



CATHEDRAL BUSINESS PARK

SITE F - SINGLE UNIT EMPLOYMENT

Surface Water Drainage

Prepared on Behalf of

Seaward (Bognor Road) Limited

D1993/RMA6/DS1.0

26 March 2024



DOCUMENT CONTROL

Project: Cathedral Business Park
Site F - Single Unit Employment

Document: Surface Water Drainage

Client: Seaward (Bognor Road) Limited

Reference: D1993/RMA6/DS1.0

Document Checking:

Author: LF Date: 25/03/2024

Checked by: MA Date: 25/03/2024

Approved by: LF Date: 25/03/2024

Status:

Issue	Date	Status	Issued by
1.1	25/03/2024	FINAL	LF

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Surface Water Drainage Design Summary and Calculations		
Project Name:	Cathedral Business Park	
Project Number:	D1993	
Client:	Seaward (Bognor Road) Limited	
Prepared by and Date:	LF	25/03/2024

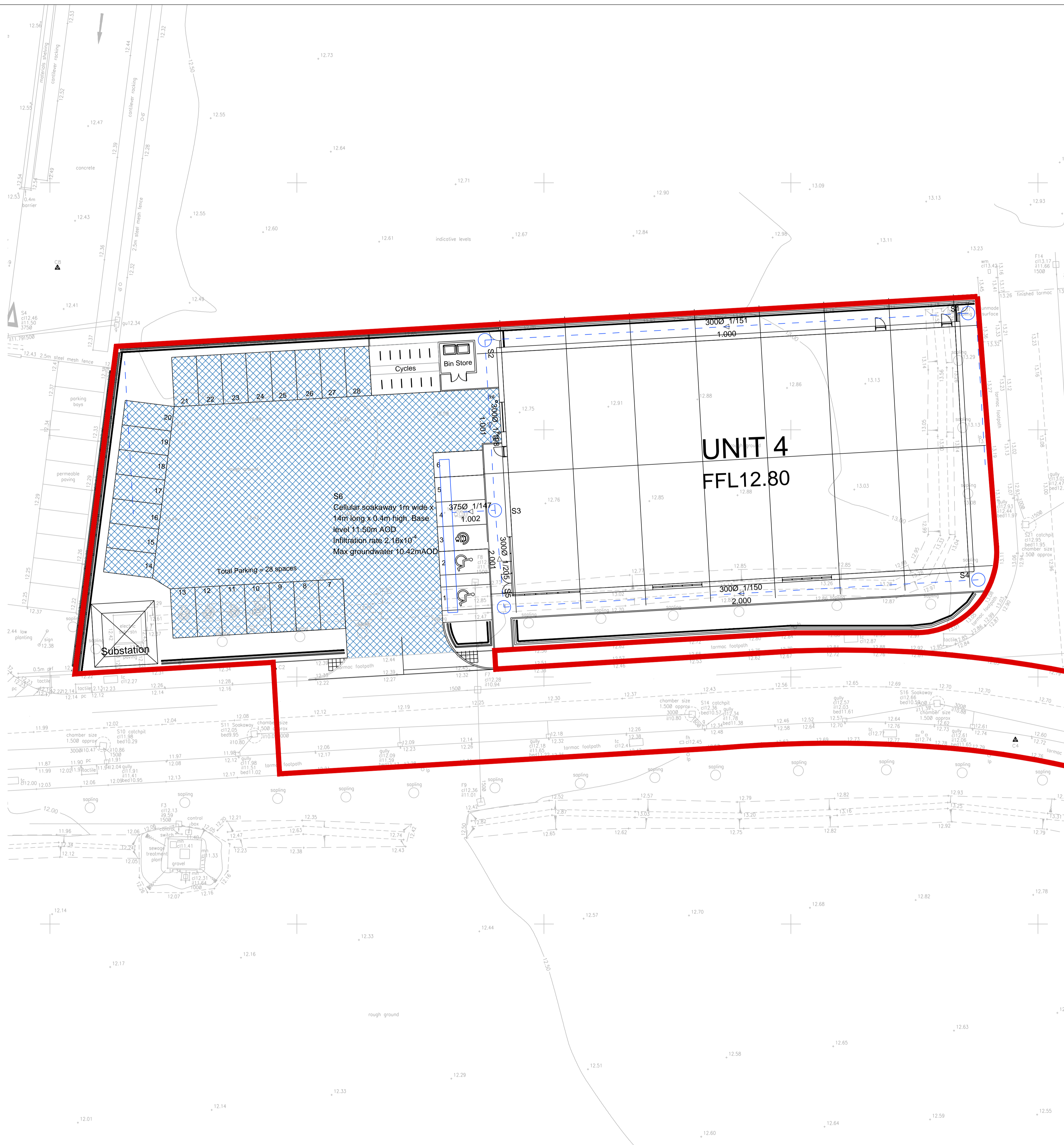


Site Address:	Land off Bognor Road, Chichester –Plot F, Single unit Employment	
Local Authority:	Chichester District Council	
Lead Local Flood Authority:	West Sussex County Council	
Site Area:	Plot F 0.47Ha	
Geology:	Geotechnical investigation found Silt, Gravel, Sand & Chalk up to 5.0mbgl across the site.	
Ground Water Depth:	Groundwater monitoring found levels at 8.79-11.15mAOD. Max 10.42 for this area.	
Soil Infiltration rate:	Design infiltration rates varied across the site between 3.25×10^{-5} and 1.45×10^{-3} m/s.	
Nearby watercourse:	None close by.	
Nearby surface water sewer:	None	
Proposed method of disposal and reason:	Infiltration. This is the most suitable method.	
Design storms considered:	1:100 year. FEH22	
Climate change:	45%	
Proposed Catchment Area:	0.11Ha roof, 0.09Ha, externals.	
Proposed discharge Rate:	N/A	
Flow control method	N/A	
Volume of Storage Provided and method:	Permeable paving and cellular soakaways. 126.3m ³	
Offsite works:	None	
Notes:	<p>The surface water drainage design follows the strategy set out in the Flood Risk Assessment prepared by GTA Civils and the subsequent addendum prepared by BP Civils, submitted under outline planning application.</p> <p>The proposal includes permeable paving to the car parking areas and cellular soakaways for the building roof. Ground water was found at a maximum level of 10.42mAOD, infiltration will take place above this level with an unsaturated zone of at least 1m.</p> <p>Building floor level set to 12.80 in line with the FRA and addendum.</p> <p>Infiltration rate used from test pit SA306 2.16×10^{-4} m/s</p>	



PHASE: 0							
MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
S1	1350	CATCHPIT	12.650	12.050	0.300	487992.924	104286.801
S2	1350	CATCHPIT	12.650	11.650	0.700	487944.022	104284.078
S3	1350	CATCHPIT	12.600	11.563	0.662	487945.052	104286.855
S4	1350	CATCHPIT	12.650	12.050	0.300	487993.976	104289.832
S5	1350	CATCHPIT	12.650	11.654	0.696	487945.955	104287.061
S6		SOAKAWAY	12.500	11.529	0.596	487940.065	104286.599

PRIVATE SURFACE WATER DRAINAGE	
S#	CATCHPIT
	PRIVATE SURFACE WATER DRAINAGE
	PERMEABLE PAVING (INFILTRATION WITH NO CONNECTION TO PIPED SYSTEM) 450mm subbase



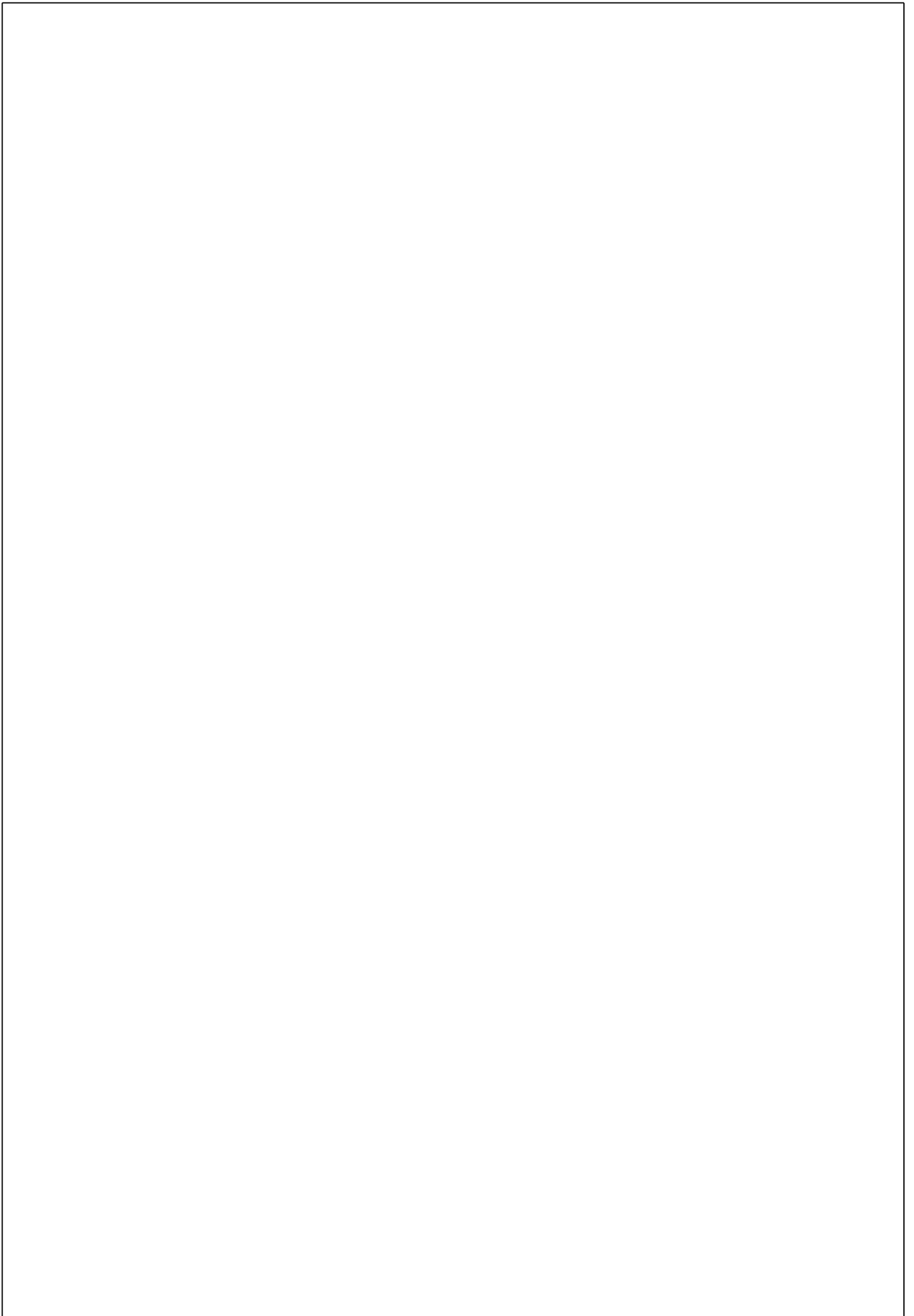
NOTES

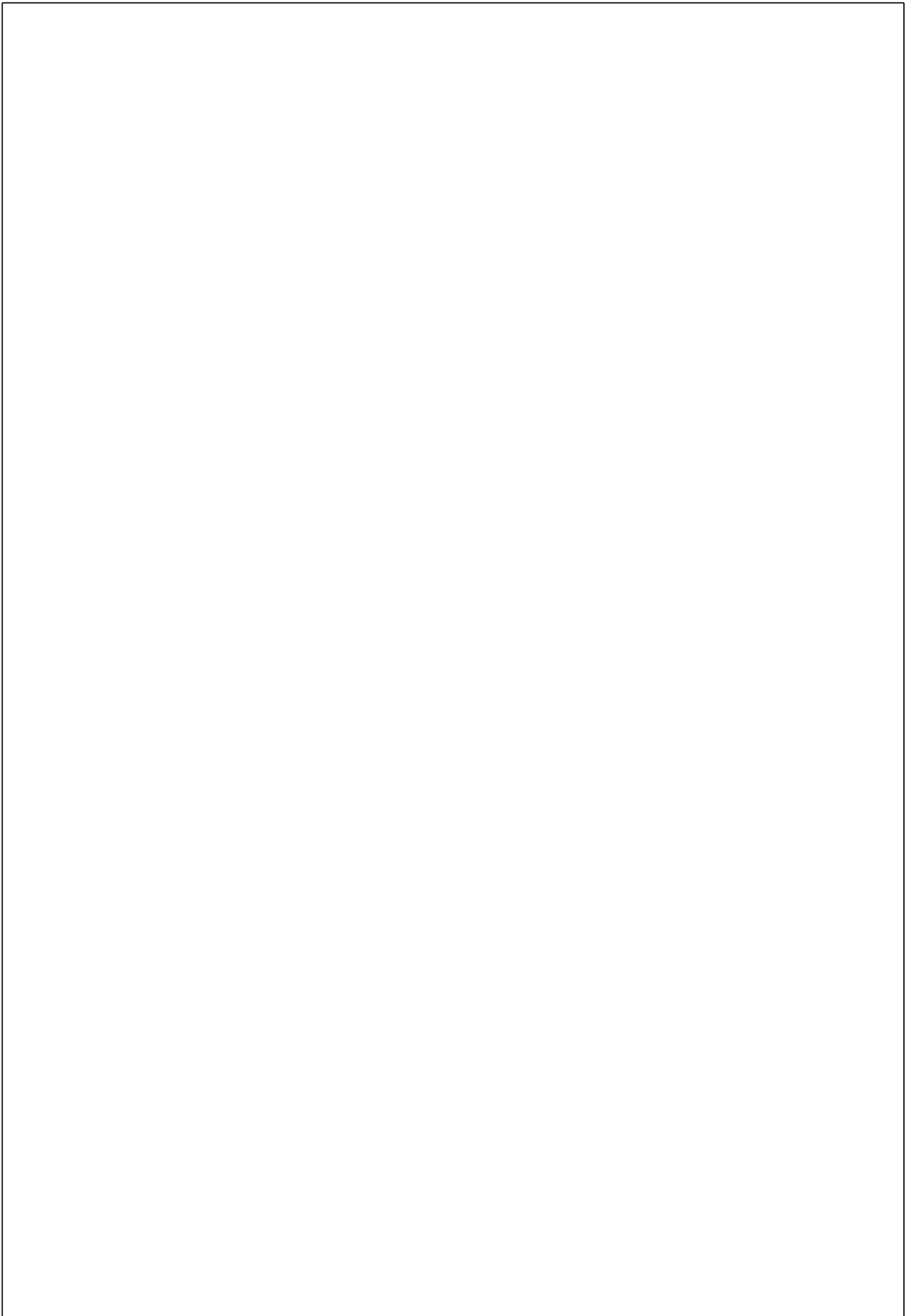
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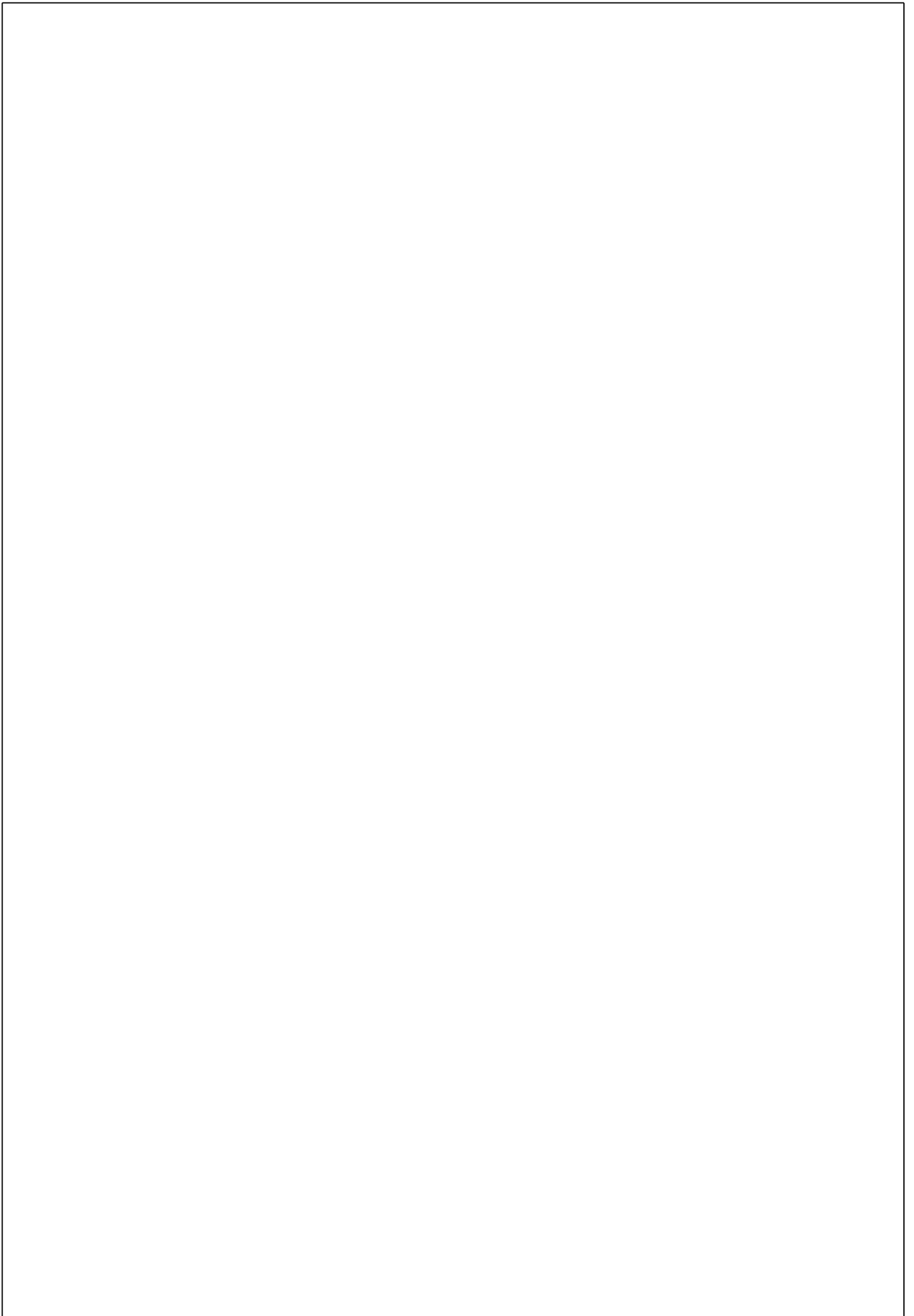
Rev.	Date	Original Issue	Amendments

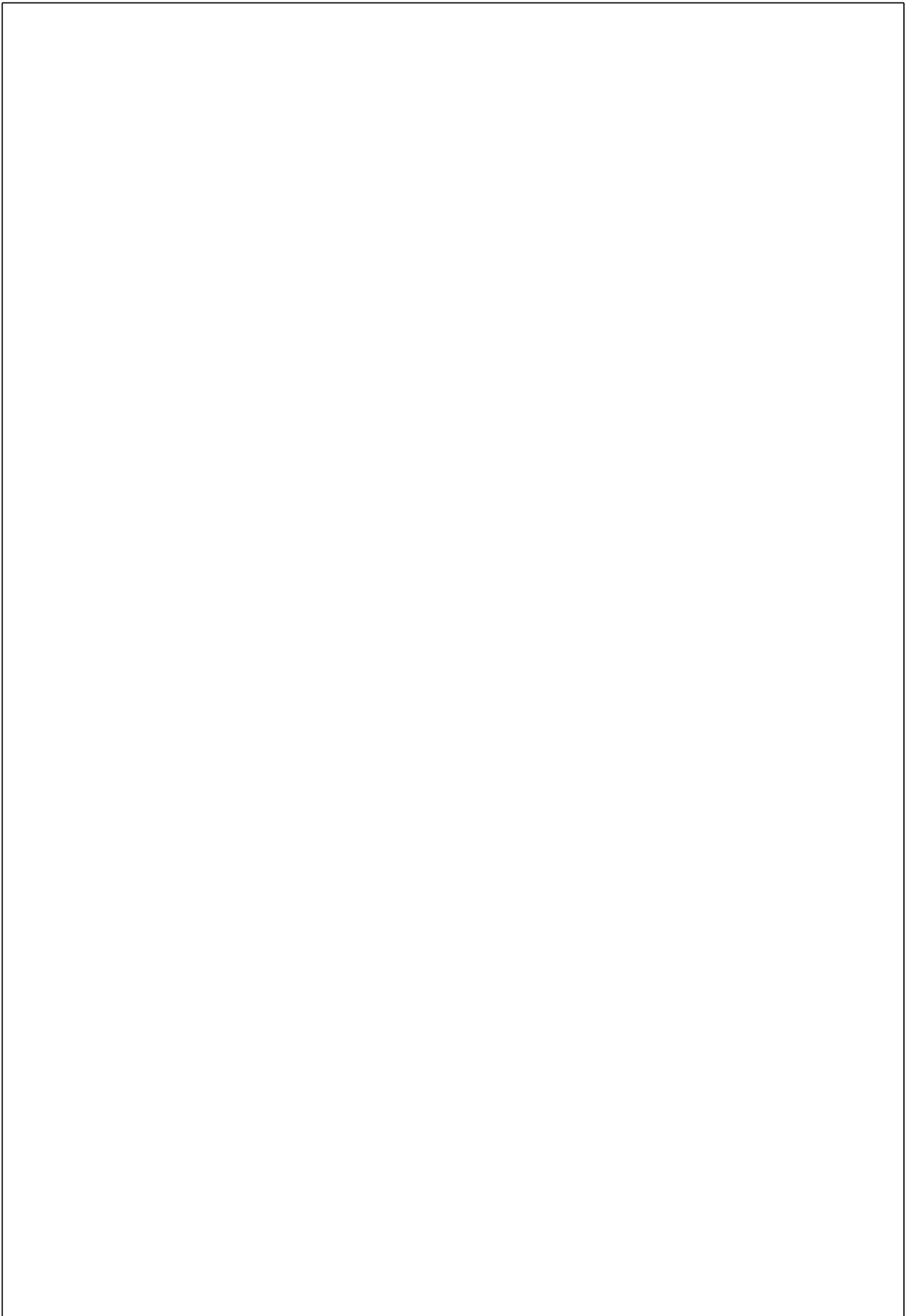
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Drawing Status	
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SEAWARD (BOGNOR ROAD) LTD	
Project	
CATHEDRAL BUSINESS PARK SITE F	
Drawing Title	
SURFACE WATER DRAINAGE	
Scale at A1	Date
1:200	MAR 24
Drawn By	Checked By
LF	MA
Project No.	Rev.
D1993	P00











Hanbury Properties (Chichester) Ltd

Cathedral Park, Chichester
Factual report on winter
groundwater levels and infiltration
testing

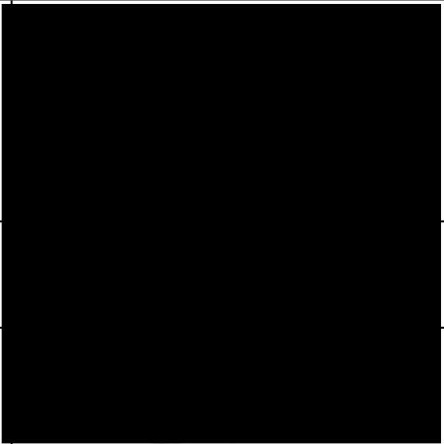
July, 2021



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<p>Reference</p>	<p>CG/28824B</p>	<p>Revision</p>	<p>1</p>	<p>Issue Date</p>	<p>July 2021</p>

CONTENTS

1.	INTRODUCTION	3
1.1	General	3
2.	WINTER GROUNDWATER LEVELS	4
2.1	Standpipe installations	4
2.2	Winter groundwater monitoring	4
2.3	Rainfall records for monitoring period	6
3.	INFILTRATION	7
3.1	Infiltration testing	7

FIGURES

Figure 1	Site location plan
Figure 2	Site layout and exploratory hole location plan

APPENDICES

Appendix A	CGL trial pit and borehole logs
Appendix B	Soakage test results

1. INTRODUCTION

1.1 General

Following discussions with Chichester District Council (CDC) in September 2019 on the preliminary drainage design for Phase 1 of Cathedral Park Business Park (Bognor Bridge Road), Chichester PO20 1EG, it was agreed that there would be a programme of groundwater monitoring of specifically installed standpipes through the winter months of November 2019 to February 2020. In addition, a series of BRE 365 infiltration tests would be undertaken within trial pits in the Phase 1 area at a level of 11.2mOD together with tests at deeper levels, circa 10.5mOD and falling head tests within the standpipe installations.

Following submission of the factual report specific to the Phase 1 area, Hanbury Properties instructed CGL to update the report to include groundwater monitoring data for the Phase 2 area of Cathedral Park Business Park

This report presents the factual information in connection with the testing and monitoring recently undertaken. A site location plan is provided in Figure 1.

2. WINTER GROUNDWATER LEVELS

2.1 Standpipe installations

A series of standpipes were installed across the site within windowless sampling boreholes, details of which are provided in Table 1 below. The monitoring response zones were such that groundwater levels at near surface relevant to a possible infiltration elevation of 11.2mOD could be achieved.

Table 1. Groundwater monitoring boreholes and corresponding ground levels

Phase 1 Area	
Borehole	GL (mOD)
WS305	12.9
WS307	11.83
WS308	12.15
WS309	11.8
BH201	11.8
BH2	11.95
Phase 2 Area	
Borehole	GL (mOD)
WS301	13.26
WS302	13.24
WS303	12.94
WS304	12.5
WS306	12.4
WS310	12.49
WS311	12.87
WS312	12.9
WS313	12.6
WS204	12.4
WS211	11.8
BH1	12

At the same time BH201 and BH2 from earlier stages of investigation were re activated.

The location of these monitoring points is shown on Figure 2. Borehole records are included in Appendix A.

2.2 Winter groundwater monitoring

It had been agreed that water level monitoring would occur at approximately 2 week intervals through the months of November and December, 2019 and January and February, 2020.

The tabulated readings in relation to Ordnance Datum are shown in Table 2 and Table 3 below.

Table 2. Winter groundwater monitoring records for Phase 1 Area

Borehole	GL (mOD)	23/10/2019	06/11/2019	20/11/2019	11/12/2019	23/12/2019	03/01/2020	16/01/2020	29/01/2020	12/02/2020	02/03/2020
		Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)
WS305	12.9	9.63	9.64	9.67	9.65	10.2	10.13	10.14	10.07	10.02	10.23
WS307	11.83	9.77	9.54	9.56	9.77	10.46	10.31	10.32	10.23	10.12	10.31
WS308	12.15	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
WS309	11.8	9.74	9.72	9.82	9.75	10.52	10.39	10.38	10.23	10.19	10.39
BH201	11.8	9.49	8.98	9.61	9.55	10.29	10.15	10.14	10.07	9.98	10.17
BH2	11.95	9.69	9.7	9.7	9.63	10.41	10.25	10.21	10.16	10.08	10.25

Table 3. Winter groundwater monitoring records for Phase 2 Area

Borehole	GL (mOD)	23/10/19	6/11/19	20/11/19	11/12/19	23/12/19	03/01/20	16/01/20	29/01/20	12/02/20	02/03/20
		Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)	Level (mOD)
WS301	13.26	9.86	9.79	9.79	9.79	10.46	10.35	10.37	10.27	10.16	10.38
WS302	13.24	9.73	9.73	9.73	9.70	10.27	10.19	10.21	10.12	10.01	10.21
WS303	12.94	9.62	9.6	9.6	12.47 FLOODED	10.2	10.09	10.14	9.96	10.01	10.23
WS304	12.5	9.24	9.18	9.65	9.22	9.76	9.67	9.84	9.6	9.67	9.9
WS306	12.4	9.79	9.77	9.79	9.76	10.49	10.36	10.38	10.3	10.15	10.37
WS310	12.49	9.77	9.79	9.85	9.78	10.65	10.49	10.46	10.34	10.29	10.5
WS311	12.87	9.84	9.84	9.85	9.83	10.59	10.42	10.43	10.35	10.28	10.49
WS312	12.9	9.69	9.6	9.74	9.69	10.42	10.29	10.3	10.13	10.13	10.34
WS313	12.6	10.39	10.25	10.27	10.28	11.15	11.02	11.01	10.94	10.85	11.03
WS204	12.4	10.18	10.18	10.21	10.17	11.01	10.84	10.81	10.66	10.63	10.79
WS211	11.8	8.79	8.79	8.86	8.81	9.41	9.28	9.29	9.18	9.17	9.38
BH1	12	9.69	9.26	9.23	9.14	10.01	9.85	9.83	9.75	9.64	9.86

The water levels can be compared to the proposed development levels and the proposed infiltration level for the Phase 1 area of 11.2mOD as shown in Plate 1 below.

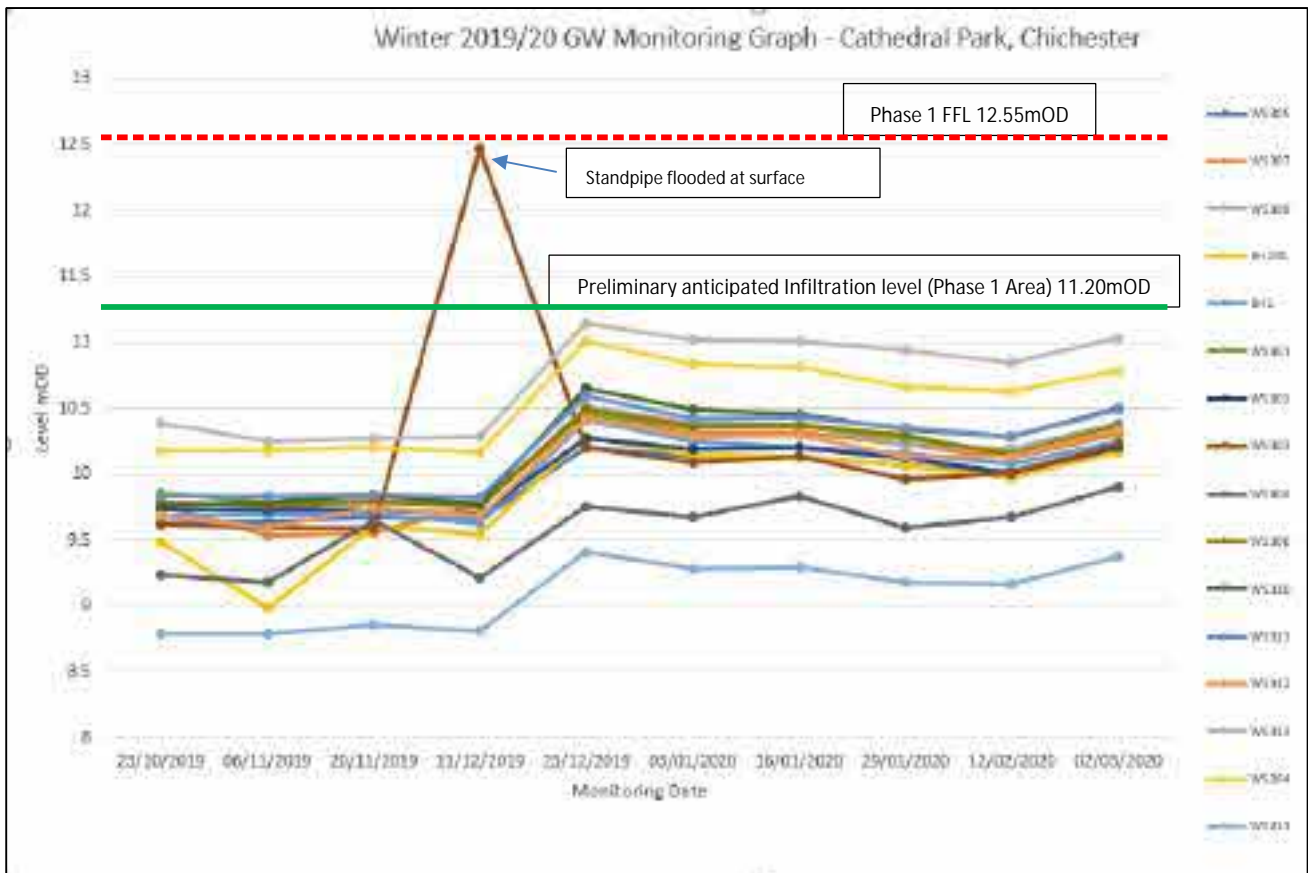
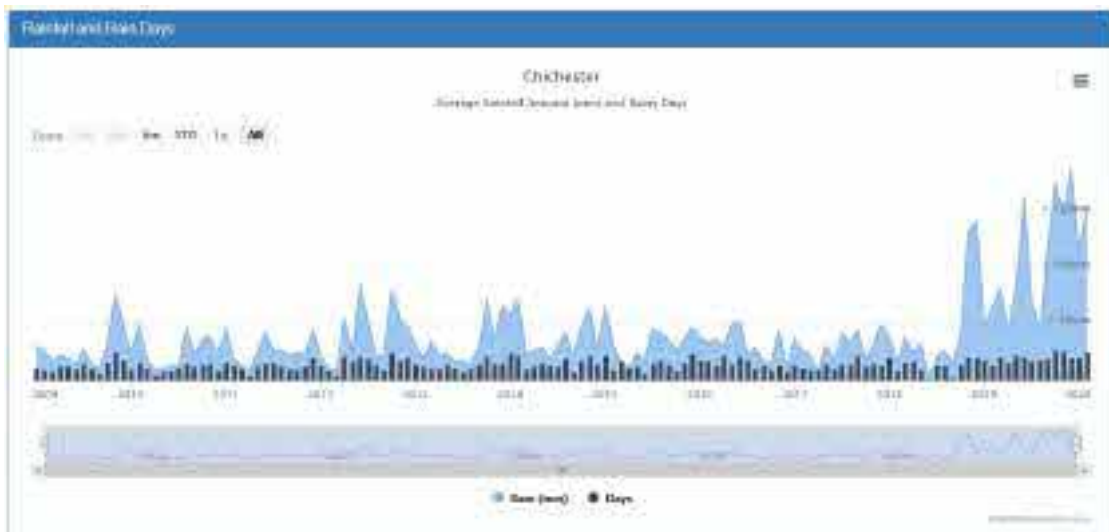


Plate 1. Winter groundwater levels compared to key development levels

2.3 Rainfall records for monitoring period

The winter of 2019/20 has seen a series of significant storms and greater than average monthly rainfall for the last decade as shown in Plate 2 below.

Plate 2. Rainfall data for Chichester – 2009 to 2020



3. INFILTRATION

3.1 Infiltration testing

Two series of infiltration tests were undertaken, broadly in line with BRE365 as conditions allowed in January and March 2020. Two levels for infiltration testing were targeted, approximately 11.2mOD and deeper at approximately 10.5mOD. The locations of the tests are shown on Figure 2.

Trial pit logs are provided in Appendix A. The records for each test are presented in Appendix B.

In summary, the infiltration permeability in m/s for those tests done at approximately 11.2mOD are tabulated below:

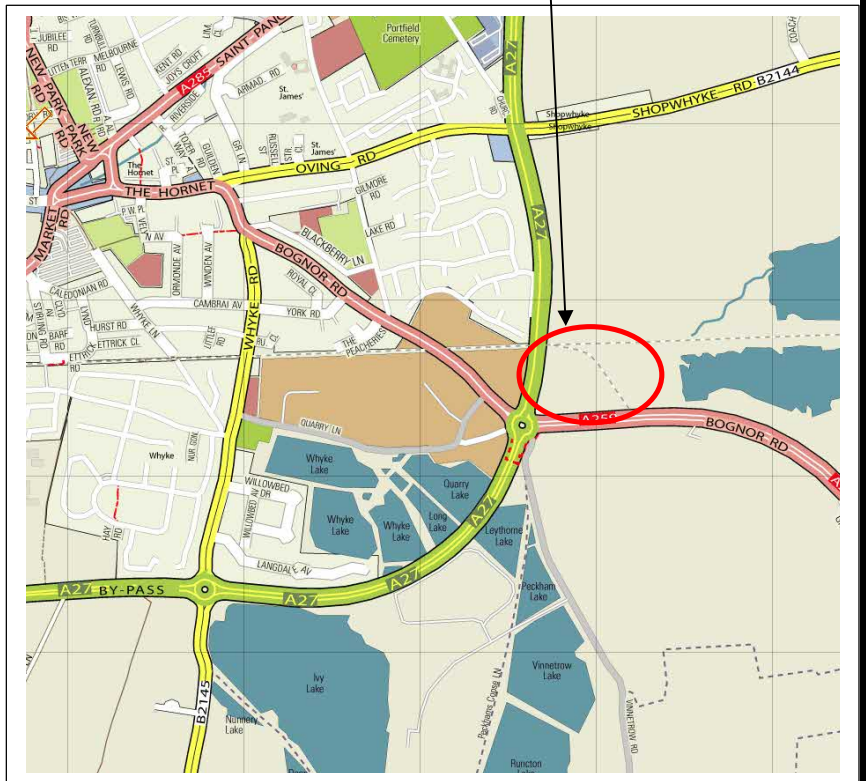
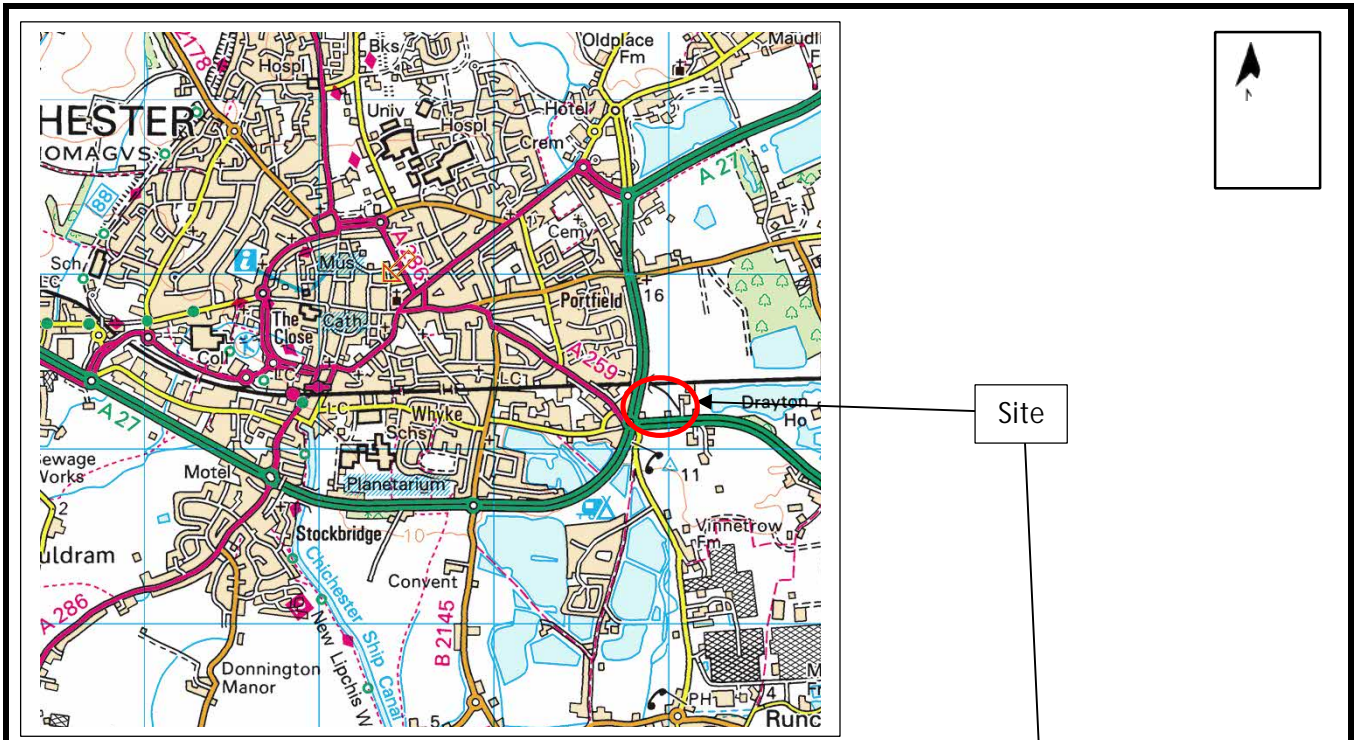
Location	Level of test	Run 1	Run 2	Run 3	Average
SA-401	11.30	3.25E-05			3.25E-05
SA-403	11.65	3.71E-05			3.71E-05
SA-404	11.20	1.76E-04	8.30E-05	1.65E-03	6.36E-04
SA-405	11.25	1.76E-03	1.47E-03	1.06E-03	1.43E-03
SA-406	10.85	3.50E-03	1.64E-03	1.38E-03	2.17E-03
SA-407	11.10	3.03E-04	1.45E-04	8.95E-05	1.79E-04
				Average	7.47E-04

Note: Results for SA402 have been omitted due to presence of void infilled with brick cobbles encountered below soakage test level.

The infiltration permeability for those tests done at approximately 10.5mOD are tabulated below:

Location	Level of test	Run 1	Run 2	Run 3	Average
SA_301	10.70	7.14E-04	3.66E-04	1.52E-04	4.11E-04
SA_302	10.75	1.94E-02	1.66E-03	1.45E-03	7.51E-03
SA_303	10.45	4.74E-03	1.29E-03	2.33E-03	2.79E-03
SA_304	10.65	1.44E-03	5.34E-04	2.32E-04	7.34E-04
SA_305	10.30	1.75E-03	1.38E-03	1.10E-03	1.41E-03
SA_306	11.05	4.23E-04	2.16E-04	7.89E-04	4.76E-04
SA_307	9.90	5.70E-04	4.57E-04	4.20E-04	4.82E-04
SA_308	10.35	2.88E-04	1.82E-04	2.34E-04	2.35E-04
SA_309	9.95	8.22E-05	6.14E-04	7.73E-04	4.90E-04
				Average	1.61E-03

FIGURES







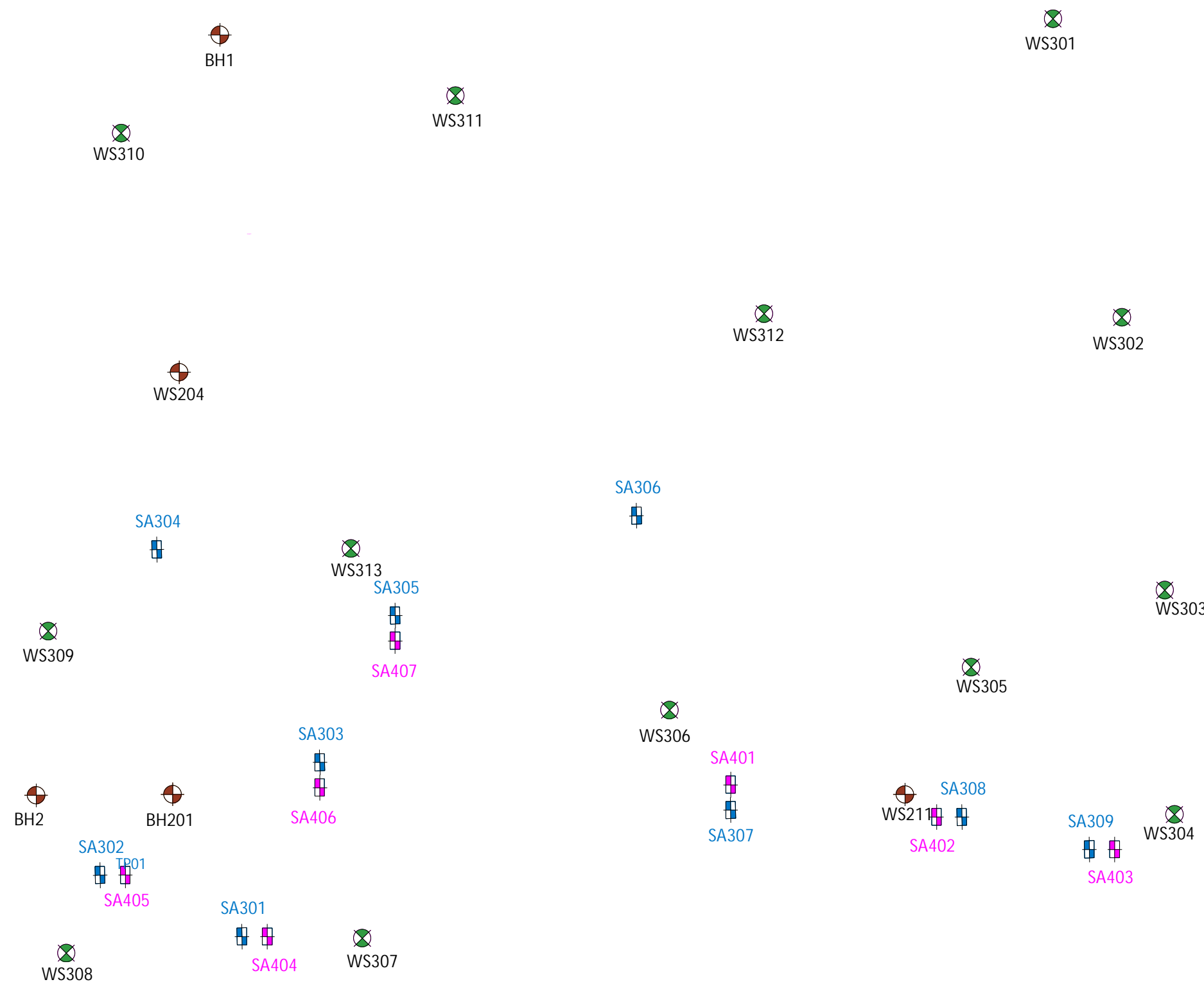
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Client Hanbury Properties (Chichester) Ltd	Project Cathedral Park, Chichester	Job No CG/28824B
	Title Site Location Plan	Figure 1



KEY

-  Historical install locations
-  CGL window samples (2019)
-  CGL soakaway trial pit (2020)
-  CGL soakaway trial pit (2020)



Notes

1. Do not scale from drawing.
2. Baseplan taken from Ramboll Infiltration Testing Location Plan 'RAM-0500DR-CR-00002' Rev P01 (September 2019).

2	06/03/20	Additional CGL trial pits added
1	27/01/2020	Proposed CGL trial pits added
0	21/11/2019	
Rev	Date	Comments



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Project Cathedral Park, Chichester - Drainage

Client Hanbury

Drawing title Proposed Exploratory Hole Location Plan

Scale(s) NTS	Job No. CG/28824B
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Drawn	TSB	21/11/19	Dwg No. CG/28824B-PEHLP	Rev. 2
Checked				
Approved				

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APPENDIX A

CGL borehole and trial pit logs

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA301	
Job No CG/28824	Date 29-01-20 29-01-20	Ground Level (m) 12.00	Co-Ordinates (m) E 487,885.3 N 104,172.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
						0.30	Grass over: Firm dark brown sandy gravelly silt TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
				11.70		0.30	
						0.70	Firm dark brown very gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
				11.00		1.00	
						0.30	Medium dense dark brown sandy very silty fine to coarse GRAVEL of angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint. 1.00 Becoming dense.
				10.70		1.30	
							(Pit terminated at 1.3m)

Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Plan Stability: Stable	General Remarks 1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion
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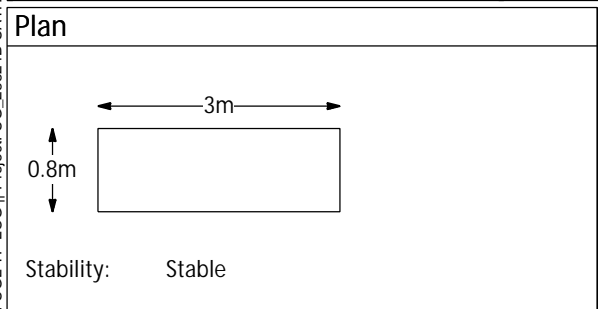
Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA302	
Job No CG/28824	Date 29-01-20 29-01-20	Ground Level (m) 12.05	Co-Ordinates (m) E 487,857.3 N 104,184.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA		
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)
					(0.40)	Grass over: Dark brown slightly gravelly, silty fine to coarse sand TOPSOIL. Gravel is fine to medium, angular to subrounded of flint.
				11.65	0.40	
					(0.60)	Firm dark brown very gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to rubounded flint.
				11.05	1.00	0.70 Becoming light brown and slightly sandy.
					(0.30)	Medium dense dark brown slightly silty sandy fine to coarse, subangular to rounded GRAVEL of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
				10.75	1.30	
						(Pit terminated at 1.3m)



General Remarks

1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion

Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA303	
Job No CG/28824	Date 29-01-20 29-01-20	Ground Level (m) 11.65	Co-Ordinates (m) E 487,900.7 N 104,207.2		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA		
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)
					(0.40)	Grass over: Firm dark brown slightly gravelly silty fine to coarse sand TOPSOIL. Gravel is fine to medium, angular to subrounded of flint.
			11.25		0.40	
					(0.60)	Firm dark brown very gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
			10.65		1.00	
					(0.20)	Dense light brown sandy fine to coarse, subangular to rounded GRAVEL of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
			10.45		1.20	
						(Pit terminated at 1.2m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA304	
Job No CG/28824	Date 29-01-20 29-01-20	Ground Level (m) 11.85	Co-Ordinates (m) E 487,868.4 N 104,249.2		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
				11.25		0.60	Grass over: Dark brown slightly gravelly silty fine to coarse sand TOPSOIL. Gravel is fine to medium, angular to subrounded of flint.
				10.85		1.00	Firm dark brown very gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
				10.65		1.20	Dense light brown slightly sandy fine to coarse, subangular to rounded GRAVEL of flint. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint.
							(Pit terminated at 1.2m)

Report ID: CGL_TP_LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Plan <p>Stability: Stable</p>	General Remarks 1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion
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Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA306	
Job No CG/28824	Date 30-01-20 30-01-20	Ground Level (m) 12.65	Co-Ordinates (m) E 487,963.3 N 104,255.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION	
					(0.55)	12.10	0.55	Grass over: Firm dark brown to orange slightly gravelly slightly sandy silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
					(0.90)	11.20	1.45	Firm dark brown very clayey gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to rubounded flint.
					(0.15)	11.05	1.60	Structureless CHALK composed of slightly gravelly SILT with occasional cobbles. Gravel is fine to medium, angular to subrounded of flint and weak, low density white of chalk. Cobbles are angular to subrounded flint. (Grade Dm)
								(Pit terminated at 1.6m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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Report ID: CGL_TP_LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA307	
Job No CG/28824	Date 30-01-20 30-01-20	Ground Level (m) 12.00	Co-Ordinates (m) E 487,981.9 N 104,197.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
							Grass over: Dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
				11.00	(1.00)	1.00	
				10.30	(0.70)	1.70	Firm dark brown very gravelly sandy cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to rubrounded flint.
				9.90	(0.40)	2.10	Structureless CHALK composed of slightly gravelly SILT with occasional cobbles. Gravel is fine to medium, angular to subrounded of flint and weak, low density white of chalk. Cobbles are angular to subrounded flint. (Grade Dm)
							(Pit terminated at 2.1m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used 8 tonne tracked excavator	Field Crew BPH Plant Hire	Logged By ELD	Checked By DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA308	
Job No CG/28824	Date 30-01-20 30-01-20	Ground Level (m) 12.10	Co-Ordinates (m) E 488,027.6 N 104,196.4		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
				11.10		1.00	Grass over: Dark brown clayey silt TOPSOIL. Sand is fine to coarse. Occasional fine to coarse, angular to subrounded of gravel flint.
				10.55		1.55	Medium dense light brown to cream silty gravelly fine to coarse SAND. Gravel is fine to medium, angular to subrounded of flint.
				10.35		1.75	Dense brown silty SAND and GRAVEL. Sand is fine to coarse. Frequent cobbles of angular to subrounded flint. Gravel is fine to coarse, angular to subrounded of flint.
							(Pit terminated at 1.75m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA309	
Job No CG/28824	Date 30-01-20 30-01-20	Ground Level (m) 12.05	Co-Ordinates (m) E 488,052.8 N 104,190.0		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
				10.95	(1.10)	1.10	Grass over: Dark brown clayey silt TOPSOIL.
				10.25	(0.70)	1.80	Firm dark brown very sandy slightly gravelly cobbly SILT. Gravel is fine to coarse, angular to subrounded of flint. Sand is fine to coarse. Frequent cobbles of angular to rubounded flint.
				9.95	(0.30)	2.10	Structureless CHALK composed of slightly gravelly SILT with occasional cobbles. Gravel is fine to medium, angular to subrounded of flint and weak, low density white of chalk. Cobbles are angular to subrounded flint. (Grade Dm)
							(Pit terminated at 2.1m)

Plan

Stability: Stable

General Remarks

1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion

Method/ Plant Used	8 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	ELD	Checked By	DRAFT
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Report ID: CGL_TP_LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA401	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 12.10	Co-Ordinates (m) E 487,981.9 N 104,202.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
				11.30		0.80	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
							(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA402	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 12.30	Co-Ordinates (m) E 488,022.6 N 104,196.4		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA		
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)
					(0.90)	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
			11.40		(0.45)	Cobbles of red brick
			10.95		1.35	(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA403	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 12.45	Co-Ordinates (m) E 488,057.8 N 104,190.0		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
				11.65		(0.80)	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
						0.80	(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA404	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 12.00	Co-Ordinates (m) E 487,890.3 N 104,172.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
						0.30	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
				11.70		0.30	
						0.50	Firm brown slightly sandy very gravelly SILT.
				11.20		0.80	
							(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL_TP_LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA405	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 12.05	Co-Ordinates (m) E 487,862.3 N 104,184.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
						0.35	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
				11.70		0.35	
						0.45	Medium dense brown slightly sandy very silty GRAVEL
				11.25		0.80	
							(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA406	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 11.65	Co-Ordinates (m) E 487,900.7 N 104,202.2		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	DESCRIPTION
					(0.35)	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.	
				11.30		0.35	
					(0.45)	Medium dense brown slightly sandy very silty GRAVEL	
				10.85		0.80	
							(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

TRIAL PIT LOG



Project Cathedral Park, Drainage				TRIAL PIT No SA407	
Job No CG/28824	Date 02-03-20 02-03-20	Ground Level (m) 11.90	Co-Ordinates (m) E 487,915.6 N 104,231.2		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA		
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)
					(0.40)	Grass over: Firm dark brown slightly sandy slightly gravelly silty clay TOPSOIL. Sand is fine to coarse. Gravel is fine to medium, angular to subrounded of flint.
			11.50	(0.40)	0.40	Firm brown slightly sandy very gravelly SILT.
			11.10	(0.40)	0.80	(Pit terminated at 0.8m)

<p>Plan</p> <p>Stability: Stable</p>

<p>General Remarks</p> <p>1. Trial excavated for BRE365 soakage test. 2. Coordinates and ground levels extracted from topographic survey. 3. Backfilled with arisings upon completion</p>
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Method/ Plant Used	5 tonne tracked excavator	Field Crew	BPH Plant Hire	Logged By	SMS	Checked By	DRAFT
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Report ID: CGL TP LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS301	
Job No CG/28824	Date 21-10-19	Ground Level (m) 13.26	Co-Ordinates (m) E 488,045.6 N 104,354.1		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
1.40	B1.9			13.16		0.10	Grass over: Soft brown slightly gravelly silt. Gravel is subangular, fine of flint. With abundant fine rootlets.
						(1.20)	Soft clayey SILT with rare subangular, fine to medium flint gravel.
				11.96		1.30	
				11.76		1.50	Medium dense light brown slightly silty clayey GRAVEL. Gravel is subangular to angular, fine to coarse of flint.
				11.46		1.80	Firm light brown gravelly CLAY. Gravel is subrounded to angular, fine to medium of flint.
				11.16		2.10	Medium dense light brown slightly silty clayey GRAVEL. Gravel is subrounded to angular, fine to medium of flint and chalk.
3.00	B4				(2.90)	3.00 Dark brown silt infill.	
					4.70	Silt becoming orange brown.	
				8.26		5.00	(Window sample terminated at 5m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
21-10-19	3.8		Wet soil in sampler			1. Window sample terminated at 5.0m bgl. 2. Wet soil was noted from 3.8m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.3m Plain 38mm pipe with bentonite seal; 0.3m to 3.3m Slotted with gravel filter pack; 3.3m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, G.P.U. || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS302	
Job No CG/28824	Date 21-10-19	Ground Level (m) 13.24	Co-Ordinates (m) E 488,059.2 N 104,295.1		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill	
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)		DESCRIPTION
						13.14	Grass over: Soft brown silt with abundant rootlets.	
					(1.80)	0.10	Soft brown slightly gravelly clayey SILT. Gravel is subangular to angular, fine to medium of flint.	
						11.34	1.90	
					(2.90)	11.14	2.10	Soft brown very gravelly CLAY. Gravel is subangular to angular, fine to coarse of flint.
								Medium dense to dense brown very clayey GRAVEL. Gravel is subangular to very angular, fine to coarse of flint.
								3.00 Becoming clayey.
								3.50 Becoming slightly clayey.
								4.00 Becoming light brown.
						8.24	5.00	(Window sample terminated at 5m)

Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
21-10-19	4		Wet soil in sampler			1. Window sample terminated at 5.0m bgl. 2. Wet soil was noted from 4.0m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.5m Plain 38mm pipe with bentonite seal; 0.5m to 4.5m Slotted with gravel filter pack; 4.5m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS303	
Job No CG/28824	Date 21-10-19	Ground Level (m) 12.94	Co-Ordinates (m) E 488,067.7 N 104,241.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
				12.84		0.10	Grass over: Soft brown silt with abundant rootlets.
						(1.40)	Soft brown clayey SILT. Rare subangular, fine to medium flint gravel.
				11.44		(0.80)	Soft mottled brown and grey brown very silty gravelly CLAY. Gravel is subrounded to angular, fine to coarse of flint.
				10.64		(0.50)	Medium dense brown very clayey GRAVEL. Gravel is subangular to very angular, fine to coarse of flint.
				10.14		(2.20)	Medium dense to dense cream to beige very silty GRAVEL. Gravel is subangular to very angular, fine to coarse of flint.
				7.94		5.00	(Window sample terminated at 5m)

Boring Progress and Water Observations					
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth
21-10-19	3.5		Wet soil in sampler		

General Remarks
1. Window sample terminated at 5.0m bgl. 2. Wet soil was noted from 3.5m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.4m Plain 38mm pipe with bentonite seal; 0.4m to 3.4m Slotted with gravel filter pack; 3.4m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used Premier Compact	Field Crew Oakland SI	Logged By CGH	Checked By DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS304	
Job No CG/28824	Date 21-10-19	Ground Level (m) 12.50	Co-Ordinates (m) E 488,069.6 N 104,196.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	
2.00	B4		↓	12.40		0.10	Grass over: Soft brown silt with abundant rootlets.
				12.00		0.50	Soft dark brown gravelly silt. Gravel is subrounded to angular, fine to coarse of flint, brick and tarmac. With subangular cobbles of tarmac.
				10.80		1.70	Soft very silty slightly gravelly CLAY. Gravel is subangular, fine of flint. 1.40 - 1.50 Band of subangular to angular, fine to coarse flint gravel.
				10.40		2.10	Medium dense cream to beige clayey GRAVEL. Gravel is rounded to subangular, fine of flint.
				7.50		5.00	Medium dense to dense brown mottled beige slightly clayey GRAVEL. Gravel is subangular to angular, fine to coarse of flint.
(Window sample terminated at 5m)							

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
21-10-19	3.6		Wet soil in sampler			1. Window sample terminated at 5.0m bgl. 2. Wet soil was noted from 3.6m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.3m Plain 50mm pipe with bentonite seal; 0.3m to 3.3m Slotted with gravel filter pack; 3.3m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS305	
Job No CG/28824	Date 21-10-19	Ground Level (m) 12.90	Co-Ordinates (m) E 488,029.2 N 104,226.0		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill	
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)		DESCRIPTION
						12.80	0.10	Grass over: Soft brown slightly gravelly silt. Gravel is subangular to angular, fine of flint. Fragments of broken glass/plastic.
							(0.50)	Soft brown slightly gravelly clayey SILT. Gravel is subangular to angular, fine to medium of flint.
						12.30	0.60	
							(0.80)	Soft light brown very silty slightly gravelly CLAY. Gravel is subrounded to subangular, fine to medium of flint.
						11.50	1.40	
							(0.55)	Soft to firm very gravelly CLAY. Gravel is subangular to very angular, fine to medium of flint.
						10.95	1.95	
							(0.55)	Medium dense brown very clayey GRAVEL. Gravel is subangular to very angular, fine to coarse of flint.
						10.40	2.50	
							(2.50)	Medium dense to dense cream to beige silty GRAVEL. Gravel is subrounded to angular, fine to coarse of flint. 2.60 Flint cobble ~100mm diameter.
						7.90	5.00	
(Window sample terminated at 5m)								

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
21-10-19	3.9		Wet soil in sampler			1. Window sample terminated at 5.0m bgl. 2. Wet soil was noted from 3.9m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.6m Plain 38mm pipe with bentonite seal; 0.6m to 3.6m Slotted with gravel filter pack; 3.6m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS306	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.40	Co-Ordinates (m) E 487,969.8 N 104,217.5		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			STRATA				Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)	Water	Reduced Level	Legend	Depth (m) (Thickness)	
1.20	B2.1			12.30		0.10	Grass over: Soft brown very clayey slightly gravelly silt. Gravel is subrounded to subangular, fine to medium of flit and rare brick.
				11.10		1.30	Soft brown gravelly SILT. Gravel is subangular to very angular, fine to coarse of flint.
2.10	B2.8			10.30		2.10	Soft brown very gravelly CLAY. Gravel is subangular to very angular, fine to medium of flint.
				9.60		2.80	Soft cream to beige very gravelly SILT. Gravel is subrounded to very angular, fine to medium of flint.
3.80	ES			8.70		3.70	Medium dense brown silty GRAVEL. Subrounded to angular, fine to coarse of flint. Gravel is subangular to angular, fine to medium of flint.
				8.40		4.00	Medium dense to dense white mottled grey very silty GRAVEL. Gravel is subangular to angular, fine to medium of flint. 3.80 Grey staining with mild hydrocarbon odour. (Window sample terminated at 4m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	2.9		Wet soil in sampler			1. Window sample terminated at 4.0m to prevent generating preferential contamination pathway. 2. Wet soil was noted from 2.9m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.7m Plain 38mm pipe with bentonite seal; 0.7m to 2.7m Slotted with gravel filter pack; 2.7m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS307	
Job No CG/28824	Date 22-10-19	Ground Level (m) 11.83	Co-Ordinates (m) E 487,909.1 N 104,172.5		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
			↓	11.53		(0.30) 0.30	Grass over: Soft brown gravelly silt. Gravel is subrounded to subangular, fine to medium of flint.
				10.43		(1.10) 1.40	Medium dense brown clayey silty GRAVEL. Gravel is subrounded to angular, fine to coarse of flint. With occasional subrounded to subangular cobbles of flint.
				9.93		(0.50) 1.90	Soft white to beige very gravelly SILT. Gravel is subangular to angular, fine to medium of flint.
				8.73		(1.20) 3.10	Medium dense light brown clayey GRAVEL. Gravel is subrounded to angular, fine to coarse of flint.
				7.83		(0.90) 4.00	Medium dense to dense cream silty GRAVEL. Gravel is subangular to very angular, fine to coarse of flint.
							(Window sample terminated at 4m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	1.95		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 1.95m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.2m Plain 38mm pipe with bentonite seal; 0.2m to 2.2m Slotted with gravel filter pack; 2.2m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS308	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.15	Co-Ordinates (m) E 487,850.7 N 104,169.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
						(0.40) 0.40	Weeds and scrub over: Soft brown gravelly silt. Gravel is subrounded to subangular, fine to coarse of flint and brick. With occasional rootlets.
						(1.60) 1.50	Loose to medium dense brown silty GRAVEL. Gravel is subrounded to subangular, fine to coarse of flint. With frequent subrounded to subangular cobbles of flint. 1.50 Becoming slightly silty.
						2.00	(Window sample terminated at 2m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
						1. Window sample terminated at 2.0m due to repeated collapse below 1.0m. 2. Groundwater was not encountered during the excavation. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.1m Plain 38mm pipe with bentonite seal; 0.1m to 1.1m Slotted with gravel filter pack; 1.1m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used Premier Compact	Field Crew Oakland SI	Logged By CGH	Checked By DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS309	
Job No CG/28824	Date 22-10-19	Ground Level (m) 11.80	Co-Ordinates (m) E 487,847.0 N 104,233.1		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
				11.60		0.20	Grass over: Soft brown gravelly silty clay. Gravel is subrounded to subangular, fine to medium of flint and brick.
				10.90		(0.70) 0.90	Soft brown gravelly silty CLAY. Gravel is subrounded to angular fine to coarse of flint.
				7.80		(3.10) 4.00	Medium dense to dense light brown to beige silty sandy GRAVEL. Gravel is subangular to angular, fine to coarse of flint. Sand is medium to coarse.
							(Window sample terminated at 4m)

Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GP, J || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	2.1		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 2.1m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.1m Plain 38mm pipe with bentonite seal; 0.1m to 2.1m Slotted with gravel filter pack; 2.1m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS310	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.49	Co-Ordinates (m) E 487,861.4 N 104,331.5		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
1.20	B2					0.20	Grass over: Soft brown gravelly silty clay. Gravel is subrounded to subangular, fine to medium of flint and brick.
					(0.70)	Soft brown gravelly silty CLAY. Gravel is subrounded to angular, fine to coarse of flint.	
					0.90		
					4.00	Medium dense to dense light brown/beige silty sandy GRAVEL. Gravel is subangular to angular, fine to coarse of flint. Sand is medium to coarse. 2.20 Becoming light brown.	
			8.49				(Window sample terminated at 4m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	3		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 3.0m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.5m Plain 38mm pipe with bentonite seal; 0.5m to 3.0m Slotted with gravel filter pack; 3.0m to base collapsed granular soil. 5. Densities based on engineers observation.



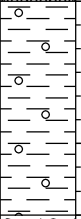
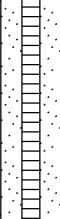
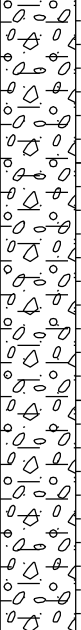
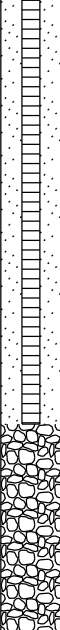

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GP, J || Library: CGL_AGS4_R1_GLB || Date: 9 March 2020

WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS311	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.87	Co-Ordinates (m) E 487,927.5 N 104,338.9		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill	
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)		DESCRIPTION
						(0.40) 0.40	Grass over: Soft brown silty slightly gravelly clay. Gravel is subrounded to subangular, fine to medium of flint and rare brick.	
						(0.90) 1.30	Soft brown silty very gravelly CLAY. Gravel is subangular to angular, fine to coarse of flint.	
						(2.70) 4.00	Medium dense to dense light brown very clayey sandy GRAVEL. Gravel is subangular to very angular, fine to coarse of flint. Sand is medium to coarse. 2.40 Becoming clayey.	
							(Window sample terminated at 4m)	

Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	3.5		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 3.5m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.1m Plain 38mm pipe with bentonite seal; 0.1m to 3.1m Slotted with gravel filter pack; 3.1m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS312	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.90	Co-Ordinates (m) E 487,988.5 N 104,295.8		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill	
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)		DESCRIPTION
						(1.00)	Grass over: Soft silty slightly gravelly clay. Gravel is subrounded to subangular, fine to medium of flint and rare fine brick.	
				11.90		1.00		
						(0.60)	Soft silty slightly gravelly CLAY. Gravel is subrounded to angular, fine to medium of flint.	
				11.30		1.60		
						(2.40)	Medium dense light brown very clayey sandy GRAVEL. Gravel is subangular to very angular, fine to coarse of flint. Sand is medium to coarse. 1.90 Becoming clayey.	
				8.90		4.00		
							(Window sample terminated at 4m)	

Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER.GPJ || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	3.5		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 3.5m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.1m Plain 38mm pipe with bentonite seal; 0.1m to 3.1m Slotted with gravel filter pack; 3.1m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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WINDOW SAMPLE LOG



Project Cathedral Park, Drainage				HOLE No WS313	
Job No CG/28824	Date 22-10-19	Ground Level (m) 12.60	Co-Ordinates (m) E 487,906.8 N 104,249.5		
Client Hanbury Properties (Chichester) Limited				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			Instrument / Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thickness)	
				12.20		0.40	Grass over: soft brown gravelly silt. Gravel is subrounded to subangular, fine to medium of flint. [TOPSOIL]
				11.00		1.60	Soft light brown very gravelly CLAY. Gravel is subangular to angular, fine to coarse of flint. [ALLUVIAL FAN DEPOSITS]
				8.60		4.00	Medium dense to dense light brown to beige very clayey GRAVEL. Gravel is subangular to very angular, fine to medium of flint. [RIVER TERRACE DEPOSITS] 1.90 Becoming clayey.
							(Window sample terminated at 4m)

Boring Progress and Water Observations						General Remarks
Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth	
22-10-19	2.4		Wet soil in sampler			1. Window sample terminated at 4.0m due to dense granular material. 2. Wet soil was noted from 2.4m. 3. No in-situ testing undertaken. 4. Hole installed with: Top hat cover concrete and bentonite at surface; 0.0m to 0.1m Plain 38mm pipe with bentonite seal; 0.1m to 2.1m Slotted with gravel filter pack; 2.1m to base collapsed granular soil. 5. Densities based on engineers observation.

Method/ Plant Used	Premier Compact	Field Crew	Oakland SI	Logged By	CGH	Checked By	DRAFT
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Report ID: CGL WS LOG || Project: CG_28824B CATHEDRAL PARK, CHICHESTER, GP.U || Library: CGL_AGS4_R1.GLB || Date: 9 March 2020

APPENDIX B

Soakage test results

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

Client: Hanbury

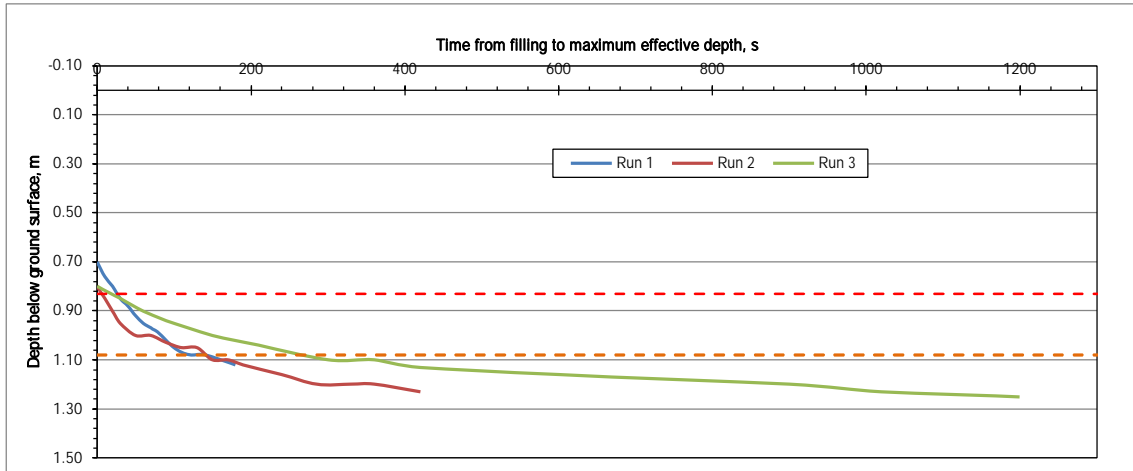
Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SMS Checker

NJI

Date: 29/01/20

Location: SA_304



Run1	
Pit Length (m)	2.70
Pit Width (m):	0.70
Pit Depth (m):	1.20

Run 2	
Pit Length (m)	2.70
Pit Width (m):	0.70
Pit Depth (m):	1.20

Run 3	
Pit Length (m)	2.70
Pit Width (m):	0.70
Pit Depth (m):	1.20

Effective Depth	0.50
D ₇₅ (m)	0.83
D ₂₅ (m)	1.08
V _{p75-25} (m ³)	0.47

Effective Depth	0.40
D ₇₅ (m)	0.90
D ₂₅ (m)	1.10
V _{p75-25} (m ³)	0.38

Effective Depth	0.40
D ₇₅ (m)	0.90
D ₂₅ (m)	1.10
V _{p75-25} (m ³)	0.38

t ₇₅ (s)	24.9
t ₂₅ (s)	116.6
t _{p75-25} (s)	91.7
a _{p50} (m ²)	3.59
Infiltration Rate (m/s):	1.44E-0

t ₇₅ (s)	22
t ₂₅ (s)	240
t _{p75-25} (s)	217.65
a _{p50} (m ²)	3.25
Infiltration Rate (m/s):	5.34E-0

t ₇₅ (s)	40
t ₂₅ (s)	540
t _{p75-25} (s)	500.4
a _{p50} (m ²)	3.25
Infiltration Rate (m/s):	2.32E-0

Time (m)	Time (s)	Depth (m)
0.00	0	0.70
0.16	9.6	0.76
0.33	19.8	0.80
0.50	30	0.85
0.66	39.6	0.88
0.83	49.8	0.92
1.00	60	0.95
1.16	69.6	0.97
1.33	79.8	0.99
1.66	99.6	1.05
2.00	120	1.08
2.33	139.8	1.08
3	180	1.12

Time (m)	Time (s)	Depth (m)
0.00	0	0.80
0.16	9.6	0.85
0.33	19.8	0.89
0.50	30	0.93
0.66	39.6	0.95
0.83	49.8	0.97
1.00	60	0.99
1.33	79.8	1.00
1.66	99.6	1.03
2.00	120	1.05
2.50	150	1.06
3.00	180	1.07
5.00	300	1.13

Time (m)	Time (s)	Depth (m)
0.00	0	0.80
0.16	9.6	0.83
0.33	19.8	0.86
0.50	30	0.88
0.66	39.6	0.90
0.83	49.8	0.92
1.00	60	0.94
1.50	90	0.96
2.00	120	0.98
3.00	180	1.03
4.00	240	1.03
6.00	360	1.05
8.00	480	1.08
9.00	540	1.10

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

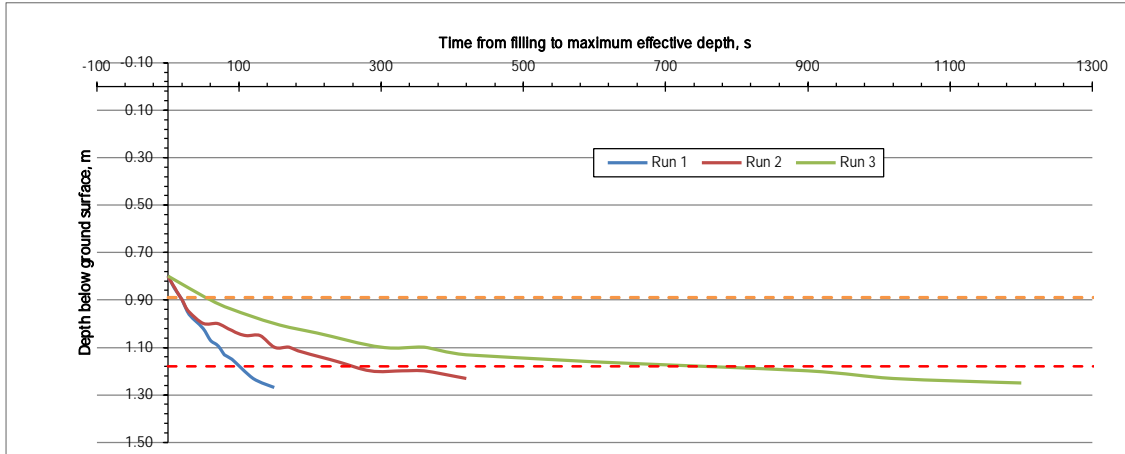
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SM Checker NJL

Date: 29/01/20

Location: SA_305



Run 1

Pit Length (r)	2.80
Pit Width (m):	0.70
Pit Depth (m):	1.30

Run 2

Pit Length (r)	2.80
Pit Width (m):	0.70
Pit Depth (m):	1.25

Run 3

Pit Length (r)	2.80
Pit Width (m):	0.70
Pit Depth (m):	1.30

Effective Depth	0.50
D ₇₅ (m)	0.93
D ₂₅ (m)	1.18
V _{p75-25} (m ³)	0.49

Effective Depth	0.45
D ₇₅ (m)	0.91
D ₂₅ (m)	1.14
V _{p75-25} (m ³)	0.44

Effective Depth	0.55
D ₇₅ (m)	0.89
D ₂₅ (m)	1.16
V _{p75-25} (m ³)	0.54

t ₇₅ (s)	24.05
t ₂₅ (s)	99.375
t _{p75-25} (s)	75.325
a _{p50} (m ²)	3.71
Infiltration Rate (m/s):	1.75E-01

t ₇₅ (s)	28.0875
t ₂₅ (s)	118.725
t _{p75-25} (s)	90.6375
a _{p50} (m ²)	3.535
Infiltration Rate (m/s):	1.38E-01

t ₇₅ (s)	35.6
t ₂₅ (s)	161.3
t _{p75-25} (s)	125.7
a _{p50} (m ²)	3.885
Infiltration Rate (m/s):	1.10E-01

Time (m)	Time (s)	Depth (m)
0.00	0	0.80
0.16	9.6	0.85
0.33	19.8	0.90
0.50	30	0.96
0.66	39.6	0.99
0.83	49.8	1.02
1.00	60	1.07
1.16	69.6	1.09
1.33	79.8	1.13
1.50	90	1.15
2.00	120	1.23
2.50	150	1.27

Time (m)	Time (s)	Depth (m)
0.00	0	0.80
0.16	9.6	0.83
0.33	19.8	0.88
0.50	30	0.92
0.66	39.6	0.95
0.83	49.8	0.98
1.00	60	1.00
1.33	79.8	1.05
1.66	99.6	1.10
2.00	120.00	1.14
2.33	139.80	1.18
2.66	159.60	1.23

Time (m)	Time (s)	Depth (m)
0.00	0	0.75
0.16	9.6	0.80
0.33	19.8	0.84
0.50	30	0.87
0.66	39.6	0.90
0.83	49.8	0.94
1.00	60	0.97
1.33	79.8	1.00
1.66	99.6	1.05
2.00	120	1.08
2.33	139.8	1.13
2.66	159.6	1.16
3.00	180	1.19
3.33	199.8	1.23

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

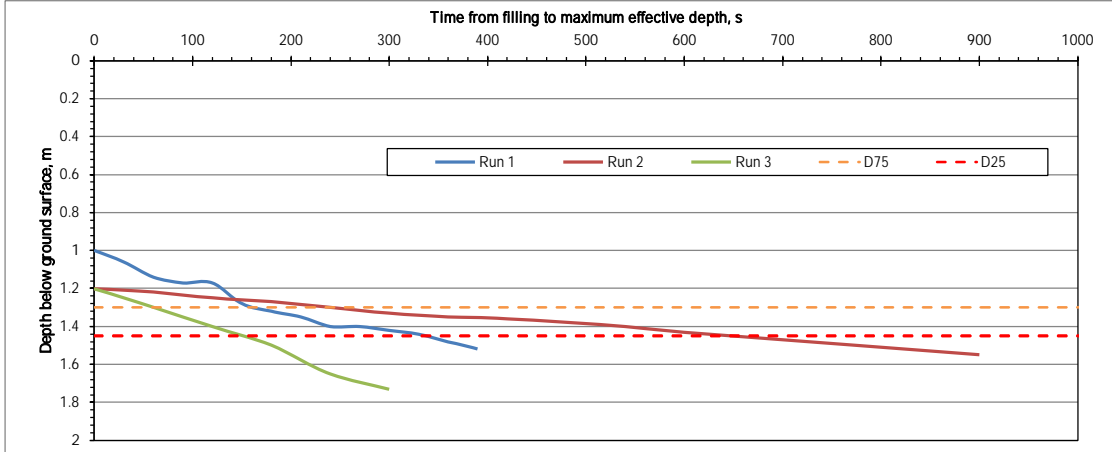
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SM Checker: NJL

Date: 30/01/20

Location: SA_306



Run1

Pit Length (m)	2.45
Pit Width (m):	0.70
Pit Depth (m):	1.60

Run 2

Pit Length (m)	2.45
Pit Width (m):	0.70
Pit Depth (m):	1.60

Run 3

Pit Length (m)	2.45
Pit Width (m):	0.70
Pit Depth (m):	2.05

Effective Depth	0.60
D ₇₅ (m)	1.15
D ₂₅ (m)	1.45
V _{p75-25} (m ³)	0.51

Effective Depth	0.40
D ₇₅ (m)	1.30
D ₂₅ (m)	1.50
V _{p75-25} (m ³)	0.34

Effective Depth	0.85
D ₇₅ (m)	1.4125
D ₂₅ (m)	1.8375
V _{p75-25} (m ³)	0.728875

t ₇₅ (s)	217.5
t ₂₅ (s)	555
t _{p75-25} (s)	337.5
a _{p50} (m ²)	3.605
Infiltration Rate (m/s):	4.23E-0

t ₇₅ (s)	240
t ₂₅ (s)	775
t _{p75-25} (s)	535
a _{p50} (m ²)	2.975
Infiltration Rate (m/s):	2.16E-0

t ₇₅ (s)	128
t ₂₅ (s)	338
t _{p75-25} (s)	210.441176
a _{p50} (m ²)	4.3925
Infiltration Rate (m/s):	7.89E-0

Time (m)	Time (s)	Depth (m)
0.00	0	1
0.50	30	1.06
1.00	60	1.14
1.50	90	1.17
2.00	120	1.17
2.50	150	1.28
3.00	180	1.32
3.50	210	1.35
4.00	240	1.4
4.50	270	1.4
5.00	300	1.42
5.50	330	1.44
6.00	360	1.48
6.50	390	1.52

Time (m)	Time (s)	Depth (m)
0.00	0	1.20
1.00	60	1.22
2.00	120	1.25
3.00	180	1.27
4.00	240	1.30
5.00	300	1.33
6.00	360	1.35
7.00	420	1.36
9.00	540	1.40
10.00	600	1.43
15.00	900	1.55

Time (m)	Time (s)	Depth (m)
0.00	0	1.20
1.00	60	1.30
2.00	120	1.40
3.00	180	1.50
4.00	240	1.65
5.00	300	1.73
6.00	360	1.90
7.00	420	2.05

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

Client: Hanbury

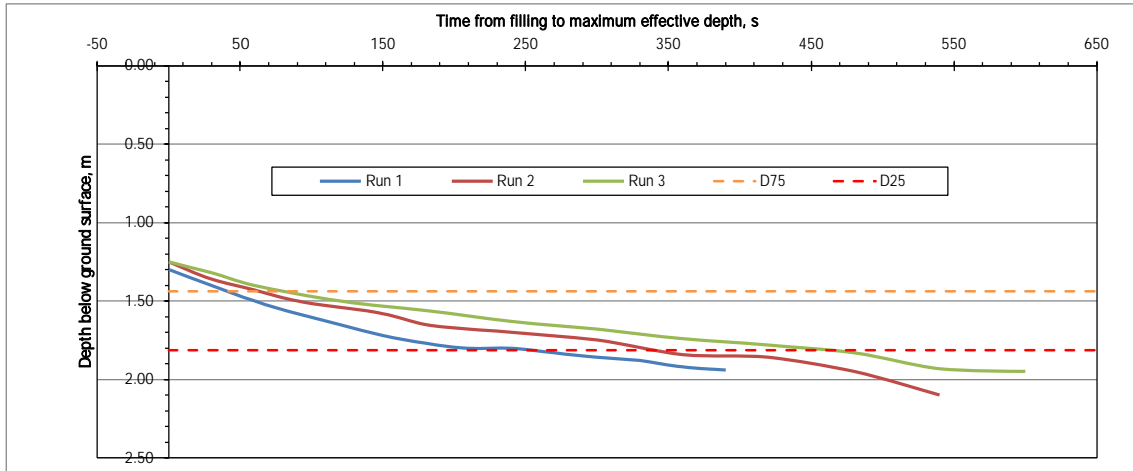
Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SMS Checker

NJI

Date: 30/01/20

Location: SA_307



Run1	
Pit Length (m)	2.50
Pit Width (m):	0.70
Pit Depth (m):	2.10

Run 2	
Pit Length (m)	2.50
Pit Width (m):	0.70
Pit Depth (m):	2.10

Run 3	
Pit Length (m)	2.50
Pit Width (m):	0.70
Pit Depth (m):	2.00

Effective Depth	0.80
D ₇₅ (m)	1.50
D ₂₅ (m)	1.90
V _{p75-25} (m ³)	0.70

Effective Depth	0.85
D ₇₅ (m)	1.46
D ₂₅ (m)	1.89
V _{p75-25} (m ³)	0.74

Effective Depth	0.75
D ₇₅ (m)	1.4375
D ₂₅ (m)	1.8125
V _{p75-25} (m ³)	0.65625

t ₇₅ (s)	60
t ₂₅ (s)	345
t _{p75-25} (s)	285
a _{p50} (m ²)	4.31
Infiltration Rate (m/s):	5.70E-0

t ₇₅ (s)	74
t ₂₅ (s)	438
t _{p75-25} (s)	364.40476
a _{p50} (m ²)	4.47
Infiltration Rate (m/s):	4.57E-0

t ₇₅ (s)	83
t ₂₅ (s)	459
t _{p75-25} (s)	376.5
a _{p50} (m ²)	4.15
Infiltration Rate (m/s):	4.20E-0

Time (m)	Time (s)	Depth (m)
0.00	0	1.30
0.50	30	1.40
1.00	60	1.50
1.50	90	1.58
2.00	120	1.65
2.50	150	1.72
3.00	180	1.77
3.50	210	1.80
4.00	240	1.80
4.50	270	1.83
5.00	300	1.86
5.50	330	1.88
6.00	360	1.92
6.50	390	1.94

Time (m)	Time (s)	Depth (m)
0.00	0	1.25
0.50	30	1.36
1.00	60	1.43
1.50	90	1.50
2.00	120	1.54
2.50	150	1.58
3.00	180	1.65
3.50	210	1.68
4.00	240	1.70
4.50	300	1.75
5.00	360	1.84
6.00	420	1.86
7.00	480	1.95
8.00	540	2.10

Time (m)	Time (s)	Depth (m)
0.00	0	1.25
0.50	30	1.32
1.00	60	1.40
2.00	120	1.50
3.00	180	1.56
4.00	240	1.63
5.00	300	1.68
6.00	360	1.74
7.00	420	1.78
8.00	480	1.83
9.00	540	1.93
10.00	600	1.95

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

Client: Hanbury

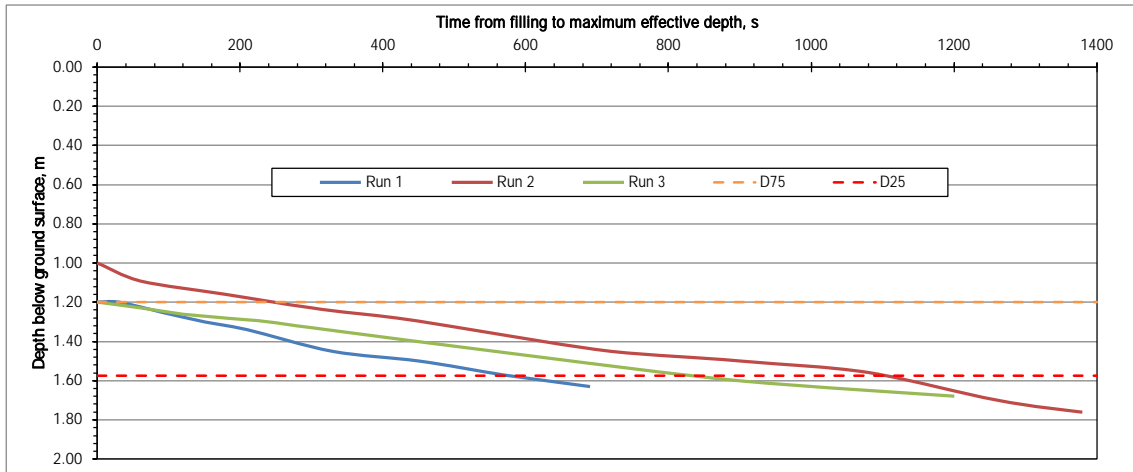
Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SMS Checker

NJI

Date: 30/01/20

Location: SA_308



Run1

Pit Length (m)	2.30
Pit Width (m):	0.70
Pit Depth (m):	1.70

Run 2

Pit Length (m)	2.30
Pit Width (m):	0.70
Pit Depth (m):	1.80

Run 3

Pit Length (m)	2.30
Pit Width (m):	0.70
Pit Depth (m):	1.70

Effective Depth	0.50
D ₇₅ (m)	1.33
D ₂₅ (m)	1.58
V _{p75-25} (m ³)	0.40

Effective Depth	0.80
D ₇₅ (m)	1.20
D ₂₅ (m)	1.60
V _{p75-25} (m ³)	0.64

Effective Depth	0.5
D ₇₅ (m)	1.325
D ₂₅ (m)	1.575
V _{p75-25} (m ³)	0.4025

t ₇₅ (s)	206.25
t ₂₅ (s)	655
t _{p75-25} (s)	448.75
a _{p50} (m ²)	3.11
Infiltration Rate (m/s):	2.88E-0

t ₇₅ (s)	249
t ₂₅ (s)	1131
t _{p75-25} (s)	882.85714
a _{p50} (m ²)	4.01
Infiltration Rate (m/s):	1.82E-0

t ₇₅ (s)	290
t ₂₅ (s)	842
t _{p75-25} (s)	552.30769
a _{p50} (m ²)	3.11
Infiltration Rate (m/s):	2.34E-0

Time (m)	Time (s)	Depth (m)
0.00	0	1.20
0.50	30	1.20
1.50	90	1.25
2.50	150	1.30
3.50	210	1.34
5.50	330	1.45
7.50	450	1.50
9.50	570	1.57
11.50	690	1.63

Time (m)	Time (s)	Depth (m)
0.00	0	1.00
1.00	60	1.09
3.00	180	1.16
5.00	300	1.23
7.00	420	1.28
9.00	540	1.35
12.00	720	1.45
15.00	900	1.50
18.00	1080	1.56
21.00	1260	1.70
23.00	1380	1.76

Time (m)	Time (s)	Depth (m)
0.00	0	1.20
1.00	60	1.23
2.00	120	1.26
3.00	180	1.28
4.00	240	1.30
5.00	300	1.33
10.00	600	1.47
15.00	900	1.60
20.00	1200	1.68

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

Client: Hanbury

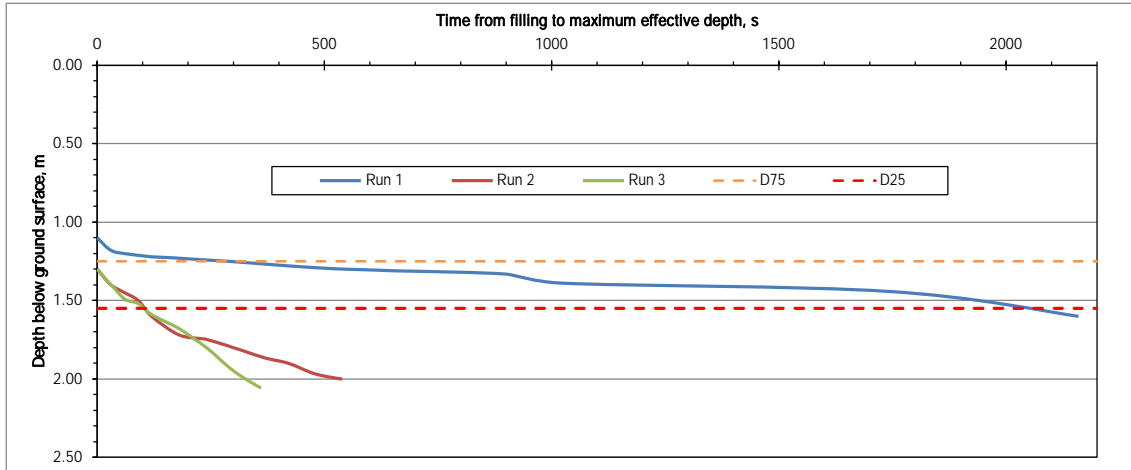
Project: Cathedral Park, Chichester - Drainage

Eng: ELD / SMS Checker

NJI

Date: 30/01/20

Location: SA_309



Run1	
Pit Length (n)	2.50
Pit Width (m):	0.70
Pit Depth (m):	1.70

Run 2	
Pit Length (n)	2.50
Pit Width (m):	0.70
Pit Depth (m):	2.00

Run 3	
Pit Length (n)	2.50
Pit Width (m):	0.70
Pit Depth (m):	2.10

Effective Depth	0.60
D ₇₅ (m)	1.25
D ₂₅ (m)	1.55
V _{p75-25} (m ³)	0.53

Effective Depth	0.70
D ₇₅ (m)	1.48
D ₂₅ (m)	1.83
V _{p75-25} (m ³)	0.61

Effective Depth	0.8
D ₇₅ (m)	1.5
D ₂₅ (m)	1.9
V _{p75-25} (m ³)	0.7

t ₇₅ (s)	288
t ₂₅ (s)	2028.75
t _{p75-25} (s)	1740.75
a _{p50} (m ²)	3.67
Infiltration Rate (m/s):	8.22E-01

t ₇₅ (s)	75
t ₂₅ (s)	325
t _{p75-25} (s)	250
a _{p50} (m ²)	3.99
Infiltration Rate (m/s):	6.14E-01

t ₇₅ (s)	70
t ₂₅ (s)	280
t _{p75-25} (s)	210
a _{p50} (m ²)	4.31
Infiltration Rate (m/s):	7.73E-01

Time (m)	Time (s)	Depth (m)
0.00	0	1.10
0.50	30	1.18
1.00	60	1.20
2.00	120	1.22
4.00	240	1.24
8.00	480	1.29
11.00	660	1.31
15.00	900	1.33
17.00	1020	1.39
29.00	1740	1.44
36.00	2160	1.60

Time (m)	Time (s)	Depth (m)
0.00	0	1.30
0.50	30	1.40
1.00	60	1.45
1.50	90	1.50
2.00	120	1.60
3.00	180	1.72
4.00	240	1.75
5.00	300	1.80
6.00	360	1.86
7.00	420	1.90
8.00	480	1.97
9.00	540	2.00

Time (m)	Time (s)	Depth (m)
0.00	0	1.30
0.50	30	1.40
1.00	60	1.49
1.50	90	1.52
2.00	120	1.59
3.00	180	1.68
4.00	240	1.80
5.00	300	1.95
6.00	360	2.06

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

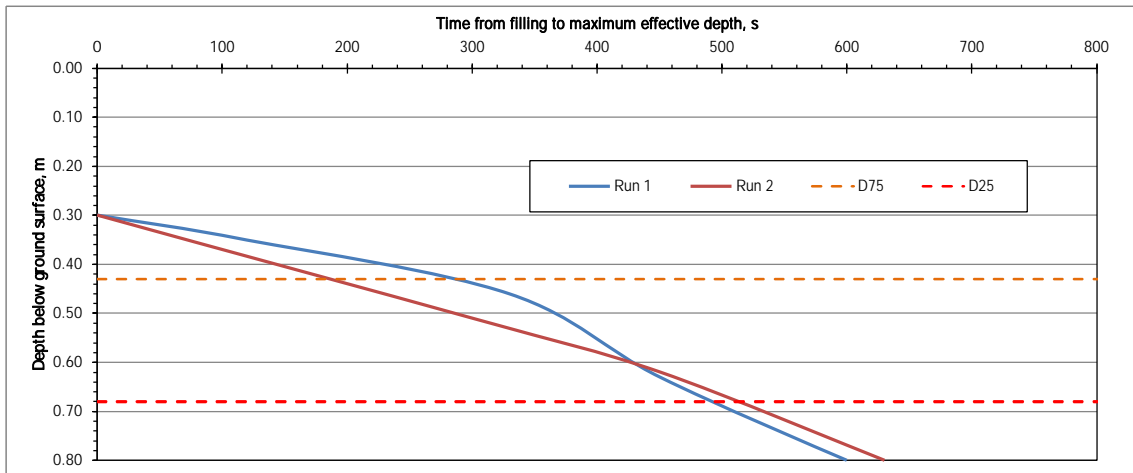
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: SM S Checker NJI

Date: 02/03/20

Location: SA_402



Run1	
Pit Length (m)	3.00
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 2	
Pit Length (m)	3.00
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 3	
Pit Length (m)	
Pit Width (m):	
Pit Depth (m):	

Effective Depth (m)	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.53

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.53

Effective Depth	
D ₇₅ (m)	
D ₂₅ (m)	
V _{p75-25} (m ³)	

t ₇₅ (s)	263.18182
t ₂₅ (s)	489.70588
t _{p75-25} (s)	226.52406
a _{p50} (m ²)	3.95
Infiltration Rate (m/s):	5.87E-0

t ₇₅ (s)	179
t ₂₅ (s)	505
t _{p75-25} (s)	326
a _{p50} (m ²)	3.95
Infiltration Rate (m/s):	4.07E-0

t ₇₅ (s)	
t ₂₅ (s)	
t _{p75-25} (s)	
a _{p50} (m ²)	
Infiltration Rate (m/s):	

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
2.00	120	0.35
5.50	330	0.46
7.50	450	0.63
10.00	600	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
5.00	300	0.51
7.50	450	0.62
10.50	630	0.80

Time (m)	Time (s)	Depth (m)

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

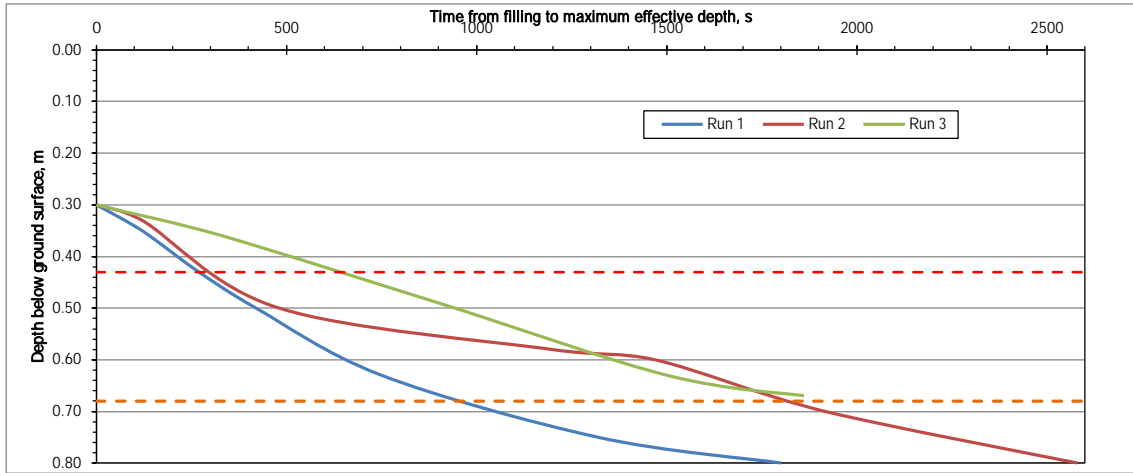
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: SM S Checker: NJI

Date: 02/03/20

Location: SA_404



Run1	
Pit Length (m)	2.60
Pit Width (m):	0.60
Pit Depth (m):	0.80

Run 2	
Pit Length (m)	2.60
Pit Width (m):	0.60
Pit Depth (m):	0.80

Run 3	
Pit Length (m)	2.60
Pit Width (m):	0.60
Pit Depth (m):	0.80

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.39

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.39

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.39

t ₇₅ (s)	260.625
t ₂₅ (s)	963.75
t _{p75-25} (s)	703.125
a _{p50} (m ²)	3.16
Infiltration Rate (m/s):	1.76E-01

t ₇₅ (s)	321
t ₂₅ (s)	1808
t _{p75-25} (s)	1486.3235
a _{p50} (m ²)	3.16
Infiltration Rate (m/s):	8.30E-01

t ₇₅ (s)	615
t ₂₅ (s)	540
t _{p75-25} (s)	-75
a _{p50} (m ²)	3.16
Infiltration Rate (m/s):	-1.65E-01

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
2.00	120	0.35
4.50	270	0.43
7.00	420	0.50
12.50	750	0.63
22.00	1320	0.75
30.00	1800	0.8

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
2.00	120	0.33
8.00	480	0.50
20.00	1200	0.58
24.50	1470	0.60
32.00	1920	0.70
43.00	2580	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
5.50	330	0.36
15.00	900	0.49
25.00	1500	0.63
31.00	1860	0.67

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

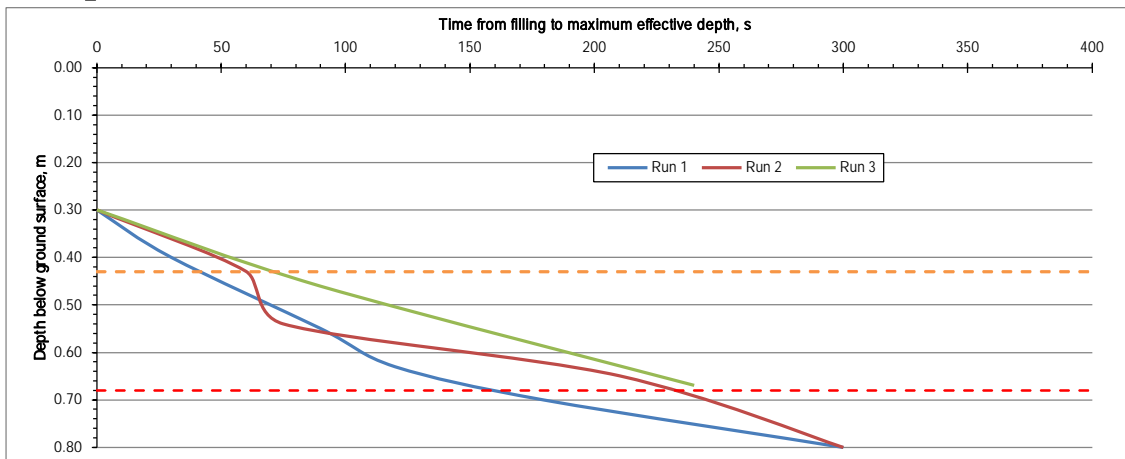
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: SM S Checker NJL

Date: 02/03/20

Location: SA_405



Run1

Pit Length (r)	3.00
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 2

Pit Length (r)	3.00
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 3

Pit Length (r)	3.00
Pit Width (m):	0.70
Pit Depth (m):	0.80

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.53

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.53

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.53

t ₇₅ (s)	40
t ₂₅ (s)	158.57143
t _{p75-25} (s)	118.57143
a _{p50} (m ²)	3.95
Infiltration Rate (m/s):	1.12E-01

t ₇₅ (s)	57.692308
t ₂₅ (s)	225
t _{p75-25} (s)	167.30769
a _{p50} (m ²)	3.95
Infiltration Rate (m/s):	7.94E-01

t ₇₅ (s)	70.3125
t ₂₅ (s)	161.3
t _{p75-25} (s)	90.9875
a _{p50} (m ²)	3.95
Infiltration Rate (m/s):	1.46E-01

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
0.50	30	0.40
1.50	90	0.55
2.00	120	0.63
3.00	180	0.70
5.00	300	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
1.00	60	0.43
1.25	75	0.54
3.50	210	0.65
5.00	300	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
1.50	90	0.46
4.00	240	0.67

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

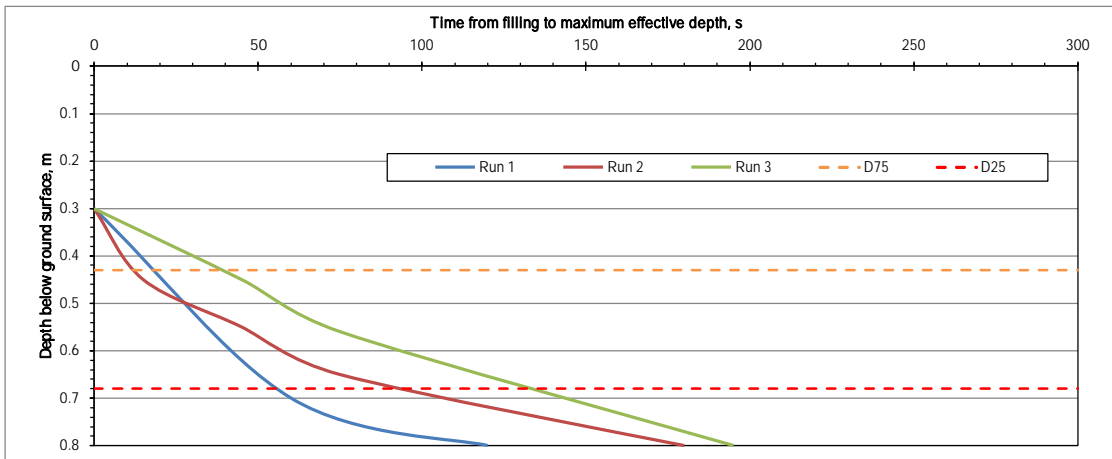
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: SM S Checker NJL

Date: 02/03/20

Location: SA_406



Run1

Pit Length (m)	2.60
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 2

Pit Length (m)	2.60
Pit Width (m):	0.70
Pit Depth (m):	0.80

Run 3

Pit Length (m)	2.60
Pit Width (m):	0.70
Pit Depth (m):	0.80

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.46

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.46

Effective Depth	0.5
D ₇₅ (m)	0.425
D ₂₅ (m)	0.675
V _{p75-25} (m ³)	0.455

t ₇₅ (s)	18.75
t ₂₅ (s)	56.25
t _{p75-25} (s)	37.5
a _{p50} (m ²)	3.47
Infiltration Rate (m/s):	3.50E-01

t ₇₅ (s)	13
t ₂₅ (s)	93
t _{p75-25} (s)	80
a _{p50} (m ²)	3.47
Infiltration Rate (m/s):	1.64E-01

t ₇₅ (s)	38
t ₂₅ (s)	133
t _{p75-25} (s)	95
a _{p50} (m ²)	3.47
Infiltration Rate (m/s):	1.38E-01

Time (m)	Time (s)	Depth (m)
0.00	0	0.3
1.00	60	0.7
2.00	120	0.8

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
0.25	15	0.45
0.75	45	0.55
1.25	75	0.65
3.00	180	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
0.75	45	0.45
1.25	75	0.56
3.25	195	0.80

Soil Infiltration T



Based on BRE 365 Soakaway Design

Project: CG/28824B

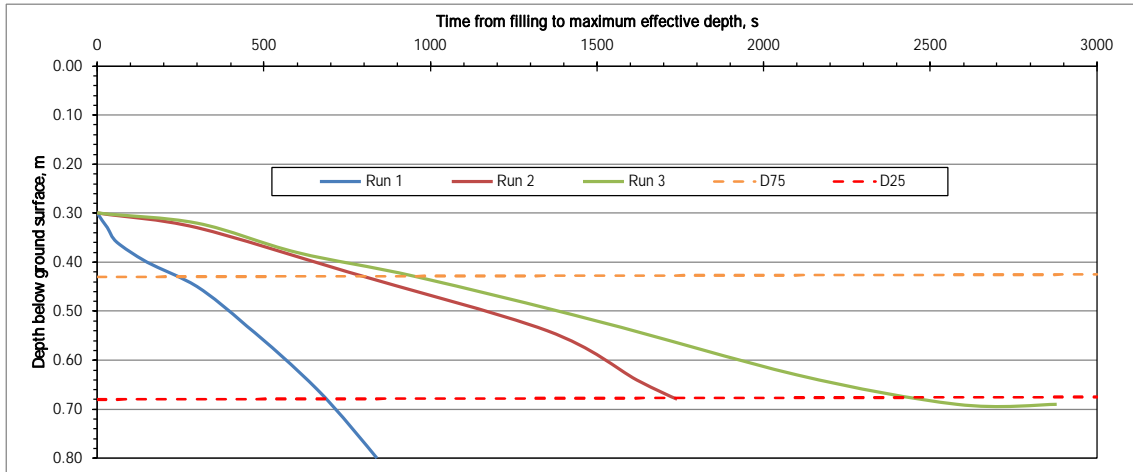
Client: Hanbury

Project: Cathedral Park, Chichester - Drainage

Eng: SM S Checker NJI

Date: 02/03/20

Location: SA_407



Run1	
Pit Length (m)	3.30
Pit Width (m):	0.75
Pit Depth (m):	0.80

Run 2	
Pit Length (m)	3.30
Pit Width (m):	0.75
Pit Depth (m):	0.80

Run 3	
Pit Length (m)	3.30
Pit Width (m):	0.75
Pit Depth (m):	0.80

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.62

Effective Depth	0.50
D ₇₅ (m)	0.43
D ₂₅ (m)	0.68
V _{p75-25} (m ³)	0.62

Effective Depth	0.5
D ₇₅ (m)	0.425
D ₂₅ (m)	0.675
V _{p75-25} (m ³)	0.61875

t ₇₅ (s)	225
t ₂₅ (s)	679.28571
t _{p75-25} (s)	454.28571
a _{p50} (m ²)	4.5
Infiltration Rate (m/s):	3.03E-0

t ₇₅ (s)	775
t ₂₅ (s)	1725
t _{p75-25} (s)	950
a _{p50} (m ²)	4.5
Infiltration Rate (m/s):	1.45E-0

t ₇₅ (s)	924
t ₂₅ (s)	2460
t _{p75-25} (s)	1536
a _{p50} (m ²)	4.5
Infiltration Rate (m/s):	8.95E-0

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
0.50	30	0.33
1.00	60	0.36
2.50	150	0.40
5.00	300	0.45
7.50	450	0.53
11.00	660	0.66
14.00	840	0.80

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
5.00	300	0.33
12.50	750	0.42
22.50	1350	0.54
27.00	1620	0.64
29.00	1740	0.68

Time (m)	Time (s)	Depth (m)
0.00	0	0.30
5.00	300	0.32
10.00	600	0.38
16.00	960	0.43
25.00	1500	0.52
35.00	2100	0.63
43.00	2580	0.69
48.00	2880	0.69