fairweather
insurance services

Mr A Ridler
6 Windrush Close
Ickenham
Middlesex
UB10 8EJ

02 November 2023

Dear Anthony,

As requested, please find enclosed copies of the Appraisal Report in relation to your Subsidence claim.

I trust this to be in order. Please do not hesitate to contact us if any further assistance is required.

Yours sincerely

ptaylor

**Paige Taylor**
Claims Executive
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## Introduction

Acting on instructions from Davies Group Ltd, the insured property was visited on 05/09/2023 to assess the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

This is an initial appraisal report and recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third-party trees is excluded and third-party owners are advised to seek their own advice on tree health and stability of trees under their control.

## Property Description

The property comprises a detached bungalow of traditional construction, built c.1958.

External areas comprise gardens to the front and rear.

The property occupies a site that slopes gently uphill from front to rear.

## Damage Description & History

Damage relates to the front projection of the building, with internal and external cracking indicative of downward movement.

At the time of the engineer's inspection (20/09/2022) the structural significance of the damage was found to fall within Category 3 (Moderate) of Table 1 of BRE Digest 251. For a more detailed synopsis of the damage please refer to the surveyor's technical report.

We understand that the property previously suffered from ground floor slab movement in 2000, resulting in the substructure being stabilised with an injection of a geo-polymer.

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## Site Investigations

Site investigations were carried out by GEOCORE on 07/02/2023, when a single trial pit was excavated to reveal the foundations, with a borehole sunk through the base of the trial pit to determine subsoil conditions. A drainage survey was also undertaken.

**Foundations:**

| Ref | Foundation type | Depth at Underside (mm) |
|---|---|---|
| TP/BH1 | Concrete | 350 |

**Soils:**

| Ref | Description | Plasticity Index (%) | Volume change potential (NHBC) |
|---|---|---|---|
| TP/BH1 | Firm to very stiff brown to light brown slightly sandy CLAY | 34 – 44 | Medium – High |

**Roots:**

| Ref | Roots Observed to depth of (mm) | Identification | Starch content |
|---|---|---|---|
| TP/BH1 | 2500 | Possibly *Rosoideae gp.*, and similar to *Caprifoliaceae spp.* | Present |
| | | Similar to *Cedrus spp. and Pinus spp.* | Absent |

***Rosoideae gp. are shrubs including Roses, Brambles, Raspberries, Kerria and Potentilla***
***Caprifoliaceae spp. includes Viburnum (Laurestinus and Guelder-rose), Weigela, Snowberry and Loniceras (Honeysuckle)***
***Cedrus spp. are Cedars***
***Pinus spp. are Pines***

**Drains:** The drains have been surveyed and defects have been identified, however leaking drains are concluded not to be a cause of the current damage.

**Monitoring:** Level monitoring is in progress, with initial readings showing a combination of uplift of the property frontage and downward movement at the rear. Further readings, as they become available, will confirm the extent of movement and whether any seasonal pattern is evident.

## Table 1 **Current Claim** - Tree Details & Recommendations

| Tree No. | Species | Ht (m) | Dia (mm) | Crown Spread (m) | Dist. to building (m) | Age Classification | Ownership |
|---|---|---|---|---|---|---|---|
| TG3 | Pine with understorey of Holly, Rose, Hydrangea, Heather, Mahonia, Cotoneaster, Cotinus and Forsythia | 10.0 | 690 | 8.5 | 0.2 | Younger than Property | Policy Holder |
| Management history | | No significant recent management noted. | | | | | |
| Recommendation | | Remove (fell) Pine to near ground level.<br>Remove (fell) Holly and woody shrubs within 3.0m of the building and treat stumps to inhibit regrowth.<br>Retain only herbaceous plants in garden border. | | | | | |

Ms: multi-stemmed * Estimated value

## Table 2 **Future Risk** - Tree Details & Recommendations

| Tree No. | Species | Ht (m) | Dia (mm) | Crown Spread (m) | Dist. to building (m) | Age Classification | Ownership |
|---|---|---|---|---|---|---|---|
| TG1 | Fig group | 2.5 | 40 Ms * | 4.5 | 4.0 | Younger than Property | Policy Holder |
| Management history | | Subject to past management/pruning - appears regularly pruned. | | | | | |
| Recommendation | | Remove (fell) to near ground level and treat stumps to inhibit regrowth. | | | | | |
| TG2 | Apple group | 5.5 | 180 Ms | 6.5 | 9.5 | Younger than Property | Policy Holder |
| Management history | | No significant recent management noted. | | | | | |
| Recommendation | | Maintain broadly at no more than current dimensions by periodic pruning. | | | | | |

Ms: multi-stemmed * Estimated value

## Discussion

Opinion and recommendations in this report are made on the understanding that Davies Group Ltd have identified clay shrinkage subsidence as a cause of building movement and damage.

Site investigations and soil test results have confirmed a plastic clay subsoil susceptible to undergoing volumetric change in relation to changes in soil moisture. A comparison between moisture content and the plastic and liquid limits suggests moisture depletion at the time of sampling at depths beyond normal ambient soil drying processes, such as evaporation, which is indicative of the soil drying effects of vegetation.

Roots were observed to a depth of 2.5m bgl in TP/BH1 and recovered samples have been tentatively identified (using anatomical analysis) as possibly Rosoideae gp., similar to Caprifoliaceae spp. and similar to either Cedrus spp. or Pinus spp.; the origins of which will be the nearby shrubs and the Pine of TG3 group at the property frontage, confirming their influence on the soils below the foundations.

Based on the technical reports currently available, engineering opinion and our own site assessment we conclude the damage is consistent with shrinkage of the clay subsoil related to moisture abstraction by vegetation.

If an arboricultural solution is to be implemented to mitigate the influence of the implicated trees/vegetation we recommend that the nearby shrubs and the Pine of TG3 group are removed. Other vegetation recorded presents a potential future risk to building stability and management is therefore recommended. Recommended tree works may however be subject to change upon receipt of additional information.

Consideration has been given to pruning alone as a means of mitigating the vegetative influence, however in this case, this is not considered to offer a viable long-term solution due to the proximity of the responsible vegetation.