TECHNICAL REPORT ON A SUBSIDENCE CLAIM

[redacted]

Heath Court Management Ltd
Heath Court
10-12 Frognal
London
NW3 6AH

Prepared for

Allianz Commercial

[redacted]

SUBSIDENCE CLAIM

4th June 2020

Subsidence Division

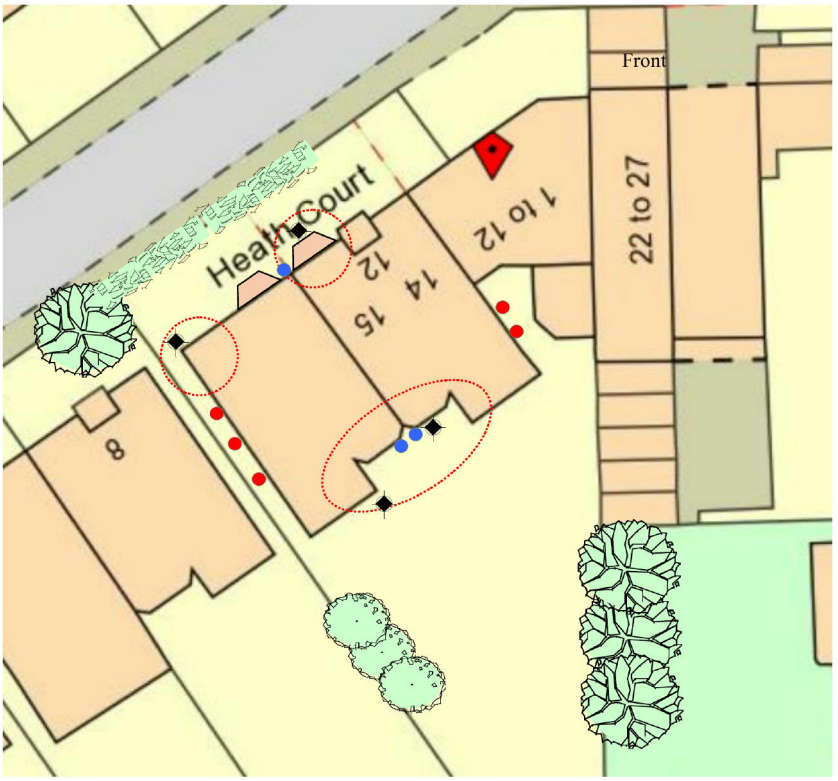
[redacted]

Chartered Loss Adjusters

[redacted]

Site Plan	This plan is 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 trees etc. The boundaries are not accurate, and do not infer or confer any rights of ownership or right of way. Position of utilities is only indicative and contractors must satisfy themselves regarding actual location before commencing works.



Key:

Tree: Deciduous		Tree: Conifer		Shrub	
Hedge		Area of Damage		Bore Hole	
Trial Hole		Trial & Bore Hole		Level Monitoring	
Rain Water Manhole		Rain Water Gulley		Rain Water Pipe	
Waste Water Manhole		Waste Water Gulley		Toilet Pipe	
Rain Water Drain		Waste Water Drain		Electricity Cable	
Water Supply Pipe		Gas Supply Pipe		Incoming Gas Pipe	
Incoming Water		Incoming Electrics			

[redacted]

INTRODUCTION

We have been asked by Allianz Commercial to comment on movement that has taken place to the above property. We are required to briefly describe the damage, establish a likely cause and list any remedial measures that may be needed.

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, timber rot or infestation etc.

The report is made on behalf of Crawford & Company and by receiving the report and acting on it, the client - or any third party relying on it - accepts that no individual is personally liable in contract, tort or breach of Statutory duty. Where works address repairs **that are not covered** by the insurance policy we recommend that you seek professional advice on the repair methodology and whether the works will involve the Construction (Design & Management) Regulations 2015. Compliance with these Regulations is compulsory; failure to do so may result in prosecution. We have not taken account of the regulations and you must take appropriate advice.

We have not commented on any part of the building that is covered or inaccessible.

TECHNICAL CIRCUMSTANCES

There was a previous subsidence claim around 28-30 years ago which resulted in extensive underpinning at the rear. A further claim was also investigated in 1996. Further information is to be provided.

We understand from our discussions with the leasehold owners that more recent cracking has developed slowly over the 12 months to 2 years.

As concerns grew local Engineers, R.Howarth & Co Ltd were instructed to provide a Report. Recommendations are given for instigating a subsidence claim with Insurers.

PROPERTY

The property is a three storey large block of 14 flats of traditional construction with brick walls surmounted by a pitched slate roof.

HISTORY & TIMESCALE

Liability is currently reserved and we have referred the claim to your Insurers for their instructions.

Date of Construction	1890
Purchased	Various
Policy Inception Date	01/11/2018
Damage First Noticed	10/2019
Claim Notified to Insurer	29/10/2019
Date of our Inspection	18/11/2019
Issue of Report	04/06/2020
Anticipated Completion of Claim	Winter 2021

[redacted]

TOPOGRAPHY

The property occupies a site sloping from the left down to the right. (viewed from front)

GEOLOGY

Reference to the 1:625,000 scale British Geological Survey Map (solid edition) OS Tile number TQNW suggests the underlying geology to be **London Clay**.

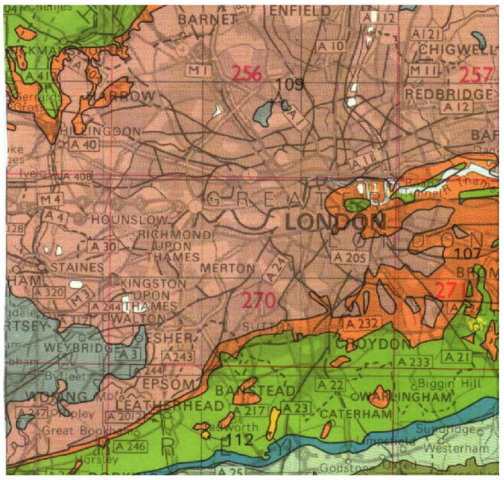
London Clays are marine deposits characterised by their silty, sandy composition. They are typically stiff, dark or bluish grey, weathered dark to mid-brown superficially with fine particle size (less than 0.002mm). Tomlinson[1] describes it as a 'fat' clay with high loadbearing characteristics due to pre-consolidation pressures in its geological history.

The upper horizon is often encountered at shallow depth, sometimes just below ground level. They have high shrink/swell potentials[2],[3] and can be troublesome in the presence of vegetation.

The superficial deposits are thought to be Clay Soils.

Clay soil superficial deposits are a cohesive soil characterised by their fine particle size and are usually derived from weathering of an underlying "solid geology" clay soil such as London Clay or Oxford Clay.

Like the solid geology sub-soil from which they are derived they shrink when dry, and swell when wet and can be troublesome when there is vegetation[4] nearby and Gypsum and selenite crystals can be encountered (particularly in the south east). Protection using Class II Sulphate Resisting cement is therefore recommended for buried concrete.



Geology. Reproduced with consent of The British Geological Survey at Keyworth.
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[1] Tomlinson M.J. (1991) *"Foundations Design & Construction"* Longman Scientific Publishing.
[1] B.S. 5930 (1981) *"Site Investigations"*
[2] DriscollL R. (1983) *"Influence of Vegetation on Clays"* Geotechnique. Vol 33.
[3] Table 1, Chapter 4.2, Para. 2.3 of N.H.B.C. Standards, 1986.
[4] DriscollL R. (1983) *"Influence of Vegetation on Clays"* Geotechnique. Vol 33.

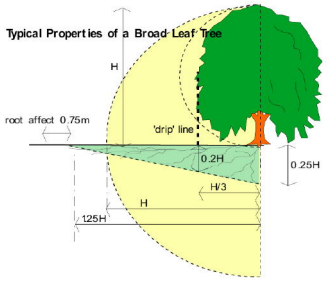
VEGETATION

There are several trees and shrubs nearby, some with roots that may extend beneath the house foundations. The following are of particular interest:-

Type	Height	Distance	Ownership
Deciduous	25 m	13 m	Neighbour 1
Deciduous	25 m	8 m	Neighbour 1

See sketch. Tree roots can be troublesome in cohesive (clay) soils because they can induce volumetric change. They are rarely troublesome in non-cohesive soils (sands and gravels etc.) other than when they enter drains, in which case blockages can ensue.

Broadleaf trees typically have wider spreading roots and higher water demands than coniferous species and many are better adapted to growing on heavy clay soils. Some are capable of sprouting from cut stumps or bare wood and most will tolerate pruning better than conifers.



Typical proportions of a broadleaf tree. Note the potential root zone. It must be noted that every tree is different, and the root zone will vary with soil type, health of the tree and climatic conditions.

However heavy pruning of any tree should be avoided if possible, as it stimulates the formation of dense masses of weakly attached new branches which can become dangerous if not re-cut periodically to keep their weight down.

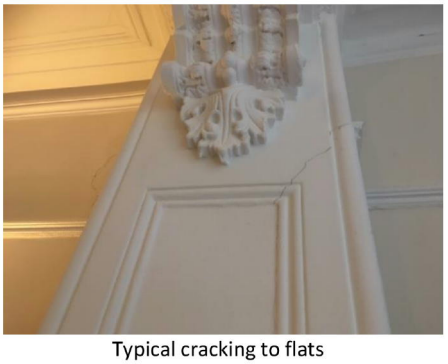
[redacted]

OBSERVATIONS

The focal point of the insureds concerns/movement are the rear projection, front bay and front right hand corner of the property.

The following is an abbreviated description. Photographs accompanying this report illustrate the nature and extent of the problem.

INTERNAL



Typical cracking to flats

Typical cracking to flats

FLAT 8

Slight diagonal cracking was noted to the hall/lounge dividing wall which rake upto the rear.

FLAT 2

Diagonal cracking, upto 2mm in width was noted to the hall/lounge dividing wall which rake upto the rear.

Within the rear office, slight diagonal cracking was noted to the left hand wall which rake upto the rear.

FLAT 4

Slight diagonal cracking was noted to the hall/lounge dividing wall which rake upto the rear.

FLAT 9

Slight diagonal cracking was noted to the left and right hand dividing walls which rake upto the rear.

Within the front bedroom, 2mm wide cracking was noted at the junction of the bay window. The bay window cill slopes to the right by 30mm in 1200mm.

FLAT 11

To the rear right bedroom slight diagonal cracking was noted to the left dividing wall which rake upto the rear.

To the front office room (offset from original front lounge) a 3mm wide diagonal cracking was noted to the bottom left of the front window (left most window). Slight cracking was also noted to the top right of the window (right most window). The floor slopes to the right hand side.

[redacted]

Within the front lounge diagonal cracking was noted to the chimney breast on the right hand external wall which rakes upto the front.

FLAT 1
Within the front lounge, 5-6mm wide cracking was noted at the junction of the bay window (same bay as in Flat 9).

EXTERNAL


Rear view


External cracking to bay

FRONT ELEVATION
To the front bay (right of main entrance) slight stepped cracking was noted to the left hand return wall at lower level.

CATEGORY

In structural terms the damage falls into Category 2 of Table 1, Building Research Establishment[5] Digest 251, which describes it as **"slight".**

Category 0	"negligible"	< 0.1mm
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"	>25 mm

Extract from Table 1, B.R.E. Digest 251
Classification of damage based on crack widths.

[5] Building Research Establishment. [redacted]

[redacted]

DISCUSSION

The pattern and nature of the cracks may be indicative of an episode of subsidence, the cause appears to relate to clay shrinkage.

Liability has been accepted under the subsidence, heave or landslip section of your policy.

RECOMMENDATIONS

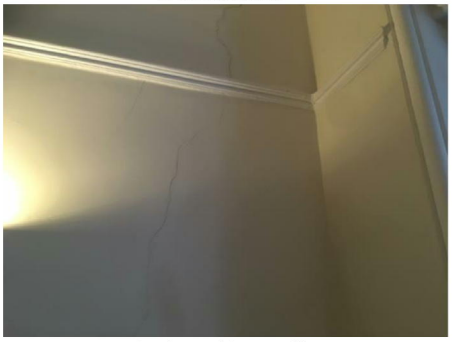
We will report further once we have received instruction from your insurers.

John Buckley BSc (hons) MCIOB C.Build E MCABE Dip CII (Claims)
Subsidence Division
[redacted]

PHOTOGRAPHS

Tree at front

Trees at rear



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External cracking to bay