Arboricultural Implication Assessment

Preliminary Report on Trees

For:	**Client:**	Richard F Gill & Associates
	Insurer:	Aviva
Site:	**Policyholder:**	Miss Osband
	Risk Address:	26a Frognal, London, NW3 6AG
Refs:	**OCA Ref:**	55638
	Client Ref:	13307

Survey By:	Adele Devonshire		
Title:	Arboricultural Technician	**Date:**	06 February 2014
Report By:	Sue Lawson		
Title:	Consulting Arborist	**Date:**	15 February 2014

OCA UK Limited
Consulting Arboriculturists

4 The Courtyards, Phoenix Square, Severalls Park, Wyncolls Road, Colchester, Essex CO4 9PE
Tel.No: 01206 751626

Email: colchester@oca-arb.co.uk www.oca-arb.co.uk

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UKAS MANAGEMENT SYSTEMS 078

1.0 Introduction & Brief

1.1 OCA UK Limited has been instructed by Richard F Gill & Associates on behalf of Aviva, the building insurers of 26a Frognal, London, NW3 6AG (the insured property). We have been advised by the Project Engineer that the insured property has suffered differential movement and damage which is considered to have been caused by vegetation growing adjacent the property influencing soils beneath foundations.

1.2 We have been instructed to undertake a survey of the vegetation growing adjacent the insured property, to provide our opinion as to whether, based on the available information any of this vegetation is likely to be influencing soil moisture levels beneath the foundations of the property and if so to provide recommendations as to what tree management could be implemented to effectively prevent damage continuing.

1.3 The vegetation growing adjacent the risk address has been surveyed from the ground using digital measuring devices and/or standard tape measures. All distances are measured to the nearest point of the risk address unless otherwise stated.

2.0 Limitations

2.1 Recommendations with respect to tree management are associated with the risk address as stated on the front cover of this report and following consultation with investigating engineers. The survey of trees and any other vegetation is associated with impacts on the risk address subject of this report. Matters of tree health, structural condition and/or of the safety of vegetation under third party control are specifically excluded. Third party land owners are strongly advised to seek their own professional advice as it relates to the health and stability of trees under their control.

2.2 In relation to the possibility of heave damage, the owners of any trees within third party control must obtain their own advice in respect of the possibility of any damage to their own or any other structures outside of the control of the insurers of the risk address subject of this report from any soil heave.

2.3 Recommendations do not take account of any necessary permission (statutory or otherwise) that must be obtained before proceeding with any tree works.

3.0 Vegetation and subsidence of low rise buildings – property owner's guide

3.1 Soils, soil water and vegetation

All vegetation requires water to live and this water is substantially accessed from the soil within which the plants' roots grow.

If the soil is classified as a clay soil then it will hold very much more water than sands, gravels and loam soils. During the summer as plants abstract water from the clay soil then the soil volume will "shrink" and "swell" as water is first removed and then added by summer rainfall.

In years in which rainfall during the summer is less than the total amount of water taken from the soil by plants then shrinkage will continue. This shrinkage may remove support from building foundations leading to cracking in the fabric of the building.

3.2 Vegetation management

The control of trees, shrubs and climbers by removal is a proven technique that controls total soil water loss thereby minimising soil shrinkage and allowing repairs to proceed.

If vegetation management works are carried out promptly then repairs can usually proceed very quickly and the duration and distress associated with the disruption that tree related subsidence brings can be minimised.

3.3 Third party liaison and statutory controls

Tree roots do not respect physical or property boundaries and can travel for many metres beyond the above ground "dripline" of the canopy of the vegetation.

The purpose of this report is to ascertain on a preliminary basis which vegetation is the most likely substantial and/or effective contributory cause of the current damage to allow for liaison with third parties or with local administrative authorities as necessary.

You can learn more about tree related subsidence of low rise buildings by visiting:

www.oca-arb.co.uk/whatisSubsidence.htm

4.0 Technical Reports Reviewed

We have been provided with copies of the following reports produced by others in the investigation of the current subsidence claim:

- Richard F Gill Engineer's Report dated 27/09/13
- Soiltech Site Investigation Report and Engineer's Report based upon this dated 02/12/13

5.0 Conclusions

Roots have been noted to a maximum depth of 1.6m in TPBH1. Samples of these roots have been tested using light microscopy techniques and have been formally identified as from the botanical genus *Fraxinus* (Ash).

Given its size, species and proximity to the location of the trial pit/borehole we consider that these roots have emanated from T1 (Ash).

The area of damage as described by the Engineer is entirely consistent with the location of T1 (Ash).

Shrinkable clay soils have been encountered beneath foundations at TPBH1. These soils will be subject to volumetric changes due to fluctuations in their moisture content.

The soils analysis results indicate that underlying soils are in a desiccated condition.

We have no information regarding the condition of the drains.

Therefore it is our opinion that sufficient information has been provided to demonstrate that, on the balance of probabilities, T1 is the material cause of the current subsidence damage.

There are various other trees and shrubs situated within the garden of the property and neighbouring property however, we consider it unlikely that any of these are a significant causal factor in the current damage.

6.0 Recommendations

We do not consider that pruning will offer an effective or sustainable means of controlling the water use of T1 (Ash). Therefore and in order to provide a long-term solution to the current subsidence damage we recommend that this tree be removed.

6.1 Recommended vegetation management to address the current subsidence:

Tree No:	Species	Works Required	Ownership
T1	Ash	Fell as close as possible to ground level and treat stump with appropriate herbicide to prevent future growth.	PH

7.0 Statutory Controls

We are currently waiting for confirmation from the Local Planning Authority as to whether T1 is subject to a Tree Preservation Order or Conservation Area controls.

Age Class	**YO** – Young. **SM** – Semi-Mature.**EM** – Early Mature. **MA** – Mature. **FM** – Fully Mature. **OM** – Over Mature	Ownership	**PH** – Within boundary of risk address. **P3P** – Within boundary of third party properties. **LA** – Within land owned by a Local Authority. **C3P** – Commercial third party. **U** – Within land of indeterminable ownership.
Condition	**G** – Good. **F** – Fair. **P** – Poor. **D** – Dead, Dying or Dangerous		
Stem Diameter	**MS** – Multi-stemmed tree		

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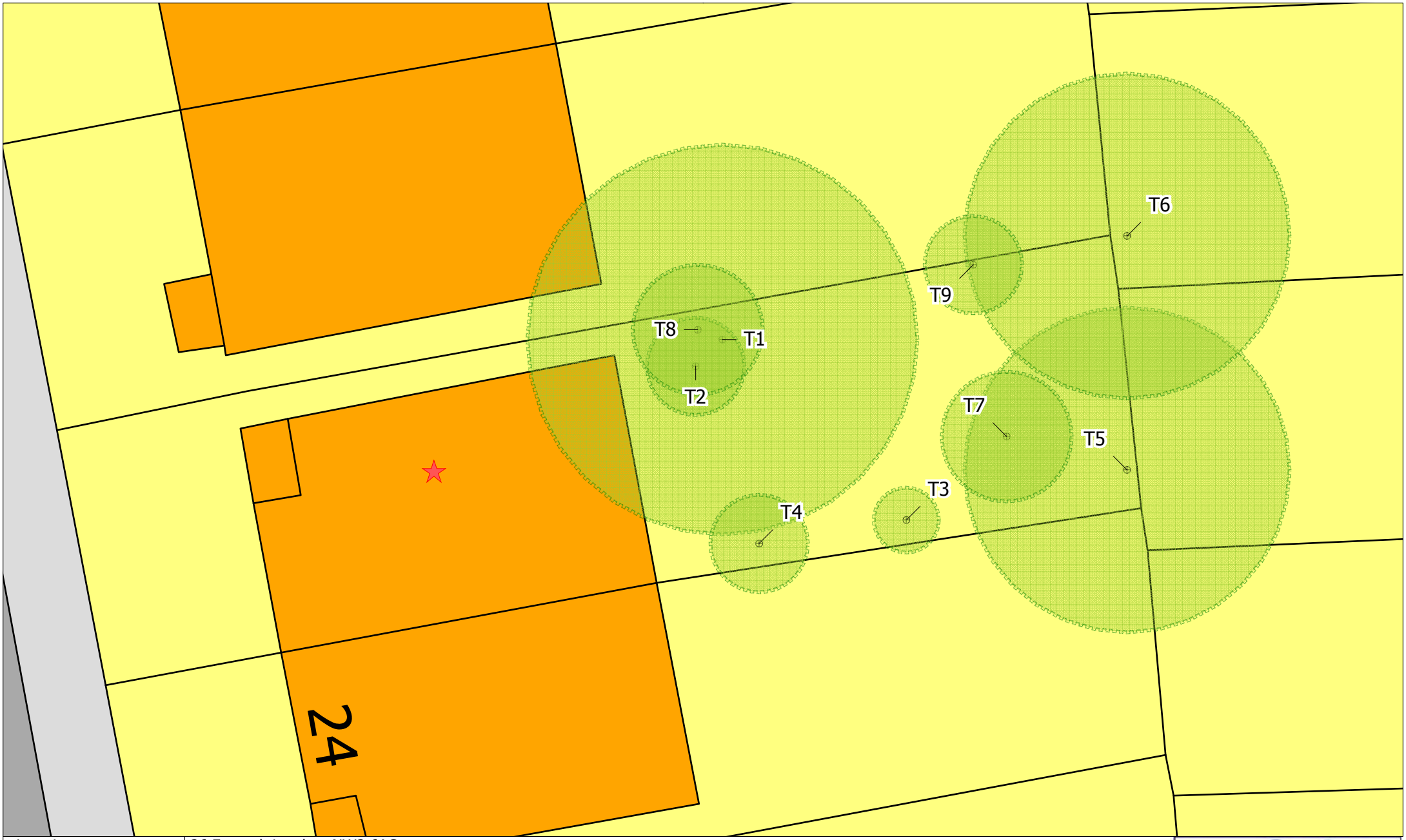
Tree No	Common Name	Age Class	Condition	Height (m)	Crown Spread (m)	Stem diam. (mm)	Dist to bldg (m)	Pruning history	Recommendation	Tree work constraints	Notes	Owner address	Owner
T1	Ash	MA	F	16	12	600	5	No significant past tree works.	Fell and treat stump.	None.	Dense ivy and small garden make measurements difficult.	26 Frognal, London, NW3 6AG	PH
T2	Cherry Laurel	YO	F	2	3	100	4.7	Pruned regularly.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH
T3	Cherry Laurel	YO	F	3	2	50	8	No significant past tree works.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH
T4	Cherry Laurel	YO	F	3	3	50	5	No significant past tree works.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH
T5	Lime	MA	F	14	10	450	14	Pollard. 4 years' regrowth.	No work required.	N/A	Behind garden office so no access, measurements estimated.	Unknown	U
T6	Lime	MA	F	15	10	350	14	Pollard. 3 years' regrowth.	No work required.	N/A	Behind fence.	26 Frognal, London, NW3 6AG	PH
T7	Cherry	YO	F	3	4	100	8	No significant past tree works.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH
T8	Elder	YO	F	6	4	120	5	No significant past tree works.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH
T9	Camellia	YO	F	3	3	10	8	No significant past tree works.	No work required.	N/A		26 Frognal, London, NW3 6AG	PH



Location:	26 Frognal, London, NW3 6AG
Job Ref.:	55638
Survey Date:	06/02/2014
Scale:	1:150 @ A4

4 The Courtyards
Phoenix Square
Severalls Park
Wyncolls Road
Colchester
CO4 9PE
T: 01206 751 626

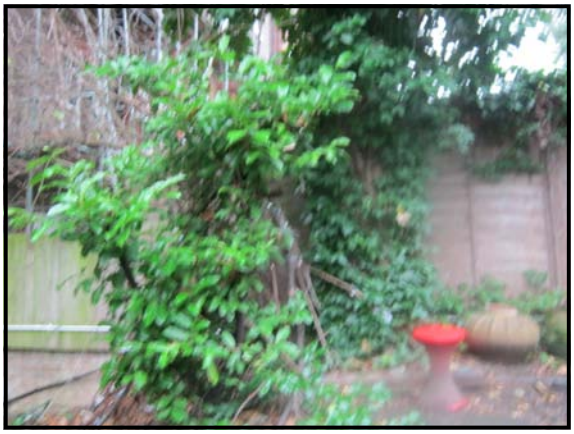
OCA UK Limited

By OCA Limited

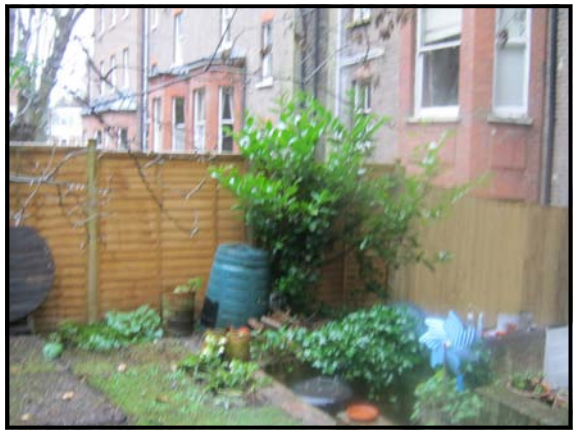
Site Photographs

1. Lime tree T6.

2. View of Ash T1 from beneath the crown.



3. Cherry Laurel T2, Elder T8 and Ash T1.



4. Cherry Laurel T4.

5. Cherry Laurel T2.

6. Lime T5.