ADDENDUM TECHNICAL REPORT

[redacted]

Flat 1
30 Lymington Road
London
NW6 1HY

Prepared for

[redacted]

SUBSIDENCE CLAIM

DATE 1 March 2021

Crawford

Crawford and Company

[redacted]

Chartered Loss Adjusters

[redacted]

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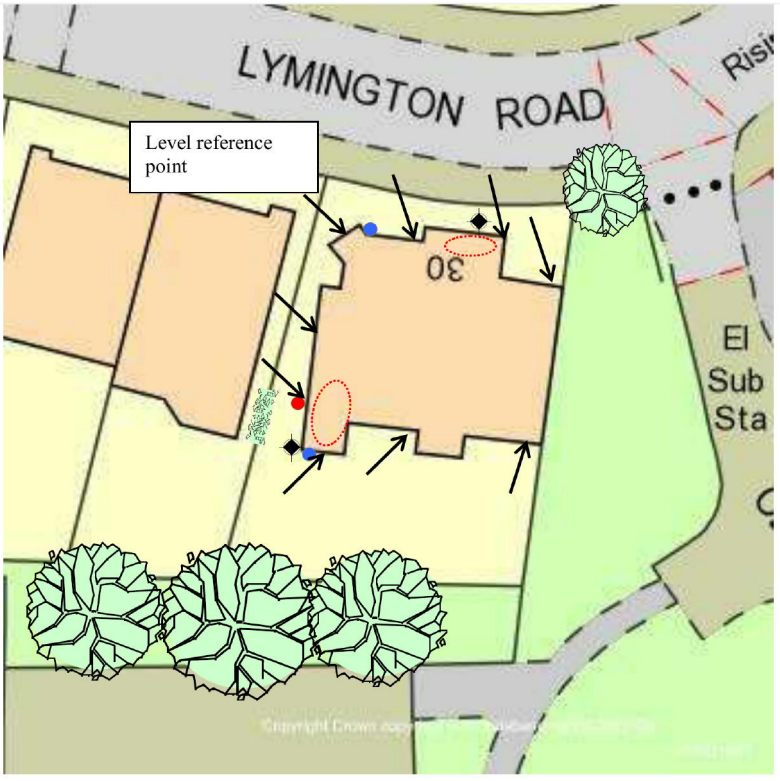
Site Plan	This plan is Not to Scale

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 instructed by insurers to investigate a claim for subsidence at the above property. The area of damage, timescale and circumstances are outlined in our initial Technical Report. This report should be read in conjunction with that report.

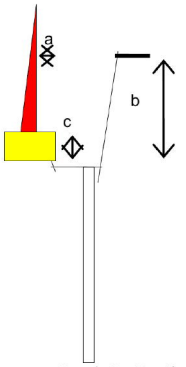
To establish the cause of damage, further investigations have been undertaken and these are described below.

INVESTIGATIONS

The following investigations were undertaken to identify the cause of movement.

TRIAL HOLES

Two trial hole were excavated to expose the foundations - see site plan for location and the diagram below for details.



Foundation Details

No.	Borehole Depth	Footing (a)	Underside (b)	Thickness (c)
TH1	3.00 m.	240 mm.	980 mm.	250 mm.
TH2	3.00 m.	200 mm.	960 mm.	200 mm.

Trial pit 1 was located at the front of the property and trail pit 2 at the rear of the property.

Both trail holes encountered a stiff clay of high to very high shrinkability below the foundation.

AUGERED BOREHOLES

A 50mm diameter hand auger was sunk from the base of each trail hole and these revealed the stiff clay extended to the base of each hole at 3.0m.

SOIL SAMPLES

Soil samples were retrieved from the bore, wrapped in clingfilm before being bagged and deposited with a testing laboratory the same day. The laboratory have instructions to test the samples to determine if there is evidence of root induced desiccation.

ROOTS

Roots were retrieved from the trial hole and have been submitted to a botanist for identification.

DRAINS

Drains in the vicinity were surveyed and no evidence of any leakage or excessive wetting was revealed.

DISCUSSION

The results of the site investigations confirm that the cause of subsidence is root-induced clay shrinkage. The clay is plastic and thus will shrink and swell with changes in moisture content. Roots have extracted moisture below the depth of the footings, thus causing differential foundation movement to occur. This is supported by the following investigation results:-

- The foundations are at a depth of 960- 980mm m which is below the level that normal seasonal movement would occur.
- The moisture content profile indicates a reduction in moisture content between a depth of 1.5 m and 2.5 m which is indicative of desiccation at this level. This is also co-incident with the depth of root activity.
- Atterberg limit testing indicates that the soil has a high/very high plasticity and hence will shrink and swell with changes in moisture content.
- Roots were found to a depth of 1.8 m.
- Level monitoring indicates seasonal cyclical movement with downward movement in the summer months (as the clay shrinks) and upward movement in the winter months (as the clay swells).
- Shear vane readings indicate an increase in shear strength of the clay between a depth of 1.0m and 2.5 m indicating desiccation at this depth

RECOMMENDATION

The cause of the movement needs to be dealt with first. From the results of the site investigation, we are satisfied that the Lime trees and various shrubs and climbers identified as being responsible for the soil desiccation and foundation movement can be removed. Based on our analysis, we are satisfied there is no adverse heave risk to the property.

Our Mitigation Unit will liaise with the Local Authority to arrange a TPO application to be submitted and advice of the outcome when it is received. A decision is normally taken by the Local Authority after 8 weeks of submission.

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If the decision is favourable, our Mitigation Unit will arrange for the tree works to be undertaken, subject to authority from the tree owner(s). If the application is refused, there are possible grounds to Appeal or submit a further Application if there is new evidence. This will be reviewed in detail at the time.

Following completion of the tree management works, we will undertake a suitable period of monitoring to confirm stability has been achieved before undertaking repairs to the property.

[redacted]

Yours faithfully,

Andrew Wyse BSc (Hons) CEng MICE FGS
Crawford Claims Solutions – Subsidence
[redacted]

1 March 2021