Marling Court Care Home
2 Bramble Lane
Hampton
London

In Situ Infiltration Test Report

Report Beneficiary:
Country Court Care Homes 2 Ltd and Group Companies
Olympus House
Staniland Way
Werrington
Peterborough
PE4 6NA

Project Reference: P16581

Report Reference: R16182

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1. INTRODUCTION

Ashdown Site Investigation Ltd was requested to undertake in situ infiltration at Marling Court Care Home, 2 Bramble Lane, Hampton, London.

The specific objectives of the works were to:
a) Establish the expected geology and hydrogeology at the site;
b) Investigate the shallow ground and groundwater conditions at the specified locations; and
c) Undertake in situ infiltration testing in the specified locations and provide calculated infiltration rates to assist other with the drainage design.

The scope of the works covered by this report, and the terms and conditions under which they were undertaken, were set out within the offer letter Q13995, dated 28th March 2024. The instruction to proceed was received from the client.

2. SITE CONTEXT

2.1 Site Location

The site is located at Marling Court Care Home, 2 Bramble Lane, Hampton, London, and is centred on the approximate Ordnance Survey national grid reference 512850, 170870. A site location plan and site plan are presented as Figure 1 and Figure 2, respectively.

2.2 Geological and Hydrogeological Data

2.2.1 Expected Geology and Aquifer Designation

The stratigraphic succession that may be expected to underlie the site has been established by reference to British Geological Survey (BGS) mapping and the BGS Lexicon of Named Rock Units. The expected stratigraphy is presented in the following table.

Table 1. Expected Strata and Aquifer Designation

Type	Stratum	Aquifer Designation
Superficial	Taplow Gravel Member	Principal Aquifer
Bedrock	London Clay Formation	Unproductive Stratum

The Taplow Gravel Member forms part of the river terrace gravel associated with the Thames. It typically comprises sand, derived mainly from the Tertiary beds, together with gravel of sub angular flint, chert and Greensand Formation rock types.

The London Clay Formation forms part of the Thames Group. The formation is of Ypresian age (47.8 to 56 million years old; Early Eocene). The London Clay Formation mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occurs in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels. The formation is recorded by the BGS to range in thickness up to 150m.

2.2.2 Groundwater Source Protection Zones (SPZ)

The Environment Agency defines SPZs as those areas where groundwater supplies are at risk from potentially polluting activities and accidental releases of pollutants. SPZs are primarily a policy tool used to control activities close to water supplies intended for human consumption.

The site does not lie within a SPZ.

3. SITE WORKS

The intrusive site works comprised three dynamic sampler boreholes, designated WS01 to WS03, drilled to depths of between 1.45m and 2.00m below ground level. The intrusive work was carried out on 18th April 2024. The exploratory hole locations are shown on Figure 2.

Borehole WS03 was attempted at several locations along the grass verge in the vicinity of the specified position but none of the positions could reach the scheduled depth of 2.00m due to the presence of very dense made ground soils. Due to access restrictions for the tracked dynamic sampler rig, borehole WS02 was also moved to just outside of the enclosed courtyard area.

Falling head soakage tests were undertaken in each borehole in general accordance with Kent County Council guidance[1].

Descriptions of the strata encountered and comments on groundwater conditions are shown in the exploratory hole records given in the appendices to this report, together with notes to assist in their interpretation. The results of the in situ infiltration testing are also included in the appendices.

[1] The Soakaway Design Guide published by Kent County Council, 2000.

4. GROUND CONDITIONS

4.1 Stratigraphy

4.1.1 Surface Covering

Boreholes WS01 and WS03 were excavated through an initial surface cover of topsoil; woodchips were recorded at surface at the position of borehole WS02.

4.1.2 Made Ground

Made ground, generally comprising gravelly sandy clay and/or sandy clayey gravel, was recorded to the full depth of borehole WS03 (1.45m) and to depths of 1.05m and 0.70m below ground level in boreholes WS01 and WS02, respectively.

The gravel fraction comprised variable quantities of flint, brick, concrete, slate, ironstone, clinker-like material, charcoal-like material and plastic.

4.1.3 Taplow Gravel Member

Underlying the made ground/surfacing, boreholes WS01 and WS02 progressed into undisturbed sandy clayey gravel deposits which persisted to the fill depths of the boreholes.

These deposits are considered to represent the Taplow Gravel Member indicated to underlie the site on BGS geological maps.

4.2 Stability

Instability was recorded locally within the made ground and coarse-grained soils encountered.

4.3 Groundwater Conditions

Each of the exploratory holes was recorded to remain dry during the course of drilling.

It should be noted that water levels within the exploratory holes may not have equilibrated with the groundwater table at the time the readings were recorded and that groundwater levels should be expected to fluctuate seasonally.

5. STORMWATER INFILTRATION SYSTEMS

In-situ infiltration testing[2] was undertaken in boreholes WS01 and WS02. From the test results, calculations were made to estimate the infiltration rate that could be expected for the underlying soils within the test zone.

Due to the fact that water levels could not be raised significantly above the base of the casing within borehole WS03, calculation of the soil infiltration rates in accordance with the guidance was not possible. For the testing carried out within borehole WS03 the soil infiltration rate has been calculated by dividing the volume of water introduced into the borehole, by the product of the surface area of response/exposed test zone and the test duration in seconds.

The infiltration rates derived from the tests are summarised in the following table.

Table 2. Calculated Infiltration Rates

Exploratory Hole	Test Response Zone Depth (m)		Stratum	Infiltration Rate (f) (m/sec)		
				Driving Head of Water (m)		
	Top	Bottom		1.20	0.80	0.50
WS01 Test 1	1.00	2.00	Taplow Gravel Member	9.99×10^{-5}	4.79×10^{-5}	2.28×10^{-5}
WS01 Test 2	1.00	2.00	Taplow Gravel Member	5.79×10^{-5}	3.03×10^{-5}	1.11×10^{-5}
WS01 Test 3	1.00	2.00	Taplow Gravel Member	5.56×10^{-5}	2.51×10^{-5}	1.39×10^{-5}
WS02 Test 1	1.00	2.00	Taplow Gravel Member	4.07×10^{-5}	2.05×10^{-5}	1.30×10^{-5}
WS02 Test 2	1.00	2.00	Taplow Gravel Member	2.54×10^{-5}	1.71×10^{-5}	9.99×10^{-6}
WS02 Test 3	1.00	2.00	Taplow Gravel Member	1.29×10^{-5}	8.79×10^{-6}	5.76×10^{-6}
WS03 Test 1	1.00	1.45	Made Ground - Gravel	2.54×10^{-3}		
WS03 Test 2	1.00	1.45	Made Ground – Gravel	2.26×10^{-3}		
WS03 Test 3	1.00	1.45	Made Ground - Gravel	2.15×10^{-3}		

The value 'f' is equivalent to the soil infiltration coefficient 'q' quoted in the Construction Industry Research and Information Association (CIRIA) Report 156.

The results from the infiltration tests should be provided to engineers responsible for the design of the drainage system.

To comply with building regulations[3], any new point discharging infiltration systems (conventional ring or trench soakaways) are required to be constructed a minimum of 5.0m away from proposed or existing buildings.

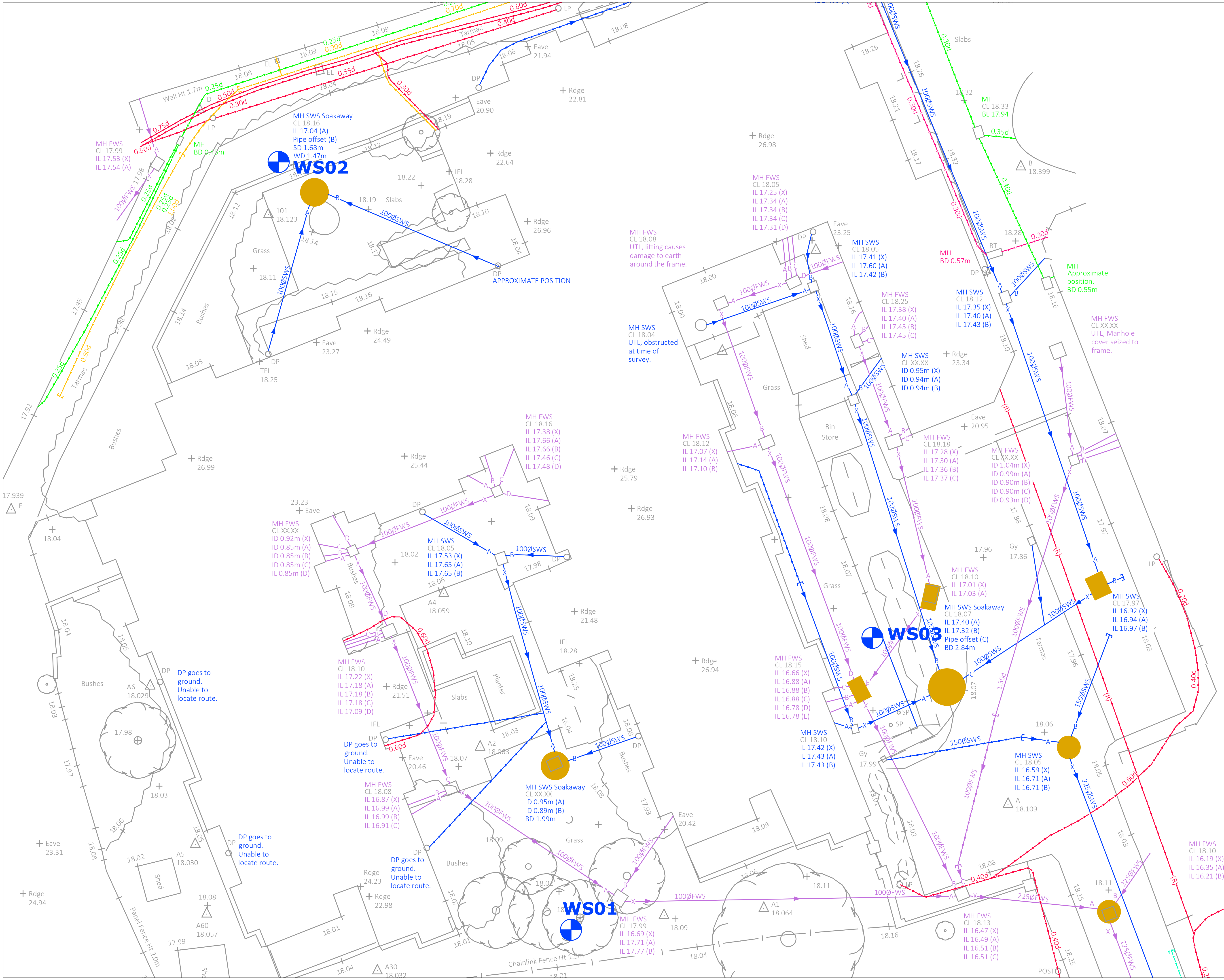
Ashdown Site Investigation Ltd.

[2] Conducted in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.
[3] The Building Regulations 2010; Part H; Drainage and Waste Disposal

FIGURES AND APPENDICES

Figure 1 Site Location Plan
Figure 2 Site Plan
Explanatory Notes
Exploratory Hole Records
Borehole In Situ Infiltration Test Results

ASHDOWN SITE INVESTIGATION LIMITED	Site Location Plan	Site Name	Figure No.	Project Reference
		Marling Court Care Home, 2 Bramble Lane, Hampton, London	1	P16581



WS01
WS02
WS03
MH SWS Soakaway
CL 18.16
IL 17.04 (A)
Pipe offset (B)
SD 1.68m
WD 1.47m
MH FWS
CL 17.99
IL 17.53 (X)
IL 17.54 (A)
MH
BD 0.45m
DP
APPROXIMATE POSITION
MH FWS
CL 18.05
IL 17.25 (X)
IL 17.34 (A)
IL 17.34 (B)
IL 17.34 (C)
IL 17.31 (D)
MH FWS
CL 18.08
UTL, lifting causes damage to earth around the frame.
MH SWS
CL 18.05
IL 17.41 (X)
IL 17.60 (A)
IL 17.42 (B)
MH SWS
CL 18.04
UTL, obstructed at time of survey.
MH
BD 0.57m
MH
Approximate position.
BD 0.55m
MH
CL 18.33
BL 17.94
MH SWS
CL 18.12
IL 17.35 (X)
IL 17.40 (A)
IL 17.43 (B)
MH FWS
CL 18.25
IL 17.38 (X)
IL 17.40 (A)
IL 17.45 (B)
IL 17.45 (C)
MH SWS
CL XX.XX
ID 0.95m (X)
ID 0.94m (A)
ID 0.94m (B)
MH FWS
CL XX.XX
UTL, Manhole cover seized to frame.
MH FWS
CL 18.16
IL 17.38 (X)
IL 17.66 (A)
IL 17.66 (B)
IL 17.46 (C)
IL 17.48 (D)
MH FWS
CL 18.12
IL 17.07 (X)
IL 17.14 (A)
IL 17.10 (B)
MH FWS
CL 18.18
IL 17.28 (X)
IL 17.30 (A)
IL 17.36 (B)
IL 17.37 (C)
MH FWS
CL XX.XX
ID 1.04m (X)
ID 0.99m (A)
ID 0.90m (B)
ID 0.90m (C)
ID 0.93m (D)
MH FWS
CL XX.XX
ID 0.92m (X)
ID 0.85m (A)
ID 0.85m (B)
ID 0.85m (C)
IL 0.85m (D)
MH SWS
CL 18.05
IL 17.53 (X)
IL 17.65 (A)
IL 17.65 (B)
MH FWS
CL 18.10
IL 17.01 (X)
IL 17.03 (A)
MH SWS Soakaway
CL 18.07
IL 17.40 (A)
IL 17.32 (B)
Pipe offset (C)
BD 2.84m
MH SWS
CL 17.97
IL 16.92 (X)
IL 16.94 (A)
IL 16.97 (B)
MH FWS
CL 18.10
IL 17.22 (X)
IL 17.18 (A)
IL 17.18 (B)
IL 17.18 (C)
IL 17.09 (D)
DP goes to ground. Unable to locate route.
MH FWS
CL 18.15
IL 16.66 (X)
IL 16.88 (A)
IL 16.88 (B)
IL 16.88 (C)
IL 16.78 (D)
IL 16.78 (E)
MH SWS
CL 18.10
IL 17.42 (X)
IL 17.43 (A)
IL 17.43 (B)
MH SWS Soakaway
CL XX.XX
ID 0.95m (A)
ID 0.89m (B)
BD 1.99m
MH FWS
CL 18.08
IL 16.87 (X)
IL 16.99 (A)
IL 16.99 (B)
IL 16.91 (C)
MH SWS
CL 18.05
IL 16.59 (X)
IL 16.71 (A)
IL 16.71 (B)
MH FWS
CL 17.99
IL 16.69 (X)
IL 17.71 (A)
IL 17.77 (B)
MH FWS
CL 18.13
IL 16.47 (X)
IL 16.49 (A)
IL 16.51 (B)
IL 16.51 (C)
MH FWS
CL 18.10
IL 16.19 (X)
IL 16.35 (A)
IL 16.21 (B)
100ØSWS
100ØFWS
150ØSWS
225ØSWS
225ØFWS
Grass
Bushes
Slabs
Tarmac
Shed
Bin Store
Planter
Wall Ht 1.7m
Chainlink Fence Ht 1.5m
Panel Fence Ht 2.0m
N

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Site:	Marling Court Care Home 2 Bramble lane Hampton London
Project Ref:	P16581
Figure No.	2
Drawing Title	Site Plan
Scale	NTS

Explanatory Notes

Symbols and abbreviations on Exploratory Hole Records

Samples

U 'Undisturbed' Sample: - 100mm diameter by 450mm long. The number of blows to drive in the sampling tube is shown after the test index letter in the SPT column.
Pi Piston Sample: 'Undisturbed' sample 100mm diameter by 600mm long.
D Disturbed Sample
R Root Sample
B Bulk Disturbed Sample
W Water Sample
ES Environmental Suite (on older records may be referenced J T)

In Situ Testing

S Standard penetration test (SPT): Using the split spoon sampler.
C Standard Penetration Test (SPT): Using a solid cone instead of the sampler – conducted usually in coarse grained soils or weak rocks.
V Shear Vane Test: Undrained shear strength (cohesion) (kN/m^2) shown within the Vane/Pen Test and N Value column.
H Hand penetrometer Test: Undrained shear strength (cohesion) (kN/m^2) shown within the Vane/Pen Test and N Value column.
P Perth Penetrometer Test: Number of blows for 300mm penetration shown under Vane/Pen Test and N Value column.

Excavation Method

CP Cable Percussion Borehole
RC Rotary Cored Borehole
WLS Dynamic Sampler Borehole using windowless sampler tubes
WS Dynamic Sampler Borehole using window sampler tubes
TP Trial Pit excavated using mechanic excavator
HDP Trial Pit excavated using hand tools

Soil Description

Description and classification of soils has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of soil, Part 1 Identification and description (BS EN ISO 14688-1) and Part 2 Principles of classification (BS EN 14688-2) as well as the BS5930 code of Practice for Ground Investigations.

Rock Description

Description and classification of rocks has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of rock, Part 1 Identification and classification (BS EN ISO 14689-1) as well as the BS5930 code of Practice for Ground Investigations. TCR – Total Core Recovery, SCR – Solid Core Recovery, RQD – Rock Quality Designation, NI – Non Intact, If – indicative fracture spacing (min/ave/max), FI – Fracture Index.

Chalk Description

Chalk description is based on BS EN ISO 14688, BS EN ISO 14689 and BS5930. The classification of chalk generally follows the guidance offered by the Construction Industry Research and Information Association (CIRIA) C574, 'Engineering in Chalk'. This is based on assessment of chalk density, discontinuity and aperture spacing, and the proportion of intact chalk to silt of chalk.

In Situ Strength Testing

Standard penetration testing (SPT) carried out in accordance with BS EN ISO 22476-3:2005.

Continuous dynamic probe testing conducted using a super heavy DPSH-B (As defined by BS EN ISO 22476-2:2005) probing geometry. The DPSH-B configuration is similar to that of the standard penetration test (SPT); the main differences being that the tip comprises a 90° cone, the driving rods are lighter than those used for SPT testing and the blow counts are recorded over 100mm increments rather than 300mm, as is the case for the SPT.

Perth penetrometer tests carried out in accordance with Australian Standard AS 1289:6.3.3-1997, Method of Testing Soils for Engineering Purposes; no equivalent European or British Standard having been published to date.

Undrained shear strength determinations made in-situ using a Geonor hand shear vane or a hand penetrometer.

Testing to determine the in-situ California Bearing Ratio (CBR) of soils conducted at shallow depths using a hand-held Transport Research Laboratory (TRL) cone penetrometer.

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Site Name: Marling Court Care Home, 2 Bramble Lane, Hampton, London

Job Number: P16581

Start Date: 18/04/2024

End Date: 18/04/2024

Borehole Number: **WS01** Sheet 1 of 1

Standpipe	Samples and In Situ Testing: Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Dynamic Probe 0 5 10 15 20 25 30	Legend	Depth	Stratum Description
	D	0.10					0.00	Topsoil over, MADE GROUND: Dark brown slightly gravelly slightly sandy clay. Gravel is subangular to subrounded fine to coarse flint, brick and clinker-like material.
							0.30	MADE GROUND: Brown dark brown orange brown and grey gravelly sandy silty clay. Gravel is subangular to subrounded fine to coarse flint, brick, rare concrete and charcoal-like material.
	D	0.80						
							1.05	Orange brown mottled light grey very sandy clayey subangular to subrounded fine to coarse GRAVEL of flint. (Taplow Gravel Member)
	D	1.50						
							2.00	End of borehole at 2.00m

Remarks

Groundwater: Borehole dry on completion.

Stability: Borehole cased to 1.00m depth.
Borehole collapsed to 1.90m depth on completion.

Notes: n/a

Excavation Method: WLS

Borehole Diameter: Various

Made By: GRD

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Site Name: Marling Court Care Home, 2 Bramble Lane, Hampton, London

Job Number: P16581

Start Date: 18/04/2024

End Date: 18/04/2024

Borehole Number: **WS02** Sheet 1 of 1

Standpipe	Samples and In Situ Testing: Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Dynamic Probe 0 5 10 15 20 25 30	Legend	Depth	Stratum Description
	D	0.10					0.00	Wood chips over,
	D	0.30					0.25	MADE GROUND: Dark brown slightly gravelly silty clay. Gravel is subangular to subrounded fine to coarse flint and brick. with a cobble of brick between 0.20m and 0.25m depth.
	D	0.60					0.40	MADE GROUND: Brown and yellow brown gravelly sandy clay. Gravel is subangular to subrounded fine to coarse flint, brick, concrete and plastic. with a cobble of concrete between 0.35m and 0.40m depth.
	D	0.90					0.70	MADE GROUND: Dark brown gravelly slightly sandy silty clay. Gravel is subangular to subrounded fine to coarse flint and brick.
							1.00	Dark brown brown and orange brown mottled slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to coarse flint. (Taplow Gravel Member)
	D	1.60						Orange brown very sandy clayey subangular to subrounded fine to coarse GRAVEL of flint. (Taplow Gravel Member)
							2.00	End of borehole at 2.00m

Remarks

Groundwater: Borehole dry on completion.

Stability: Borehole cased to 1.00m depth.
Borehole collapsed to 1.88m depth on completion.

Notes: n/a

Excavation Method: WLS

Borehole Diameter: Various

Made By: GRD

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Site Name: Marling Court Care Home, 2 Bramble Lane, Hampton, London

Job Number: P16581

Start Date: 18/04/2024

End Date: 18/04/2024

Borehole Number: **WS03**

Standpipe	Samples and In Situ Testing: Sample/ Test Type	Depth From (m)	Depth To (m)	Test Result	Dynamic Probe 0 5 10 15 20 25 30	Legend	Depth	Stratum Description
	D	0.20					0.00	Topsoil over, MADE GROUND: Dark brown slightly gravelly sandy clay. Gravel is subangular to subrounded fine to coarse flint, rare brick and charcoal-like material and slate.
							0.40	with a band of orange brown clay below 0.35m depth. MADE GROUND: Black sandy clayey subangular to subrounded fine to coarse gravel of flint, charcoal-like material, clinker-like material and ironstone.
							1.45	End of borehole at 1.45m

Remarks

Groundwater: Borehole dry on completion.

Stability: Borehole cased to 1.00m depth.
Borehole unstable below 1.45m depth on completion.

Notes: n/a

Excavation Method: WLS

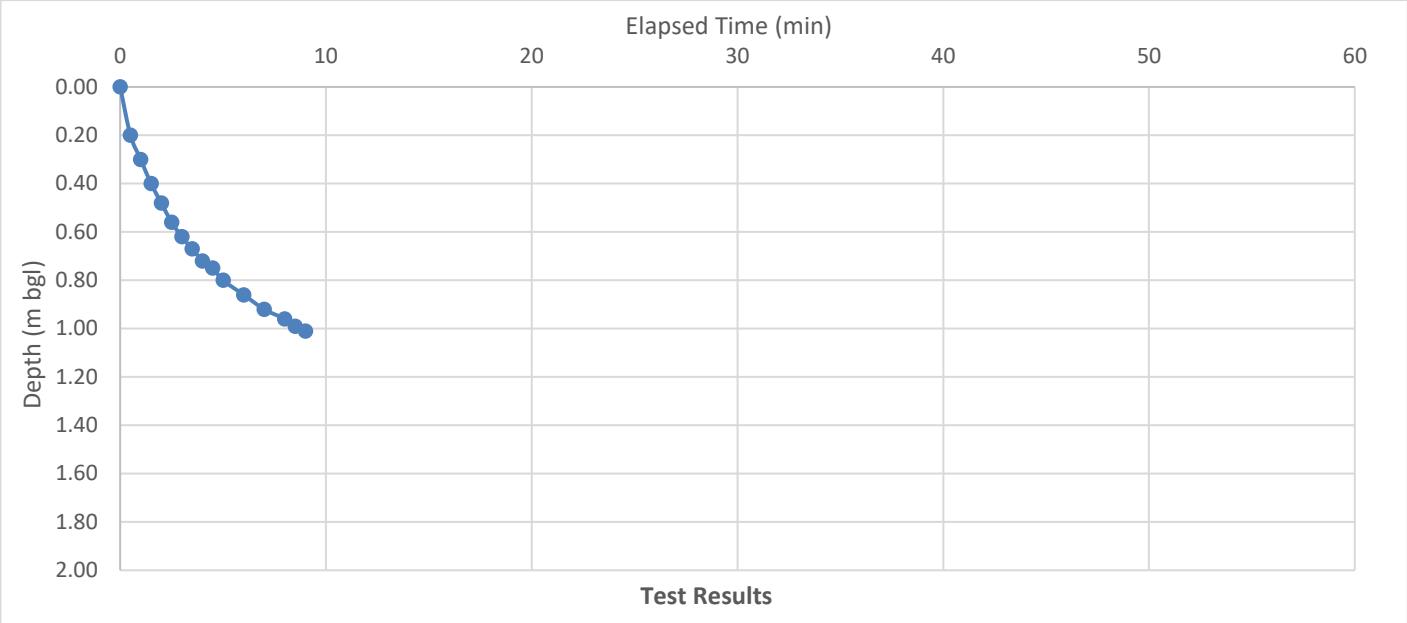
Borehole Diameter: Various

Made By: GRD

Infiltration Test Results

Test Position	WS01
Test No.	1
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

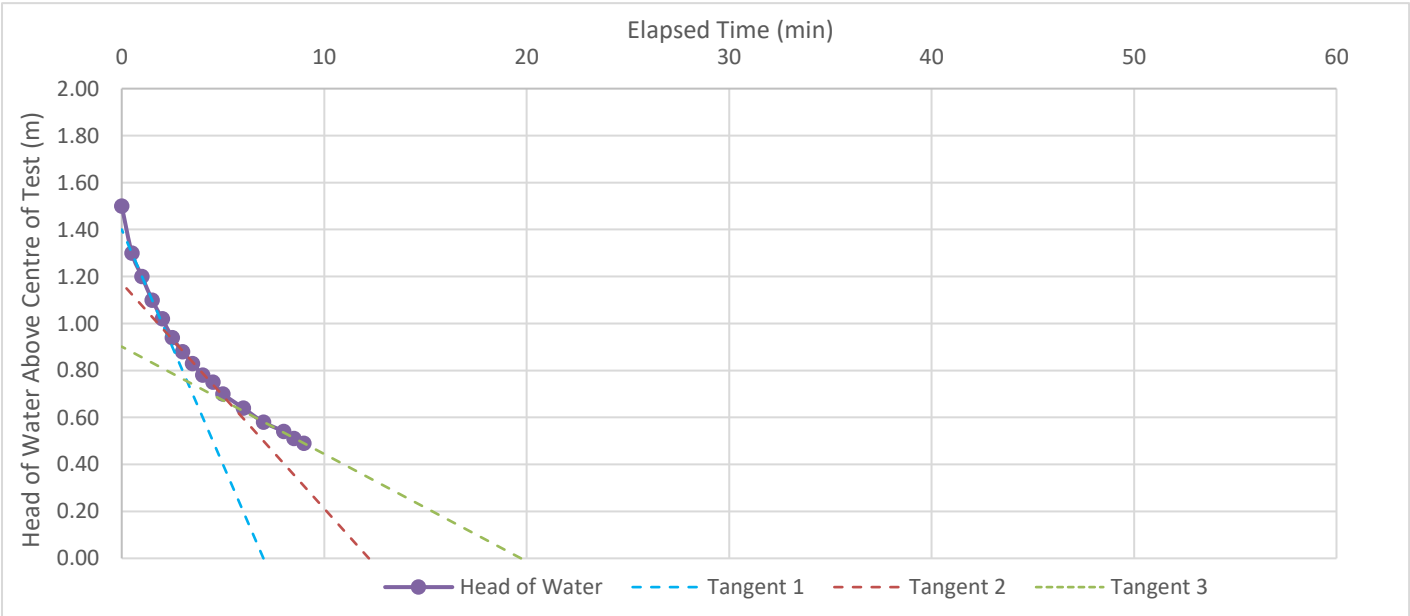
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.00 m	
Water level at end of test	1.01 m	
Duration of test	9 min	
Average Depth Of Water	1.50 m	
Average Drained Area	0.44 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**9.99E-05**	**4.79E-05**	**2.28E-05**	**m/sec**

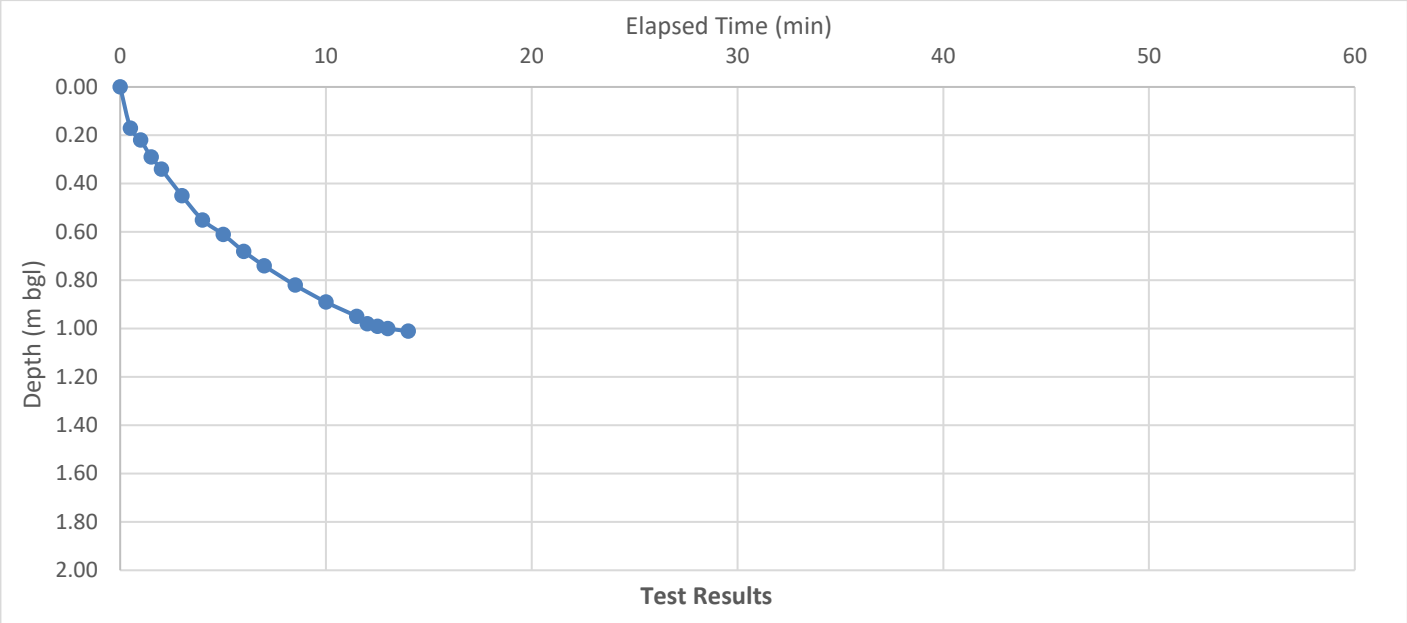
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS01
Test No.	2
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

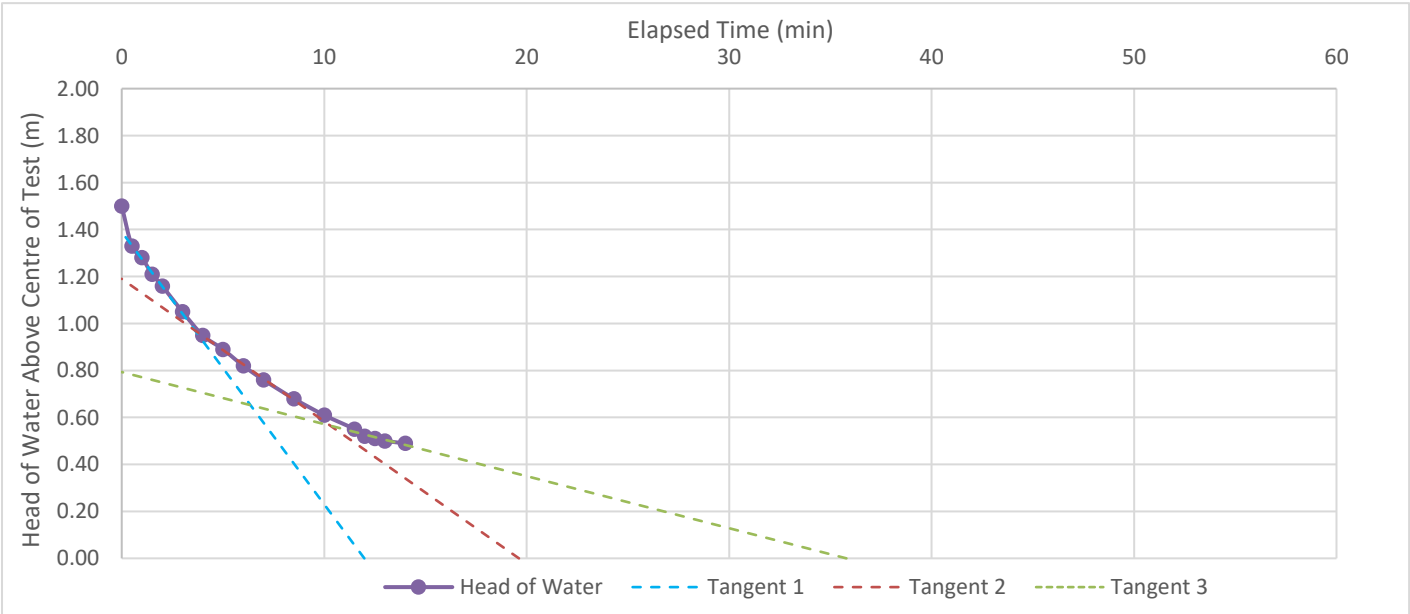
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.00 m	
Water level at end of test	1.01 m	
Duration of test	14 min	
Average Depth Of Water	1.50 m	
Average Drained Area	0.44 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**5.79E-05**	**3.03E-05**	**1.11E-05**	**m/sec**

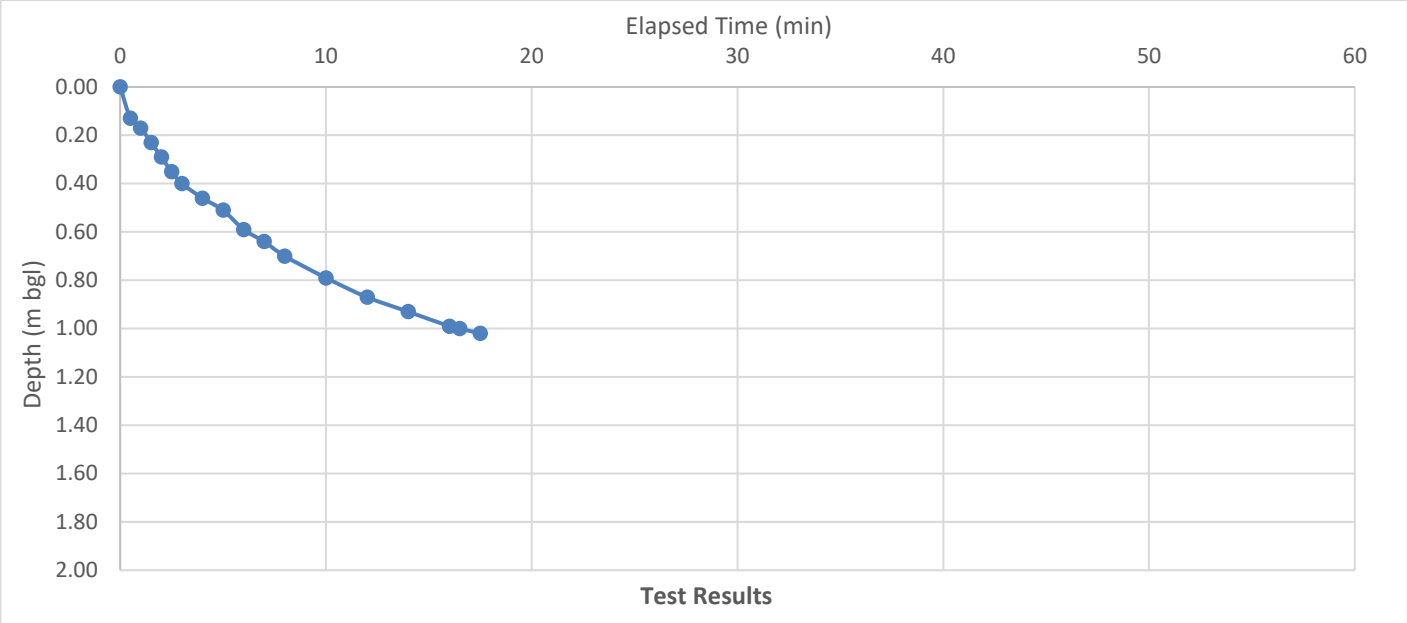
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS01
Test No.	3
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

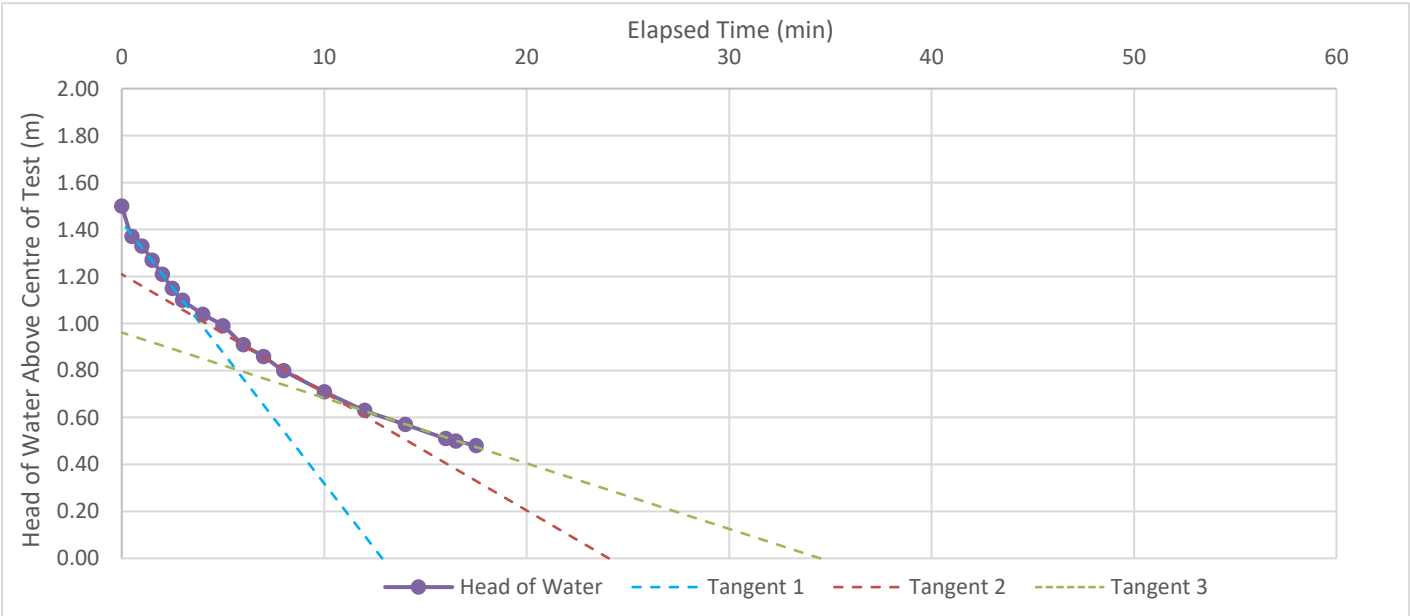
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.00 m	
Water level at end of test	1.02 m	
Duration of test	18 min	
Average Depth Of Water	1.49 m	
Average Drained Area	0.44 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**5.56E-05**	**2.51E-05**	**1.39E-05**	**m/sec**

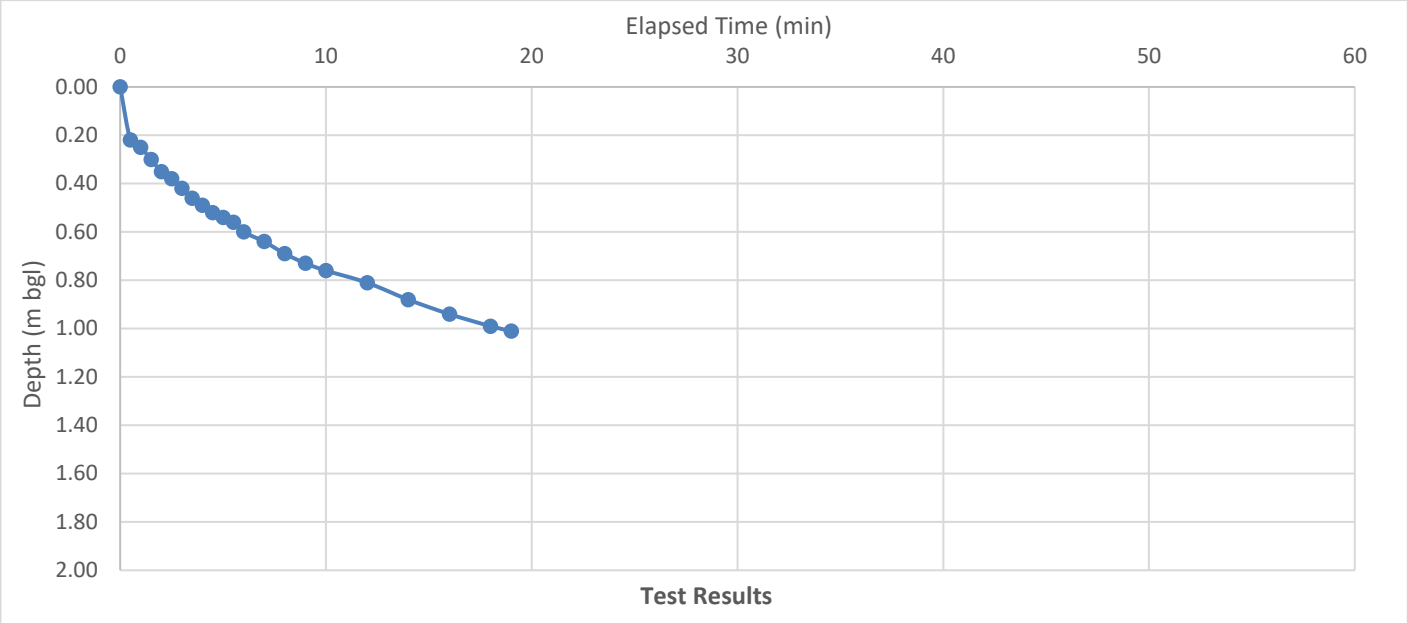
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS02
Test No.	1
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

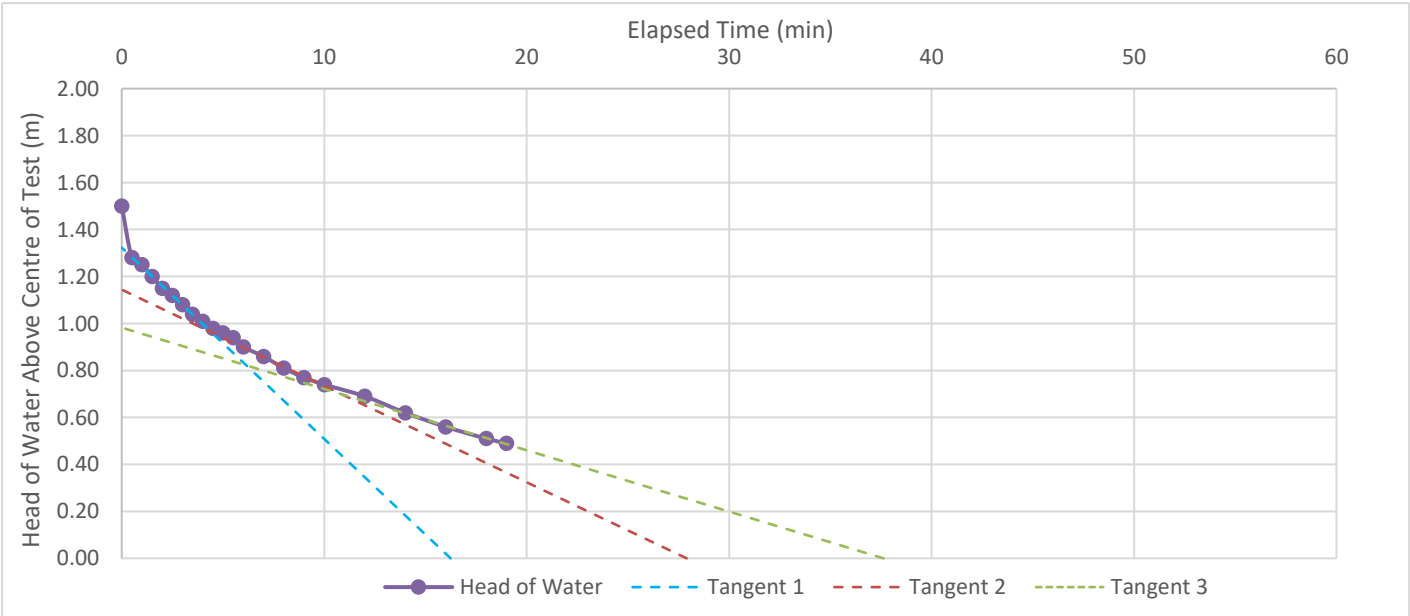
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.00 m	
Water level at end of test	1.01 m	
Duration of test	19 min	
Average Depth Of Water	1.50 m	
Average Drained Area	0.44 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**4.07E-05**	**2.05E-05**	**1.30E-05**	**m/sec**

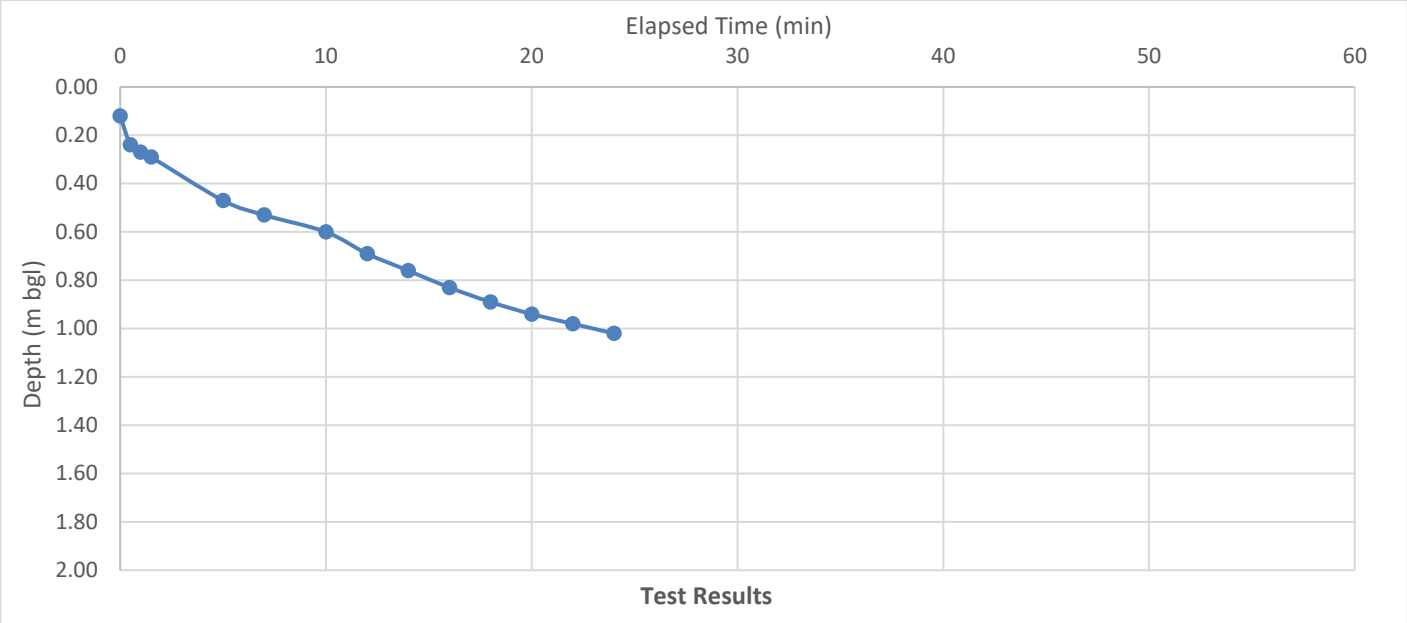
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS02
Test No.	2
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

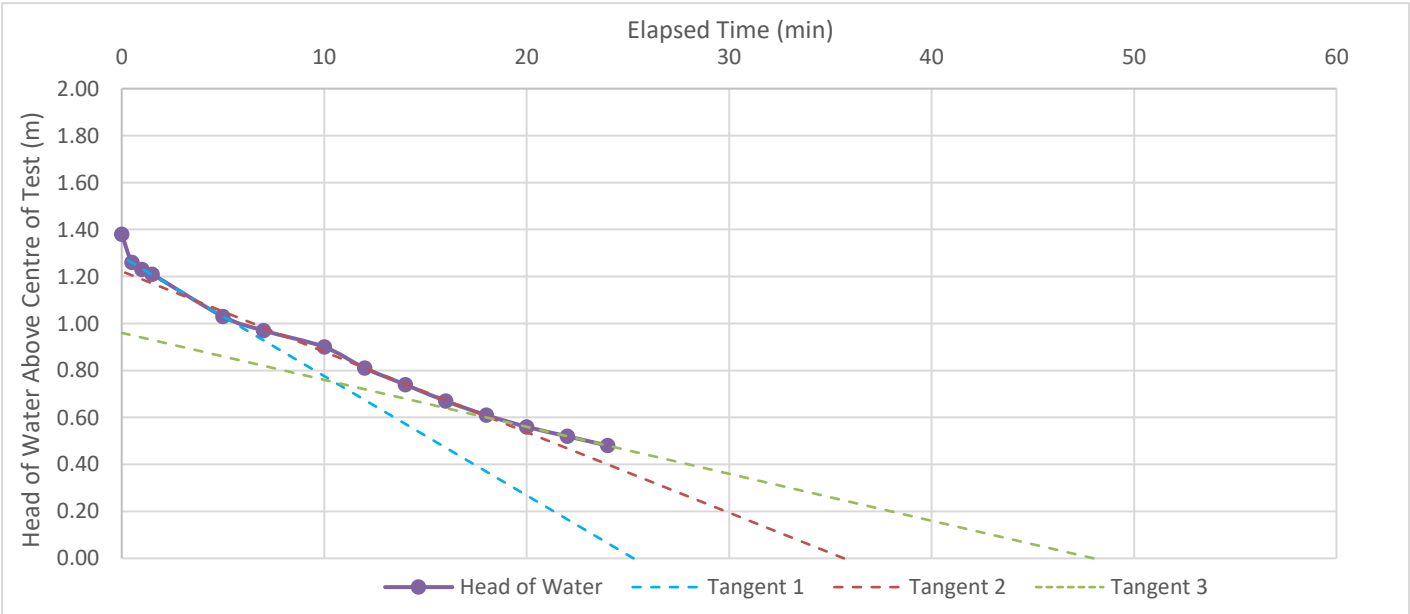
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.12 m	
Water level at end of test	1.02 m	
Duration of test	24 min	
Average Depth Of Water	1.43 m	
Average Drained Area	0.42 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**2.54E-05**	**1.71E-05**	**9.99E-06**	**m/sec**

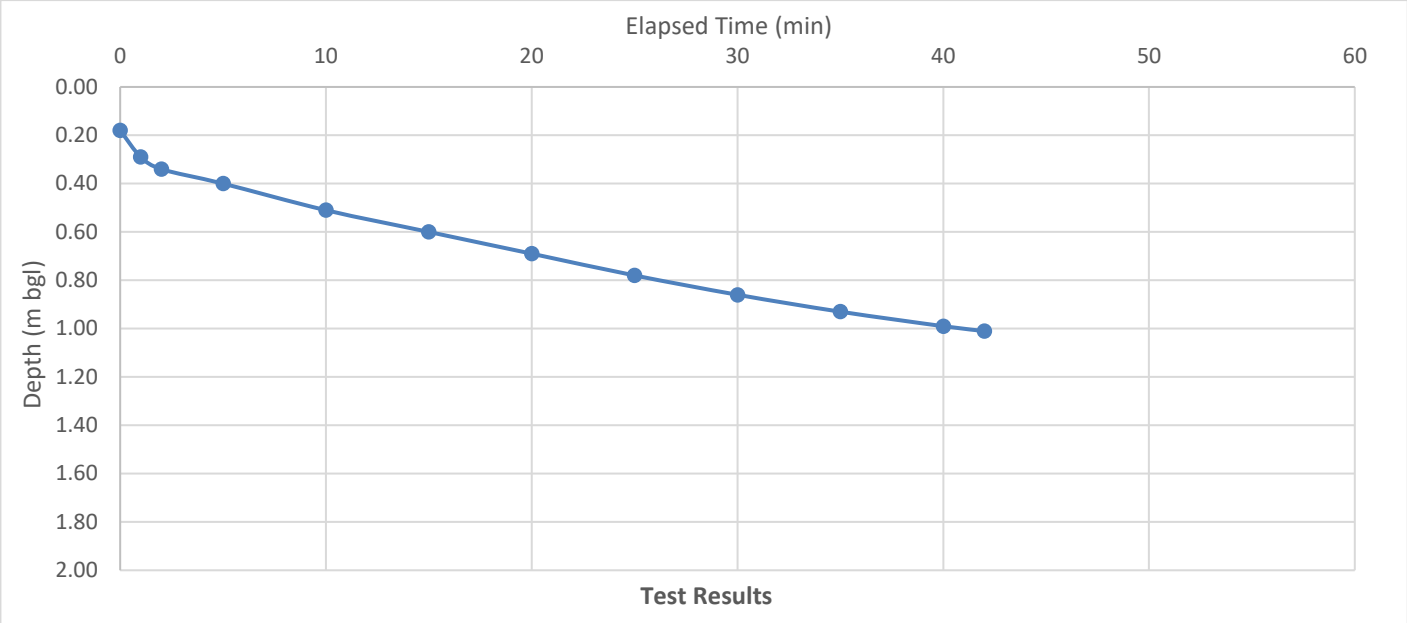
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS02
Test No.	3
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

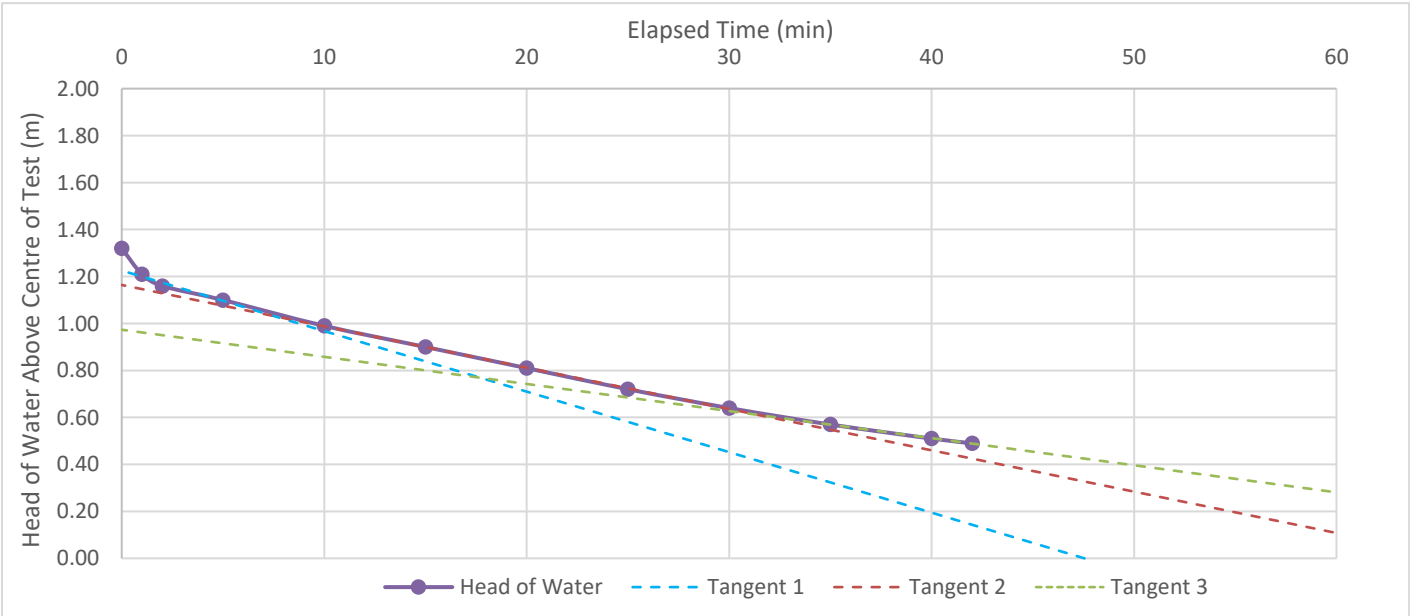
Casing Depth	1.00	m blg
Borehole Depth	2.00	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	1.00 m	L
Depth to Center of Test Zone	1.50 m	X
Water level at start of test	0.18 m	
Water level at end of test	1.01 m	
Duration of test	42 min	
Average Depth Of Water	1.41 m	
Average Drained Area	0.41 m^2	
Volume of Water Lost	0.01 m^3	

Driving Head	**1.2**	**0.8**	**0.5**	**m**
Infiltration rate	**1.29E-05**	**8.79E-06**	**5.76E-06**	**m/sec**

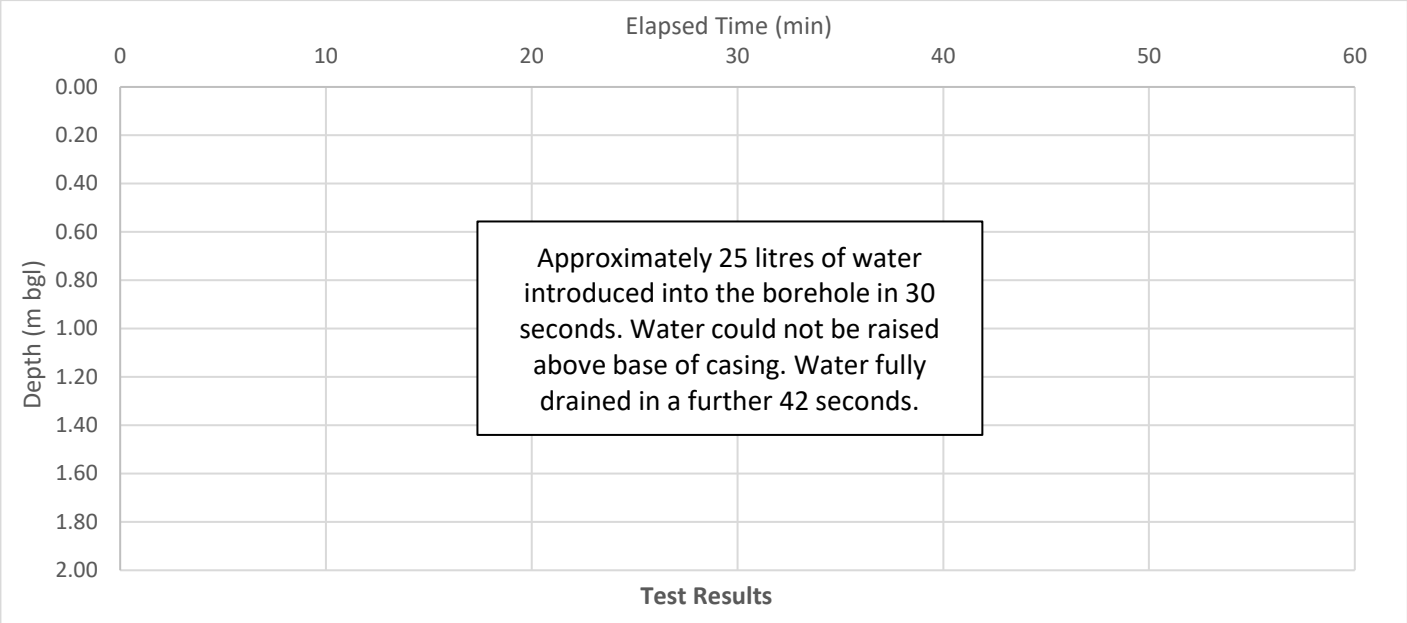
Calculation method: Calculated in accordance with The Soakaway Design Guide, published by Kent County Council, July 2000.



Infiltration Test Results

Test Position	WS03
Test No.	1
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

Casing Depth	1.00	m blg
Borehole Depth	1.45	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m

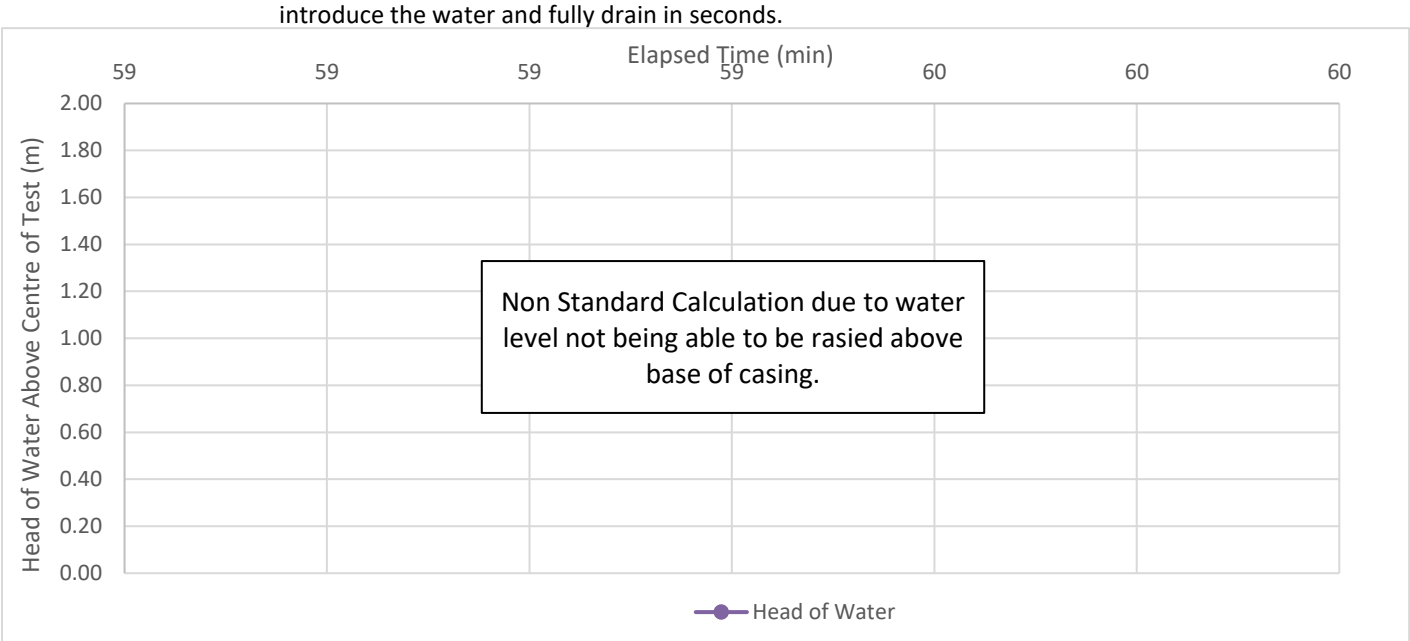


Length of Test Zone	n/a	m	L
Depth to Center of Test Zone	n/a	m	X
Water level at start of test	n/a	m	
Water level at end of test	n/a	m	
Duration of test	1.2	min	
Length of Response Zone	0.45	m	
Drainage Surface Area	0.14	m^2	
Volume of Water Lost	0.025	m^3	

Driving Head

Infiltration rate **2.54E-03 m/sec**

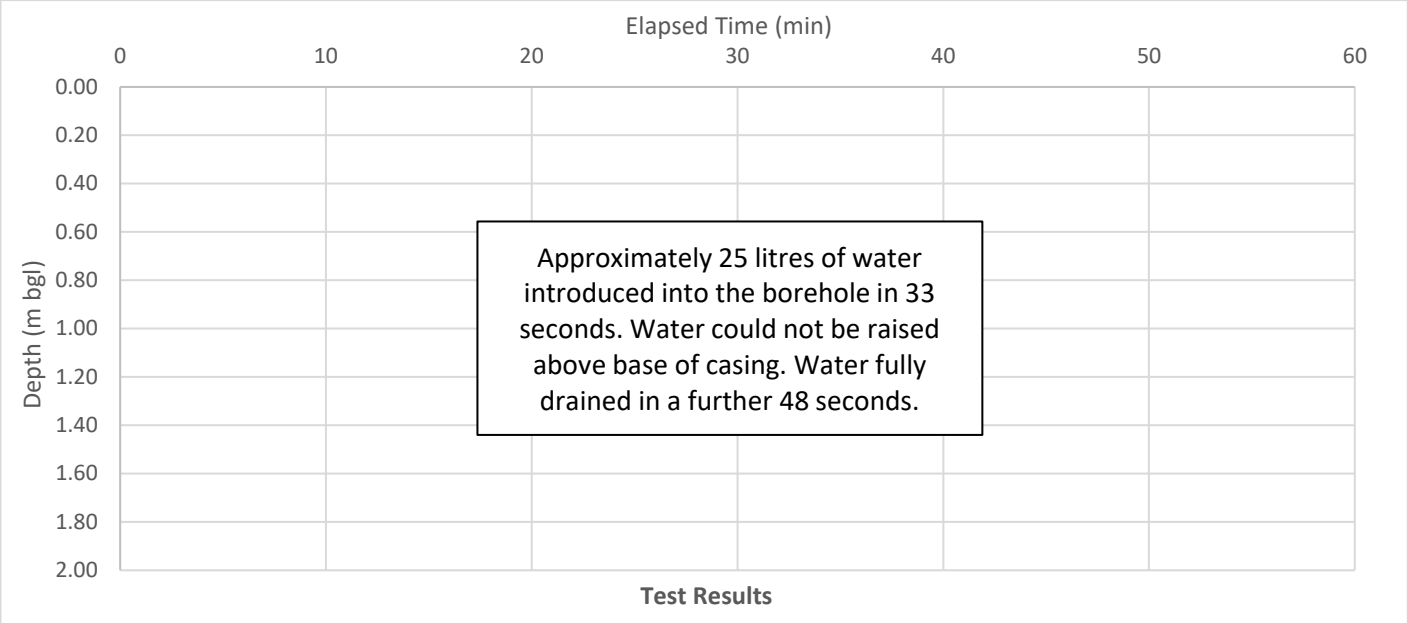
Calculation method: Non-Standard -The soil infiltration rate has been calculated by dividing the volume of water introduced into boreole by the product of the surface area of the test section of borehole and the time taken to introduce the water and fully drain in seconds.



Infiltration Test Results

Test Position	WS03
Test No.	2
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

Casing Depth	1.00	m blg
Borehole Depth	1.45	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m

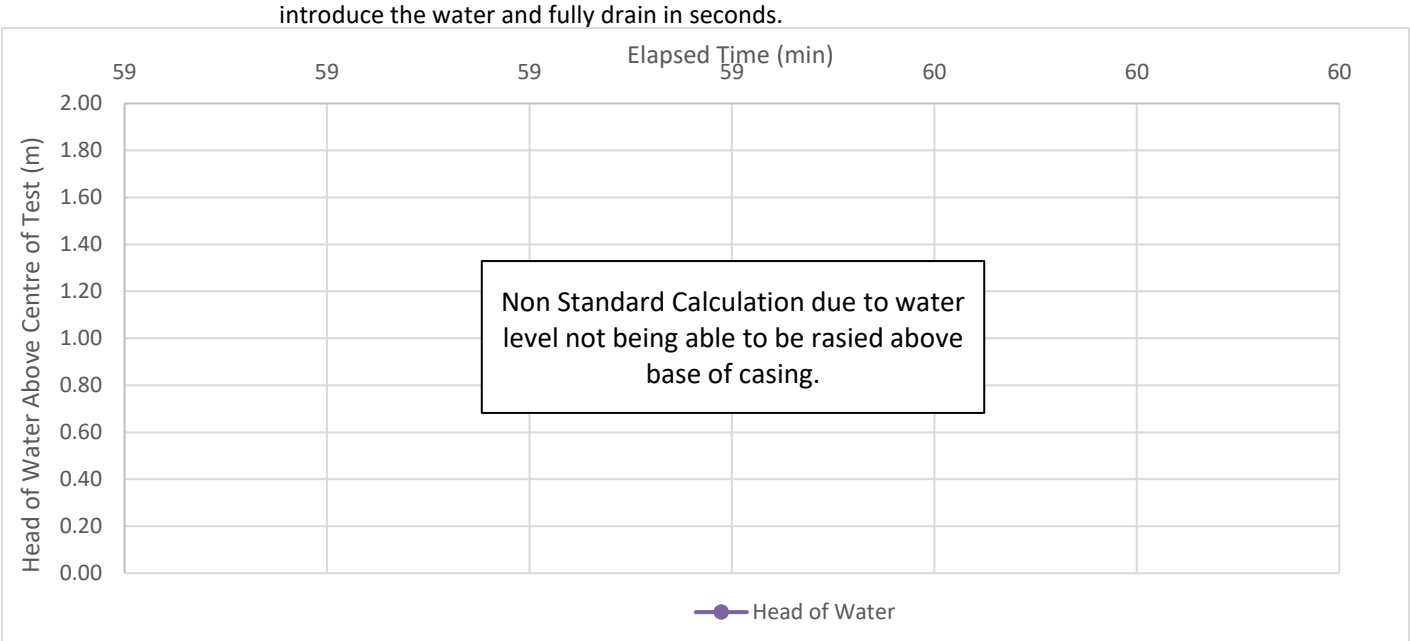


Length of Test Zone	n/a	m	L
Depth to Center of Test Zone	n/a	m	X
Water level at start of test	n/a	m	
Water level at end of test	n/a	m	
Duration of test	1.35	min	
Length of Response Zone	0.45	m	
Drainage Surface Area	0.14	m^2	
Volume of Water Lost	0.025	m^3	

Driving Head

Infiltration rate **2.26E-03 m/sec**

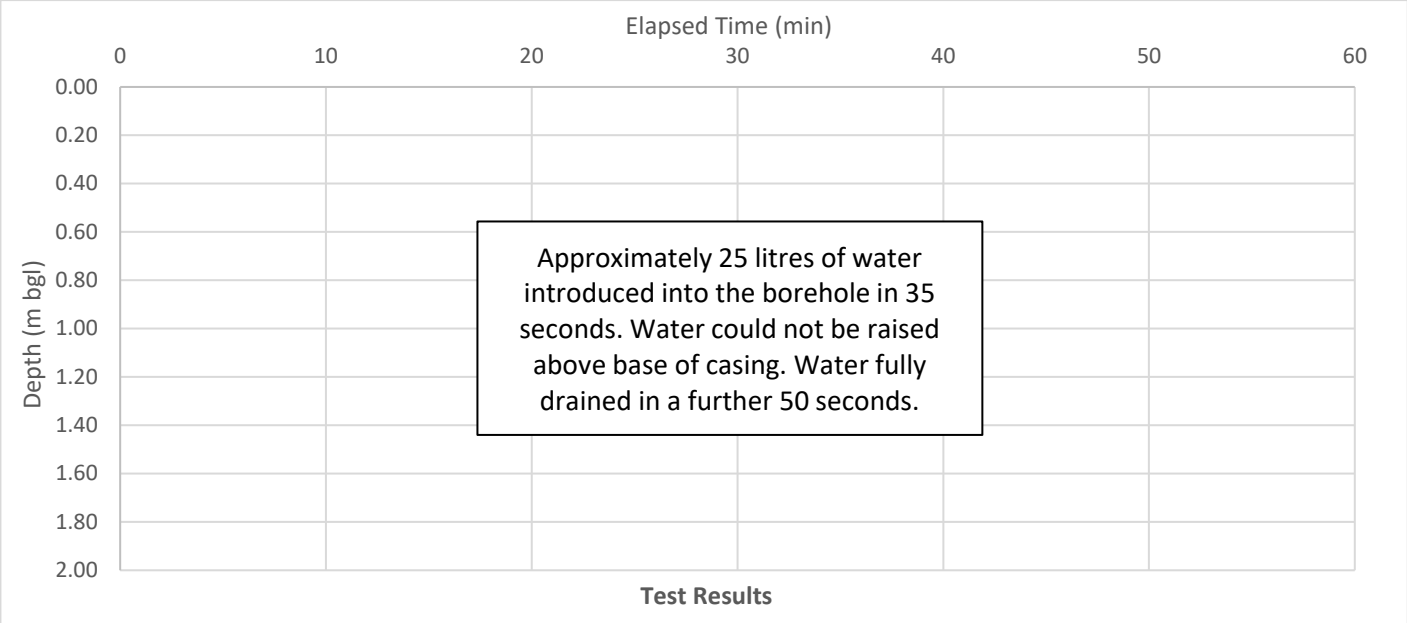
Calculation method: Non-Standard -The soil infiltration rate has been calculated by dividing the volume of water introduced into boreole by the product of the surface area of the test section of borehole and the time taken to introduce the water and fully drain in seconds.



Infiltration Test Results

Test Position	WS03
Test No.	3
Project No.	P16581
Project Name	Marling Court Care Home, 2 Bramble Lane, Hampton, London

Casing Depth	1.00	m blg
Borehole Depth	1.45	m bgl
Casing Diameter	0.105	m
Average Borehole Diameter	0.092	m



Length of Test Zone	n/a	m	L
Depth to Center of Test Zone	n/a	m	X
Water level at start of test	n/a	m	
Water level at end of test	n/a	m	
Duration of test	1.42	min	
Length of Response Zone	0.45	m	
Drainage Surface Area	0.14	m^2	
Volume of Water Lost	0.025	m^3	

Driving Head

Infiltration rate **2.15E-03 m/sec**

Calculation method: Non-Standard -The soil infiltration rate has been calculated by dividing the volume of water introduced into boreole by the product of the surface area of the test section of borehole and the time taken to introduce the water and fully drain in seconds.