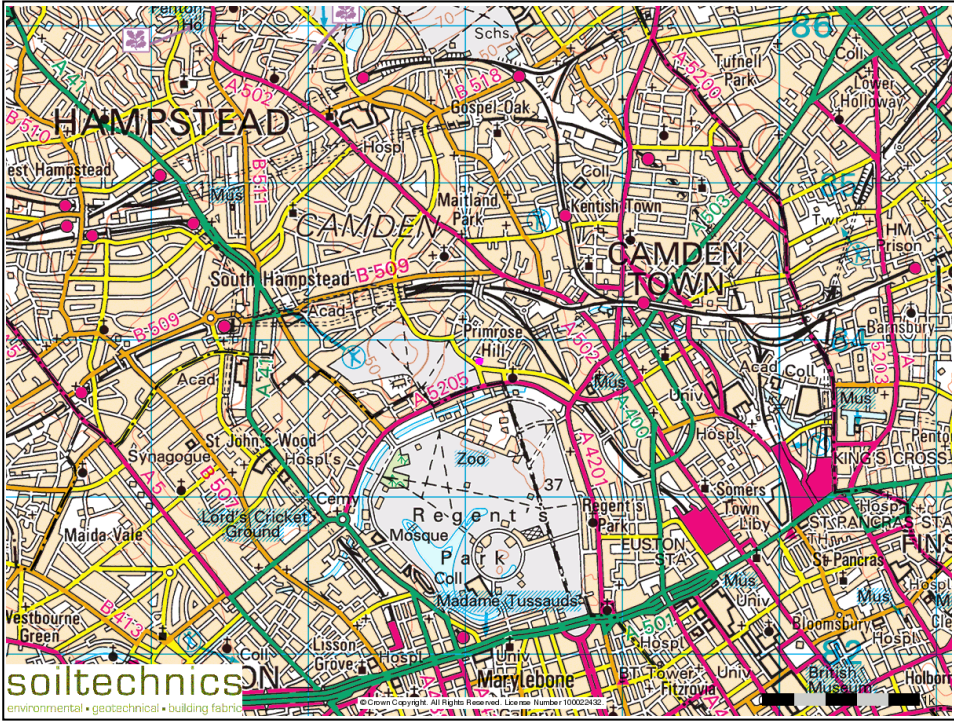
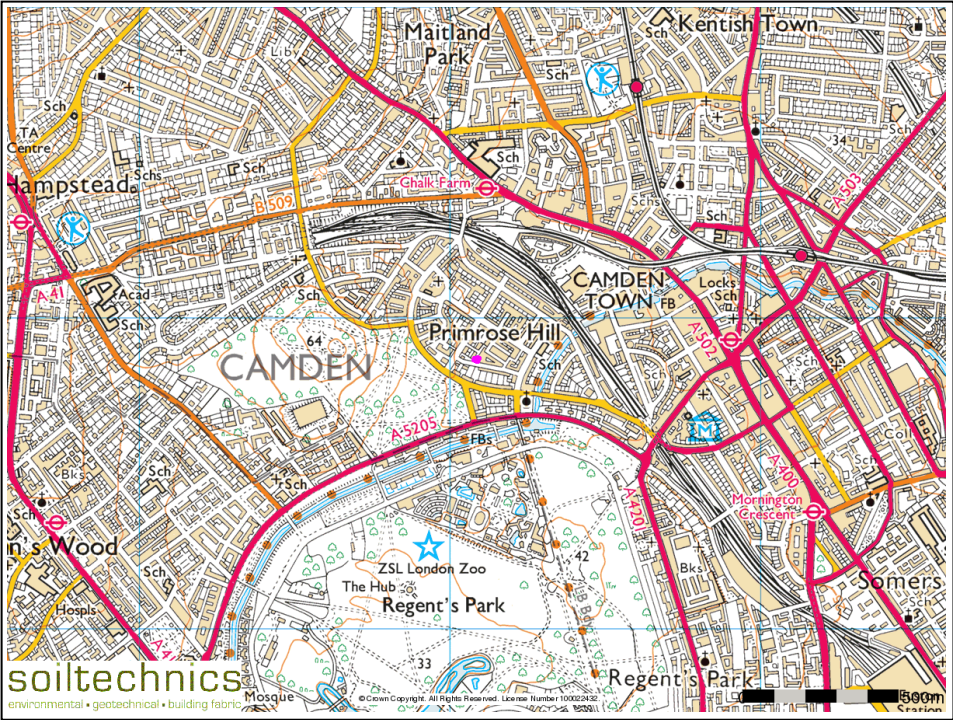


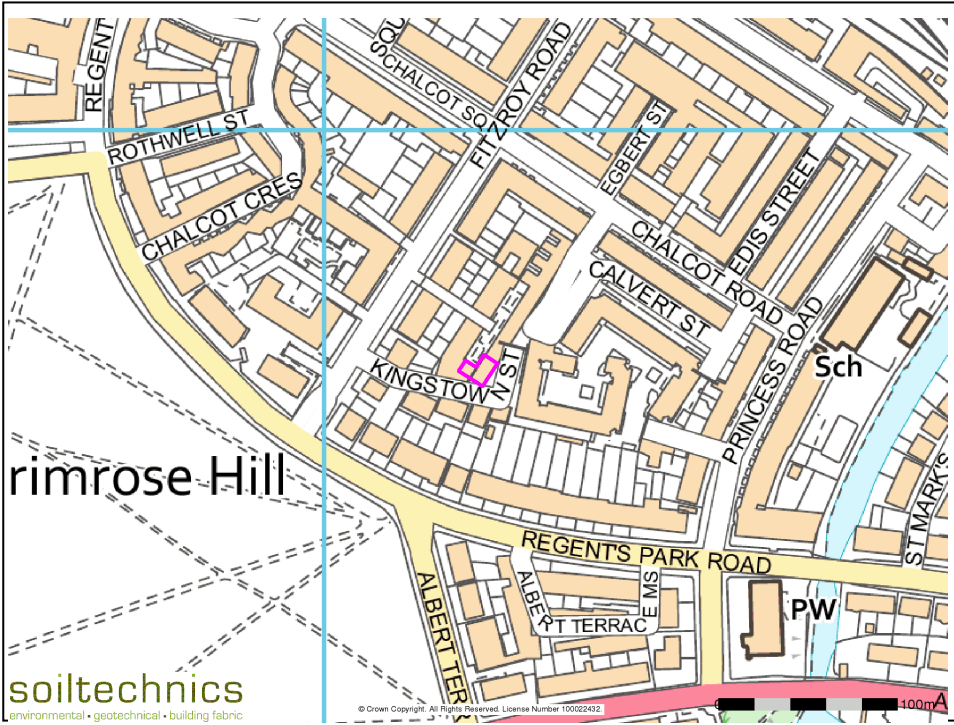
Appendix A Drawings



Neighbourhood extract from Ordnance Survey map

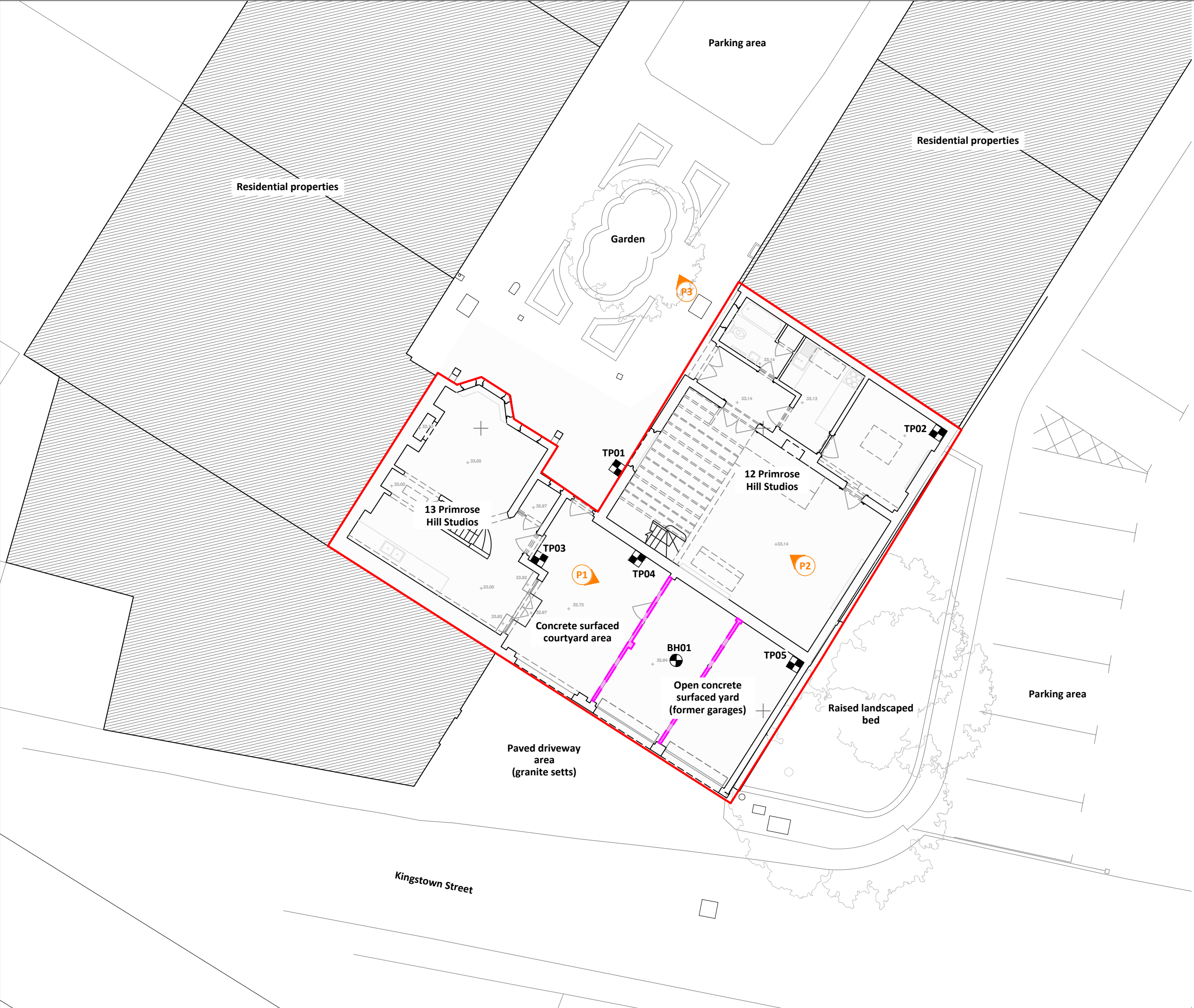


Town extract from Ordnance Survey map








Detail extract from Ordnance Survey map

Title	Scale	Drawing number
Site location plan	Not to scale	01



Key

-  BH Cable percussive borehole
-  TP Hand excavated trial pit
-  Interior garage walls now removed
-  Location and orientation of photographic record
-  Site boundary

Notes

- Base drawing provided by Client
- Exploratory locations are approximate

A	First issue	SA	VJ	ID	10.05.2022
REV	DESCRIPTION	PREP	CHKD	APPD	DATE

soiltechnics
environmental • geotechnical • building fabric

















PROJECT
Primrose Hill Studios, London

TITLE
Exploratory hole plan (current layout)

PROJECT NO. STU5616	SCALE AT A3 1:125	DRAWING NO. 02
------------------------	----------------------	-------------------

Appendix B Exploratory Hole Records

Key to legends

Composite materials, soils and lithology					
	Topsoil		Made Ground		Boulders
	Clay		Coal		Cobbles
	Gravel		Limestone		Mudstone
	Sand		Sandstone		Silt
					Siltstone
					Peat
					Concrete
					Chalk

Note: Composite soil types are signified by combined symbols.

Key to 'test results' and 'sampling' columns

Test result		Sampling	
Depth	Records depth that the test was carried out (i.e.: at 2.10m or between 2.10m and 2.55m)	From (m) To (m)	Records depth of sampling
Result	PP – Pocket penetrometer result reported as an equivalent undrained shear strength (kN/m ²) by applying a factor of 50.		D Disturbed sample
	SV – Hand held shear vane result reported as an undrained shear strength (kN/m ²). Where multiple readings are taken at the same level the average value is shown on the log. * Signifies that instrument limit reached.		B Bulk disturbed sample
	SPT – Standard Penetration Test result (N value) (uncorrected) ^{1,2,3} SPT(c) – Standard Penetration Test result (solid cone) (N value) (uncorrected) ^{1,2,3}		ES Environmental sample
	UT – Undisturbed sample 100mm diameter sampler with number of blows of driving equipment required to obtain sample	Type	W Water sample
			U Undisturbed thick-walled sample 100mm diameter sampler
			UT Undisturbed thin walled sample 100mm diameter sampler
			UTF Failed undisturbed sample



Note 1: Seating blows recorded in brackets.

Note 2: Casing depth records depth of casing when SPT or SPT(c) was carried out.









Note 3: Water depth records depth of water when SPT or SPT(c) was carried out.

Water observations

Described at foot of log and shown in the 'water strike' column.

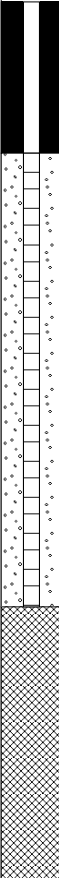











-  Water level observed after specified delay in drilling
-  Water strike

Installation details

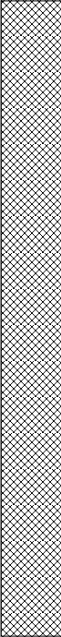
	Gravel filter		Bentonite
	Slotted pipe		Unslotted pipe
	Arisings		Grout
	Extensometer magnet		Vibrating wire piezometer

Density

Density recorded in brackets determined by qualitative field assessment or inferred from density testing and soil descriptions from across the site (i.e.: [Medium dense]).

INSTALL	STRATA				WATER STRIKES	SPT TESTING				OTHER IN SITU TESTING		SAMPLING		
	DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	CASING DEPTH (m)	WATER LEVEL (m)	TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
	Reinforced CONCRETE. (MADE GROUND)	0.20												
	[Medium dense] brown clayey gravelly SAND with occasional cobbles of brick. Gravel is fine to coarse angular to subangular brick, asphalt and concrete. (MADE GROUND)											0.30 0.30	0.80 0.80	B ES
	Firm brown mottled grey CLAY. (LONDON CLAY FORMATION)	0.80								PP 0.90	PP=88	0.90		D
						S 1.20 - 1.65	(3) 11	1.20				1.20	1.70	D
											UT=64	2.00	2.45	UT
										PP 2.50	PP=133	2.50		D
	...from 2.5m depth, becoming stiff.					S 3.00 - 3.45	(5) 13	1.20				3.00	3.45	D
														
						S 4.00 - 4.45	(3) 14	1.20				4.00	4.50	D
											UT=49	5.00	5.45	UT
										PP 5.50	PP=188	5.50		D

CONTINUED ON NEXT SHEET													
Notes Excavated by hand to 1.2m depth.	Chiselling details		Drilling details		Title				Date(s)				
	Depth (m)	Duration (hh:mm)	Diameter	Base depth (m)	Borehole record				07/03/2022				
			150	10.00	Method Cable tool percussion		Logged by VJ		Sheet number Sheet 1 of 2				
Groundwater observations No groundwater encountered.	Water added details		Casing details		Level (m OD)		Compiled by SA		Revision 0				
	Depth (m)	Water Added (l)	Diameter	Base depth (m)	-								
			170	1.50	Co-ordinates -		Checked by ID		BH01				

INSTALL	STRATA				WATER STRIKES	SPT TESTING				OTHER IN SITU TESTING		SAMPLING		
	DESCRIPTION	DEPTH (m)	REDUCED LVL (m OD)	LEGEND		TYPE / DEPTH (m)	RESULT	CASING DEPTH (m)	WATER LEVEL (m)	TYPE / DEPTH (m)	RESULT	FROM (m)	TO (m)	TYPE
										PP 6.00	PP=158	6.00		D
						S 7.00 - 7.45	(5) 17	1.20				7.00	7.50	D
										PP 8.00	PP=200	8.00		D
											UT=78	9.00	9.45	UT
										PP 9.50	PP=213	9.50		D
	BOREHOLE TERMINATED AT 10.00m	10.00								PP 10.00	PP=213	10.00		D
	...from 9.5m depth, dark grey in colour and occasional gypsum crystals.													

Notes Excavated by hand to 1.2m depth.	Chiselling details		Drilling details		Title		Date(s)	
	Depth (m)	Duration (hh:mm)	Diameter	Base depth (m)	Borehole record		07/03/2022	
			150	10.00	Method Cable tool percussion	Logged by VJ	Sheet number Sheet 2 of 2	
Groundwater observations No groundwater encountered.	Water added details		Casing details		Level (m OD)		Compiled by	Revision
	Depth (m)	Water Added (l)	Diameter	Base depth (m)	-		SA	0
			170	1.50	Co-ordinates -		Checked by ID	BH01



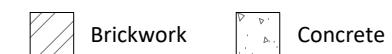
Photographic records



A. CONCRETE.
(MADE GROUND)


- B. [Medium dense] brown clayey gravelly SAND with occasional cobbles of brick. Gravel is fine to coarse angular to subrounded brick and flint.
(MADE GROUND)
- C. Firm dark brown slightly gravelly CLAY. Gravel is fine to medium angular to subangular brick, glass and coal.
(MADE GROUND)

— Observed features
- - - Assumed features



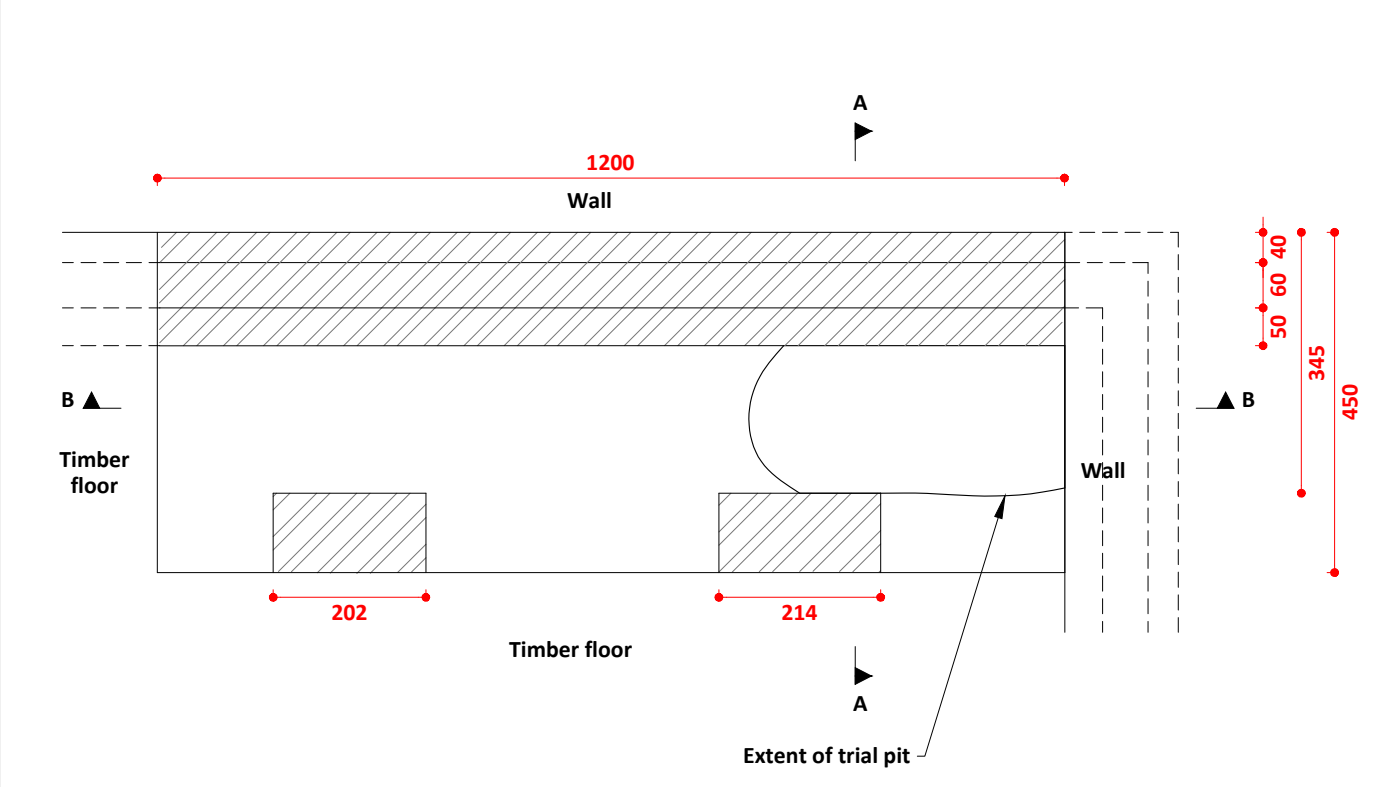
1. Trial pit sides remained upright and stable.
2. Dimensions shown in millimetres.
3. No groundwater encountered.

- 0.3 - 0.4 - ES
- 0.6 - 0.7 - ES

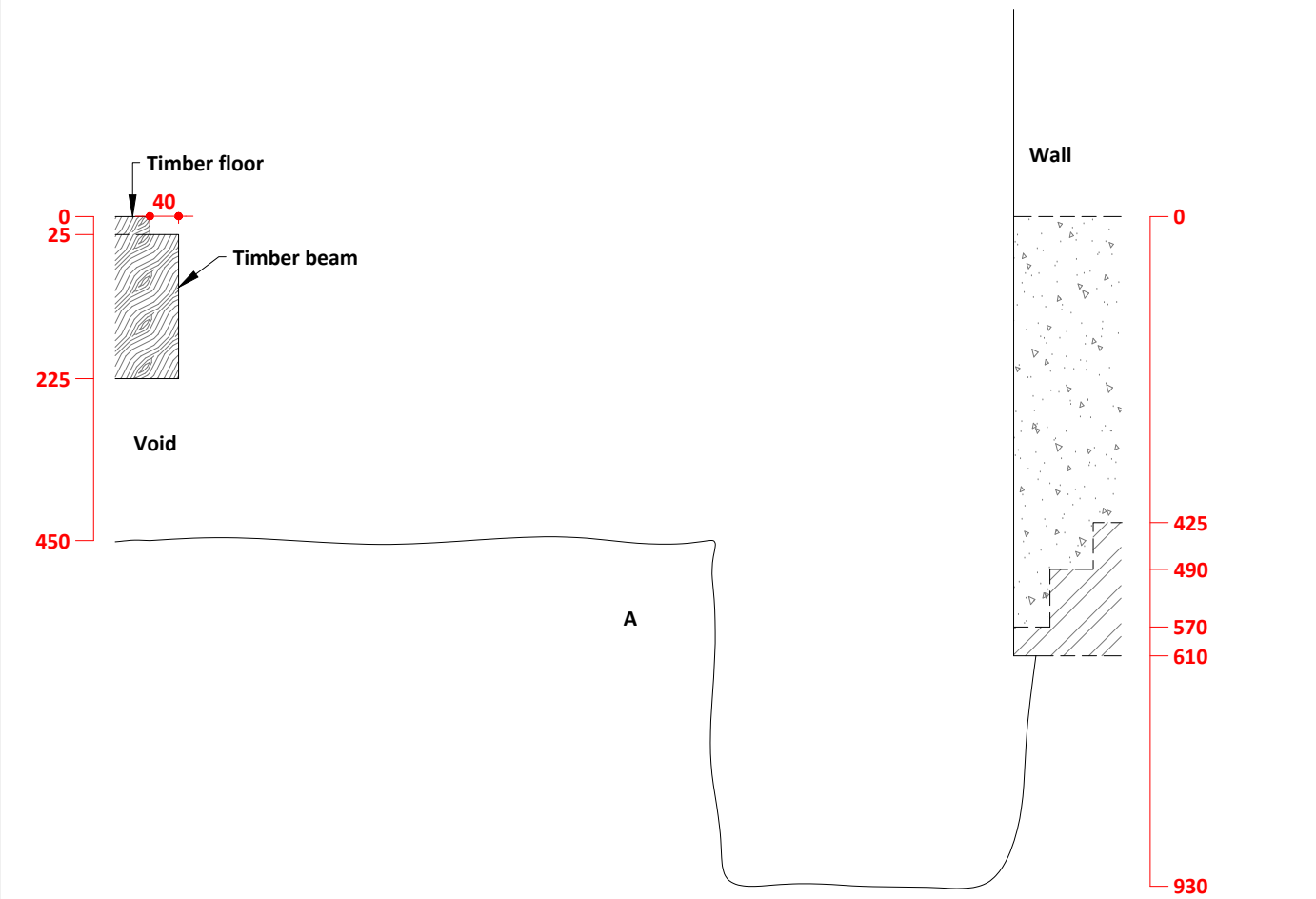
A	First issue	VJ	SA	ID	28.04.2022
REV	DESCRIPTION	LOGD	PREP	APPD	DATE
					
PROJECT Primrose Hill Studios, London					
TITLE Trial pit record					
METHOD OF EXCAVATION Hand tools				DATE OF WORKS 07.03.2022	
PROJECT NO. STU5616		SCALE AT A3 1:5		LOCATION REFERENCE TP01	



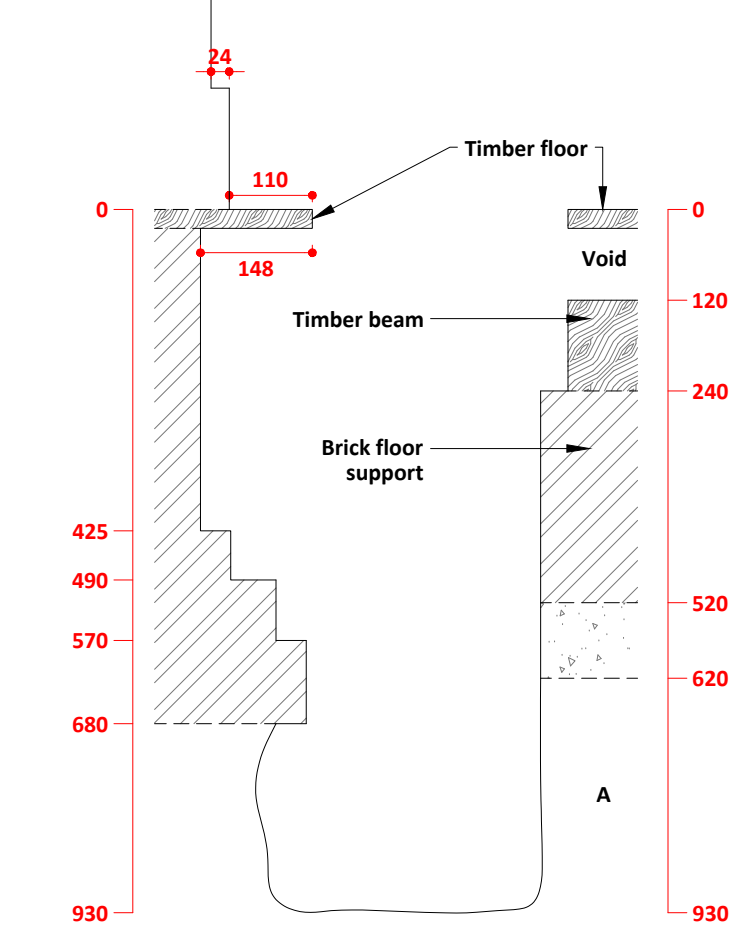
Plan



Section B-B



Section A-A



Key

A. [Loose] brown gravelly SAND with occasional cobbles of brick. Gravel is fine to medium angular to subangular brick. (MADE GROUND)

- Observed features
- Assumed features
- Brickwork
- Concrete
- Timber

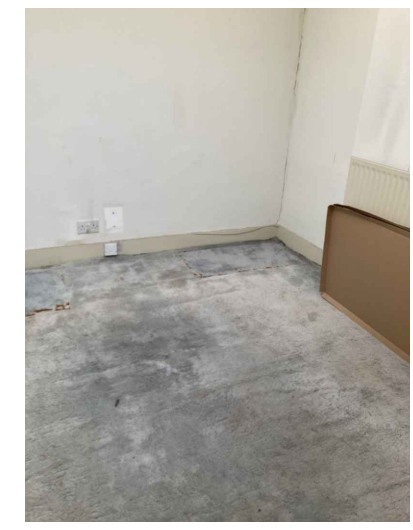
Notes

- Trial pit sides remained upright and stable.
- Dimensions shown in millimetres.
- No groundwater encountered.

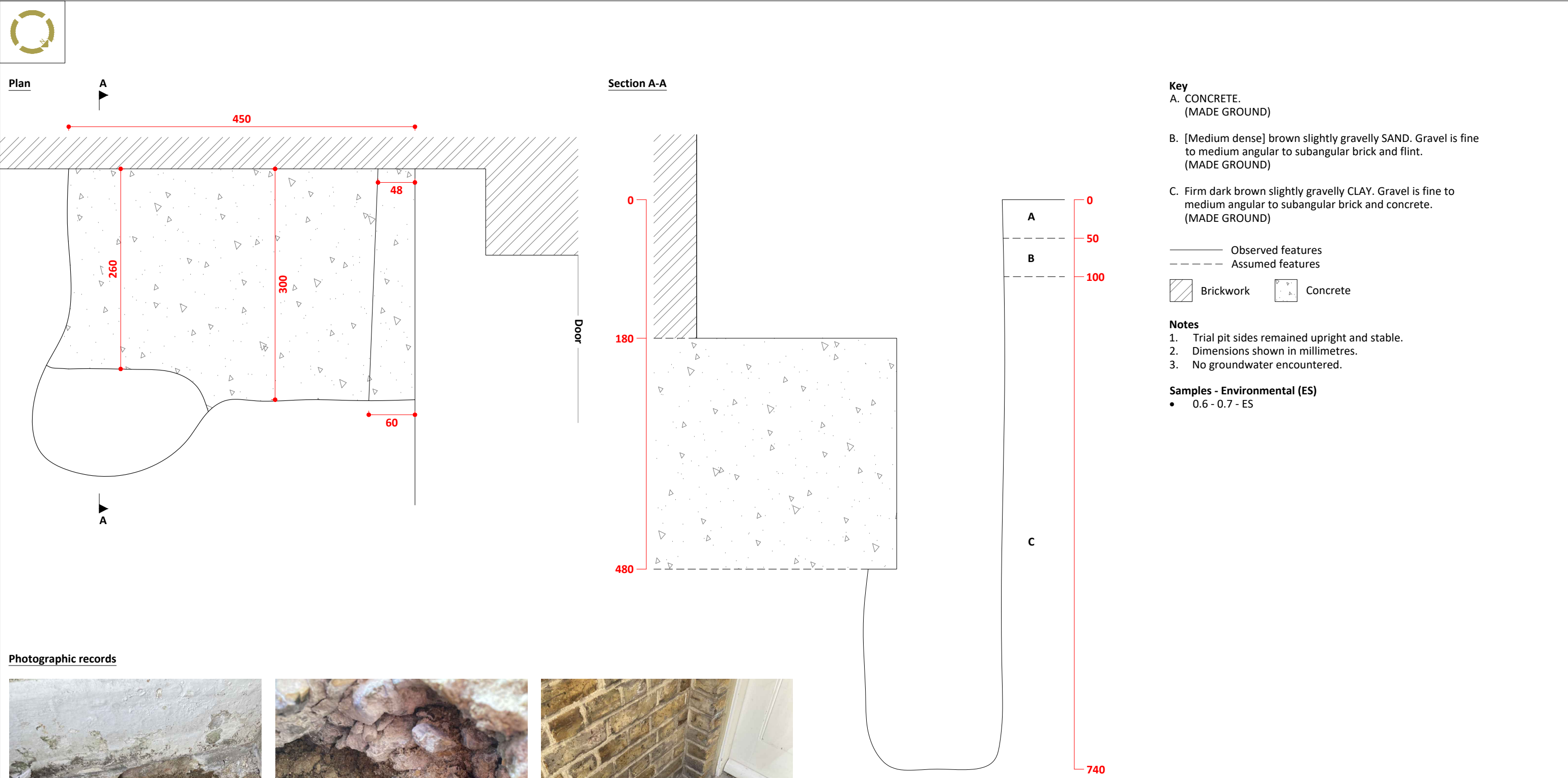
Samples - Environmental (ES)

- 0.6 - 0.7 - ES

Photographic records



A	First issue	VJ	SA	ID	28.04.2022
REV	DESCRIPTION	LOGD	PREP	APPD	DATE
soiltechnics environmental • geotechnical • building fabric					
PROJECT Primrose Hill Studios, London					
TITLE Trial pit record					
METHOD OF EXCAVATION Hand tools				DATE OF WORKS 07.03.2022	
PROJECT NO. STU5616		SCALE AT A3 1:10		LOCATION REFERENCE TP02	



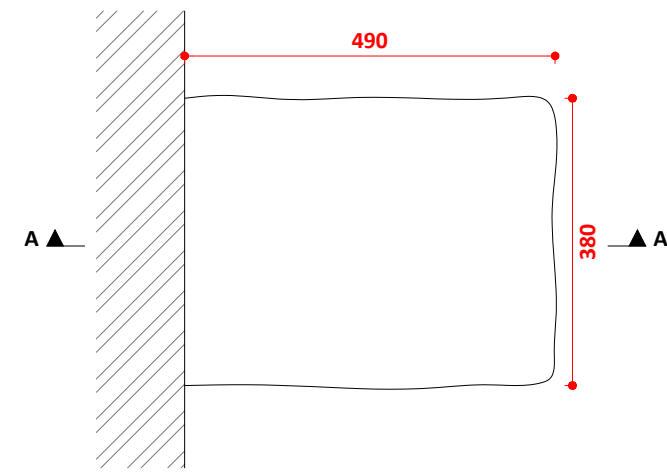
Photographic records



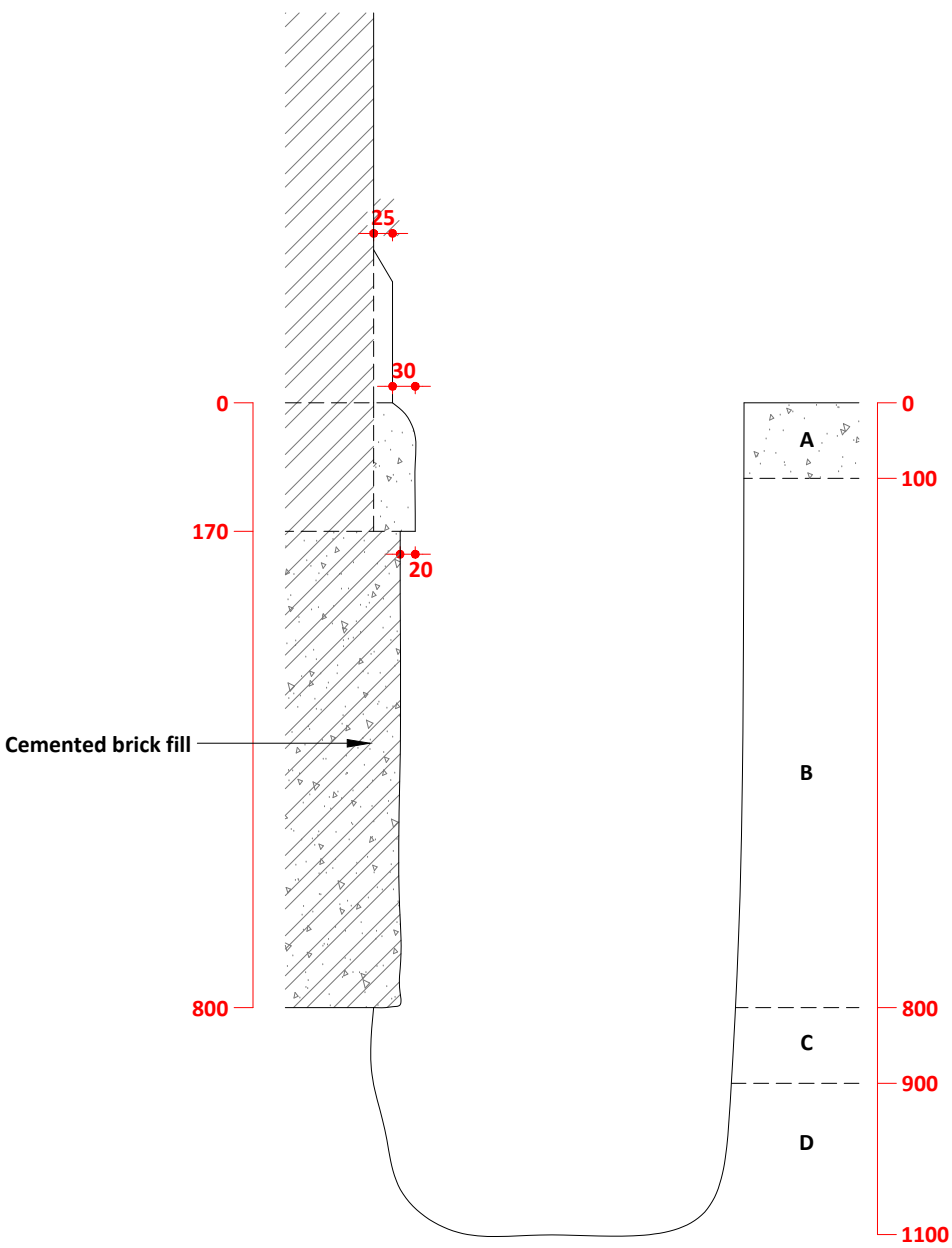
A	First issue	VJ	SA	ID	28.04.2022
REV	DESCRIPTION	LOGD	PREP	APPD	DATE
<div><div>soiltechnics</div><div>environmental • geotechnical • building fabric</div></div>					
PROJECT Primrose Hill Studios, London					
TITLE Trial pit record					
METHOD OF EXCAVATION Hand tools				DATE OF WORKS 07.03.2022	
PROJECT NO. STU5616		SCALE AT A3 1:5		LOCATION REFERENCE TP03	



Plan



Section A-A



Photographic records



Key

- A. CONCRETE.
(MADE GROUND)
- B. [Loose] brown slightly gravelly SAND with frequent cobbles of brick. Gravel is fine to coarse angular to subangular brick, concrete and flint.
(MADE GROUND)
- C. Firm grey mottled orangish brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium angular to subangular brick.
(MADE GROUND)
- D. Firm grey mottled orangish brown CLAY with occasional organic fragments.
(LONDON CLAY FORMATION)

- Observed features
- Assumed features

- Brickwork
- Concrete

Notes

- Trial pit sides remained upright and stable.
- Dimensions shown in millimetres.
- No groundwater encountered.

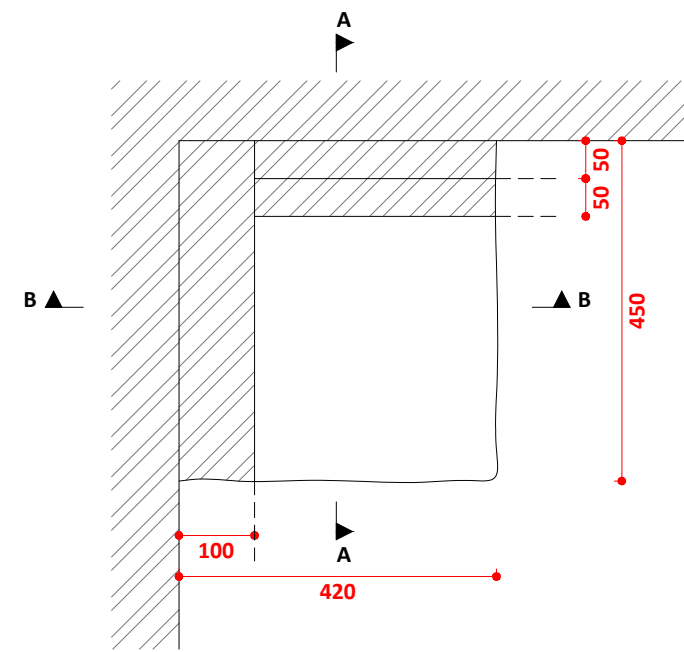
Samples - Environmental (ES)

- 0.3 - 0.6 - ES
- 0.8 - 0.9 - ES
- 0.9 - 1.1 - ES

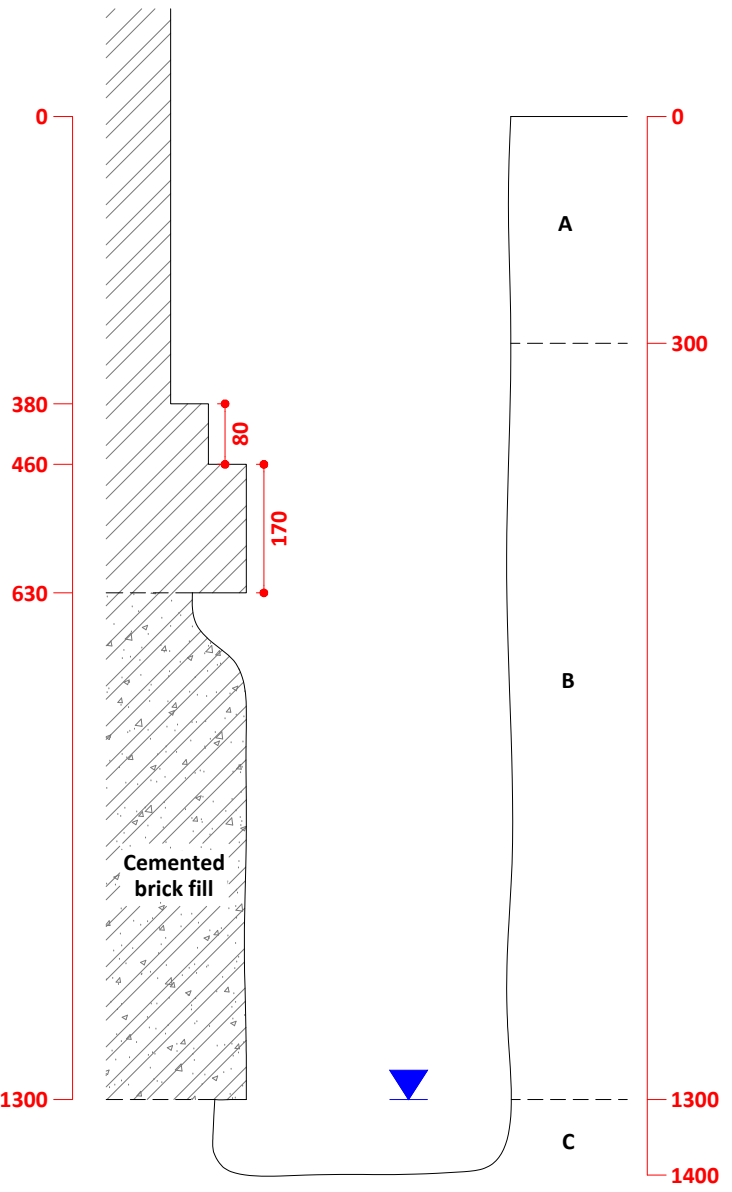
A	First issue	VJ	SA	ID	28.04.2022
REV	DESCRIPTION	LOGD	PREP	APPD	DATE
soiltechnics environmental • geotechnical • building fabric					
PROJECT Primrose Hill Studios, London					
TITLE Trial pit record					
METHOD OF EXCAVATION Hand tools				DATE OF WORKS 07.03.2022	
PROJECT NO. STU5616		SCALE AT A3 1:10		LOCATION REFERENCE TP04	



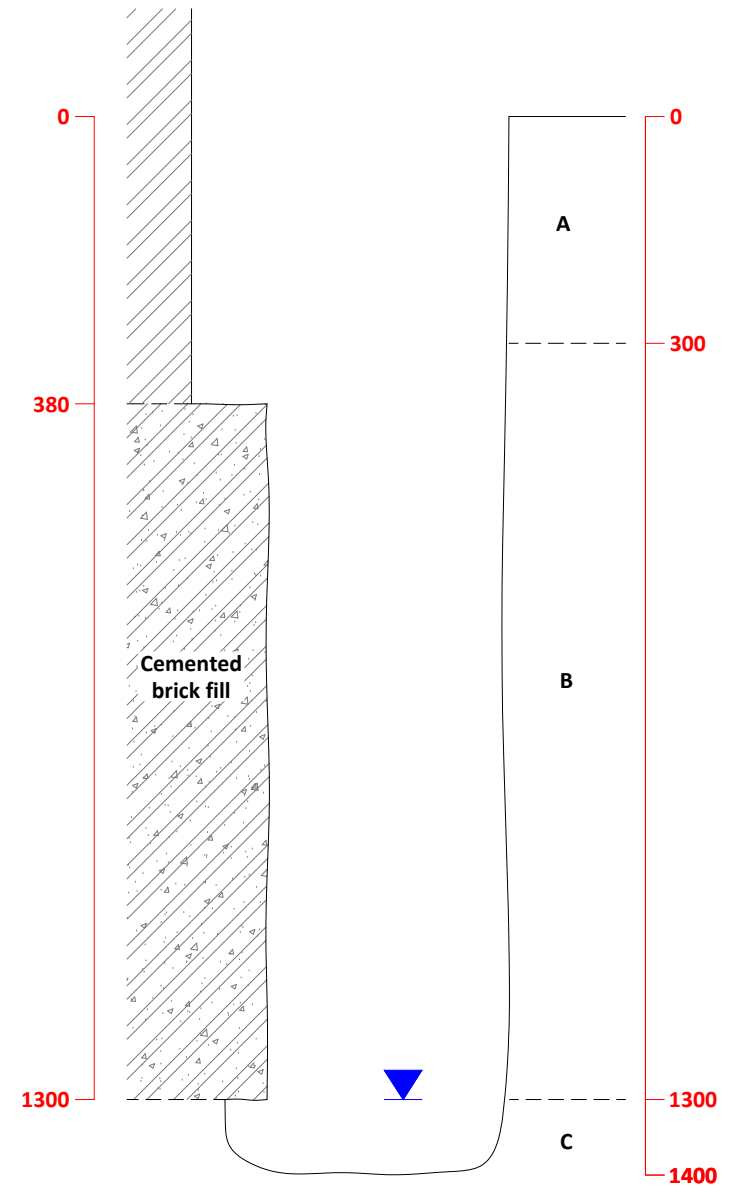
Plan



Section A-A



Section B-B



Photographic records



- Key**
- A. Reinforced CONCRETE. 6mm plain reinforcement bar located at 150mm depth. (MADE GROUND)
 - B. [Dense] brown very gravelly slightly clayey SAND with frequent cobbles of brick. Gravel is fine to coarse angular to subangular brick and concrete. (MADE GROUND)
 - C. Firm brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium angular brick. Becoming soft at 1.3m depth as water present. (MADE GROUND)

- Observed features
Assumed features
- Brickwork Concrete Water level

- Notes**
- 1. Trial pit sides remained upright and stable.
 - 2. Dimensions shown in millimetres.
 - 3. Groundwater encountered at 1.3m depth, water level remained constant at 1.3m depth on completion. Slow seepage observed.

- Samples - Environmental (ES)**
- 0.4 - 0.6 - ES
 - 1.0 - 1.2 - ES

A	First issue	VJ	SA	ID	28.04.2022
REV	DESCRIPTION	LOGD	PREP	APPD	DATE
soiltechnics environmental • geotechnical • building fabric					
PROJECT Primrose Hill Studios, London					
TITLE Trial pit record					
METHOD OF EXCAVATION Hand tools				DATE OF WORKS 07.03.2022	
PROJECT NO. STU5616		SCALE AT A3 1:10		LOCATION REFERENCE TP05	

Appendix C In Situ Test Results

Table summarising Standard Penetration Test (SPT) results

Location	Start Depth (m)	Penetration (mm)					
		Seating 1-2	Main 1-4	Total Seating	Total Main	Total Seating	Total Main
BH01	1.20	1/2	2/3/3/3	3	11	150	300
BH01	3.00	2/3	3/3/3/4	5	13	150	300
BH01	4.00	1/2	3/3/4/4	3	14	150	300
BH01	7.00	2/3	3/4/4/6	5	17	150	300

Table summarising Pocket Penetrometer results

** Instrument limit reached.*

Location	Start Depth (m)	Results 1-3	Average	Undrained Shear Strength (kN/m ²)
BH01	0.90	1.75/1.75/1.75	1.75	88
BH01	2.50	2.75/2.5/2.75	2.67	133
BH01	5.50	3.75/3.75/3.75	3.75	188
BH01	6.00	3.25/3/3.25	3.17	158
BH01	8.00	3.75/4.25/4	4.00	200
BH01	9.50	4.25/4.25/4.25	4.25	213
BH01	10.00	4.25/4.25/4.25	4.25	213

Table summarising Standard Penetration Test (SPT) results

Location	Start Depth (m)	Penetration Results				
		Seating 1-2	Main 1-4	Total Seating	Total Main	Total Seating
BH01	1.20	1/2	2/3/3/3	3	11	150
BH01	3.00	2/3	3/3/3/4	5	13	150
BH01	4.00	1/2	3/3/4/4	3	14	150
BH01	7.00	2/3	3/4/4/6	5	17	150

ion (mm)
Total Main
300
300
300
300

Table summarising Standard Penetration Test (SPT) results

Location	Start Depth (m)	Penetration (mm)					
		Seating 1-2	Main 1-4	Total Seating	Total Main	Total Seating	Total Main
BH01	1.20	1/2	2/3/3/3	3	11	150	300
BH01	3.00	2/3	3/3/3/4	5	13	150	300
BH01	4.00	1/2	3/3/4/4	3	14	150	300
BH01	7.00	2/3	3/4/4/6	5	17	150	300

Appendix D Geotechnical Laboratory Test Results



LABORATORY REPORT



4043

Contract Number: PSL22/1774

Report Date: 31 March 2022
Client's Reference: STU5616
Client Name: Soiltechnics Limited
Cedar Barn
White Lodge
Walgrave
Northampton
NN6 9PY

For the attention of: Alexa Band

Contract Title: Primrose Hill Studios, London
Date Received: 10/3/2022
Date Commenced: 10/3/2022
Date Completed: 31/3/2022

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

A Watkins
(Director)

R Berriman
(Quality Manager)

S Royle
(Laboratory Manager)

L Knight
(Assistant Laboratory Manager)


S Eyre
(Senior Technician)

T Watkins
(Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

[illegible]

4043

PSL
Professional Soils Laboratory

Primrose Hill Studios

Contract No:

PSL22/1774

Client Ref:**STU5616**

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

[illegible]

SYMBOLS : NP : Non Plastic

*** : Liquid Limit and Plastic Limit Wet Sieved.**



4043

PSL

Professional Soils Laboratory

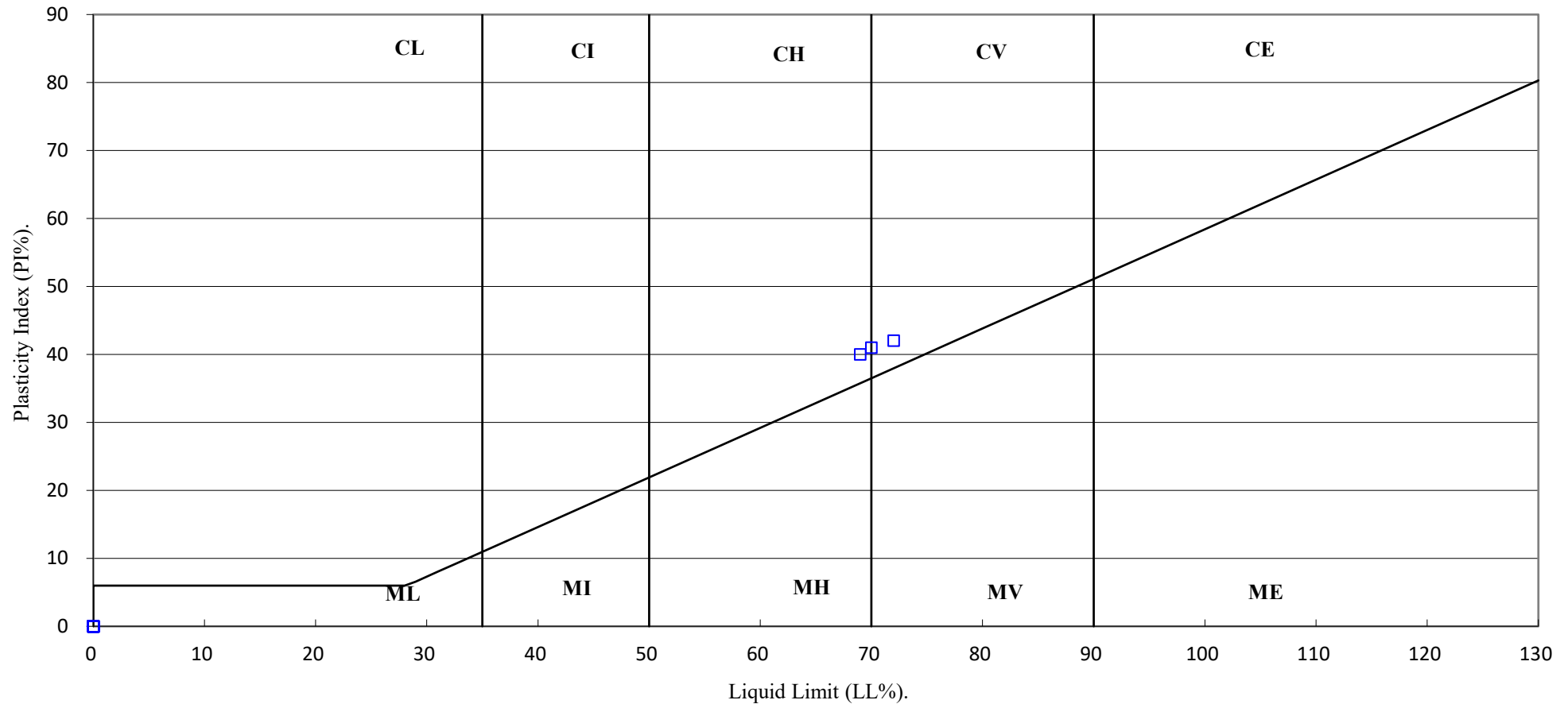
Primrose Hill Studios

Contract No:

PSL22/1774

Client Ref:**STU5616**

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



4043

PSL

Professional Soils Laboratory

Primrose Hill Studios

Contract No:

PSL22/1774

Client Ref:

STU5616

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

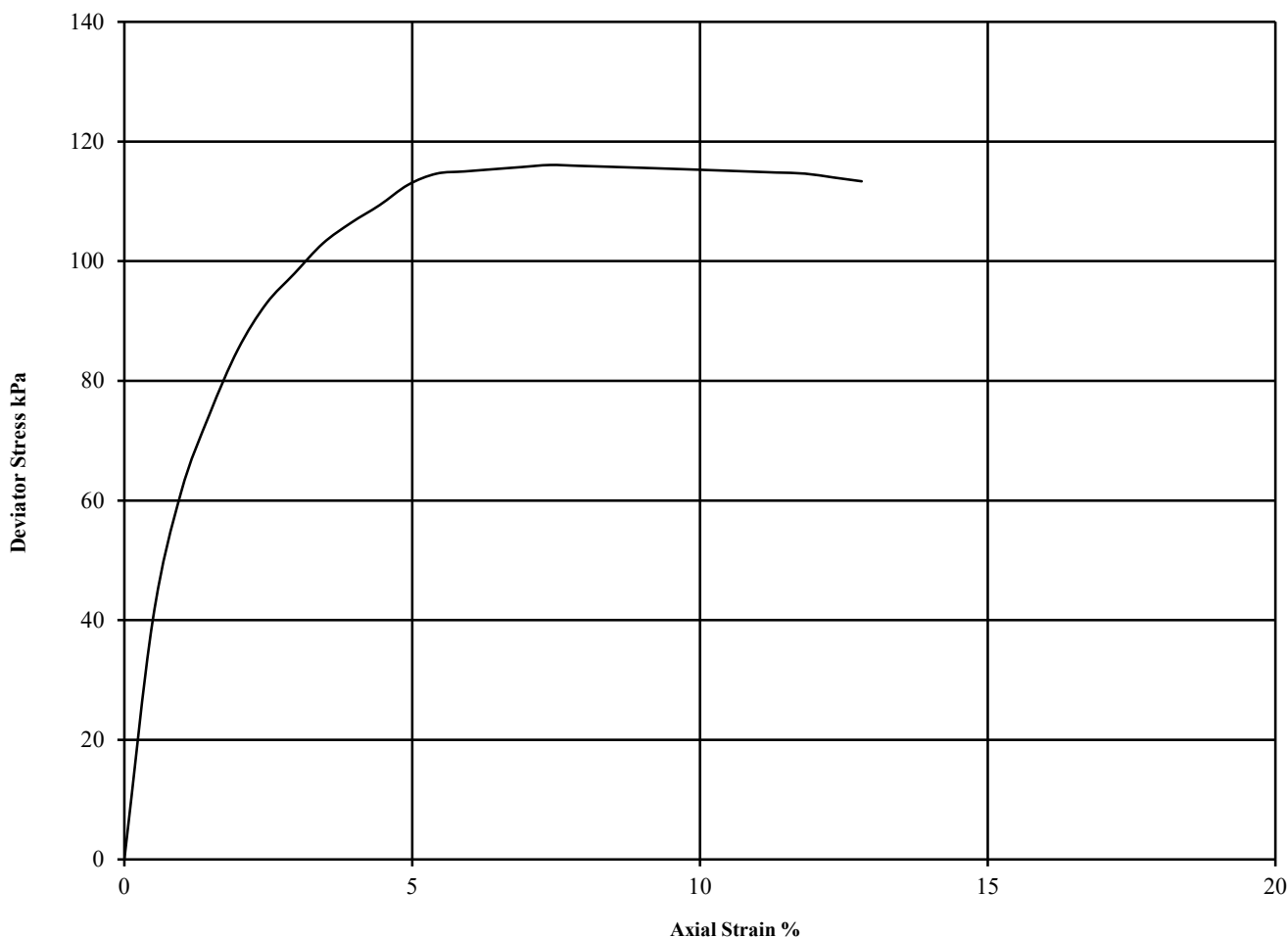
Hole Number: BH01

Top Depth (m): 2.00

Sample Number: 4

Base Depth (m): 2.45

Sample Type UT



Diameter (mm):		102	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	32	1.91	1.44	40	116	58	7.4	Plastic	



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BS1377 : Part7 : 1990: Clause 8

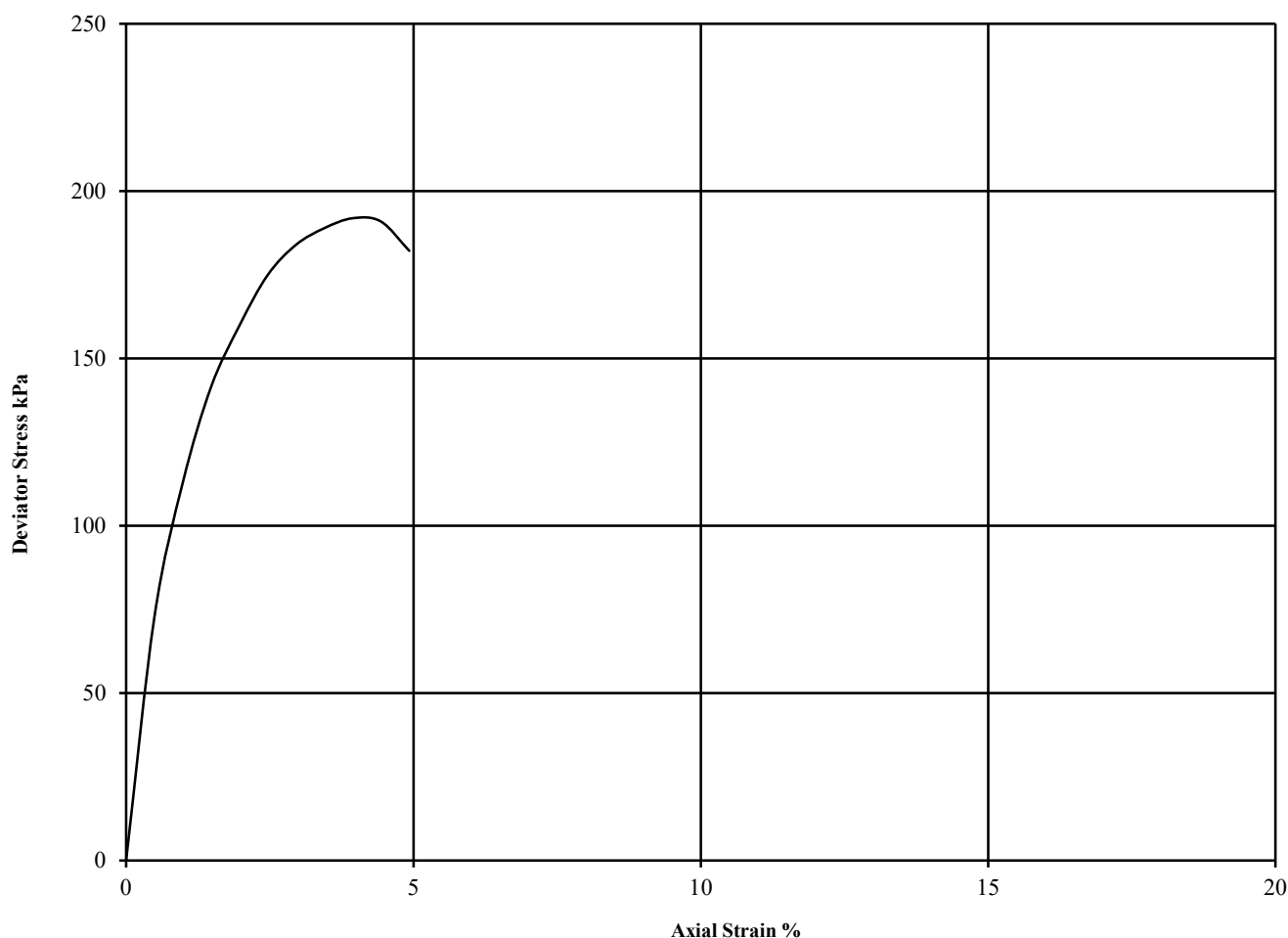
Hole Number: BH01

Top Depth (m): 5.00

Sample Number: 8

Base Depth (m): 5.45

Sample Type UT



Diameter (mm):		102	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.37 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	32	1.89	1.43	100	192	96	3.9	Brittle	



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

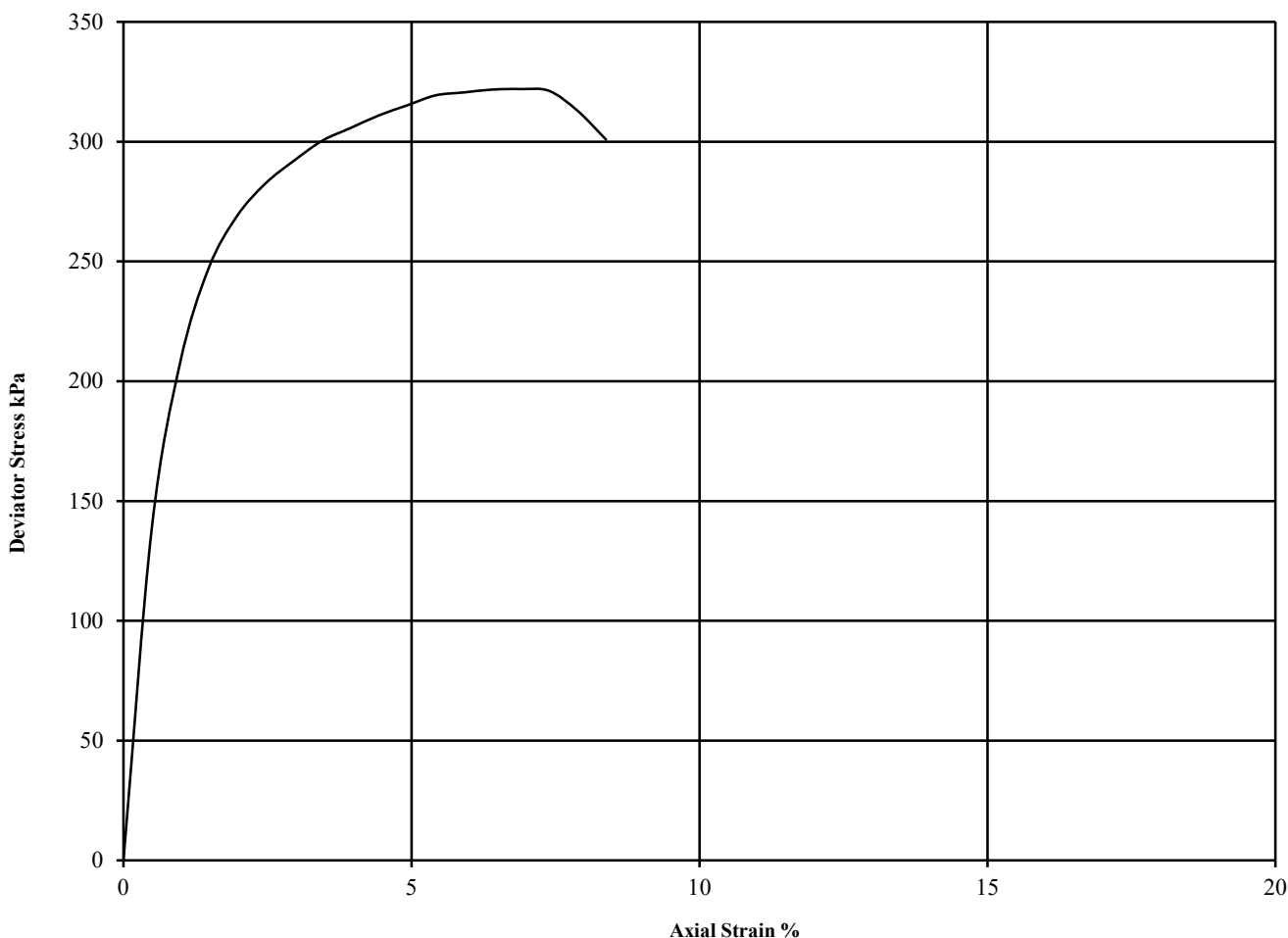
Hole Number: BH01

Top Depth (m): 9.00

Sample Number: 13

Base Depth (m): 9.45

Sample Type UT



Diameter (mm):		102	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$			
1	29	1.94	1.51	180	322	161	6.9	Brittle	



4043

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Client Ref:

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ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3

Hole Number: BH01

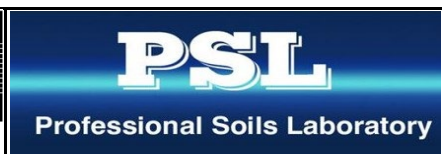
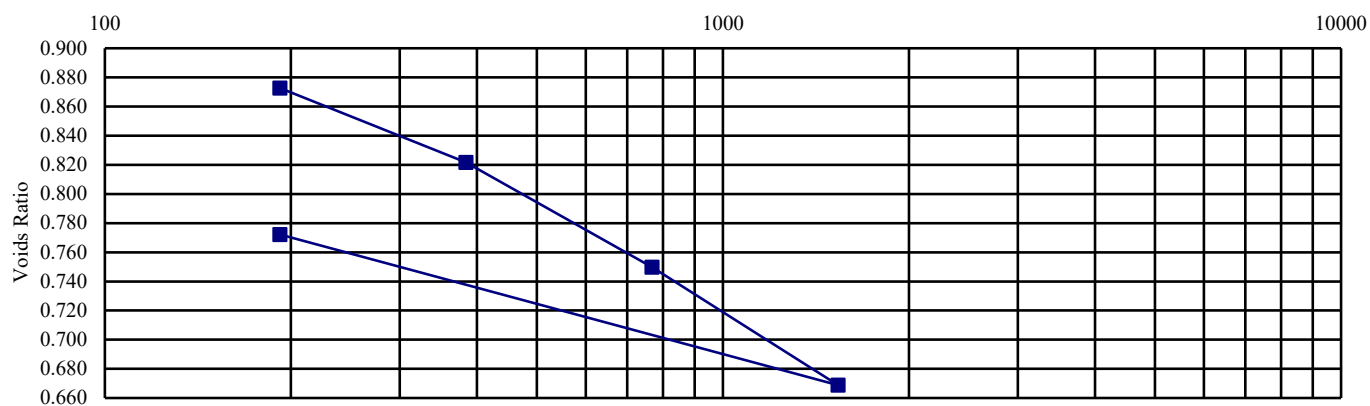
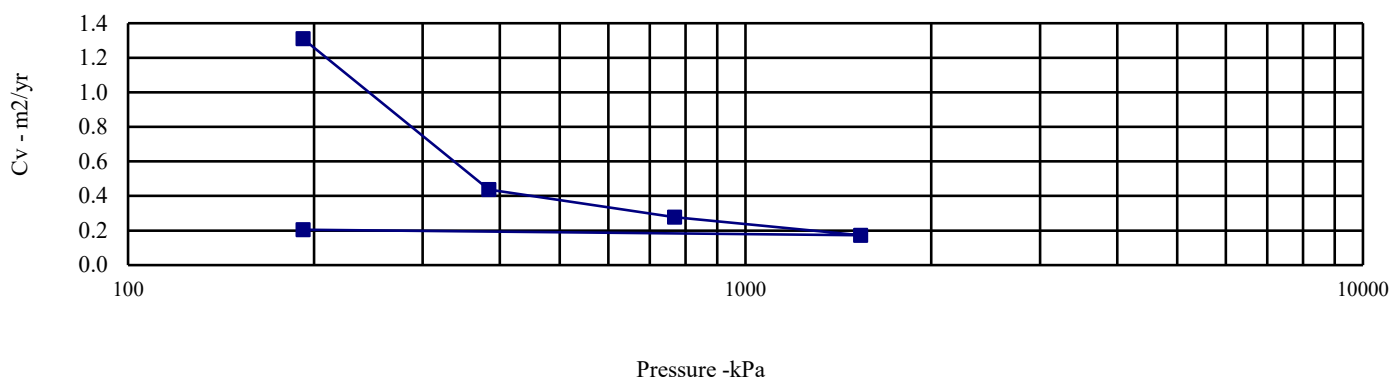
Top Depth (m): 5.00

Sample Number: 8

Base Depth (m) : 5.45

Sample Type: UT

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	32	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.85	96	192	0.144	1.310	Method used to	
Dry Density (Mg/m3):	1.40	192	384	0.142	0.437	determine CV:	T90
Voids Ratio:	0.899	384	768	0.103	0.277	Nominal temperature	
Degree of saturation:	95.5	768	1536	0.060	0.173	during test ' C:	20
Height (mm):	20.108	1536	192	0.046	0.205	Remarks:	
Diameter (mm)	75.058					Swelling Pressure = 96 kPa	
Particle Density (Mg/m3):	2.65						
Assumed							



Primrose Hill Studios

Contract No:

PSL22/1774

Client Ref:

STU5616



Certificate of Analysis

Certificate Number 22-06024

Issued: 04-Apr-22

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference 22-06024

Client Reference PSL22/1774

Order No (not supplied)

Contract Title Primrose Hill Studios, London

Description 4 Soil samples.

Date Received 29-Mar-22

Date Started 29-Mar-22

Date Completed 04-Apr-22

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "K. Bridgewood".

Kirk Bridgewood
General Manager



2139

Summary of Chemical Analysis

Soil Samples

Our Ref 22-06024

Client Ref PSL22/1774

Contract Title Primrose Hill Studios, London

Lab No	1988443	1988444	1988445	1988446
Sample ID	BH01	BH01	BH01	TP01
Depth	0.30-0.80	2.50	4.00-4.50	0.30-0.40
Other ID	16	5	7	1
Sample Type	SOIL	SOIL	SOIL	SOIL
Sampling Date	07/03/2022	07/03/2022	07/03/2022	07/03/2022
Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
Metals							
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10	290	320	11
Inorganics							
pH	DETSC 2008#		pH	10.5	7.9	8.2	11.5
Chloride Aqueous Extract	DETSC 2055	1	mg/l	13	12	93	21
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	36	< 1.0	< 1.0	26
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170	2400	2600	970
Sulphur as S, Total	DETSC 2320	0.01	%	0.08	0.39	0.69	0.22
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.22	1.1	2.0	0.72

Information in Support of the Analytical Results

Our Ref 22-06024
 Client Ref PSL22/1774
 Contract Primrose Hill Studios, London

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1988443	BH01 0.30-0.80 SOIL	07/03/22	PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
1988444	BH01 2.50 SOIL	07/03/22	PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
1988445	BH01 4.00-4.50 SOIL	07/03/22	PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
1988446	TP01 0.30-0.40 SOIL	07/03/22	PT 1L	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report

Appendix E Conceptual Site Model

Conceptual Site Model

Current site use residential without plant uptake
Proposed site use residential without plant uptake

Source	Pathway										Receptor	Risk assessment to CIRIA C552		
	Humans						Vegetation	Water				Risk		
	Ingestion of air-borne dusts	Ingestion of soil	Ingestion of vegetables and soil attached to vegetables	Inhalation of air-borne dusts	Inhalation of vapours	Dermal contact with soil and dust	Root uptake, deposition to shoots and foliage contact	Percolation of water through contaminated soils	Near-surface water run-off through contaminated soils	Saturation of contaminated soils by flood waters			Consequence of risk occurring via most likely pathway	
General Made Ground	Unlikely	Unlikely	Unlikely	Unlikely	Likely	Unlikely	-	-	-	-	Current and proposed site users	Child	Minor	Low
	Likely	Likely	Unlikely	Likely	Likely	Likely	-	-	-	-	Construction operatives	Adult	Minor	Low

Title	Table number
Conceptual Site Model	1

Appendix F Waste Classification

Waste acceptance

Parameter	Inert waste landfill	Stable non-reactive hazardous waste in a non-hazardous landfill cell (SNRHW)	Hazardous waste landfill	Location	CS01	
				Depth (m)	0.00	
				Date	07/03/22	
Parameters determined on the waste						
Total organic carbon	3	5	6		0.4	
Loss on ignition			10		7.5	
BTEX	6				< 0.05	
PCBs (7 congeners)	1				< 0.1	
Mineral oil	500				< 10	
PAH (17 congeners)	100				16.7	
pH		6			8	
Limit values (mg kg ⁻¹) for compliance test using BN 12457-3 at L/S 10 l						
Arsenic	0.5	2	25		< 0.2	
Barium	20	100	300		0.2	
Cadmium	0.04	1	5		< 0.02	
Chromium (III)	0.5	10	70		< 0.20	
Copper	2	50	100		< 0.5	
Mercury	0.01	0.2	2		< 0.005	
Molybdenum	0.5	10	30		0.1	
Nickel	0.4	10	40		< 0.2	
Lead	0.5	10	50		< 0.2	
Antimony	0.06	0.7	5		< 0.05	
Selenium	0.1	0.5	7		< 0.05	
Zinc	4	50	200		0.3	
Chloride	800	15,000	25,000		37	
Fluoride	10	150	500		10.5	
Sulphate	1,000	20,000	50,000		223	
Total dissolved solids	4,000	60,000	100,000		1310	
Phenol	1				< 0.5	
Dissolved organic carbon	500	800	1000		113	
Classifications						
Waste classification						Non-hazardous
Landfill type						Non-hazardous

- Key Notes:**
- 1) The values for total dissolved solids (TDS) can be used alternatively to the values for sulphate and chloride.
- 2) Soils with TOC values over the limit value may still be accepted provided the DOC value falls are below it's respective limit value.
- 3) In a hazardous waste, either the TOC or LOI must be used.

Waste Classification Assessment Summary

Waste population	Made Ground
Hazard assessment	Non-hazardous waste
List of waste code	17-05-04
List of waste description	Soil and stones other than those mentioned in 17-05-03

Hazard property	Assessment
HP1 - Explosive	Not hazardous by HP1
HP2 - Oxidising	Not hazardous by HP2
HP3 - Flammable	Not hazardous by HP3
HP4 - Irritant	Not hazardous by HP4
HP5 - STOT & aspiration toxicity	Not hazardous by HP5
HP6 - Acute toxicity	Not hazardous by HP6
HP7 - Carcinogenic	Not hazardous by HP7
HP8 - Corrosive	Not hazardous by HP8
HP9 - Infectious	Not hazardous by HP9
HP10 - Toxic for reproduction	Not hazardous by HP10
HP11 - Mutagenic	Not hazardous by HP11
HP12 - Release of an acute toxic gas	Not hazardous by HP12
HP13 - Sensitising	Not hazardous by HP13
HP14 - Ecotoxic	Not hazardous by HP14

Waste classification

Overall assessment	
Waste population	Made Ground
Hazard assessment	Non-hazardous waste
List of Waste code	17-05-04
List of waste description	Soil and stones other than those mentioned in 17-05-03
Is the statistical approach non-parametric, method B utilized?	No
Moisture content correction factor	15%

Asbestos assessment		
Query	Value	Assessment
Are bulk ACMs visually identifiable?	No	Non-hazardous
Have free fibres been detected?	No	Non-hazardous
What is the free fibre concentration (%)?	N/A	Non-hazardous

Flammability assessment	
Comment	Assessment
The waste is not considered flammable as it is a solid waste without a free draining liquid phase, and the TPH concentration and composition is not considered to present a likely flammable hazard.	Non-hazardous

Hydrocarbon assessment	
Query	Assessment
Is the origin of the oil contamination known?	Unknown oil
B[a]P : TPH ratio (%)	Not required
B[a]P marker assessment	Not required

pH assessment		
Query	Value	Assessment
Are all substances present in the waste known?	No	See pH assessment below
pH - Min	8.00	Non-hazardous
pH - Max	8.00	Non-hazardous

Oxidising assessment	
Comment	Assessment
Cr (VI) is the only compound with an oxidising hazard statement (H271). On review, the concentration is considered too low to present a viable oxidising hazard in a waste soil	Non-hazardous

Economic assessment			
Equation	Sum	Criteria	Assessment
WM3, Eq. 2	0.11%	25%	Non-hazardous
WM3 Eq. 3	10.69%	25%	Non-hazardous
WM3 Eq. 4	0.11%	25%	Non-hazardous

Compound hazard assessments

Substance specific concentration limits																																											
Hazard Property Description						Irritant			Specific Target Organ Toxicity / Aspiration Toxicity				Acute Toxicity								Carcinogenic		Corrosive	Toxic for reproduction		Mutagenic		Sensitising		Ecotoxic				STOT				Carc.	Repr.				
Hazard Property						HP4			HP5				HP6								HP7		HP8	HP10		HP11		HP13		HP14				HP5				HP7	HP10				
Hazard Statement						H314	H315 and/or H319	H318	H304	H335	H372	H373	H300	H301	H302	H310	H311	H312	H330	H330	H331	H332	H350	H351	H314	H360	H361	H340	H341	H317	H334	H400	H410	H411	H413	H335 (CvD3)	H372 (CvD)	H373 (CvD)	H373 (PvDv4)	H350 (BvDv)	H361 (PvDv4)		
Contaminant	Max. concentration (mg/kg)	Realistic worst case compound	Mass conversion factor	MC applied?	Hazard Class / Compound concentration (%)	Skin Corr.1A	Skin Irrit.2 Eye Irrit.2	Eye Dam.1	Asp.Tox.1	STOT SE.3	STOT RE.1	STOT RE.2	Acute Tox.2 (Oral)	Acute Tox.3 (Oral)	Acute Tox.4 (Oral)	Acute Tox.3 (Dermal)	Acute Tox.4 (Dermal)	Acute Tox.3 (Inhal.)	Acute Tox.2 (Inhal.)	Acute Tox.3 (Inhal.)	Acute Tox.4 (Inhal.)	Carc.1A Carc.1B	Carc.2	Skin Corr.1A Skin Corr.1B	Repr.1A Repr.1B	Repr.2	Muta.1A Muta.1B	Muta.2	Skin Sens.1	Resp. Sens. 1	Aquatic Acute.1	Aquatic Chronic.1	Aquatic Chronic.2	Aquatic Chronic.4	STOT SE.3	STOT RE.1	STOT RE.2	STOT RE.2	Carc.1B	Repr.2			
Cyanide - Total	2.0	Salts of hydrogen cyanide, using sodium cyanide	1.88	N/A	0.000								0.000		0.000			0.000	0.000												0.000	0.000											
Arsenic	21.0	Nickel darsenide	1.78	Y	0.003					0.003												0.003						0.003			0.003	0.003											
Arsenic (secondary)	21.0	Arsenic trioxide	1.32	Y	0.002	0.002						0.002												0.002																			
Beryllium	0.8	Beryllium oxide	2.78	Y	0.000		0.000			0.000				0.000				0.000	0.000									0.000															
Cadmium	0.2	Cadmium sulfide	1.29	Y	0.000													0.000																0.000		0.000	0.000						
Cadmium (secondary)	0.2	Cadmium oxide	1.14	Y	0.000														0.000	0.000																							
Chromium (III)		Chromium (III) oxide	1.46	Y																																							
Chromium (VI)	2.0	Chromium (VI) trioxide	1.92	N/A	0.000	0.000								0.000				0.000	0.000								0.000	0.000															
Copper	44.0	Copper (I) oxide	1.25	Y	0.005																																						
Copper (secondary)	44.0	Copper(II) oxide	1.13	Y	0.004			0.004													0.004																						
Lead	859.0	Lead compounds, using lead sulphate	1.46	Y	0.107																0.107		0.107		0.107		See specific assessment					0.107	0.107					0.107		0.107			
Mercury	1.8	Mercury dichloride	1.35	Y	0.000	0.000				0.000			0.000												0.000			0.000															
Nickel	15.0	Nickel carbonate	2.02	Y	0.003		0.003											0.003				0.003	0.003				0.003		0.003	0.003			0.003	0.003									
Selenium	3.0	Selenium compounds, using selenium dioxide	1.41	Y	0.000									0.000							0.000																						
Zinc	121.0	Zinc sulphide	1.49	Y	0.015		0.015																								0.015	0.015			0.015								
Vanadium	47.0	Vanadium pentoxide	1.79	Y	0.007					0.007	0.007						0.007					0.007					0.007		0.007						0.007								
Naphthalene	0.1	Naphthalene	1	N/A	0.000													0.000							0.000								0.000	0.000									
Acenaphthylene	0.1	Acenaphthylene	1	N/A	0.000													0.000	0.000																								
Acenaphthene	0.1	Acenaphthene	1	N/A	0.000																																						
Fluorene	0.1	Fluorene	1	N/A	0.000																																						
Phenanthrene	1.8	Phenanthrene	1	N/A	0.000													0.000																									
Anthracene	0.3	Anthracene	1	N/A	0.000																									0.000					0.000	0.000							
Fluoranthene	3.7	Fluoranthene	1	N/A	0.000													0.000																									
Pyrene	3.4	Pyrene	1	N/A	0.000																																						
Benzo(a)anthracene	2.8	Benzo(a)anthracene	1	N/A	0.000																	0.000																					
Chrysene	2.3	Chrysene	1	N/A	0.000																								0.000														
Benzo(b)fluoranthene	2.0	Benzo(b)fluoranthene	1	N/A	0.000																																						
Benzo(k)fluoranthene	1.0	Benzo(k)fluoranthene	1	N/A	0.000																																						
Benzo(a)pyrene	1.8	Benzo(a)pyrene	1	N/A	0.000																	See specific assessment					0.000														0.000		
Indeno(1,2,3-cd)pyrene	0.8	Indeno(1,2,3-cd)pyrene	1	N/A	0.000																		0.000																				
Dibenzo(a,h)anthracene	0.3	Dibenzo(a,h)anthracene	1	N/A	0.000																	See specific assessment																			0.000		
Benzo(ghi)perylene	0.7	Benzo(ghi)perylene	1	N/A	0.000																																						
Total TPH	101.0	Unknown oil	1	N/A	0.010					0.010			0.010																														
Benzene		Benzene	1	N/A																																							
Toluene		Toluene	1	N/A																																							
Ethylbenzene		Ethylbenzene	1	N/A																																							
Xylenes		Xylenes	1	N/A																																							
Note:																																											
					Cut-off value (%)	1%	1%	1%	N/A	N/A	N/A	N/A	0.1%	0.1%	1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.1%	0.1%	1%	1%			N/A	N/A	N/A	N/A	N/A	N/A	
					Total (or greatest)	0.00%	0.00%	0.00%	0.01%	(0.01%)	(0.01%)	(0.01%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	(0%)	(0.11%)	0.00%	(0.11%)	(0.01%)	(0%)	(0.01%)	(0.02%)	(0.02%)	0.11%	0.11%	0.00%	0.00%	(0%)	(0%)	(0%)	(0.11%)	(0%)	(0.11%)		
					Hazard threshold	1%	20%	10%	10%	20%	1%	10%	0.25%	5%	25%	0.25%	15%	0.1%	0.5%	3.5%	22.5%	0.1%	1%	5%	0.3%	3%	0.1%	1%	10%	10%	WM3 eq.3 & eq.4	WM3 eq.3 & eq.4	WM3 eq.4			1.0%	10.0%	0.1%	0.5%	0.01%	2.5%		
					Hazardous	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		