

Site Investigation Report

Auger Ref:

148175.1.USI



Job Information

Client	
Client ref	9068683
Visit date	23/03/2023
Report date	05/05/2023

Job Summary

- ✓ CCTV survey undertaken. [Read more.](#)
- ✓ 2 trial holes undertaken. [Read more.](#)
- ! Unable to locate footing in TH2 [Read more.](#)
- ✓ No drainage defects found. [Read more.](#)
- ! Requested root samples not taken. [Read more.](#)



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We invest in people Gold

Job Information

Overview

Brief	Auger were commissioned by to undertake a site investigation and CCTV inspection of the underground drainage within the area of concern (AOC) at the property.
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Findings

Trial Hole Findings	Within TH1 we revealed the footing and augered to the required depth (3m) in the proposed location. We took soil samples. We were unable to collect root samples from TH1 because no roots were present during the trial hole, hence no samples were retrieved. These measurements are shown in Trial Hole Log 1 below. The base of the footing was determined by probing to a depth below 1.0m and therefore the exact profiles/depth cannot be guaranteed. TH2 was moved following a conversation with the customer who built and lay the foundations for the extension. The customer informed us that the footings were 2m deep and because of this we decided to move the TH and excavate a BH at the rear of the property; reaching the required depth and collecting soil and root samples. Measurements of BH2 are shown in Trial Hole Log 2 below.
Drain Survey	We carried out a CCTV survey of the below ground drainage system, our findings of which are as follows: Line 1, 2 and 3 Our survey of line 1, 2 and 3 revealed no significant defects to the plastic pipework on these lines which could be allowing an escape of water.

Recommendations

Refer Back to Client	We will now refer the claim back to the client in order to progress the claim.
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Photographs

Trial Hole 1

Fig 1.1: Trial Hole 1 Location	Fig 1.2: Trial Hole 1 Footing
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Trial Hole 2

Fig 2.1: Bore Hole 2 Location



Fig 2.2: Bore Hole 2



Site Photos

Fig 4.1: Rear Extension

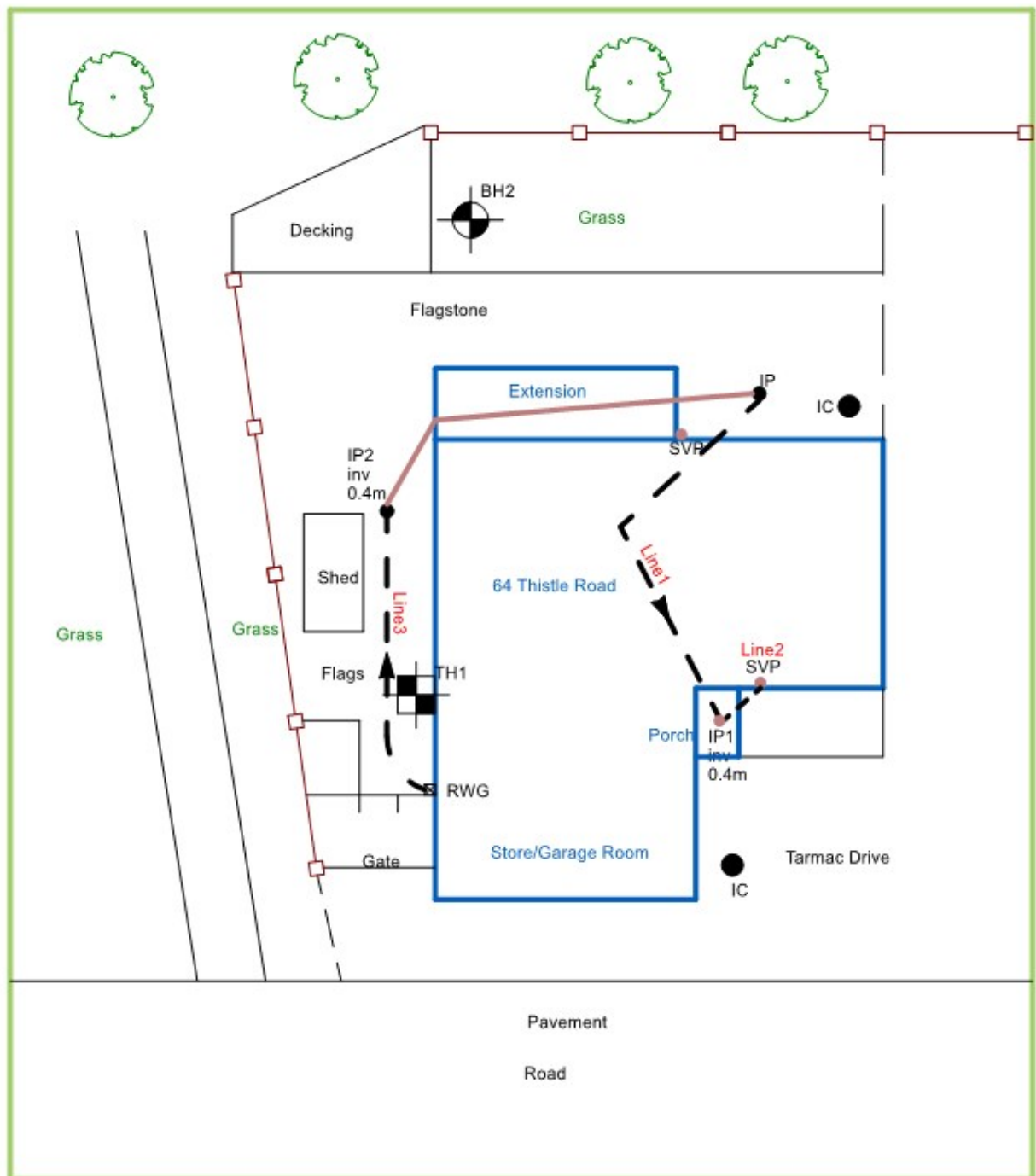


CCTV Survey – Inspection Listings (WRc Guidelines Applied)

1					
Direction		Upstream	From		IP1
Pipe Size (mm)		100	Depth (m)		400
Pipe Material		PVC	To		UP
10.1m		Finish of Survey Length (IP)			
2					
Direction		Upstream	From		IP1
Pipe Size (mm)		100	Depth (m)		400
Pipe Material		PVC	To		UP
0.9m		Finish of Survey Length (REST BEND)			
3					
Direction		Upstream	From		IC2
Pipe Size (mm)		100	Depth (m)		400

Pipe Material	PVC	To	UP
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8.9m Finish of Survey Length (FWG)



FRONT OF PROPERTY

This drawing should be used for diagrammatic purposes only. Auger are not responsible or liable for any 3rd party works undertaken using the details outlined in this drawing. Confirmation of the drainage configuration can only be confirmed by excavation or detailed technical survey.

LEGEND

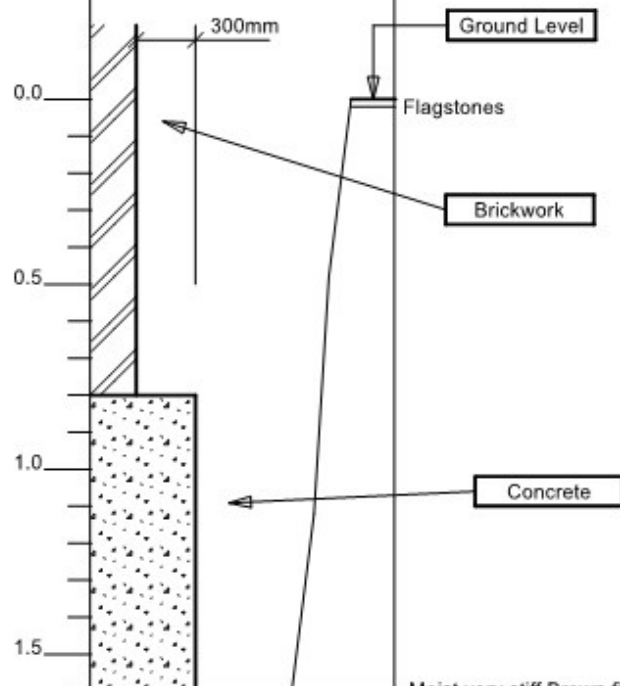
 = Manhole (MH)	 = Blockage / Collapse	 = Lines not camera surveyed	 = Trial hole	 = Shrubs / Bush
 = Inspection Chamber (IC)	 = Soil Vent Pipe (SVP) / WC	 = Lines camera surveyed	 = Borehole	 = Hedge
 = Combined Waste Gully (CWG) / Foul Waste Gully (FWG)	 = Rainwater Gully (RWG)	 = Assumed water mains feed	 = Direction of flow	 = Tree
 = Inspection Point (IP)	 = Rainwater Pipe (RWP)	 = Walls	 = Gate / Door	 = Steps
		 = Fences		
		 = Building Outline		



Trial Hole Log No.1

Location: Front left hand side flank left of utility room door

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Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level				
		Flagstones				
0.5		Brickwork				
1.0		Concrete				
1.5		Moist very stiff Brown fine to medium gravelly silty CLAY	95kpa		Soil @ 1.6m	
2.0			105kpa		Soil @ 2.1m	
2.5			115kpa		Soil @ 2.6m	
3.0		TRIAL HOLE TERMINATED	121kpa			



Trial Hole Log No.2

Location: Rear left hand side remote bore hole in lawn

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Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0	Remote Borehole	Grass				
0.5						
1.0						
1.5						
1.6		Moist very stiff Brown fine to medium gravelly silty CLAY	95kpa		Soil @ 1.6m	Root @ 1.6m
2.0			120kpa		Soil @ 2.1m	Root @ 2.1m
2.5			150kpa		Soil @ 2.6m	Root @ 2.6m
3.0		TRIAL HOLE TERMINATED	150kpa			

Unit 3 & 4,
 Heol Aur,
 Dafen Ind Estate,
 Dafen
 Llanelli,
 Carmarthenshire,
 SA14 8QN

***The testing results contained within this report have been performed by GSTL a UKAS accredited laboratory on behalf of Auger.**

 Auger House,
 Cross Lane,
 Wallasey,
 Wirral,
 CH45 8RH

Summary Of Claim Details

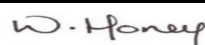
Policy Holder	
GSTL Job Reference	65584
SI Date	22/03/2023
Issue Date	22/03/2023
Report Date	18/04/2023
Auger Reference	148175.1.2.RSS
Insurance Company	Fairmead Insurance Limited
LA Claim Reference	9068683
LA Co. Reference	

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Checked and approved

18/04/2023

Wayne Honey





(BS 1377:1990 - Part 2 : 4.4 & 5.3)

DESCRIPTIONS



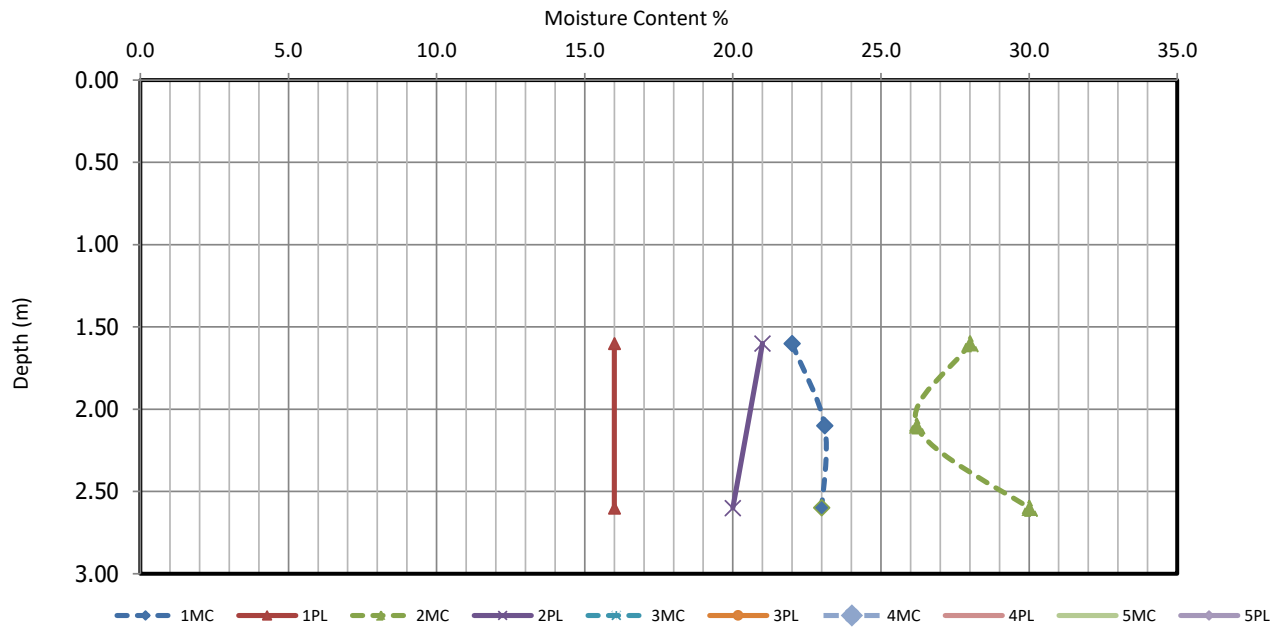
- environmental
- claims mgmt
- subsidence
- drainage

GSTL Contract Number	65584	
Report Date	18/04/2023	
Auger Reference	148175.1.2.RSS	

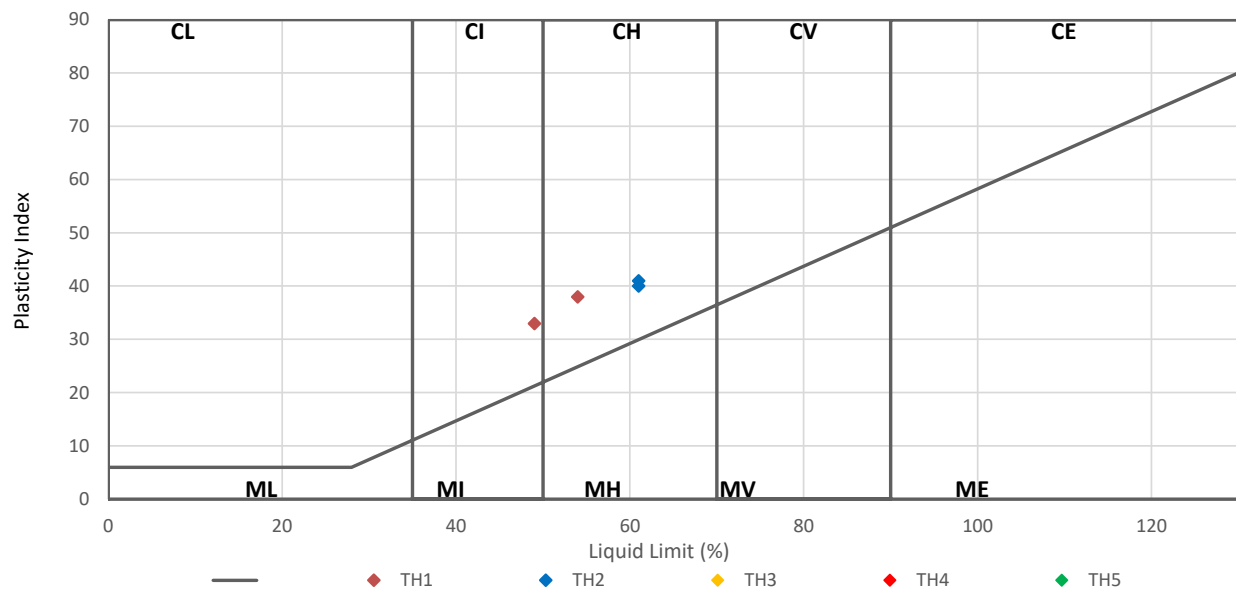
[illegible]

Test Operator

Jason Smith



PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Modified Plasticity Index (PI) <10 : Non Classified
 Modified PI = 10 to <20 : Low volume change potential (LOW VCP)
 Modified PI = 20 to <40 : Medium volume change potential (Med VCP)
 Modified PI = 40 or greater : High volume change potential (HIGH VCP)

The Atterberg Limits May also be used to classify the volume change potential of fine soils using the National House building system, as given in the NHBC's Standards Chapter 4.2 (2003) "Building Near Trees"

Test Operator

Jason Smith

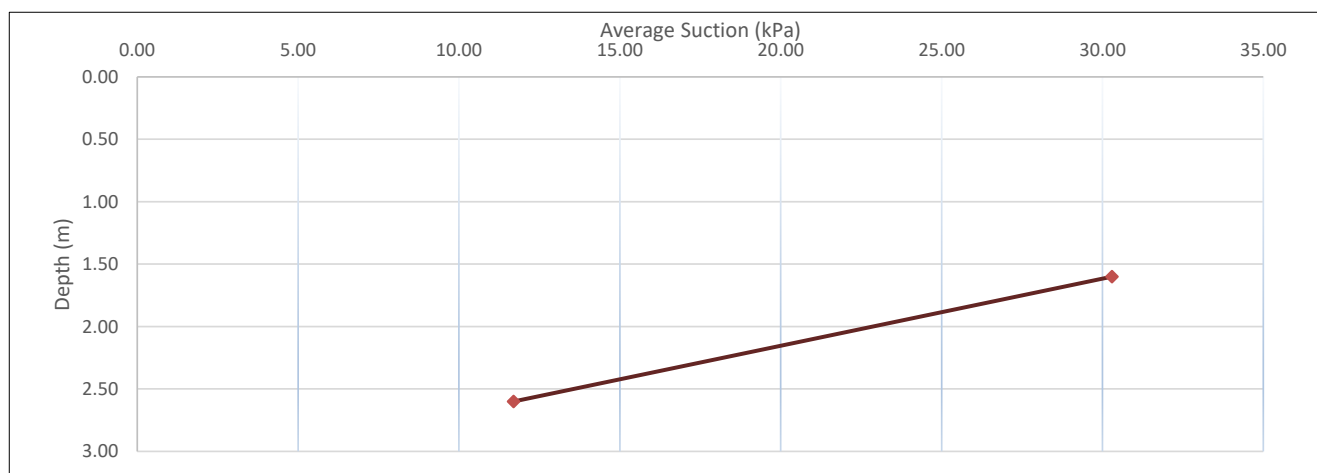
GSTL Contract Number	65584	
Report Date	18/04/2023	
Auger Reference	148175.1.2.RSS	
Remarks	D - Disturbed (Recompacted 2.5kg Rammer), U - Undisturbed Sample	

TH Trial Hole	Depth (m)	Filter Paper Location	Filter Paper	Sample Prep Method	Test Duration (Days)	Water Content (%)	Soil Suction Pk (kPa)	Average Soil Suction Pk (kPa)	Cumulative Heave Potential (mm) from bottom of the hole
TH1	1.60	Top	I	D	5	69.6	30	30	0
TH1		Middle	II	D	5	69.5	30		
TH1		Bottom	III	D	5	69.4	30		
TH1	2.10								
TH1									
TH1									
TH1	2.60	Top	I	D	5	102.0	12	12	0
TH1		Middle	II	D	5	102.0	12		
TH1		Bottom	III	D	5	102.0	12		

Heave potential is calculated from the bottom of the hole and heaves above the bottom of the hole are reported as a cumulative value.

The values reported for heave above only apply to the strata the suction and plasticity have been performed on. The shallowest depth reported is assumed to be a strata thickness to GL and Heave is calculated based on that layer thickness, if the next sample is in 0.5m increments the heave is calculated based on the layer thickness of 0.5m and depths 1m from the sample above will include heave over 1m.

Consideration should be made for other stratas where values are not reported and when working out the heave potential over the entire trial hole.



Test Operator
Jason Smith

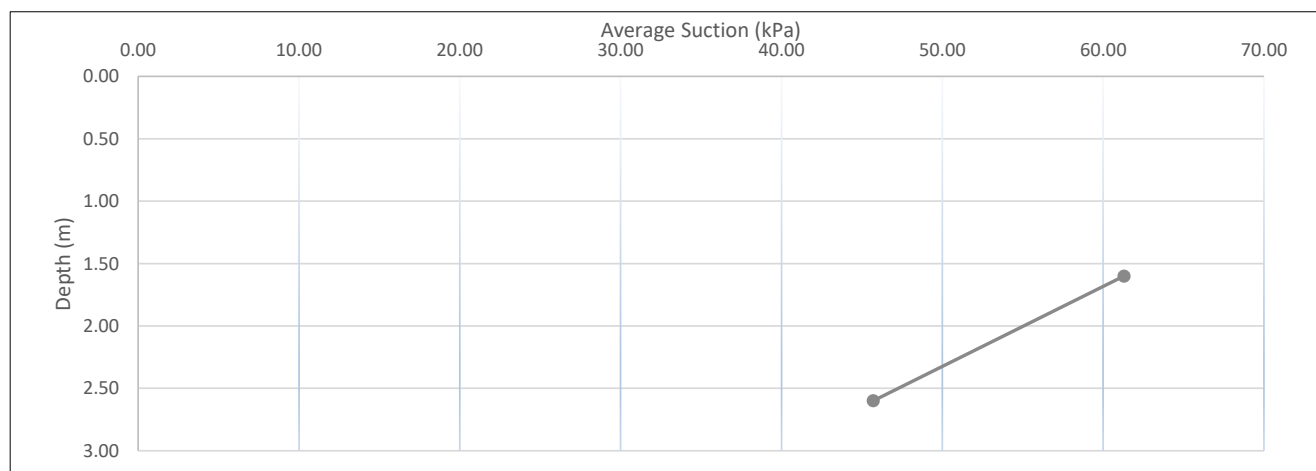
GSTL Contract Number	65584	
Report Date	18/04/2023	
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TH Trial Hole	Depth (m)	Filter Paper Location	Filter Paper	Sample Prep Method	Test Duration (Days)	Water Content (%)	Soil Suction Pk (kPa)	Average Soil Suction Pk (kPa)	Cumulative Heave Potential (mm) from bottom of the hole
TH2	1.60	Top	I	D	5	52.2	62	61.3	0
TH2	1.60	Middle	II	D	5	52.4	61		
TH2	1.60	Bottom	III	D	5	52.3	61		
TH2	2.10								
TH2	2.10								
TH2	2.10								
TH2	2.60	Top	I	D	5	59.0	46	45.7	0
TH2	2.60	Middle	II	D	5	59.0	46		
TH2	2.60	Bottom	III	D	5	58.8	46		

Heave potential is calculated from the bottom of the hole and heaves above the bottom of the hole are reported as a cumulative value.

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Consideration should be made for other stratas where values are not reported and when working out the heave potential over the entire trial hole.



Test Operator

Jason Smith



Root identification
Vegetation surveys
Tree/Building investigations
Plant taxonomy

Richardson's Botanical Identifications

Dr Ian B K Richardson
BSc, MSc, PhD, MRSB, FLS
James Richardson
BSc (Hons. Biology)

Auger Solutions

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E-mail: richardsons@botanical.net

Web: www.botanical.net

03/05/2023

Your ref: **148175-1-1**

Our ref: **86/4305**

Dear Sirs

Root ID

The samples you sent in relation to the above on 23/03/2023 have been examined. Their structures were referable as follows:

RBH2, 1.6m		
6 no.	Examined root: QUERCUS (Oak).	Dead*.
1 no.	A piece of BARK only, insufficient material for identification.	
1 no.	Although examined microscopically, this was found to be only a section of either twig, stem or sucker - NOT a root. Not identified.	
RBH2, 2.1m		
6 no.	Examined root: QUERCUS (Oak).	Dead*.
RBH2, 2.6m		
4 no.	Examined root: a very THIN sample. Could also be QUERCUS (Oak).	Dead*.
1 no.	Examined root: too DECAYED for identification.	

Click here for more information: [QUERCUS](#)

I trust this is of help. Please call us if you have any queries; our Invoice is enclosed.

Yours faithfully

Dr Ian B K Richardson

* Based mainly on the Iodine test for starch. Starch is present in some cells of a living woody root, but is more or less rapidly broken down by soil micro-organisms on death of the root, sometimes before decay is evident. This result need not reflect the state of the parent tree.

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