

Cunningham Lindsey

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Policyholder: [REDACTED]

Subject Property Address:

19, Parkhill Road

London

NW3 2YH

INSURANCE CLAIM

CONCERNING SUSPECTED SUBSIDENCE

ENGINEERING APPRAISAL REPORT

This report is prepared on behalf of [REDACTED] 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: 25/9/2014

Cunningham Lindsey Ref: MNHPD/KN/7469960

INTRODUCTION

The technical aspects of this claim are being overseen by our Building Consultant Jon Green BSc(Hons)MICE C Eng ACILA, in accordance with our Project Managed Service.

DESCRIPTION OF BUILDING

The subject property is a semi detached house in a suburban location on a plot that is level. The overall layout is recorded on our site plan.

There are trees within influencing distance of the property, in particular a 10m tall False Acacia tree in the front garden of 21 Parkhill Road, some 4m from the building. This tree is the subject of a Tree Preservation Order.

CIRCUMSTANCES OF DISCOVERY OF DAMAGE

The leaseholders first discovered the damage in October 2013.

The damage appeared suddenly. The policyholder then advised insurers.

NATURE AND EXTENT OF DAMAGE

Sketches showing the layout of the site and the damage are attached.

The main area of damage is to the portico and front of the house and takes the form of tapering diagonal cracks to the portico, ground floor front lounge and basement stairs, basement front bedroom and 1st floor lounge and kitchen, which are situated to the front of the building.

This pattern of damage indicates a mechanism of downwards movement to the front, ie towards the tree.

Significance

The level of damage is slight, and is classified as category 2 in accordance with BRE Digest 251 - Assessment of damage in low-rise buildings

Onset and Progression

We consider that the damage has occurred recently.

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

SITE INVESTIGATIONS

A ground investigation was carried out by CET on 30 January 2014 and 9 September 2014 and for details of the trial pit and borehole locations, together with test results, please refer to the attached CET factual report.

Trial Pit 1/Borehole 1

This was located by the front bay.

The underside of the foundation is at 900mm below ground level with the foundation comprising brick corbel. The soil beneath the property foundations has been identified as very stiff highly shrinkable clay.

Samples of root taken from have been analysed and originate from a False Acacia tree. There is a False Acacia tree located in the neighbouring front garden.

CAUSE OF DAMAGE

Taking an overview of all the site investigation results referred to above, it is my opinion that the cause of damage results from clay shrinkage subsidence brought about by the action of roots from the False Acacia tree.

I base this view on the fact that the foundations of the property in the area of damage have been built at sufficient depth to be beyond the zone of normal seasonal movement, bearing onto highly shrinkable clay subsoil. The soil is susceptible to movement as a result of changes in volume of the clay with variations in moisture content and analysis of the site investigation results indicates that the soil has been affected by shrinkage. False Acacia tree roots are present in the clay subsoil. In this case, I am satisfied that the damage has therefore been caused by clay shrinkage subsidence following moisture extraction by the False Acacia.

RECOMMENDATIONS

It is recommended that the False Acacia tree located in the front garden of 21 Parkhill Road and close to the property is removed to mitigate against further movement.

Crack width/level monitoring will continue to assist negotiations with the local authority. A detailed scope of repairs will be finalised upon conclusion of the monitoring.

REPAIRS

If the street tree is removed then I consider that works including structural crack repair and redecoration at an approximate cost of £9,400 will be appropriate in order to repair the damage in this case.

If the tree is not removed then it may be necessary to consider underpinning of the foundations of the property in the area of damage, in addition to structural crack repair and redecoration needed to repair the damage. The total cost of this option is estimated at £35,000.

Jon Green BSc(Hons)MICE C Eng ACILA
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