

## Site Investigation Report

Auger Ref:



### Job Information

Client	Crawford & Co - Allianz (Subsidence)
Client ref	
Visit date	14/02/2020
Report date	16/03/2020

### Job Summary

✓ 2 trial holes undertaken. [Read more.](#)



# Job Information

Overview	
Brief	Auger were commissioned by Crawford & Co - Allianz (Subsidence) to undertake a site investigation within the area of concern at the property.
Trial Hole Findings	We were unable to complete the trial hole to the front right hand side of the property due to there being a mote/retaining wall in the requested location meaning we could not excavate there.  Soil suctions were not completed for samples taken from TH2. The sample contained too much gravel and had no cohesion.

# Photographs

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



Trial Hole 2	
Fig 2.1: Trial Hole 2 Location	Fig 2.2: Trial Hole 2 Footing



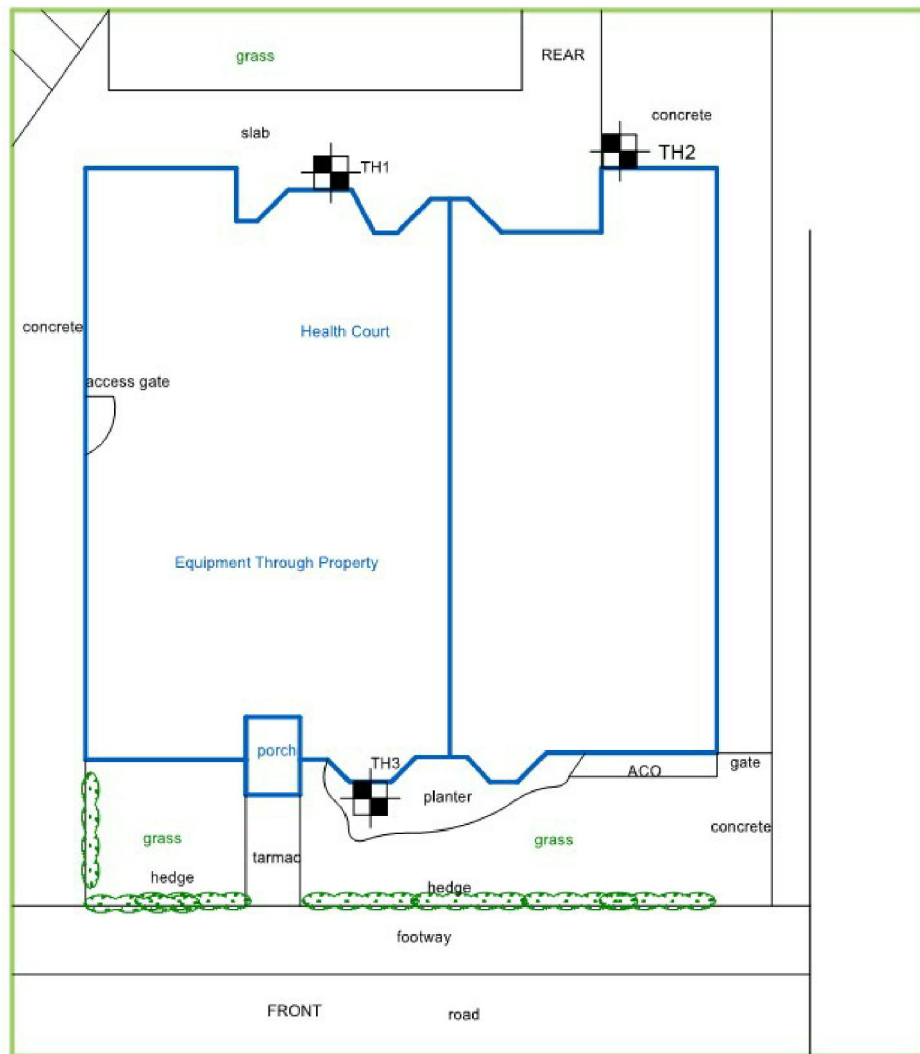
### Trial Hole 3

Fig 7.1: Trial Hole 3 Location

























Fig 7.2: Trial Hole 3 Footing





## FRONT OF PROPERTY

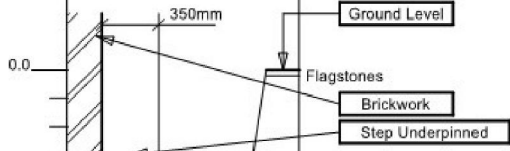
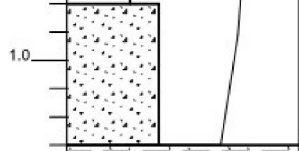
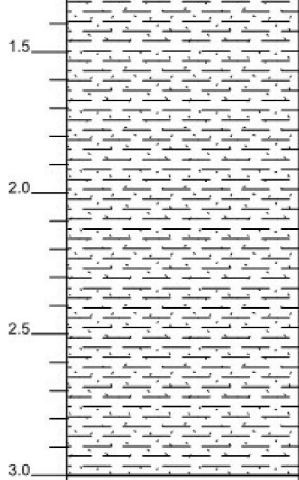

This drawing should be used for diagrammatic purposes only. Auger are not responsible or liable for any 3rd party works undertaken using the details outlined in this drawing. Confirmation of the drainage configuration can only be confirmed by excavation or detailed technical survey.

LEGEND			
	= Manhole		= Blockage
	= Inspection Chamber		= svpl/w/c
	= Inspection Pot		= wg/fwg
			= rwg
			= rwp
			= Lines not camera surveyed
			= Lines camera surveyed
			= Assumed water mains feed
			= Walls
			= Fences
			= Building Outline
			= Steps
			= gate / door
			= Trial hole
			= Borehole
			= Direction of flow
			= Shrubs/bush
			= Hedge
			= Tree



## Trial Hole Log No.1

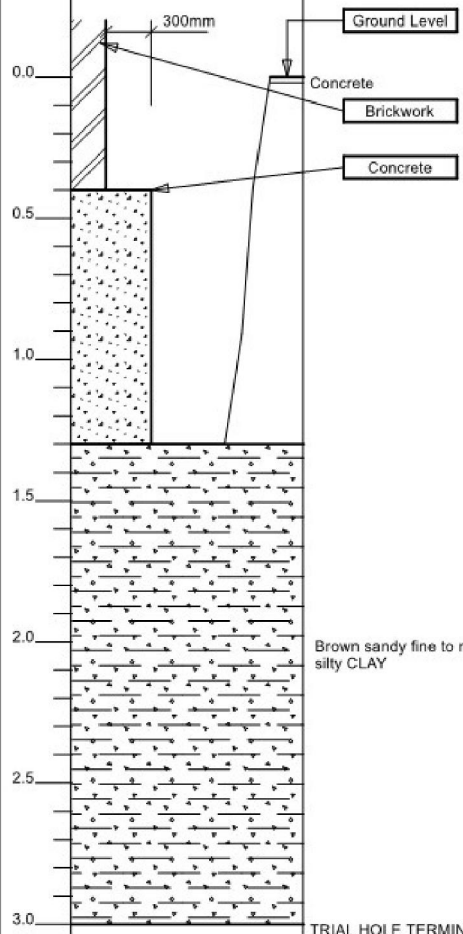
Location: Rear LH bay

Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level				
0.5		Flagstones				
1.0		Brickwork				
1.5		Step Underpinned				
2.0		Brown sandy fine to medium gravelly silty CLAY	80kpa		Soil @ 1.3m	Root @ 1.3m
2.5			84kpa		Soil @ 1.8m	Root @ 1.8m
3.0		TRIAL HOLE TERMINATED	88kpa		Soil @ 2.3m	Root @ 2.3m
			90kpa			
			96kpa			



## Trial Hole Log No.2

Location: Rh outrigger

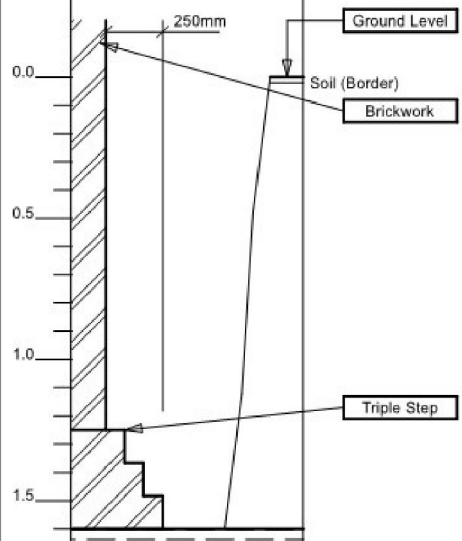
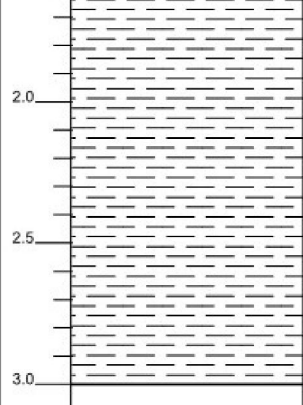
Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
				MP (300mm)		
0.0		Ground Level				
0.5		Concrete				
1.0		Brickwork				
1.5		Concrete				
2.0		Brown sandy fine to medium gravelly silty CLAY	22blows		Soil @ 1.3m	Root @ 1.3m
2.5			25blows		Soil @ 1.8m	
3.0		TRIAL HOLE TERMINATED	32blows		Soil @ 2.3m	
			36blows			
			36blows			





## Trial Hole Log No.3

Location: Front of bay at front of property

Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0						
0.5						
1.0						
1.5						
2.0			76kpa		Soil @ 1.6m	Root @ 1.65m
2.5		Moist very stiff brown CLAY	92kpa		Soil @ 2.1m	
3.0			98kpa		Soil @ 2.6m	
		TRIAL HOLE TERMINATED	94kpa			

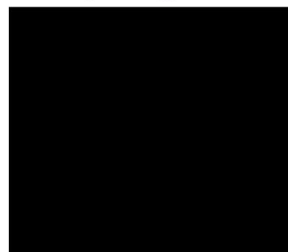


# Richardson's Botanical Identifications

Root identification  
Vegetation surveys  
Tree/Building Investigations  
Plant taxonomy

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

## Auger Solutions



09/03/2020

Dear Sirs

### Root ID

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

TH1, 1.3m		
1 no.	Examined root: either ACER (Maples, Sycamores) - or - CARPINUS (Hornbeam). Less than 0.1mm in diameter.	Dead*.
1 no.	Microscopic examination showed insufficient cells for recognition.	
TH1, 1.8m		
1 no.	Examined root: again, most like either ACER (Maples, Sycamores) - or - CARPINUS (Hornbeam). Also not more than 0.1mm in diameter.	Dead*.
2 no.	Both samples revealed too few cells for microscopic identification.	
TH1, 2.3m		
1 no.	Examined root: could be either ACER (Maples, Sycamores), CARPINUS (Hornbeam) - or - the family SALICACEAE (Salix (Willows) and Populus (Poplars)). As above, a very THIN sample - not more than 0.05mm in diameter.	Dead*.
TH2, 1.3m		
5 no.	Examined root: the family SALICACEAE (Salix (Willows) and Populus (Poplars)). Another THIN and immature root.	Dead*.
2 no.	Both pieces of BARK only - insufficient material for recognition.	

All of the roots described above were very immature - please note that the 'dead' results could well be unreliable.

Click here for more information: [ACER](#) [CARPINUS](#) [SALICACEAE](#)

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.

Identified with no information on vegetation, on or off site.

Report commissioned by







# Richardson's Botanical Identifications

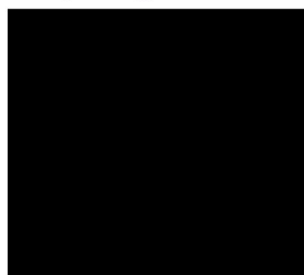
Root identification  
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Plant taxonomy

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

## Auger Solutions



29/01/2020



Dear Sirs

### Root ID

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

TH1, 1.65m		
1 no.	Examined root: BETULA (Birch).	Alive, recently*.
2 no.	Examined root: PRUNUS species (Cherries, Plums and Damsons, Almonds, Peaches and Apricots, Blackthorn/Sloe, as well as the shrubby Cherry-laurel and Portugal-laurel).	Alive, recently*.
1 no.	Examined root: too DECAYED for identification.	

Click here for more information: [BETULA](#) [PRUNUS](#)

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.

\*\* Try out our web site on [www.botanical.net](http://www.botanical.net) \*\*

Identified with no information on vegetation, on or off site.

Report commissioned by





## Geotechnical Testing Analysis Report



environmental  
claims mgmt  
subsidence  
drainage

### Summary Of Claim Details

Policy Holder	Unknown
Risk Address	Unknown
SI Date	23/02/2020
Issue Date	23/02/2020
Report Date	12/03/2020
Auger Reference	
Insurance Company	Allianz
LA Claim Reference	
LA Co. Reference	Crawford & Co

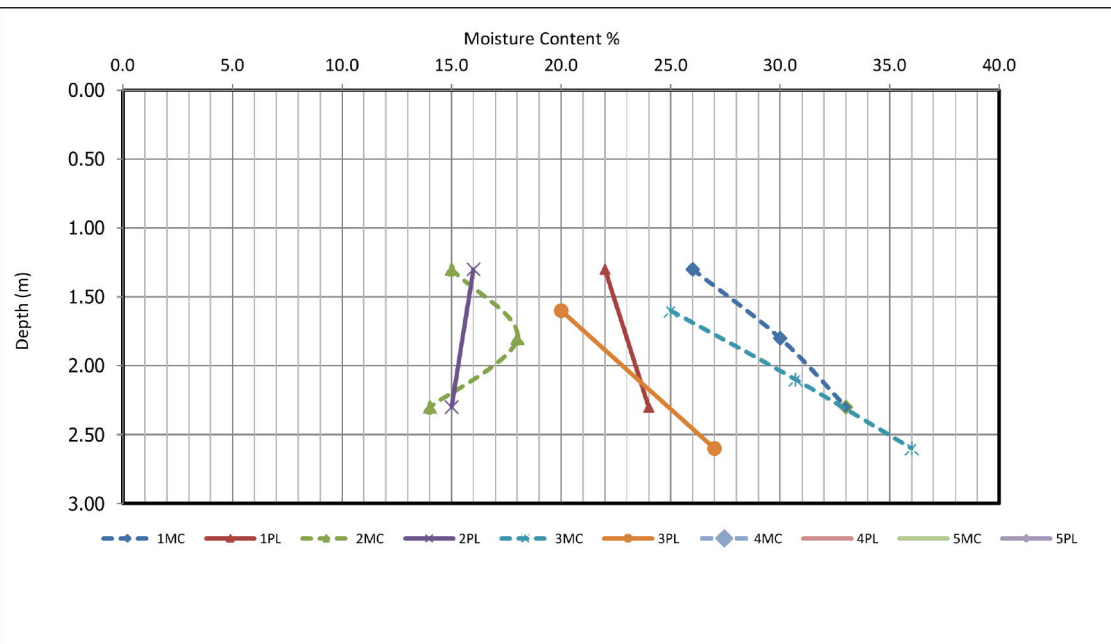
This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of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

	Checked	16/03/2020	Wayne Honey	
	Approved	16/03/2020	Paul Evans	

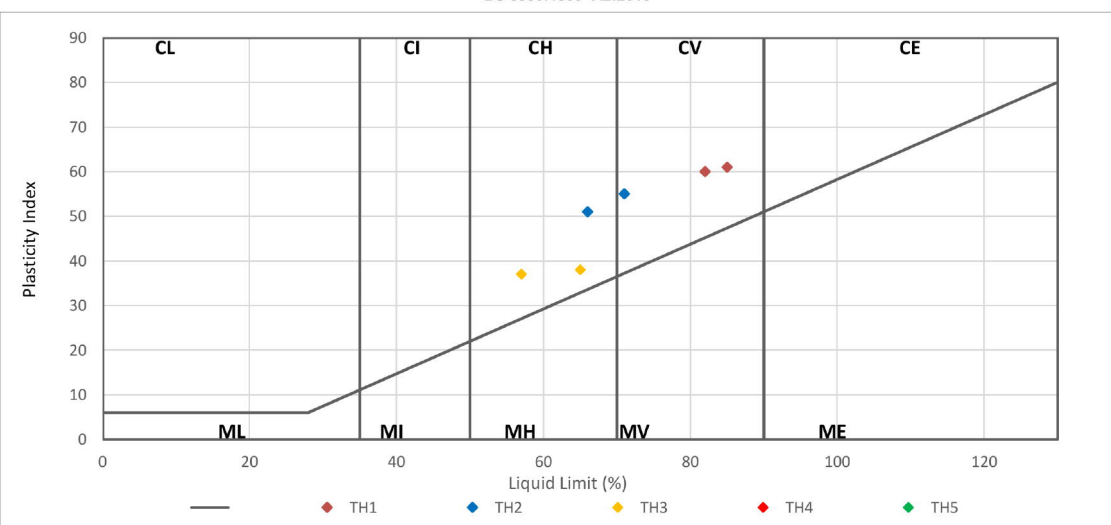








PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION  
BS 5930:1999+A2:2010



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	Checked	16/03/2020	Wayne Honey
Luke Williams	Approved	16/03/2020	Paul Evans





**SUMMARY OF SOIL CLASSIFICATION TESTS,**  
Information Paper IP 4/93 February 1993 (CI/SfB p1),  
Information Paper Digest 412 ci/sFb (A3s) February 1996

BRE  
BRE



environmental  
claims mgmt  
subsidence  
drainage

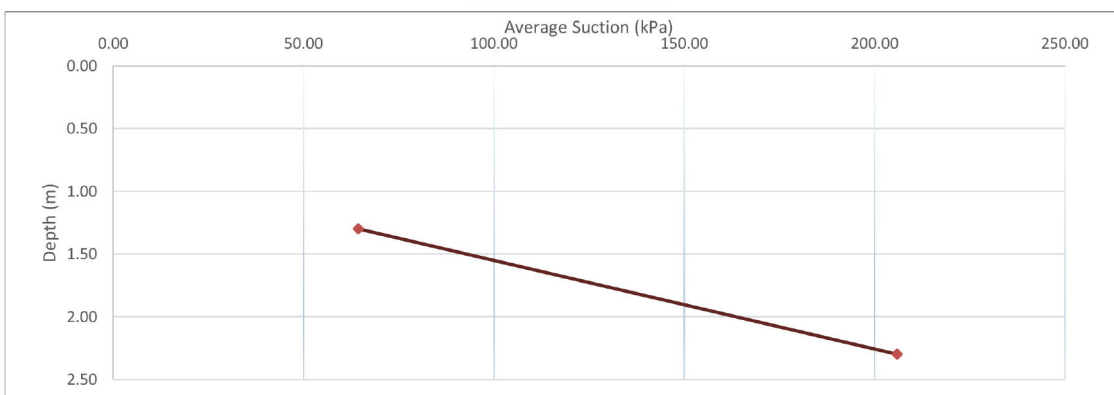
GSTL Contract Number		
Risk Address	Unknown	
Auger Reference		
Remarks	D - Disturbed (Recompacted 2.5kg Rammer), U - Undisturbed Sample	

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	1.30	Top	I	D	5	51.8	63	64	2
TH1		Middle	II	D	5	52.2	62		
TH1		Bottom	III	D	5	50.0	69		
TH1	1.80								
TH1									
TH1									
TH1	2.30	Top	I	D	5	40.6	205	206	6
TH1		Middle	II	D	5	41.8	174		
TH1		Bottom	III	D	5	39.6	239		

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	Checked	16/03/2020	Wayne Honey	
Luke Williams	Approved	16/03/2020	Paul Evans	





