



Claim and
Risk Solutions

SUBSIDENCE ENGINEER'S REPORT

Client Name: Hastings Insurance Services Limited
Reference: S2518361
Name of Insured: [REDACTED]
Policy Number: 0045758_HPA
Risk Address: 3 Coronation Road, Waterlooville, Hampshire, PO7 7FA, United Kingdom

Front Elevation of Risk Address



Threefield House, Threefield Lane, Southampton, SO14 3LP

GHG Solutions Limited, Registered in England, Company Registration No: 3007129

GHG Solutions Limited is authorised and regulated by the Financial Conduct Authority, firm reference number 913965

Registered office: Threefield House, Threefield Lane, Southampton, SO14 3LP

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Introduction

We have been asked by Interested Underwriters per Hastings Insurance Services Limited to inspect the subject property, 3 Coronation Road, Waterlooville, Hampshire, PO7 7FA, United Kingdom which is the property of [REDACTED] and comment upon potential Subsidence damage to the property.

Our site visit took place on 17/10/2025 and the following weather conditions were noted:

- Partly Cloudy
- Dry

This Report has been prepared on the instruction of Interested Underwriters per Hastings Insurance Services Limited for their sole use in connection with a notification of a Claim under their Insurance Policy. Our comments are based on limited observations of the nature and suspected cause of the damage notified but we have not widened our brief to consider other structural matters.

Our Report does not consider questions of timber or damp, service installations or the general condition of the property. We have not inspected woodwork or other parts of the structure, which are covered, unexposed or inaccessible. We are therefore unable to report that any such part of the property is free from defect.

Comments on the causation of damage are based only on the limited investigations, which have been carried out at this stage and would be subject to review in the light of further information being made available at a later date.

This Report should not be used in the same way as a Pre-Purchase Report. It is limited to the damage, which forms the subject of a Claim made by the Policyholder against Interested Underwriters per Hastings Insurance Services Limited

The Property

Please note that all left-hand and right-hand directions within this Report are as though you are facing the front elevation of the property from the road.

A photograph of the front elevation of the property is shown on the cover of this Report.

The risk address at 3 Coronation Road, Waterlooville, Hampshire, PO7 7FA, United Kingdom comprises a detached, 3-bedroom, 2 storey property constructed circa 2001, of cavity walls standing under a tiled roof.

The property is served by mains electricity and central heating, and at the time of our visit, we formed the opinion that the property was maintained and furnished to an adequately maintained standard.

The risk address is not grade listed and a domestic property.

The Site

The property stands in a mature residential area on the outskirts of Waterlooville and amongst properties of a similar style and vintage.

The immediate area comes under the control of Havant Borough Council

We are not aware of any unusual features of the immediate site.

Vegetation

The vegetation which is considered most likely to be involved in this matter is shown in the table below and attached Arborist report.

Tree No.	Species	Height (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
TG1	Poplar (Lombardy) x 3	16 *	600	7	11	Older than extension(s)	Policy Holder
Management history		No recent management noted.					
Recommendation		Remove (fell) to near ground level. Owner to physically remove any regrowth (no chemical treatment due to translocation risk).					
TG2	Poplar (Lombardy) x 2	18 *	700 *	8 *	13 *	Older than extension(s)	Third Party 5 Coronation Road PO7 7FA
Management history		No recent management noted.					
Recommendation		Reduce height by 8m. Remove regrowth on a biennial cycle to maintain at broadly reduced dimensions (subject to review if movement persists).					
SG1	Mixed species shrubs including ornamental shrubs and Laurel	2	Ms	3	1.25	Younger than Property	Third Party 5 Coronation Road PO7 7FA
Management history		No recent management noted.					
Recommendation		Remove (fell) to near ground level all stems within 3m of the property. Owner to physically remove any regrowth (no chemical treatment due to translocation risk). Reduce the Laurel and any remaining shrubs to a maximum height of 2m. Maintain all remaining shrubs at their reduced dimensions by periodic pruning.					

Ms: multi-stemmed * Estimated value

Geology

From our investigations on site, we have confirmed that the subsoil in the area is a silty clay with partings of orange silt and fine sand.

Soils with a clay content will generally have a propensity to shrink and swell with changes in moisture content. That is to say that as the clay is dried its volume will reduce and this can allow downward movement, or subsidence, of the foundations of properties.

The amount of shrinkage and swelling which takes place can vary quite dramatically between different types of soil and on this occasion, is considered to be high.

History

The property was constructed in approximately 2001, and it has been owned by [REDACTED] since approximately 2022.

Damage was first noted by the Policyholder in August 2025.

During our initial inspection, we were unable to inspect the pre-purchase report, however, have requested a copy of the same.

During our inspection we noted no concerns regarding non-disclosure.

The Insured advises that they noticed a hairline crack to the ceiling of the extension some time ago, around the roof light. Thinking this normal, they did not grow too concerned about it.

In August 2025 they noticed this crack suddenly begin extending across the ceiling and lead to them investigating the extension in more detail. They then noticed that the expansion joint between the extension and main building, appears to have opened significantly.

Growing concerned that the extension was moving, a claim was made to Insurers, who appointed GHG Solutions to investigate the matter under the guise of a potential subsidence claim.

Damage

Description of Damage

The focal point of the movement is the rear extension only.

We would suggest that the extent of damage falls with Category 3 according to BRE Digest 251 Assessment of Damage to Low Rise Buildings (August 1990).

<u>Category</u>	<u>Definition</u>	<u>Crack Width</u>
0	Negligible	Less than 0.1mm
1	Very slight	Up to 1mm
2	Slight	Up to 5mm
3	Moderate	5mm to 15mm
4	Severe	15mm to 25mm
5	Very Severe	Greater than 25mm

Externally



This image attempts to show cracking through the soldier course above the rear door, at the right side of the extension.



This image attempts to show the tapered gap that has formed at the movement joint, between the extension and the main building.



This image attempts to show the movement at the left side of the extension and the main building, noting the gap between the mastic and the fascia board.

Internally



This image attempts to show cracking to the ceiling, at the right side of the extension.



This image attempts to show a continuation of the above cracking, the other side of the window / roof light.

Investigations

A single of trial pit and borehole was excavated at the property. This revealed the depth of foundations and the type and condition of sub soil beneath them.

A CCTV Survey of the drains was undertaken where accessible in order to determine their condition and establish if there are any leaks sufficient to influence the foundations.

Drains

The drainage survey completed as part of our investigations confirmed that there were no significant defects noted to the drainage system in the area of subsidence movement.

Trial & Boreholes

Trial pit 1 was excavated at the rear right corner of the property and revealed that the foundations in this location were concrete with an overall founding depth of approximately 1400mm below ground level. The soil immediately beneath the foundations was seen to be a stiff, brown/grey veined, silty clay with partings of orange silt and fine sand, which was dry at the time of our inspection.

Borehole 1 was sunk through the base of trial pit 1 and to an overall depth of 3400mm below ground level.

The soil located in the borehole was a stiff, brown/grey veined, silty clay with partings of orange silt and fine sand, which appeared to be dry at the time of our inspection.

The borehole was stopped at 3400mm below ground level due to the ground being too dense to auger.

Soil Testing

In-situ soil testing undertaken on this occasion comprised of shear vanes to determine the stiffness of the soil and give an indication of its bearing strength.

The shear vane in-situ testing revealed that the soil beneath the foundations was stiff.

The laboratory soil testing confirmed that the soils were shrinkable clay with a high shrink swell potential.

Moisture content tests were undertaken at 0.5m intervals across the borehole depth. Using criteria put forward by Driscoll1 it is suggested that clay soils are desiccated if the moisture content is less than 40% of the liquid limit.

In this case the lowest moisture content is seen to be 26% in the sample taken from Borehole number 01 at a depth of 2000mm below ground level.

This is clearly not less than 40% of the liquid limit (64 x40%) being 25.6% which suggests that the soil in this area is not desiccated, however, it is on the borderline of desiccation. It should be noted that the investigations were carried out in January 2026, when the soils would have had the opportunity to rehydrate.

Root Analysis

A sample of the roots found below ground level in trial pit 1 were submitted to a specialist laboratory in order to determine what species of vegetation they emanate from.

The results of the laboratory root identification are detailed below:

Sub Sample	Species Identified	Root Diameter		Starch
TP1:				
USF	probably <i>Rosa</i> spp.	1	<1 mm	Abundant
USF	probably <i>Populus</i> spp. but possibly <i>Salix</i> spp.	1	<1 mm	Abundant
USF	not a tree or shrub root	2	1.5 mm	Absent

Comments:

1 - Rather juvenile root.

2 - In a state of decay.

Rosa spp. are roses.

Populus spp. are poplars and aspen; *Salix* spp. are willows.

Ground Water

None observed.

Conclusions

The site investigation results have confirmed the presence of shrinkable clay soils, and the presence of numerous roots beneath the foundations of your property. This confirms our initial diagnosis that the subsidence damage is related to root induced clay shrinkage.

This is a commonly encountered problem and probably accounts for around 70% of subsidence claims notified to insurers. Fortunately, the cause of the problem (dehydration) is reversible. Clay soils will rehydrate in the winter months, causing the clays to swell in the cracks to close. Provided the cause of movement is dealt with (in this case, vegetation) there should not be a re-occurrence of movement.

Recommendations

The cause of the movement (in this case the nearby vegetation) needs to be dealt with first. There is a significant amount of vegetation within potential influencing distance of the area of subsidence damage, and we therefore obtained an Arborists report to confirm extent of mitigation required to return stability to the property. We will now appoint an Arborist to report on the extent of vegetation management works required to return stability to the property.

It has been recommended for TG1 (Poplar) and SG1 (Mixed Species) to be removed along with TG2 (Poplar) requiring reduction by 8m. The site investigations show that the heave potential at foundation depth is 32.1mm, which is not considered significant. The fact that not all trees are to be fully removed, also reduces the risk of heave further, as the soils are not allowed to expand fully or freely.

On completion of the recommended vegetation management works we will monitor the property for a short period of time to confirm stability before proceeding with superstructure crack repairs and redecoration to the subsidence damaged areas of the property. The superstructure repairs on their own, if mitigation is successfully completed, is estimated in the region of £14,000.00.

The monitoring conducted to date, has shown downward movement over the summer period, consistent with clay shrinkage subsidence. The rear-right corner of the structure showing a drop of approximately 10mm between May-July 2026.

Substructure works are not considered a viable option, as this will give rise to differential movement between the original house and the extension, with works in the region of £65,000.00 for traditional underpinning. A root barrier system is equally not feasible, as the trees run in a line along the rear of several gardens and so a root barrier would need to extend the width of all gardens to provide sufficient future proofing against the root spread, alternatively it would encapsulate the Insured garden, which diverts the roots to other properties and will cause damage to theirs in the future.

Wesley Folkard Cert CILA

For: GHG Solutions Limited

Email: correspondence@agatha.app.ghgsolutions.co.uk