

ADDENDUM TECHNICAL REPORT
Retained

DATE OF ISSUE:	4 th March 2019
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	Mr and Mrs Robinson 24 Nicholas Way Northwood HA6 2TS



General view of property

POLICYHOLDER DETAILS	
VAT status	Not registered
POLICY INFORMATION, HISTORY & TIMESCALES	
Policy wording:	Pen Underwriting - Subsidence
Authority:	Retained
Date of construction:	Circa 1960
Date of purchase:	2002
Date of policy inception:	06 June 2002
Date damage first noticed:	30 July 2018
Date claim notified to insurers:	01 August 2018
Date of our initial inspection:	22 August 2018
Supposed cause:	Subsidence
Start date of main remedial works (est.):	November 2019
Date of claim finalisation (est.):	January 2020

SUMMARY

We refer to previous correspondence in respect of the above from which insurers will be aware that we are dealing with subsidence damage affecting a 6 bedroom detached, domestic dwelling comprising mainly brick, elevations beneath a hipped and tiled roof with facing parapet walls.

The property is arranged over 2 storeys, and is believed to have been constructed in the 1960s. It has been well maintained.

There is a 2 storey splay bay window to the rear elevation. The property was extended to the left hand side prior to purchase and then again by the insured in 2006 to the front left.

Early indications were that the most likely cause of damage attributable to clay shrinkage subsidence, which has been exacerbated by the moisture extraction influence of the surrounding vegetation. The primary vegetative influence is considered to be the policy holder vegetation.

Site investigations have now been completed and we would report further as follows:

SITE INVESTIGATIONS

The investigation consisted of a hand excavated trial pit to reveal the construction of the foundations and two boreholes to establish the underlying ground conditions and was undertaken by Optera Structural Solutions.

TP/BH1 is located at the junction between the rear bay window and the main building. The foundations comprise concrete and are situated at a depth of 0.83mbgl which then proceeds to extend down to a depth of 1.03mbgl with a total thickness of 200mm. The foundation steps out from the brick face by 380mm with an approximate 50mm overhang.

TP/BH1

0.00m- 0.15m – TOPSOIL: Very soft dark brown slightly gravelly slightly sandy silt with rootlets.

0.15m- 0.30m – MADE GROUND: Soft brown slightly gravelly sandy clay.

0.30m- 0.45m – MADE GROUND: Very loose slightly sandy slightly clayey gravel.

0.45m- 0.60m – MADE GROUND: Soft brown slightly sandy slightly gravelly clay with rootlets.

0.65m- 1.10m – Soft light brown slightly sandy CLAY with rootlets.

1.10m- 2.45m – Stiff orangish brown mottled grey slightly sandy CLAY.

2.45m- 3.00m – Very stiff grey mottled brown slightly sandy CLAY.

-Roots visible to 2.00mbgl.

TP/BH1 was terminated at 3.00m due to ground conditions becoming too hard.

BH2 is located along the left-hand side of the house to determine the underlying geology.

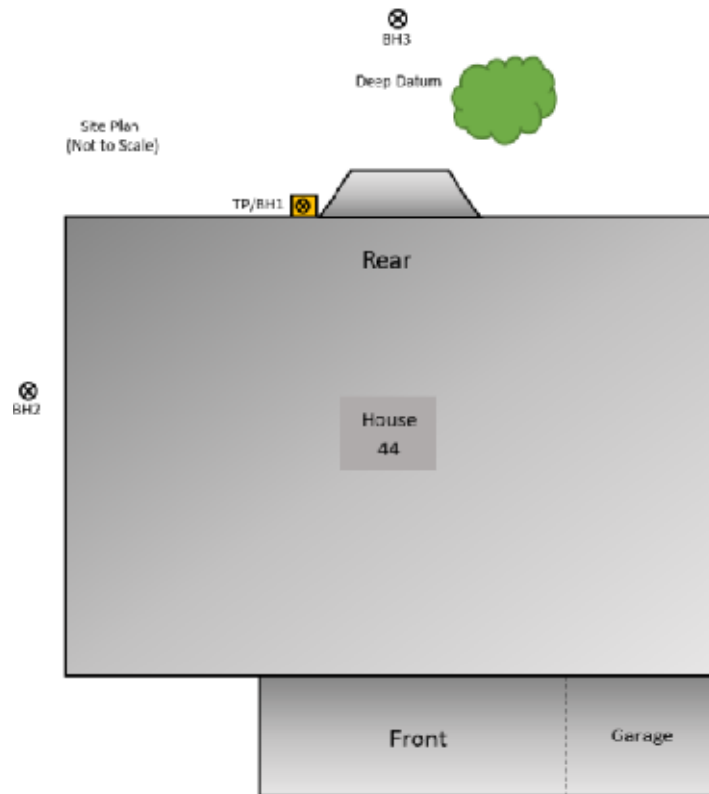
0.00m-0.30m – TOPSOIL: Very soft dark brown slightly sandy slightly gravelly clay with rootlets.

0.30m- 0.45m – Soft light brown slightly sandy slightly gravelly CLAY.

0.45m- 1.90m – Stiff Orangish brown mottled grey slightly sandy slightly gravelly CLAY with rootlets.

1.90m- 3.10m – Very stiff grey with orangish brown in places slightly sandy CLAY with rootlets. BH2 was terminated at a depth of 3.10m due to ground conditions becoming too hard. -Roots were visible to 2.60mbgl.

BH3 is Located approximately 5m West North West of TP/BH1 and was drilled using a windowless sample rig. The position is to be used for deep datum monitoring.



Samples of the roots were taken and sent away for laboratory testing. Those found within Trialpit/borehole 1 were identified as belonging to Quercus Oak. Additionally roots belonging to Hedra (Ivy) or the related Fatsia. Samples were not taken from Borehole 2 as this was for testing ground conditions but are most likely Quercus Oak given the size of the mature vegetation.

Sheer Vane testing confirmed the ground to be stiff at 1.5m depth with readings averaging 120Kpa and very stiff at depth with readings over 150Kpa beyond until termination.

The plasticity indicates that the soil is of high to very high shrinkability making it susceptible to volumetric changes brought about by moisture deficit.

MONITORING

A programme of level monitoring has been set up with initial readings taken 14th January 2019. There is therefore insufficient data at this time to draw any precise conclusions in relation to progressive movement.



DISCUSSIONS AND RECOMMENDATIONS

Following analysis of the results of the site investigation, we are now able to confirm that the cause of damage is attributed to root induced clay shrinkage.

As mentioned above, the main cause of movement is associated with vegetation under your ownership. It is most likely that stability will return were the vegetation to be removed and the soils allowed to naturally rehydrate. Once stability has been regained, it is likely that remedial works will be limited to crack repair and redecoration of the superstructure. We are of course aware that the Oak tree is the subject of a Tree Preservation Order so sufficient evidence would be required in order to request its lifting.

In the first instance we recommend that an arborist report is obtained and that the program of monitoring is completed prior to making recommendations for the full extent of mitigation and determining the most appropriate method of repair. We are aware that the property was the subject of a previous claim for subsidence in 2007 and that monitoring confirmed the property to be stable. This will no doubt account for the tree being allowed to remain given the protective order and repairs being undertaken.

NEXT ACTIONS

We have reported and will be in contact following receipt of their instructions.

ATTACHMENTS

Attachments are as follows:

SI Report