GHA trees 5 South Drive High Wycombe Bucks HP13 6JU



t: 07884056025 e: glen@ghatrees.co.uk www.ghatrees.co.uk

> Glen Harding TECH CERT (ARBOR, A)

# Arboricultural Method Statement: 82 Compayne Gardens, London, NW6 3RU

26<sup>th</sup> February 2018

Ref: GHA/MS/13360:18

### **CONTENTS**

Section	Subject	Page				
	Instructions	3				
	Executive Summary	3				
	Documents Supplied	4				
	Scope of Survey	4				
	Survey Method	5				
	The Site	6				
	Subject Trees	6				
	The Proposal	6				
	Method statement and procedures for development works	7				
	Conclusion	11				
	Recommendations	12				
Appendix A	Site Plan					
Appendix B	Tree Table					
Appendix C	Extract from BS5837 – Protective Fencing					
Appendix D	Site monitoring record sheet					

## **Method Statement**

Location: 82 Compayne Gardens, London, NW6 3RU

Ref: GHA/MS/13360:18 Client: Mr M Lees

Date: 26<sup>th</sup> February 2018

Report Prepared by: Glen Harding Tech Cert (Arbor.A)

Date of Inspection: 24th June 2017

Please note that abbreviations introduced in [Square brackets] may be used throughout the report.

#### **Instructions**

### **Issued by - Mr M Lees**

TERMS OF REFERENCE – To survey the subject trees within 82 Compayne Gardens, London, NW6 3RU, in order to assess their general condition and to provide an arboricultural method statement for the approved development, that safeguards the long term well being of the nearby retained trees and satisfies planning condition number 4 (decision notice ref: 2017/4519/P).

The writer retains the copyright of this report and it content is for the sole use of the client(s) named above. Copying of this document may only be undertaken in connection with the above instruction. Reproduction of the whole, or any part of the document without written consent from GHA Trees is forbidden. Tree work contractors, for the purpose of tendering only, may reproduce the Schedule for tree works included in the appendices.

#### **Executive Summary**

The proposal for the site is to renovate the existing apartments, work which will involve some extensions and improved landscaping, and will include a basement level. The proposed scheme requires the removal of a small number of relatively insignificant trees and shrubs, which will not significantly impact the local or wider landscape. The development presents an excellent opportunity to plant some new trees, to enhance the site and local area for the future. 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**

Design West Planning 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. This is also the case where dense vegetation exists which prohibits access to the base of the tree(s).
- 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: 2005 Trees in relation to construction Recommendations (BS5837).
- 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 (SD) were measured in centimetres at 1.5 metres above ground level for single stems, and just above the root flare for multistemmed trees. Where access was difficult the diameters were estimated.
- 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 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 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.

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 Compayne Gardens, a residential through road located in the Hampstead 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 nine individual trees, and groups of trees surveyed, two have been assessed as BS 5837 category B, with the remaining trees being assessed as BS 5837 category C.

#### **The Proposal**

- 5.1 The proposal for the site is to renovate the existing apartments, work which will involve some extensions and improved landscaping, and will include a basement level.
- 5.2 The proposed location of the above structures can be seen on the appended plan.

#### **Method Statement and Procedures for Development Works**

#### 6.1 TREE PRUNING / REMOVAL

A list of all tree works that are required (including trees to be removed) is included in the tree table at Appendix B. Pruning / removal has only been specified for the following reasons:

- Where work is necessary to implement the approved scheme.
- Where works are required for safety reasons.
- Where work is required to improve tree form, or improve the appearance of overgrown areas of the site.

Where any tree work is needed, this work will be in accordance with British Standard 3998 – 2010 (Tree Work - Recommendations).

#### 6.2 TREE PROTECTION BARRIERS

It is essential for the future health of the trees to be retained on site, that <u>all</u> 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 fencing near to the new bike store to the rear will be installed prior to construction and removed once work is complete to allow the new biked stores (lightweight structures) to be installed as part of soft landscaping. The protective fencing will be as (or similar and fit for purpose) that shown in BS 5837 (see Appendix C).

The Fence must be marked with a clear sign reading:

#### "Construction Exclusion Zone - No Access".

#### 6.3 REMOVAL / DEMOLITION OF THE EXISTING STRUCTURES

Prior to the new buildings construction commencing, the existing buildings will need to be removed. This work must <u>all</u> be undertaken by hand when within the root protection areas of retained trees, with the supervision of the retained arboriculturalist and / or the site manager. The removed material must be stored outside of the RPA of all of the retained trees whilst work commences. Any hard standings which currently support the buildings may need removing in full. These bases must be broken up using a small, lightweight "kango" drill into pieces that can be lifted by hand and removed. If during the work, any roots from the retained trees are discovered in excess of 25mm, the retained arboriculturalist must be contacted immediately to assess the roots and arrange subsequent working methods that will cause no damage to the tree(s).

#### 6.4 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.

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

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

#### 6.6 MIXING OF CONCRETE

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

#### 6.7 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.

#### 6.8 INCOMING SERVICES AND SOAKAWAYS

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.

#### 6.9 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; 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 tree pruning / removal to ensure work is correctly identified.
   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 tree pruning / removal to ensure work is completed to the correct specification. 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.
- 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.

- Installation of the ground protection to ensure it is constructed to the correct specification at the required proximity. 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.
- In addition to the above, random inspections of the site may also be undertaken during construction to ensure the Arboricultural responsibilities are being fulfilled by the developer. A full, written assessment of each visit will be sent the Local Panning Authority and copied to the developer at the expense of the applicant. Any issues relating to tree protection will subsequently be addressed immediately.

Once a commencement date has been confirmed for works on site, a representative from the applicant will contact the relevant officer from the local planning authority to arrange a pre-start site meeting. During this meeting, future requirements for site supervision will be agreed. The records of future site monitoring will be recorded on the site monitoring sheet at appendix D, and submitted to the local planning authority for their records.

#### 6.10 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.

#### 6.11 HARD / SOFT LANDSCAPING NEAR RETAINED TREES

All new pathways and hard landscaping areas within the Root Protection Areas (RPA's) of the retained trees should be designed using no-dig, up and over construction techniques, and be specified in close co-ordination with the retained Arboriculturalist. Porous materials should also be used when surfacing near the trees. No machinery will be used for this work, which <u>must</u> all be done by hand.

6.12 REMEDIATION / REPLACEMENT PLANTING AND SOFT / HARD LANDSCAPING The plan at appendix A shows the proposed locations of two new trees.

Tree Stock & Nursery Specification:

- The new trees will be a heavy standard of a minimum: 12/14cms girth. These specimens must be as those classified in section 7.1 of BS 3936 – Nursery Stock Part 1: Specification for Trees and Shrubs.
- A suitably qualified and experienced Arboriculturalist should select all trees and shrubs from a reputable Nursery / Tree supplier.

#### Timing of Planting:

Tree planting should be undertaken in the appropriate planting season between 1<sup>st</sup> November and 31<sup>st</sup> March, a suitable time for the commencement of these works will be agreed between GHA Trees and the owner of the site, in agreement with the Local Planning Authority.

#### Planting & Young Tree Protection:

- A representative from GHA Trees should meet with the tree-planting contractors on site to explain the scope of the planting scheme and ensure all work is done in line with industry best practice.
- All trees are to be planted by suitably experienced persons using appropriate planting equipment and techniques.
- o Trees should be planted no deeper than the nursery mark and 'soil firmed' to ensure satisfactory interaction between the roots and the soil.
- All tree roots are to covered and protected until such time that they are to be planted.
- All trees will be supported using underground guying.

#### Aftercare & Watering:

- The new specimens that are to be planted will require watering during dry periods. This should be done either early in the morning or late evening to allow the trees to gain full benefit. The timing and frequency of such watering will be dependent on climatic variations.
- The trees will be kept free from weed and grass competition, with elimination of all weeds within a 0.5m radius of the main stems for the first three growing seasons.
- All support guys are to be monitored and adjusted to allow the tree to grow freely. Stakes will only be removed when the trees no longer require them and having become sufficiently established.

Pruning Requirements for new Trees / Hedges:

The new trees will not require any regular management.

#### 6.13 SPECIFICATION FOR LAYING NEW GRASS BENEATH TREES

- Any Imported topsoil must be in accordance with the current British Standard 3882:2015 Specification for Topsoil and Requirements for Use i.e. good quality, screened and free from contaminants e.g. oil, diesel fuel, toxic materials or heavy metals, perennial weeds etc.
- No machinery may be operated within the canopy of any retained tree during the installation of soft landscaping, i.e there must be no mechanical rotivation, rolling or use of other machinery. Any cultivation necessary shall be undertaken

by the use of hand tools only. Compaction of the ground within the canopy of any retained tree must not occur. If compaction does occur the ground will be immediately de-compacted with an air spade to a minimum dept of 500mm

- Preparations for turf application will be carried out during appropriate weather conditions. They will include close cutting and spraying any weed growth with a systemic herbicide. All Chemicals used shall be non toxic to human beings, birds and animals, under normal use and chemicals no on the 'Agricultural Chemicals Approved Scheme' current list of approved products shall not be used.
- Time of sowing. Grass seeding/Turfing works may be carried out from May to September in appropriate weather conditions
- No turf will be laid on water logged soils, exceptionally dry weather or during air/ground frost
- Grassing works: Preparation and grassing works shall be carried out in general accordance with the requirements of Section 5 of the current British Standard 4428 Recommendations for General landscape Operations.
- Turfs shall be in supplied in accordance with the current British Standard 3969:1992 Recommendations for Turf for General landscape Purposes. Turfs shall be clean meadow or downland turfs, fibrous and well rooted, free from matted dead grass and perennial weeds and shall have been subject to proper maintenance and treatment with selective weed killers and insecticides during the previous growing season.
- Under no circumstances will the soil levels be lowered or deeply cultivated

#### 6.14 DISMANTLING PROTECTIVE BARRIERS

Protective barriers must only be completely removed when all machinery, and equipment has left site. A minimum of seven days notice must be given to the local planning authority prior to dismantling works begin.

#### **Conclusion**

- 7.1 In conclusion, the principal arboricultural features within the site can be retained and adequately protected during development activities.
- 7.2 Subject to precautionary measures as detailed above, the proposal will not be injurious to trees to be retained.

#### **Recommendations**

- 8.1 The site works should progress as follows to ensure the healthy retention of the trees.
  - a. Tree works, in accordance with BS3998
  - b. Installation of all tree protection measures.
  - c. Construction.
  - d. Soft landscaping.
- 8.2 Site supervision An individual e.g. the Site Agent, must be nominated to be responsible for all arboricultural matters on site. This person must:
  - e. Be present on the site the majority of the time.
  - f. Be aware of the arboricultural responsibilities.
  - g. Have the authority to stop any work that is, or has the potential to cause harm to any tree.
  - h. Be responsible for ensuring that <u>all</u> site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
  - Make immediate contact with the local authority and / or retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.
- 8.3 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.

28<sup>th</sup> February 2018 Signed:

Glen Harding

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	Judas tree	8	440	4	5.28	4	5	5	5	OM	2	10-20	C1	Poor fork at 1.5m; eastern scaffold has major decay. Recommend: tree to be removed.
T2	Sycamore	12	226	8	2.72	4	4	4	4	MA	4 (west)	10-20	C1	Self sown low value tree.
Т3	Cherry	3	80	1	0.96	1	1	1	1	М	2	10-20	C1	Small tree of little value. Recommend: tree to be removed.
T4	Cherry	5	100	1	1.20	3	3	3	3	М	2	10-20	C1	Small tree of little value. Recommend: tree to be removed.
G5	Field maple	11	200	1	2.40	4	4	4	1	М	2	10-20	C1	Off site tree - full inspection not possible.
G6	Lilac, purple plum and cypress	6 to 8	200	1	2.40	4	4	4	4	MA	1.5 (south)	10-20	C2	Small trees of little value.
T7	Sycamore	16	530	1	6.36	6	6	6	6	М	8	20-40	B1	No notable defects.
Т8	Lime	12	270	1	3.24	4	4	4	4	M	4	20-40	B1	Off site tree - full inspection not possible. Recommend: prune laterally on house side to improve clearances.
Т9	Bay	9	200	1	2.40	2	2	1	2	М	4	10-20	C1	Off site tree - full inspection not possible.

#### 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),

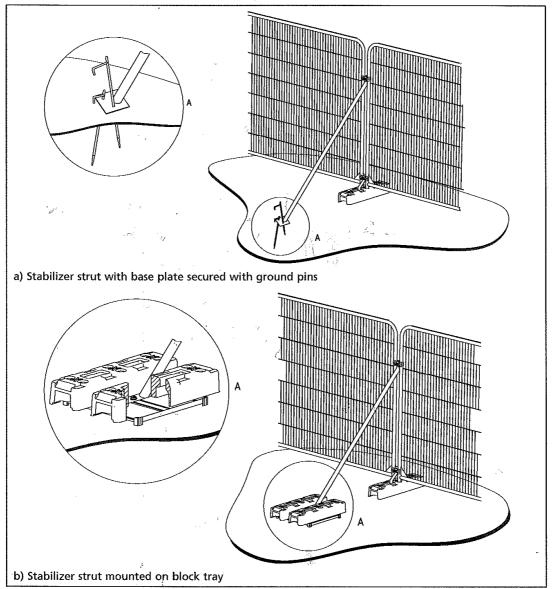
Veteran (V)

Height (Ht): Measured in metres +/- 1m

# **Appendix C**

BRITISH STANDARD BS 5837:2012

Figure 3 Examples of above-ground stabilizing systems



# **Appendix D**

# **Site Monitoring Sheet**

Site:		
Project:		
Client:	Contact:	
Site monitoring inspection		
date:	Name of inspector:	
	Notes:	
	Action required to rectify any issues:	
	<del>,</del>	
Date Action taken:		
Site monitoring inspection		
date:	Name of inspector:	
	 Notes:	
	 Action required to rectify any issues:	
	 T	
Date Action taken:		
City and alteriary in any ation		
Site monitoring inspection date:	Name of inspector:	
uate.	 Notes:	
	 Notes.	
	 Action required to rectify any issues:	
	 Action required to rectify any issues.	
Date Action taken:		
Date Action taken:	 1	