YEX2797
10 John Street – BN43 5DL
December 21

Dear Mr Martis,

Please find below the results of your Infiltration testing. The information contained below is a summary of the site works carried out on 14th December 2021.

Geology

An examination of the available British Geological Survey data of the area for the site has been examined and indicates that the site has superficial drift deposits composed of Head (clay, silt, sand and gravel), and bedrock deposits recorded as the Newhaven Chalk Formation (chalk).

Fieldworks

The programme of this investigation included the excavation of one trial pit. The location of the soakaway test was selected by *Your*Environment. During this work, the soils encountered were logged in general accordance with BS5930: 1990, as amended in 2007.

Prior to BRE testing being carried, a ground water monitoring well was installed to a depth of 5.0mbgl with three monitoring visits made to record the ground water depth as follows:

Date	Depth
01/12/2021	4.02mbgl
08/12/2021	4.32mbgl
14/12/2021	4.47mbgl

Percolation Testing

During the soakaway tests the water achieved a fall from 75% to 25% of the effective depth of the storage volume. The results obtained from the soakaway tests are summarised below:

WS	Dimensions (m)	Depth (m)	Soil Description	Infiltration Rate (m/sec)	Drainage Characteristics
TP01 test1	1.20 x 0.40	1.60	Orangish brown clayey, gravelly SAND.	6.3E-5	Good
TP01 test2	1.20 x 0.40	1.60	Orangish brown clayey, gravelly SAND.	5.4E-5	Good
TP01 test3	1.20 x 0.40	1.60	Orangish brown clayey, gravelly SAND.	3.6E-5	Good

Conclusion

The soils encountered beneath the site were found to be predominantly SAND. The soakage rates obtained during the investigation were found to be good and permeable. Given the data from the test, it is considered that the use of soakaways is suitable for this site.

References

- Building Research Establishment (BRE) Digest 365, *Soakaway Design*, September 1991.
- British Standards Institution (1999) BS5930: *Code of practice for site investigations*, B.S.I., London.
- British Standards Institution (2007), Amendment No 1, BS5930: *Code of practice for site investigations*, B.S.I., London.

Please do contact me on 01243 787150 or 07758 162624 should you have any questions.

Regards



Nick Hammond
Geo-Environmental Engineer

Appendix A



Site Investigation Plan

YOUR ENVIRONMENT

10 John Street
YEX2797
14/12/2021

Appendix B

YOUR ENVIRONMENT	www.yourenvironment.org info@yourenvironment.org 01243 787150	Log of Boring Sheet 1 of	TP1 1

YE Engineer N. Hammond

Location	10 John Street, Shoreham-By-Sea, West Sussex, BN43 5DL
Date	December 14, 2021
Project Reference	YEX2797

Water level data

Completion: Depth NA m; Elevation NA m

24 hour: Depth ____ m; Elevation ____ m

Width 0.4 m
Length 1.2 m
Depth 1.6 m

Method (Trial pit, window etc) Trial Pit - Machine Excavation

Stratum depth (m) From	Stratum depth (m) To	Sample Depth From (m)	Sample Depth To (m)	Sample Type	GW	Install Details	LITHOLOGY
0.00	0.30					NONE	MADE GROUND. Grey Gravelly SAND. Sand is medium - coarse. Gravel is medium - coarse, angular of brick, concrete and rubble fragments.
0.30	0.60						MADE GROUND. Brown gravelly, clayey SAND. Sand is fine - medium. Gravel is medium - coarse, angular of brick, concrete and chalk fragments.
0.60	1.40						Orangish brown clayey SAND. Sand is fine - medium.
1.40	1.60						Orangish brown clayey, gravelly SAND. Sand is fine - medium. Gravel is medium - coarse, mixed angular and sub-angular of mixed lithology.
							End of TP1

Remarks: .

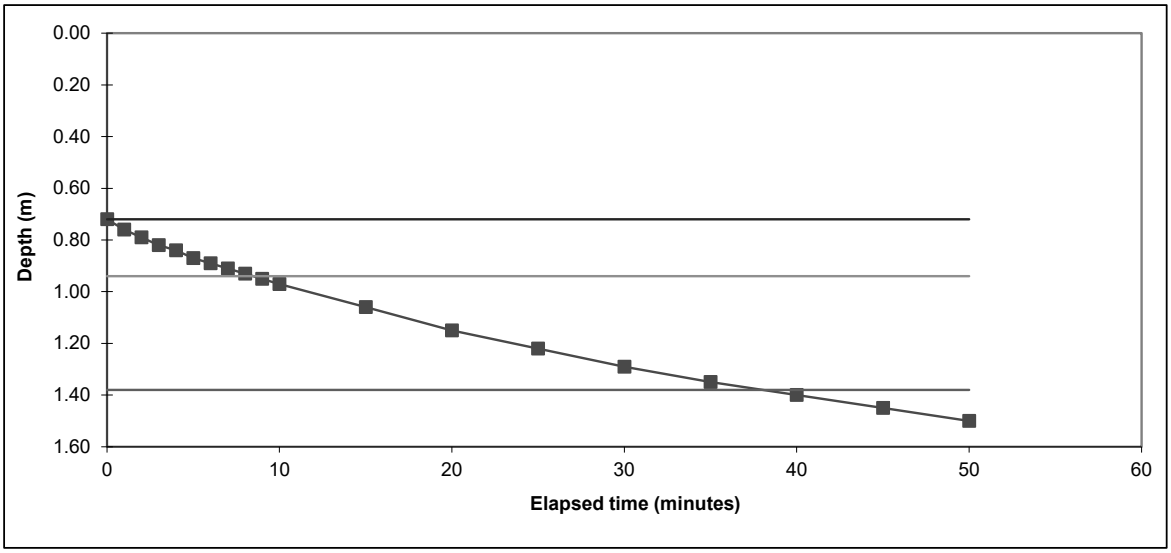
Appendix C

Your Environment

Soakaway Test

Trial Pit No:	TP1	Test No:	1	Date:	14/12/2021
Length (m):	1.200		Datum Height:	0.00	m agl
Width (m):	0.40		Granular infill:	None	
Depth (m):	1.60		Porosity of infill:	1	(assumed)

Elapsed time (minutes)	Water Depth (m below datum)	Elapsed time (minutes)	Water Depth (m below datum)
0	0.720	30	1.290
1	0.760	35	1.350
2	0.790	40	1.400
3	0.820	45	1.450
4	0.840	50	1.500
5	0.870		
6	0.890		
7	0.910		
8	0.930		
9	0.950		
10	0.970		
15	1.060		
20	1.150		
25	1.220		



Start water depth for analysis (mbgl)	0.72		
75% effective depth (mbgl):	0.94	Elapsed time (mins):	8.5
50% effective depth (mbgl):	1.16		
25% effective depth (mbgl):	1.38	Elapsed time (mins):	38.0
Base of soakage zone (mbgl):	1.60		

Volume outflow between 75% and 25% effective depth (m^3):	0.211
Mean surface area of outflow (m^2):	1.89
(side area at 50% effective depth + base area)	
Time for outflow between 75% and 25% effective depth (mins):	29.5

Soil infiltration rate (m/s):	**6.3E-5**

Remarks Results processed following BRE 365 (2007).

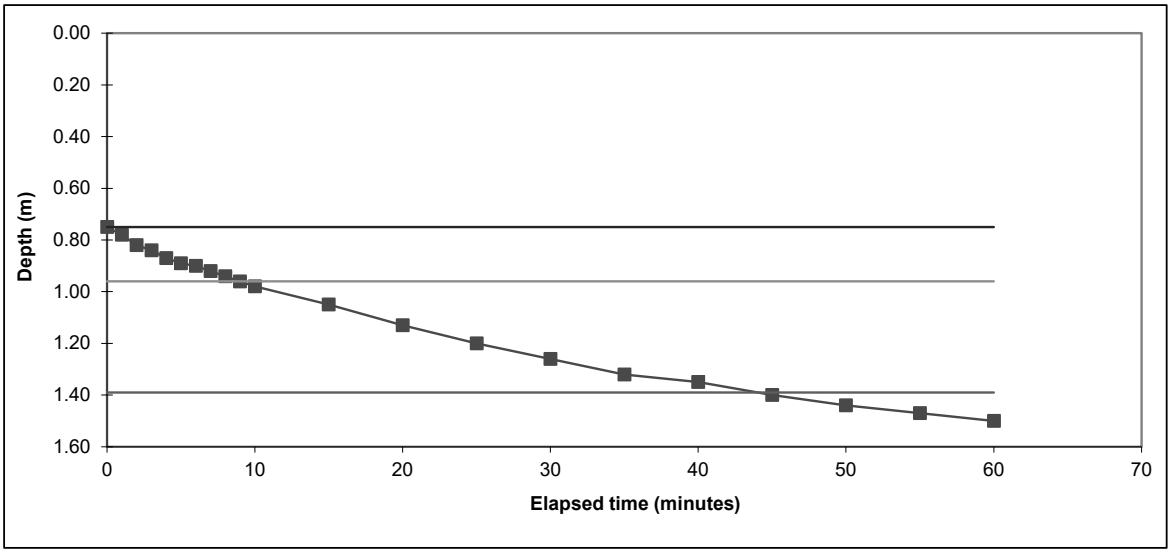
Client:	Windmill Construction Brighton Limited	**TP1**
Site:	10 John Street	

Your Environment

Soakaway Test

Trial Pit No:	TP1	Test No:	2	Date:	14/12/2021
Length (m):	1.200		Datum Height:	0.00	m agl
Width (m):	0.40		Granular infill:	None	
Depth (m):	1.60		Porosity of infill:	1	(assumed)

Elapsed time (minutes)	Water Depth (m below datum)	Elapsed time (minutes)	Water Depth (m below datum)
0	0.750	30	1.260
1	0.780	35	1.320
2	0.820	40	1.350
3	0.840	45	1.400
4	0.870	50	1.440
5	0.890	55	1.470
6	0.900	60	1.500
7	0.920		
8	0.940		
9	0.960		
10	0.980		
15	1.050		
20	1.130		
25	1.200		



Start water depth for analysis (mbgl)	0.75		
75% effective depth (mbgl):	0.96	Elapsed time (mins):	9.0
50% effective depth (mbgl):	1.18		
25% effective depth (mbgl):	1.39	Elapsed time (mins):	44.0
Base of soakage zone (mbgl):	1.60		

Volume outflow between 75% and 25% effective depth (m^3):	0.206
Mean surface area of outflow (m^2):	1.82
(side area at 50% effective depth + base area)	
Time for outflow between 75% and 25% effective depth (mins):	35.0

Soil infiltration rate (m/s):	**5.4E-5**

Remarks Results processed following BRE 365 (2007).

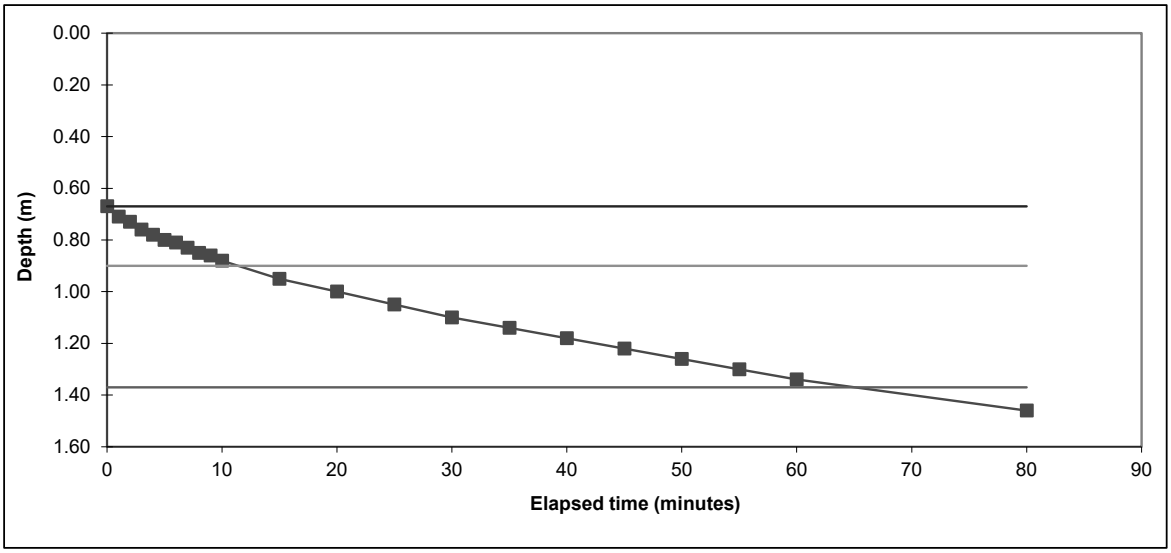
Client:	Windmill Construction Brighton Limited	**TP1**
Site:	10 John Street	

Your Environment

Soakaway Test

Trial Pit No:	TP1	Test No:	3	Date:	14/12/2021
Length (m):	1.200		Datum Height:	0.00	m agl
Width (m):	0.40		Granular infill:	None	
Depth (m):	1.60		Porosity of infill:	1	(assumed)

Elapsed time (minutes)	Water Depth (m below datum)	Elapsed time (minutes)	Water Depth (m below datum)
0	0.670	30	1.100
1	0.710	35	1.140
2	0.730	40	1.180
3	0.760	45	1.220
4	0.780	50	1.260
5	0.800	55	1.300
6	0.810	60	1.340
7	0.830	80	1.460
8	0.850		
9	0.860		
10	0.880		
15	0.950		
20	1.000		
25	1.050		



Start water depth for analysis (mbgl)	0.67		
75% effective depth (mbgl):	0.90	Elapsed time (mins):	11.4
50% effective depth (mbgl):	1.14		
25% effective depth (mbgl):	1.37	Elapsed time (mins):	65.0
Base of soakage zone (mbgl):	1.60		

Volume outflow between 75% and 25% effective depth (m^3):	0.226
Mean surface area of outflow (m^2):	1.95
(side area at 50% effective depth + base area)	
Time for outflow between 75% and 25% effective depth (mins):	53.6

Soil infiltration rate (m/s):	**3.6E-5**

Remarks Results processed following BRE 365 (2007).

Client:	Windmill Construction Brighton Limited	**TP1**
Site:	10 John Street	

Appendix D

YEX2797
TP01 Photos







