversands Low
-  Siverside Boosted
-  Spryfield Intermediate
-  Titas Evans Low
-  Upper Hammonds Plains High
-  Waverley Intermediate
-  Waverley Low
-  West Bedford Intermediate
-  Williams Lake Low

Meter Zones

-  Unknown Meter Zone
-  #7 Highway Boosted
-  24 East High
-  27 Low
-  Aerotech
-  Atholea Low
-  Beaver Bank Boosted
-  Beaver Bank Intermediate
-  Bedford Intermediate
-  Bedford Low
-  Bedford South Intermediate
-  Berry Hills Boosted
-  Birch Cove
-  Bluewater Intermediate
-  Broadholme Intermediate
-  Brunello Boosted
-  Burnside Boosted
-  Burnside High
-  Burnside Low
-  Caldwell Rd Boosted
-  Caledonia High
-  Central Dartmouth
-  Charles Rd Boosted
-  Churchill Intermediate
-  Cobequid High
-  Collins Park Low
-  Cowie High
-  Dartmouth Low
-  Eastern Passage Low
-  Fairmount High
-  Fairview Clayton Park
-  Fall River Intermediate
-  Farnhamgate Intermediate
-  Flamingo Intermediate
-  Geizer123 High
-  Geizer158 High
-  Geizer Boosted
-  Glenforest Intermediate
-  Hammond Kearney
-  Hemlock High
-  Hemlock Intermediate
-  Hemlock Super High
-  Herring Cove Low
-  Herring Cove Road Intermediate
-  Kearney Lake Intermediate
-  Kingswood High
-  Lake Major High
-  Lakeside High
-  Lakeside Intermediate
-  Leiblin Boosted
-  Lively Boosted
-  Lucasville High
-  Miller Lake High
-  Miller Lake Low
-  Monarch/Rivendale High
-  Montague High
-  Mount Edward Boosted
-  Mowatt Intermediate
-  North Preston
-  Orchard High
-  Penhorn Intermediate
-  Peninsula High
-  Peninsula Intermediate Central
-  Peninsula Intermediate North
-  Peninsula Intermediate South
-  Peninsula Low North
-  Peninsula Low South
-  Pockwock Boosted
-  Pockwock High
-  Princess Margaret Low
-  Ritcey Low
-  Robie Reservoir
-  Rockmanor Intermediate
-  Ross Rd
-  Sackville High
-  Sackville Intermediate
-  Siversands Low
-  Siverside Boosted
-  Spryfield Intermediate
-  Titus Evans Low
-  Upper Hammonds Plains High
-  Waverley Intermediate
-  Waverley Low
-  West Bedford Intermediate
-  Williams Lake Low
-  Woodlawn Inter
-  Woodside Low