# 79 A & B BEDWELL GARDENS HAYES

## TREE SURVEY

for

KARAN JAIN

ACD ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

| | |
|---|---|
| **Written By:** | Henry Pinn |
| **Checked By:** | Andrew Bigg |
| **Date:** | 17/07/2023 |
| **Revision:** | A: 15/08/2023 |
| **Ref:** | PRI24307ts |

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## 1. Introduction and Terms of Reference

1.1. ACD Environmental were instructed by Karan Jain, in July 2023, to survey and categorize the trees at 79A & B Bedwell Gardens, Hayes, in accordance with BS5837:2012 Trees in relation to design, demolition and construction – Recommendations. The survey includes all trees with a stem diameter greater than 75mm stem diameter at a height of 1.5m that are on site or close enough to pose a potential constraint to development.

1.2. This report should be read in conjunction with the corresponding Tree Survey Plan for the site, ACD drawing reference: PRI24307-01A.

1.3. This report has been revised (rev A) on 15.08.2023 to reflect recent tree removals.

1.4. The survey was carried out to assess the trees on site for their quality and benefits within the context of proposed development. The quality of each tree, or group of trees has been recorded by allocating it to one of four categories, where:

- Trees of 'A' and 'B' category should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design.
- 'C' category trees will not usually be retained where they would impose a significant constraint to development but should be retained where there is no reason for their removal.
- 'U' category trees are in such a condition that they are unlikely to contribute beyond 10 years and may be removed as good arboricultural practice.

1.5. This report provides the data and advice outlined in BS5837:2012 only. It must not be substituted for a tree risk assessment. Detailed tree inspection including decay mapping, aerial inspection, soil analysis, etc. was not undertaken. If further detailed inspection is deemed necessary, then it will be made clear within this report.

1.6. The Tree Survey Plan was based on the supplied Location Plan drawing produced by Camal Architects Ltd., drawing reference: "23130/P01- Sh.1 – rev C".

1.7. The controlling authority is London Borough of Hillingdon Council, who can be contacted at:

**Address:** Civic Centre, High Street, Uxbridge, UB8 1UW

**Telephone:** 01895 250230

**Email:** planning@hillingdon.gov.uk

1.8. According to a search of London Borough of Hillingdon Council's online mapping on 12th July 2023, TPO No 25 is in force at the site (specifically Area 4 (A4) as indicated on the original copy of the Tree Preservation Order). Protected trees are shown on the corresponding Tree Survey Plan and within the Tree Survey Schedule at Appendix 2 of this report.

1.9. The site is not within a Conservation Area.

1.10. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Unit 7, Godalming Business Centre, Woolsack Way, Godalming, GU7 1XW, 01483 425714, quoting the site address and report reference number.

## 2. Scope and Method of Survey

2.1. The survey has been carried out in accordance with BS5837:2012 Trees in Relation to design, demolition and construction - Recommendations and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged. An explanation of the categories can be found at appendix 1.

2.2. The reference numbers of surveyed trees and groups of trees are shown on the Tree Survey Plan, which is based on the supplied survey drawing and appended to this report. The prefix 'G' has been used to indicate a group of trees, and 'H' for hedges. Stem locations within groups may be estimated, and indicative of canopy only.

2.3. The tree survey was carried out from ground level only.

2.4. Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.

2.5. Where stems or branches are obscured by Ivy or other materials a full assessment of those parts will not be possible.

2.6. Tree heights were measured with a clinometer or estimated in relation to those measured with the clinometer. If individual tree heights are of particular concern, for example in shading calculations, then they are measured using a clinometer.

2.7. Trunk diameters were measured or, where inaccessible, estimated. Single stemmed trees are measured at 1.5m from ground level. Multiple stemmed trees are measured according to section 4.6 of BS5837:2012. For groups of trees the diameter may be an estimated average or a maximum.

2.8. Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. The canopy of tree groups will be indicated by measuring the maximum canopy radius for each compass point (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).

2.9. No soil assessment was carried out at the time of survey. According to the National Soil Resources Institute online mapping service at http://www.landis.org.uk/soilscapes the soil on site is expected to be a cross between: "*Loamy soils with naturally high groundwater*" and "*Freely draining slightly acid loamy soils*".

2.10. Where tree stems were not plotted on the supplied locations plan, their positions have been estimated.

**Figure 1: photo showing access drive with offsite trees G12 visible**

**Figure 2: Cambium wounding to underside of Sycamore stem from G12. Consistent with mechanical damage**

**Figure 3: Photos showing the stems of offsite trees T7 and T8 with overhanging crowns and stems in contact with the adjacent property**

**Figure 4: photo showing extent of overhanging crowns from offsite trees T7 and T8 in contact with the adjacent property**

**Figure 5: example of offsite woodland compartment to the north of the adjacent public footpath. area protected under TPO25 - A4.**

## 3. Recommendations

3.1. 'B' category trees and groups should be considered as constraints to development and every attempt should be made to incorporate them into any proposed development design. Trees of a 'C' category will not usually be retained where they would impose a significant constraint to development. 'U' category trees are in such a condition that they will be lost within 10 years and may be removed as good arboricultural practice.

3.2. There is scope for development of the site by respecting the projected RPAs and canopies of existing trees as shown on the Tree Survey Plan. Removal of any existing hard surfaces within retained RPAs should be conducted with care using a sensitive methodology ensuring damage to stems, branches and roots are avoided at all costs.

3.3. Trees can be a development constraint both below and above the ground. In terms of below ground constraints, BS5837:2012 RPAs indicate an area that contains sufficient rooting volume to ensure survival of the tree. In terms of the proximity of structures to trees, the default position should be that structures are located outside the RPAs of trees to be retained. This area of ground should be taken into account with the site layout, such that it can left undisturbed during demolition and construction by prohibiting activity from the area using protective fencing or ground protection.

3.4. In terms of the above ground factors, tree constraints presented by the canopy and the psychological effects of tree proximity to dwellings (such as shading, perceived threat of tree failure, etc.) must also be considered during scheme design. This will involve optimising site layout and building room use to avoid the end-user becoming resentful of the trees and seeking excessive pruning or even tree removal. This is especially a consideration with trees located on southern boundaries.

3.5. Preferably, conflicts between proposed structures and RPAs and tree canopies should be 'designed out' through the careful positioning of any built form. It is therefore advisable that any development layouts are drafted in close collaboration with ACD to ensure that any trees which are highlighted for retention can be realistically integrated into the design.

3.6. When a final layout is agreed, an Arboricultural Impact Assessment (AIA) should be completed to discuss arboricultural issues within the scheme and demonstrate to the Planning Authority the viability of the layout.

3.7. Before any works start on site, including demolition, an Arboricultural Method Statement (AMS) and Tree Protection Plan (TPP) should be submitted, approved and implemented. There must be no changes in levels, service routing, machine activity, storage of materials or site hut positioning within the Root Protection Areas (RPAs) and the protective fencing must remain in position for the duration of the construction process.

3.8. BS5837:2012 Section 5.1.1 states that the constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognized that the competing needs of development mean that trees are only one factor requiring consideration. Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification. 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.

3.9. BS5837:2012 Section 5.2.1 states that: 'The RPA and any other relevant constraints should be plotted around each of the category A, B and C trees on relevant drawings, including proposed site layout plans'. Recognition is given in Table 1 however that 'C' category trees are 'unremarkable trees of very limited merit'. As such it is considered that 'C' category trees should be retained where appropriate but should not represent a constraint to an otherwise satisfactory proposal.

3.10. The hedgerows and trees have landscape value both within the site, and when viewed from the surrounding area. The boundary groups and vegetation have landscape value as group features and represent a constraint to any development of the site, notwithstanding their individual category.

3.11. Trees on the site are protected by a tree preservation order (TPO). Consent for any required works to protected trees should be obtained from the Local Planning Authority prior to being carried out. Consent is not required for urgent work to dead or dangerous trees, but the Local Planning Authority should be given at least five days' notice of the intended works.

3.12. Consent is not required to work on TPO trees if that work is consented as part of a full planning application. Replacement trees may be required for any protected trees which are felled.

Henry Pinn *Arb L4 (ABC)*

Senior Arboriculturist

17/07/2023

Revision A – 15/08/2023 – Henry Pinn

## Appendix 1: Summary of Categories BS5837:2012

BS5837:2012 Table 1 - **Cascade chart for tree quality assessment**

| **Category and definition** | **Criteria (including subcategories where appropriate)** | | |
|---|---|---|---|
| **Trees unsuitable for retention** (see Note) | | | |
| **Category U**<br>Those 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)<br>*Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline<br>*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<br><br>*NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7.*** | | |
| | **1 Mainly arboricultural qualities** | **2 Mainly landscape qualities** | **3 Mainly cultural values, including conservation** |
| **Trees to be considered for retention** | | | |
| **Category A**<br>**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) |
| **Category B**<br>**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 |
| **Category C**<br>**Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm | 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 |

## Appendix 2: Tree Survey Schedule

| No. | Name | Ht (crown) | Dia (stems) | Crown spread (NESW) | Life stage | ERC | Comments | BS Cat |
|---|---|---|---|---|---|---|---|---|
| T2 | Quercus cerris (Turkey Oak) TPO25 - A4 | 19.5(1.5) | 620(1) | 7.5, 6.5, 5, 6.5 | EM | 40+ | Significant offsite tree behind boundary wall. Twin stemmed structure from 2.5m. Historic lower branch removal over garden. Northern Crown overhangs adjacent roof with some branch contact. Minor deadwood overhanging garden. Post and wire fencing occluded into stem base. | B2 |
| T3 | Unknown (Unknown) | 8(5) | 110(2) | 2, 2, 2, 2 | SM | <10 | Dead tree located behind boundary wall. All dimensions estimated. Dead tree – TPO exempt. | U |
| T4 | X Cupressocyparis leylandii (Leyland Cypress) TPO25 - A4 | 16(2) | 740(1) | 5.8, 5.8, 5.8, 3.2 | M | 20+ | Offsite tree in neighbouring Garden - diameter estimated. Twin stemmed from 1m with heavily compressed stem union until approx. 2m. Further stem bifurcation further up. Suppressed Western Crown due to adjacent competition. Not on topographical survey - location estimated. | B2 |
| T5 | Fraxinus excelsior (Ash) TPO25 - A4 | 15(5) | 200(1) | 6.4, 2, 0, 4 | SM | 10+ | Stem located offsite in woodland parcel growing over boundary with a severe stem kink Northwest at approx. 0.5m with corrective growth from 2.5m. Stem in contact with boundary wall. Heavily suppressed crown formation due to overhead competition. Moderate deadwood in crown. Not in topographical survey - location estimated. Individual category recorded - higher value as part of wider woodland group. | C2 |
| T6 | Quercus cerris (Turkey Oak) TPO25 - A4 | 16.5(5) | 290,240(2) | 6, 6, 6, 6 | EM | 40+ | Tree located offsite on edge of woodland compartment. Twin stemmed from 1m with a tensile union visible – diameter estimated. Northern crown overhangs adjacent building with some contact. Minor deadwood visible in crown. Individual category recorded - higher value as part of wider woodland group. | C2 |

**Notes: Dia (stems):** trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage: Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.) | **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment. | **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

**SITE:** 79A & B Bedwell Gardens, Hayes
**CLIENT:** Karan Jain
**DATE:** 13/07/2023

**SURVEYOR:** H. Pinn

**TAGGED?** No

| No. | Name | Ht (crown) | Dia (stems) | Crown spread (NESW) | Life stage | ERC | Comments | BS Cat |
|---|---|---|---|---|---|---|---|---|
| T7 | Quercus cerris (Turkey Oak) TPO25 - A4 | 16.5(5) | 360(1) | 6, 6, 6, 3.5 | EM | 40+ | Tree located offsite on edge of woodland compartment - diameter estimated. Northern crown overhangs adjacent building with some contact. Historically pollarded at approx. 8m with crown if regrowth. Historic branch removal stubs to North of stem | C2 |
| T8 | Quercus cerris (Turkey Oak) TPO25 - A4 | 16.5(5) | 540(1) | 7, 5.5, 5.5, 7 | EM | 40+ | Significant tree located offsite on edge of woodland compartment. diameter estimated. Northeast crown overhangs adjacent building with some contact. Minor deadwood visible in crown. Pruning stubs on North side of stem from historic lower branch removal. | B2 |
| T10 | Ilex aquifolium (Holly) | 7.5(3) | 120(3) | 4, 4, 4, 4 | EM | 20+ | Offsite tree with overhanging crown. Triple stemmed structure visible about boundary fence with compressed stem growth. Not on topographical survey - location estimated. Stem inaccessible and obscured - all dimensions estimated. | C2 |
| T11 | Crataegus monogyna (Hawthorn) | 5(2) | 110(1) | 2.5, 2.5, 2.5, 2.5 | SM | 20+ | Mall offsite shrub like specimen. | C2 |
| G12 | Acer pseudoplatanus (Sycamore),X Cupressocyparis leylandii (Leyland Cypress) | 16.5(2.5) | 360(1) | 5.5, 5.5, 5.5, 5.5 | M | 20+ | x2 offsite trees growing in close proximity forming and cohesive canopy. Southern Sycamore branch overhanging access has partially occluded damage to underside cambium consistent with vehicular contact. Stem base inaccessible and obscured - average diameter estimated. | B2 |
| T13 | Quercus cerris (Turkey Oak) TPO25 - A4 | 7.5(3) | 250(1) | 4.5, 3, 3, 4 | EM | 40+ | Offsite tree. Supresses crown formation. Plotted by eye on plan. | C2 |
| G14 | Carpinus betulus (Hornbeam) TPO25 - A4 | 10(2) | 360(1) | 3.5, 3.5, 3.5, 3.5 | EM | 20+ | Group of similar adjacent trees growing offsite in public land. Ivy smothered stems. Average dimensions recorded. | B2 |
| T15 | Crataegus monogyna (Hawthorn) TPO25 - A4 | 9(2) | 120(4) | 3.5, 3.5, 3.5, 3.5 | M | 20+ | Ivy smothered tree. Heavily compressed stem growth with obscured unions. Diameter estimated. | C2 |

**Notes:** **Dia (stems):** trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage:** **Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.) | **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years- <10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment. | **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

**SITE:** 79A & B Bedwell Gardens, Hayes
**CLIENT:** Karan Jain
**DATE:** 13/07/2023

**SURVEYOR:** H. Pinn

**TAGGED?** No

| No. | Name | Ht (crown) | Dia (stems) | Crown spread (NESW) | Life stage | ERC | Comments | BS Cat |
|---|---|---|---|---|---|---|---|---|
| T16 | Chamaecyparis lawsoniana (Lawson Cypress)<br>TPO25 - A4 | 9(2.5) | 280(1) | 2, 2, 2, 2 | EM | 20+ | Small, slender formed garden tree. | C2 |
| G17 | Crataegus monogyna (Hawthorn),Ilex aquifolium (Holly),Carpinus betulus (Hornbeam),Quercus cerris (Turkey Oak),Fraxinus excelsior (Ash)<br>TPO25 - A4 | 6(0.1) | 200(1) | 3, 3, 3, 3 | EM | 40+ | Mostly understory vegetation of overhead trees with some trees set back in group. Significant individual trees on Northern edge surveyed individually. Average group dimensions recorded. | B2 |

**Notes:** **Dia (stems):** trunk diameter in mm at 1.5m above ground level (number of stems) | **HT (crown):** Tree height (crown clearance) | **Life stage:** **Y:** Young (obviously planted within the last three years (unless as a heavy or extra-heavy standard)). **SM:** Semi mature (recently planted and yet to attain mature stature; up to 25% of attainable age.). **EM:** Early mature (almost full height, crown still developing and seed bearing; up to 50% of attainable age.). **M:** Mature (full height, crown spread, seed bearing; over 50% of attainable age.). **OM:** Over mature (full size, die-back, small leaf size, poor growth extension.) | **FSB:** First significant branch (& compass bearing) | **ERC:** Expected remaining contribution in years-<10, 10+, 20+, 40+ (assuming that there will be no physical changes to its immediate environment. | **BS Category:** Refer to appendix 1 of this report or BS5837:2012 Table 1 for detailed descriptions.

**Appendix 3: Tree Survey Plan**
(PRI24307-01A)

SEE PLAN APPENDED SEPARATELY

**Head Office**
Rodbourne Rail Business Centre
Grange Lane
Malmesbury
SN16 0ES
Tel: 01666 825646

**Surrey Office**
Unit 7
Godalming Business Centre
Woolsack Way
Godalming
GU7 1XW
Tel: 01483 425714

**Hampshire Office**
Suite 6
Crescent House
Yonge Close
Eastleigh
SO50 9SX
Tel: 02382 026300

Email: mail@acdenv.co.uk
Website: www.acdenvironmental.co.uk

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