Effluent Land Drainage System Details to Accompany Planning Application for Septic Tank Drainage

1. Location of proposed development: Bwlch-y-Pridd,
Pantmawr,
Llangurig,
Powys

2. Site plan included: Yes.

3. Description of soil: 300mm topsoil over 600mm very stony clay subsoils.

4. Percolation test - BSI code of practice BS6297: 1983 Test procedure carried out -
   a) Excavate a hole 300mm square to a depth 250mm below the proposed invert level of the land drain.
   b) Fill the 300mm section completely with water and allow to seep away overnight.
   c) Next day, refill the test section with water to a depth 250mm and observe time in seconds for water to seep away completely.
   d) Divide this time by the depth in mm of the water placed in hole. Carry out test three times and take the average figure.

Hole One

Test 1 $\frac{1,800 \text{ secs}}{250\text{mm}} = 7.2$ Test 2 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$

Test 3 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$ Average result = 9.6

Hole Two

Test 1 $\frac{1,800 \text{ secs}}{250\text{mm}} = 7.2$ Test 2 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$

Test 3 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$ Average result = 9.6

Contd.

Contd.

Hole Three

Test 1 $\frac{1,800 \text{ secs}}{250\text{mm}} = 7.2$

Test 2 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$

Test 3 $\frac{2,700 \text{ secs}}{250\text{mm}} = 10.8$

Average result = 9.6

Overall average reading = $\frac{9.6 + 9.6 + 9.6}{3} = 9.6$

From the readings obtained the floor area of subsurface drains required to disperse effluents from a septic tank may be calculated as follows:

$At = P \times VP \times 0.25$

where

P is the number of persons served by the tank and VP is the average percolation value obtained

Therefore

$At = 6 \times 9.6 \times 0.25$

$At = 14.4$

Therefore a soakaway giving a surface area of 30m2 is appropriate in this instance.

I have supervised the above test and certify that the results are correct.

Signed..... [redacted] .. (Ian H. Pryce)

Qualification: Member Architecture and Surveying Institute (MASI)
Member Chartered Institute of Building (MCIOB)

On behalf of: Mr. and Mrs. A. Howells

Date of test: 6th/7th/8th December, 2020