

## Addendum Arboricultural Report

### Subsidence Damage Investigation at:

Flats 1 & 3 Uplands Court  
 19 Frithwood Avenue  
 Northwood  
 HA6 3LY



CLIENT: Crawford & Company  
 CLIENT REF: SU1903345  
 MWA REF: SUB200116-6580Rev02  
 INITIAL REPORT DATE: 12/02/2020  
 1<sup>st</sup> ADDENDUM REPORT DATE: 28/09/2021  
 2<sup>nd</sup> ADDENDUM REPORT DATE: 16/02/2023

### SUMMARY

Statutory Controls		Mitigation (Current claim tree works)	
TPO current claim	Yes – T1, T2 (removed), T3, T6	Policy Holder	Yes
TPO future risk	Yes - T4		Yes
Cons. Area	Yes		No
Trusts schemes	No		No
Local Authority: -	London Borough of Hillingdon		



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Property:      Flats 1 & 3 Uplands Court  
                  19 Frithwood Avenue  
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## Introduction

**This is a second addendum to our initial and 1<sup>st</sup> addendum reports following receipt of additional level monitoring results to 12/01/2023.**

Acting on instructions from Crawford & Company, the insured property was visited on 22/01/2020 to assess the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

Recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third-party trees is excluded and third-party owners are advised to seek their own advice on tree health and stability of trees under their control.

## Property Description

The property comprises a 2/3 storey detached house originally constructed in the 1930s; the house has subsequently been converted into a number of flats. It has been extended with a two-storey addition to the right-flank, with a conservatory to the rear, built in 1985.

External areas comprise gardens to the front and rear.

The site is generally level with no adverse topographical features.

## Damage Description & History

Damage relates to the front, right elevation and the rear elevation of Flats 1 & 3 and was initially noted over the summer of 2018.

At the time of the engineer's inspection (15/08/2019) the structural significance of the damage was found to fall within Category 2 (slight) of Table 1 of BRE Digest 251.

We have not been made aware of any previous claims.

## Site Investigations

The first site investigations were carried out by Auger on 16/09/2019, when 2 trial pits were hand excavated to reveal the foundations of the original building, with a borehole sunk through the base of each trial pit to determine subsoil conditions. A second site investigation was carried out by Auger on 26/03/2021 when a single trial pit/borehole excavated slightly offset from the front right corner of the original building.

### Summary of Site Investigation 16/09/2019:

#### Foundations:

Ref	Foundation type	Depth at Underside (mm)
TH1	Concrete	1000
TH2	Concrete	1000

#### Soils:

Ref	Description	Plasticity Index (%)	Volume change potential (NHBC)
TH1	Brown fine to medium gravelly silty CLAY	28-35	Medium
TH2	Brown fine to medium gravelly silty CLAY	44-53	High

#### Roots:

Ref	Roots Observed to depth of (mm)	Identification	Starch content
TH2	1000	Acer	Not known

*Acer includes Maples, Sycamores*

**Drains:** The drains have been surveyed and defects identified although leaking drains are concluded not to be a cause of the current damage.

**Monitoring:** Level monitoring is in progress.

**Summary of Site Investigation 26/03/2021:**

**Foundations:**

Ref	Foundation type	Depth at Underside (mm)
TH1	Concrete	1000

**Soils:**

Ref	Description	Plasticity Index (%)	Volume change potential (NHBC)
TH1	Moist stiff mottled silty CLAY	N/A	N/A

**Roots:**

Ref	Roots Observed to depth of (mm)	Identification	Starch content
BH1	2100	Aesculus (horse chestnut) Quercus (oak) or the related Castanea (sweet chestnut)	Present Present

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## Discussion

Opinion and recommendations are made on the understanding that Crawford & Company are satisfied that the current building movement and the associated damage is the result of clay shrinkage subsidence and that other possible causal factors have been discounted.

Site investigations and soil test results have confirmed a plastic clay subsoil susceptible to undergoing volumetric change in relation to changes in soil moisture.

The Acer roots noted at a depth of 1m in TH2 (first site investigation) will originate from the trees within TG2.

Our initial report noted that despite no positive identification of roots from T2, due to its size and proximity to the area of damage, its roots were also likely to be present below foundation level in proximity to the area of movement/damage and influencing soil moisture and volumes. The second site investigation recovered Aesculus roots to 2.1m depth and whilst the borehole was slightly offset from the building, we considered it highly likely that the roots from this tree are present below the foundations.

Trees T3 and T4 (chestnut) are also within influencing distance of the original house and the Aesculus roots identified may originate from one or both these trees. However, on balance we considered it likely that T2 to be the most significant of the chestnuts with respect to the damage at the front right of the original house. T2 was removed in June 2022.

The oak roots recovered in the second site investigation will have originated from T1. This tree was originally recommended for reduction as a future risk. In view of the positive root identification works to this tree were moved to current claim works (REV01 report). The was subsequently reduced in June 2022.

Due to previous monitoring readings, T5 and TG2 were removed in 2020.

Level monitoring has demonstrated ongoing movement at the front right (pin 2) and rear left (pins 5, 6, 7) of the building and on this basis the removal of T1, T3, T6 and TG1 are recommended.

A positive identification of roots from T6 in the area of damage will be required to justify removal of this tree.

**Table 1** **Current Claim - Tree Details & Recommendations**

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Oak	15.5 *	1000 *	11 *	15 *	Older than Property	Third Party 21 Frithwood Ave HA6 3LY
Management history		Reduced to previous pruning points 22/06/2022.					
Recommendation		Remove (fell) to near ground level. Owner to physically remove any regrowth (no chemical treatment due to translocation risk).					
T2	Horse Chestnut	15	750	12 *	5	Older than extension	Third Party 21 Frithwood Ave HA6 3LY
Management history		Removed 22/06/2022.					
Recommendation		N/A.					
T3	Horse Chestnut	12 *	650 *	11 *	2.75 *	Older than extension	Third Party 21 Frithwood Ave HA6 3LY
Management history		No recent management noted.					
Recommendation		Remove (fell) to near ground level. Any regrowth from stump to be removed as it appears.					
T5	Sycamore	11 *	Ms 250 *	7 *	3	Younger than Property	Policy Holder
Management history		Removed 2020.					
Recommendation		N/A					
T6	Lime	17 *	800 *	14	4 *	Older than extension	Policy Holder
Management history		Previously subject to significant reduction. 12m to area of damage.					
Recommendation		Remove (fell) to near ground level. Any regrowth from stump to be removed as it appears.					

Ms: multi-stemmed

\* Estimated value

**Table 1 Current Claim - Tree Details & Recommendations cont'd**

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
TG1	Prunus	8	Ms 250 *	5	6.5 *	Younger than Property	Policy Holder
Management history		No recent management noted. Infested with Ivy.					
Recommendation		Remove (fell) to near ground level and treat stump to inhibit regrowth.					
TG2	Sycamore	12.5 *	Ms 300 *	12	10 *	Younger than Property	Policy Holder
Management history		Removed 2020.					
Recommendation		N/A.					

Ms: multi-stemmed

\* Estimated value

**Table 2**
**Future Risk - Tree Details & Recommendations**

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T4	Horse Chestnut	13 *	750 *	9 *	3 *	Older than extension	Third Party 21 Frithwood Ave HA6 3LY
Management history		No recent management noted.					
Recommendation		Maintain broadly at no more than current dimensions					
TG3	Birch	13 *	250 *	7 *	14 *	Younger than Property	Policy Holder
Management history		No recent management noted.					
Recommendation		None at present					

Ms: multi-stemmed

\* Estimated value

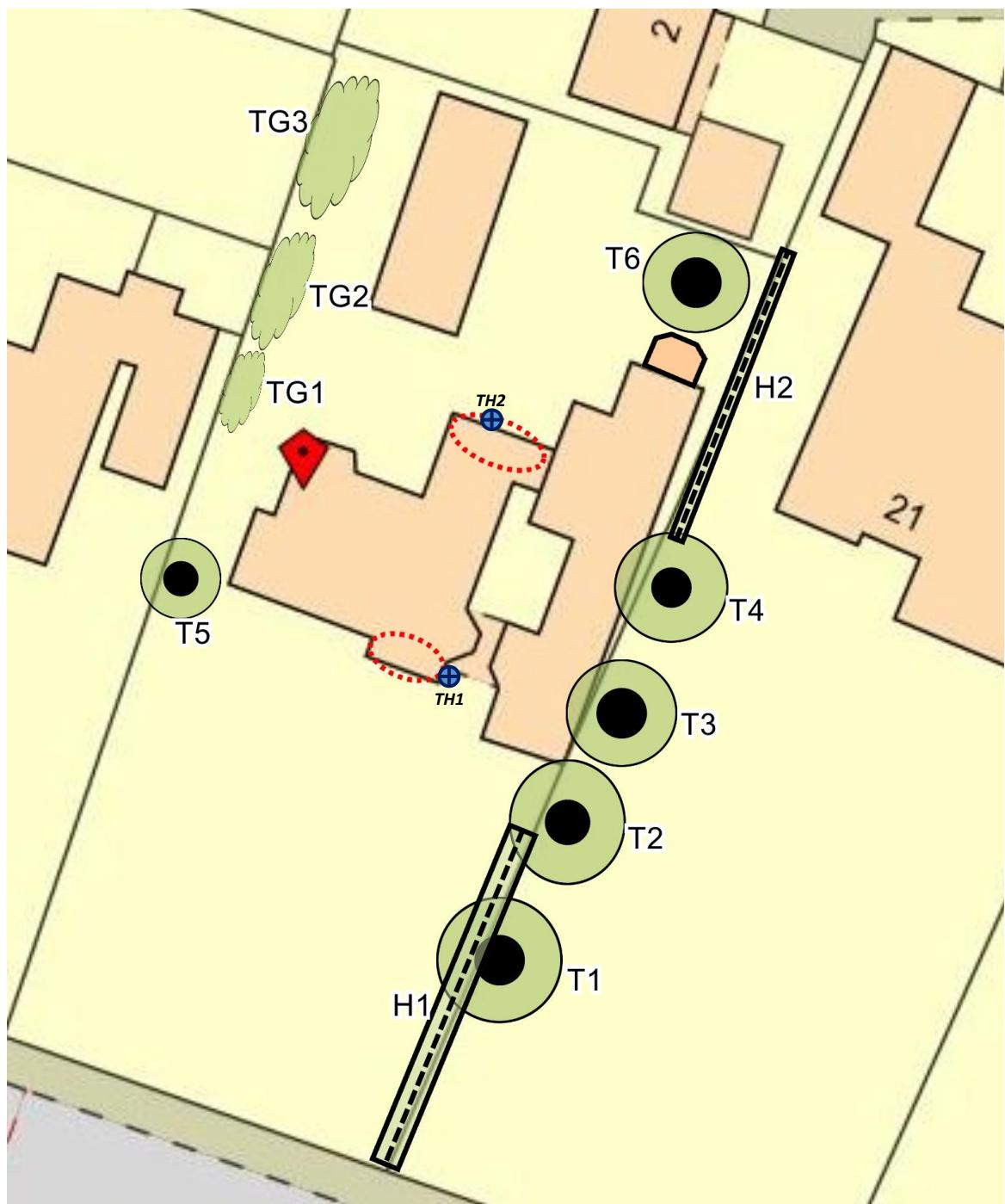
**Table 2** **Future Risk - Tree Details & Recommendations cont'd**

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
H1	Cypress	4.25	Ms	2	5	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
H2	Privet	2	Ms	1.5 *	0.1	Younger than Property	Third Party 21 Frithwood Ave HA6 3LY
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					

Ms: multi-stemmed

\* Estimated value

## Site Plan



Plan not to scale – indicative only



Approximate areas of damage

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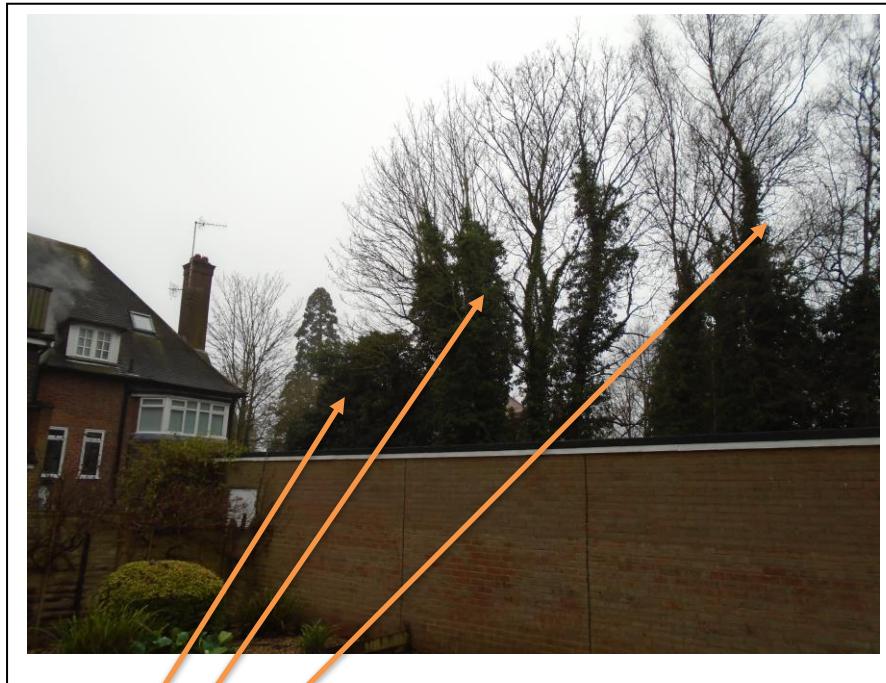
## Images



View of T2, T1 and H1



View of T2, T3 and T4



View of TG1, TG2 and TG3



View of T5 and TG1