



Site Investigation Report

Auger Ref:



Job Information	
Client	Crawford & Co
Client ref	[Redacted]
Visit date	02/01/2020
Report date	06/01/2020

Job Summary	
✓	CCTV survey undertaken. Read more.
!	Drainage repairs required. Read more.
✓	3 trial holes undertaken. Read more.
⚠	Requested root samples not taken. Read more.
✓	Requested soil samples taken. Read more.



Job Information

Overview

Brief

Auger were commissioned by Crawford & Co to undertake a site investigation and CCTV inspection of the underground drainage within the area of concern at the property.

Findings

Trial Hole Findings

We were unable to collect root samples from TH3 because no roots were located within the trial hole.

Drain Survey

Line 1 - From MH1 downstream to Off boundary

Our CCTV survey revealed cracking and root ingress for the first 2m of pipework.

Line 2 - From MH1 upstream to SVP

Our CCTV survey revealed cracking directly u/s of mh1.

Line 3 - From MH1 upstream to WP

There were no defects noted within the line which could be allowing an escape of water. The line was seen to be free flowing and serviceable.

Line 4 - From MH1 upstream to Gully

There were no defects noted within the line which could be allowing an escape of water. The line was seen to be free flowing and serviceable.

It should also be noted that there was a manhole located beneath the front set of stairs. This was over 2m deep and was a very tight manhole, due to this we could not survey any drainage lines entering it. If the LA wishes for this to be surveyed then 2 men will be required to attend site with confined space entry equipment which will come at a considerable cost. We believe that the drainage at the customers property is all accounted for and runs to the rear manhole.

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 2, excavate and replace SVP and 1m of 100 mm pipework at a depth no greater than 1m through concrete.

On line 1, install 2m of 100 mm liner directly downstream of MH1.

We will now refer the claim back to the client in order to progress.

Repair Caveats

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.

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.

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.

If any of the above lining recommendations fail then excavation and replacement of the pipework would be required. This would severely increase the cost of repairs and would provide greater inconvenience to the residents.

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

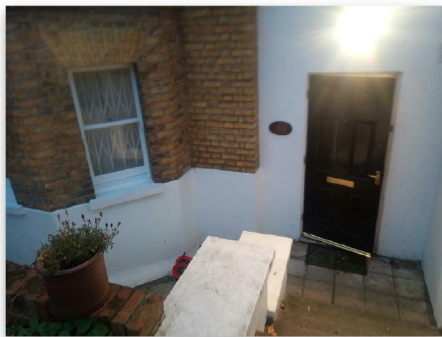


Fig 2.2: Trial Hole 2 Footing



Trial Hole 3

Fig 3.1: Trial Hole 3 Location

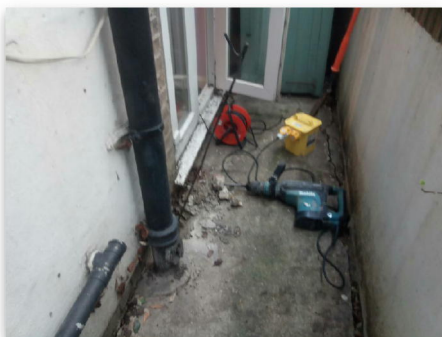


Fig 3.2: Trial Hole 3 Footing



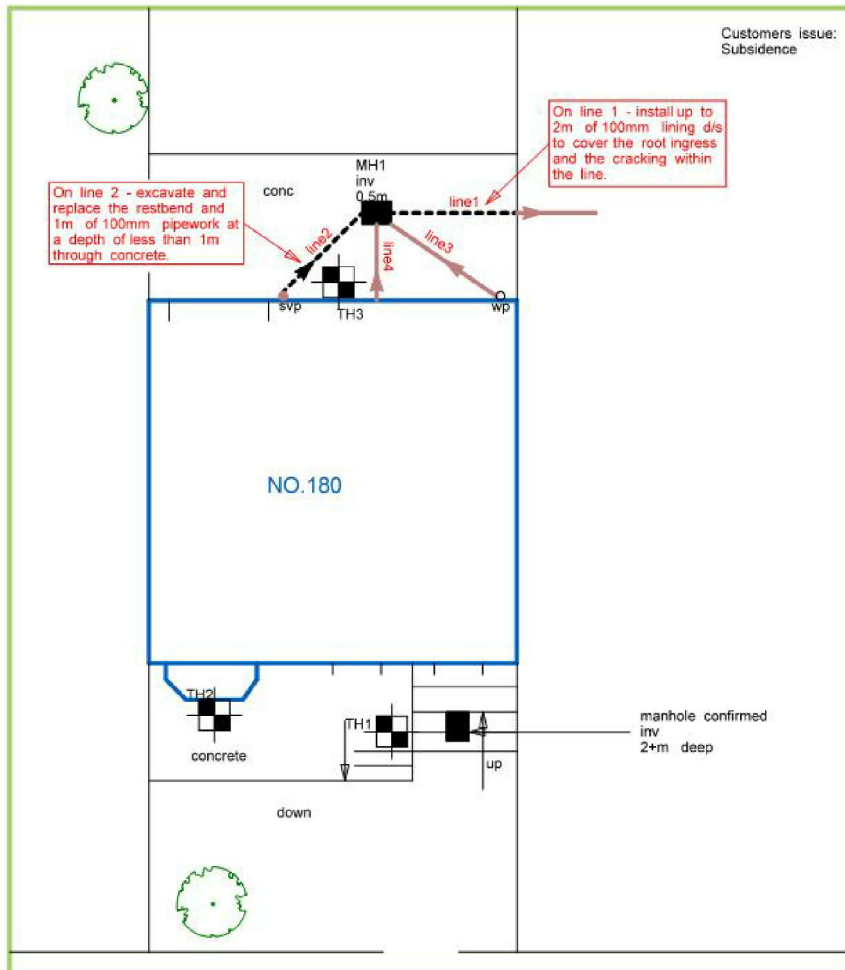
Other Photos

Fig 7.1: Steps which MH is located beneath



Fig 7.2: Deep MH





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



Trial Hole Log No.1

Location: Front rhs

Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0	<p>Ground Level</p> <p>Concrete</p> <p>Brickwork</p> <p>Brick Footing (No Proj)</p>					
0.5				54kpa	Soil @ 0.6m	
1.0				63kpa	Soil @ 1.1m	Root @ 1.1m
1.5				79kpa	Soil @ 1.6m	Root @ 1.6m
2.0				81kpa	Soil @ 2.1m	
2.5			90kpa	Soil @ 2.6m		
3.0		TRIAL HOLE TERMINATED	94kpa			

Dry stiff Brown sandy fine to medium gravelly silty CLAY



Trial Hole Log No.2

Location: Front of bay

Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level Concrete Brickwork Double Step				
0.6			41kpa		Soil @ 0.6m	
1.1			56kpa		Soil @ 1.1m	Root @ 1.1m
1.6			60kpa		Soil @ 1.6m	
2.1			61kpa		Soil @ 2.1m	
2.6			64kpa		Soil @ 2.6m	
3.0		TRIAL HOLE TERMINATED	71kpa			

Dry stiff Brown sandy fine to medium gravelly silty CLAY



Trial Hole Log No.3

Location: Rear centre

Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0	<p>100mm</p> <p>Ground Level</p> <p>Concrete</p> <p>Brickwork</p> <p>Double Step</p>					
1.0			31kpa		Soil @ 1m	
1.5			49kpa		Soil @ 1.5m	
2.0		Dry firm Brown sandy fine medium gravelly silty CLAY	61kpa		Soil @ 2m	
2.5			69kpa		Soil @ 2.5m	
3.0		TRIAL HOLE TERMINATED	70kpa			