ARBORICULTURAL REPORT to BS 5837:2012 at
7 Melbury Road
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London
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1. **Introduction**

1.1 **Purpose of the Report**

1.1.1 A report is required at 7 Melbury Road, Kensington, London, to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 **Terms of Reference**

1.2.1 I am instructed by Watts Planning Limited to visit the site and prepare my findings in a report.

1.2.2 For this purpose I have been supplied with a topographical survey, a plan showing the extent of the proposals and a tree survey provided by an arboricultural consultant dated December 2011.

1.3 **Scope of the Report**

1.3.1 This report is compiled in accordance with BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations.

1.3.2 Preliminary recommendations are given with a view to the long-term management of a sustainable tree cover.

1.3.3 All trees within the site boundary with a stem diameter above 75mm are included.

1.3.4 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.

1.4 **Survey Details**

1.4.1 The survey took place during the month of December 2012.

1.4.2 The survey was conducted by Jonathan Cocking F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor, MIEEM.

1.4.3 Inspection was made at ground level. Further investigation, such as climbed inspections or decay detection surveys, may be recommended where appropriate.

1.4.4 Measurements were obtained using clinometers, specialist tapes and electronic distometers. Where this was not possible measurements were estimated.
2. Site Description

2.1 Land Use

2.1.1 The site is currently a residential garden in a suburb of London. Well manicured, the garden is accessible from the house and via a gate and steps from the rear.

2.2 Topography

2.2.1 The site is approximately level. There is a slight level change from the rear access gate to the site generally which is dealt with by a few steps and T1, T2 and H3 are set on a slightly raised area behind a short retaining wall.

2.3 Treescape

2.3.1 Surrounding the site is a residential area containing occasional mature and semi mature garden trees and occasional street trees.

2.3.2 The trees on this site have a moderate impact on the local treescape.

2.4 Visual Amenity Value

2.4.1 The trees on site collectively provide some visual amenity to the surrounding area.

2.5 Age Class Mix

2.5.1 The trees surveyed ranged in age from semi mature to mature. However, T1 was classed as mature.

2.6 Species Diversity

2.6.1 Species surveyed include Sycamore, Poplar and Western Red Cedar.
3. Status of the Trees

3.1 A check was made on 12\textsuperscript{th} December 2012 with: \textit{Royal Borough of Kensington and Chelsea}.

3.2 We understand that the site within a Conservation Area.

3.3 We advise against undertaking any works until the Local Planning Authority have addressed the issue of tree removal.

4. Tree Descriptions and Recommendations

4.1 Full details of all individual trees surveyed are recorded in the tables at Appendix 1, a full explanation of the tables can be found at Appendix 2. Please refer also to the Tree Constraints Plan at Appendix 6 for tree locations.

5. Discussion

5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of four items of vegetation (two individual trees and two hedges). Of these, none were identified as retention category ‘A’, 1 tree was identified as retention category ‘B’, no trees were identified as retention category ‘C’ and the 2 hedges were identified as retention category ‘U’. Please refer to Appendix 2 for retention category and definition criteria.

5.1.2 2 hedges (\textit{H3 and H4}) and 1 tree (\textit{T2}) were identified as retention category ‘U’. These trees require removal for arboricultural reasons regardless of any on site development, as detailed below:

5.1.3 Tree pruning works are recommended to enhance the long-term health of \textit{T1} to benefit its long-term development, as detailed at Appendix 1. The recommended work should be carried out as a matter of \textit{high priority}.

5.1.4 General tree health and crown condition should be monitored and trees re-inspected for signs of a decline.

5.1.5 The species and age diversity of existing trees on site is poor and a proposed development would improve this by incorporating a Tree Planting Scheme which introduces younger trees of a variety of suitable species.
5.2 Potential Arboricultural Implications & Design Advice

5.2.1 The details of the proposed development are available and I have produced an Arboricultural Method Statement based on the plans. However, the following general comments can be made about the site in terms of its tree cover in relation to this development.

5.2.2 During development the part of the tree most commonly under threat, and most commonly ignored, is the rooting system. When trees are damaged, particularly the roots, their long-term health and stability can be affected. Most development activity can have an impact on the future condition and safety of a tree, and therefore careful planning and management of tree protection should ensure a continued sustainable tree cover with minimal stress to existing trees.

5.2.3 In order to ensure that T1 is properly protected during this development, the tree rooting zones have been considered. For the purpose of development the rooting zone of the tree is known as the Root Protection Area or RPA. The RPA of each tree or group is marked on the Tree Constraints Plan at Appendix 6 and represents the rooting zone which, where possible, should remain undisturbed. The protection of retained trees can therefore be achieved by erecting a temporary barrier (based on the RPAs), so creating a Construction Exclusion Zone.

5.2.4 Care must be taken to avoid damage to tree roots when existing structures such as tarmac surfaces and steps are removed within a RPA.

5.2.5 Boundary walls or other light structures can be constructed without damage to roots through the use of piled foundations rather than the more traditional strip foundations.

5.2.6 The location of drainage and utilities within the RPA can be achieved if need be, using special techniques and supervision.

5.2.7 Where a landscape planting scheme is proposed, consideration must be made at the planning stage as to where this is to be implemented on site. Such locations should be protected in order to prevent soil compaction and/or contamination and should therefore form part of the Construction Exclusion Zone. JCA can provide Tree Planting Schemes where required.
6. **Conclusions**

6.1 The trees surveyed were mostly found to be in poor condition with the exception of T1.

6.2 The trees on this site are protected by virtue of being within a Conservation Area.

6.3 Two hedges have been recommended for removal for arboricultural reasons. These are discussed in Section 5.1.2 and detailed at Appendix 1.

6.4 1 tree has been recommended for removal due to its low value, poor shape and short life expectancy.

6.5 1 tree has been recommended for retention.

6.6 All development work carried out in close proximity to trees must be done so in a manner sympathetic to their needs. Otherwise the condition of the trees may deteriorate in the months and years following the development, leading to a loss of amenity and potentially hazardous trees.

6.7 Care must be taken at the design stage to ensure that the retained trees are protected. The protection of the retained trees can be achieved by erecting a temporary barrier to create a Construction Exclusion Zone (based on the Root Protection Areas). The Root Protection Area of each tree or group is marked on the Tree Constraints Plan at Appendix 6.

6.8 The proposed development will be accompanied by an **Arboricultural Method Statement** detailing the specific protection measures necessary for each tree.
Appendices
Appendix 1: Tree Descriptions and Recommendations
<table>
<thead>
<tr>
<th>Ref.</th>
<th>Age</th>
<th>Species</th>
<th>Latin Name</th>
<th>Height (m)</th>
<th>Crown Height (m)</th>
<th>Diameter (cm)</th>
<th>Crown Spread</th>
<th>Observations</th>
<th>Recommendations</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>Aesthetics Value</th>
<th>Life Expectancy (yrs)</th>
<th>Retention Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>T 1</td>
<td>Mature</td>
<td>Poplar</td>
<td><em>Populus sp</em></td>
<td>18</td>
<td>4.4</td>
<td>80</td>
<td>N</td>
<td>see plan</td>
<td>Tree is covered in ivy. It has a 15% lean towards the wall. Large limb 4.4m up the stem.</td>
<td>Remove Ivy and crown lift to 4m, remove dead wood and reduce by 4m in height and 2m in spread.</td>
<td>FAIR</td>
<td>FAIR</td>
<td>MOD</td>
<td>40+</td>
</tr>
<tr>
<td>T 2</td>
<td>Semi mature</td>
<td>Sycamore</td>
<td><em>Acer pseudoplatanus</em></td>
<td>9</td>
<td>4.5</td>
<td>30</td>
<td>S</td>
<td>See plan</td>
<td>Leaning tree of little importance.</td>
<td>Remove.</td>
<td>POOR</td>
<td>POOR</td>
<td>LOW</td>
<td>&lt;10</td>
</tr>
<tr>
<td>H 3</td>
<td>Semi mature</td>
<td>Western Red Cedar</td>
<td><em>Thuja plicata</em></td>
<td>6</td>
<td>0</td>
<td>Mix</td>
<td>S</td>
<td>See plan</td>
<td>Dying hedge.</td>
<td>Remove.</td>
<td>DEAD</td>
<td>DEAD</td>
<td>DEAD</td>
<td>&lt;10</td>
</tr>
<tr>
<td>H 4</td>
<td>Semi mature</td>
<td>Western Red Cedar</td>
<td><em>Thuja plicata</em></td>
<td>7</td>
<td>0</td>
<td>Mix</td>
<td>S</td>
<td>See plan</td>
<td>Dead hedge.</td>
<td>Remove</td>
<td>DEAD</td>
<td>DEAD</td>
<td>DEAD</td>
<td>&lt;10</td>
</tr>
</tbody>
</table>
Appendix 2: Explanation of Tree Descriptions

A2.1 Measurements

A2.1.1 HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

A2.1.2 CROWN HEIGHT is an indication of the average height at which the crown begins. Also recorded is the height of the first significant branch and the direction of growth.

A2.1.3 STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed below a height of 1.5 metres, the diameter is measured at the narrowest point below the fork.

A2.1.4 CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

A2.2 Evaluations

A2.2.1 AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

A2.2.2 PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

A2.2.3 STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

A2.2.4 LIFE EXPECTANCY is classed as: less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.
A2.3 Retention Categories

A2.3.1 A (marked green on the plan) = trees of high quality; retention most desirable.

These trees are of high quality and value with a good life expectancy. They may be further sub-divided as follows:

A1) Particularly good examples; perhaps rare or unusual species, or forming an essential part of arboricultural features e.g. avenues.

A2) Groups of trees having a significant landscape impact or with excellent screening properties, or those softening the effect of existing structures.

A3) Those having significant conservation or historical value e.g. veteran trees.

A2.3.2 B (marked in blue on the plan) = trees of moderate quality; retention desirable.

These trees are of moderate quality and value with a significant life expectancy. They may be further sub-divided as follows:

B1) Trees that might be included in the high category but because of their numbers or slightly impaired condition, are downgraded in favour of the better individuals.

B2) Groups of trees forming distinct landscape features, thereby attracting a higher collective rating than they might as individuals.

B3) Trees with clearly identifiable conservation or other cultural benefits.

A2.3.3 C (marked in grey on the plan) = trees of low quality but which could be retained.

These trees are of low quality and value, and are in adequate condition to remain until new planting could be established. They may be further sub-divided as follows:

C1) Trees not qualifying in higher categories.

C2) Groups of trees which do not form a distinct landscape feature.

C3) Trees with very limited conservation or other cultural benefits.

A2.3.4 U (marked in red on the plan) = unsuitable for retention: trees for removal.

These trees are in such a condition that any existing value would be lost within 10 years. This may be due to any of the following:

1) Failure is likely due to serious, irredeemable, structural defects.

2) The trees are considered to be hazardous.

3) Diseases are present which may affect the health of adjacent trees.

4) They are in serious, overall decline or are already dead.

5) They are of low quality and suppressing adjacent trees of better quality.

6) Removal of other category U trees will render them exposed and unstable.

These trees should be removed or treated in such a way as to make them safe where they have high ecological value, such as in a woodland setting.
Appendix 3: General Guidelines

A3.1 All work must be to BS 3998: 2010 - ‘Recommendations for tree work’.

A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.

A3.3 This report is based upon a visual inspection. The consultant shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with the guidelines and the terms listed in this report.

A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.

A3.5 No liability can be accepted by JCA Limited in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA’s timescale.

A3.6 It is advisable to have trees inspected by an arboricultural consultant regularly. In this instance it is recommended that these inspections are made every year.
## Appendix 4: Glossary of Terms & Abbreviations

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arboriculture</td>
<td>The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber.</td>
</tr>
<tr>
<td>Canker</td>
<td>Disease damaged area of a tree, usually caused by fungus or bacteria.</td>
</tr>
<tr>
<td>Co-dominant Stem</td>
<td>A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.</td>
</tr>
<tr>
<td>Crown Lift</td>
<td>The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles, etc.</td>
</tr>
<tr>
<td>Crown reduce</td>
<td>The reduction of a tree’s height or spread while preserving its natural shape.</td>
</tr>
<tr>
<td>Crown thin</td>
<td>The removal of some of the density of a tree’s crown, usually 5-25% allowing more light through its canopy and reducing wind resistance.</td>
</tr>
<tr>
<td>Deadwood</td>
<td>Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.</td>
</tr>
<tr>
<td>Dieback</td>
<td>Where branches are beginning to show signs of death usually at the tips in the crown.</td>
</tr>
<tr>
<td>Epicormic shoots</td>
<td>Small branches that grow in uncharacteristic clusters around the base or the stem of a tree, usually as a result of bad pruning or some other stress factor.</td>
</tr>
<tr>
<td>Formative pruning</td>
<td>The trimming of a tree to remove weaknesses and irregularities which may lead to problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree’s crown.</td>
</tr>
<tr>
<td>Included bark</td>
<td>Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.</td>
</tr>
<tr>
<td>Pollarding</td>
<td>A method of tree management in which the main trunk of the tree is cut at about 4m, and the resulting branches are then cropped on a regular basis.</td>
</tr>
<tr>
<td>Remedial pruning</td>
<td>The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree’s crown. Sometimes referred to as crown cleaning.</td>
</tr>
<tr>
<td>RPA</td>
<td>Root Protection Area – The theoretical rooting area of a tree as defined in BS5837: 2005 Trees in relation to construction.</td>
</tr>
<tr>
<td>Topping</td>
<td>Topping is a form of pruning that removes terminal growth leaving a ‘stub’ cut end. Topping causes serious health problems to a tree.</td>
</tr>
</tbody>
</table>
Appendix 5: Author Qualifications

Principal Consultant and Managing Director

Jonathan Cocking F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) F Arbor.A CBiol MSB. MICFor. Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA’s portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

Technical Coordinator

Toby Thwaites BSc (Hons), HND (Arboriculture). Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby was promoted to Technical Coordinator and now oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

Consulting Staff: Arboriculture

Andy Bagshaw FdSc (Arboriculture). Andy joined JCA in 2005 having gained several years experience in tree surgery and landscaping. He is trained in aerial rescue and is JCA’s principal first aid person. Andy has obtained a foundation degree in Arboriculture at the University of Central Lancashire, is QTRA qualified and is a JCA team leader who manages an office of Consulting Arboriculturists.

Toby Parsons Cert. Arb. (RFS), Tech. Cert. (Arbor.A). Toby joined JCA after spending 6 years working as a senior climber for various Arboricultural contractors in the East Midlands and the South-West. He has gained the Level 2 Certificate in Arboriculture (RFS) and an Arboricultural Technicians Certificate. Toby is QTRA qualified and is LANTRA certified in Professional Tree Inspection.

Scott Reid ND (Arboriculture and Forestry). Scott joined JCA after working with other consultancy companies in the south of England. He specialises in trees in relation to development and holds a National Diploma, various NPTC qualifications and is currently studying for his Level 4 Diploma in Arboriculture.

Andrew Bussey Andrew joined JCA having spent 12 years working as a tree surgeon for various private companies and a Local Authority. He has various NPTC qualifications, is QTRA qualified and is currently studying for his Arboricultural Technicians Certificate.

Gavin Proud BSc. (Hons), NC (Arboriculture). Gavin recently joined JCA having spent 8 years working for various tree work contractors as a climber and team leader. In addition to his qualification in Arboriculture, Gavin has various NPTC qualifications and is LANTRA certified in Professional Tree Inspection.

Flora Harding BSc. (Hons) Fd.BSc. (Arboriculture and Tree Care). Flora has a degree in Rural Resource Development (specialising in Wildlife and Landscape Conservation). She spent her former career working for a local authority and has a licence for QTRA. In 2012, Flora published an article to enable industry based research for the purpose of gaining Chartered Arboriculturist status.

Victoria Black FdSc (Arboriculture). Victoria has been with JCA since 2002 building her knowledge of the Arboricultural business. She obtained a foundation degree in Arboriculture at the University of Central Lancashire.

Phil Humeniuk FdSc (Arboriculture), MicFor. Phil has recently joined JCA having spent 3 years working for various tree surgery companies and as a Tree Officer for a Local Authority. Phil obtained a foundation degree in Arboriculture at the University of Central Lancashire.

Consulting Staff: Ecology

Kieran Shaw BSc (Hons). Kieran, our in-house Ecologist, joined JCA after achieving a degree in Geography from the University of Aberdeen. Prior to joining JCA, Kieran has worked for the Yorkshire Wildlife Trust and is a member of the West Yorkshire Bat Group. He is currently studying for a Masters degree in Earth Science and has undertaken research in Greenland, Scotland and throughout Europe.

Administrative Staff

Sue Guest Administrative Team Leader. Catherine Cocking Accounts Manager.
Sally Whitwam BA (Hons), Administrative Assistant & Marketing. Yasmin Shahzad Administrative Assistant.
Simeon Haigh BSc (Hons). IT Officer. Liz Bone Administrative Assistant.
Appendix 6: Tree Constraints Plan
Appendix 6: Tree Constraints Plan

CATEGORY C:
'TREE WHICH COULD BE RETAINED'

CATEGORY B:
'RETENTION DESIRABLE'

CATEGORY A:
'RETENTION MOST DESIRABLE'

CENTRE OF TREE/SHRUB REMOVAL' FOR 'TREE U:

CENTRE OF TREE/SHRUB TO BE REMOVED

ROOT PROTECTION AREA

BRITISH STANDARD BS7537:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these categories are in Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.
I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

................................................... .................

Jonathan Cocking F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArborA CBiol MSB. MICFor, MIEEM.

18th December 2012

For and on behalf of JCA Ltd

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