

INITIAL TECHNICAL REPORT

SUBSIDENCE CLAIM

Crawford Reference: 1785373
Insurer Claim Reference: 202209030605

6 Nicholas Way,
Northwood,
HA6 2TS



Prepared for

RSA - Nationwide

1 June 2026



Cartwright House, Tottle Road, Riverside Business Park, Nottingham, NG2 1RT

INTRODUCTION

We have been asked by RSA - Nationwide to comment on movement that has taken place to the above property. We are instructed to describe the damage, establish a likely cause and list any mitigation or remedial measures required to stabilise the property.

Our report does not constitute a full structural survey of the property and 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. All locations are identified as if viewing from the front of the building.

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

TECHNICAL CIRCUMSTANCES

The policyholder noticed the crack at juncture of the main house and extension went from being hairline in width to its current width last month and began very concerned and therefore they contacted their insurers to have the damage assessed.

PROPERTY

The property is two storey detached house of traditional construction with rendered walls surmounted by a pitched slate roof with a garage to the left and an extension and conservatory to the rear.

HISTORY

Date of Construction	Circa 1930
Date Purchased	2012
Date Damage First Noticed	27 September 2022
Claim Notified to Insurers	27 September 2022
Date of Initial Inspection	12 October 2022

TOPOGRAPHY

The property occupies a site which is relatively level with the rear garden sloping upwards with no unusual or adverse topographical features

GEOLOGY & SOIL

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

OBSERVATIONS

Following our initial inspection it was established that the damage to the property was caused by subsidence, believed to be as a result of root induced clay shrinkage. The damage of concern affects the extension.. Photographs of the initial damage reported are attached as an appendix to this report along with a site plan confirming the area of damage and relevant information.

INTERNAL DAMAGE

Extension rear 4.8 x 3.5 x 2.5h - artex ceiling

5mm cracking at the juncture with the ceiling

4mm cracking at the rear right corner running the height of the wall

10mm crack at the front left corner of the extension where it meets the main property

Several 2mm cracks at other wall junctures

Garage 3.8 x 7.3 x 2.7h

Crack to the floor slab where a section has sunk

Separation at the front corner mirroring the external

EXTERNAL DAMAGE

Front

15mm separation of the garage from main house been filled previously

Right 2.5 x 10m

2mm vertical crack in render

25mm separation at extension joint

Cracking and a hole in the concrete at the front right corner of the property

Rear 8.5 x 5.5 h

3mm crack above window may have been repaired previously

Movement to the window frame

2mm crack below the window x2

Left of extension

Hairline crack below the window

1mm crack above the door

3mm. Crack where it meets the main house

Rear of house

2mm crack from 2m high running to 4m high reaching 2mm wide

4mm wide cracking to the garden wall

CATEGORY OF DAMAGE

In structural terms, with reference to Table 1, Building Research Establishment¹ Digest 251, the damage is categorised as Severe (>15 but <25 mm) with maximum crack widths of 25.0mm.

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

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

FURTHER INVESTIGATION:

A site investigation was completed and a copy of their report and associated laboratory testing is attached. In summary, these revealed that:

1. A trial hole was excavated adjacent to the front. The foundations were 1500mm deep, bearing on <firm, stiff, very stiff> clay containing roots.
2. Laboratory testing revealed that clay has a high shrinkability potential and clay was desiccated .
3. The roots were identified as Quercus spp, Hedera spp, Aesculus spp ROOTS.
4. The CCTV drainage survey completed at the time of the investigations has confirmed no evidence of damage or defect which could be causing the movement.

Following completion of the site investigations we instructed arboricultural consultants. A copy of their report is attached. They identified the nearby vegetation as the cause of the damage.

MONITORING:

We have established level monitoring for an initial period of 6 months.

CAUSE OF DAMAGE:

It is our opinion that the cause of the crack damage is clay shrinkage subsidence caused by the water demands of vegetation T1 Oak and T2 Horse Chestnut.

This is based on the fact that:

1. The mechanism of movement is consistent with subsidence.
2. The foundations to the property in the area of the damage are at a relatively shallow depth, bearing on shrinkable clay containing roots. The clay is desiccated.
3. The clay soil is susceptible to movement as a result of changes in volume of the clay with variations in moisture content.
4. Proximity of vegetation to the area of damage (which is also the source of roots recovered from below the foundations.
5. Timing of damage, occurring at the end of summer 2022.

RECOMMENDATIONS TO STABILISE PROPERTY:

In order to mitigate the cause of the damage and stabilise the property, a proposal for mitigation action to vegetation T1 Oak and T2 Horse Chestnut should be implemented by the Local Authority.

RECOMMENDED REPAIRS:

If the vegetation T1 Oak and T2 Horse Chestnut is appropriately managed to provide a long term effective remedy then we consider works including structural crack repair and redecoration at an approximate cost of £30,000.00 will be appropriate to repair the damage.

If mitigation is not completed by way of appropriate vegetation management, it will be necessary to consider installing a root barrier or underpinning of the foundations of the property in the area of

damage in addition to structural crack repair and redecoration needed to repair the damage. The total cost of this option is estimated as £60,000.00 at a minimum .

Crawford & Company

Subsidence Division

Email: subsidence@crawco.co.uk

Appendix
Photos and Site Plan