

Addendum Arboricultural Report

Subsidence Damage Investigation at:

8 Haslemere Road
London
N8 9QX



CLIENT:	Davies Group Ltd
CLIENT REF:	72230964
MWA REF:	SUB241031-15788Rev01
MWA CONSULTANT:	Owen Hutchison BSc hons, Dip Arb L4, MArborA C Davies F.Arbor.A.
REPORT DATE:	12/11/2024
REVISION DATE:	02/10/2026

SUMMARY

Statutory Controls		Mitigation (Current claim tree works)	
TPO current claim	Yes - TG1	Policy Holder	No
TPO future risk	Yes - T1	Domestic 3 rd Party	Yes
Cons. Area	Yes	Local Authority	No
Trusts schemes	No	Other	No
Local Authority: -	London Borough of Haringey		

Introduction

This is a revision of our initial report dated 12/11/2024 following receipt of site investigations and level monitoring.

Acting on instructions from Davies Group Ltd, the insured property was visited on 08/11/2024 to assess the potential role of vegetation in relation to subsidence damage.

We are instructed to provide opinion on whether 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.

This is an initial appraisal report and observations/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 three-storey semi-detached house built circa 1880. There is a single-storey timber addition to the rear, constructed circa 2000. External areas comprise gardens to the front and rear.

The site is generally level with no adverse topographical features.

Damage Description & History

Damage is internal and is confined to the ground floor right-hand reception room and hallway. Damage is reported to have first been observed during March 2024.

At the time of the initial assessment (14/08/2024) the structural significance of the damage was found to fall within Category 2 (Slight) of Table 1 of BRE Digest 251. Further details of the damage can be obtained from Davies Group Ltd.

The property was the subject of a previous subsidence claim approximately 25 years ago, resulting in the underpinning of the left-hand bay. The subsidence damage was attributed to two large sycamores located within the front garden of number 6 Haslemere Road.

Site Investigations October 2024

Site investigations were carried out by Drainage Repair Company on 16/10/2024 when a trial pit and remote borehole were excavated to the front to reveal the foundations, with a borehole sunk through the base of the trial pit to determine subsoil conditions. The results of the investigations have confirmed a shrinkable clay subsoil below foundation level.

An obstruction at 700mm deep prevented excavating the borehole. Reference should be made to the Site Investigation report for further details.

Site Investigations February 2025

Site investigations were carried out by Drainage Repair Company on 28/02/2025 when a trial pit and borehole were where hand excavated to reveal the foundations at the front right of the building, with a borehole sunk through the base of the trial pit to determine subsoil conditions, a remote borehole was also excavated to the front. The results of the investigations have confirmed a shrinkable clay subsoil below foundation level. 850mm deep foundations were confirmed in TP1.

TH1 confirmed root identification of Pomoideae species (dead) and 5 root samples recovered from BH2 were identified as Acer species (recently alive).

Reference should be made to the Site Investigation report for further details.

Site Investigations May 2025

Site investigations were carried out Drainage Repair Company on 19/05/2025 when a trial pit and borehole hand excavated to reveal the foundations to the front right, with a borehole sunk through the base of the trial pit to determine subsoil conditions. A remote borehole was excavated to the front. The results of the investigations have confirmed a shrinkable clay subsoil below foundation level.

There is some discrepancy in the labelling of the TP/BH logs in the laboratory tests, TH/BH1 became TH/BH2 and BH2 became BH3, however the labelling is the same in the root identification certificate.

Foundation depth was confirmed as 650mm bearing on shrinkable clay soil. and there was evidence of desiccation with the moisture content being within 2% of the Plastic Limit. The sampling was undertaken during May, at a time of year when soil moisture deficits due to root activity would be near their lowest and we would expect significantly drier soil during summer months when roots are active.

Roots recovered from TH/BH1 to a depth of 2200mm were confirmed as Acer species (13x dead samples) and Aesculus/Acer (3x dead samples).

Reference should be made to the Site Investigation report for further details.

Discussion

Opinion and recommendations in this report are made on the understanding that Davies Group Ltd has identified clay shrinkage subsidence as a cause of building movement and damage.

The BGS soil map indicates the underlying soils include or are likely to include a clay component susceptible to undergoing volumetric change with changes in soil moisture. Moisture extraction by vegetation has the potential to cause soil shrinkage and consequent subsidence of the building.

Site investigations and soil test results have confirmed a medium to high plasticity clay subsoil susceptible to undergoing volumetric change in relation to changes in soil moisture. A comparison between moisture content and the plastic and liquid limits indicates moisture depletion/desiccation at the time of sampling at depths beyond normal ambient soil drying processes such as evaporation indicative of the soil drying effects of vegetation. The onset of desiccation was confirmed in the May 2025 investigations.

Roots were observed below foundation depth and have been positively identified (using anatomical analysis) as Pomoideae species, the origin of which will be minor vegetation within the front garden or nearby, as Acer species, the origin of which will be Sycamores in TG1 and Acer/Aesculus species, the origin of which will be Sycamores in TG1 and likely Horse Chestnut T1 confirming their influence on the soils below the foundations.

Irrespective of the “dead” state of some recovered root samples, the roots of TG1 and T1 have the potential to influence soil moisture and volumes. Roots can die during very dry weather. Roots recovered from beneath foundations, whether alive, recently alive, negative for starch or decayed indicate that the roots must have been alive when they extended beneath the foundations. If root from a certain species have been identified, then that species becomes implicated as the roots must have been alive when they grew under the foundations.

Like the crown of a tree or shrub, death of the end of a branch/twig, or if it is pruned will stimulate secondary growth from further back, the same thing happens with roots, a dead end of a root will likely mean that other side roots further back will develop to take over the function of moisture extraction. Also, roots can cause soil to become desiccated, and it then becomes unsuitable for root growth and roots may die back due to insufficient moisture being present.

The presence of roots below the foundations confirms a vegetative influence on soil moisture and volumes and this is confirmed in the level monitoring results.

Level monitoring is available from October 2024 to August 2026 and has recorded 4mm downward movement to point 2 during summer 2025 and up to 9mm downward movement to point 3 during the same period, this amplitude of movement is slightly greater than that recorded during summer 2024, indicating the influence of tree roots beneath foundations is increasing annually.

The TBM datum was installed on the front bay, which has previously been underpinned and is considered to be stable.

Our survey has identified vegetation with the potential to influence soils below foundation level of the building/area of movement.

Based on the information currently available, engineering opinion and our own site assessment we conclude there is damage consistent with shrinkage of the clay subsoil exacerbated by the soil drying effects of vegetation. It is our opinion that Sycamore group TG1 is the principal cause of or is significantly contributing to the current building movement and damage. There may be a contribution from Horse Chestnut T1, but this is a comparatively smaller pollarded tree that is likely to exert a lesser influence than the much larger Sycamores forming TG1.

TG1 was previously implicated in subsidence damage that led to partial underpinning of the front bay around 25 years ago. The current damage is within closer proximity to trees in TG1.

If an arboricultural solution is to be implemented to mitigate the influence of the trees/vegetation considered to be responsible for the movement/damage, works set out at Table 1 below are recommended.

Where other vegetation recorded presents a potential future risk to building stability, management is recommended (see Table 2).

Consideration has been given to pruning alone as a means of mitigating vegetation influence, however in the case of TG1, this is not considered to offer a viable long-term solution due to the species characteristics, size, proximity to the damage and prior involvement in clay shrinkage subsidence damage.

Recommended tree works may be subject to review/change upon receipt of additional information.

Site Plan



Plan not to scale – indicative only



Approximate areas of damage

Tree/vegetation locations are based on what could be determined at the time of the survey.

It should be noted that this is not always clear due to lack of access or a restricted view of the trees/vegetation and may be disputed by property owners.

MWA can undertake land registry searches as required.

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

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
TG1	Sycamore x 2	18 *	1000 *	14	16 *	Younger than Property	Third Party 6 Haslemere Road N8 9QX
Management history		Subject to past management/pruning. Attributed to previous subsidence claim 25 years ago and subject to a tree preservation order.					
Recommendation		Remove (fell) to ground level and treat stumps to inhibit regrowth.					

Ms: multi-stemmed * Estimated value

T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - Stump

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

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Horse Chestnut	4.5	1000 *	5 *	16 *	Younger than Property	Third Party 6 Haslemere Road N8 9QX
Management history		Maintained as a pollard.					
Recommendation		Maintain broadly at no more than current dimensions by biannual re-pollarding (in accordance with BRE IP7/06 "Pruning trees to reduce water use).					
TG2	Lime x 1 and Sycamore x 1	18 *	800 *	14 *	20 *	Younger than Property	Third Party 4 Haslemere Road N8 9QX
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
S1	Viburnum	3 *	20 Ms *	4 *	4.8	Younger than Property	Third Party 6 Haslemere Road N8 9QX
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
G1	Rose, Fig, Olive, Honeysuckle and Jasmine	2	10 Ms *	2 *	2 *	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
G2	Smoke Bush, Holm Oak, Philadelphus, Rose, Fushia and Magnolia	3.5	40 Ms *	3 *	1 *	Younger than Property	Policy Holder
Management history		Subject to past management/pruning.					
Recommendation		Remove the Oak. Maintain other elements at broadly at no more than current dimensions by periodic pruning.					

Ms: multi-stemmed * Estimated or approximate value

T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - stump

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
G3	Camelia, Philadelphus, Laurel, Aucuba, Choisya	3	10 Ms *	2 *	2	Younger than Property	Third Party 6 Haslemere Road N8 9QX
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by periodic pruning.					
H1	Privet	2	10 Ms *	1.5	1.2	Younger than Property	Boundary Policy Holder and/or Third Party 10 Haslemere Road N8 9QX
Management history		Subject to past management/pruning.					
Recommendation		Maintain broadly at no more than current dimensions by trimming annually.					

Ms: multi-stemmed * Estimated or approximate value

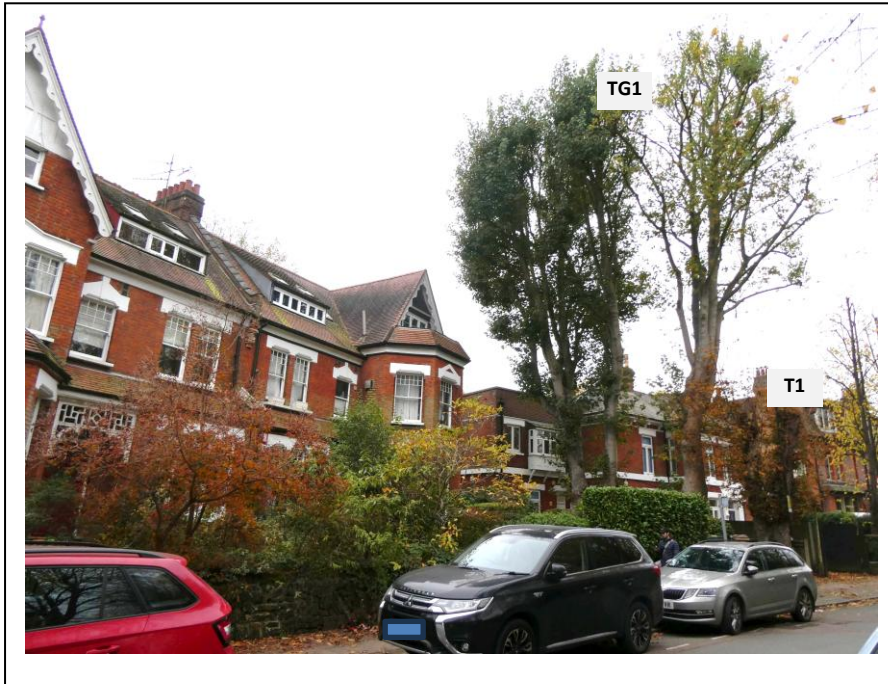
T - Tree; TG - Tree group; G – Group; H - Hedge; S - Shrub; SG - Shrub group; C - Climber; W – Woodland; ST - stump

Distance to building measurements are to the nearest point of the building unless otherwise stated.

Tree dimensions may be estimated or approximate based on accessibility.

Crown spread values are normally an estimate of the maximum spread but note tree crowns may be asymmetrical.

Photographs



View of T1 and TG1 in relation to the front elevation.



View of T1 and TG1.



View of G2 in the front garden.



View of TG2 from the rear garden.

Management of vegetation to alleviate clay shrinkage subsidence.

All vegetation requires water to survive which is accessed from the soil. Clay soils shrink when water taken up by vegetation exceeds inputs from rainfall, which is at its maximum during the summer months. When deciduous vegetation enters dormancy and loses its leaves, and rainfall increases during the winter months, soil moisture increases and the clay swells. (Evergreen trees and shrubs use minimal/negligible amounts of soil water during the winter).

Buildings founded on clay soils are susceptible to movement as the clay shrinks and swells which when exacerbated by vegetation can result in building movement and cracking to walls.

Where damage does occur, pruning (reducing leaf area) can in some circumstances be effective in restoring stability however, removal of the influencing vegetation (trees, shrubs, climbers) causing the ground movement offers the most reliable and quickest solution in reducing seasonal volumetric changes in the clay, restoring building stability, and for this reason is frequently initially recommended as the most appropriate solution.

Often this is unavoidable due to the size or number of influencing trees, shrubs etc and their proximity to the building. Very heavy pruning of some species to a level required to effectively control its water use can result in the trees decline and ultimately death and is one factor considered when making recommendations for remedial and future management of a tree. Pruning alone, whilst reducing soil moisture uptake is often an unpredictable and unreliable management option in restoring building stability, either in the short or long term.