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ASSESSMENT OF FOUL WATER DISCHARGE FROM PROPOSED 1 BED DWELLING AT MAES DERWEN. HIGHER LANE, BURTON, LL12 0AB TO SUPPORT A PLANNING APPLICATION.

Foul water discharge from the site.
For new dwellings the foul drainage hierarchy, outlined in Building Regulations Approved Document H, dictates the required method for disposing of wastewater.

The hierarchy of discharge options are,

1. Connection to a Foul Sewer
2. Package Sewage Treatment Plant with discharge to a drainage field
3. Septic Tank with discharge to a drainage field
4. Cesspool with waste removed periodically by tanker to a treatment facility.

In considering these options we have referred to,
Building Regulations Part H
BS 6297:2007 Code of practice for the design and installation of drainage fields.
General binding rules for small sewage discharges.

These possibilities for each of these are discussed below.

1. **Connection to a foul sewer**
   This is not possible due to no foul or combined sewers available in the vicinity.

2. **Package Sewage Treatment Plant (STP) with discharge to a drainage field.**
   For a 1 bed property a Klargester Bio Disc BA STP or equivalent is suitable, this can be used for up to 6 occupants of a dwelling. This required a drainage field to discharge the treated effluent to the sub soil.

Options 3 & 4 are discounted due to the suitability of the STP, however it is noted there is an existing septic tank serving the site. If this is suitable for re-use the drainage field requirements will be the same.

To determine the drainage field requirements a percolation test on the sub soil has been undertaken in accordance with Part H of the Building Regulations
We have carried out percolation tests on 17-19th June 2026, the sub soil conditions are dry, compact sand.

The overall depth of the trial holes dug were:

Trial Hole 1 = 1.2m
Trial Hole 2 = 1.2m
Trial Hole 3 = 1.2m

We confirm that the water table did not rise to within 1 metre of the invert of the proposed land irrigation scheme.

The weather conditions on the day were: generally warm and dry
The results of the percolation tests were:

Trial Hole 1 (time in seconds for a fall in water level of 150mm)

Test 1 3300 ÷150 =22.0
Test 2 3060 ÷150 =20.4
Test 3 3120 ÷150 =20.8
Average Vp 21.1

Use this average Vp figure in the following formula P x Vp x 0.25 = At

Where;
P = no of people served by the tank from British Water Flows and Loads - 4
At = floor area of the drainage field (in square metres)

P x Vp x 0.25 = At

3 x 21.1 x 0.25 = 15.8 m2 of drainage field.

Assuming a 600mm wide drainage trench then 15.8 m2 ÷ 0.6 = 26 linear meters

This can easily be achieved on the site in a loop system along the southern boundary of the site



D Lamb
Partner