

BLDGREG-009 - SUMP PIT AND PUMP INSTALLATION REGULATION

Authority: Building By-law No. 7258

Covers: All new buildings where the floor slab is below grade and a sump pit is installed, and where a sump pit is installed in an existing building.

Effective: February 2, 2021

Amended: October 19, 2021

Purpose: To establish a standard specification for the installation of sump pits and pumps and to eliminate the current practice of *subsoil drainage pipes* directly connected to *sanitary drainage systems*.

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1. Definitions

- (a) Unless otherwise expressly provided or unless the context otherwise requires, words and expressions in this Regulation have the same meaning as the same words and expressions of the Building By-law and National Plumbing Code.
- (b) In this Regulation:
 - (1) “SUBSOIL DRAINAGE PIPE” means a pipe that is installed underground to intercept and convey subsurface water. Also known as weeping tile.
 - (2) “SANITARY DRAINAGE SYSTEM” means a drainage system that conducts sewage.

2. Rationale

To prevent the unnecessary treatment of ground water and to eliminate the potential of overloading of the public *sanitary drainage system* during a significant rain event.

3. Application

- (a) This regulation applies to all newly installed sump pits and pumps.

4. Installations

- (a) All newly installed *subsoil drainage pipes* shall not be directly connected to any *sanitary drainage system*.

- (b) All sump pits in a newly constructed single detached residential building shall be constructed pursuant to detail NO. MSC-1122B.
- (c) All sump pits installed in a multi-unit residential building, non-residential, or an existing building shall be installed pursuant to detail NO. MSC-1122A, or detail NO. MSC-1122B.

5. **Sump Pumps**

- (a) Sump pumps shall be capable of discharging at a minimum rate of 0.75 L/s at 3.6M Head Pressure.
- (b) Power to a sump pump shall be supplied by an outlet on a branch circuit that serves no other outlets or equipment.
- (c) Sump pumps shall be installed pursuant to the Manitoba Plumbing Code

6. **Discharge Pipe**

- (a) The sump pump discharge pipe shall be a minimum size of 1 ½"
- (b) The discharge pipe shall be sloped to the exterior of the building, and shall terminate in the downward position.
- (c) The discharge pipe shall terminate either not more than 300mm (12") above a splash pad, or into a flexible hose directed according to the site drainage to prevent erosion.
- (d) Water shall be discharged so as not to adversely affect neighboring property.

7. **Sump Pits**

- (a) Sump pits shall have an airtight cover suitable to prevent the ingress of soil gases.
- (b) A bead of silicone shall be applied around the discharge pipe at the lid to ensure the lid is air tight to suitably prevent the ingress of soil gases.
- (c) Sump pits shall be a minimum of 450mm (18") in diameter and 750mm (30") deep.
- (d) Sump pits may be constructed of concrete, polyethylene, polypropylene, or fiberglass.

- (e) $\frac{3}{4}$ " crushed rock shall be placed around the sump pit.
- (f) Emergency overflow pipes shall be a non-perforated pipe a minimum of 4" in size and shall connect to the sump pit immediately below the floor slab.

8. **High Water Alarm**

- (a) A high water alarm shall be installed with the pill switch mounted immediately above the *subsoil drainage pipe*.
- (b) The high water alarm shall be mounted externally from the sump pit and have a pill switch mounted inside the sump pit that activates an audible alarm before the water reaches the top of the sump pit.
- (c) The water alarm shall be installed with a connection to an electrical circuit within the home.
- (d) The alarm shall be audible from outside the room that contains the sump pit.

9. **Floor Drains**

- (a) Floor drains with an emergency overflow pipe connected shall be 4" in size
- (b) Floor drains with an emergency overflow pipe connected shall have a 'dranjer' installed to suitably prevent the ingress of soil gases.
- (c) Floor drains with an emergency overflow pipe connected shall have a flood check valve installed immediately below the overflow pipe connection.

10. **Enforcement**

In accordance with the authorities established by the Building By-law, any person who contravenes, or does not comply, or improperly complies, or only partly complies, with any provision of this Regulation commits an offence and is subject to penalty.

Related Information:

Building By-law 7258
Manitoba Plumbing Code
The Building and Mobile Homes Act, C.C.S.M. 1987, c.B93
The Manitoba Building Code
Compliance By-law 7198

Conflict: Where there is a conflict or inconsistency between this Regulation and provisions contained within a statute or regulation of the Government of Canada or the Province of Manitoba, the Federal or Provincial statute or regulation shall supersede those impacted provisions of this Regulation.