

Site Investigation Report

Auger Ref:

129603.1.USI



Job Information

Client	NFU Mutual
Client ref	SU2104230
Visit date	18/11/2021
Report date	19/11/2021

Job Summary

- ✓ CCTV survey undertaken. [Read more.](#)
- ! Drainage repairs required. [Read more.](#)
- ✓ 2 trial holes undertaken. [Read more.](#)
- ! TH1 and TH2 depth not reached. [Read more.](#)
- ✓ Requested soil samples taken. [Read more.](#)
- ✓ Requested root samples taken. [Read more.](#)



Job Information

Overview

Brief	Auger were commissioned by NFU Mutual to undertake a site investigation and CCTV inspection of the underground drainage within the area of concern at the property. Auger were requested to attend the property to carry out 2 x trial holes collecting both root and soil samples at specified locations at the property.
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Findings

Trial Hole Findings	We were unable to reach the required depth on TH1 and TH2 because stiff ground was encountered at 1.6m in both TH1 and TH2, unable to hand auger.
Visual Inspection	We noted the RWDP was shared above ground with multiple other garages.
Drain Survey	Line 1 - From RWG1 downstream to Unknown Our CCTV survey revealed joint displacements at throughout the pipework. This is resulting in an escape of water. The above mentioned defects to the below ground drainage system have been caused by ground movement.

Recommendations

Refer Back to Client	It is recommended that the following repairs are carried out to prevent an escape of water from the system: On line 1: Excavate and replace RWDP and 5m of 100mm pipework including a new 2 cell soakaway at a depth no greater than 1m through grass. The soakaway will need to be installed at least 5m from the property in order to comply with current building regulations. These works will require a 6 yard skip to be present on the day of repairs. Please note: As we are unable to confirm how many garages / people derive benefit from the RWDP we would ask that this is confirmed by the loss adjuster prior to our return visit to carry out the recommended repair works. We will now refer the claim back to the client in order to progress.
Repair Caveats	<i>Once repairs have been undertaken the customer should ensure the drainage system is periodically inspected in the future for any deterioration and kept free flowing / free of blockages. Any damage noted during future inspections should be repaired immediately in accordance with current Building Regulations.</i> <i>With any repair process, complications and unforeseen circumstances can arise. These scenarios will be reported whilst on-site and could potentially cause an increase in repair costs and inconvenience.</i> <i>Where any excavation reinstatement of the surface is required, the reinstatement will always attempt to match the previous surface patterns and colouring, however we cannot guarantee an exact match.</i>

Photographs

Trial Hole 1

Fig 1.1: Trial Hole 1 Location

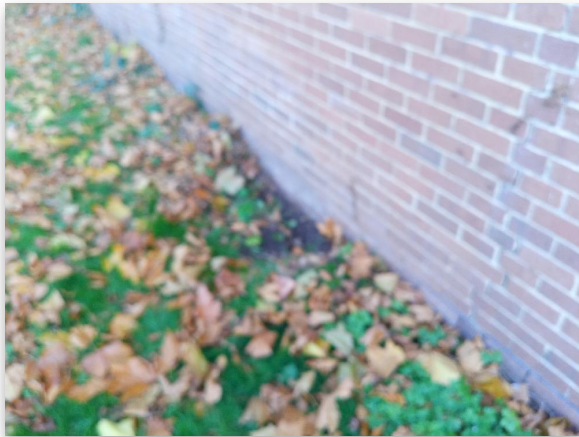


Fig 1.2: Trial Hole 1 Footing



Trial Hole 2

Fig 2.1: Trial Hole 2 Location



Fig 2.2: Trial Hole 2 Footing



CCTV Stills

Fig 3.1: Line 1.



Fig 3.2: Line 1.



Fig 3.3: Line 1.



Fig 3.4: Line 1.



Other Photos

Fig 4.1: Root Samples Collected.



Fig 4.2: Soil Samples Collected



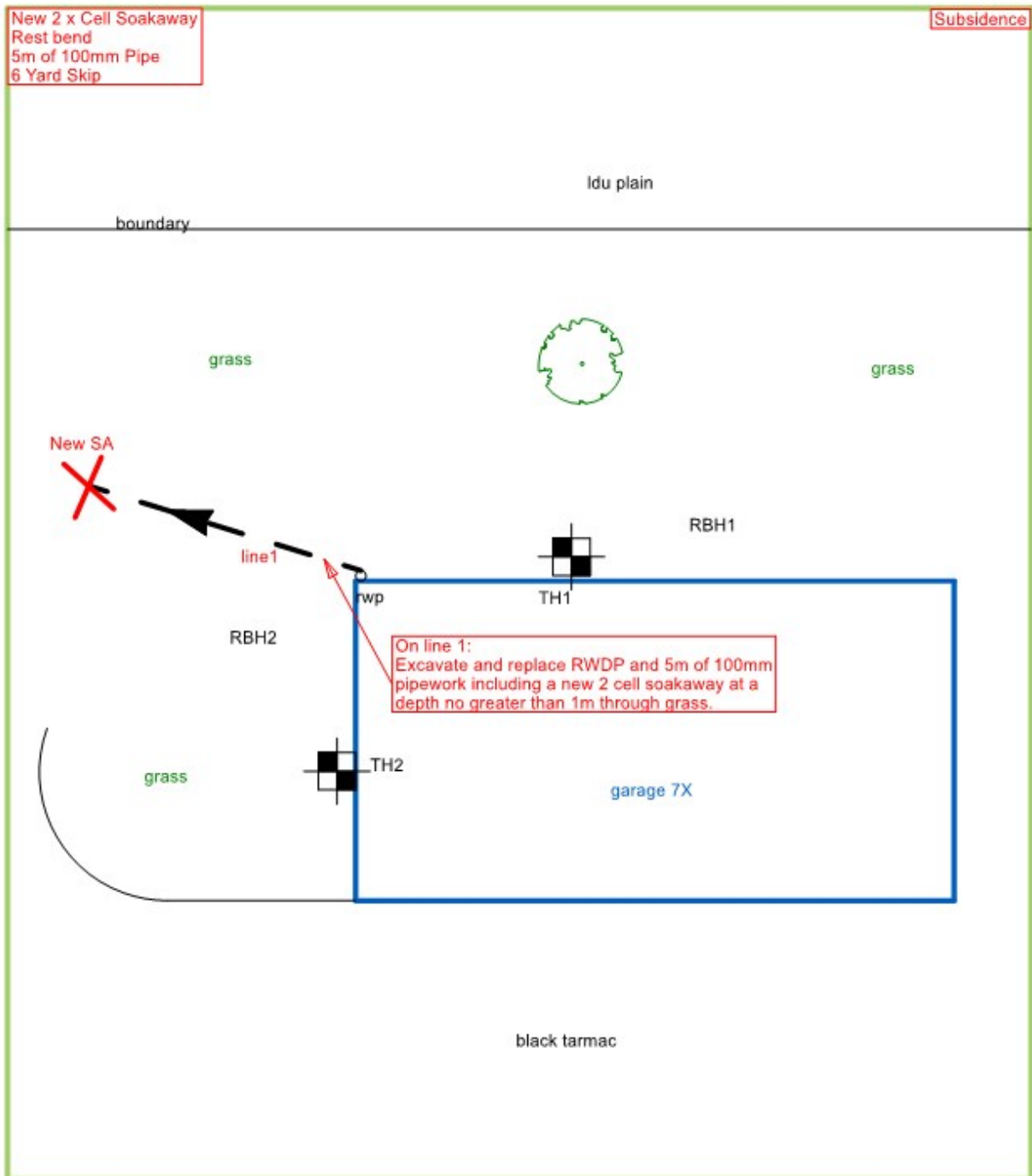
CCTV Survey – Inspection Listings (WRc Guidelines Applied)

Line 1			
Direction	Downstream	From	RWDP
Pipe Size (mm)		Depth (m)	0.0
Pipe Material	VC	To	Unknown

0.6m	Roots - Mass 5%
1.0m	Open Joint - Large
1.7m	Joint Displacement - Medium
2.3m	Joint Displacement - Medium
2.8m	Joint Displacement - Medium

New 2 x Cell Soakaway
Rest bend
5m of 100mm Pipe
6 Yard Skip

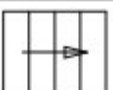
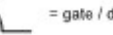
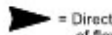
Subsidence



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

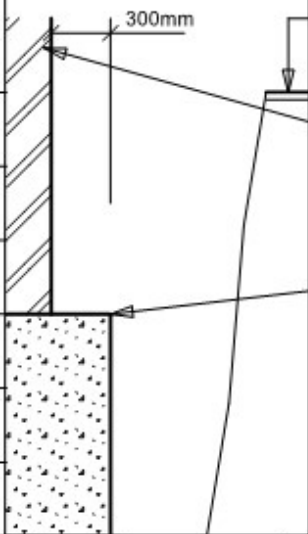
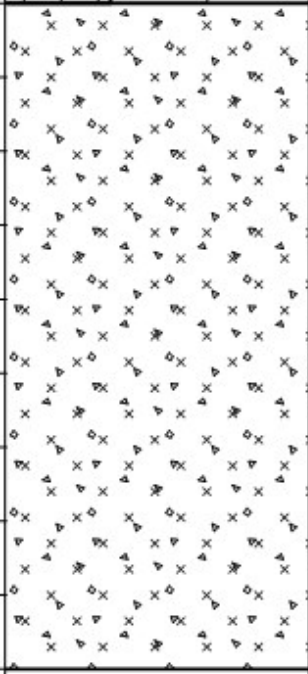
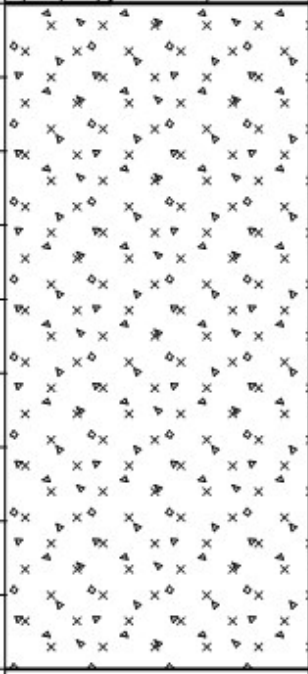
	= Manhole		= Blockage		= Lines not camera surveyed		= Steps		= Trial hole		= Shrubs/bush
	= Inspection Chamber		= svp/w/c		= Lines camera surveyed		= Assumed water mains feed		= Borehole		= Hedge
	= Inspection Pot		= wg/fwg		= Walls		= gate / door		= Direction of flow		= Tree
			= rwg		= Fences					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



Trial Hole Log No.1

Location: Rear wall of the garages

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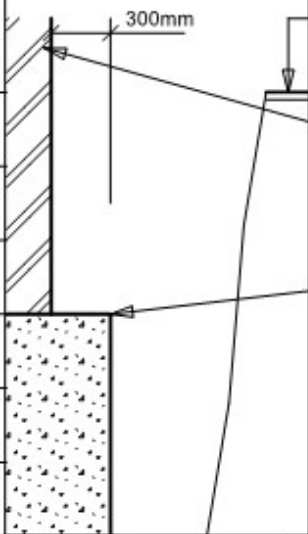
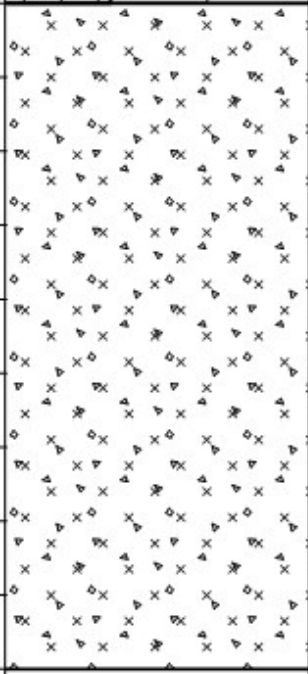
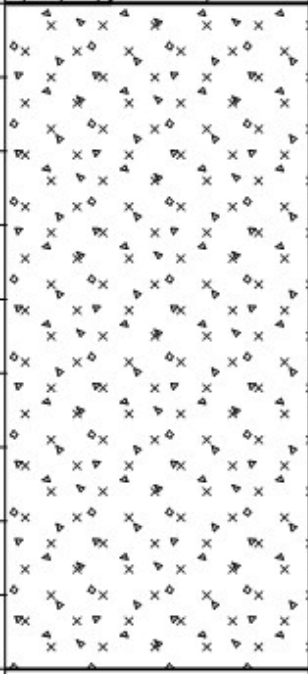
Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level Grass Brickwork Concrete				
0.5		Brown slightly clayey silty fine to medium gravelly SAND	64kpa		Soil @ 0.6m	Root @ 0.8m
1.0			66kpa		Soil @ 1.1m	
1.5		TRIAL HOLE TERMINATED				



Trial Hole Log No.2

Location: Left side wall of the garage

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Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level Grass Brickwork Concrete				
0.5		Brown slightly clayey silty fine to medium gravelly SAND	60kpa		Soil @ 0.6m	Root @ 0.8m
1.0			64kpa		Soil @ 1.1m	
1.5		TRIAL HOLE TERMINATED				



Root identification
Vegetation surveys
Tree/Building investigations
Plant taxonomy

Richardson's Botanical Identifications

Auger Solutions

Auger House

Cross Lane

WALLASEY

Wirral CH45 8RH

03/12/2021

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

Enterprise House
49-51 Whiteknights Road
Reading
RG6 7BB

Tel: (0118) 986 9552 *(Direct line)*

E-mail: richardsons@botanical.net

Web: www.botanical.net

Your ref: **129603-1-1**

Our ref: **83/1907**

Dear Sirs

Root ID

The samples you sent in relation to the above on 18/11/2021 have been examined. Their structures were referable as follows:

TH1, 0.8m		
2 no.	Examined root: PLATANUS (Plane).	Alive, recently* .
TH2, 0.8m		
3 no.	Examined root: PLATANUS (Plane).	Alive, recently* .

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

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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Geotechnical Testing Analysis Report



environmental +
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subsidence +
drainage +

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	Unknown
Risk Address	Unknown
SI Date	18/11/2021
Issue Date	18/11/2021
Report Date	27/11/2021
Auger Reference	129603.1.2.RSS
Insurance Company	NFU Mutual
LA Claim Reference	SU2104230
LA Co. Reference	Crawford & Co

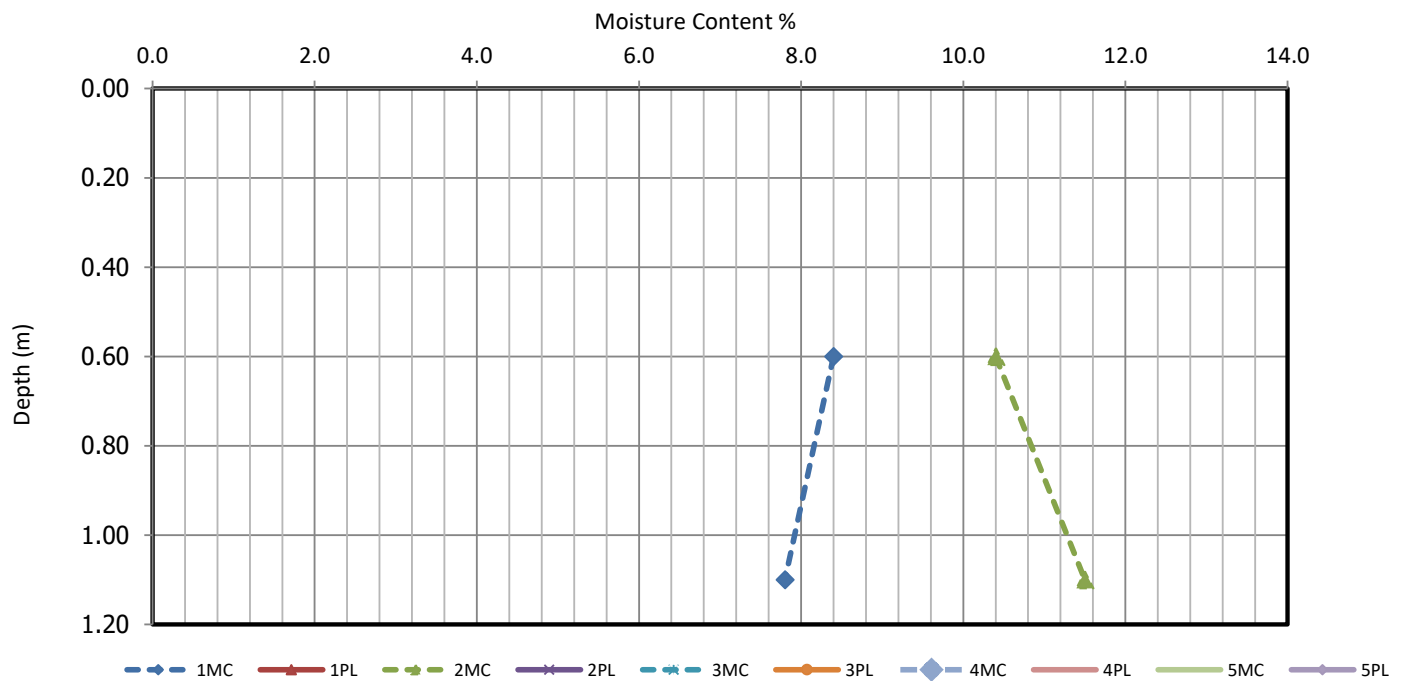
This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of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

	Checked	27/11/2021	Wayne Honey	<i>W. Honey</i>
	Approved	27/11/2021	Paul Evans	<i>P. Evans</i>

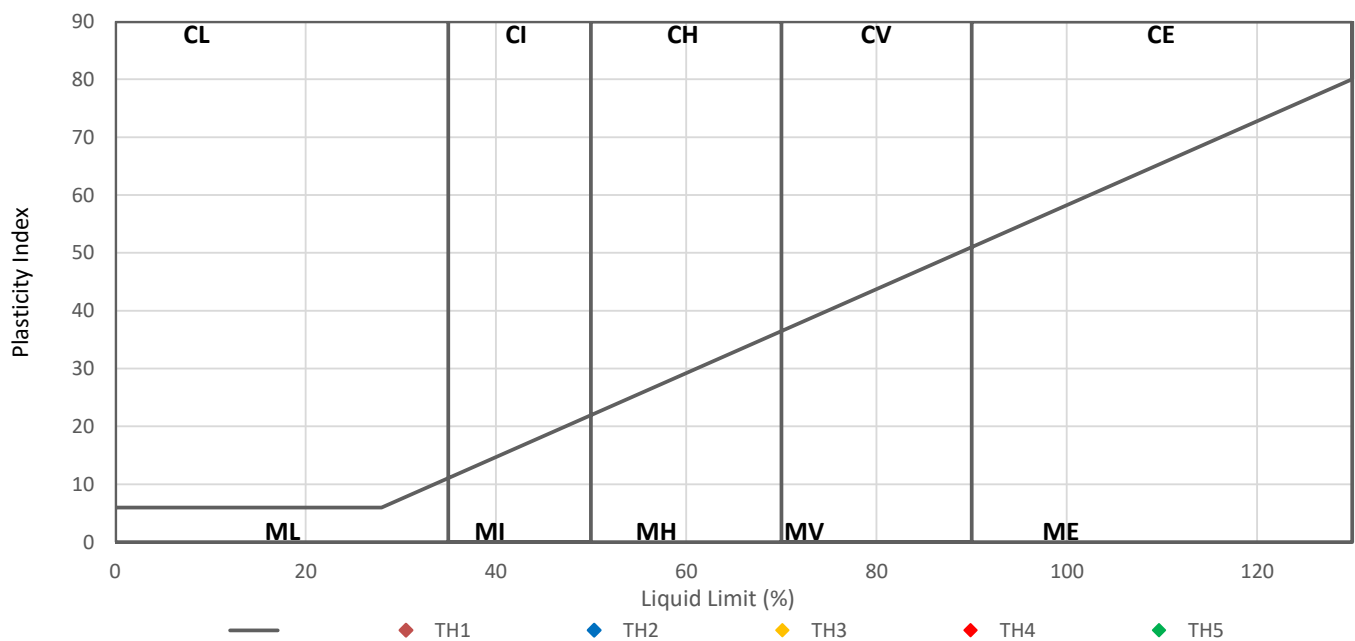








PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



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	27/11/2021	Wayne Honey	W. Honey
Luke Williams	Approved	27/11/2021	Paul Evans	P. Evans

