Arboricultural and Planning Integration Report:
56 Ladbroke Road, London, W11 3NW

23rd January 2017

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**Appendix A**
- Site Plan

**Appendix B**
- Tree Table
Executive Summary

The proposal for the site is to undertake some internal renovations, work which will include extending the basement to the rear out at a lower level. The retained trees require protection in accordance with industry best practice and BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations, in order to ensure their longevity.
Documents Supplied

Crawford and Gray Architects Ltd. supplied the following documents:

1. Existing layout plans
2. Proposed layout plans
3. Existing elevation plans
4. Proposed elevation plans

Scope of Survey

1.1 The survey is concerned with the arboricultural aspects of the site only.

1.2 The planning status of the trees was not investigated in detail.

1.3 A qualified Arboriculturist undertook the report and site visit and the contents of this report are based on this. Whilst reference may be made to built structure or soils, these are only opinions and confirmation should be obtained from a qualified expert as required.

1.4 Trees in third party properties were surveyed from within the subject property, therefore a detailed assessment was not possible and some (if not all) measurements were estimated.

1.5 No discussions took place between the surveyor and any other party.

1.6 The trees were inspected on the basis of the Visual Tree Assessment method expounded by Mattheck and Breleor (The body language of tree, DoE booklet Research for Amenity Trees No. 4, 1994)

1.7 The survey was undertaken in accord with British Standard 5837: 2012 – Trees in relation to design, demolition and construction – recommendations

1.8 Pruning works will be required to be in accord with British Standard 3998 – 2010 (Tree Work - Recommendations).

1.9 Underground services near to trees will need to be installed in accord with the guidance given in BS5837 together with the National Joint Utilities Group Booklet 4: 2007 Guidelines for the planning, installation and maintenance of utility services in proximity to trees (NJUG4).

1.10 Where hard surfacing may be required in close proximity to trees, BS5837: 2012, and the principles of Arboricultural Practice Note 12: Through the Trees to Development (AAIS) 2007 (APN12) with regards to “no dig” surfacing will be employed.

1.11 Reference is made to the National House Building Council Standards, 2003, chapter 4.2: Building near trees (NHBC).
1.12 The client’s attention is drawn to the responsibilities under the Wildlife and Countryside Act (1981).

**Survey Method**

2.1 The survey was conducted from ground level with the aid of binoculars.

2.2 No tissue samples were taken nor was any internal investigation of the subject trees undertaken.

2.3 No soil samples were taken.

2.4 The height of each subject tree was estimated using a clinometer.

2.5 The stem diameters were measured in line with the requirements set out in BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations.

2.6 The crown spreads were measured with an electronic distometer. Where the crown radius was notably different in any direction this has been noted on the Plan (appendix A), or in the tree table (Appendix B).

2.7 The Root Protection Area (RPA) for each tree is included in the tree table, both as an area, and as the radius of a circle.

2.8 The crown clearance was measured in metres. Where it is significantly lower in one direction, this is noted within the tree table at appendix B.

2.9 All of the trees that were inspected during the site visit are detailed on the plan at Appendix A. Please note that the attached plans are for indicative purposes only, and that the trees are plotted at approximate positions. The trees on this plan are categorised and shown in the following format: COLOUR CODING AND RATING OF TREES:

- **Category A** – Trees of high quality with an estimated remaining life expectancy of at least 40 years. Colour = light green crown outline on plan.

- **Category B** – Trees of moderate quality with an estimated remaining life expectancy of at least 40 years. Colour = mid blue crown outline on plan.

- **Category C** – Trees of low quality with an estimated remaining life expectancy of at least 40 years, or young trees with a stem diameter below 150mm. Colour = uncoloured crown outline on plan.

- **Category U** – 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. Colour = red crown outline on plan.

The crowns of those trees that are proposed for removal, or trees where the crown spread is deemed insignificant in relation to the proposed development
are not always shown on the appended plan; however their stem locations are marked for reference.

All references to tree rating are made in accordance with BS 5837: 2012 – Trees in relation to design, demolition and construction – recommendations’, Table 1

The Site

3.1 The site is located on Ladbroke Road, a residential through road located in the Notting Hill area of west London.

The Subject Trees

4.1 The details of the subject trees are set out in the Schedule at Appendix B.

4.2 All six of the individual trees and groups of trees surveyed have been assessed as BS 5837 category C.

The Proposal

5.1 The proposal for the site is to undertake some internal renovations, work which will include extending the basement to the rear out at a lower level.

5.2 The proposed location of the above structures can be seen on the appended plan.

Arboricultural Impact Assessment

TREE REMOVAL / RETENTION:

6.1 The proposed site layout and all of its associated structures allows for the healthy retention of all of the trees on the site itself, and within nearby adjacent sites; therefore the arboricultural landscape character of the site will be retained.

TREE PRUNING TO ACCOMODATE THE PROPOSAL OR ACCESS TO THE SITE

6.2 The implementation of the proposal does not lead to the requirement to prune any of the retained trees, or shrubs.
ASSESSMENT OF RETAINED TREES ROOT PROTECTION AREAS

6.3 Section 4.6.3 of BS 5837: 2012 states that the Root Protection Area (RPA) of each tree should be assessed by an arboriculturalist considering the likely morphology and disposition of the roots, when known to be influenced by past or existing site conditions.

6.4 Many of the trees within adjacent properties have had their RPAs offset to take account of the level differentials as well as the substantial boundary walls which will be acting as root barriers. Therefore, the proposed new building(s) are situated outside of the RPA’s of all of the trees proposed for retention, therefore these trees pose no below ground constraints on the new buildings or vice versa.

Post Development Pressure

FUTURE TREE AND STRUCTURE RELATIONSHIPS

7.1 The retained trees are at a satisfactory distance from the proposed new building, and highly unlikely to give rise to any inconvenience.

7.2 Some minor lateral pruning of the retained trees and shrubs may be required in the medium term, however any such work would not have a significant impact on the health or amenity value of these trees.

7.3 The BS3998: 2010 – Recommendations for Tree Work discusses and endorses various methods of pruning that can alleviate the minor inconveniences trees can cause, whilst retaining them in a healthy condition. Methods such as crown reductions (section 13.4) partial or whole, crown lifting (section 13.5) and crown thinning (section 13.6) can be used to both increase light to properties, as well as improve clearances from buildings. Trees in towns are often sited in close proximity to buildings; however residents concerns can be readily appeased with the implementation of regular, well-planned, sensitive pruning.

7.4 Regular inspections of the retained trees by a suitably qualified Arboriculturalist and subsequent remedial works will ensure that the trees are maintained in a suitable manner, to exist in harmony with the new structures and its occupants for many years to come.

Tree Protection Measures and Preliminary Method Statement for Development Works

8.1 TREE PROTECTION BARRIER
Wooden hoarding, to a height of 2m will be installed to protect the stem of T3 as can be seen on the appended plan.
8.2 DELIVERY AND STORAGE OF BUILDING MATERIALS
Due to the limited on-site storage space, it may be necessary for bulk deliveries to be split into smaller deliveries. The use of a "just in time" delivery method can also be adopted to reduce the time materials are stored on site before use.

8.3 MIXING OF CONCRETE
All mixing of cement / concrete must be undertaken outside of the RPA of all of the retained trees.

8.4 USE CRANES, RIGS AND BOOMS
Precautionary measures must be observed to avoid contact of any retained trees when manoeuvring cranes rigs or booms into position.

8.5 INCOMING SERVICES AND SOAKAWAYS
The existing drainage system has been assessed as suitable for re-use, and it is assumed that the electric and gas cabling is also satisfactory. Any new underground services near to trees will however need to be installed in accord with the guidance given in BS5837 together with the National Joint Utilities Group Booklet 4: 2007 Guidelines for the planning, installation and maintenance of utility services in proximity to trees (NJUG4). When within the RPA of any retained tree, any new service trenches should be excavated using an airspade to avoid any damage to roots. Care must then be taken to ensure the new services are installed so as to avoid any roots present.

8.6 ON SITE SUPERVISION
A detailed supervision programme will be devised by the developer and retained Arboriculturalist, ensuring that Arboricultural supervision is present at the appropriate periods during construction.

8.7 OTHER TREE PROTECTION PRECAUTIONS
• No fires lit on site within 20 metres of any tree to be retained.
• No fuels, oils or substances with will be damaging to the tree shall be spilled or poured on site.
• No storage of any materials within the root protections zone.

Conclusion

9.1 In conclusion, the principal arboricultural features within the site can be retained and adequately protected during development activities.

9.2 Subject to precautionary measures as detailed above, the proposal will not be injurious to trees to be retained.

9.3 There will be no appreciable post development pressure, and certainly none that would oblige the council to give consent to inappropriate tree works.
Recommendations

10.1 The site works should progress as follows to ensure the healthy retention of the trees.
   
   a. Installation of all tree protection measures.
   b. Construction.
   c. Soft landscaping.

10.2 Site supervision – An individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:
   
   a. Be present on the site the majority of the time.
   b. Be aware of the arboricultural responsibilities.
   c. Have the authority to stop any work that is, or has the potential to cause harm to any tree.
   d. Be responsible for ensuring that all site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
   e. Make immediate contact with the local authority and / or retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.

10.3 It is recommended, that to ensure a commitment from all parties to the healthy retention of the trees, that details are passed by the architect or agent to any contractors working on site, so that the practical aspects of the above precautions are included in their method statements, and financial provision made for these.

23rd January 2017
Signed:

[Signature]

Glen Harding
For and on behalf of GHA Trees
Appendix A
Appendix B
<table>
<thead>
<tr>
<th>Tree Number</th>
<th>Tree Name (species)</th>
<th>Ht (m)</th>
<th>Calculated Stem Diameter (mm)</th>
<th>Number of Stems</th>
<th>Root Protection Area (Radius, m)</th>
<th>N (m)</th>
<th>E (m)</th>
<th>S (m)</th>
<th>W (m)</th>
<th>Age Class</th>
<th>Clearance (m)</th>
<th>Estimated life expectancy</th>
<th>BS Category</th>
<th>Comments / Recommendations</th>
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<tr>
<td>T1</td>
<td>Magnolia</td>
<td>5</td>
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<td>2</td>
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<td>3</td>
<td>0</td>
<td>3</td>
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<td>10-20</td>
<td>C1</td>
<td>Off site tree - full inspection not possible.</td>
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<td>T2</td>
<td>Privet</td>
<td>5</td>
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<td>1.90</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<td>2</td>
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<td>C1</td>
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<tr>
<td>T3</td>
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<td>100</td>
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<td>1.20</td>
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<td>3</td>
<td>4</td>
<td>2</td>
<td>M</td>
<td>4</td>
<td>10-20</td>
<td>C1</td>
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<td>T4</td>
<td>Apple</td>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>M</td>
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<td>2.5</td>
<td>2.5</td>
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<td>C1</td>
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<tr>
<td>T6</td>
<td>Red robin</td>
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<td>2</td>
<td>2</td>
<td>M</td>
<td>2</td>
<td>10-20</td>
<td>C1</td>
<td>Off site tree - full inspection not possible.</td>
</tr>
</tbody>
</table>

**KEY :**
- Tree No: Tree number (T= individual tree, G= group of trees, W= woodland)
- Crown = the leaf bearing part of the tree
- Diameter: MS = Multi-stemmed
- Age class: Young (Y), Middle aged (MA), Mature (M), Over mature (OM), Veteran (V)
- Height (Ht): Measured in metres +/- 1m