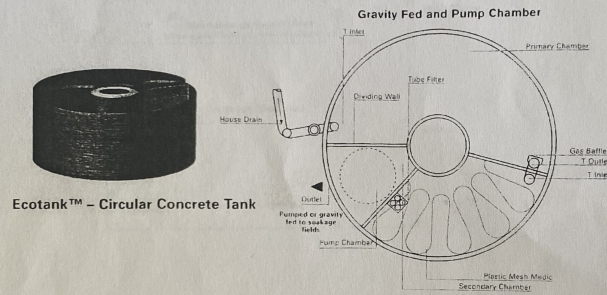


5 8 7 8 7

Approved Document



Concrete Septic Tanks



Quick Key Dimensions:

Normal Capacity	H. inc. lids.	tank diameter	Central Chamber Diameter	Tank weight without lid	Lid weight
5000 L	1380mm	2500mm	600mm	2700 kg	900 kg

↑ Normal Capacity

↑ H. inc. lids.

↑ tank diameter

↑ Central Chamber Diameter

↑ Tank weight without lid

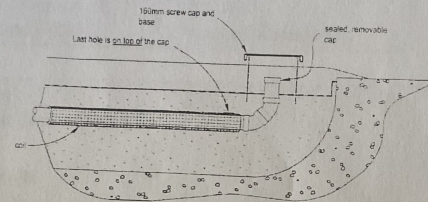
↑ Lid weight

58787

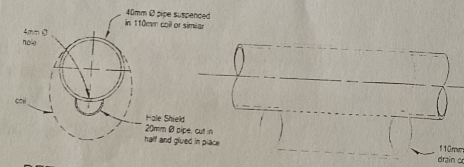
Approved Document

TRENCH FILTER FOR DISPOSAL OF
SEPTIC TANK EFFLUENT

TRENCH CROSS-SECTION
1:20



DETAIL OF DISTAL END AND LOW PRESSURE PIPE

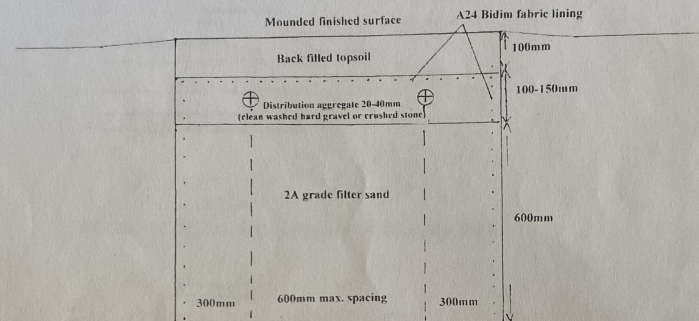


DETAIL OF SHIELDED HOLES IN LOW PRESSURE PIPE

PREPARED BY: CIVIL AND ENVIRONMENTAL CONSULTING LTD
DRAWN BY: [illegible]
CHECKED BY: [illegible]
DATE: [illegible]
SCALE: [illegible]

10/10/2023

CROSS SECTION OF BLACKWATER DISPOSAL BED



Specification EFF07192

TIMARU DISTRICT COUNCIL
BUILDING CONSENT

58787 - 22

Approved Document

Client: AR Haugh
Legal Description: Section 5 Blk XXIII Town of Orari

Land Area: 3.6972 ha

Property Location: 12 Kakahu Street

Orari

Postal Address: 12 Kakahu Street

Orari

Map Reference NZMS 260 K 38:

Disposal field: at or about E 2373130 N 5672033N

Requirement: Discharge of domestic waste water from a 3 bedroom house onto or into land from on-site domestic waste water treatment on the above allotment being located at Orari town in the Timaru District Council.

System Design 3bedroom house to accommodate a maximum of 5 persons permanently:

5persons @ 200 litres of waste water flow allowance² daily = 1000 litres per day

System:

Primary Treatment:

The effluent from the new dwelling would receive primary treatment through a 3 chamber 5000 litre septic tank. The septic tank is to be fitted with an effluent filter at the outlet from the second chamber to the third or pump chamber in which a submersible pump is to be installed. This will deliver all primary treated effluent to a 2A sand or equivalent filter trench disposal field.³

The submersible effluent pump fitted to this system will be capable of delivering a 200 litre /min. dose at 10m head.⁴ It is to be set on a soffit 200mm off the bottom of the pump chamber.

² AS/NZ Standards 1547: 2000

³ Example: Wallace JX400S submersible pump with macerator

⁴ Example: Wallace JX400S submersible effluent pump with macerator

5.87.8.7 - 2

There is to be a non return valve installed between the pump and the disposal trench.

Secondary Treatment:

Approved Document

By disposal of effluent to land via 40mm diameter PVC distribution pipe to a trench of length 17 metres and width 1.2 metres. This will provide an effective trench base area of 20 m.² The trench is to be filled with 600mm of lightly compacted 2A sand or equivalent with two low pressure 40mm diameter PVC distribution pipes (LPDPs) set to a depth of 100mm and laid level in a distribution bed of clean washed hard gravel or crushed stone aggregate placed on top of the sand.

The LPDP should have 30 holes of 4mm diameter drilled and evenly spaced along the invert. The holes should be protected from binding by gravel by shielding them with 30mm long longitudinal half sections of pipe 20mm diameter solvent welded in place over the holes.

Geotextile (Bidim A24 or Typar 3337) should be placed as lining to the sides of the trench to the depth of the 2A sand.

Topsoil should be placed over the top of the trench to a depth of 100mm and grassed.

Vehicles (and people other than maintenance personnel) are to be excluded from the disposal area by a secure fence thereby avoiding damage to the disposal trench.

The disposal area identified on the attached plan for discharge of waste water is more than sufficient for the 20 metre long trench required for the secondary treatment of that effluent. There is also sufficient reserve area to accommodate a replacement trench of comparable size for disposal if for any reason the trench becomes clogged and inoperable.

Operational Issues

This system provides for the treatment of domestic black and grey water but is not suitable for use with a kitchen waste master.

Care needs to be exercised in the choice of household detergents and cleaners to ensure compatibility with a septic tank system in order not to threaten the performance of the biological processors being employed for the renovation of the domestic waste stream.

The effluent filter will require regular maintenance to ensure that the system functions efficiently and does not overload the pump. The filter should be checked at a regular interval with a frequency comparable with loading placed on the system. Cleaning of the filter entails its removal from the filter housing and washed clean of accumulated sludge and scum on the filter insert.

The owner/ occupier of the land is to keep a record of all servicing and maintenance of the treatment and disposal system detailing the date and nature of the work carried out. This record is to be made available to the Canterbury Regional Council upon request.

Every 3-5 years or when the accumulated scum sludge content occupies $\frac{2}{3}$ of the first chamber of the septic tank system the scum and sludge shall be removed from the septic tank. The filter shall be cleaned and the system shall be checked to ensure that the system is completely operational. The effluent disposal lines shall be flushed to remove any accumulated sludge to prevent clogging of the filter medium.

The system is to comply with the Canterbury Regional Council Proposed Natural Resources Regional Plan Chapter 4 WQL8 conditions 1 to 23 (inclusive) and the rules of the Transitional Regional Plan in respect of discharge of treated human effluent to land.

TIMARU DISTRICT COUNCIL
SOLUTION

58787 - 12

Approved Document

Concrete Septic Tanks