

Part 3 Holding Tanks

Section 3.1. Holding Tanks

3.1.1. Holding Tanks — Objectives and Design Standards

3.1.1.1. Storage Capacity

- 1) A holding tank serving a detached single-family dwelling shall have a storage capacity of not less than 4,500 L (1,000 Imp. gal).¹

¹ Intent: Sentence (1) - It is not the intent of this Standard to exclude the use of a septic tank as a holding tank provided the requirements of the Standard are met regarding holding tanks. The capacity of the holding tank should be large enough to make effective use of trucking service and provide a reserve volume for the owner.

- 2) A holding tank for developments other than a detached single-family dwelling shall have a storage capacity suitable for the intended service.

3.1.1.2. Infiltration/Exfiltration Prevention

- 1) Holding tank access openings, manhole extensions, and piping connections shall prevent infiltration and exfiltration.
- 2) Where the site evaluation identifies high groundwater conditions at the location and elevation the tank is installed, the design of the system shall address
 - a) anti-floatation measures required,
 - b) the ability of the tank to withstand structural stresses caused by the hydrostatic pressure and buoyancy, and
 - c) maintaining the elevation of piping connections above the projected *water table*, or include other specific additional measures to ensure *infiltration* does not occur through piping connections or manhole access risers.

3.1.2. Holding Tanks – Prescriptive Requirements and Installation Standards

3.1.2.1. Separation Distances

- 1) Holding tanks shall not be located within
 - a) 10 m (33 ft.) of a *water source* or *water well*,
 - b) 10 m (33 ft.) of a *water course*,
 - c) 1 m (3.25 ft.) of a *property line*, and
 - d) 1 m (3.25 ft.) of a *building*.

3.1.2.2. Service Access

- 1) Holding tank manhole access openings shall be brought above ground surface and have access openings for waste removal brought to a height above the surrounding landscape that ensures that surface water will drain away from the access openings.¹

¹ Intent: Sentence (1) — Access openings above the ground provide readily available access to the tank as compared to buried access openings, particularly when the ground is frozen. The manhole access may be buried if wastewater removal pipes are provided for aboveground access.

- 2) A *holding tank* shall be located and installed to accommodate the regular removal of wastewater by vacuum truck or other approved means.¹

¹ *Intent: Sentence (2) — Holding tanks are meant to hold a volume of wastewater and facilitate the removal of wastewater for treatment in a municipal lagoon or other suitable location.*

3.1.2.3. Access Opening Lid/Cover

- 1) All access openings shall be equipped with a secure lid or cover.¹

¹ *Intent: Sentence (1) — To increase safety by preventing unauthorized or accidental entry into the access opening of a septic tank or holding tank. Acceptable protective measures include, but are not limited to, a padlock, a cover that can only be removed with tools, or a cover having a minimum weight of 29.5 kg (65 lb).*

- 2) The opening of a manhole access that extends above ground shall be insulated to an equivalent R-8 insulation value in order to protect the tank contents from freezing.

3.1.2.4. Base for Holding Tank

- 1) The bottom of an excavation for a *holding tank* shall provide a uniform base to support the tank in a level position and meet the manufacturer's installation instructions.¹

¹ *Intent: Sentence (1) — A tank must have a stable base so it will not settle, shift, or crack after installation.*

3.1.2.5. Insulation of Tank

- 1) A *holding tank* that has less than 1.2 m (4 ft.) of earth cover to protect it from freezing conditions shall be insulated to provide the equivalent of an R-8 insulation value at the top and sides of the tank to a minimum depth of 1.2 m (4 ft.) below *grade* or insulated in some other acceptable manner to achieve a level of protection from freezing that is equivalent to a tank that has a minimum 1.2 m (4 ft.) cover of the *in situ soil*.

3.1.3. Holding Tanks – Requirements for Materials

3.1.3.1. General

- 1) A *holding tank* shall be approved equipment that is *certified* by an accredited testing agency as meeting or exceeding the requirements of CAN/CSA-B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks."