

SITE INVESTIGATION FACTUAL REPORT

Report No: [REDACTED]
Client: Crawford Claims Management
Site: 9 Willoughby Road
Client Ref: [REDACTED]
Date of Visit: 07/05/2020



Investigation Layout Plan

Sheet: 1 of 1

Job No: [REDACTED]

Date: 07/05/20

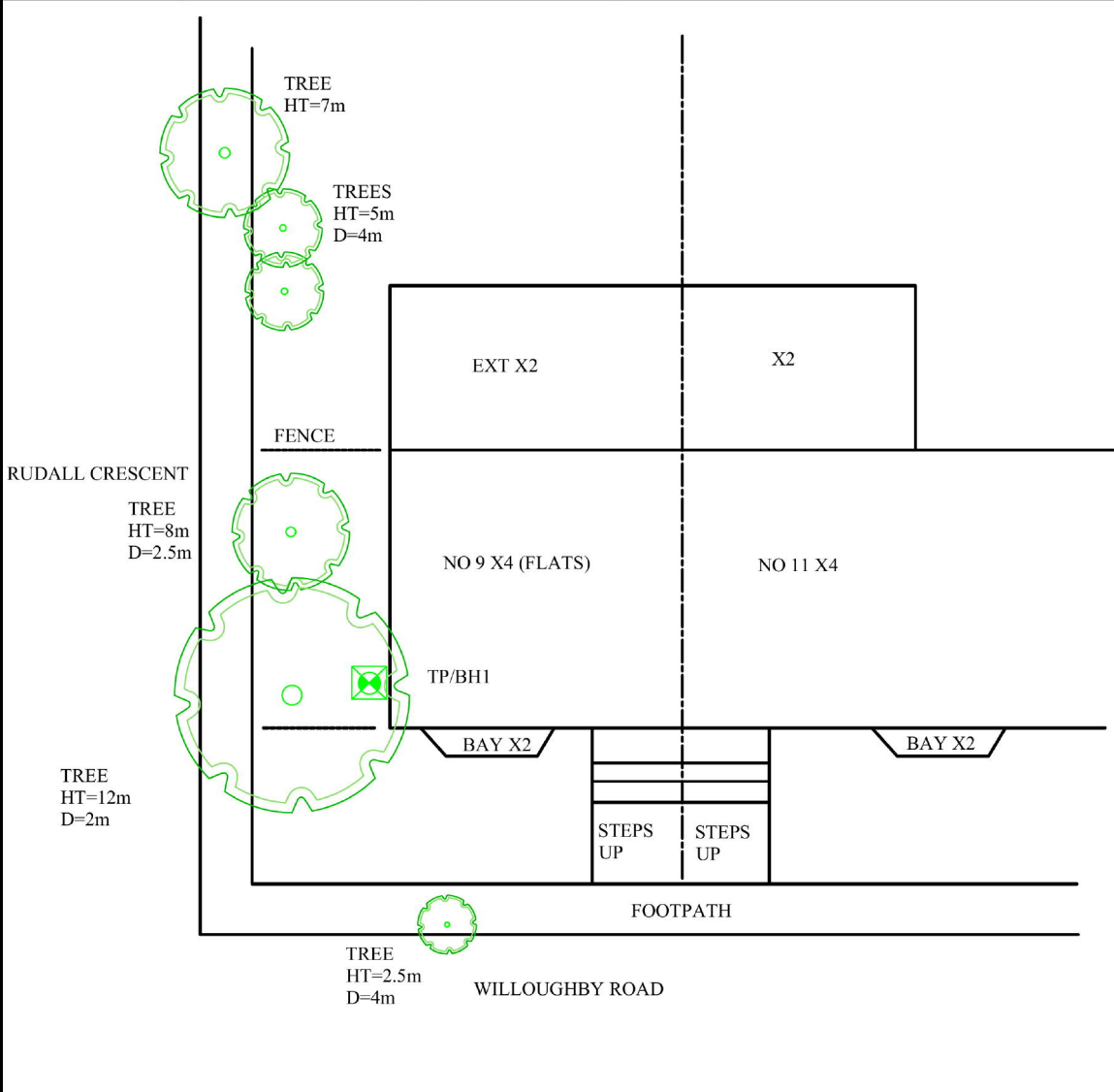
Site: 9 WILLOUGHBY ROAD

Work carried out for: Crawford Claims Management

MH (SI) (Checked)

DVC (Drawn)

Weather: Dry



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Key:

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

Surface Water Drain

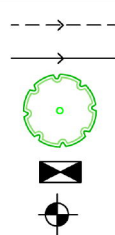
Foul Water Drain

Tree / Bush
(approx. ht in m)

Trial Pit

Borehole

O/D - Open Discharge



Scale: N.T.S.

TEST REPORT: Trial Pit

REPORT NUMBER: [REDACTED]

TRIAL PIT REF: TP1

DATE: 07/05/2020

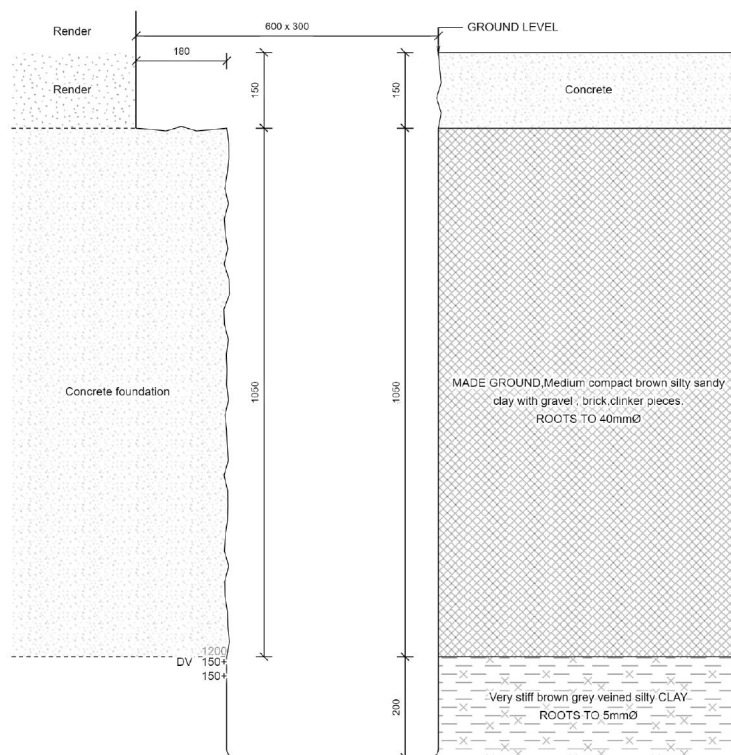
CLIENT: Crawford & Co

SITE: 9 Willoughby Road

JOB NO: [REDACTED]

WEATHER: Sunny

EXCAVATION METHOD: Hand tools



For Strata below 1400mm 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:
Test results reported relate only to the items tested.
This report shall not be reproduced in full without approval of the Laboratory.

For and on behalf of CET
Scott Alger - Lab



Approved Signatory
07-May-20



Borehole		1		Sheet:	1 of 1		Site:	9 Willoughby Road			
Boring Method:		Rotary Auger		Job No:							
Diameter (mm):		100		Date:	07/05/2020						
Weather:		dry		Ground Level:			Client:	Crawford Claims Management			
Depth	Soil Description						Thickness	Legend	Samples and Tests		
(m)									Depth	Type	Result
0.00	See Trial Pit						1.40				
1.40	Very stiff brown-grey veined silty CLAY						1.10	⊗	1.50	D	
2.50	Very stiff brown-grey veined silty sandy CLAY						0.50	⊗	2.00	DV	130+
3.00	End of BH										
									3.00	DV	130+
											130+
Remarks: BH ends at 3.0m.BH dry and open on completion,no roots observed below 2.0m.							Key:			To	Max
							D - Disturbed Sample			Depth	
							B - Bulk Sample			(m)	(mm)
							W - Water Sample			2.00	1
							J - Jar Sample				
							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: [REDACTED]

Date Sampled: 07/05/2020

Location: 9 Willoughby Road

Date Received: 12/05/2020

Client: Crawford Claims Management

Date Tested: 12/05/2020

Address: [REDACTED]

Date of Report: 19/05/2020

Sample Ref TPBH No	Depth (m)	Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity Index [5]	Modified * Plasticity Index (%) [6]	Soil * Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated * Heave Potential (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 1.20	D	21	<5	58	19	39	0.05	39	CH	168	766			150					
	1.5	D	21	<5							168	615								
	2.0	D	22	<5	46	22	24	0.00	24	CI	168	280			130					
	2.5	D	24	<5							168	173								
	3.0	D	28	<5	55	27	28	0.03	28	CH	168	128			130					

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 5.1
 [5] BS 1377: Part 2: 1990, Test No 5.4
 [6] BS 1377: Part 2: 1990, Test No 5.4
 [7] BS 5930: 2018 - Figure 8 - Plasticity Chart for the classification of fine soils

[8] In-house method S16 adapted from BRE IP 493
 [9] In-house Test Procedure S17 - One Dimensional Swell/Shrink Test
 [10] Estimated Heave Potential
 [11] Values of shear strength were determined in situ by CPT using a Philips hand pump or oedometer value (GV%)
 [12] BS 1377: Part 2: 1990, Test No 4
 [13] BS 1377: Part 2: 1990, Test No 9
 [14] BS 1377: Part 3: 1990, Test No 5.6
 [15] SO₃ = 1.2 x SO₄

[16] BRE Special Digest One (Concrete in Aggressive Grounds) 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-6B or DS-5B 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

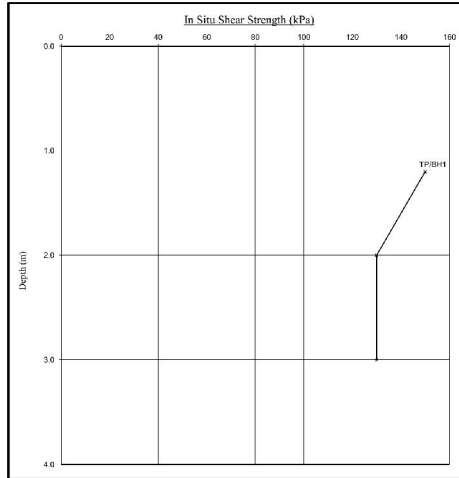
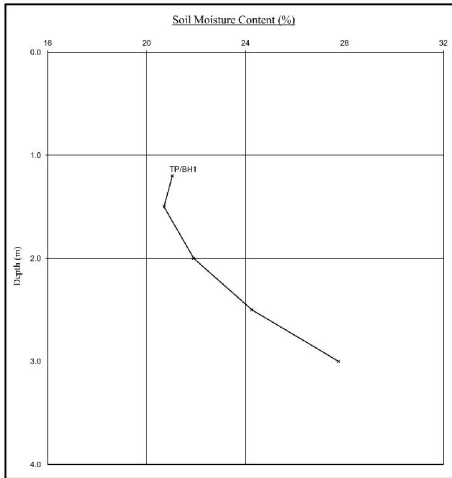
D Disturbed sample (small)
 B Disturbed sample (bulk)
 U Undisturbed sample
 W Groundwater sample
 FNP Essentially Non-Plastic by inspection
 US Underside of Foundation



Moisture Content Profiles

Our Ref: XXXXXXXXXX
 Location: 9 Willoughby Road
 Work carried out for: Crawford Claims Management

Date Sampled: 07/05/2020
 Date Received: 12/05/2020
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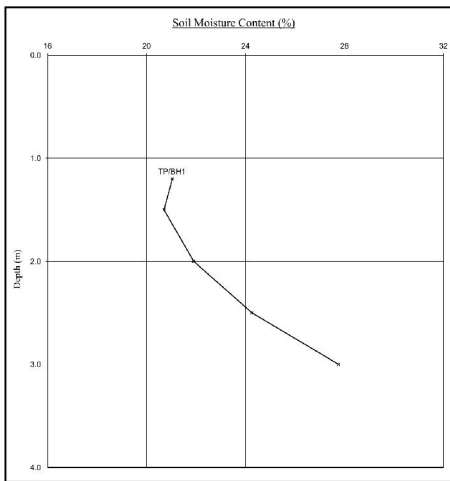


Notes:
 1. Empirical, $0.4 I_L$ and $PI - 21$ (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
 2. Unless specifically noted the profiles have not been related to a site datum.

Note:
 1. Unless otherwise stated, values of Shear Strength were determined in situ by CPT using a Pikeam 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

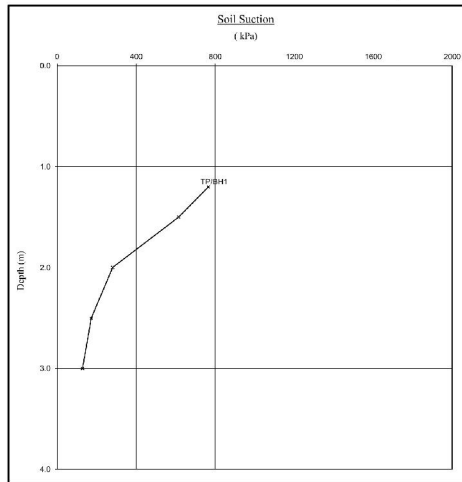
Our Ref: [REDACTED]
 Location: 9 Willoughby Road
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Notes:
 1. Tripartite, 0.4 TL and PI-2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
 2. Unless specifically noted the profiles have not been related to a site datum.

Soil Suction Profiles

Date Sampled: 07/05/2020
 Date Received: 12/05/2020
 Date Tested: 12/05/2020
 Date of Report: 19/05/2020



Note:
 When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clay) at shallow depths. Note that the sample disturbance component is dependent on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BSI 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.

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)	4 mm	Fraxinus spp. 3 roots	Positive
BH1 (to 2m)	1.5 mm	Fraxinus spp. 2 roots	Positive

Fraxinus spp. include common ash.

[REDACTED]

MDM

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Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D