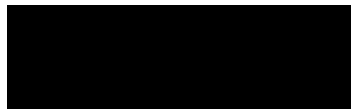


Engineers Report

Risk Address West Wood
Lower Wokingham Road
Crowthorne
Berkshire
RG45 6BY

Claim Refence
Policy Holder



Date Notified 5 September 2022
Date Instructed 5 September 2022
Report Date 14 October 2022



Description of premises

The risk address is a large two-storey, detached, 5-bedroom house, built in traditional cavity wall construction, clad in brickwork, surmounted by a pitched and hipped tiled roof. The ground floor construction detail is believed to be of solid ground bearing concrete, with the first-floor believed to be suspended timber. There is a large brick and uPVC conservatory to the rear elevation of the main building, which was completed in approximately 2012. There is a single storey extension to the right-hand side of the main building, which was completed in mid-1990's. There is a detached double garage situated to the front right-hand corner of the site.

The original construction of the property was circa 1950's and the property was purchased by the Policyholder in 1992.

The property is situated on a site which is relatively level, with there being no unusually adverse features. The property is located off of a main road, in the Berkshire village of Crowthorne.

Discovery of Damage

The Policyholder first noted the damage at the end of August 2022, with cracking being noted to the property. Before this time, the rear right-hand doors of the property had become difficult to open.

As a result of their concern, the Policyholder decided to submit a claim for potential subsidence under their Home Insurance Policy for consideration and assistance.

A 'virtual' inspection was undertaken, with the Policyholder providing details and imagery of the damage via 360 Globalnet's Site View digital claims system. All information supplied was subsequently reviewed by our Engineer and discussed in detail with the Policyholder.

Focus of Damage and Report

This document discusses the damage noted during the course of our review. All comments and references to the building are made by looking at the property from the front. We have noted the following areas of potential concern:



Internal Damage

Ground floor

Right-hand lounge

There are 3nr main diagonal cracks located to the right-hand side of the rear wall. The cracking is approximately 2-4mm, with the worst crack being approximately 2-6mm. The double doors to the rear wall are difficult to open and close successfully.

External damage

Rear elevation of right-hand extension

There is a vertical crack to the rendered section of the wall at high-level. The crack is located to the right-hand side of the wall, and is approximately 2-3mm. There is a 4-5mm horizontal crack at the junction of the high-level render and the adjoining brickwork located towards the right-hand side of the wall.



General view of the rear of the property



General view of the right-hand extension



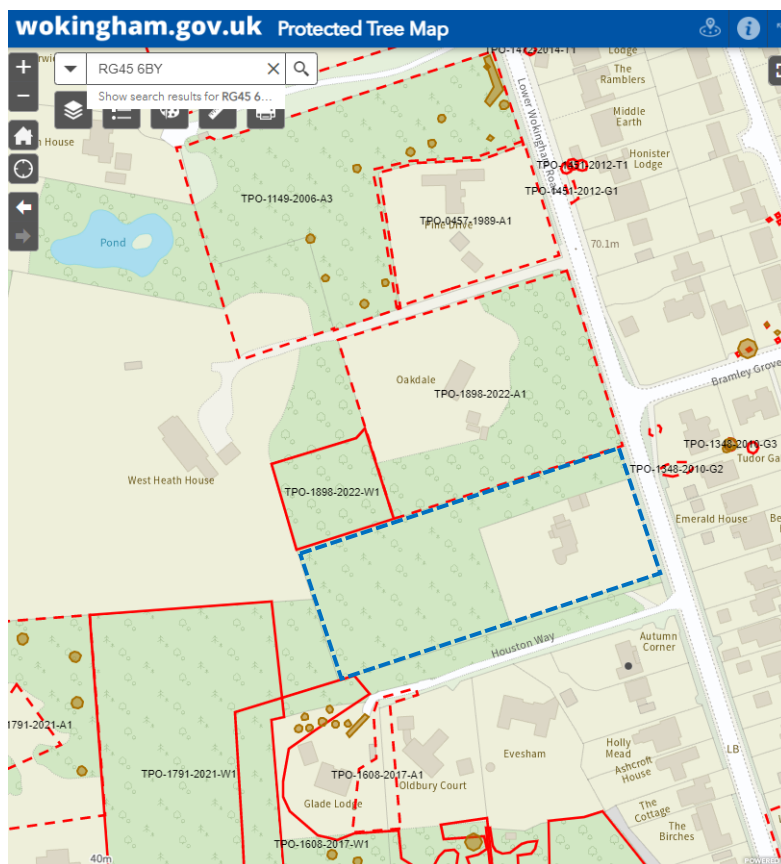
Diagonal cracking to the rear wall of the right-hand lounge



Cracking to the rear elevation of the right-hand extension



Close proximity of vegetation to the right-hand extension



Map to show current Tree Preservation Order areas and confirm Policyholder's boundary

Classification of Damage

It is common practice to categorise the damage in accordance with B.R.E. Digest 251 "Assessment of Damage in Low-Rise Buildings". In this case, the localised damage to the property falls into Category 2 "Slight".

Category	Crack Width	Degree of Damage
0	Hairline cracks of less than 0.1 mm	Negligible
1	Typical crack widths are 0.1 to 1mm.	Very slight
2	Typical crack widths are 1 to 5mm.	Slight
3	Typical crack widths are 5 to 15mm, or several of, say, 3 mm.	Moderate
4	Typical crack widths are 15 to 25mm, but also depends on number of cracks.	Severe
5	Typical crack widths are greater than 25mm but depends on number of cracks.	Very Severe

Non-Subsidence Related Damage

There was no other damage observed at the time of the inspection.

Evidence of external influences

Trees.

We note the presence of multiple vegetation to the right-hand side of the property, of many differing species, believed to be solely owned by the next-door neighbour. In order to confirm which vegetation is likely to be having an adverse effect on the ground beneath the property, the advice of an expert arboriculturist is recommended.

Drains.

There is drainage located within the vicinity of the damage, however given the timing and mechanism of the movement, we do not believe that any potential drainage defects are a contributory factor to the damage on this occasion. As part of our investigations however, we will undertake a camera survey of the underground drainage system.

Site Geology and ground conditions

Indicative Site Geology and Soils Data for:

West Wood, Lower Wokingham Road, Crowthorne, Berkshire, RG45 6BY

Ref: 084442805

No of SI's within 2km from address on identical lithology. (See comments)	7
Closest - Furthest distance of a site investigation from the address (km).	0.09 - 1.9
Total number of boreholes.	8
Percentage of site investigations where root samples were taken.	57%
Percentage of site investigations where drainage was recorded.	29%
Number of samples tested at greater than 0.5m depth.	40
BRE Digest 240. "Volume change potential" from Av. Modified Plasticity Index (I _p) of 20%.	Medium

Previous Soils Data nr = Non recorded	Depth m.	M.C. (%)	L.L. (%)	P.I. (%)	P.L. (%)	425um (%)	Suction kPa	Oed Strain
Sample population	40	40	11	11	11	16	16	0
~ Minimum (Av - 1 StdDiv)	0.7	14	35	17	15	80	8	nr
~ Maximum (Av + 1 StdDiv)	4.5	25	45	29	21	100	641	nr
Average	2.3	20	40	23	18	92	256	nr
General soils description	Firm brown/grey sandy CLAY with some fine-medium gravel							
BGS 1:50 000 maps as a: Bedrock Geology	1:50 000 scale bedrock geology description: Windlesham Formation - Sand, Silt And Clay. Sedimentary Bedrock formed in the Palaeogene period. Local environment previously dominated by shallow seas. Setting: Shallow seas. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences.							
BGS 1km Hexagonal Superficial Deposit Depth Data Mean Depth = 1m Max Depth = 1m Coverage = 13% Note: The BGS only record superficial deposits greater than 1m in depth	1:50 000 scale superficial geology description: None recorded.							
BGS 1:50,000 Artificial Ground	Non recorded							

BGS "GeoSure" 5km Hexagonal Hazard Ratings	
Shrink/Swell	Moderate
Collapsible Deposits	Low
Compressible Ground	Low with areas of localised significant rating.
Landslides	Low with areas of localised significant rating.
Running Sand	Moderate
Soluble Rocks	Low
Mining (not coal) 1km hx grid	No record of activity.

Government Coal Authority Data (<25m = found within 25m)	No data recorded for this location.
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Comments: The location is in a low SI density area. The seven SIs reported above are on exactly the same Bedrock Geology with no overlying Superficial deposits. Please note above that five Atterberg tests were undertaken and proved "Non-plastic".

Summary and Conclusions

All the indications from the evidence obtained suggest that the damage to the rear right-hand side of the property results from subsidence of the site upon which the property stands. Live roots in firm active clays have led to cyclical shrinkage and expansion below the foundations of the property, which together have led to consequent building movement and damage.

This influence and movement is consistent season upon season, as the clay continues to change volume in the presence of the trees identified, thus the problem continues. Only when the cause of the movement is removed will the ground return to its equilibrium, allowing for stability to return, and thus enable the repair works to the property to be undertaken.

As a result of the above, a valid claim is accepted under the subsidence Peril of the Policy, subject to the deduction of the applicable Policy excess, which is the Insured's contribution towards the claim.

An arboriculturist will be appointed to confirm, in their opinion, which vegetation has caused the damage to the property. Upon receipt of the arboricultural report, pursuit of the recommended vegetation removal will be undertaken.

We note that there are Tree Preservation Orders insitu to some of the vegetation within the grounds of the next-door neighbouring property, however, confirmation from the arboriculturist is required as to whether any of these vegetation are contributing to the subsidence movement. If this is confirmed, additional investigations will be required to prove to the Local Authority that the vegetation requires removing. We will review this aspect further in due course, however.

If we can successfully complete the required mitigation works, there will be no requirement to undertake any stabilising of the structure below ground. Further subsidence movement can be prevented by completing mitigation works correctly, by undertaking associated works to the causative vegetation.

Once the necessary mitigation works have been completed successfully, a specification of works will be compiled listing the necessary repairs for the project, which will be verified by an approved Insurance contractor. Once this verification process has been completed, the Policy excess will be requested from the Insured, prior to the works being programmed in.

Next Steps

- Instruct arboriculturist report.
- Pursue removal of causative vegetation.
- Obtain agreement from Policyholder for the attached schedule of works once mitigation complete.
- Appoint a contractor and arrange suitable start date for the repair works to commence.
- Upon completion of the works issue the certificate of structural adequacy and close the file.