



Arboricultural Survey

139 Stapleton Hall Road
London
N4 4RB
22ND November 2022

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Insurer:	AXA Commercial
Insured:	Mr and Mrs Fleming
Claim number:	2747535
Questgate Ref:	QG1S1119416
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Table of Contents

1.0	Introduction.....	3
2.0	Tree roots and soil discussion	4
3.0	Summary of site investigations taken from associated reports.....	5
4.0	Conclusions.....	6
5.0	Scheme of management	7
6.0	Tree Survey Schedule	8
7.0	Site Plan	9
8.0	Photos.....	10
9.0	Tree Work Schedule	11
10.0	Specific Report Caveats	12

1.0 Introduction

1.1 Purpose of the report

- 1.1.1 This arboricultural report has been requested by Questgates Ltd as part of an investigation into suspected subsidence damage at 139 Stapleton Hall Road London N4 4RB on the basis that vegetation could be having an influence on the soil moisture.

1.2 Instruction

- 1.2.1 Southern Ecological Solutions Ltd has been instructed to undertake an arboricultural survey of the vegetation within the likely influencing distance of the subject property, 139 Stapleton Hall Road London and provide a scheme of management to prevent further damage.
- 1.2.2 I have been provided with the details of the site investigations to assist in the preparation of this report.

1.3 Site Overview

- 1.3.1 The site visit was undertaken on the 31ST October 2022 from ground level only, all measurements were taken using a laser measuring device and diameter tape. The distance of vegetation to the property was measured to the closest point.
- 1.3.2 The property is a 3-storey mid terrace house, with single storey extension and a number of trees within the rear garden and adjacent garden.
- 1.3.3 Within the street scene are two London Plane trees, which appear to be on a rotation of pollard management.

1.4 Property damage

- 1.4.1 Damage is noted throughout the property on the ground floor, first floor and second floor, in bedrooms, bathrooms and the hallway, The level of damage ranges from 2mm-30mm and is noted as being category 2 -5 in line with the Building Research Establishment.
- 1.4.2 Crack damage takes the form of vertical and raking cracks and distortion of the internal floor, in some cases doors were jammed and access to rooms was not possible.

2.0 Tree roots and soil discussion

- 2.1.1 Tree roots can influence soil conditions and with certain soils (such as a clay soils which can hold more water than gravels and sands), this can lead to a soil moisture deficit as a result of the roots extracting moisture from the soil causing the soil volume to shrink and swell dependant on the influence and time of year, which in turn can cause a building to move. The roots of trees are known to travel over many metres often beyond the spread of the canopy and certain species of trees are more commonly associated with subsidence damage due to the amount of water they extract, known as high water demanding trees.
- 2.1.2 The influence of soils from roots can vary based on a number of factors and it is important to establish and consider the information presented as part of subsidence investigation when assessing the vegetation and its likely contribution to the cause of subsidence, for example: the time of year a soil sample has been collected, whether starch is present within a root and the soil type to name a few.
- 2.1.3 Where it has been established that vegetation has a sole or contributory effect on the deficit of moisture from a soil, it is important to implement a scheme of management to control the water to minimise soil shrinkage and allow for a property to stabilise. Pruning and removal are both acceptable forms of management to control water demand, but the right application will need to be assessed as part of the subsidence investigation. Regular works to trees to manage their canopies can reduce the risk of subsidence to an area and mitigate against repeat cases of subsidence increasing the likelihood for tree retention in the landscape.
- 2.1.4 Tree roots can often encroach beyond the boundary in which they are located, and SES will ascertain which vegetation is the most likely contributing or sole cause of a case of subsidence and will seek to work with all landowners where tree management is required in relation to the case.

3.0 Summary of site investigations taken from associated reports.

- 3.1.1 Trial pit 1 was excavated against the front bay and goes to a depth of 3m but the investigation was unable to locate the underside of the foundation. The make up of the soil was made ground to 500mm of block paving, builders sand, and dark grey slightly clayey, slightly gravelly sand, then sandy gravelly clay to 3m.
- 3.1.2 No roots were observed in TP1.
- 3.1.3 Trial pit 2 was excavated within the hallway with a foundation of 500mm made up of concrete and brick, below this the soil strata is firm brown slightly sandy, slightly gravelly clay.
- 3.1.4 No roots were observed in TP2.
- 3.1.5 Trial pit 3 was excavated to the rear left hand side of the property and revealed a foundation to 400mm of made ground concrete. Below this the make up of the soil strata was firm brown slightly sandy slightly gravelly clay.
- 3.1.6 Roots were observed in TP3 emanating from Acer and which would appear to emanate from the sycamore located in the rear garden and adjacent garden, these were shown to be recently alive. All of these trees are within the zone of influence and due to their close proximity it is not possible to link the damage to a single tree.
- 3.1.7 Trial pit 2 shows high suction profiles at 2.7m with a KPA of over 150. The soil is shown to be desiccated between 1.8 and 2.8m with very high plasticity.
- 3.1.8 Trial pit 2 shows high suction values at a depth of 0.6m and a desiccated soil from 0.6m-1.6m with a very high plasticity.
- 3.1.9 Trial pit 3 shows high suction values at a depth of 2.5m and a desiccated soil from 0.6m – 2.6m with very high plasticity.
- 3.1.10 I have not seen any level or crack monitoring for this case.

4.0 Conclusions

- 4.1.1 Our report is based on the fact that engineers and our client have confirmed the damage observed at the property is vegetation related and having given due consideration to the information supplied and undertaking a site visit, we consider that some vegetation management would be prudent in order to allow recovery of the soil and the property to be repaired.
- 4.1.2 There were three trial pits undertaken for the property all showing desiccation, notably TP2 has the highest KPA suction profiles with TP3 obtaining roots emanating from sycamore.
- 4.1.3 The building has extensive damage on all levels with some cracks up to 30mm and rooms which are not accessible due to jammed doors. The floor in hallway is distorted with a distinctive bulge.
- 4.1.4 Trees are noted to the front and rear, with the sycamore in the rear garden and adjacent garden being implicated.
- 4.1.5 The trees at the front are highway plane trees which are the subject of a pollard regime, there were no roots obtaining to these trees and the foundation nearest these trees is believed to be circa 3m plus.
- 4.1.6 I have not seen any monitoring data for this site.

5.0 Scheme of management

- 5.1.1 The vegetation for this claim is focused on the ash and sycamores in the rear gardens, however there is also an ash tree located in a rear garden behind 139 Stapleton Hall Road. All of these trees are considered to be within influencing distance of the property, however there is nothing to implicate the ash trees at this time and therefore no recommendations are made for the offsite ash tree located in an adjacent garden.
- 5.1.2 The council owned London Plane street trees T7 and T8 are managed as pollards and I believe these to have been pruned last year. Pursuance such as removal is unlikely to be accepted by the London Borough of Haringey based on the lack of data to implicate these trees, however it is advised that they are put on notice of the damage to the property.
- 5.1.3 The adjacent property where one of the sycamore trees is located, is believed to be Haringey housing owned and as such communication will be necessary with them to seek their permission to remove the sycamore trees.
- 5.1.4 Level monitoring is likely to be needed as there are trees which are third party owned and Stapleton Hall Road sits within the Stroud Green Conservation area.

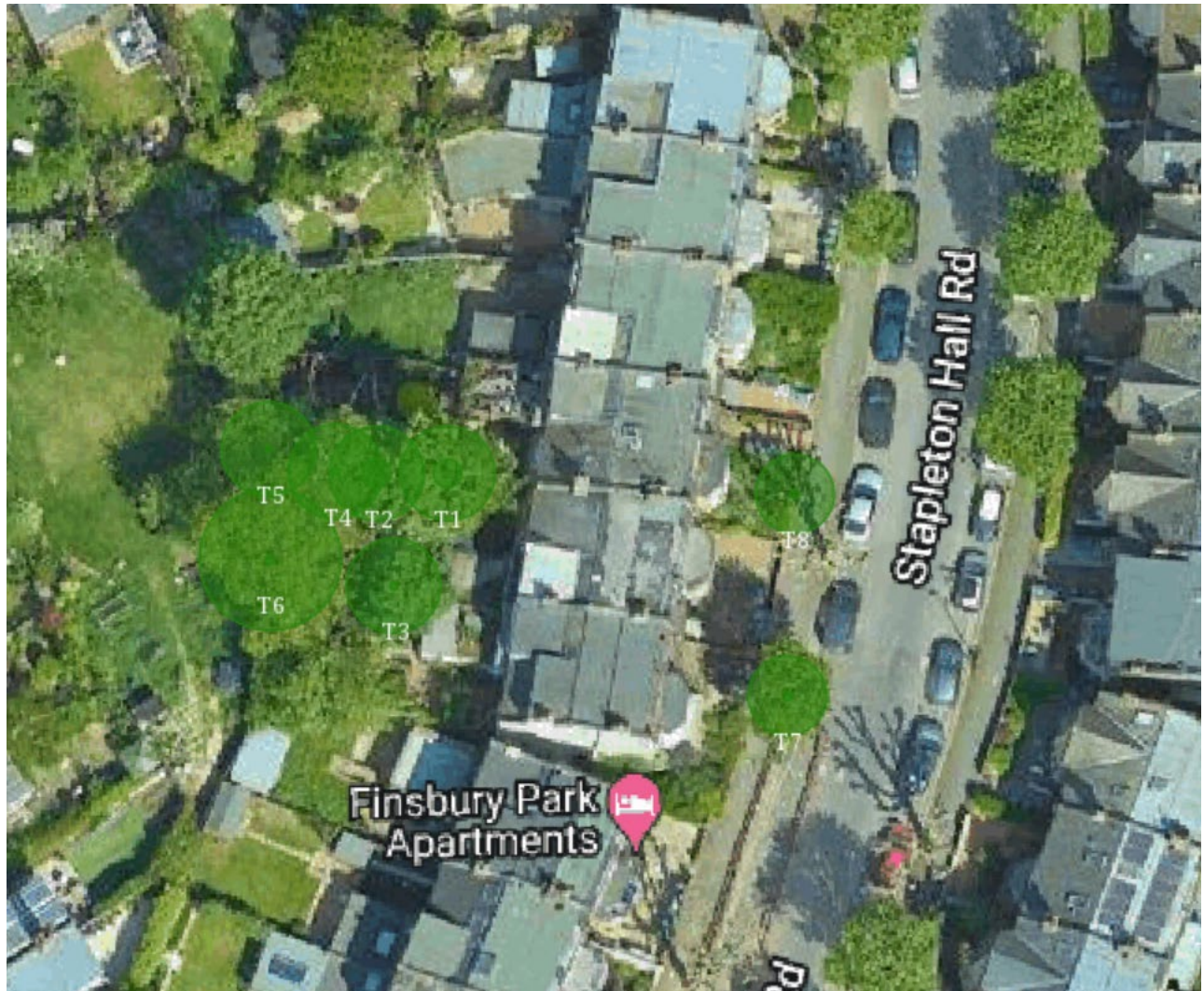
6.0 Tree Survey Schedule



139 Stapleton Hall Road, survey date 31st October 2022, surveyor Gary Meadowcroft Client Questgate Ltd

Tree no	Species	Age	Distance to property (m)	Stem diameter (mm)	Spread (m)	Height	Condition structural and physiological	Observations	Ownership
T1	Acer pseudoplatanus (Sycamore)	Early mature	3.5	180	6.0	9.0	Fair	n/a	Insured
T2	Fraxinus excelsior (Ash)	Early mature	5	180	6.0	10.5	Fair	n/a	Insured
T3	Acer pseudoplatanus (Sycamore)	Early mature	8	300	6.0	5.5m	Fair	n/a	Insured
T4	Acer pseudoplatanus (Sycamore)	Early mature	8.0	400	6.0	11	Fair	Offsite tree	Third Party
T5	Acer pseudoplatanus (Sycamore)	Early mature	12	400	6.0	11	Fair	Offsite tree, heavily ivy clad and a cavity on the trunk	Third party
T6	Fraxinus excelsior (Ash)	Early mature	13	650	9.0	12	Fair	Offsite tree	Third party
T7	Platanus x hispanica (London plane)	Mature	9.0	600	7.0	8.5	Fair	Pollarded street tree recently pruned	Third party
T8	Platanus x hispanica (London plane)	Mature	9.5	600	5.0	8.5	Fair	Pollarded street tree, recently pruned	Third party

7.0 Site Plan



8.0 Photos



Looking down the garden ash and sycamore in the background. Both offsite trees



Local Authority plane trees at the front of the property.

Sycamore and ash tree within 5m of the property.



9.0 Tree Work Schedule



139 Stapleton Hall Road, survey date 31st October 2022, surveyor Gary Meadowcroft Client Questgate Ltd

Tree no	Species	Age	Distance to property (m)	Stem diameter (mm)	Spread (m)	Height	Condition structural and physiological	Observations	Ownership	Recommended work
T1	Acer pseudoplatanus (Sycamore)	Early mature	3.5	180	6.0	9.0	Fair	n/a	Insured	Fell and kill
T2	Fraxinus excelsior (Ash)	Early mature	5	180	6.0	10.5	Fair	n/a	Insured	Fell and kill
T3	Acer pseudoplatanus (Sycamore)	Early mature	8	300	6.0	5.5m	Fair	n/a	Insured	Fell and kill
T4	Acer pseudoplatanus (Sycamore)	Early mature	8.0	400	6.0	11	Fair	Offsite tree	Third Party	Fell and kill
T5	Acer pseudoplatanus (Sycamore)	Early mature	12	400	6.0	11	Fair	Offsite tree, heavily ivy clad and a cavity on the trunk	Third party	Fell and Kill
T6	Fraxinus excelsior (Ash)	Early mature	13	650	9.0	12	Fair	Offsite tree	Third party	No action at present
T7	Platanus x hispanica (London plane)	Mature	9.0	600	7.0	8.5	Fair	Pollarded street tree recently pruned	Third party	Maintain as pollard but notify the LA of the claim
T8	Platanus x hispanica (London plane)	Mature	9.5	600	5.0	8.5	Fair	Pollarded street tree, recently pruned		Maintain as pollard but notify



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10.0 Specific Report Caveats

- 10.1.1 The survey was based on the physical features on site and information supplied by the client. A google underlay and laser were used to plot trees as accurately as possible.
- 10.1.2 Any work with trees will discharge the due diligence requirements of all relevant wildlife and countryside Legislation.
- 10.1.3 No internal diagnostic equipment was used, and no excavations were undertaken, the survey is concerned solely with arboricultural issues relating to the damage to 139 Stapleton Road, London.
- 10.1.4 Trees are dynamic living organisms whose health and the condition can change rapidly. Any changes to the tree or conditions close to the tree may change the stability and condition of the tree and a further examination would be required and may affect the validity of this report.
- 10.1.5 This report is valid for 12 months.
- 10.1.6 It has been established that the trees are not subject of a tree preservation order but are within a conservation area when checking the London Borough of Haringey interactive T.P.O. map and Conservation Area map.



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