

ADDENDUM TECHNICAL REPORT

Crawford Reference: SU1000736

**Mr A Seabright
The Old Rectory
Little Gransden
Sandy
Bedfordshire
SG19 3DU**



prepared for

**Chubb Insurance Company of Europe SA
106 Fenchurch Street, London,
EC3M 5NB**

Claim Reference 32626481/DK

SUBSIDENCE CLAIM

DATE 4 May 2010

Crawford and Company

NATIONAL SUBSIDENCE UNIT

30 St Paul's Square, Birmingham, B3 1QZ

Tel: 0870 400 0475

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Site Plan
























This plan is Not to Scale

This is an Aerial Photograph of the property and the immediate surrounding area. The positions of utilities etc are only indicative and contractors must satisfy themselves regarding actual location before commencing works.



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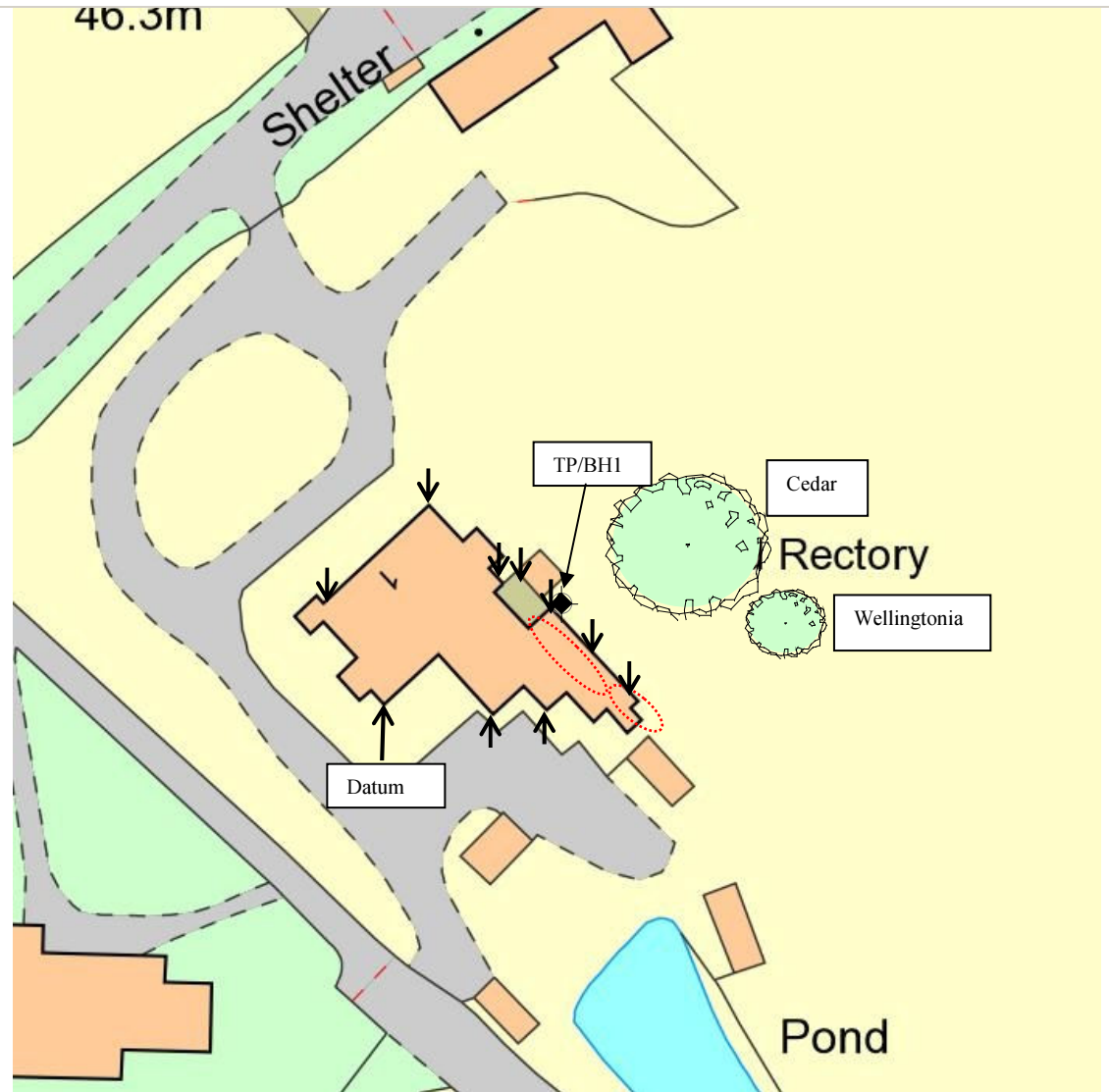
Key:

	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		

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.



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	Rain Water Drain		Waste Water Drain		Electricity Cable
	Water Supply Pipe		Gas Supply Pipe		Incoming Gas Pipe

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.

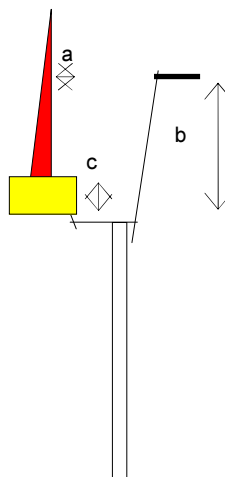
To establish the cause of damage, further investigations have been undertaken and these are described below.

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. The trial pit revealed that the walls of the house at the left flank are built off a 170mm thick concrete strip foundation bearing at a depth of 270mm below ground level in soft to firm brown slightly sandy clay. Roots up to 2mm in diameter were observed at the underside of the foundation.



Foundation Details

No.	Borehole Depth	Footing (a)	Underside (b)	Thickness (c)
TH1	3.50 m.	0 mm.	270 mm.	170 mm.

AUGERED BOREHOLES

A 50mm diameter hand auger was sunk through the base of the trial pit. The borehole revealed firm to stiff brown slightly sandy CLAY to a depth of 1.5 metres below ground level before becoming slightly clayey SAND. Roots were identified in soil samples retrieved to the full depth of the borehole. The bore remained dry and open on 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 had instructions to test the samples to determine if there was evidence of root induced desiccation. The results of these tests have confirmed that the clay band was deficient in moisture at the time the samples

were retrieved with a peak in desiccation noted at a depth of 1 to 1.5 metres below ground level.

ROOTS

Roots were retrieved from the trial hole and were submitted to a botanist for identification. Analysis has shown that the roots emanated from a tree of the Cedrus species (ie Cedar).

DRAINS

No drainage investigations were undertaken as no evidence of any surplus moisture was identified in our trial pit.

DISCUSSION

The results of our investigation lead us to conclude that the cause of recent movement in the building has been shrinkage of the clay component in the upper layer of soil promoted by the moisture demands of the large Cedar tree growing near-by.

The Investigations also suggest however that there is limited potential for significant movement to occur through this cause as the clay gives way to sand at relatively shallow depth. Sand is a non-plastic material whose volume cannot be influenced by the moisture demands of trees or other vegetation.

RECOMMENDATION

If further movement in the building is to be prevented, effective management of the Cedar tree is required so as to negate its impact on the moisture content of the soil below the foundations.

Felling of the tree represents the best means of achieving this. However, there may be alternatives and we propose seeking further advice on how this might be achieved from an Arboriculturist.

Our further report will follow once we are in receipt of their recommendations.

4 May 2010

Simon Chesher

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