

SITE INVESTIGATION FACTUAL REPORT

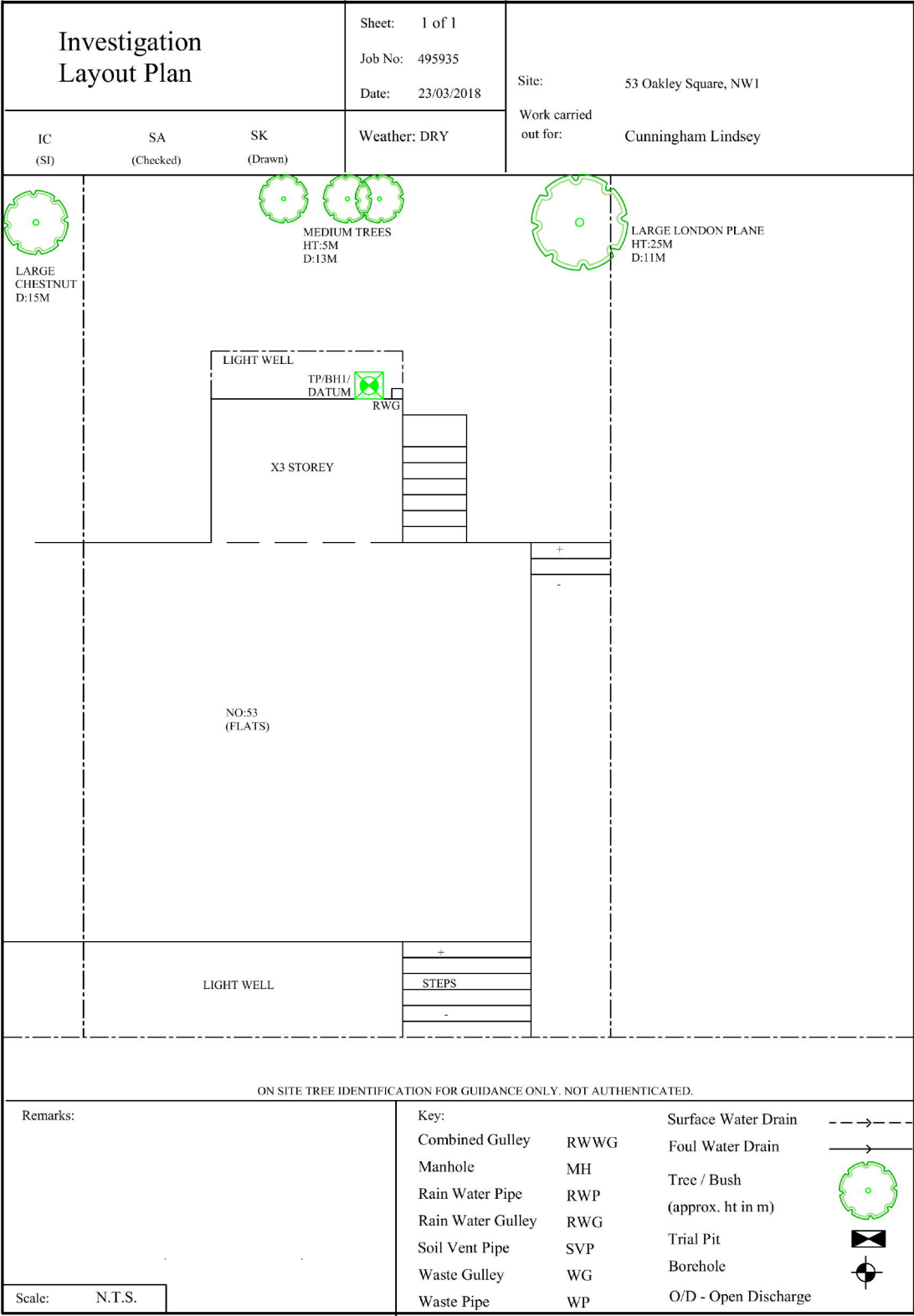
Report No: 495935
Client: Cunningham Lindsey - Maidstone
Site: Flat A. 53 Oakley Square

[REDACTED]
Date of Visit: 23/03/18



Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys





TEST REPORT: Trial Pit

REPORT NUMBER: C350986 / 892.1.1.1

TRIAL PIT REF: Tp1 1of1

CLIENT: Cunningham Lindsey

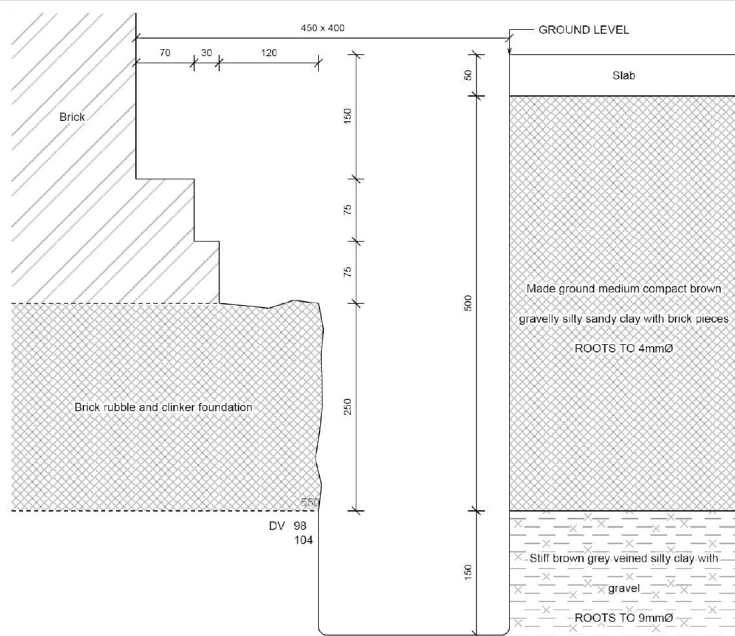
JOB NO: 495935

EXCAVATION METHOD: Hand tools

DATE: 23/03/2018

SITE: Flat A. 53 Oakley Square, NW1 1NJ

WEATHER: Clear



For Strata below 700mm see Bore Hole log

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:

For and on behalf of CET
Scott Alger - Lab

Report Format:

Approved Signatory
26-Mar-18

CET is the trading name for CET Structures Limited.
Registered in England No. 02527130

Report version 1

Page 1 of 1

Borehole		1		Sheet:	1 of 1	Site:	Flat A. 53 Oakley Square			
				Job No:	495935					
				Date:	23/03/2018					
Boring Method:		Hand Auger		Ground Level:		Client:	Cunningham Lindsey - Maidstone			
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 brown-grey veined silty CLAY with gravel					0.50	× — ×			
							× — ×			
							× — ×			
							× — ×	1.00	DV	104
							× — ×			110
1.20	Stiff brown-grey veined silty CLAY with claystone nodules					0.80	× — ×			
							× — ×			
							× — ×			
							× — ×	1.50	DV	116
							× — ×			122
							× — ×			
							× — ×			
2.00	Very Stiff brown-grey veined silty CLAY with claystone nodules					3.00	× — ×	2.00	DV	140+
							× — ×			140+
							× — ×			
							× — ×			
							× — ×			
							× — ×	2.50	DV	140+
							× — ×			140+
							× — ×			
							× — ×			
							× — ×	3.00	DV	140+
							× — ×			140+
							× — ×			
							× — ×			
							× — ×	3.50	DV	140+
							× — ×			140+
							× — ×			
							× — ×			
							× — ×	4.00	DV	140+
							× — ×			140+
							× — ×			
							× — ×			
							× — ×	4.50	DV	140+
							× — ×			140+
							× — ×			
							× — ×	5.00	DV	140+
5.00	End of BH									140+
Remarks:					Key:		To		Max	
BH ends at 5.0m. BH dry and open on completion, no roots observed below 2.5m.. Datum installed at 5.0m.					D - Disturbed Sample		Depth		Dia	
					B - Bulk Sample		(m)		(mm)	
					W - Water Sample		1.50		5	
					J - Jar Sample		2.50		FIBROUS	
					V - Pilcon Shear Vane (kPa)					
					M - Mackintosh Probe					
					TDTD - Too Dense To Drive					
Logged: ic					SA	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

Laboratory Summary Results

Our Ref: 495935

Date Sampled: 23/03/18

Location: Flat A, 53 Oakley Square, London

Date Received: 26/03/18

Client: Cunningham Lindsey - Maidstone

Date Tested: 27/03/18

Address: 4 North Court, South Park Business Village, Armstrong Road, ME15 6JZ

Date of Report: 11/04/18

TP/SH No	Sample Ref Depth (m)	Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquid [*] Index [3]	Modified [*] Plasticity Index (%) [6]	Soil [*] Class [7]	Filter Paper Contact Time (h)	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 [*] (g/l)		Class [16]
																		SO ₃ [14]	SO ₄ [15]	
1	U/S 0.55	D	23	32	68	28	40	-0.13	27	CH	168	68.5			101					
	1.0	D	31	<5											107					
	1.5	D	25	<5	65	24	41	0.02	41	CH	168	215			119					
	2.0	D	28	<5											> 140					
	2.5	D	32	<5	67	28	39	0.09	39	CH	168	155			> 140					
	3.0	D	31	<5											> 140					
	3.5	D	30	<5	72	28	44	0.05	44	CV	168	198			> 140					
	4.0	D	29	<5											> 140					
	4.5	D	31	<5							168	238			> 140					
	5.0	D	33	<5							168	95.0			> 140					

Test Methods / Notes

[1] BS 1377: Part 3: 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: 1991 - Figure 31 - Plasticity Chart for the classification of fine soils

[8] In-house method S9a adapted from BRE IP 493

[9] In-house Test Procedure S17c: One Dimensional Swell/Shrink Test

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by C&T using

a Prow hand vane or (less) vane (GV).

[12] BS 1377: Part 3: 1990, Test No 4

[13] BS 1377: Part 2: 1990, Test No 9

[14] BS 1377: Part 3: 1990, Test No 5.6

[15] SO₄ = 1.2 x SO₃

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

Note that if the SO₄ content falls into the D5-4 or D5-5 class, it would be prudent to consider the sample as falling into the D5-4M or D5-5M

class respectively unless water soluble magnesium testing is undertaken

to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request

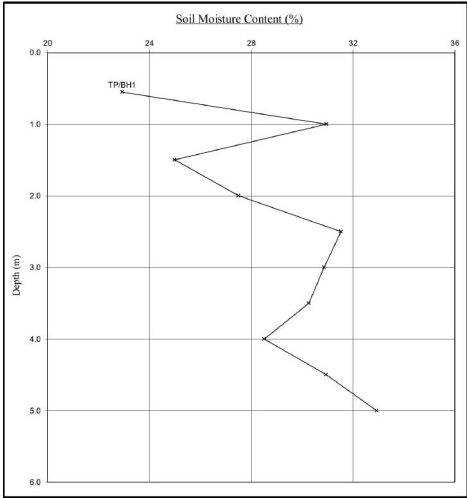
Key

D Disturbed sample (small)
B Disturbed sample (bulk)
U Undisturbed sample
W Groundwater sample
FNP Presumably Non-Plastic by inspection
US Underside of Foundation



Moisture Content Profiles

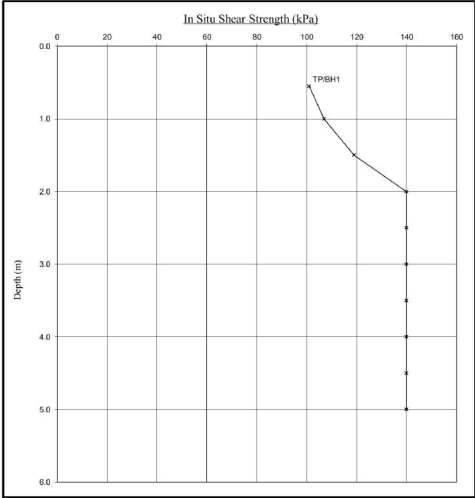
Our Ref: 495935
Location: Flat A, 53 Oakley Square, London
Work carried out for: Cunningham Lindsey - Maidstone



Notes
1. If plotted, $0.4LL$ 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.

Shear Strength Profiles

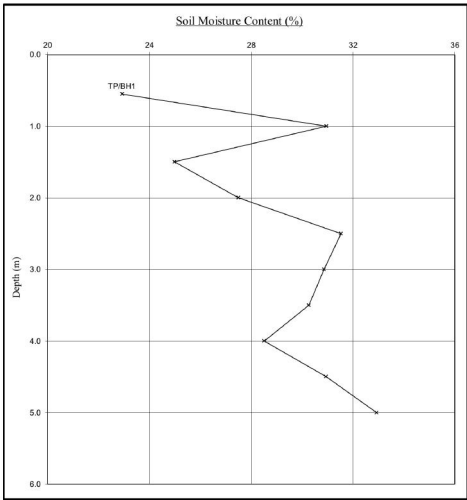
Date Sampled: 23/03/18
Date Received: 26/03/18
Date Tested: 27/03/18
Date of Report: 11/04/18



Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Picon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

Moisture Content Profiles

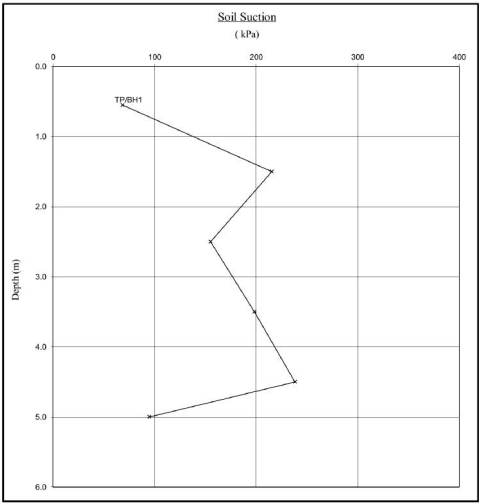
Our Ref: 495935
Location: Flat A, 53 Oakley Square, London
Work carried out for: Cunningham Lindsey - Maidstone



Notes
1. If plotted, G_{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.

Soil Suction Profiles

Date Sampled: 23/03/18
Date Received: 26/03/18
Date Tested: 27/03/18
Date of Report: 11/04/18



Note
When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clays) at shallow depths. Note that the sample disturbance component is dependant on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BRE on the basis of their limited number of tests on recompacted samples. This may or may not be appropriate in this instance and judgement should be exercised.

EPSL European Plant Science Laboratory	Sheet: 1 of 1	Site: 53 Oakley Square,	
	Job No: 495935	Work carried out for: Cunningham Lindsey	
	Date: 28/03/2018		
	Order No: 1129490		
EP SL Ref: R21961			

Certificate of Analysis

The following work was commissioned by CET on behalf of their client. Root samples were obtained in sealed packets from the above site with no reference given as to the types of tree or shrub from which they may have originated.
The results were as follows -

<u>Trial pit/ Borehole number</u>	<u>Root diameter (mm)</u>	<u>Tree, shrub or climber from which root originates</u>	<u>Result of starch test</u>
TP1 (USF)	6 mm	Platanus spp. 2 roots	Positive
BH1 (1.5m)	4 mm	Platanus spp. 3 roots	Positive

Platanus spp. include London plane and Oriental plane.


MDM

Head of Laboratory Services : M D Mitchell B.Sc. (Hons), M.Phil.
Plant Anatomist : Dr G S Turner B.Sc. (Hons), M.Sc., Ph.D
Plant Anatomist : Dr R J Shaw B.Sc. (Hons), Ph.D
Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D