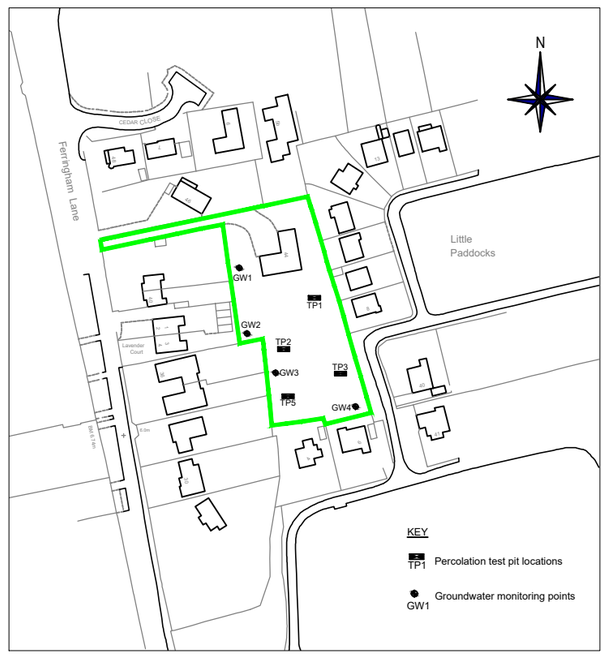


Location Plan
scale - 1: 1250 @ A2

Plan
scale - 1: 200 @ A2

Percolation test results

TP1 test 3 at 810mm depth - 1.635 x 10^{-5} m/s
TP2 test 3 at 720mm depth - 1.371 x 10^{-5} m/s
TP3 test 3 at 790mm depth - 1.861 x 10^{-4} m/s
TP4 Fill material found so no tests carried out
TP5 test 3 at 744mm depth - 5.819 x 10^{-5} m/s

Key

- Proposed surface water drainage 100mm diameter at minimum 1:100
- 250 dia surface water inspection chamber
- Min. 300mm dia surface water silt trap
- Surface water rodding eye
- Permeable paving to hydraulic and structural design
- Geocellular soakaway 3mx2mx400mm deep
- Concrete ring soakaway 1.2m diameter 1.4m deep to top of base
- + 5.644 Existing ground levels

Rev.	Description	App.	Chk.	Drn.	Date
-	Original			RTFC	7.4.22

Client: Globe Estates

Project: Land at 44 Ferringham Lane Ferring, West Sussex

Drawing Title: Surface Water Drainage Layout

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Scale	At original	Drawing Number	Revision
As shown	A2	2113/2/D1.1	-

Surface Water Drainage Design Notes

Ground conditions here comprise topsoil over silty, sandy clays and clayey sands (Brickearth) over Upper Chalk at depth. The Brickearth was found to extend from around 200mm below ground level to the end of the boreholes at 2.0m when nodules of chalk were becoming more prevalent. The Brickearth comprised compact silty clays with an increasing presence of flints from 0.6m down in some of the test pits.

Groundwater levels were monitored in four boreholes from the end of November 2021 through to the end of February 2022. Groundwater levels were found to range from 579mm below ground level in BH2 down to 700mm below ground level in BH4

Percolation testing to BRE 365 principles was undertaken only at shallow depth, as deep soakage is not appropriate for this site. Tests were carried out on the site in early July 2018 in four separate pits. These gave fairly consistent soil infiltration rates ranging from of 1.371 x 10^{-5} up to 1.861 x 10^{-4} m/s. The lowest value has been used in the hydraulic calculations.

Permeable concrete block paving is proposed for all of the access road and parking areas within the site. Three concrete ring soakaways are proposed which will collect roof water flows and distribute them to the permeable paving as required. No allowance has been made for the storage or soakage benefits of the concrete ring soakaways. One geocell is proposed for the southeast corner of Plot 4.

The permeable paving will require structural design following CBR testing but will likely comprise a hydraulically bound sub-base layer over coarse graded aggregate. A minimum of 400mm of combined sub-base will be required for surface water storage. Concrete stanks will be required as shown to allow for storage within the discrete compartments.