SITE INVESTIGATION
FACTUAL REPORT

Report No:	SI-875453
Client:	Sedgwick International UK - Morley
Site:	31 Firs Avenue Hampshire
Client Ref:	9633067
Date of Visit:	23/08/2024

East Building, Cable Drive, Walsall, WS2 7BN

☎ 0333 016 4477
✉ siinstructions@cet-uk.com
💻 www.cet-uk.com

CET is the trading name of CET Structures Ltd
Registered in England No. 02527130

Investigation Layout Plan

Sheet: 1 of 1

Job No: 875453

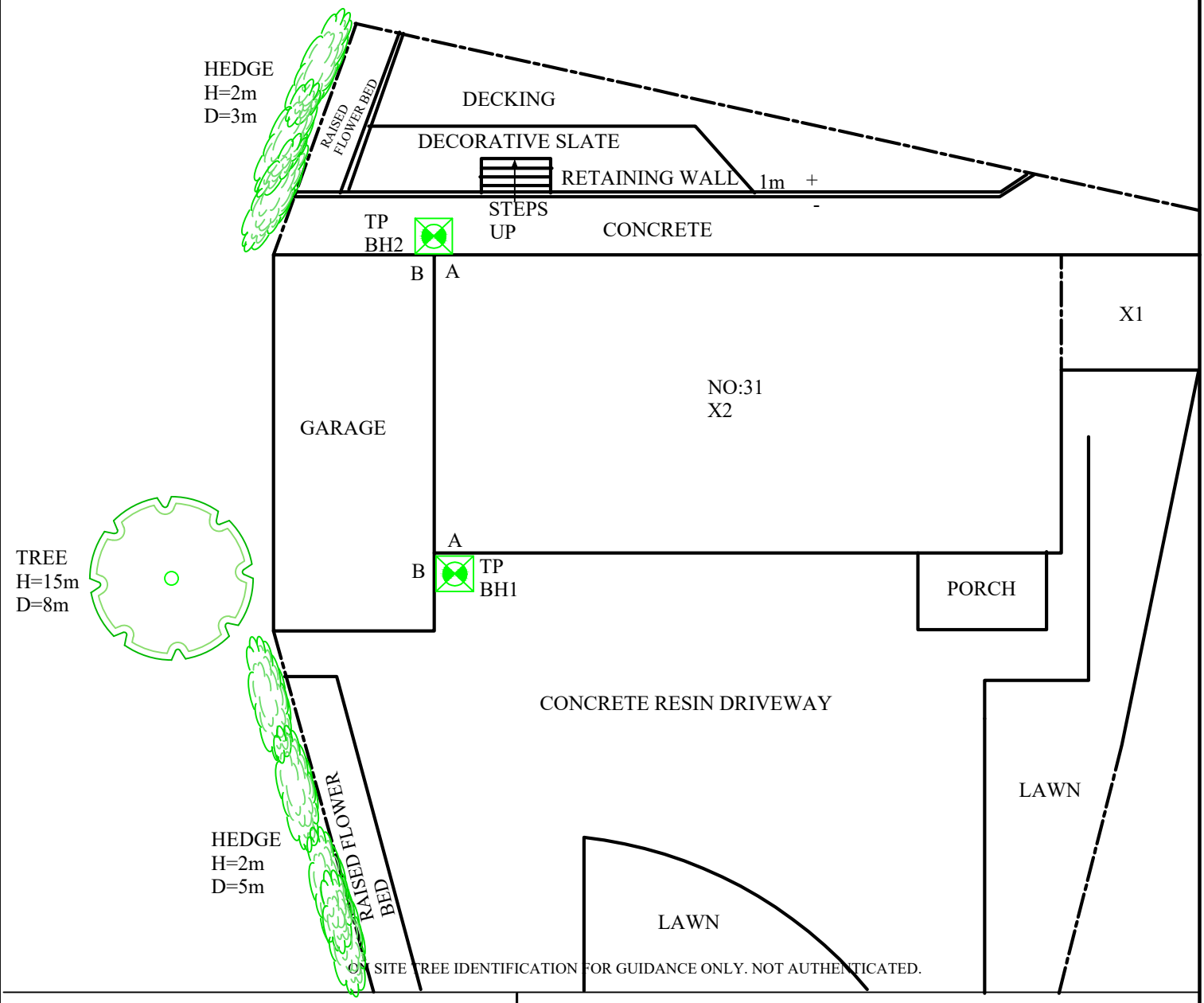
Date: 23.08.2024

Site: 31 Firs Avenue, Waterlooville

Work carried out for: Sedgwick International UK

KP (SI) | SL (Checked) | EM (Drawn)

Weather: Dry



Remarks:

Scale: N.T.S.

Key:

Combined Gulley	RWWG
Manhole	MH
Rain Water Pipe	RWP
Rain Water Gulley	RWG
Soil Vent Pipe	SVP
Waste Gulley	WG
Waste Pipe	WP

Surface Water Drain

Foul Water Drain

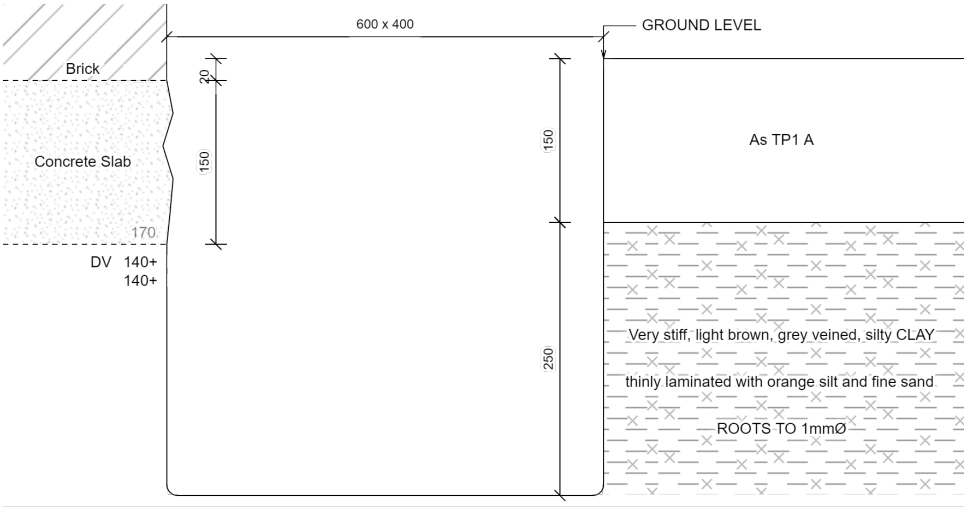
Tree / Bush (approx. ht in m)

Trial Pit

Borehole

O/D - Open Discharge

REPORT NUMBER:	C5002181 / 307970.1.1.2		
TRIAL PIT REF:	TP 1 B	DATE:	23/08/2024
CLIENT:	Sedgwick International UK	SITE:	31 Firs Avenue
JOB NO:	875453	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



Trial pit ends at 400mm

Curved steel pin driven under concrete 200mm at 170mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Remarks:
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For and on behalf of CTS
Adam Mason - Quality Control

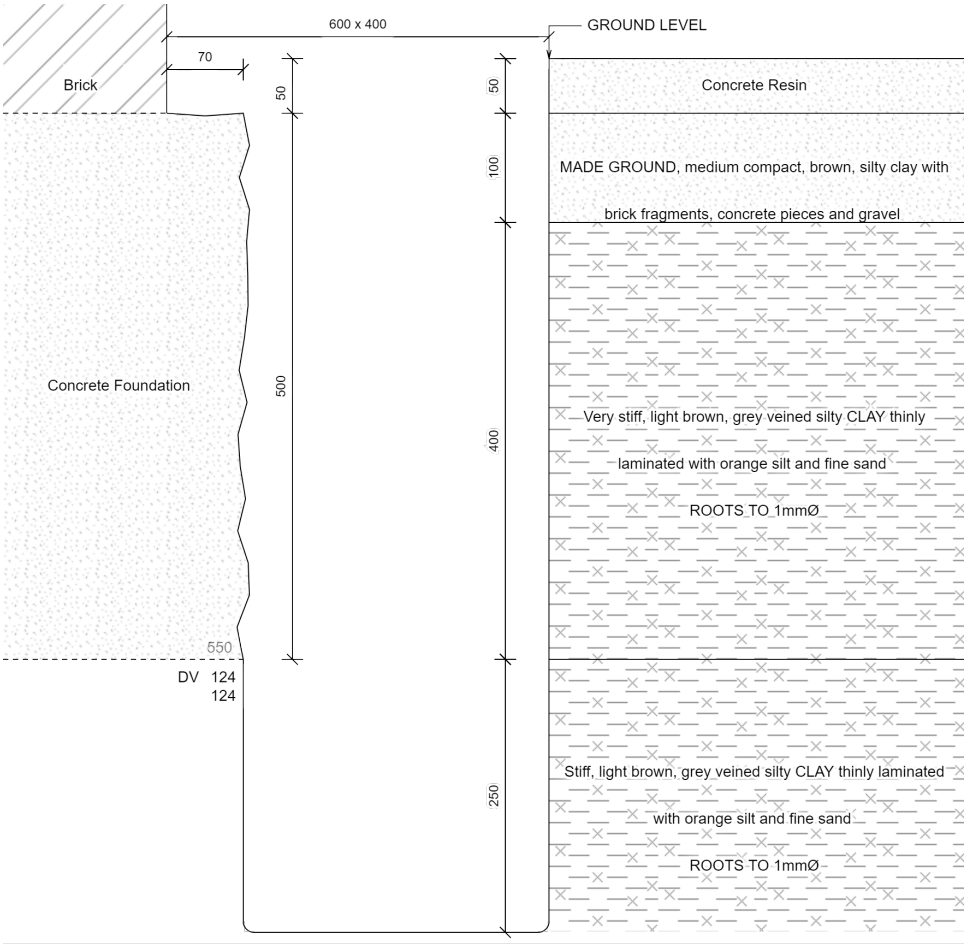
Approved Signatory
Report date 27-Aug-24

Lawness Barns
Mountnessing Road
Billericay
Essex CM12 0TS

0343 227 8545
enquiries@constructiontesting.co.uk
www.constructiontesting.co.uk
END OF REPORT

Construction Testing Solutions Ltd.
Registered in England No. 05998333

REPORT NUMBER:	C5002181 / 307970.1.1.1		
TRIAL PIT REF:	TP1 A	DATE:	23/08/2024
CLIENT:	Sedgwick International UK	SITE:	31 Firs Avenue
JOB NO:	875453	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



For Strata below 800mm see Bore Hole log

Curved steel pin driven under concrete 200mm at 550mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Remarks:
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END OF REPORT

Construction Testing Solutions Ltd.
Registered in England No. 05998333

Borehole	1		Sheet:	1 of 1	Site:	31 FIRS AVENUE
			Job No:	875453		
			Date:	23/08/2024		
Boring Method:	Hand Auger		Ground Level:		Client:	SEDGWICK INTERNATIONAL UK
Diameter (mm):	75	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.80				
0.80	Stiff light brown, grey veined sandy CLAY thinly laminated with orange silt and fine sand	0.70		1.00	DV	132
						136
1.50	Very stiff light brown, grey veined silty CLAY thinly laminated with orange silt and fine sand	1.50		1.50	DV	140+
						140+
				2.00	DV	140+
						140+
				2.50	DV	140+
						140+
3.00	Stiff mid brown, grey veined silty CLAY with partings of orange silt and fine sand	1.50		3.00	DV	136
						130
				3.50	DV	128
						128
				4.00	DV	130
						136
4.50	Very stiff mid brown, grey veined silty CLAY with partings of orange silt and fine sand	0.50		4.50	DV	140+
						140+
				5.00	DV	140+
5.00	End of BH					140+

Remarks:
BH ends at 5.0m. BH dry and open on completion, no roots observed below 2.3m.

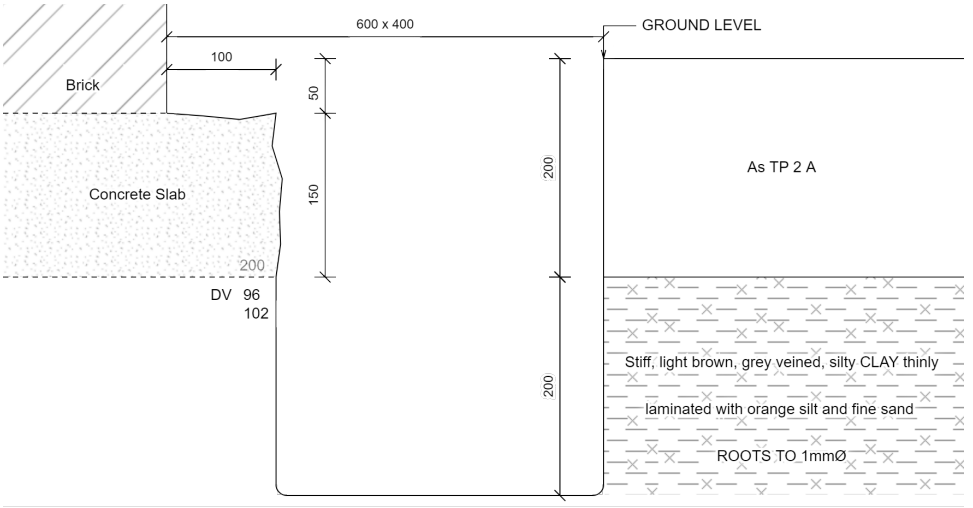
Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots	2.30	1
J - Jar Sample	Roots		
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

Logged:	KP	AM	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

REPORT NUMBER:	C5002181 / 307970.1.1.4		
TRIAL PIT REF:	TP2 B	DATE:	23/08/2024
CLIENT:	Sedgwick International UK	SITE:	31 Firs Avenue
JOB NO:	875453	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



Trial pit ends at 400mm

Curved steel pin driven under concrete 200mm at 200mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Remarks:
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For and on behalf of CTS
Adam Mason - Quality Control

Approved Signatory
Report date 27-Aug-24

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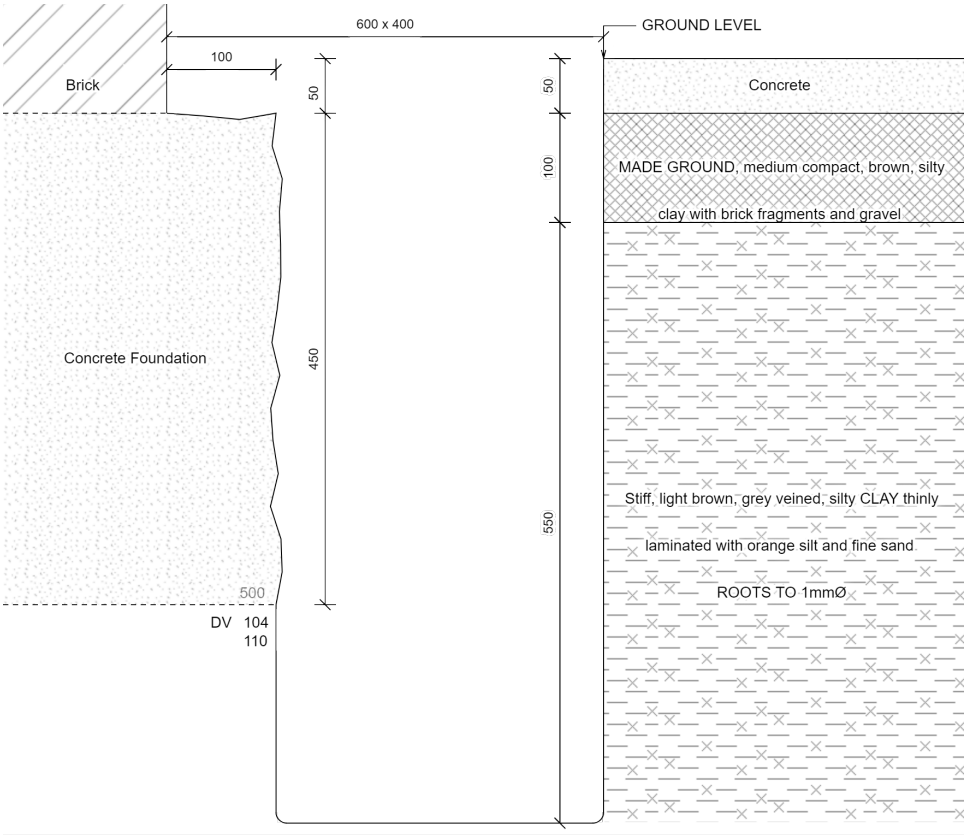
END OF REPORT

Construction Testing Solutions Ltd.
Registered in England No. 05998333

REPORT NUMBER:	C5002181 / 307970.1.1.3		
TRIAL PIT REF:	TP2A	DATE:	23/08/2024
CLIENT:	Sedgwick International UK	SITE:	31 Firs Avenue
JOB NO:	875453	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



For Strata below 700mm see Bore Hole log

Curved steel pin driven under concrete 200mm at 500mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Remarks:
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For and on behalf of CTS
Adam Mason - Quality Control

Approved Signatory
Report date 27-Aug-24

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END OF REPORT

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Registered in England No. 05998333

Borehole	2		Sheet:	1 of 1	Site:	31 FIRS AVENUE
			Job No:	875453		
			Date:	23/08/2024		
Boring Method:	Hand Auger		Ground Level:		Client:	SEDGWICK INTERNATIONAL UK
Diameter (mm):	75	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.70				
0.70	Stiff light brown, grey veined silty CLAY thinly laminated with orange silt and fine sand	3.50		1.00	DV	108
						108
				1.50	DV	110
						112
				2.00	DV	100
						90
				2.50	DV	88
						82
				3.00	DV	104
						112
				3.50	DV	120
						122
				4.00	DV	132
						136
4.20	Stiff moist grey silty CLAY with partings of orange silt and fine sand	0.30				
4.50	Very stiff moist grey silty CLAY with partings of orange silt and fine sand	0.50		4.50	DV	140+
						140+
				5.00	DV	140+
5.00	End of BH					140+

Remarks:
BH ends at 5.0m. BH moist and open on completion, no roots observed below 2.1m.

Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots	2.10	1
J - Jar Sample	Roots		
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

Logged:	KP	AM	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

SITE INVESTIGATION
LABORATORY TEST REPORT

SI REPORT NUMBER: 875453

CLIENT : CET Property Assurance (Sedgwick International UK)

SITE:
31 Firs Avenue, Waterlooville
Hampshire
PO8 8RS

DATE OF SITE VISIT:
23/08/2024

DATE RECEIVED BY LABORATORY:
29/08/2024

Approved by : .....
C Kosma - Project Delivery Supervisor

DATE REPORTED: 2-Sep-2024

The testing on this report has been subcontracted, see Summary for testing Laboratory details

Our Ref : 875453

Laboratory Summary Results

Date Sampled: 23/08/2024

Location : 31 Firs Avenue, Waterlooville

Date Received : 29/08/2024

Client: CET Property Assurance (Sedgwick International UK)

Date Tested : 30/08/2024

Address: CET, Unit 4, Boundary Court, Willow Farm Business Park, Castle Donington, DE74 2NN

Date of Report : 02/09/2024

Sample Ref		Type	# Moisture Content	# Soil Fraction	# Liquid Limit	# Plastic Limit	~ Plasticity Index	~ Liquidity * Index	~ Modified * Plasticity Index	~ Soil * Class	# Filter Paper Contact Time	# Soil Sample Suction	# Oedometer Strain	~ Estimated * Heave Potential (Dd)	In situ * Shear Vane Strength	Organic * Content	pH Value	Sulphate Content		* Class
TP/BH No	Depth (m)		(%) *[1]*	> 0.425mm (%) *[2]*	(%) *[3]*	(%) *[4]*	(%) *[5]*	*[5]*	(%) [6]	*[7]*	(d)	(kPa) [8]	*[9]*	*(mm)[10]*	(kPa) *[11]*	(%)*[12]*	*[13]*	SO_3 (g/l) * *[14]*	SO_4 (mg/l) *[15]*	*[16]*
1	U/S B 0.17	D	22	<5	56	22	34	-0.01	34	CH					> 140					
	U/S A 0.55	D	22	<5	62	24	38	-0.05	38	CH					124					
	1.0	D	22	<5	61	25	36	-0.07	36	CH					134					
	1.5	D	23	<5											> 140					
	2.0	D	28	<5	74	27	47	0.02	47	CV					> 140					
	2.5	D	26	<5											> 140					
	3.0	D	29	<5											134					
	3.5	D	31	<5											128					
	4.0	D	28	<5											134					
	4.5	D	29	<5											> 140					
	5.0	D	26	<5											> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 2018 : Figure 8 - Plasticity Chart for the classification of fines soils

[8] Building Research Establishment Information Paper 4/93

[9] In Accordance with BS 1377-5 : 1990 : Clause 3

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by CTS using a Pilcon hand vane or Geonor vane (GV).

[12] BS 1377 : Part 3 : 2018 + A1 2021 Clause 4 - *Tested By CTS Leicester*

[13] BS 1377 : Part 3 : 2018 + A1 2021 Clause 12 - *Tested By CTS Leicester*

[14] Sulphate content as SO3 as required by BS 1377: Part 3: 1990 has been provided for information purposes - *Tested By CTS Leicester*

[15] BS 1377 : Part 3 : 2018 + A1 2021 Clause 7.6 - Tested By CTS Leicester

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005 Note that if the SO4 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluble magnesium testing is undertaken to prove otherwise.

PSD Chart - BS 1377: Part 2 : 1990, Test No 9.2

~ Calculations performed using subcontracted data.

* These tests are not UKAS accredited

Key

D	Disturbed sample (small)
B	Disturbed sample (bulk)
U	Undisturbed sample
W	Groundwater sample
ENP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

 # These tests have been subcontracted and carried out by PSL (Part of the Phenna Group)

Full reports can be provided upon request.

Test results reported relate only to the items tested.
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Our Ref : 875453

Laboratory Summary Results

Date Sampled : 23/08/2024

Location : 31 Firs Avenue, Waterlooville

Date Received : 29/08/2024

Client: CET Property Assurance (Sedgwick International UK)

Date Tested : 30/08/2024

Address: CET, Unit 4, Boundary Court, Willow Farm Business Park, Castle Donington, DE74 2NN

Date of Report : 02/09/2024

Sample Ref. TP/BH No.	Depth (m)	Type	# Moisture Content (%) *[1]*	# Soil Fraction > 0.425mm (%) *[2]*	# Liquid Limit (%) *[3]*	# Plastic Limit (%) *[4]*	~ Plasticity Index (%) *[5]*	~ Liquidity * *[5]*	~ Modified * Plasticity Index (%) [6]	~ Soil * Class *[7]*	# Filter Paper Contact Time (d)	# Soil Sample Suction (kPa) [8]	# Oedometer Strain *[9]*	~ Estimated * Heave Potential (Dd) *(mm)[10]*	In situ * Shear Vane Strength (kPa) *[11]*	Organic * Content (%)*[12]*	pH Value *[13]*	Sulphate Content SO_3 (g/l) * *[14]*	Sulphate Content SO_4 (mg/l) *[15]*	* Class *[16]*
2	U/S B 0.20	D	26	<5	61	25	36	0.04	36	CH					100					
	U/S A 0.55	D	28	<5	64	26	38	0.05	38	CH					106					
	1.0	D	30	<5	54	21	33	0.27	33	CH					108					
	1.5	D	29	<5											112					
	2.0	D	30	<5	56	25	31	0.17	31	CH					96					
	2.5	D	28	<5											86					
	3.0	D	32	<5											108					
	3.5	D	30	<5											122					
	4.0	D	31	<5											134					
	4.5	D	28	<5											> 140					
	5.0	D	28	<5											> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils.

[8] Building Research Establishment Information Paper 4/93

[9] In Accordance with BS 1377-5 : 1990 : Clause 3

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by CTS using a Pilcon hand vane or Geonor vane (GV).

[12] BS 1377 : Part 3 : 2018 + A1 2021 Clause 4 - *Tested By CTS Leicester*

[13] BS 1377 : Part 3 : 2018 + A1 2021 Clause 12 - *Tested By CTS Leicester*

[14] Sulphate content as SO3 as required by BS 1377: Part 3: 1990 has been provided for information purposes - *Tested By CTS Leicester*

[15] BS 1377 : Part 3 : 2018 + A1 2021 Clause 7.6 - Tested By CTS Leicester

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO4 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluable magnesium testing is undertaken to prove otherwise.

PSD Chart - BS 1377: Part 2 : 1990, Test No 9.2

~ Calculations performed using subcontracted data.

* These tests are not UKAS accredited

 # These tests have been subcontracted and carried out by PSL (Part of the Phenna Group)

Full reports can be provided upon request.

Key

D	Disturbed sample (small)
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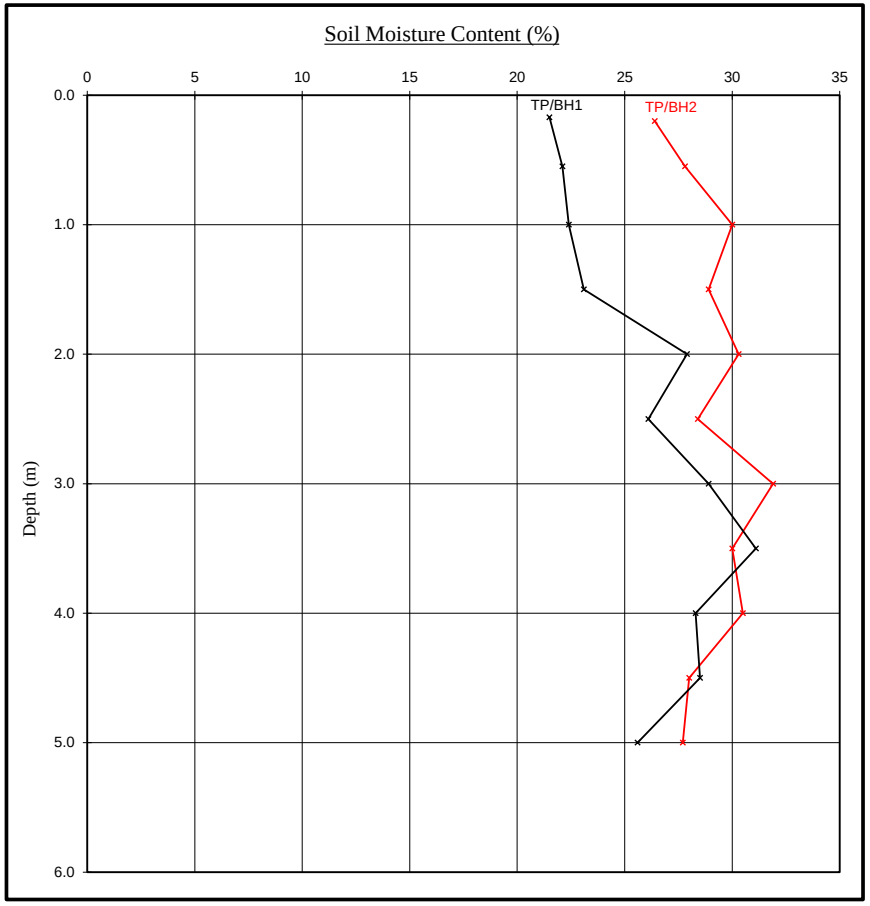
Construction Testing Solutions Ltd - Lawness Barns, Mountnessing Road, Billericay, Essex, CM12 0TS

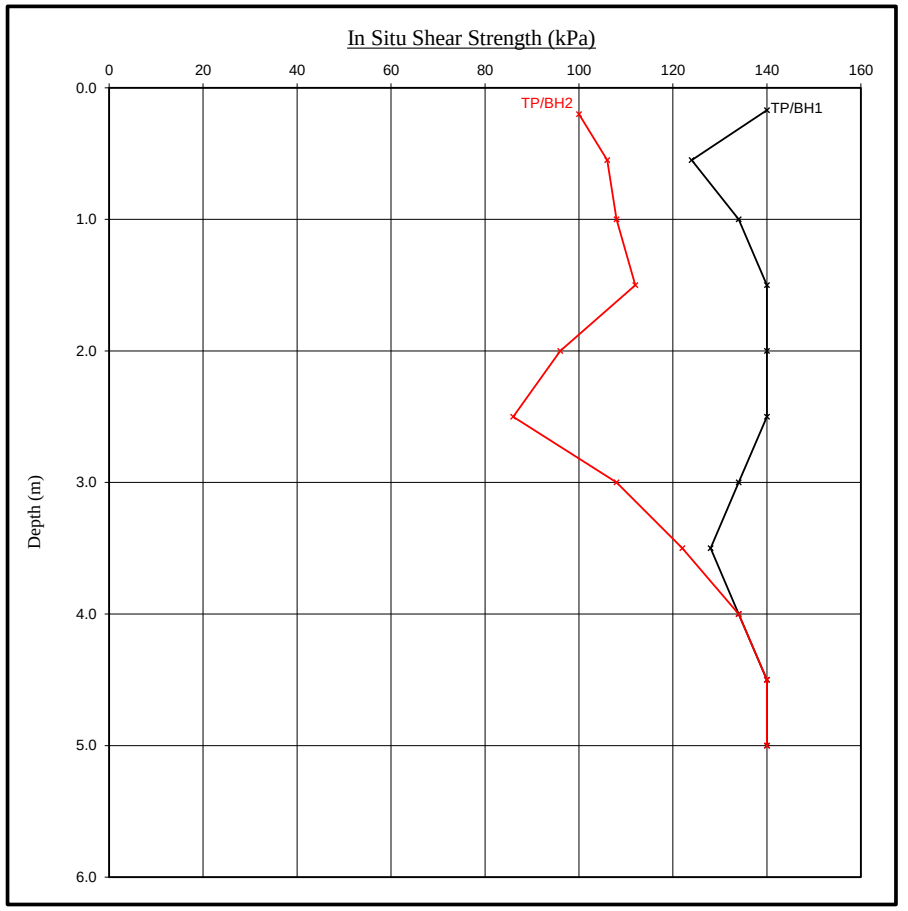
Moisture Content Profiles

Shear Strength Profiles

Our Ref : 875453
Location : 31 Firs Avenue, Waterlooville
Work carried out for: CET Property Assurance (Sedgwick International UK)

Date Sampled : 23/08/2024
Date Received : 29/08/2024
Date Tested : 30/08/2024
Date of Report : 02/09/2024





Notes
1. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
2. Unless specifically noted the profiles have not been related to a site datum.

Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CTS using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 130 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

EPSL
Independent Scientific Analysis

European Plant Science Laboratory

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LE3 3AW

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Tel: 01248 672652
Fax: 01248 672601

ROOT IDENTIFICATION

31 Firs Avenue

Client Reference: 875453
Report Date: 28 August 2024
Our Ref: R58547

Sub Sample	Species Identified		Root Diameter	Starch
TP1(A):				
USF	probably *Quercus* spp. but possibly *Castanea* spp.	1	<1 mm	Low
TP1 (B):				
USF	probably *Quercus* spp. but possibly *Castanea* spp.	2	<1 mm	Abundant
BH1:				
to 2.3m	probably *Quercus* spp. but possibly *Castanea* spp.	3	1.5 mm	Moderate
TP2(A):				
USF	probably *Quercus* spp. but possibly *Castanea* spp.		3 mm	Low
TP2(B):				
USF	probably *Quercus* spp. but possibly *Castanea* spp.		<1 mm	Low
BH2:				
to 2.1m	probably *Quercus* spp. but possibly *Castanea* spp.	4	1 mm	Absent

Comments:

1 - Plus 2 others the same.
2 - Plus 4 others the same.
3 - Plus 4 others the same.
4 - Plus 4 others the same. All roots in this sub-sample very decayed.

Quercus spp. are oaks. *Castanea* spp. include sweet chestnut.

Signed: G S Turner

Unless we are otherwise instructed in writing, the above sample material will normally be disposed of 6 years after the date of this report.