

**Part 1 General**

**1.1 REFERENCES**

- .1 Canadian Standards Association, (CSA International)
  - .1 CAN/CSA-B66, Prefabricated Septic Tanks and Sewage Holding Tanks.

**1.2 SUBMITTALS**

- .1 Submit shop drawings in accordance with Section E3.
- .2 The contract shall submit shop drawings for any buoyant force resisting system required for the sewage holding tank. The shop drawing shall detail the buoyant force resisting system as well as any connections to the sewage holding tank. The submission shall include buoyancy calculations.
- .3 Shop drawings to indicate:
  - .1 Design calculations for additional items designed by manufacturer.
  - .2 Methods of handling and erection.
  - .3 Openings, sleeves, insert and related reinforcement.
- .4 The shop drawing package and calculations shall be signed and sealed by a Professional Engineer licensed in the province of Manitoba.

**Part 2 Products**

**2.1 DESIGN REQUIREMENTS**

- .1 Design fibreglass sewage holding tank in accordance with CAN/CSA-B66, and to carry handling stresses and indicated service loads.
- .2 Tank to have minimum total working capacity of 4,545 L (1,200 USgal).
- .3 The sewage holding tank shall be designed to resist buoyant force with ground water taken at grade. The factor of safety against buoyant uplift must be greater than or equal to 1.5. Provide ballasts as indicated.
- .4 Access: Provide access hole of minimum 450 mm inside diameter with gasketted water-tight, secure covers to surface to facilitate hydrovac, cleaning and inspection.
- .5 Acceptable product: Guardian G-1000, Extra-Deep Burial.

**2.2 TANK BEDDING AND SURROUND MATERIAL**

- .1 Granular material:
  - .1 As per tank manufacturer's recommendations.

**Part 3 Execution**

**3.1 INSTALLATION**

- .1 Complete excavation, bedding, installation and backfill as per manufacturer's recommendations.
- .2 Place bedding and surround material in unfrozen condition.
- .3 Place tank bedding material in accordance with details as indicated. Compact to 95% maximum dry density to ASTM D698.
- .4 Make inlet and outlet joints of septic tank watertight.
- .5 Conduct leakage test on septic tank in presence of Contract Administrator, before backfilling. Fill tank to level of effluent pipe, and allow to stand for 24 hours. Allowable leakage is zero.

**END OF SECTION**