# Foul Water Drainage

---

## Proposed Lodge

**NJS Rehabilitation**
**Whitewell Road**
**Cow Ark**
**Clitheroe**
**BB7 3DG**

---

Foul Water Drainage

**Proposed Package Treatment Unit – NJS Rehabilitation**

This foul water drainage scheme is required to treat sewage waste from a proposed timber lodge. The unit is for two bedrooms.

The capacity of the package treatment unit is calculated using British Water Codes of Practice – Flows and Loads 4; Sizing Criteria, Treatment Capacity for Sewage Treatment Systems.

The calculations will use the daily flow of 150 litres/person/day.

A treatment system for a single house with up to and including 3 bedrooms shall be designed for a minimum population of 5 people (P5).

On this basis the daily load will be

P5 x 150litres = 750 litres = 0.75$m^3$/day

**Drainage Field**

The position of the treatment unit and in particular the drainage field has been carefully selected. A test hole was excavated to determine the water table at the site. A 2000mm deep x 1200mm long x 600mm deep hole was excavated. The soil was free draining clay loam and no water was visible at 2000mm depth.

Percolation tests have been carried out at three points where the proposed drainage field will be located. The test hole sites are shown on the accompanying site plan.

The following results were recorded:

**Site 1 Percolation Tests**

**Date:** 18/10/2023 Conditions – Dry

Times for 150mm fall

| | | | Vp (Seconds/150) | |
|---|---|---|---|---|
| Hole1 | Test 1 | 38 mins | 15.2 | |
| | Test 2 | 43 mins | 17.2 | |
| | Test 3 | 46 mins | 18.4 | Average 16.9 |
| Hole 2 | Test 1 | 36 mins | 14.4 | |
| | Test 2 | 42 mins | 16.8 | |
| | Test 3 | 44 mins | 17.6 | Average 16.3 |
| Hole 3 | Test 1 | 42 mins | 16.8 | |
| | Test 2 | 45 mins | 18.0 | |
| | Test 3 | 46 mins | 18.4 | Average 17.7 |

All test holes were suitable and the overall average Vp is 17.0 which is in line with the guidance.

On this basis the length of drainage field (600mm trench) required has been calculated using the formula:

| | | | | | |
|---|---|---|---|---|---|
| P | x | Vp | x | 0.25 = $A_t$ | |
| 5 | x | 17.0 | x | 0.25 = 21.25m | 21.25 $m^2$÷ 0.60 = 35m linear |

**Package Treatment Unit**

A package treatment unit will be used to deal with sewage and foul water. The chosen system will be Certified to EN 12566 and compliant with Part H (H2) Building Regulations.

A Bio Pure 1 wastewater treatment unit is the chosen system. (See below)

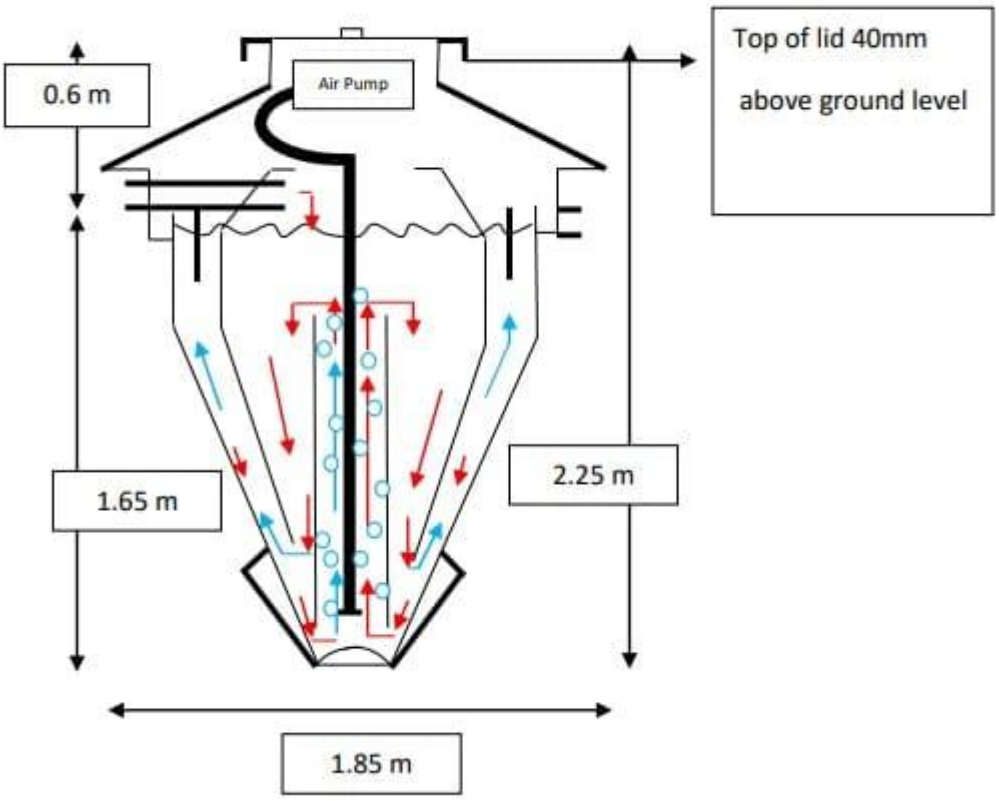
The drainage field will be constructed to meet the Wastewater Treatment Systems and Cesspools H2 Requirement contained in Building Regulations 2015.

The unit will be regularly serviced in accordance with the manufacturers recommendations and checked regularly to ensure the system is working effectively.

The total outflow volume is less than 2$m^3$/day and will meet the General Binding Rules. A discharge licence is not required.

Foul Water Drainage

# Bio-Pure 1 E Range Technical Sheet




| | |
|---|---|
| Product ID | BP-1 |
| Air Pump | 60ltr |
| No. of Persons | 1-5 |
| Max Average Daily Flow | 750ltr |
| Max BOD/Day | 300g |
| In Ground Depth | 2.25m |
| Outside Diameter | 1.85m |
| Inlet Invert | 600mm |
| Outlet Invert | 700mm |
| Weight Empty | 125kgs |
| Total Capacity | 2270ltr |
| Power Consumption for E Range | 27w |

Foul Water Drainage

SITE LOCATION PLAN
AREA 5 HA
SCALE 1:1250 on A4
CENTRE COORDINATES: 366476, 443662


Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
16/01/2025 18:30:19