HELLIS SOLUTIONS LIMITED

Tree Survey & Arboricultural Impact Assessment

3a Uplands Close, London SW14 7AS

November 2024 V1.0

Report Name:	Tree Survey and Arboricultural Impact Assessment
Reference:	24/10/218/NH
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Prepared for:	Luisa Alonso
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Summary

This is a tree survey and arboricultural impact assessment.

The report has been written following the recommendations and guidance given within British Standard 5837:2012 Trees in relation to design, demolition and construction.

The proposed development is to alter and extend the existing dwelling.

I have inspected all the trees of material consideration within and immediately adjacent to the proposed development site. These trees are listed at Appendix 1 as T1 and annotated on the Tree Constraints Plan at Appendix 4.

T1 is protected by a Tree Preservation Order.

The proposed development requires T1 to be cut back to provide a 1.8m clearance from the proposed alterations and extension.

T1 should not cause undue apprehension to occupiers or users of the proposed alterations or extension.

Due consideration has been given to the proximity of T1.

No overhanging tree canopies should be damaged by the construction activity.

The extension is proposed on an existing paved area within the root protection area of T1. The footprint of the proposed extension is <4.0m^2. The root protection area of T1 is 308m^2 hence the footprint of the proposed extension is <1.3% of the total root protection area of T1.

The activity required to construct the proposed development (vehicular movement, storage of materials, soft landscaping etc.) may encroach within the root protection area of T1 if it is not properly safeguarded during the construction activity.

It will be necessary, prior to the commencement of any demolition or construction activity, to provide the London Borough of Richmond upon Thames with an Arboricultural Method Statement, a Tree Protection Plan, and a Schedule of Arboricultural Supervision in order to safeguard the retained trees.

The construction activity should not adversely impact upon any retained trees if the specified precautions to be detailed within an Arboricultural Method Statement (please see section 10.0) and on the Tree Protection Plan are followed.

Nicholas Hellis MArborA

Contents

1.0 Instructions

1.1 I have been instructed in writing by David Norris of Boon Brown to prepare a tree report on behalf of Luisa Alonso to assess the influence that the trees on and adjacent to the site may have on any proposed development and vice versa.

1.2 The proposed development is to alter and extend the existing dwelling.

2.0 Report Limitations

2.1 Trees are living organisms whose health and overall condition can change rapidly. The conclusions and recommendations contained within this report are valid for a period of three years from the date of the tree survey. The period of validity may be reduced if significant changes occur to either the trees or to the landscape within the immediate proximity of the trees.

2.2 This report is neither intended nor suitable for any purpose other than the stated rationale at section 4.0.

3.0 Introduction

3.1 The report has been written following the recommendations and guidance given within British Standard 5837:2012 Trees in relation to design, demolition and construction - Recommendations (hereinafter BS:5837).

3.2 BS:5837 provides 'recommendations and guidance for arboriculturists, architects, builders, engineers, landscape architects …. and all others interested in harmony between trees and development in its broadest sense.'

3.3 BS:5837 also provides 'recommendations and guidance on the relationship between trees and design, demolition and construction processes', and 'it sets out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.'

3.4 The report is intentionally concise with minimal background explanations. Where appropriate, further guidance and information is included as appendices.

3.5 The report contains the following appendices:

a) a tree survey and a tree quality assessment at Appendix 1.

b) a cascade chart for tree quality assessment at Appendix 2.

c) site photographs at Appendix 3; and

d) a scale drawing showing existing site features and the proposed development. This drawing has been amended to show tree quality assessment, root protection areas and shadow patterns, as appropriate and should be read in conjunction with this report at Appendix 4.

4.0 Report Rationale

4.1 The following rationale underlies this report:

a) to identify the quality and value (in a non-fiscal sense) of the existing tree stock within the context of proposed development, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

b) to identify the constraints and considerations, both above and below ground, associated with retained trees in the context of proposed development. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal; and

c) to prepare an arboricultural impact assessment that evaluates the direct and indirect effects of the proposed design and where necessary recommends mitigation.

5.0 Site Survey

5.1 The site survey included within the Tree Plan at Appendix 4 contains:

a) the location of all trees, shrub masses, hedges etc. of material consideration.

b) other relevant features, such as buildings, other structures, and boundary features.

c) the approximate location of trees on land adjacent to the development site that might influence the site or might be important as part of the local landscape character.

6.0 Tree Survey

6.1 The tree survey and tree quality assessment were carried out on the morning of Thursday 7th November 2024.

6.2 The tree survey includes the trees or hedges on the proposed development site and the trees or hedges immediately adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character with a stem diameter of 150mm or greater.

6.3 The trees and hedges surveyed are identified on the Tree Plan by an alphabetical letter and a sequential reference number. Individual trees surveyed are identified by the letter T, cohesive groups of trees are identified by the letter G, woodlands are identified by the letter W and hedges/hedgerows are identified by the letter H.

6.4 The quality and value of existing trees and hedges are allocated to one of four categories, namely A, B, C or U (Unsuitable for retention). The category allocated to each tree depends in part upon the information gathered in the tree survey at Appendix 1 and in part upon the 'cascade chart for tree quality assessment' at Appendix 2. It is also in part, subjective.

The trees have been differentiated on the Tree Plan by the colour and shape of the symbol allocated to each category, please see Appendix 2.

Categories A, B and C are further qualified by one or more of the three subcategories namely 1, 2 and 3. Subcategories 1, 2 and 3 reflect the arboricultural quality, the landscape quality, and cultural value of each tree or hedge, respectively.

7.0 Tree Constraints and Considerations

The purpose of this section is to identify the constraints and considerations, both above and below ground, associated with retained trees in the context of proposed development.

7.1 to 7.9 inclusive set out the **general principles** of tree constraints and considerations associated with a proposed development site.

7.10 to 7.17 inclusive set out the tree constraints and considerations associated with **this specific site.**

General Principles

7.1 In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) is plotted around category A and B trees as necessary to illustrate potential constraints to the proposed development. This area should be left undisturbed. However, where construction is proposed within the root protection area, technical solutions may be available to enable the successful retention of trees.

7.2 To maximize the probability of successful tree retention a realistic assessment of the probable impact of any proposed development on the trees and vice versa should take into account the characteristics and condition of retained trees, with due allowance and space permitted for their future growth and maintenance requirements.

7.3 The relationship of buildings to large trees can cause apprehension to occupiers or users of nearby buildings or spaces. Buildings and other structures should be sited allowing adequate room for retained trees, and with due allowance and space permitted for their future growth.

7.4 Buildings and open spaces should be designed with due consideration to the proximity of retained trees, especially in terms of the foliage, flowers, fruit, and other debris associated with the normal functions of a healthy tree.

7.5 Tree preservation orders, conservation areas, heritage trees, heritage landscapes, or other regulatory tree protection.

7.6 The access and working area required to enable the construction of the proposed development, including the effects of pruning on the amenity value of retained trees.

7.7 The protection of overhanging tree canopies where they could be damaged by construction.

7.8 The requirements of infrastructure including above and below ground services, visibility splays, refuse stores, lighting, signage, solar collectors, satellite dishes and CCTV sightlines.

7.9 The potential for new planting to mitigate proposed tree loss.

This Specific Site

7.10 The radius of the root protection areas of all trees, shrub masses, hedges etc. identified within the tree survey are given in the right-hand column of the survey at Appendix 1.

7.11 The root protection area of T1 is annotated on the Tree Constraints Plan at Appendix 4.

7.12 T1 should not cause undue apprehension to occupiers or users of the proposed alterations or extension.

7.13 Due consideration has been given to the proximity of T1 with allowance and space permitted for their future growth.

7.14 The site does not lie within a designated Conservation Area; T1 is protected by a confirmed Tree Preservation Order referred to as T0380.
Reference: trees&parks@richmond.gov.uk

There are no ancient or veteran trees on, or immediately adjacent to the site.
Reference: https://ati.woodlandtrust.org.uk/

The site is not an ancient woodland or a distinct form of ancient woodland such a wood pasture or historic parkland.
Reference: https://magic.defra.gov.uk/

The site is not a priority habitat and there are no priority habitats immediately adjacent to the site.
Reference: https://magic.defra.gov.uk/

The site is not included on the National Heritage List for England (NHLE) for registered parks and gardens, and battlefields
Reference: https://historicengland.org.uk/

The above websites were referenced on Tuesday 5th November 2024.

7.15 Due consideration must be given to the access and working area required to enable the construction of the proposed development, including the effects of pruning on the amenity value of retained trees.

7.16 No overhanging tree canopies should be damaged by the construction activity.

7.17 Due consideration has been given to requirements of infrastructure including above and below ground services, visibility splays, refuse stores, lighting, signage, solar collectors, satellite dishes and CCTV sightlines.

8.0 Arboricultural Impact Assessment

The purpose of this arboricultural impact assessment is to consider the direct and indirect effects of the proposed design.

Summary of Impact

8.1 I have assessed the impact of the proposed development on the trees, shrubs, and woody vegetation (trees) of material consideration, present on and immediately adjacent to the site. All the trees that may be directly affected by the development are listed in Table 1 below.

Table 1 - Summary of trees that will or may be affected by the proposed development

	Category A Trees	Category B Trees	Category C Trees	Category U Trees
Trees to be retained	T1	-	-	-
Trees to be removed	-	-	-	-
Retained trees that will or may need to be pruned to enable construction	-	-	-	-
Retained trees that will be affected by construction (e.g. foundations, services, hard surfacing) within the root protection area	T1	-	-	-
Retained trees that may be affected by construction activity (e.g. access, storage of materials, landscaping) within the root protection area	T1	-	-	-

Detail of Impact

8.2 Trees to be retained:

The proposed development will retain T1 as identified within the tree survey and annotated on Tree Constraints Plan at Appendix 4.

8.3 Trees to be removed:

None.

8.4 Retained trees that will or may need to be pruned to enable construction:

The proposed development requires T1 to be cut back to provide a 1.8m clearance from the proposed alterations and extension.

8.5 Retained trees that will or may be adversely affected by development within the root protection area:

The extension is proposed on an existing paved area within the root protection area of T1. The footprint of the proposed extension is <4.0m^2. The root protection area of T1 is 308m^2 hence the footprint of the proposed extension is <1.3% of the total root protection area of T1.

The extension will utilise the existing infrastructure

No new hard surfacing is proposed.

The activity required to construct the proposed development (vehicular movement, storage of materials, soft landscaping etc.) may encroach within the root protection area of T1 if it is not properly safeguarded during the construction activity.

8.6 Safeguarding retained trees:

It will be necessary, prior to the commencement of any demolition or construction activity, to provide the London Borough of Richmond upon Thames with an Arboricultural Method Statement, a Tree Protection Plan, and a Schedule of Arboricultural Supervision in order to safeguard the retained trees.

The construction activity should not adversely impact upon any retained trees if the specified precautions to be detailed within an Arboricultural Method Statement (please see section 10.0) and on the Tree Protection Plan are followed.

9.0 Tree Management

Pre-development tree work

9.1 A schedule of tree works, including root pruning, is included within the Tree Survey and Tree Quality Assessment at Appendix 1. Tree works required to enable or facilitate the proposed development are noted within Appendix 1 in **bold orange** text. Additionally, recommended tree works to manage the existing tree stock are noted in ***bold blue*** italic text.

9.2 All pre-development tree works must be carried out in accordance with British Standard 3998:2010 Tree Works. Recommendations.

9.3 Specific wildlife species and their habitats are protected by law. Intentionally or recklessly damaging or destroying them, their nests, roosts, or their habitats is a criminal offence. If works are proposed to a tree where protected species reside, or the tree forms a habitat for protected species, the appropriate advisory body should be consulted e.g. Natural England, Bat Conservation Trust etc.

Post-development management for existing trees

9.4 In the absence of specific proposals, the post development management of existing trees should follow the guidance contained within 'Managing trees for safety,' written by the National Tree Safety Group and published by the Forestry Commission in 2011.

9.5 In general, trees should be inspected following severe weather conditions, typically:

a) strong winds (especially of gale force 8 or greater), particularly from an atypical direction,
b) heavy rain reducing root adhesion due to soil saturation, and
c) heavy snowfall leading to branch failure.

10.0 Arboricultural Method Statement - Heads of Terms

10.1 The purpose of an arboricultural method statement is to describe how the proposed construction activity can be undertaken with minimal risk of adverse impact on the retained trees. It sets out the general principles of good arboricultural management for a proposed development site and it sets out the management details that must be followed to ensure successful tree retention. The activities and issues to be addressed by the Arboricultural Method Statement include, but are not limited to, the following.

- Appointment of project arboricultural consultant.
- Site access for personnel, traffic, and delivery vehicles.
- Location of site office, welfare facilities, mixing and washing out area, storage area, and parking areas for personnel and machinery.
- Barriers and ground protection - location, installation, signage, and maintenance.
- Services - existing, upgraded, and new.
- Hard surfaces - existing, upgraded, and new.
- Changes in soil level.
- Excavation including the removal of 'made-up' ground.
- Compaction.
- Demolition including underground structures.
- Foundations including the use of special engineering.
- Soft landscaping including soil amelioration.
- Recommended tree works.
- Procedures for dealing with variations and incidents.
- Record keeping.

11.0 Useful Contact Details

11.1 Useful contact details:

Nick Hellis	Arboricultural Consultant	01935 814 110 nick.hellis@hellis.biz
Tree Team	Planning London Borough of Richmond upon Thames	0208 891 1411 trees&parks@richmond.gov.uk
David Norris	Town Planning Consultant Boon Brown	01935 420 803 david.norris@boonbrown.com

Signed: *Nicholas Hellis*

Dated: *11th November 2024*

Nicholas Hellis MArborA

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Appendix 1 - Tree Survey and Tree Quality Assessment

Tree Survey and Tree Quality Assessment

Tree No.	Species	Height (m)	Stem Diameter (mm)	Average Crown Spread NESW (m)	Height of Canopy (m)	Life Stage	Observations Recommendations Management	Contribution in years	Category	RPA radius (m)
T1	Copper beech	16.0	810	7.0	4.0	Middle	Recently reduced in height and spread, now largely recovered. **Cut back branched to provide a 1.8m clearance from the alterations and extensions**	40+	A 1/2	9.9

agl: above ground level #: estimated dimension
tree works required by proposed development are noted in **bold orange** type
recommended tree works to manage the existing tree stock are noted in ***bold blue*** italic text
T: Individual tree **H:** Hedgerow or garden hedge **G:** Cohesive group of trees **W:** Woodland

Tree survey schedule:

a) the trees and hedges surveyed are identified on the Tree Plan by an alphabetical letter and a sequential reference number. Individual trees surveyed are identified by the letter T, cohesive groups of trees are identified by the letter G, woodlands are identified by the letter W and hedges/hedgerows are identified by the letter H.

b) species (common names only).

c) estimated height in metres.

d) stem diameter measured in millimetres typically at 1.50 metres above ground level.

e) estimated branch spread in metres taken at the four cardinal points, as appropriate; (also recorded on the Tree Plan, as appropriate).

f) height of canopy above an adjacent access, toward the site or ground level as appropriate.

g) life stage as follows,

   i. young - a tree in the first third of average life expectancy for species.
   ii. middle - a tree in the middle third of average life expectancy for species.
   iii. mature - a tree in the last third of average life expectancy for species.
   iv. over mature - a mature tree, which by reason of its physical or structural condition, has an estimated remaining contribution of less than 20 years
   v. ancient - 'a tree which, because of its great age, size or condition is of exceptional value culturally, in the landscape or for wildlife' English Nature.
   vi. veteran - 'a tree which shows ancient characteristics such as those above. These may not just be due to age, but could result from natural damage, management, or the tree's environment' Ancient Tree Forum.

h) observations, particularly of structural and/or physiological condition, as appropriate and pertinent to the matter being considered.

i) management recommendations, as appropriate.

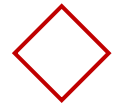
j) estimated remaining contribution in years e.g. less than 10, 10+, 20+, 40+.

k) a category is allocated to each tree or group of trees depending in part upon the information gathered in the tree survey, it depends in part upon the 'cascade chart for tree quality assessment' at Appendix 2 and it is in part, subjective; and

l) root protection area is based on the guidance given within BS: 5837. The radius of the nominal circle as always rounded up to the nearest single stem diameter.

Appendix 2 - Cascade Chart for Tree Quality Assessment

Cascade Chart for Tree Quality Assessment (April 2012)

Category and definition	Criteria (including subcategories where appropriate)			Identification on Plan
Trees unsuitable for retention				
Category U Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality *NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve*			 DARK RED
Trees to be considered for retention				
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	**Identification on plan**
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	 LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	 MID BLUE
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	 GREY

Appendix 3 - Site Photographs

Photo 1: Copper beech T1

Appendix 4 - Tree Constraints Plan

GARDEN ROOM

SHED

GARAGE

BEECH

T1

proposed ground floor extension,
shown as a dashed line

standard root protection area
described as a circle

UTILITY

Boiler

Cylinder

Electrics Board

KITCHEN

F&F

Wine Freezer

F&F

STUDY

ENSUITE STUDY

ENSUITE GUEST ROOM

GUEST BEDROOM

TOILET

Cloakroom

ENTRANCE HALL

DINNING

LIVING ROOM

Down

A

A'

B

B'

DAWN REDWOOD

T: Individual tree

Tree Quality Assessment

- Category A
- Category B
- Category C
- Category U

EXISTING WALLS

PROPOSED WALLS

WALL TO BE DEMOLISHED

0 1 2 3 4 5m

Scale in Metres 1:100

HELLIS SOLUTIONS LIMITED

Office: 01935 814 110
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Website: www.hellis.biz

Project: 3a Uplands Close, Richmond upon Thames SW14 7AS

Title: Tree Constraints Plan ref: TCP3a

Date: November 2024

Based on a drawing provided by AMJ Design

The purpose of this plan is to illustrate issues associated with the trees present on and immediately adjacent to the site.

The original of this drawing was produced in colour – a monochrome copy should not be relied upon.

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