



Policyholder:



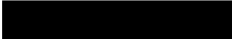
Subject Property Address:

Redlands
St. Marys Road
WORCESTER PARK
KT4 7JL

INSURANCE CLAIM

CONCERNING SUSPECTED SUBSIDENCE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of  for the purpose of investigating a claim for subsidence. 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: 07/09/2023

INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Matthew Robinson ACABE Cert CILA, in accordance with our Project Managed Service.

1.1. Description of building

The main property is a Detached house constructed circa 1965 in a suburban location on a plot that is considered generally to be level.

The property also has a detached garage which is the primary subject of the claim.

1.2. Discover of damage

The policyholder and homeowner, [REDACTED] first discovered the damage in Early 2021. The Policyholder has been aware of minor cracking for some time and feels this has recently worsened. He subsequently contacted his insurers.

1.3. Nature and extent of damage

- i. Description and Mechanism: The main area of damage is to the Front and centre, rear elevation. This pattern of cracking indicates a mechanism of downward foundation movement towards the front.
- ii. Significance: The level of damage is moderate, and is classified as category 3 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings.
- iii. Onset and Progression: [REDACTED] has advised that damage first commenced in Early 2021. We consider that the crack damage has occurred recently, but that distortions are historic.

It is likely that movement will be of a cyclical nature with cracks opening in the summer and closing in the winter.

2. SITE INVESTIGATIONS

A site investigation has been carried out by Shire, in February 2022 which consisted of a trial pit and deep borehole to the front and rear of the property.

The trial pit to the front of the property confirms the foundations to sit 1.1m below ground level on firm to stiff brown clay with roots identified.

To the rear of the property the foundation is again 1.1m below ground level on firm to stiff brown clay with roots identified.

To borehole 1 at the front of the property, an estimated maximum heave potential of 0mm is recorded, whereas to the rear of the property borehole 2 records a maximum heave potential of 10mm. This is considered an acceptable amount of heave relating to the privately-owned none TPO vegetation at the rear which has been removed. There is no risk of heave to the front of the property whereby the TPO vegetation lies.

Roots have been noted within the boreholes to a depth of 3m at the front and 4m at the rear of the property, samples of the roots have been taken and tested. To the front of the property, Taxodiaceae spp. which are Coast Redwood, Dawn Redwood, Wellingtonia, and Japanese Red Cedar have been found. And to the rear of the property, Fraxinus spp roots (ash).

A further site investigation was carried out by Auger Ltd in February 2023 which comprised of a CCTV survey around the property.

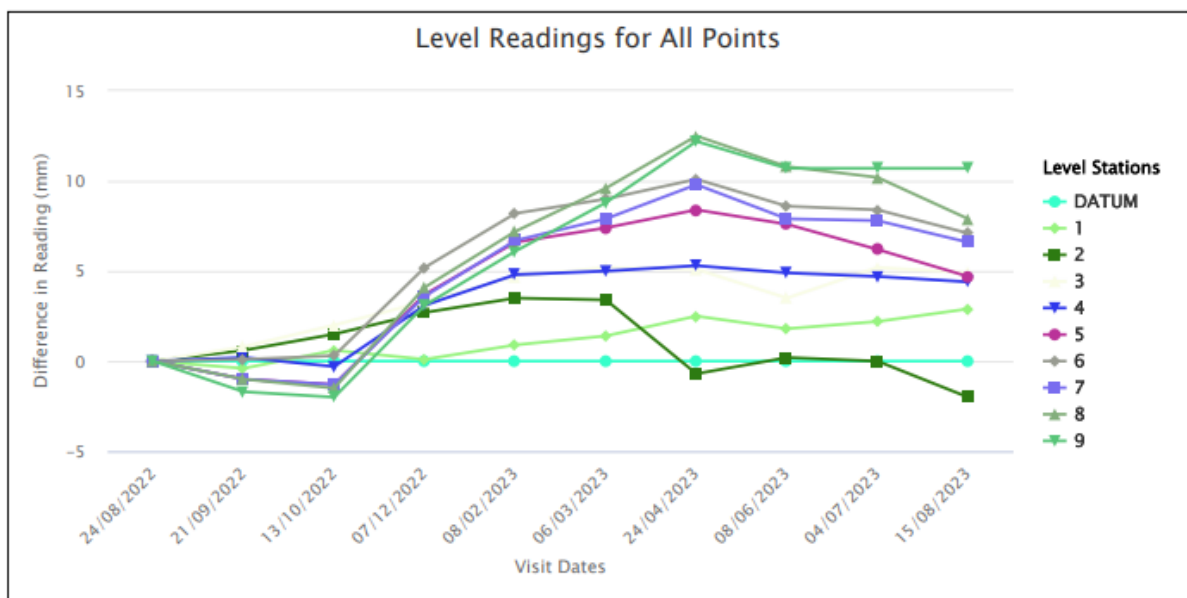
The results of the site investigation confirm that Lines 1, 2 3 and 4 contain defects in the lines as a result of root ingress into the drainage runs. The policy holder has been made aware of this and is arranging an accidental damage to underground services claim with insurers.

The results also show that Line 5, 6, 7 and 8 contain defects by the same cause, and confirms that the responsibility for these lines would fall under the Local Water Authority of Thames Water. We are currently in discussions with Thames water for the repairs to the drains.

It is noted however through the soil composition and the monitoring readings that the drainage is not a concern relating to subsidence, clear recovery and subsequent downwards movement into this summer is shown.

3. MONITORING

Monitoring has been ongoing since August 2022, it is noted that slight downward movement has been recorded to October and then a swift recovery through out the following months until the latest reading has been recorded. The latest readings show that downwards movement has started into summer 2023 as per the below diagram. This is following the removal of the none TPO vegetation to the rear of the property.



4. CONCLUSIONS

4.1. Cause of Subsidence

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 moisture extraction by roots altering the moisture content of the clay subsoil, resulting in volume changes, which in turn have affected the foundations.

4.2. Recommendations

4.2.1 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. We note that some of the implicated vegetation has a Tree Preservation Order, and our mitigation team is in the process of managing this with the local council authority.

We note that Lines 1, 2, 3 and 4 have been accidentally damaged by root ingress and require repairs. This will need to be raised as a separate Accidental Damage claim with the Insurers.

We note that Lines 5, 6, 7 and 8 have been damaged by root ingress, and fall under the responsibility of the local water authority. We will write to them in order to advise them of the defects for them to enact repairs.

4.2.2 Repair:

We have not decided on the final type of repair required as our investigations have not yet been concluded. However should the trees be removed it is expected that the cost of repairs will not exceed £35,000.00. If the trees remain then a complex piled raft solution is likely to be required with costs in the region of £250,000.00.

On behalf of Sedgwick International UK

Kieran Kowalski ACABE
Building Consultant

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