

TECHNICAL REPORT ON A SUBSIDENCE CLAIM

Crawford Reference: SU1704316

**Mr David & Mrs Janet Hartley
215 Revidge Road
Blackburn
BB2 6DT**



Prepared for

AXA Household DA
Email to: technicalclaims.ins@axa-insurance.co.uk

Claim Reference 11997807G

SUBSIDENCE CLAIM

DATE 4 January 2018



Crawford[®]

Specialist Property Services – Subsidence Division
Cartwright House,
Tottle Road,
Riverside Business Park, Nottingham, NG2 1RT
Tel: 0115 943 8260
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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.



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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

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INTRODUCTION

We have been asked by AXA Household DA 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

We met with David Hartley. He said that cracks appeared to the front part of the property in summer 2017 and have then opened since. A claim was notified to insurers in November 2017.

PROPERTY

The subject property is a two storey mid-terrace house of traditional construction with stone walls surmounted by a pitched slate roof. A single storey bay window adjoins the front elevation. A cellar is located beneath the rear kitchen.

HISTORY & TIMESCALE

Site and drainage investigations are being organised.

Date of Construction	1900
Purchased	2002
Policy Inception Date	17/10/2014
Damage First Noticed	01/07/2017
Claim Notified to Insurer.....	29/11/2017
Date of our Inspection.....	03/01/2018
Issue of Report	10/01/2018
Anticipated Completion of Claim	30/12/2018

TOPOGRAPHY

The property occupies a site sloping from rear down to the front

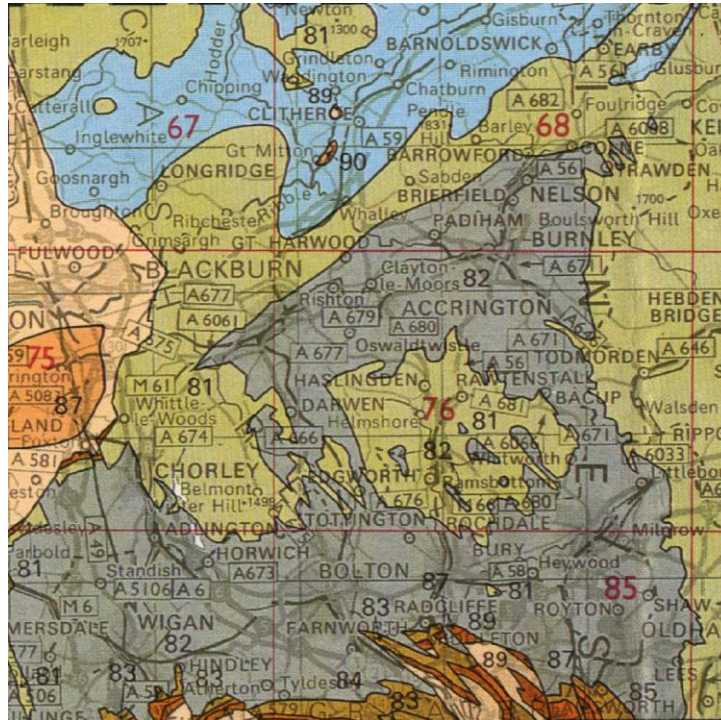
GEOLOGY

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

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Sandstones comprise cemented sand particles. They have an average porosity of around 30% or more, depending on the degree and nature of the cementitious material that binds the grains. Although not shrinkable, the superficial weathered deposits may be.

The solid geology appears to outcrop in this location, although we cannot rule out the presence of superficial deposits at shallow depth.



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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
Laburnum	4 m	4 m	Owners
Shrubs	2 m	2 m	Owners
Shrubs	1 m	1 m	Owners

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.

OBSERVATIONS

The main area of damage affects the wall between the front lounge and lobby.

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

INTERNAL

Cracking to the right-hand wall in the front lounge

Cracking to the left-hand wall in the front lobby

FRONT LOUNGE

Diagonal cracking up to 5mm wide is noted to the right-hand wall. The cracking extends into the coving in the front right-hand corner.

FRONT LOBBY

Diagonal and vertical cracking up to 5mm wide is noted to the left-hand wall (this mirrors the cracking in the lounge). The cracking extends into the coving and across the head of the front door.

Cracking 2mm wide is noted to the front right-hand junction between the wall and front door.

EXTERNAL

Front elevation and bay window. NB. The gas meter box is approximately in line with where the cracking is internally

Laburnum in front garden

No damage is noted externally.

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CATEGORY

In structural terms the damage falls into Category 3 of Table 1, Building Research Establishment¹ Digest 251, which describes it as “moderate”.

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.

DISCUSSION

The pattern and nature of the cracks is indicative of an episode of subsidence. The most probable cause of the movement appears to be clay shrinkage, however there is underground drainage at the front of the property and therefore leaking drains also remain a possible cause.

The timing of the event and the proximity of vegetation where there is damage indicates the damage may be due to root induced clay shrinkage. This is a commonly encountered problem and probably accounts for around 70% of subsidence claims notified to insurers.

Fortunately, the cause of the problem (dehydration) is reversible. Clay soils will re-hydrate in the winter months, causing the clays to swell and the cracks to close. Provided the cause of movement is dealt with (in this case, vegetation) there should not be a recurrence of movement.

Water escaping from drains or from other sources in non-cohesive soils can cause localised erosion as the finer particles of soil are washed away. It can also soften cohesive soils by reducing their shear strength. Usually, the building stabilises following repairs to the damaged service.

RECOMMENDATIONS

A site and drainage investigation is to be carried out to assist in determining the cause of the damage to the front part of the property. An update will be provided following receipt of the investigation report.

Stephen Rutherford BSc (Hons) MCIQB
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4 January 2018

¹ Building Research Establishment, Garston, Watford. Tel: 01923.674040

PHOTOGRAPHS



Large shrub in insured front garden

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