

Town of Cornwall – Water & Sewer Utility Corporation

Minimum Standard of Acceptability for Water, Sewer & Sprinkler Connections

At the time of application for water, sewer and/or sprinkler service the applicant shall provide a site copy of the property and building requiring service. The site copy shall indicate:

1. The location and dimensions of the building requesting service relative to the property being developed.
2. Location and size of the services being requested relative to the building.
3. Location of service entrance within building including valves, meter, backflow preventers, sewer cleanout and backwater valve.

General Requirements

1. **All service pipes shall not be backfilled until a complete inspection is performed by the Utility and the installation found to meet the requirements of the Utility.**
2. Internal plumbing shall be in accordance with the Canadian Plumbing Code, most recent edition.
3. To protect from frost, optimum service pipe depth is 1.80 meters, bedded in well-compacted sand or selected excavated materials for the entire trench width and length. Insulation will be required to the Utilities approval if the proper cover is not obtained.
4. Trench excavation is to meet the requirements of the Occupational Health and Safety Act and Regulations.

Water

1. All water services shall be installed in accordance with the typical service installation and the minimum standard of acceptability as described below.
2. Inside valve is to be a high quality shut off value (with packing nut), an idler to meet the standards of a 16mm x 19mm (5/8" x 3/4") water meter after the check valve, and a 19mm (¾") #7 Watts backflow preventer or approve equal shall be installed before activation of services.
3. The connection of a homeowner's installation serviced by the Utility to any other source of water supply is prohibited.
4. To protect the service from damages, construction of driveways and sidewalks over municipal water services is prohibited. In the event this cannot be avoided the developer shall make alterations to
 - Relocate the existing water service control valve such that the valve is located greater than 1.5 meters away from the proposed driveway or sidewalk, or
 - Install a protective valve box and cover over the service box top within the driveway asphalt.
 - All alterations shall be in accordance with the standards established by the Cornwall Water and Sewer Utility and shall be at the developer cost.
5. Minimum service pipe shall be 19-mm
 - type "K" copper tubing to ASTM B 88, minimum pressure rating 1035 kPa (150 psi), or
 - Muncipex Cross Linked Polyethylene (PEXa) tubing for pressure applications: to ANSI/AWWA C904, CAN/CSA B137.5, minimum pressure rating 1035kpa. A stainless steel support liner installed inside the pipe shall be utilized at each compression joint and at corporation stop connections, or
 - As approved by the Utility.

6. Joints are to be compression type, Mueller H-15403 with a minimum pressure rating 1035 kPa (150 psi).
7. Service box is to be fully extended and should be 6-8" above final grade when backfilled.
8. Electrical grounding to the water service pipe is not permitted.
9. In areas of the municipality where water pressure is in excess of 552 kPa (80 psi), the homeowner shall install and maintain a pressure-reducing valve properly adjusted for the individual service situation.
10. With the installation of the pressure reducing valve, the homeowner is advised to supply and install, for the homeowner's safety and protection, a pressure relief valve on the hot water boiler or some other suitable location. This relief shall also be maintained in good working order by the homeowner.
11. All piping is to be disinfected during installation, flushed, water quality tested and pressure tested prior to activation. This work shall be the responsibility of the homeowner and/or contractor to complete.
12. Please be advised the Utility will not activate a new water service until the applicant has provided written proof, to the Utility, of successful water quality and pressure testing of the new service.

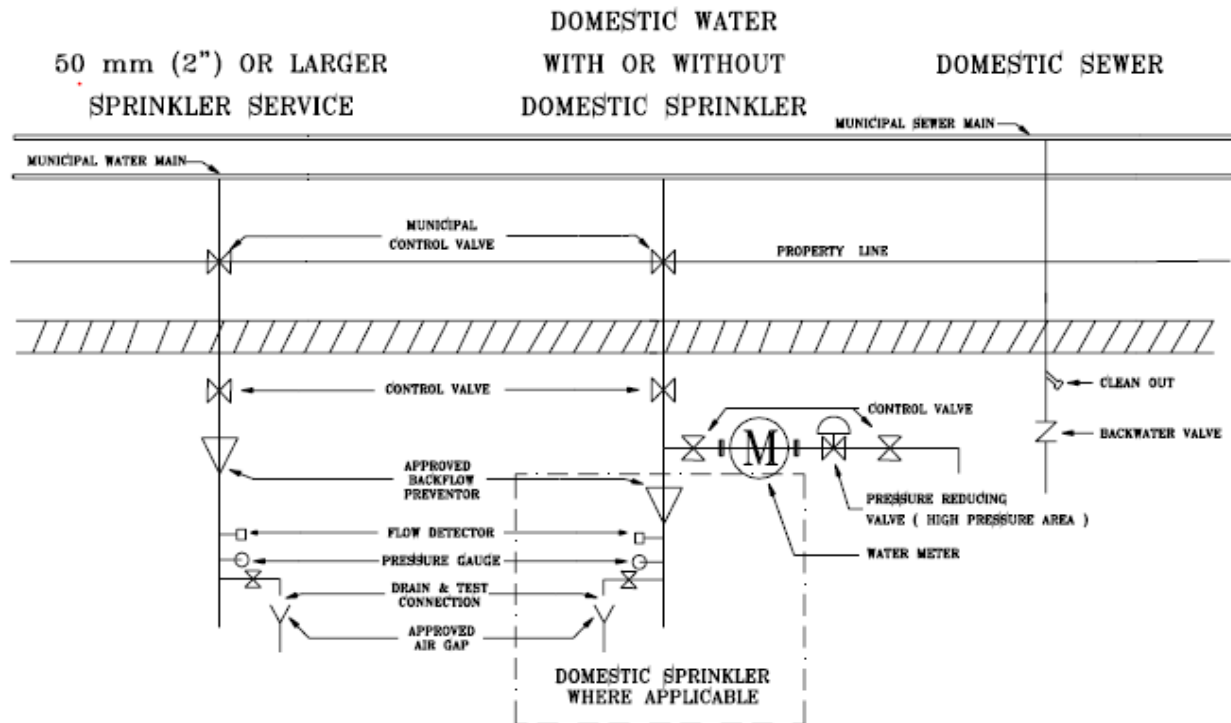
Sprinkler

1. All sprinkler services shall be installed in accordance with the typical service installation and the minimum standard of acceptability as described below.
2. The connection of a homeowner's installation serviced by the Utility to any other source of water supply is prohibited.
3. Where service pipe is 50 mm or less piping shall be
 - type "K" copper tubing to ASTM B 88, or
 - Muncipex Cross Linked Polyethylene (PEXa) tubing for pressure applications: to ANSI/AWWA C904, CAN/CSA B137.5, minimum pressure rating 1035kpa. A stainless steel support liner installed inside the pipe shall be utilized at each compression joint and at corporation stop connections, orwhere service pipe is greater than 50 mm piping shall be PVC DR-18 (AWWA C900) or Ductile Iron (AWWA C151), minimum pressure rating 1035 kPa (150 psi) or as approved by the Utility.
4. Joints and fittings shall be mechanical joint or push on (AWWA C110 and C111) with a minimum pressure rating 1035 kPa (150 psi) complete with appropriate thrust restraint.
5. Electrical grounding to the water service pipe is not permitted.
6. All piping is to be disinfected during installation, flushed, water quality tested and pressure tested prior to activation. This work shall be the responsibility of the homeowner and/or contractor to complete.
7. All sprinkler services shall include the installation of an approved backflow protection device as described in the Conditions and Requirements for Cross Connection Control Fire Protection Systems
8. Please be advised the Utility will not activate a new water service until the applicant has provided written proof, to the Utility, of successful water quality and pressure testing of the new service.

Sewer

1. All sewer services shall be installed in accordance with the typical service installation and the minimum standard of acceptability as described below.
2. Service pipe and fittings shall be 100 mm (minimum) PVC SDR 35 to ASTM Spec. D-3034 or CSA B-182.2 and installed to manufacturer's instructions. Pipe to be bedded in well-compacted sand or selected excavated materials for the entire trench width and length.
3. Pipes are to be installed with an optimum uniform grade of 2%. Long sweeps are to be used for changes in pipe direction.
4. All sewer services shall be installed with a 100 mm (minimum) clean out immediately inside the foundation wall and a 100 mm back water valve installed on the upstream side of the clean out as indicated on the Typical Service Installation. The clean out and backwater valve are to be accessible for maintenance by the homeowner and exposed for inspection. Additional outside cleanouts shall be installed at 30 meter intervals along the length of sewer laterals exceeding 30 meters in length between the sewer main and the building being serviced.
5. It is not permissible to connect foundation drainage, roof drainage or sump pump drainage into the sanitary sewer lateral.

TYPICAL SERVICE INSTALLATION



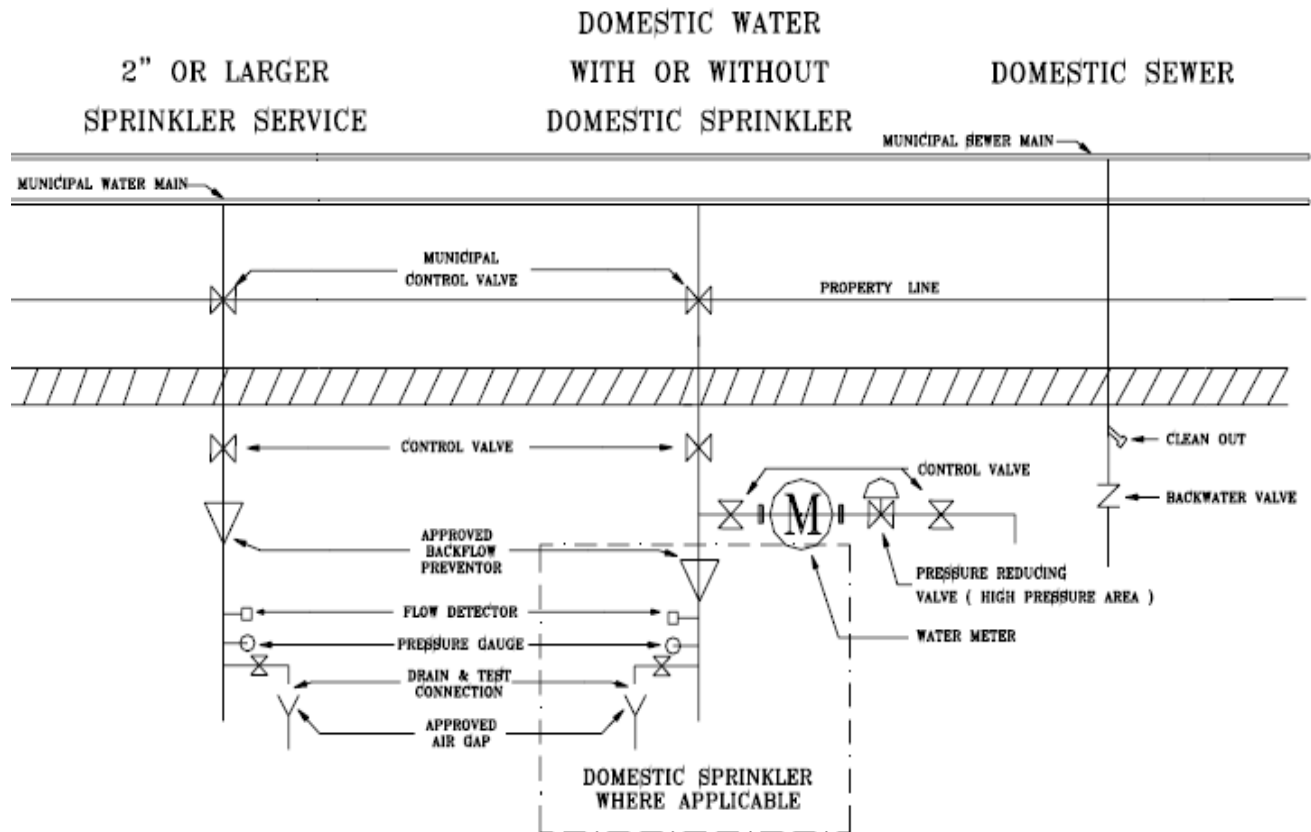
Water Meter Installation

5/8" to 2" (17 mm to 50 mm)

Basic Requirements for an acceptable meter installation are:

1. That it be leak-tight.
2. That it position the meter in a horizontal plane for optimum performance and that it provide an upstream (high quality) shut off valve and downstream (regular quality) shut off valve. (NOTE: all services above 25 mm (1") shall require slow closing gate or globe shut off valves).
3. That the meter be located as near as possible to the point of entry of the service line and be accessible for service and inspection.
4. That it provide for easy reading, either directly or via a remote reading device.
5. That it be well protected against frost, mechanical damage and tampering.
6. That all meters shall be installed before water is turned on.

Typical Meter Installation



Water Meter Installation - 75 mm (3") and Larger (Bypass may be required)

Basic requirements for an acceptable meter installation, 75 mm (3") and larger, are:

1. That it be leak-tight.
2. That it provide an upstream and downstream shut-off valve (slow closing) gate or globe of high quality and low pressure loss. All valves used shall meet the requirements of the Canadian Plumbing Code, most recent edition.
3. That it position the meter in a horizontal plane for optimum performance.
4. That the meter be located as near as possible to the point of entry of the service line and be accessible for service and inspection.
5. That it provide for easy reading, either directly or via a remote reading device.
6. That it be well protected against frost, mechanical damage and tampering.
7. If a bypass is used, the bypass must be closed and have a tamper proof seal installed by the Utility.

NOTE: (1) Water Meter and strainer supplied by Utility.

(2) Test Tee's may be required if the water meter supplied has no testing port built in on the body of the water meter.

N.B.: IT IS IMPORTANT THAT METERS ARE INSTALLED AS PER THE ABOVE BASIC REQUIREMENTS. THE UTILITY HAS THE RIGHT TO REFUSE SERVICE TO ANY CUSTOMER NOT MEETING THESE BASIC REQUIREMENTS. PLEASE CONTACT THE UTILITY AT 566-2354 BEFORE COMMENCING CONSTRUCTION.

Typical Meter Installation 3" and Larger, (Bypass may be required)

