

Low Pressure Sewer Services

1.1 GENERAL

- .1 A plumbing permit to install a sewer service must be obtained from the RM of Cornwallis prior to undertaking the work
- .2 Contractor to obtain an electrical permit where required.
- .3 All products and work shall conform to the most recent revision of the Manitoba Water Services Board (MWSB) Standard Construction Specifications unless explicitly indicated otherwise in this document. MWSB specifications and approved products can be found at the following website.

1.2 SEWER SERVICE LINES

- .1 Low pressure service pipe shall be HDPE DR 17 and 38mm in diameter.
- .2 Sewer service piping to be installed with a minimum of 2.4 m of cover from the top of the pipe to the ground elevation.
- .3 All pipes for submersible pumps inside the septic tank shall be 38 mm diameter, non- kinking type, minimum bending radius of 82 mm and minimum 340 kPa (50 psi) working pressure and 1,500 kPa (220 psi) burst pressure suitable for use in sewage effluent. Construction of hose to be EDPM compound for tube and cover. Outer surface to be smooth or corrugated, and to be free of external shipping protective coverings.

1.3 SERVICE LINE FITTINGS

- .1 Fittings for low pressure sewer lines shall be corrosion resistant brass or stainless steel.
- .2 Stainless steel inserts shall be used for poly tubing.
- .3 Pipe clamps shall be stainless steel with stainless steel nuts and bolts.

1.4 CHECK VALVES

- .1 Check valves shall be Flomatic, Model 508 or equal.
- .2 Exposed bolts shall be stainless steel.
- .3 Check valves shall be installed in the vertical position immediately downstream of pump.
- .4 For submersible pump installations, check valves shall be 38mm diameter.
- .5 For suction style centrifugal pumps, check valves must be installed on both the discharge (38mm diameter) and suction (38mm diameter) lines.

1.5 BALL VALVES

- .1 For submersible pump installations, ball valves shall be 38mm diameter PVC or stainless steel and installed immediately downstream of the check valve to allow the pump and check valve to be isolated for maintenance.
- .2 For suction style centrifugal pump installations, ball valves shall be brass, Boshart BII Series 0827 or equivalent. A 38mm diameter ball valve shall be installed immediately downstream of the check valve on the discharge pipe and a 32mm diameter ball valve installed on the suction line between the tank and check valve.

1.6 CLAMPS

- .1 All clamps shall be stainless steel with stainless steel nuts and bolts.

1.7 PUMPS

- .1 Pumps will be supplied by the R.M. of Cornwallis. All homeowners MUST utilize the pumps supplied by the RM.
- .2 Both submersible and centrifugal pumps are available to suit the required installation configuration.

1.8 SEPTIC TANKS (NEW/REPLACEMENT INSTALLATIONS)

- .1 Two-chamber septic tanks manufactured in accordance with Canadian Standards Association Standard B66 and conforming to Manitoba Onsite Wastewater Management Systems Regulations.
- .2 Tanks shall be either concrete or fiberglass construction with tie down straps and weights as required to prevent floating.
- .3 Tanks shall be suitable for a minimum 2,000 mm burial (soil cover over the top of the septic tank).
- .4 Tanks shall be equipped with an access manhole extending to the ground surface (minimum 600 mm diameter) with a childproof cover. Manhole to provide access to both chambers.
- .5 Pipe penetrations shall be watertight and shall be pre-fabricated for fiberglass tanks.

1.9 LIQUID LEVEL CONTROLS WITH HIGH LEVEL ALARMS

- .1 Rated to start the selected pump.
- .2 Controls shall be CSA approved complete with a 15 metre electrical cable. Electrical cable shall not be constructed with any materials or fibres which conduct or absorb water.
- .3 Switches to activate pump at high level and de-activate the pump at low level.
- .4 Be omni-directional in operation (i.e., no "up" side).
- .5 Install high level alarm to activate warning light (at minimum).

1.10 ELECTRICAL

- .1 All work shall conform to applicable electrical code requirements
- .2 All electrical materials to bear CSA approved labels.

1.11 RESTORATION OF SITE

- .1 Contractor is responsible for restoration of the municipal road allowance equal to or better than existing condition.

1.12 SUMP PUMPS

- .1 Sump pumps that are connected to the septic tanks must be disconnected and the sump water is to be discharged outside of the building.

1.13 POST CONSTRUCTION

- .1 Contractor must contact the RM of Cornwallis utility staff prior to opening the curb stop. Curb stops shall only be operated by RM of Cornwallis staff.