innovation group
subsidence management services

Claim Assessment Report

On behalf of **Barclays**

Report Date: 11 March 2015

Our Reference: IFS-AVI-SUB-15-0056124
Claim Reference: 09BHI040652

Policyholder: Mr & Mrs Johnson
Risk Address: 23 The Drove, Eastleigh, SO50 7NX



SITE PLAN NOT TO SCALE

This plan is diagrammatic only and has been prepared to illustrate the general position of the property and its relationship to nearby drains and trees etc. The boundaries are not accurate, and do not infer or confer any rights of ownership or right-of-way. OS images provided by Environmental Services. © Crown Copyright 2009. All rights reserved. Licence number 100043218

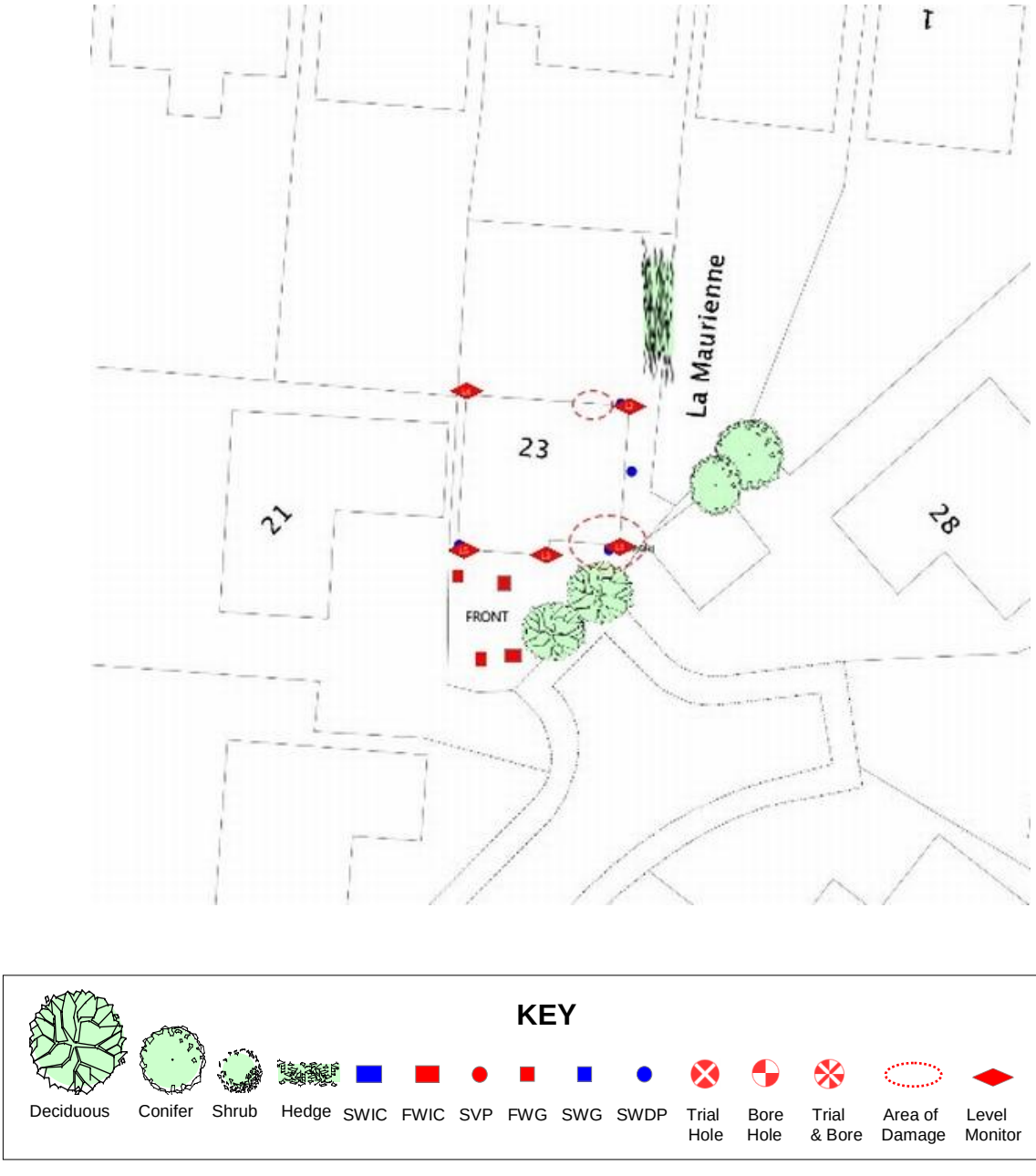

FIGURE 1 Site Plan

INTRODUCTION

We have been asked by your building Insurers to comment on suspected subsidence damage to the above property. Our report briefly describes the damage, identifies the cause and gives recommendations on the required remedial measures.

Our report should not be used in the same way as a pre-purchase survey. It has been prepared specifically in connection with the present insurance claim and should not be relied on as a statement of structural adequacy. It does not deal with the general condition of the building, decorations, services, timber rot or infestation etc.

Investigations have been carried out in accordance with the guidance issued by The Institution of Structural Engineers. All directions are given relative to an observer facing the front of the property. We have not commented on any part of the building that is covered or inaccessible.

CIRCUMSTANCES

The damage first occurred in August 2009 to the front right corner of the main house. Loss Adjusters Crawford & Company were appointed by Insurers to investigate the likely cause of the damage, arrange mitigation and ultimately arrange repairs once the property was deemed stable. However, it would appear that no geotechnical investigation was undertaken as it was considered that the underlying sub-strata was of non-cohesive material. A CCTV camera survey of the underground drainage system in close proximity to the area of damage was commissioned; but this did not identify any defects.

In light that the underlying substrata may in fact be cohesive clay an Arboricultural Survey of all vegetation within influencing distance of the property was commissioned from Arboricultural Consultants, Marishal Thompson & Company. Marishal Thompson subsequently considered that the principal cause of the subsidence movement was a group of Hawthorn trees; sited within the boundary of the domestic neighbour's property at 2 Dumpers Drove. Marishal Thompson also considered that a nearby Pyracantha, Elder and Cypress Lawson trees were also significant factors to the movement. The neighbour removed the Hawthorn group together with their Elder tree. The Insured removed their Pyracantha; plus some Ivy growing against the neighbour's garage. The domestic neighbours at 28 The Drove did not remove their sizeable Cypress Lawson tree or a small group of the same species as there was no evidence that their vegetation was a contributory factor. There is also currently a Cypress hedge along the rear right boundary which was not mentioned on the original survey. This vegetation is however unlikely to be within influencing distance.

The property was monitored for approximately three years in which time some seasonal movement occurred; although it is anticipated that the degree of movement in the summer and autumn months may not have been as progressive due to higher than average rainfall. Eventually, Crawford & Company considered that the property was stable enough for minor repairs to take place. These included minor crack repairs externally to the brickwork at the affected corner; plus minor cosmetic repairs internally and redecoration works. However, it would appear that not all works were completed in accordance with the scope of repairs and some minor external repairs remain. It would appear that externally the damage

was not severe enough to warrant stitching of the brickwork using Helibar reinforcement; or even resin.

Since the claim was deemed as concluded by Crawford & Company there has been periodic reopening of the damage at the original front right hand corner and as such it is considered by the Insured that the actual cause of the movement has not been correctly identified. This has placed the Insured in limbo as they intend to replace the windows to the property; but feel that they cannot do so without complete assurance that no further ground movement will occur. As such the Insured has contacted Insurers seeking their assistance for the matter to be once and for all resolved. The Insured already paid a £1,000.00 policy excess as part of the original episode of subsidence and considers that no further policy excess is due as the actual cause was not correctly identified and further seasonal movement has occurred every season since the matter was considered closed.

PROPERTY

The property is a two storey detached house of traditional construction with part rendered brickwork walls surmounted by a gabled and ridged tile covered roof.

The property has 4 bedrooms. The risk address is a modern detached house of standard construction with cavity brick walls surmounted under a hipped and pitched tiled roof. The elevations are part rendered with decorative timber strut work. The property has no garage; but a timber car port for two vehicles.

HISTORY

Date of Construction	1997
Purchased	2008
Policy Inception Date	19 October 2006
Damage First Noticed	30 September 2009
Claim Notified To Insurer	25 February 2015
Date of our Inspection	06 March 2015

ADEQUACY OF BUILDING SUM INSURED

The current building sum insured is considered adequate

TOPOGRAPHY

The site slopes gently upwards from front to rear. The site topography is gently sloping from rear to front. To the front is small garden containing the two mature Silver Birch trees. Adjacent to this is a tarmac driveway/parking area with open timber car port. Access to the rear is along the right hand flank. Off the right hand flank is third party vegetation within influencing distance, mainly comprising Cypress trees. To the rear is a larger garden laid to lawn with paved patio area adjacent. Sited in the rear garden is a standard timber shed.

The underground drainage system is mainly at the rear and to the left hand side of the property. There are connections to the rear kitchen, side utility room; bathroom and WC on the first floor plus en-suite to the master bedroom. Waste water discharge would appear to be forwards into the shared sewer in the close. To the front, right hand side and to the rear are surface water downpipes; which either discharge rainwater into soakaways or to the waste system making it combined.

GEOLOGY

Reference to the 1:50,000 scale British Geological Survey Map (Drift Edition) suggests the drift geology of the site is No drift geology recorded overlying a solid geology of Oldhaven, Blackheath, Woolwich, and Reading and Thanet beds.

VEGETATION

The following vegetation was recorded as being within potential influencing distance of the property:-

Type	Height	Distance	Owner
Silver Birch	12m	6m	Policyholder
Silver Birch	12m	9m	Policyholder
Conifer	13m	8m	Neighbour
Conifers	5m	6m	Neighbour
Conifer Hedge	4m	6m	Policyholder

DAMAGE RELATING TO THE CLAIM

The following is a summary of the damage relating to the Insurance claim, including any unrelated damage in the same vicinity, with supporting photographs where appropriate.

INTERNALLY

At this juncture the damage internally is very minor. In the front right lounge there are minor stress fractures to front elevation plastered and painted wall. We are advised by the Insured that the fractures open and close throughout the seasons; being at their widest in the late summer and autumn and closing over the winter. The most severe of these fractures being to the left of front elevation window (as facing) extending for approximately 1m in length and with a maximum crack width at the height of the movement of approximately 3mm. Below this window there are minor hairline stress fractures.

Also in this room is a stress fractures along right hand flank wall close to the front right corner. This fracture follows the line of the coving and it is evident from the pattern of movement that periodically the front corner drops. On the first floor and in the front right master bedroom there are similar stress fractures to the front elevation wall and again along the line of the coving to the flank wall. Again suggesting periodic downwards rotational movement at the front right corner.

At the time of our visit we were also made aware of damage in the first floor rear right hand bedroom. here there is a fairly recent vertical fracture to rear elevation wall to the left of rear window (as facing looking out the window). This fracture extends for approximately 1m and has a crack width of no more than 2mm. An external survey of the area did not identify any evidence of damage through the rendered decorative panel; or stress fractures to the brickwork below.

We were also made aware of a minor vertical hairline fracture to left hand wall bathroom above wall tiles. This fracture does not extend through the wall tiles or grout and is discounted as very minor thermal movement.

EXTERNALLY

Externally, the damage is focused around the front right corner of main house and front elevation. This is easily within influencing distance of the Insured's two protected Silver Birch trees; and possibly the neighbour's mature Conifer group. Here there is a fractured facing brick to the top right of the lounge window. This apparently was included within the previous repair schedule by Crawford & Company, but was simply not completed. Other very minor stress fractures were noted below the lounge window extending through the brick mortar joint and there is clear evidence of previous minor re-pointing works. Currently the fractures are no more than 1mm in width. In front of the affected corner the tarmac has clearly been disturbed either by ground movement or root action from the nearby vegetation. There is also a previously missed repair to the small brick dwarf wall to a glower bed.

DAMAGE CATEGORY

It is common practice to categorise the structural significance of the damage in this instance, the damage falls into Category 1 (Very Slight).

Category 0	Negligible	<0.1 mm
Category 1	Very Slight	0.1 - 1mm
Category 2	Slight	>1 but < 5mm
Category 3	Moderate	>5 but < 15mm
Category 4	Severe	>15 but < 25mm
Category 5	Very Severe	>25mm

Classification of damage based on crack widths

INVESTIGATIONS

SITE EXCAVATIONS

Site investigations will shortly be undertaken by a specialist contractor.



FIGURE 03 Front elevation fracture through brick



FIGURE 04 Previous front elevation repairs 2



FIGURE 05 Third party vegetation off right hand flank



FIGURE 06 Fracture to front elevation wall in front lounge

DRAINS

Drainage investigations in the vicinity of damage will shortly be undertaken by a specialist contractor.

MONITORING

6 level visits will be undertaken at 8-week intervals.

DISCUSSION

The diagonal aspect of the cracks, together with the fact that they increase in width with height is indicative of subsidence as a result of shrinkage of the clay subsoil due to the moisture extracting influence of remaining vegetation within influencing distance; most notably two protected Silver Birch trees sited in the front garden of the Insured's property. A geotechnical investigation externally at the front right corner will be required to confirm the cause and if identified as the Silver Birch trees this evidence along with likely monitoring evidence will be required.

At this stage it is considered that the damage in the rear bedroom is unlikely to be related to foundation movement given there being no evidence of any external damage. As such a further trial pit and borehole in this area is not justified at this juncture. However, should progressive movement occur in this area of the property over the summer/autumn then this will need to be reassessed. The rear right corner will be level monitored to assess for such movement.

REQUIREMENTS

In view that the damage to the property is considered to be as a result of an insured event, a valid claim arises under the terms of policy cover. We note that the £1,000 policy excess has been paid as part of the previous subsidence claim in 2009 and this matter will need to be referred to Insurers to ascertain whether they are agreeable to treating the current damage as a continuation of the previous subsidence event and not therefore charge any further policy excess on this occasion. It is possible that given the time that has elapsed between the previous and the new claim that Insurers will wish to apply a further policy excess.

In order to stabilise the property and prevent further damage occurring in the future, the cause of the movement needs to be addressed, with a site investigation being required in the initial instance to try and ascertain which vegetation is responsible.

Following completion of tree management works, the property will be monitored to confirm stability. Provided the property stabilises as expected, no foundation stabilisation works are considered necessary, with structural repairs of the superstructure being required only, together with internal redecoration of the damaged rooms.

Generally cracks 1mm wide or less will be filled (internal) or re-pointed (external). Internally, where the

cracks are wider than 1mm, but less than 5mm the underlying brickwork or blockwork will be exposed and prior to making good the plaster finishes the cracking will be covered with expanded metal lathe. Where cracks are 5mm across or wider, some form of bed joint reinforcement will be introduced.

At this stage we do not envisage that as part of decoration works it will be necessary to paint the woodwork in the rooms affected. However, should they become directly damaged by the insured peril of subsidence or as a consequence of subsidence repairs then this will be reconsidered.

Peter Moore
Subsidence Specialist
Subsidence Management Services