



Geotechnical Survey Report

FSI Ref: 25253
Issue Date: November 2022

Risk Address: 2 Greenside
Crowthorne
Berkshire
RG45 6EX

Engineer: Neil Crawford

Company: Crawford
Claim Ref: SU2203515

Managing Director:
Finance Director:

Martin Rush MSc FGS
Louise Banks BSc (Hons)

Geotechnical Compliance &
Logistics Supervisor:

Perry Martin MCIHT

Laboratory Manager:

Jade McLellan

Senior Geologist:
Assistant Geologist:
Geotechnical Assistant:

Scott Parker BSc (Hons) FGS
Sarah Brand
Bradley Webb



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Maldon, Essex, CM9 6TQ

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Appendix No: 1
FSI Ref: 25253

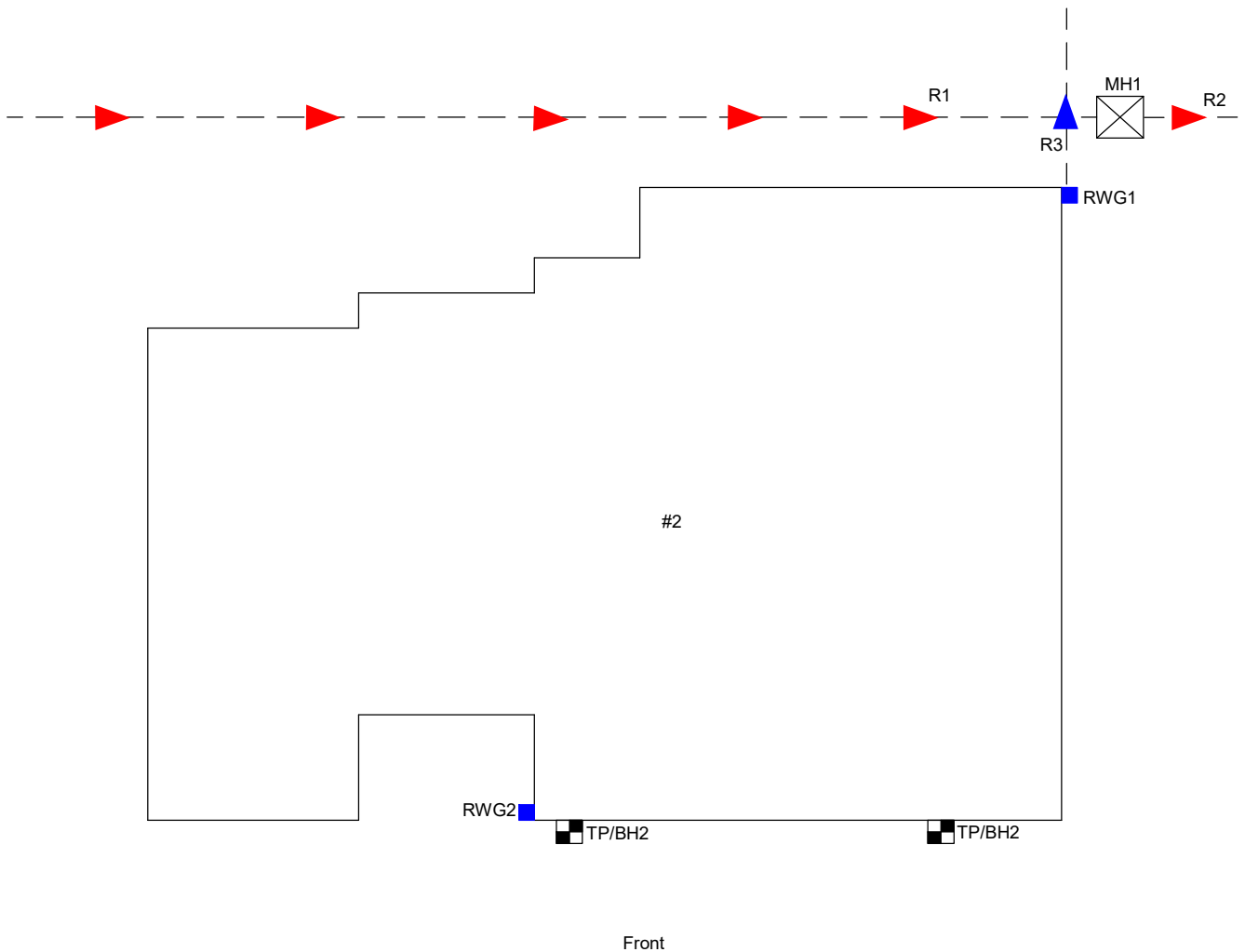
SITE PLAN

Property Address: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Client Claim Ref: SU2203515

Survey date: 08/11/2022

Operative: SE3



Scale:
NTS

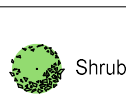
Drawn by:
SB

Key:



Rain Water
Pipe
Soil &
Vent Pipe

Surface
Water Gully
Foul
Water Gully

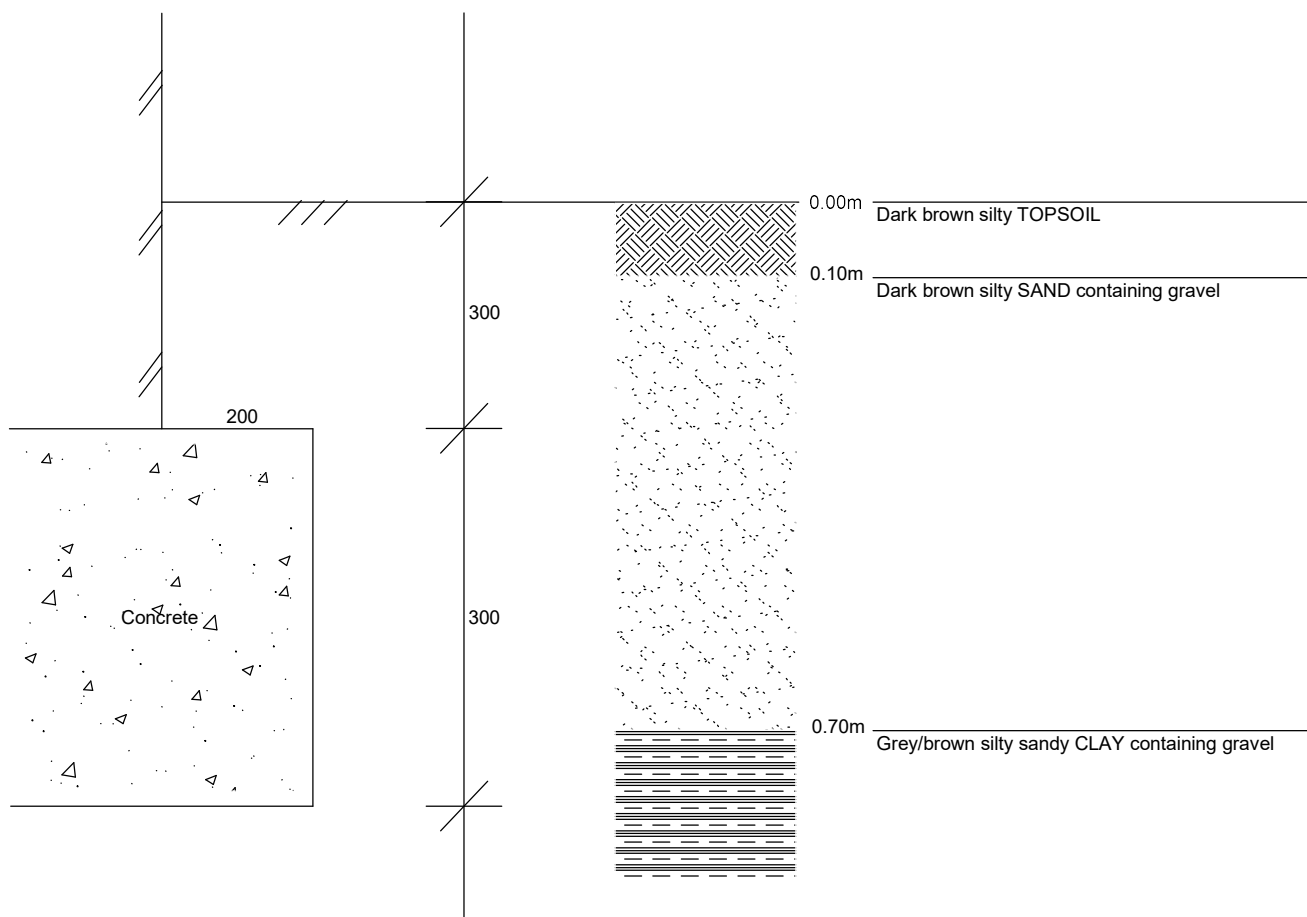


TRIAL PIT 1

Property Address: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Client Claim Ref: SU2203515

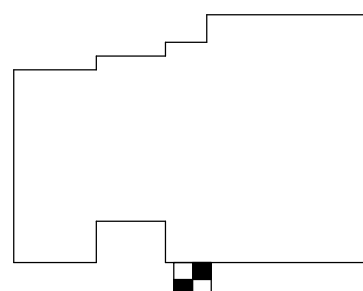
Survey date: 08/11/2022

Operative: SE3


D1 @F.L. (0.80m)

V= 96-98kPa

Founding Strata: Grey/brown silty sandy CLAY containing gravel

Trial Pit Location:

Drawn by:

SB

Scale:

1:10

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



Fastrack Site Investigations Ltd
Unit 9, Tyndales Farm
Southend Road
Maldon CM9 6TQ

Borehole Log

Borehole No.

BH1

Sheet 1 of 1

Project Name: SU2203515

Project No.
25253

Site Date: 08/11/2022

Hole Type
BH

Location: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Scale
1:17

Client: Crawford

Logged By
SE3

Water Strikes	Sample and In Situ Testing			Depth (m)	Legend	Stratum Description	
	Depth (m)	Type	Results				
				0.10		Dark brown silty TOPSOIL	
						Dark brown silty SAND containing gravel	
						<u>Foundation top-0.30m (Concrete construct projects 200mm with a thickness of 500mm)</u>	
	0.80	D	V (kPa) = 96 V (kPa) = 98	0.70		Grey/brown silty sandy CLAY	1
						<u>Foundation level-0.80m</u> <u>Noted to contain hairlike-1mm roots at F/L</u>	
	1.50	D	MP = 13/75mm MP = 14/75mm MP = 14/75mm MP = 14/75mm	1.30		Grey/brown silty clayey SAND	
						<u>Noted to contain hairlike-6mm roots at 1.50m</u>	
				1.60		Grey/brown silty sandy CLAY	
	2.00	D	MP = 17/75mm MP = 17/75mm MP = 18/75mm MP = 18/75mm	1.90		Brown silty clayey SAND	2
						<u>Noted to contain hairlike-8mm roots at 2.00m</u>	
	2.50	D	MP = 21/75mm MP = 21/75mm MP = 21/75mm MP = 22/75mm			<u>Noted to contain hairlike roots at 2.50m</u>	
	3.00	D	MP = 24/75mm MP = 25/75mm MP = 25/75mm MP = 26/75mm	3.00		End of Borehole at 3.000m	3

Key: D - Disturbed Sample V - Insitu Vane Test MP - Mackintosh Probe Test

Remarks: Borehole closed at 3.00m.
Borehole noted to be dry on completion.

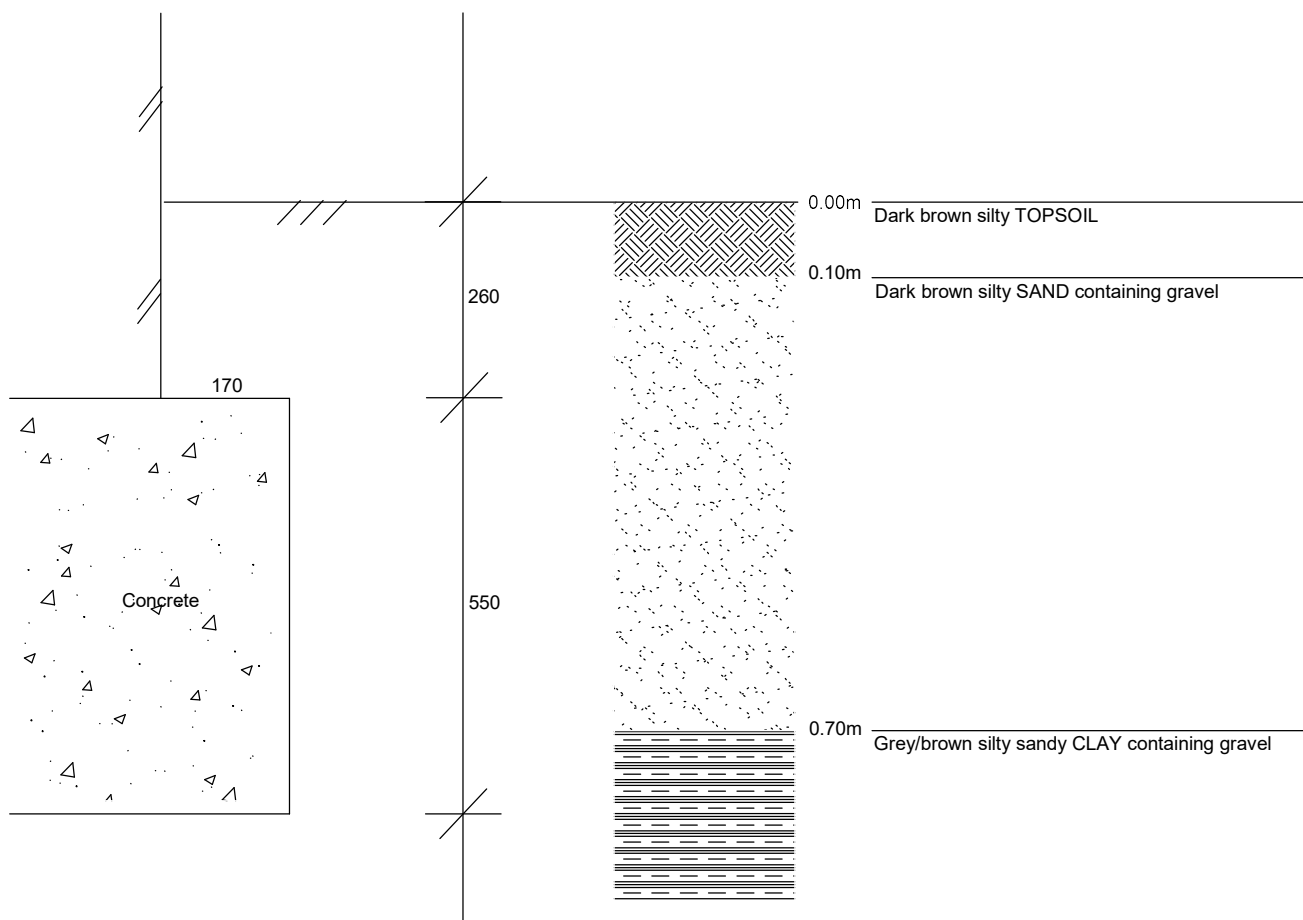


TRIAL PIT 2

Property Address: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Client Claim Ref: SU2203515

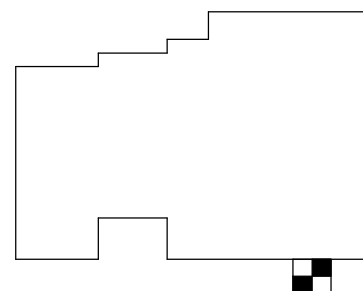
Survey date: 08/11/2022

Operative: SE3


D1 @ F.L. (0.81m)

V = 100-102kPa

Founding strata: Grey/brown silty sandy CLAY containing gravel

Trial Pit Location:

Drawn by:

SB

Scale:

1:10

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



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Unit 9, Tyndales Farm
Southend Road
Maldon CM9 6TQ

Borehole Log

Borehole No.

BH2

Sheet 1 of 1

Project Name: SU2203515

Project No.
25253

Site Date: 08/11/2022

Hole Type
BH

Location: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Scale
1:17

Client: Crawford

Logged By
SE3

Water Strikes	Sample and In Situ Testing			Depth (m)	Legend	Stratum Description	
	Depth (m)	Type	Results				
				0.10		Dark brown silty TOPSOIL	
						Dark brown silty SAND containing gravel	
						<u>Foundation top-0.26m (Concrete construct projects 170mm with a thickness of 550mm)</u> <u>Clay noted to become grey in colour at 0.30m</u>	
	0.81	D	V (kPa) = 100 V (kPa) = 102	0.70		Grey/brown silty sandy CLAY	1
						<u>Foundation level-0.81m</u> <u>Noted to contain hairlike-1mm roots at F/L</u>	
	1.50	D	MP = 16/75mm MP = 16/75mm MP = 16/75mm MP = 17/75mm	1.40		Grey/brown silty clayey SAND	
						<u>Noted to contain hairlike-5mm roots at 1.50m</u>	
	2.00	D	MP = 21/75mm MP = 21/75mm MP = 22/75mm MP = 22/75mm				2
						<u>Noted to contain hairlike-8mm roots at 2.00m</u>	
						<u>Sand noted to become brown in colour at 2.20m</u>	
	2.50	D	MP = 23/75mm MP = 23/75mm MP = 23/75mm MP = 24/75mm				
						<u>Noted to contain hairlike roots at 2.50m</u>	
	3.00	D	MP = 26/75mm MP = 26/75mm MP = 27/75mm MP = 27/75mm	3.00			3
						End of Borehole at 3.000m	

Key: D - Disturbed Sample V - Insitu Vane Test MP - Mackintosh Probe Test

Remarks: Borehole closed at 3.00m.
Borehole noted to be dry on completion.





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Appendix No: 3
FSI Ref: 25253

LABORATORY RESULTS

Property Address: 2 Greenside, Crowthorne, Berkshire, RG45 6EX

Client Claim Ref: SU2203515

Client: Crawford & Company

SAMPLE DETAILS		ANALYSIS REQUESTED	
Investigation date:	08/11/2022	Moisture Content	☒ PSD ☐
Sample details:	Bags as received	Liquid Limit	☒ Soil Suction ☒
Samples received:	17/11/2022	Plastic Limit	☒ Shear Strength ☐
Schedule recieved:	17/11/2022	Plasticity Index	☒ Contamination ☐
Samples tested:	18/11/2022-23/11/2022	Root ID	☒ Root/Tree DNA ☐
Results reported:	23/11/2022	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 calendar month following the issue of this report unless otherwise notified

Written approval is required from Fastrack Site Investigations 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 desiccated 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 Strength

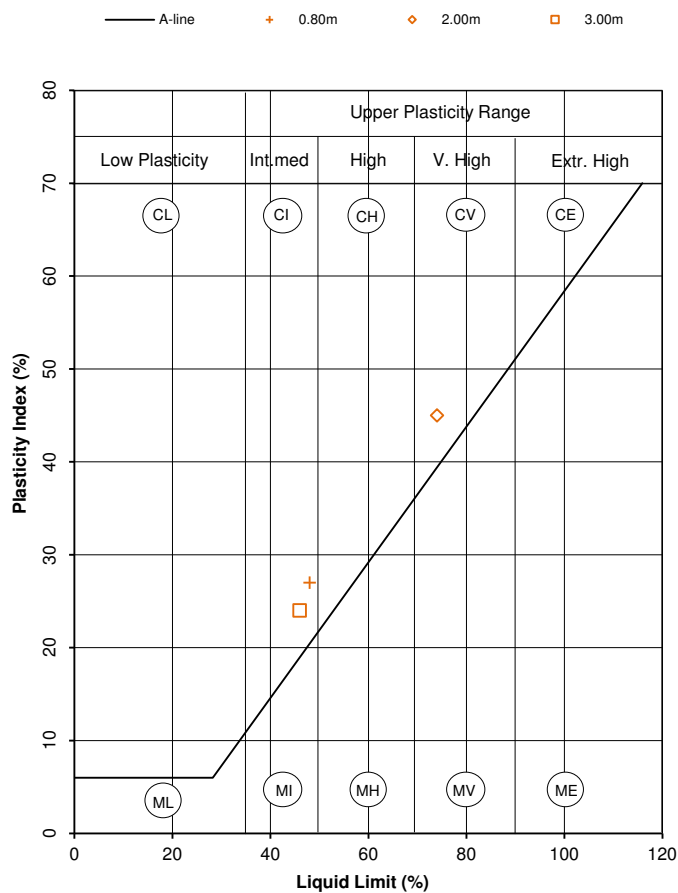
Samples were prepared in accordance with BS 1377: Part 7: 1990 section 8.3 and testing in accordance with BS 1377: Part 7: 1990: section 8.4 (undrained shear strength in triaxial compression without measurement of pore pressure (UU))

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.

Property Address:	2 Greenside, Crowthorne, Berkshire, RG45 6EX
Client Claim Ref:	SU2203515

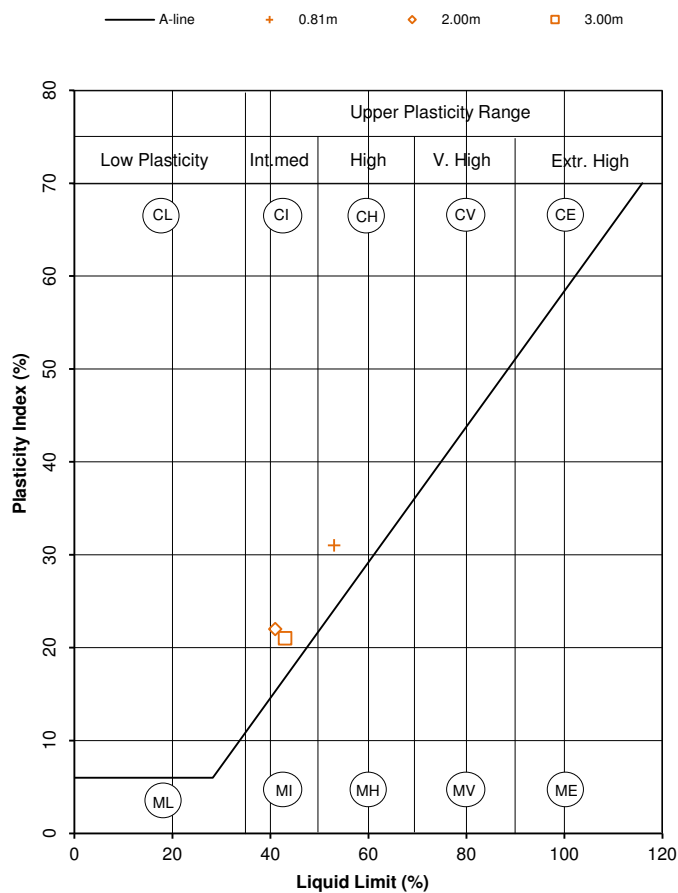
[illegible]

Comments:	BH1 @ 0.80, 2.00, 3.00m - Unable to perform soil suctions due to sample being too dry
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Issued by: ☐ Jade McLellan (Laboratory Manager)
☒ Isabella Acerbis (Laboratory Supervisor)

☐	Ted Smith (Laboratory Technician)
☐	

Property Address:	2 Greenside, Crowthorne, Berkshire, RG45 6EX
Client Claim Ref:	SU2203515

[illegible]

Comments:	BH2 @ 2.00, 3.00m - Unable to perform soil suctions due to sample being too dry
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☐ Ted Smith (Laboratory Technician)

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ROOT IDENTIFICATION

2 Greenside, Crowthorne, RG45 6EX

Client Reference: 25253
Report Date: 22 November 2022
Our Ref: R48602

Sub Sample	Species Identified	Root Diameter	Starch
BH1:			
FL	<i>Quercus</i> spp.	1	12 mm
1.5m	<i>Pinus</i> spp.		1 mm
2m	<i>Quercus</i> spp.	2	2 mm
BH2:			
FL	<i>Pinus</i> spp.	3	2 mm
FL	<i>Quercus</i> spp.		2 mm
1.5m	<i>Pinus</i> spp.		1 mm
1.5m	<i>Quercus</i> spp.	4	1.5 mm
2m	<i>Pinus</i> spp.		1.5 mm
2m	<i>Quercus</i> spp.	5	6 mm

Comments:

- 1 - Plus 2 others also identified as *Quercus* spp.
- 2 - Plus 1 other also identified as *Quercus* spp.
- 3 - Plus 1 other also identified as *Pinus* spp. Decayed roots.
- 4 - Plus 1 other also identified as *Quercus* spp.
- 5 - Plus 1 other also identified as *Quercus* spp.

Quercus spp. are oaks (both deciduous and evergreen).
Pinus spp. are pines.

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.



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Appendix No:

4

FSI Ref:

25253

DRAINAGE SURVEY**Property Address:** Tyndales Farm, Southend Road, Woodham Mortimer, Maldon, Essex, CM9 6TQ**Client Claim Ref:** SU2203515**Survey date:** 08/11/2022**Operative:** SE3

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.

Manhole / Inspection chamber Summary:

Node	Invert Level (m)	Manhole Construction	Pipe Size	Pipe Material	Manhole Condition	Type of Cover	Size of Cover
MH1	1.00	Concrete	110mm	UPVC	FAIR	Steel	540x490mm

Hydraulic Testing Summary:

Run	From	To	Result	Remarks
1				
2				
3				
4				
5				
6				

Serviceability:

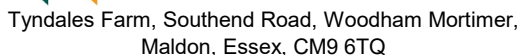
1	Is the system failing to discharge normal household flows to the sewer system? (i.e. recurrence of blockage)	Yes
2	Is there evidence of leakage occurring (infiltration or exfiltration)?	No
3	Is there intermittent storm-water flooding?	Undetermined
4	Has a hydraulic leakage test failed?	N/A
5	Do observed defects make the drain unserviceable?	No

Comments:

Root infiltration noted in MH1. Unable to access RWG2 to survey.

Recommendations for Repair:

Run	Grade	Recommended action
1	A	None required
2	A	None required
3	A	None required
4		
5		
6		



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25253

Property Address:	Tyndales Farm, Southend Road, Woodham Mortimer, Maldon, Essex, CM9 6TQ
Client Claim Ref:	SU2203515

Run	From	To	Pipe Diameter	Pipe Materials	Duty	Direction	Ownership
1	MH1	Upstream	110mm	UPVC	Foul	Upstream	Shared
2	MH1	Downstream	110mm	UPVC	Foul	Downstream	Shared
3	RWG1	Downstream	100mm	Clay	Storm	Downstream	Private
4							
5							
6							

Grade A	Condition grade A: <i>Structurally sound with no leakage evident. Slight crack/defects permitted.</i>
Grade B	Condition grade B: <i>Cracks and/or fractures observed but pipe provides sufficient arching support. Some leakage may be evident.</i>
Grade C	Condition grade C: <i>Structurally unsound with insufficient arching support. Total collapse/blockage likely in the future.</i>

[illegible]