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Arboricultural and Planning Integration Report: 67 Gloucester Crescent, London, NW1 7EG

1st July 2019

Ref: GHA/DS/126560:19

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Arboricultural Report

Location: 67 Gloucester Crescent, London, NW1 7EG
Ref: GHA/DS/126560:19
Client: Retrouvius
Date: 1st July 2019
Report Prepared by: Glen Harding MSc (Forestry), MArborA
Date of Inspection: 26th June 2019

Please note that abbreviations introduced in (brackets) *may be used throughout the report.*

Instructions

Issued by – Retrouvius

TERMS OF REFERENCE – GHA Trees were instructed to survey the subject trees within and adjacent to 67 Gloucester Crescent, in order to assess their general condition and to provide a planning integration statement for the indicative proposed development that safeguards the long term well being of the retained trees in a sustainable manner.

Executive Summary

The proposal for the site is to renovate and extend (to the rear) the existing house; the work is partly necessary due to some historic structural damage. 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

The client 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 subject property 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 ownership were surveyed from within the subject property, therefore a detailed assessment was not possible and some (if not all) measurements were estimated. Where the stem location of a third party tree has been estimated, this is noted on the plan.

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 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).

1.9 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 if needed.

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 and recorded to the nearest half metre.

2.5 The stem diameter for each tree was 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 and recorded to the nearest half metre. Where the crown radius was notably different in any direction this has been noted on the Plan (appendix A) and within the tree table (Appendix B). 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.

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 using a clinometer and recorded to the nearest half metre. 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; this plan was produced in colour and **MUST** only be scanned or reproduced in colour. 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 realisitically be retained as living trees in the context of the current land use for longer than 10 years. Colour = red crown outline on plan.

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 Gloucester Crescent, a residential through road located in the Camden area of north west London.

The Subject Trees

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

4.2 Of the eight individual trees, and groups of trees surveyed, one has been assessed as BS 5837 category A, two have been assessed as BS category B, with the remaining trees being assessed as BS 5837 category C.

Category A	1 tree
Category B	2 trees
Category C	5 trees

The Proposal

5.1 The proposal for the site is to renovate and extend (to the rear) the existing house; the work is partly necessary due to some historic structural damage.

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

Arboricultural Impact Assessment

PROPOSED 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 The trees to the front are surrounded by manmade features (such as footpaths, patios, walls, the house, vaults and the nearby public highway) on all sides of their stems. Clearly, these structures may have affected root growth, however it is difficult to determine to what extent. Therefore, the RPAs have been drawn to the edge of the vaults / front of the house as well as to the pavement edge; this can be seen on the appended plan.

6.5 The RPAs of of the trees to the rear have all been amended to take account of the existing boundary walls.

6.6 The works to the front will come no closer to the trees that the existing vault / building line; therefore these trees pose no below ground constraints on the new buildings or vice versa. The trees the rear are also unaffected by the proposal.

INSTALLATION OF SERVICES

6.7 The installation of underground apparatus and drainage systems with the use of mechanical excavators will undoubtedly sever any roots that may be present and can change the hydrology and structure of the nearby soil in a way that will adversely affect the health of any nearby trees. Particular care should therefore be taken when assessing the layout of new services and consideration **MUST** be given to the methods of installation of **ALL** underground apparatus.

6.8 From an assessment of the subject site, undertaken in conjunction with the project architect, 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. Therefore, there is no reason to assume that any new service installations will be required within the RPAs of any trees.

GENERAL

6.9 The protective measures as detailed in section 8 will ensure that no significant root severance or soil compaction / erosion occurs near the retained trees.

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 The proposed house will be located in a similar location as existing building, where the current occupants have enjoyed a satisfactory juxtaposition between the nearby trees and their house for many years.

7.3 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.

7.4 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.

7.5 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 BARRIERS

It is essential for the future health of the trees to be retained on site, that all development activity is undertaken outside the root protection zone of these trees, whenever this is practical. The position of the proposed protective fencing for the site is shown on the plan 'Appendix A' by a pink line. The position of the fence is to be marked out with biodegradable marker paint on site and agreed with appropriate representatives from the LPA and contractor. The fencing will be erected **prior** to any works in the vicinity of the trees and removed only when all development activity is complete. The protective fencing to the front will comprise wooden hoarding to a height of 2.4m.

The Fence must be marked with a clear sign reading:

"Construction Exclusion Zone – No Access"

8.2 GROUND PROTECTION – LIGHTWEIGHT ACCESS ONLY

The existing patio to the front will act as adequate ground protection for site works.

8.3 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.

8.4 SITE HUTS, WELFARE FACILITIES AND STORAGE OF EQUIPMENT, MATERIALS AND CHEMICALS

All site huts will be positioned outside of the retained trees RPA's.

8.5 MIXING OF CONCRETE

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

8.6 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.

8.7 INCOMING SERVICES, DRAINAGE AND SOAKAWAYS

From an assessment of the subject site, undertaken in conjunction with the project architect, 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.

8.8 ON SITE SUPERVISION

Regular site supervision is essential to ensure all potentially damaging activities near to trees are correctly supervised. A pre start meeting will occur to ensure all parties are aware of their responsibilities relating to tree protection on site; this will include a site induction for key personnel.

The key personnel relating to this project are:

Name	**Position**	**Contact number / email:**
Glen Harding	Retained arboriculturalist	07884 056 025 Or info@ghatrees.co.uk
TBC	Local authority Arboricultural Officer	TBC
TBC	Site manager	TBC

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; all phases listed below will be overseen by the retained arborist and site manager with an invitation also extended to the local authority tree officer. It is deemed necessary for the retained arboriculturalist to visit the site at the following critical points.

- Prior to erection of protective fencing to ensure it is located in the correct locations. **Date and time yet to be agreed, however once confirmed, these dates will be sent to the Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.**

- Following completion of the erection of protective fencing to ensure it is constructed to the correct specification at the required proximity to ensure the healthy retention of the trees. **Date and time yet to be agreed, however once confirmed, these dates will be sent to the**

Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.

- Pre start and periodically during demolition of the existing building(s) to ensure no damage occurs to the retained trees. **Date and time yet to be agreed, however once confirmed, these dates will be sent to the Local Planning Authorities Arboricultural Officer in order that he / she can attend if required.**

8.9 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.

8.10 DISMANTLING PROTECTIVE BARRIERS

Protective barriers must only be completely removed when all machinery, and equipment has left site.

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 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.

10.2 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.

4th July 2019
Signed:

Glen Harding MSc (Forestry), MArborA
For and on behalf of GHA Trees

Appendix A

Appendix B

Tree Number	Tree Name (species)	Ht (m)	Calculated Stem Diameter (mm)	Number of Stems	Root Protection Area (Radius, m)	N (m)	E (m)	S (m)	W (m)	Age Class	Clearance (m)	Estimated life expectancy	BS Category	Comments / Recommendations
T1	Oak	12	430	1	5.16	6	6	5	4	M	6 (north), 4 (east), 6 (south), 6 (west)	20-40	B1	Previously crown reduced. Unusually formed tree.
T2	Laburnum	8	277	2	3.32	2	4	4	3	M	6 (west)	10-20	C1	Poor fork at ground level. Some decay noted on main stems.
T3	Holly	5	200	1	2.40	2	2	2	2	M	2.5	10-20	C1	Small tree of limited present or future value.
T4	Magnolia grandiflora	4	100	1	1.20	2.5	2.5	2.5	2.5	MA	3 (north)	10-20	C1	Off site - full inspection not possible.
T5	Hawthorn	8	250	2	3.00	3	3	3	3	M	2	10-20	C1	Off site - full inspection not possible.
T6	Plum	6	50	1	0.60	3	2	2	2	MA	4 (north)	10-20	C1	Off site - full inspection not possible.
T7	Mimosa	9	80	1	0.96	4	4	4	4	MA	4	20-40	B1	Off site - full inspection not possible.
T8	London plane	21	600	1	7.20	8	8	8	8	M	8 (south)	40+	A1	Off site - full inspection not possible.

KEY :
Tree No: (T= individual tree, G= group of trees, W= woodland)
Age class: Young (Y), Middle aged (MA), Mature (M), Over mature (OM), Veteran (V)
Height (Ht): Measured in metres +/- 1m