

Soakaways

Why use a soakaway?

Building Regulations require you to adequately dispose of stormwater from the building.

To try and ensure water is dispersed into the ground evenly and quickly you must consider the use of a soakaway in all cases.

You must use a soakaway if design criteria can be met. Discharging stormwater into a drain will only be allowed if soakaways or other infiltration methods are not suitable.

Soakaways – how they work?

- Soakaways store the immediate stormwater run-off to allow infiltration into the adjacent soil.
- They must discharge their stored water sufficiently quickly to provide the necessary capacity to receive run-off from a subsequent storm.
- The time taken for discharge depends upon the soakaway shape and size and the surrounding soil's infiltration characteristics.
- Soakaways can be constructed in many different forms and from a range of materials.

When can a soakaway be used?

If you are planning to use a soakaway, there are certain things that you need to do, these being:

- Identify if a soakaway is the most suitable means of disposing of stormwater,
- Identify that:
 - The soil around the building is satisfactory for infiltration,
 - The site is not on filled ground,
 - The site does not slope towards the building,
 - The water table is not too high.
- Ensure soakaways can be sited at least 5 metres from any buildings. If you are close to boundaries you should discuss this with your neighbour.

If you cannot meet these criteria stormwater can be disposed of via a storm drain. **Foul or combined drains cannot be used.**

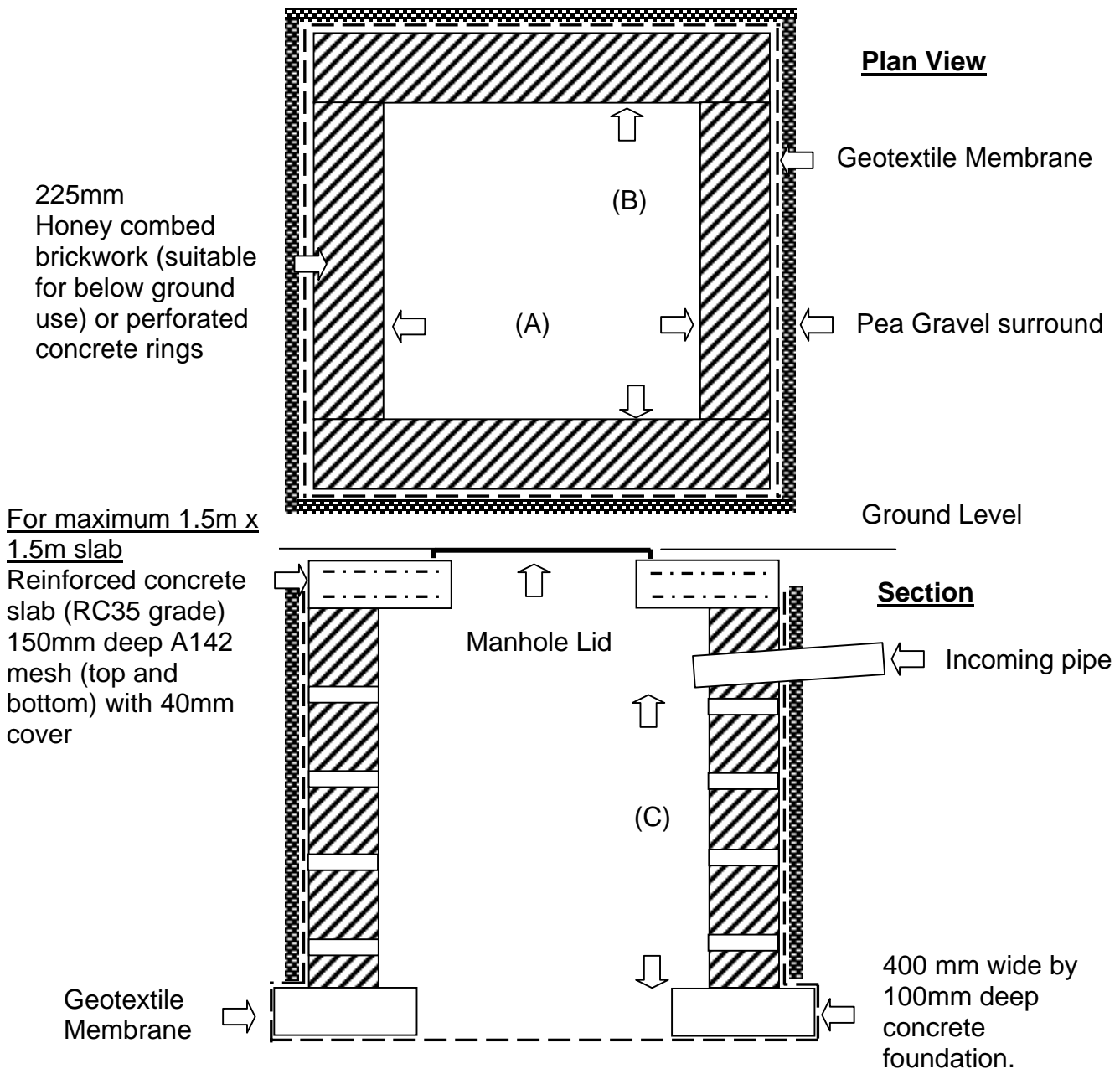
How to construct surface water soakaways?

If it is not known whether the soil has an adequate degree of permeability or the roof area to be drained into the soakaway exceeds 100m² you will need to:

- Carry out an on-site percolation test
- Decide on the construction type for the soakaway
- Calculate the required storage volume and
- Consider space requirements, site layout, topography, water table, subsoil type etc

The above should be carried out in accordance with BRE Digest 365. The calculation process is complicated and you may wish to seek help.

In most cases where the **soil drains well**, and the roof area is less than 100m², you will be able to construct an open chamber type soakaway, as follows:



For maximum 1.5m x 1.5m slab

Reinforced concrete slab (RC35 grade) 150mm deep A142 mesh (top and bottom) with 40mm cover

- Calculate the roof area to be drained into each soakaway,
- Calculate the volume of soakaway:

$$\text{Roof area in m}^2 \text{ divided by } 40 = \text{Volume of soakaway in m}^3 \text{ (AxBxC)}$$

Volume is measured below incoming pipe and above top of foundation.

- Ensure that we inspect the drainage and the soakaway while it is being constructed.

For further information contact the Building Control Division.

Please note that these guidance notes are for advice only and may not cover all situations. It is your responsibility to ensure that they are appropriate for use in your particular circumstance.