PBA Consulting Solutions

BS5837 2012 Trees in Relation To Design, Demolition and Construction

At

39 Evelyn Avenue
Ruislip
HA4 8AR

PBA Ref: Q14659

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Report Date: 19th December 2024

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1 Introduction

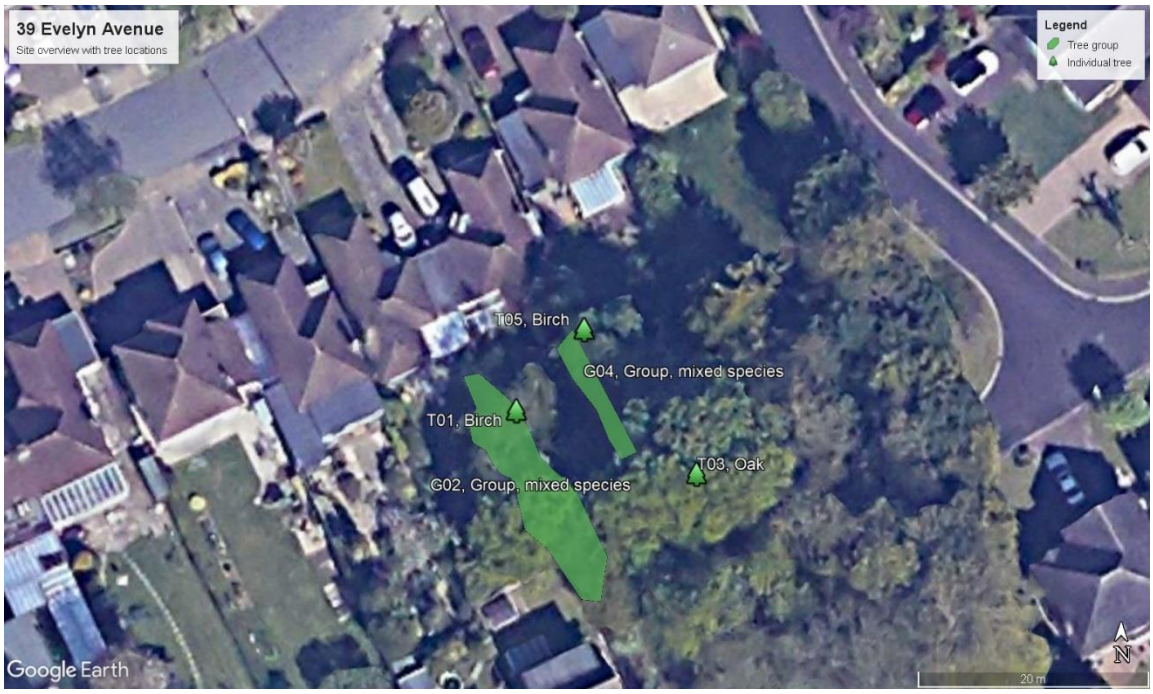

Figure 1 – Site overview showing tree locations

1.1 On instructions received from Jack Bennett of 39 Evelyn Avenue, David Soffe on behalf of PBA Consulting Solutions, undertook a ground level, visual assessment of the trees that could be affected by the development proposal in accordance with BS5837 2012 and best practice and to prepare the following to accompany a planning submission: -

- A schedule of the relevant trees to include survey data and a condition assessment.
- An appraisal of the impact of the proposal on the trees and the consequences for the local amenity.
- Arboricultural Method Statement setting out appropriate protective measures and management for trees to be retained.

1.2 Three trees and two tree groups have been identified which may be adversely affected by development if reasonable care is not taken to protect the trees and their rooting systems.

Tree Preservation Orders and other legal restrictions

1.3 A desktop search was carried out it was ascertained that this property is subject to Tree Preservation Orders 434 but is not part of any Conservation Area. As such, permission is required from the local planning authority before carrying out any treeworks at this site.

1.4 Information regarding TPOs was obtained from Hillingdon Council interactive map found at https://lbhillingdon.maps.arcgis.com/apps/View/index.html?appid=7b18f60872a94d38a0c9bf1aea032760

Methodology

1.5 The site was visited on 1st December 2022. All observations were from ground level and all dimensions measured, with the exception of tree height which has been estimated, unless otherwise indicated.

1.6 Weather conditions at the time of inspection were overcast with showers but with good visibility.

1.7 All the trees of material consideration within and immediately adjacent to the proposed development site have been inspected.

1.8 For tree survey information, see the Tree Survey Data in Appendix A.

1.9 Smaller trees and understory vegetation adjacent to the site have not been included as part of this Arboricultural report.

1.10 Trees are categorised in line with BS5837:2010 Trees in Relation to Design, Demolition and Construction as follows:

Table 1:Tree categories in line with BS5837:2010

A	Trees of high arboricultural value that should be retained and protected throughout the development. Veteran trees are automatically awarded 'A' status.
B	Retention preferable. Trees of good condition and character which are appropriate for the location and in good physiological and structural condition. These trees should be retained unless they will be a severe impediment to the proposal or there is an overriding public interest that warrants their removal.
C	Trees of generally lower arboricultural value by dint of character or condition. 'C' trees should not be a constraint on development.
U	Trees that should be removed on arboricultural grounds. Often trees in poor condition can be left 'in situ' until a proposal means the potential target increases, making their removal more urgent or necessary.

Trees are further categorised into sub-categories, using a numerical suffix to denote the following perceived values:

Table 2 Tree sub-categories in line with BS5837:2010

1.	Trees of primarily arboricultural qualities. High value trees might be because they are particularly good examples of their species, because they are rare of unusual or because they are important components of a group feature such as an avenue.
2.	Trees of landscape importance – for example, trees of particular visible importance in a setting or view.
3.	Trees of cultural value. This may be due to historic links or conservation value – such as veteran trees or commemorative trees.

For example, a veteran tree of landscape importance would be categorised as A2.

1.11 An overview of details of the trees surveyed is included in Appendix A – Tree Survey Data.

1.12 For the purposes of this survey, a Tree Protection Plan has been included, adapted from drawing number "PH-39EA-01" provided by Design Endeavours Ltd, to show tree IDs, categories, and locations of trees within influencing distance of site. (See Appendix B).

Caveats and limitations

1.13 The contents are intended for the sole use of the client.

1.14 No liability is accepted for their use by any other parties to advance an argument or claim (including legal or financial) without prior consent.

1.15 Formal assessment of topography, drainage, service conduits, soil conditions and the like are outside the scope of this report.

1.16 It is understood that any risks associated with these limitations are accepted by the clients.

1.17 The purpose of this report is to assess the potential impact of the development proposal to the amenity value of trees, and to provide an Arboricultural Method statement with Tree Protection Plan in order to minimise, as far as is practical, damage to trees to be retained and their rooting systems.

1.18 Root protection areas are calculated in line with BS5387:2012 and are adjusted to reflect topographical constraints on site. This is based on professional experience and has not been confirmed by trial pitting. There is a level of unpredictability in calculating exact tree root locations and therefore, where there is a possibility of obstruction or damage to roots, trial holes are recommended prior to construction.

1.19 The Arboricultural Method Statements outlined in section 4 of this report must be agreed with planning before the commencement of any works.

1.20 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 twelve months. 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 The proposal

2.1 The proposal is to construct a single story flat roof conservatory extension to the rear of the existing building.

2.2 Plans showing the design proposal footprint have been annotated and are included in the Tree Protection Plan at Appendix B.

3 Impact Assessment (BS5837) on Trees

3.1 Summary of impact on trees:

The potential of any development to impact trees has been assessed. All the trees that may be affected by development are listed in table 1 below.

Table 1: Summary of trees that may be affected by development

Impact	Reason	Important/ High value A class Trees	Moderate Value B class Trees	Low Value C Class Trees	Trees for Removal- R class trees
Trees to be removed	To facilitate development	-	-	-	-
Retained trees that may be damaged through disturbance to RPAs	Removal of existing surfacing/ structures/ Landscaping/ Installation of new surfacing/ structures/ landscaping	T03	T01, G02 & G05	G04	-
Retained trees to be pruned	For site safety and protective pruning of overhanging branches	-	-	-	-

3.2 Impact Appraisal

2.2.1 The minimum distances that excavations/soil level changes can be carried out adjacent to the trees surveyed have been calculated by measuring the DBH (diameter at breast height), the RPA (Root Protection Area) is worked out using the recognised method detailed within BS5837 2012. (See Appendix A for minimum distances).

2.2.2 There is the potential for tree roots to be damaged during any proposed development. This can occur either through direct mechanical damage or through compaction from vehicles/plant or storage of materials. Damage can also occur through contamination from spillages from mixing areas.

2.2.3 Trees T01 and T05 are early mature birch trees located close to the proposed development. The proposed extension footing is situated outside of the RPAs of these trees.

2.2.4 T03 is a mature oak tree located in the grounds of number 37. This tree is considered to be of high amenity value. The proposed extension footing is situated outside of the RPA of this tree.

2.2.5 Groups G02 and G04 are boundary trees and shrubs and are not considered to be a constraint to development.

3.3 Summary of the impact on local amenity

There is the potential for trees to be adversely affected by any development proposal. Potential damage can be avoided or minimised through the Arboricultural Method Statement detailed in section 4 of this report which must be agreed by the Local Planning Authority before the commencement of any works. Where loss or damage is unavoidable, mitigation should be considered.

4 Arboricultural Method Statement

4.1 All personnel working in the root protection areas (RPAs) will be properly briefed about their responsibilities towards important trees based on this guidance.

4.2 Care should be taken when carrying out any excavations to ensure no significant roots are damaged. This includes by direct mechanical damage, or through compaction caused by plant movement, storage of materials, or contamination from spillages etc. during the building process.

4.3 Care should also be taken not to damage overhanging tree branches during the building process. Protective pruning has not been recommended in this instance but should pruning become necessary works should be carried out to standards set out in BS3998: 2010 Tree Work Recommendations. This sort of protective pruning would prevent direct damage/torn branches etc. which may cause long term health or structural problems with these trees.

4.4 Tree works, including protective pruning and other necessary protective measures should be actioned or installed prior to the commencement and maintained for the duration of any works.

4.5 Any areas used to store or mix materials must be located outside of any RPA or CEZ in order to prevent the risk of tree roots being damaged from the storage of materials, spillages etc. during the building process. A designated storage and mixing area has been identified to the front of a property.

4.6 The installation of services with the RPAs of trees to be retained have not been proposed for this development.

4.7 Barriers meeting best practice specifications for tree protection will be required to protect the root systems of trees to be retained. See figure 1 overleaf for an example of an acceptable barrier specification.

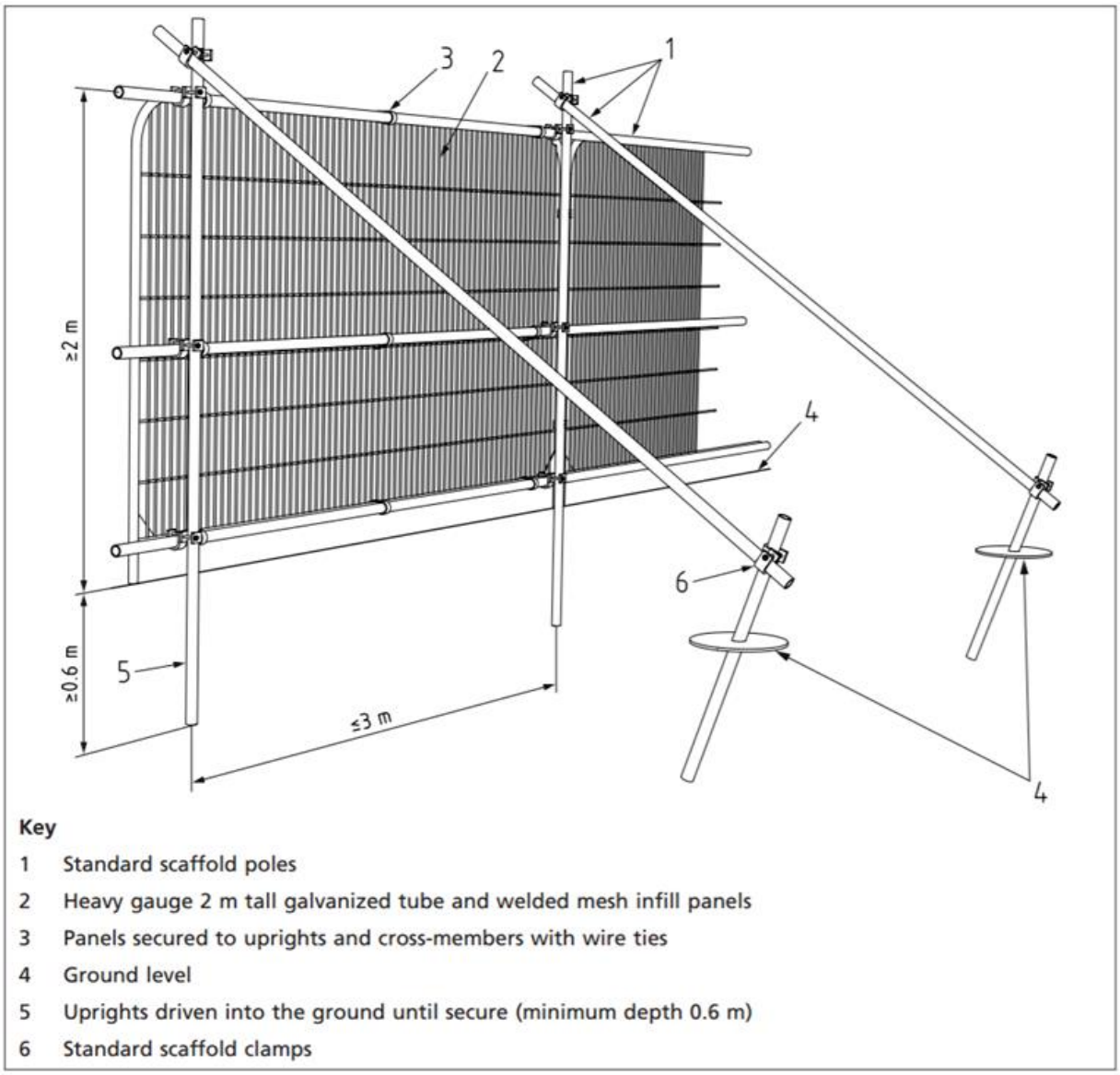

Figure 1 – Example of protective barrier specification

4.8 In the unlikely event that tree roots are damaged by the development, exposed roots should be treated at once to avoid desiccation. Any roots smaller than 25mm in diameter, can be pruned back, preferably to a side branch, with suitable sharp pruning tools.

Appendix A Schedule of trees

Ref	Species	Measurements	General Observations / Recommendations	Retention Category	RPA	Protective measures
T01	Betula sp.	Height (m): 12 Stem Diam (mm): 450 Branch Spread(m): 4,3,4,5 Crown Clearance (m): 3 Life Stage: Mature Physiological Cond: Good Structural Cond: Fair Useful life expectancy: 20-40	Historically reduced Some decay visible at reduction point above secondary leader No concerns regarding structural stability at time of inspection	B 1	Radius (m): 5.4 Area (m2): 91.6	Pre-construction: Install protective fencing During construction: Maintain protective measures Post construction: Remove protective measures
G02	Group, mixed species	Height (m): 9 Stem Diam (mm): - Branch Spread(m): - Crown Clearance (m): 2 Life Stage: Early-mature Physiological Cond: Good Structural Cond: Good Useful life expectancy: 20-40	Dense mixed group on western boundary	B 2	Radius (m): - Area (m2): -	Pre-construction: Install protective fencing During construction: Maintain protective measures Post construction: Remove protective measures

Appendix A Schedule of trees

Ref	Species	Measurements	General Observations / Recommendations	Retention Category	RPA	Protective measures
T03	Quercus sp.	Height (m): 19 Stem Diam (mm): 1130 Branch Spread(m): 8,7,7,9 Crown Clearance (m): 4 Life Stage: Mature Physiological Cond: Fair Structural Cond: Fair Useful life expectancy: >40	Minor deadwood Evidence of historic storm damage Primary union obscured by ivy	A 1	Radius (m): 13.6 Area (m2): 577.7	Pre-construction: Install protective fencing During construction: Maintain protective measures Post construction: Remove protective measures
G04	Group, mixed species	Height (m): 4 Stem Diam (mm): - Branch Spread(m): - Crown Clearance (m): - Life Stage: Early-mature Physiological Cond: Good Structural Cond: Good Useful life expectancy: 10-20	Laurel and Leylandii group on eastern boundary	C 2	Radius (m): - Area (m2): -	Pre-construction: Install protective fencing During construction: Maintain protective measures Post construction: Remove protective measures

Appendix A Schedule of trees

Ref	Species	Measurements	General Observations / Recommendations	Retention Category	RPA	Protective measures
T05	Betula sp.	Height (m): 12 Stem Diam (mm): 430 Branch Spread(m): 5,4,6,4 Crown Clearance (m): 4 Life Stage: Mature Physiological Cond: Good Structural Cond: Good Useful life expectancy: 20-40	No significant defects recorded	B 1	Radius (m): 5.2 Area (m2): 83.7	Pre-construction: Install protective fencing During construction: Maintain protective measures Post construction: Remove protective measures

Appendix B **TREE PROTECTION PLAN SHOWING TREE CATEGORISATION, RPAs, AND LOCATION OF PROTECTIVE MEASURES (scale reduced for report)**