

Geotechnical Survey Report

FSI Ref: 8994

Issue Date: October 2014

Client Name: Mr & Mrs Coveney Risk Address: 11 Shirlock Road

London NW3 2HR

Engineer: Roger Lowe

Company: GAB Robins Claim Ref: B1426953

Director:
Office Manager:
Report Writer:

Martin Rush MSc FGS Louise Hiscock BSc (Hons) Perry Martin AMCIHT

Laboratory Manager: Lara Knight



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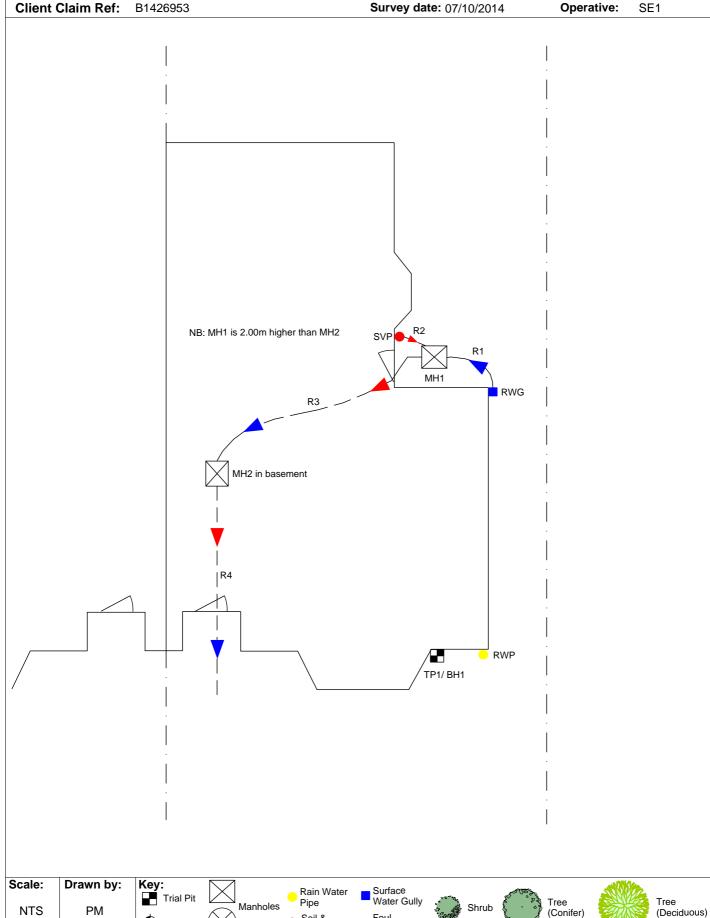
Appendix No: 1 FSI Ref:

8994

SITE PLAN

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953 Operative:



NTS PM

















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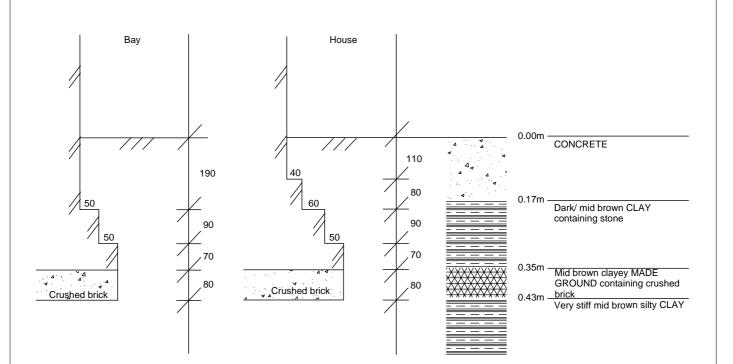
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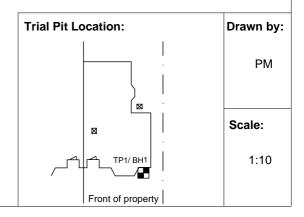
TRIAL PIT 1

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953 Survey date:17/10/2014 Operative: SE1



D1 @ F.L. (0.43m) V = 140+kPa Founding strata: Very stiff mid brown silty CLAY



D= small disturbed sample, B= large bulk sample, U= undisturbed sample, MP= mackintosh proble blow counts, V= shear vane reading (kPa)



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Appendix No: 2 **FSI Job No:** 8994

Web: www.fastrack-geotechnical.co.uk

BOREHOLE LOG

11 Shirlock Road, London, NW3 2HR **Property Address:**

Client Claim Ref: B1426953 Survey date: 07/10/2014 Operative: SE1

rehole ID: er Sample tes Type Dep	les	_	Bitu Tests Results 140.00	Depth (m) 0.17 0.35	Legend	Hole Type: HA Scale: 1:8 Stratum Description and Observations CONCRETE FOUNDATION TOP - 0.110m (House) (Brick & crushed brick construct, 3 brick step outs projecting 40mm, 60mm & 50mm with thickness' of 80mm, 60mm & 70mm respectively onto a crushed brick footing with 80mm thickness & no projection) Dark/ mid brown CLAY containing stone FOUNDATION TOP - 0.19m (Bay) (Brick & crushed brick construct, 2 brick step outs both projecting 50mm with thickness' of 90mm & 70mm respectively onto a crushed brick footing with 80mm thickness & no projection) Mid brown clayey MADE GROUND containing crushed brick
es Type Dep	epth (m)	m) Type	Results	(m) 0.17	Legend	FOUNDATION TOP - 0.110m (House) (Brick & crushed brick construct, 3 brick step outs projecting 40mm, 60mm & 50mm with thickness' of 80mm, 60mm & 70mm respectively onto a crushed brick footing with 80mm thickness & no projection) Dark/ mid brown CLAY containing stone FOUNDATION TOP - 0.19m (Bay) (Brick & crushed brick construct, 2 brick step outs both projecting 50mm with thickness' of 90mm & 70mm respectively onto a crushed brick footing with 80mm thickness & no projection) Mid brown clayey MADE GROUND containing crushed brick
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D1 (0.43	V	140.00			containing crushed brick
				00		
						Very stiff mid brown silty CLAY FOUNDATION LEVEL - 0.43m (Bay & House)
D2 1	1.00	V	140.00	1.40		Noted to contain gravel at 1.20m End of Borehole at 1.40 m

Remarks: Borehole closed at 1.40m due to gravel Borehole was noted to be dry on completion N.b. Unless otherwise stated small vane paddle used



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LABORATORY RESULTS

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953 Client: Gab Robins

SA	MPLE DETAILS	ANALY	SIS R	EQUESTED	
				DOD	
Investigation date:	07/10/2014	Moisture Content	\checkmark	PSD	
Sample details:	Bags as received	Liquid Limit	\checkmark	Soil Suction	
Samples received:	14/10/2014	Plastic Limit	/	Shear Strength	
Schedule recieved:	14/10/2014	Plasticity Index	/	Contamination	
Samples tested:	14/10/2014 - 21/10/2014	Root ID	/	Root/Tree DNA	
Results reported:	21/10/2014	Other (please state)			

TEST DETAILS

General

Sample descriptions were written in accordance with BS 5930:1999.

Samples were prepared in accordance with BS 1377: Part 1: 1990, section 7

Samples from this contract will be retained for 1 calender month following the issue of this report unless otherwise notified

Written approval is required from Fastrack Geoetchnical Services Limited to reproduce report in full. The results shown within this report only relate to the samples tested

Moisture Content

Samples were tested in accordance with BS 1377: Part 2: 1990, section 3.2 (Oven drying method)

In accordance with Note 1 to paragraph 3.2.4 of BS 1377 Part 2 1990; these moisture contents have been corrected to give the equivalent moisture content of the fraction passing the 425µm sieve, to enable comparison with the liquid & plastic limits. (If condition of test is 'natural' the retained percentage is an estimated value, if condition is 'washed' the percentage is a measured value).

Samples are dried at 105-110°C unless otherwise stated.

Atterberg Limits

Samples were tested in accordance with BS 1377: Part 2: 1990, section 4.3 (4 drop LL), 4.4 (1 drop LL), 5.3 (PL) and 5.4 (PI) Test results on samples with a sand content, may show less accurate results. If condition of test is 'washed' results relate to the fraction passing the 425µm sieve only.

Driscoll's rules deem the soil to be desicated where the moisture content is less than the value calculated using driscoll's rule 1 and/or 2

Particle Size Distribution

Samples were tested in accordance with BS 1377: Part 2: 1990 section 9.2 (Wet sieving method)

Undrained Shear Stength

Samples were prepared in accordance with BS 1377: Part 7: 1990 section 8.3 and testing in accordance with BS 1377: Part 7: 1990: section 8.4 (undrained shear strength in triaxial compression without measurement of pore pressure (UU))

Soil Suction

Samples were prepared and tested based on the BRE digest No:IP4/93 (Corrected). 'A method of determining the state of desiccation in clay soils.' (Filter paper method).

Test results on samples with a sand or silt content, may show less accurate results. Deviation to standard procedure - Polythene bags are not used from weighing filter papers.



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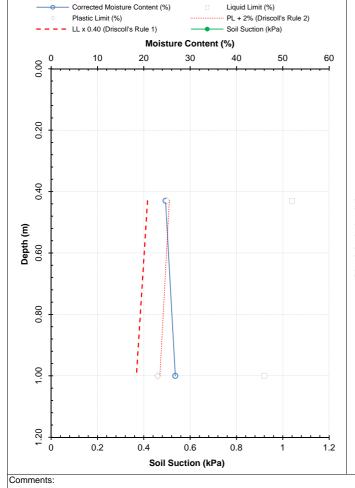
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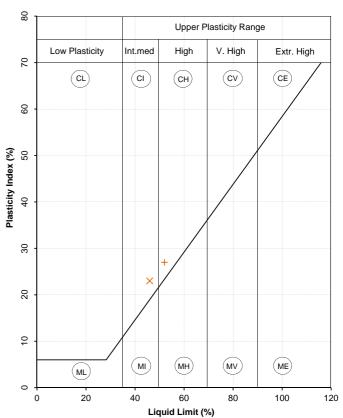
LABORATORY RESULTS

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953

									BORE	EHOLE 1
Depth	МС	Corr. MC	LL	PL	PI	Class	% Retained	Soil Suction	Condition of test	Soil Description
(m)	(%)	(%)	(%)	(%)	(%)	ō	(425µm)	(kPa)		·
0.43	21.1	24.69	52	25	27	СН	14.53		Natural	Orange sandy clayey MADE GROUND containing brick and gravel
1.00	18.6	26.81	46	23	23	CI	30.61		Natural	Orange sandy CLAY containing gravel





0.43m

- A-line

1.00m

Other

Signed: L Ring LA

Tree Root

Identification Ltd

Client Ref: 5000/8994

Date: 22/10/2014

Date: ET221014

Property: 11 Shirlock Road, London, NW3 2HR.

Work carried out for: Fastrack Site Investigations Limited.

Certificate of Analysis

The following work was commissioned by Fastrack 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 -

Trial pit/ Borehole number	Root diameter (mm)	Tree, shrub or climber from which root originates	Result of starch test#
BH1 (depth: 0.43m)	<0.5	a member of the group Pomoideae*	positive
BH1 (depth: 1.00m)	1.5	a member of the group Pomoideae*	positive

The presence of starch indicates that the root was alive in the recent past.

* Tree members of the Pomoideae include apple (<u>Malus</u>), pear (<u>Pyrus</u>), hawthorn (<u>Crataegus</u>), rowan and whitebeam (both <u>Sorbus</u>). A number of shrubs also belong to this group including quince (<u>Cydonia</u>), <u>Cotoneaster</u> and <u>Pyracantha</u>.

Ronald Macherd

DR RONALD D MACLEOD

Principal Scientist

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e-mail: rdmmacleod@btconnect.com web site: www.treerootidentification.com

Principal Scientist: R.D. MacLeod, B.Sc., Ph.D.,

Accounts/Quality Manager: Fiona M. Sinclair, BA English Studies (Merit)

Registered in Scotland, No. 358068. Registered Office: "Mandaya", Highfield Place, Bankfoot, PH1 4AX.



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Appendix No:

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DRAINAGE SURVEY

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953 Survey date: 07/10/2014 Operative: SE1

Following your recent instruction we attended the above property and carried out a cctv camera survey and hydraulic testing of the drainage, in accordance with procedures detailed in the WRc Drain Repair Book.

Node	Invert Level (m)	Manhole Construction	Pipe Size	Pipe Material	Manhole Condition	Type of Cover	Size of Cover
MH1	0.55m	Brick render	100mm	Clay	FAIR	Paved over	650x520mm
MH2	0.25m	Brick render	100mm	Clay	FAIR	Steel	650x520mm
Hydra	ulic Testing Su	mmary:					
Run	From	То	Result	Remarks			
1							
2							
3							
4							
5							
6 Servic	ceability:						
1	Is the system failing blockage)	to discharge normal	household flow	ws to the sewer	system? (i.e. re	ecurrance of	No
2	Is there evidence of I	eakage occuring (in	filtration or exfi	Itration)?			No
3	Is there intermittent s	storm-water flooding	?				Undetermined
4	Has a hydraulic leak	age test failed?					N/A
5	Do observed defects	make the drain uns	erviceable?				No
Comn	nents:						

Recor	Recommendations for Repair:								
Runs	Grade	Recommended action							
1 to 4	Α	None required							



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DRAINAGE SURVEY

Property Address: 11 Shirlock Road, London, NW3 2HR

Client Claim Ref: B1426953

Grade C

Run	Detail	s: (Please r	efer to apper	ndix 1 for site p	lan and run la	yout)	
Run	From	То	Pipe Diameter	Pipe Materials	Duty	Direction	Ownership
1	MH1	RWG	100mm	Clay	Storm	Upstream	Private
2	MH1	SVP	100mm	Clay	Foul	Upstream	Private
3	MH1	MH2	100mm	Clay	Foul/ storm	Downstream	Private
4	MH2	Downstream	100mm	Clay	Foul/ storm	Downstream	Private
5							
6							

Grade Guidelines: Grade A Condition grade A: Structurally sound with no leakage evident. Slight crack/defects permitted. Grade B Condition grade B: Cracks and/or fractures observed but pipe provides sufficient arching support. Some leakage may be evident.

Condition grade C:Structurally unsound with insufficient arching support. Total collapse/blockage likely in the future.

Run	m	Repo Code	1	Observations	Water (%)	Clock	Remarks
1	0.00	SS		Start Survey			
	1.60	LR		Line of drain deviates right			
	1.90	CN		Connection			Enters RWG
	1.90	SF	Α	Finish Survey			
2	0.00	SS		Start Survey			
	0.10	LL		Line of drain deviates left			
	0.30	LU		Line of drain deviates up			Upward bend into SVP
	0.30	SF	Α	Finish Survey			
3	0.00	SS		Start Survey			
	0.15	LD		Line of drain deviates down			Vertical drop (200mm approx)
	0.15	JD(S)		Joint displaced slight			
	0.35	REM		General remark			Pipe levels
	0.35	LR		Line of drain deviates right			
	0.35	LD		Line of drain deviates down			Slopes downwards
	1.40	JD(S)		Joint displaced slight			
	2.10	JD(S)		Joint displaced slight			
	3.60	MHF		Finish node: Manhole			Enters MH2
	3.60	SF	Α	Finish Survey			
4	0.00	SS		Start Survey			
	8.00	SF	Α	Finish Survey			Clear of property