

Bearing Capacity & Soakage Test REPORT

Date: 25th March 2026

Report No: 10848/31

Client: Fernfield Homes

Site/Subject:

Chandigrah
Summerhouse Lane
Hillingdon

Soiltec Laboratories Limited was instructed to complete a limited site investigation to calculate further presumed allowable bearing capacities at the above site and adjacent soakage testing.

Field Work

The fieldwork comprised the excavation of two boreholes using track mounted Premier Windowless Sampler. The table below indicates the depths achieved during site works

Borehole	Depth (m)
WS5	1.45
WS6	1.45

The borehole locations are shown on the block plan included with this report.

Standard Penetration Tests (SPT/CPT) were carried out generally in accordance with BS EN ISO 22476-3:2005 + A1:2011 to determine relative density or hardness of the soils encountered. The results of penetration resistance and un-corrected N values are included in tabular form in this report.

SPT/CPT Results

From an examination of the SPT/CPT results allowable bearing capacities may be given for the following depths:

WS5: (within CHALK STRATA)

1.20m N = 5 Insufficient Bearing capacity within Chalk Strata

WS6: (within silty CLAY with Flints)

1.20m N = 7 65kN/m²

For the bearing capacity given, total settlements should remain within tolerable limits. Foundations should terminate wholly in one soil type in order to minimise the potential for differential settlements.

Surface Water Disposal

Borehole SA1 was subject to a modified BRE 365 Soakaway Design Test. The test is carried out in a borehole rather than a trial pit and therefore uses less water. The calculated percolation rate is based on a much smaller area than a trial pit. However, the test results do give an indication of the percolation rate achieved on site and is useful on restricted sites. This test was repeated undertaken twice.

The result of the soakage test indicated a good soakage potential for the site with a soil infiltration rates (f) of:

Test 1 = 3.83×10^{-04}

Test 2 = 4.85×10^{-04}

Traditional soakaways will effectively dispose of surface water from the proposed development provided that are installed at least 5.00m from any foundations and within the CHALK strata encountered in the location of the soakage test.



For and on behalf of
Soiltec Laboratories Limited

BRE Digest 365 Soakage Test (Borehole Method)

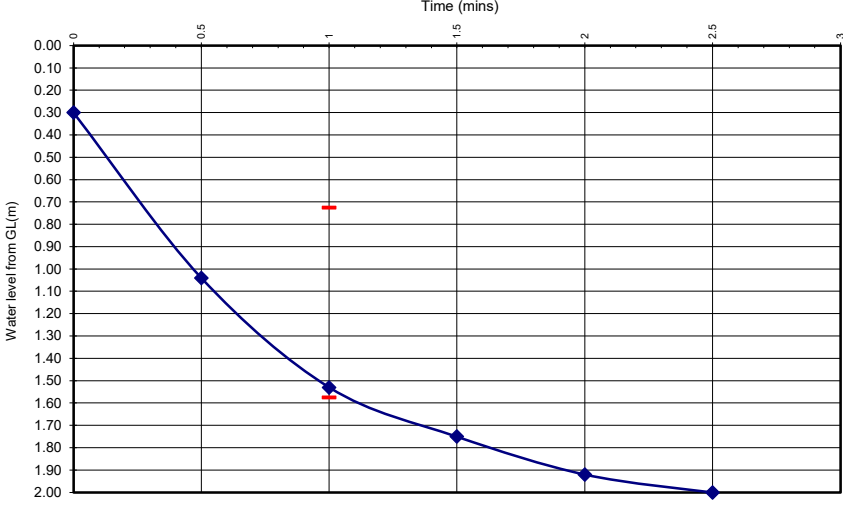
Client :	Fernfield Homes	Date of Test :	25/03/26
Site :	Chandighrah, Summerhouse Lane, Hillingdon	Report No:	09325/27
BH :	SA1 (a)		

Borehole:	
Diameter	0.15 m
Depth	2.00 m
Invert level*	0.30 m
Weather Conditions	Dry and Sunny
Ground conditions	Made ground over blocky chalk at 0.30M

Results		
Water level at start of test	(bgl)	0.30 m
Depth of borehole	(bgl)	2.00 m
Effective storage depth		1.70 m
75% effective storage depth		1.28 m
depth below GL		1.58 m
25% effective storage depth		0.43 m
depth below GL		0.73 m
Effective volume of outflowing between 75% and 25%		0.0075 m ³
Effective storage depth 75%-25%		0.85 m
Mean surface area	(a _{p50})	0.4006 m ²
Out flow time to 75% effective depth from graph		0.3 mins
Out flow time to 25% effective depth from graph		1.1 mins
Outflow time	(Tp75%-Tp25%)	0.8 mins

Soil Infiltration Rate (f) = 3.83E-04 m/s

Time mins	Depth to water (m)	
0	0.300	
0.5	1.040	
1	1.530	
1.5	1.750	
2	1.920	
2.5	2.000	



* or water level at start of test

Tested by	AH/RF
Approved	AH/RF

BRE Digest 365 Soakage Test (Borehole Method)

Client :	Fernfield Homes	Date of Test :	25/03/26
Site :	Chandighrah, Summerhouse Lane, Hillingdon	Report No:	09325/27
BH :	SA1 (b)		

Borehole:	
Diameter	0.15 m
Depth	2.00 m
Invert level*	0.20 m
Weather Conditions	Dry and Sunny
Ground conditions	Made ground over blocky chalk at 0.30M

Results		
Water level at start of test	(bgl)	0.20 m
Depth of borehole	(bgl)	2.00 m
Effective storage depth		1.80 m
75% effective storage depth		1.35 m
depth below GL		1.55 m
25% effective storage depth		0.45 m
depth below GL		0.65 m
Effective volume of outflowing between 75% and 25%		0.0080 m ³
Effective storage depth 75%-25%		0.90 m
Mean surface area	(<i>a</i> _{p50})	0.4242 m ²
Out flow time to 75% effective depth from graph		0.2 mins
Out flow time to 25% effective depth from graph		0.8 mins
Outflow time	(Tp75%-Tp25%)	0.6 mins

Soil Infiltration Rate (*f*) = 4.85E-04 m/s

Time mins	Depth to water (m)	
0	0.200	
0.5	1.330	
1	1.650	

* or water level at start of test

Tested by	AH/RF
Approved	AH/RF



Scale: nts

Drawn : AH

Location : Chandigarh, Summerhouse Lane

Report: 10848/31

Title : Site Location Plan

Fig. No.: 3