

INSURANCE CLAIM: ENGINEERING APPRAISAL REPORT

Name of Insured:



Address of Insured:

30 Brushwood Road, HORSHAM, West Sussex, RH12 4PE

Situation of Damage:

30 Brushwood Road, HORSHAM, West Sussex, RH12 4PE



This report is prepared on behalf of [REDACTED] for the purpose of investigating an insurance claim. It is not intended to cover any other aspect of structural inadequacy or building defect that may otherwise have been in existence at the time of inspection.

Date: 31/03/2026

Our Ref: 10060204

INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Richard Wainwright, in accordance with our project managed service.

The claim is primarily concerned with damage to the front of the property. All references to the property are as observed facing the front of the building.

DESCRIPTION OF BUILDING AND SITE

The subject property is a Detached house constructed in 1920, in a residential estate on a plot that is level.

DISCOVERY AND NOTIFICATION

Circumstances of Discovery The policyholder and home owner, [REDACTED], first discovered the damage in October 2023.

The policyholder noticed cracks throughout the property.

Subsequent action Upon becoming concerned with the extent of the cracking the policyholder then notified insurers.

Claim notification Insurers were notified on 01/12/2023.

REPORTS BY OTHERS

None

NATURE AND EXTENT OF DAMAGE

Description and Mechanism The main area of damage is to the front of the property and takes the form of tapering vertical and slightly diagonal external and internal cracks and distortions around window frames. This pattern of damage indicates a mechanism of downwards movement to the front section of the property.

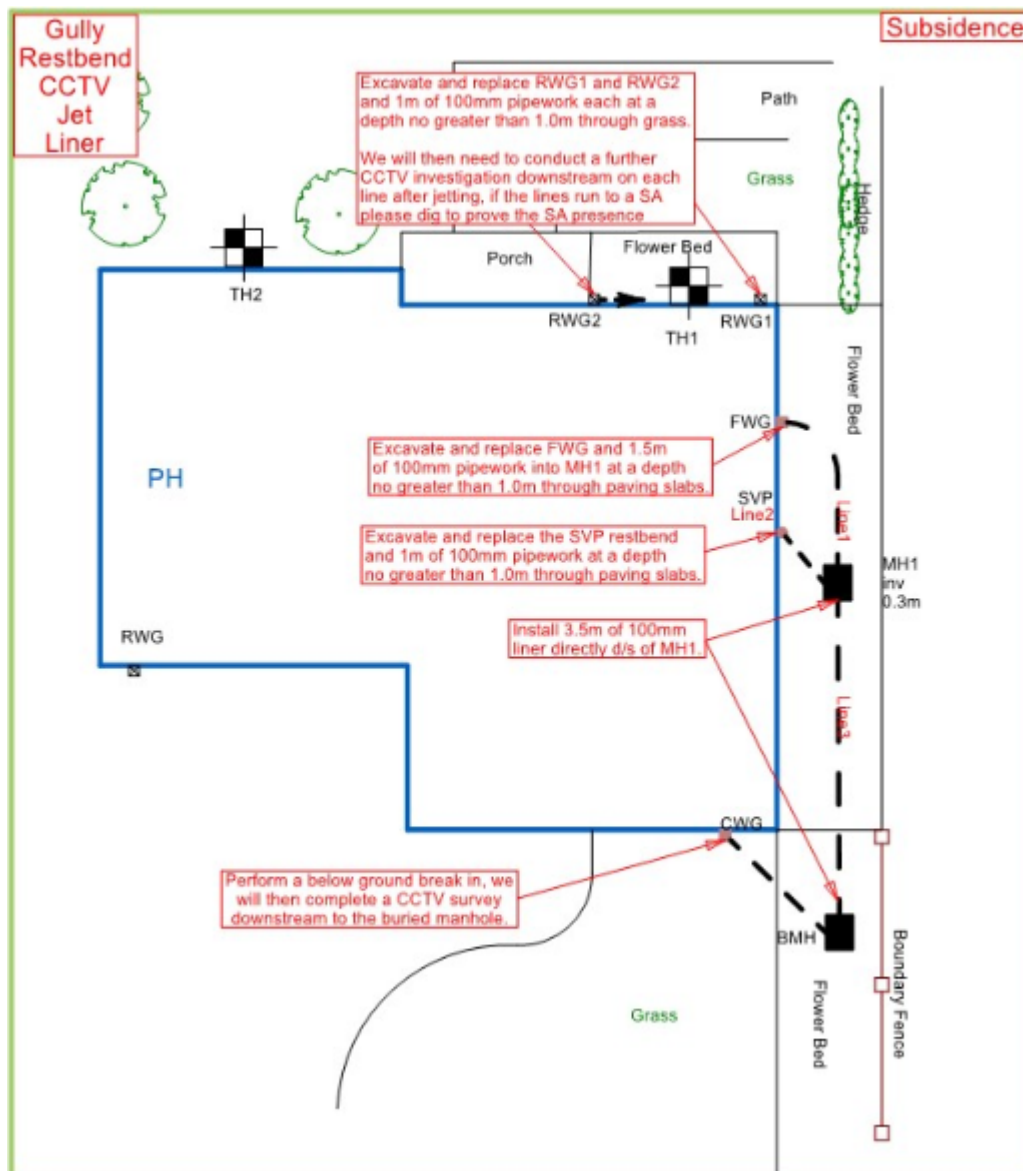
Significance The level of damage is slight, and is classified as category 2 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings.

Onset and Progression We consider that the damage has occurred recently. It is likely that movement will be of a cyclical nature with cracks opening in the summer and closing in the winter.

SITE INVESTIGATION

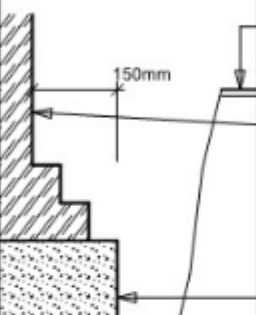
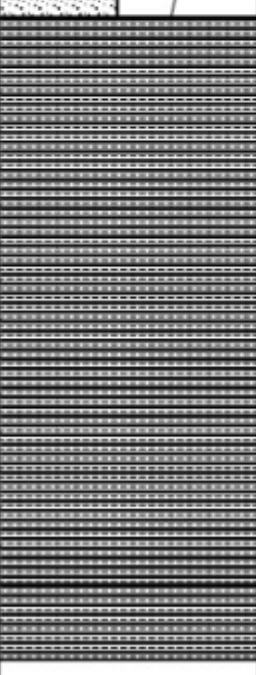
A site investigation has been arranged to confirm the cause of subsidence and this was undertaken by Auger Ltd on 18 January 2024.

Two trial pits/boreholes were excavated to the front elevation of the property, and a CCTV of the drainage was undertaken.

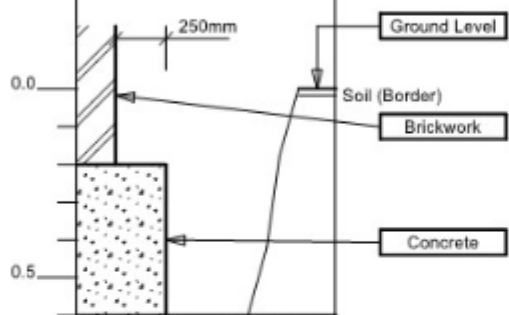


Sketch showing location of trial pits/boreholes and location of drain runs

Trial pit/borehole 1 was excavated to the front left corner of the property and this revealed a concrete strip footing at a depth of 700mm below external ground level bearing on to moist very stiff brown fine to medium gravelly silty clay. The borehole was terminated at a depth of 2.4metres. Roots were noted beneath the foundation, extending to a depth of 1.2metres.

		Trial Hole Log No.1		Job Ref: 163384.1.USI		
		Location: Front left				
Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
0.0		Ground Level Soil (Border) Brickwork Concrete Moist very stiff Brown fine to medium gravelly silty CLAY	110kpa		Soil @ 0.7m	Root @ 0.7m
1.0			120kpa		Soil @ 1.2m	Root @ 1.2m
1.5			120kpa		Soil @ 1.7m	
2.0		Moist very stiff Grey/brown fine to medium gravelly silty CLAY	120kpa		Soil @ 2.2m	
2.5		TRIAL HOLE TERMINATED	120kpa			

Trial pit/borehole 2 was excavated to the front right of the property and this revealed a concrete strip footing at a depth of 600mm below external ground level bearing on to moist very stiff brown fine to medium gravelly silty clay. The borehole was terminated at a depth of 2.3metres. Roots were noted beneath the foundation, extending to a depth of 1.1metres.

		Trial Hole Log No.2		Job Ref: 163384.1.USI		
		Location: Front right				
Depth (m)	Symbolic Log	Strata Description	Insitu Tests		Soil Sample	Root Sample
			SV(19)			
						
0.0		Ground Level				
		Soil (Border)				
		Brickwork				
		Concrete				
0.5			104kpa		Soil @ 0.6m	Root @ 0.6m
1.0			120kpa		Soil @ 1.1m	Root @ 1.1m
1.5		Moist very stiff Brown fine to medium gravelly silty CLAY	120kpa		Soil @ 1.6m	
2.0			120kpa		Soil @ 2.1m	
		TRIAL HOLE TERMINATED				
2.5						

Soil and root samples were retrieved from the trial pits/boreholes for laboratory testing and examination.

The soil testing indicated a clay with medium to high plasticity and a medium volume change potential. The moisture content tests indicated a degree of desiccation around the rooting depth.

The examination of the roots found the following:

TH1, 0.7m		
1 no.	Examined root: QUERCUS (Oak).	Dead*.
2 no.	Examined root: PRUNUS (Cherries, Plums and Damsons, Almonds, Peaches and Apricots, Blackthorn/Sloe, as well as the shrubby Cherry-laurel and Portugal-Laurel).	Alive, recently*.
TH1, 1.2m		
1 no.	Examined sample: a section of BARK only - not a complete root. POOR in condition.	Very decayed*.
TH2, 0.6m		
2 no.	Examined root: QUERCUS (Oak).	Alive, recently*.
TH2, 1.1m		
3 no.	Examined root: QUERCUS (Oak).	Alive, recently*.
1 no.	Examined root: another POOR sample - one with NO BARK. Similar in some ways to the family Rosaceae, subfamily ROSOIDEAE (shrubs including Roses, Brambles, Raspberries, Kerria and Potentilla).	Alive, recently*.

Oak roots were found in both boreholes and prunus roots in trial pit/borehole 1.

The CCTV survey of the drains running on the left side of the property found displaced joints, cracking and root infestation. Drainage repairs were completed in or around November 2024.

CAUSE OF DAMAGE

Based on the information detailed above, we are of the opinion that damage has occurred due to clay shrinkage subsidence. This has been caused by variations in the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

MITIGATION

We consider the damage will not progress if appropriate measures are taken to remove the cause. In this instance it is likely that vegetation for which the policyholder is responsible is contributing toward the cause of damage. An arboricultural assessment was carried out by Property Risk Inspections. The PH H1 Laurel (Cherry), T1 Cypress and T2 Oak were implicated in the damage. The H1 and T1 trees were removed in or around June 2024. The T2 Oak is subject to a Tree Preservation Order and an application is required.

MONITORING

Level and crack monitoring was set up in April 2024. Monitoring has demonstrated ongoing and cyclical movement, which has continued following removal of the H1 and T1 trees in June 2024 and drainage repairs in November 2024. This clearly implicates the remaining Oak tree as the cause of the ongoing damage.

REPAIR RECOMMENDATIONS

At present the reserve for repairs is £23,047.99 + vat for superstructural repairs, if the T2 Oak is removed. If the tree remains, given the degree of movement observed over recent summers, it is likely that an underpinning scheme will be required, the cost of which is estimated to be in the region of £100,000 + vat. Alternative engineering solutions were considered but are not appropriate:

- A **root barrier** would be unreliable because roots already extend beneath the building, would require major deep excavation very close to the foundations, and carries a high risk of future differential heave.

- **Underpinning** would need to be extensive due to the wide distribution of movement and is estimated at **~£100,000 + VAT**, compared to typical superstructural repairs of **~£23,000 + VAT** if the tree were removed.

PROJECT TEAM DETAILS

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