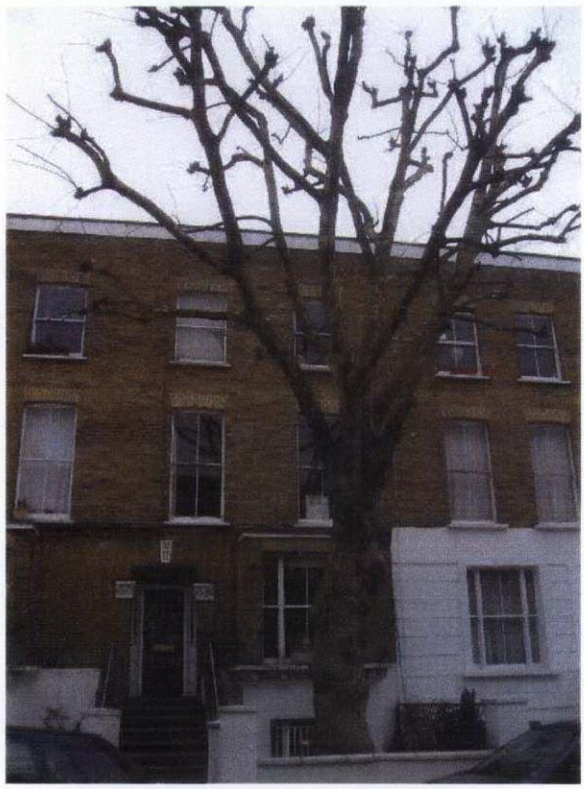
ADDENDUM TECHNICAL REPORT ON A SUBSIDENCE CLAIM

Risk Address:

105 Bartholomew Road
London
NW5 2AR



Claim Reference 11T601238

SUBSIDENCE CLAIM

DATE 10 October 2012

Crawford and Company

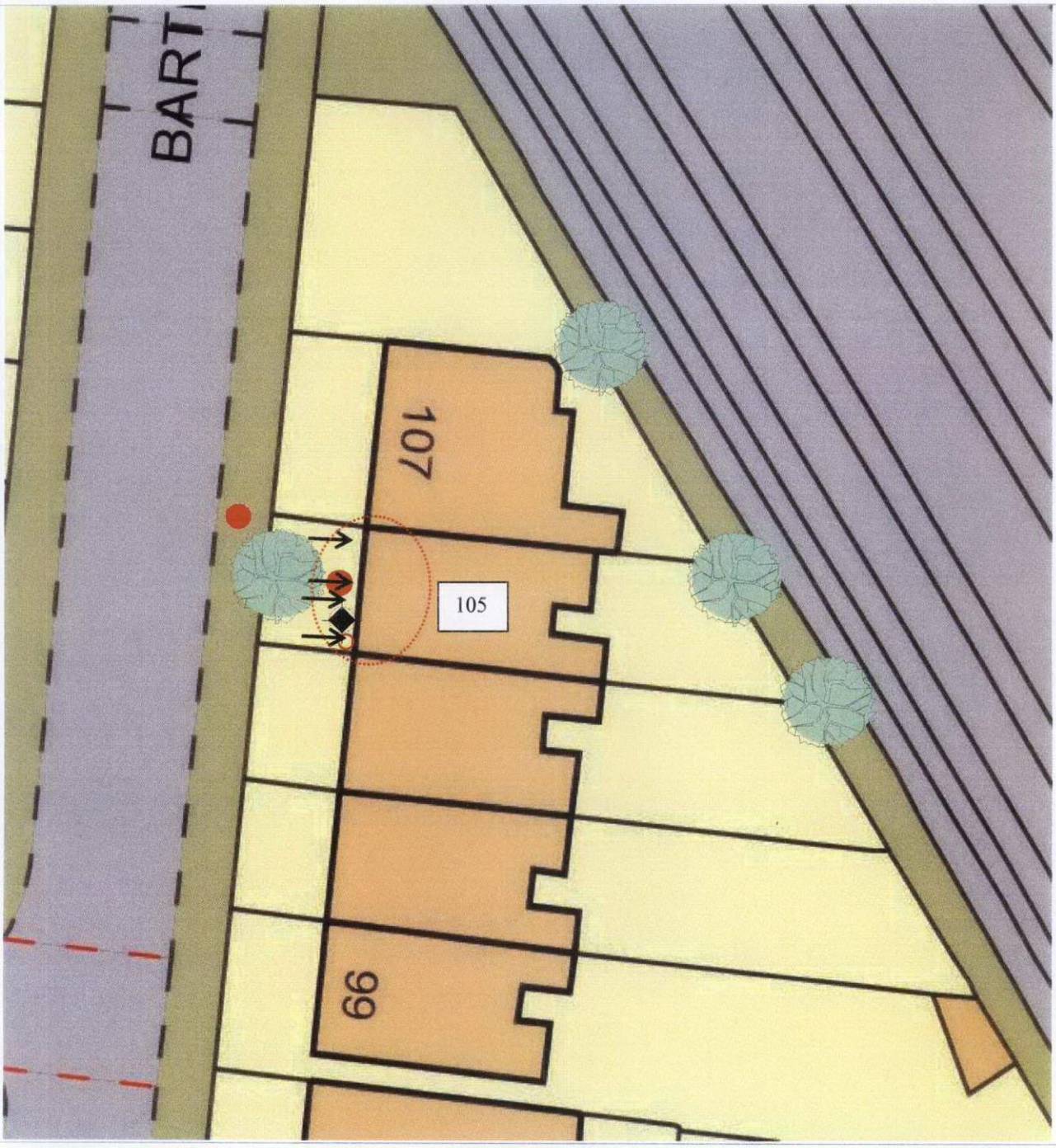
CRAWFORD HOME - SUBSIDENCE

Cartwright House,
Tottle Road,
Riverside Business Park,
Nottingham, NG2 1RU
Tel: 0115 943 8260
Fax: 0121 200 0309
E Mail subsidence@crawco.co.uk

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 any rights of ownership or right-of-way.



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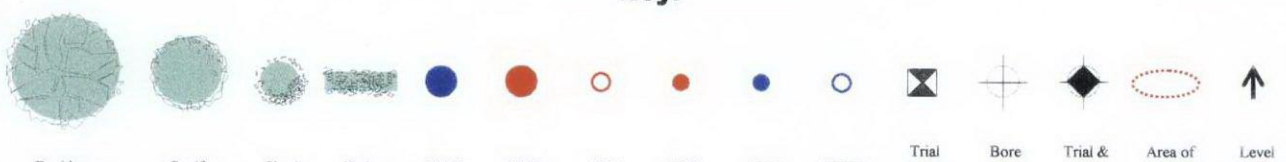


INTRODUCTION

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.

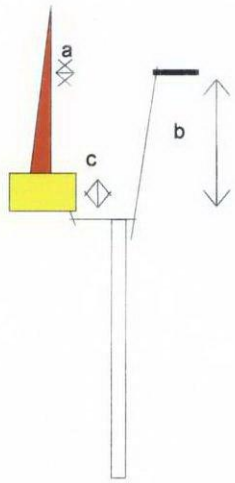
INVESTIGATIONS

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

TRIAL HOLES

A trial hole was excavated to expose the foundations - see site plan for location and the diagram below for details. Trial Hole 1 revealed a brick and clinker footing founded at a depth of 0.48m below ground level which bears onto firm brown CLAY.

Root activity of live appearance was noted to the underside of the foundations.



Foundation Details

No.	Borehole Depth	Footing (a)	Underside (b)	Thickness (c)
TH1	3.00 m.	100 mm.	480 mm.	260 mm.

AUGERED BOREHOLES

A 50mm diameter hand auger was sunk - see site plan for location(s). Borehole 1 confirmed the continuation of the clay subsoil encountered within the trial pit, with roots to a depth of 2.5m below ground level. The borehole remained dry and open upon completion.

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 has instructions to test the samples to determine if there is evidence of root induced desiccation.

ROOTS

Roots were retrieved from the trial hole and were submitted to a botanist for identification. These were identified as emanating from the nearby Plane tree.

DRAINS

A CCTV survey of drainage in the vicinity of damage was carried out at the time of initial sit investigations. This revealed some minor damage, which will not cause ground movement, especially give the non-granular soil under the property.

DISCUSSION

The results of the site investigations confirm that the cause of subsidence is root-induced clay shrinkage. This is supported by the following investigation results:-

- The moisture content profile indicates a reduction in moisture content between a depth of 1.25m and 2.75m 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 very high plasticity and hence will shrink and swell with changes in moisture content.
- Oedometer tests indicate desiccation between a depth of 0.74m and 2.75m coincident with the depth of root activity.
- Roots were found to a depth of 2.5m.

The monitoring data shows upward and downward movement in line with the water demand of the nearby Plane tree, identified as T1 in the appended Marishal Thompson Report. This sort of movement can only be associated with clay shrinkage. Given that there is no other Plane tree nearby, T1 is seen as the parent of the roots found in the site investigation.

Marishal Thompson confirm that the Plane tree is seen as the dominant cause of the claim. In the absence of any other cause and considering the evidence, we agree with this view.

RECOMMENDATION

An application shall be submitted to fell the tree as recommended by Marishal Thompson. Property stability is expected following the tree work. The tree work can proceed without risk of heave as the tree is younger than the property.

If the Council refuse the tree work then localised piling will be needed to generate property stability. This will escalate repair cost from £9k to £ 65k

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