

Trevor Heaps

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Arboricultural Impact Assessment (AIA)

For
15 Lymington Road, London
NW6 1HX

Prepared for: Shazia Malik

Prepared by: **Trevor Heaps** BSc, MICFor, M.Arbor.A,

Date: 10th March 2016

Ref: TH1187

1.0 Introduction

I am Trevor Heaps, Director of Trevor Heaps Arboricultural Consultancy Ltd. I have qualifications and experience in the field of Arboriculture, which are provided in Appendix 1.

2.0 Brief

I am instructed to prepare an Arboricultural Impact Assessment to appraise the likely impact on trees by development proposals - against British Standard 5837:2012 '*Trees in relation to design, demolition and construction – Recommendations*' (hereafter referred to as BS5837).

I am to specify tree retention and removal, provide an assessment of the effect of the development on the trees to be retained, an assessment of the likely impact of the retained trees on the proposed development and mitigation measures (if required).

This report is designed to accompany a planning application for development, and its purpose is to assist and inform the planning process.

This AIA is to be read in conjunction with the supporting Arboricultural Impact Plan (AIP) Ref. TH/A3/1187/AIP dated 10th March 2016 (which must be read / printed off in colour).

3.0 Limitations

The site was surveyed by me, Trevor Heaps, on the 9th March 2016. The weather was fair with good visibility. I was accompanied by Shazia Malik.

I surveyed the trees at a preliminary level only. The survey must not be substituted for a tree risk assessment report because detailed inspections of the trees (such as decay mapping, aerial inspections and root or soil analysis etc) were not undertaken.

4.0 Drawings provided

The following documents were used in the preparation of this report:

- Existing Plans and Elevations - Ref. 602.E.101.P1 - Dated 17th August 2015
- Proposed Plans and Elevations - Ref. 602.G.101.P3 - Dated 17th August 2015
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5.0 Proposed Development

"Demolition of existing rear single storey and new enlarged rear extension, plus an enlarged basement and new light-well and stairs into rear garden."

6.0 The trees

In total, nine trees / shrubs were surveyed. These were allocated retention categories and this information can be found in Appendix 2. Explanatory notes can be found in Appendix 3.

7.0 Potential impact on trees

The table below summaries the potential impact on trees due to various activities.

Activity	Trees potentially affected
Tree removal	S8 & S9
Building close to tree canopies	None anticipated
Foundations	None anticipated
New surfaces	None anticipated
Underground services	None anticipated
Change in ground levels	None anticipated
Soil compaction	T1, T2 & T7

The relevant potential impacts are considered in detail throughout the next section.

7.1 Tree removal

Trees due to be removed are marked with a red dot on the Arboricultural Impact Plan and are described below (in order of importance):

Flannel Bush (S8) and Elder (S9): These two small shrubs are situated just to the rear of the existing kitchen. They are not visible from within the public realm and their removal will go un-noticed.

Mitigation planting

There is already adequate tree cover within the rear garden. No further tree planting is planned at this stage.

7.2 Soil compaction

The Pears (T1 & T2) and the third party trees behind them will be separated from the working area by way of protective fencing (see 7.21).

The theoretical RPA of the third party Magnolia (T7) falls just within the rear garden and access will be required across the RPA. However, the existing hard, stone surface will provide ample protection for its roots.

7.21 Specifications for protective measures

Protective Fencing

Before the commencement of any demolition / construction work on-site, protective fencing is to be erected in the positions shown by the solid red line/s on the plans. The position of the protective fencing has been determined using recommendations set out in BS5837.

Durable, all-weather signs are to be attached to the fencing. A suggested sign to be used has been included at the end of this AMS. This shall be printed out, laminated and attached to every third fence panel.

Once erected, the protective fencing is to be regarded as sacrosanct. There is to be no access by pedestrians into the area protected by the fencing and no works whatsoever shall be carried out in this zone; this includes: storage of materials; any form of excavation or changes in ground levels.

The protective fencing is to be maintained in good order so that it is fit for purpose throughout the construction process. The fencing will not be altered in any way, or prematurely removed without prior consent of the project arboriculturalist and/or (if necessary) the Local Planning Authority (LPA).

Specification of Protection Fencing:

The protective fencing is to be constructed of 2.2 metre height weld-mesh (Heras type) panels, as set out on the insert on the TPP (see link below).

<http://www.herasreadyfence.co.uk/original-heras-fencing-panel>

The panels are to be fixed to a scaffold framework either with wire ties or with scaffold clamps. The scaffolding shall comprise a vertical and horizontal framework, well-braced to resist impacts, with vertical tubes spaced at a maximum of 3 metres or alternatively at panel width, and driven into the ground by 0.6 metres (in this case, it may be necessary to place the panels in rubber or concrete 'boots'). An example specification is shown in Figure 1.



Figure 1: An example of protective fencing erected to the correct specification

8.o Summary

Two small, insignificant shrubs will be removed to facilitate construction. The remaining, retained trees are not unduly vulnerable to direct or indirect damage and will be safeguarded by the existing site conditions and protective fencing.

9.0 Signature

This report represents a true and factual account of the potential arboricultural impacts, and recommended protective measures at the subject property.

Signed



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Trevor Heaps

Chartered Arboriculturist

BSc (Hons), MArborA, MICFor

Dated

10th March 2016

Appendix 1 - Professional Résumé

I am Trevor Heaps, director of Trevor Heaps Arboricultural Consultancy Ltd.

I have been working within the Arboricultural industry since 1995. I spent the first seven years working as a climber and groundsman in the U.K. and Australia. Following this, I spent another seven years working for several local authorities as a tree inspector and tree officer dealing with Council-owned trees situated on highways, parks, housing and education land.

Since 2009, I have worked in a Planning Department for a London Borough assessing tree reports that support planning applications and also applications to work on protected trees.

I am a Chartered Arboriculturist, a Professional Member of the Arboricultural Association (AA) and hold a First Class Honours Degree in Arboriculture.

Professional Training

- Visual Tree Assessment (Arboricultural Association) - October 2015
- Trees and the Law (Dr Charles Mynors) - June 2015
- Mortgage (Home Buyers) Report Writing (LANTRA / CAS) - February 2015
- Tree Preservation Orders - effective application (LANTRA / CAS) - November 2014
- Professional Tree Inspection 3 day course (LANTRA / AA) - July 2014
- Arboricultural Consultancy Course (AA) - May 2014
- Further down the subsidence trail 1 day course (AA) - April 2013
- Getting to grips with subsidence 1 day course (AA) - November 2012

Appendix 2 - Tree Data Schedule

Ref	Name	Age	DBH (mm)	Hgt (m)	Can hgt (m)	Can N (m)	Can E (m)	Can S (m)	Can W (m)	Physio cond	Struct cond	Life Exp	Ret Cat	Comments	Rec's
T1	Pyrus (Pear)	M	390	6	3	1	2.5	4	2.5	Fair	Fair	10+	C1	Mature tree slightly suppressed by trees to the north	No works required at present
T2	Pyrus (Pear)	M	410	6	3	1	2.5	4	2.5	Fair	Fair	10+	C1	Mature, leaning tree slightly suppressed by trees to the north. Ivy on stem	No works required at present
T3	Aesculus hippocastanum (Horse Chestnut)	M	700	15	5	4	4	4	4	Normal	Normal	40+	B1	Third party tree managed by pruning	N/A - Third party tree
T4	Robinia pseudoacacia (Locust Tree)	Y	100	4	2.5	1	1	1	1	Normal	Normal	40+	C1	Small sapling	N/A - Third party tree
T5	Fagus sylvatica (Beech)	M	600	15	5	4	4	4	4	Normal	Normal	40+	B1	Large, third party tree	N/A - Third party tree
T6	Tilia X europaea (Common Lime)	M	600	15	8	4	4	4	4	Normal	Normal	40+	C1	Large, third party tree	N/A - Third party tree
T7	Magnolia (Magnolia)	SM	100	4	2.5	1.75	1.75	1.75	1.75	Normal	Normal	10+	C2	Small third party tree, roots protected from harm by hard surface of path	N/A - Third party tree
S8	Fremontodendron californicum (Flannel Bush)	EM	100	5	1	1	2	2	2	Normal	Normal	10+	C3	Small insignificant shrub	Remove
S9	Sambucus nigra (Elder)	EM	100	3	1	1.5	1.5	1.5	1.5	Normal	Normal	10+	C3	Small insignificant shrub growing tight against wall	Remove

Appendix 3 - Tree Survey Schedule Explanatory Notes

This section explains the terms used in the **Tree Data Schedule**.

Ref: Each item of vegetation has its own unique number prefixed by a letter such that:

T1=Tree **S2**=Shrub or stump **G3**=Group **H4**=Hedge **W5**=Woodland

Species: Common and Latin names are given.

Age:

- **Y - Young** - Usually less than 10 years old
- **SM - Semi-Mature** - Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy)
- **EM - Early-Mature** - Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy)
- **M - Mature** - Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy)
- **V - Veteran** - A level of maturity whereby significant management may be required in order to keep the tree in a safe condition
- **OM - Over Mature** - As for veteran except management is not considered worthwhile

DBH (mm): Stem diameter, measured in mm, taken at 1.5m above ground level where possible. On trees with two to five stems, the combined stem diameter is calculated as follows:

$$\sqrt{(\text{stem diameter } 1)^2 + (\text{stem diameter } 2)^2 \dots + (\text{stem diameter } 5)^2}$$

For trees with more than five stems, the combined stem diameter is calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

Hgt (m): Height: Measured from ground level to the top of the crown in metres.

Can Hgt (m): Crown Height: Measured from ground level to the height at which the main crown begins in metres. Where the crown is unbalanced it is measured on the side deemed to be most relevant. This is usually the side facing the area of anticipated development.

Can: - Canopy extents N, E, S, W:

Radial crown spread approximately measured to the four cardinal points (for individual trees only)

Physio cond: Indicates the physiological condition of the tree as one of the following categories:

- **Normal** - Healthy tree with no symptoms of significant disease
- **Fair** - Tree with early signs of disease, small defects, decreased life expectancy, or evidence of less-than-average vigour for the species
- **Poor** - Significant disease present, limited life expectancy, or with very low vigour for the species and evidence of physiological stress
- **Very poor** - Tree is in advanced stages of physiological failure and is dying
- **Dead** - No leaves or signs of life

Struct cond: Indicates the structural condition of the tree as one of the following categories:

- **Normal** - No significant structural defects noted
- **Fair** - Some structural defects noted but remedial action not required at present
- **Poor** - Significant defects noted resulting in a tree that requires regular monitoring or remedial action
- **Very poor** - Major defects noted that compromise the safety of the tree. Remedial works or tree removal is likely to be required.
- **Dead** - No leaves or signs of life

Life Exp: Life Expectancy: The estimated number of years before the tree may require removal.

Classified as (<10), (10 – 20), (20 – 40), or (40+).

Ret. Cat.:- Retention Category: BS5837:2012 Category where:

- **U = Trees unsuitable for retention.** Trees in such a condition that cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. These trees are shown on the tree plans with red centres.
- **A = Trees of high quality.** Trees of high quality with an estimated remaining life expectancy of at least 40 years. These trees are shown on the tree plans with green centres.
- **B = Trees of moderate quality.** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. These trees are shown on the tree plans with blue centres.
- **C = Trees of low quality.** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. These trees are shown on the tree plans with grey centres.

Trees of notable quality are graded as Category A or Category B. These trees are sometimes divided further into sub-categories:

- Sub-category 1 is allocated where it has been assessed that the tree has mainly arboricultural qualities.
- Sub-category 2 is allocated where it is assessed that the tree has mainly landscape qualities.
- Subcategory 3 is allocated where it is assessed that the tree has mainly cultural qualities, including conservation.

Trees may be allocated more than one sub-category. All sub-categories carry equal weight, with for example an A3 tree being of the same importance and priority as an A1 tree.

Comments: Tree form and pruning history are also recorded along with an account of any significant defects. Defects and descriptive terms are dealt with in more detail at the end of this section.

Rec's - Recommendations: Usually based on any defects observed and intended to ensure that the tree is in an acceptable condition.

TREE PROTECTION FENCING

KEEP OUT

This fencing must not be removed or altered in any way without prior consultation with the project Arboriculturist!

Please report any damage to trees and/or fencing to the site manager or the project Arboriculturist

Trevor Heaps

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