



## **Arboricultural Impact Assessment Method Statement & TPP**

**Prepared for:**

**Faraday Property Management**

**Site address:**

1-33 Avenue Close  
Avenue Road  
St. John's Wood  
London  
NW8 6BX

**Ref: MSURV/ 1-33 Avenue Close /CV/01-2015**

**Plan prepared by:**

**Carlo Vannini Dip. Arb.**

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**Plan prepared: 11<sup>th</sup> March 2015**



British  
Association  
of Landscape  
Industries



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**Appendix 1: Summary of Categories BS5837:2012**

**Appendix 3: Action Plan**

**Appendix 4: Tree Protection Plan**

# 1 Introduction

- 1.1** Faraday Property Management instructed Gavin Jones in January 2015 to prepare the following impact assessment.
- 1.2** Following the Recommendations of BS5837:2012 Trees in Relation to design, demolition and construction- Recommendation, this report includes all the necessary information to support a planning application. It establishes that, both direct and indirect impact of the proposed development within the site has been assessed and where appropriate, mitigation and tree protection proposed.
- 1.3** We feel that the implementation of any protection procedure and special construction methods suggested in this report are critical for ensuring the retained trees are efficaciously protected during demolition and construction process.
- 1.4** The controlling authority is Camden Council, who can be contacted at: Planning Development Control, Camden Town Hall, Camden Council, Judd Street, London, WC1H 8ND Tel: 0207 9744444.
- 1.5** Any questions regarding the content of this report should be directed to: Gavin Jones Limited, The Plantation, Woburn Hill, Surrey KT15 2QG, 01932 833 833, quoting the site address and project name.
- 1.6** This report takes into consideration the impact of the proposed project and the constraints posed by the retained trees, both below (the RPA) and above ground (the canopy).
- 1.7** Direct damage from development comes from six factors: 1) Surface installation within RPAs, 2) Root loss from excavation for foundations, drainage and other utilities within RPAs, 3) Soil stripping, removal and level changes within RPAs, 4) Excess pruning of retained trees to facilitate plant/machinery access on site, 5) Soil compaction from plant/machinery and other vehicles movements and storage within RPAs, 6) Soil contamination.
- 1.8** Indirect damage can be caused from changes to the site hydrology, future pressure to prune or fell or failure from trees previously sheltered and now exposed or indeed excess felling on shrinkable soil. These environmental changes can take years to manifest.
- 1.9** The RPA of any trees consist of an area in m<sup>2</sup> that should be left untouched and undisturbed to be applied for all retained trees. It is therefore imperative that the protection of trees both above and below ground is implemented and maintained throughout the duration of the whole project. This can be achieved by ensuring the tree protection plan and an arboricultural method statement are both implemented before commencing any work on site.

## **2. Arboricultural Impact Assessment**

### **2.1 Overview Of Proposed Development**

- 2.1.1 Generally Similar to existing with the parking area altered slightly for better access from Avenue Road.  
Two small curved railings to be positioned either side of the front entrance (entrance in same position as existing). Name signage attached to the railings to show "1-33 Avenue Close".

Newly landscape planting and lawns, including suitable species of standard trees to be laid out to the boundaries of the new drive/parking area and to replace existing planting adjacent to front of building.

The development will be in proportion with present building and site and will not appear greatly different from the existing. Indeed the introduction of additional planting and trees will soften the area more so than currently is the case.

### **2.2 Planning Context**

#### **Tree Preservation Order/ Conservation Area**

- 2.2.1 Avenue Close falls within a conservation area and some of the trees on site are protected by TPO these includes; T1, T2, T4 and T9. Other trees on site are also protected by TPO but their position falls outside the proposed development.

### **2.3 Trees Proposed For Removal & Surgery**

- 2.3.1 None of the trees on site are proposed for removal. However, T3 a small double stem Cherry has one stem heavily leaning and its crown is starting to encroach with the main canopy. It would be advisable to remove the leaning stem as good arboricultural practice regardless of any development. Other minor recommendations have been made and can be found in the Action Plan at **Appendix 2** of the initial tree report.

### **2.4 Demolition, Site Clearance**

- 2.4.1 Tree protection fencing must be erected before any plant/machinery entering the site. This is to ensure that the trees to be retained do not sustain any damage. A pre-commencement site meeting might be necessary between the developer, their project arboriculturist and a representative from the Local Authority.

## **2.5 Construction Within RPAs**

- 2.5.1 The construction of the proposed project falls for the majority outside the RPAs of retained trees. However, T3 a **C** category Cherry and T4 a **B** category Sycamore do have a marginal RPA encroachment with the construction of the driveway. Hence special construction measure will need to be implemented to avoid root damage. The adopted design must be approved for use by the project arboriculturist, detailed in the arboricultural method statement AMS, and installed under their supervision.

## **2.6 Permanent Hard Surfaces Within RPAs**

- 2.6.1 Section 7.4 of the British Standard, permeant hard surfacing within the RPAs of retained trees is address, and recommendation made.
- 2.6.2 A small section of the proposed new driveway falls within the RPA of T3 and T4, the encroachment is only marginal. To avoid root damage, various design criteria must be met, ensuring that a no-dig approach is taken limiting the impact on the roots. Cellular Confinement System CCS can be laid over the RPA area, it will need to be excavated carefully before instalment to avoid root damage. The excavation over the RPA shall be carried out by hand and under the supervision of the project arboriculturist.
- 2.6.3 If any roots are to be found with a diameter greater than 25mm works must stop, whilst the project arboricultural inspects the roots to decide if the removal of the roots is possible without greatly affecting the vigour or stability of the tree. If the roots are <25mm in diameter or less these can be removed with a sharp pair of secateurs or pruning saw.

## **2.7 Protection Fencing**

- 2.7.1 The British Standard recommends a standard fencing design for tree protection. This is a weld mesh pane design, mounted upon a well-braced scaffold framework. This will be perfectly adequate for this site and the retained trees can be protected by its erection before any works start on site, including demolition.

### 3. Arboricultural Method Statement

- 3.1.1 This project will be subject to arboricultural supervision during the demolition and construction within RPAs of retained trees inside the designated no-dig surface. To make sure this is implemented the project arboriculturist will be required at the following stages.
- 3.1.2 This report is to be read in conjunction with **Appendix 3** Tree Protection Plan (TPP).
- 1) Pre-start meeting with ground work contractors, site manager and LPA.
  - 2) Excavation within the RPAs of retained trees and installation of CCS.
- 3.1.3 Such supervision will require the arboriculturist to be present throughout the task, to ensure all the arboricultural guidelines are met. If the task is to take too long, provided the arboriculturist is satisfied, and after an initial 'tool-box talk' the supervision may be reduced to telephone contact between the site foreman/contractor and the project arboriculturist.

#### 3.2 Tree Protection Areas

- 3.2.1 This AMS is designed to safeguard the retained trees on site during the development process including demolition. Tree protection areas are designed to protect at least a functional minimum of the tree root mass in order to ensure that the trees survive and must be adhered to.
- 3.2.2 Some trees on site are subject to statutory protection by Tree Preservation Order. Damaging them is a criminal offence. Local Planning Authority have the powers to serve temporary stop notice.
- 3.2.3 It is the responsibility of everyone on site engaged in the construction process to respect tree protection measures and observe the necessary precautions within and adjacent to them.
- 3.2.4 A copy of this report will be maintained on site at all time and made available to all site personnel.
- 3.2.5 Inside the Tree Protection fencing, the following shall apply:
- 1) No storage of plant/machinery or materials.
  - 2) No storage or handling of any chemicals including cement washing.
  - 3) No mechanical excavation whatsoever.
  - 4) No excavation by any other means without arboricultural supervision.

- 5) No lowering of levels for any purpose (except removal of grass sward using hand tools).
- 6) No fire lighting.

### **3.3 Tree Protection Fencing**

3.3.1 The Arboricultural Method Statement (AMS) includes a Tree Protection Plan (TPP) (see **Appendix 3**) the TPP shows the alignment of tree protection fencing (TPF), which is to be installed prior to any of the following taking place:

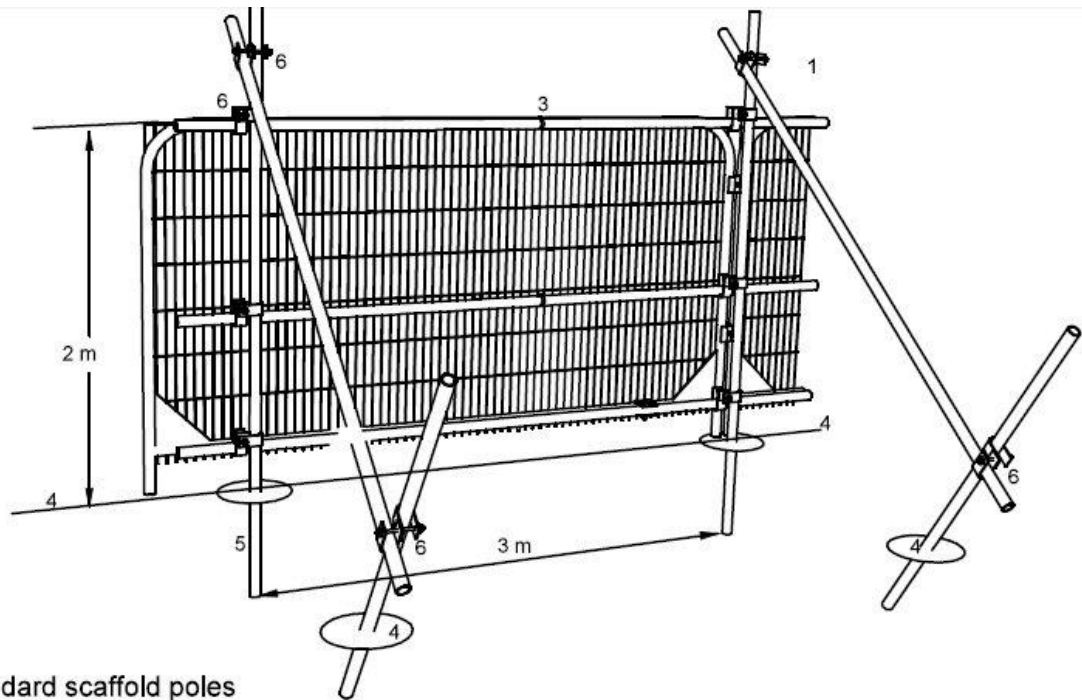
- 1) Demolition.
- 2) Plant and material delivery.
- 3) Soil stripping.
- 4) Construction works.
- 5) Landscaping.

#### **3.3.2 Stages for installation of TPF:**

- 1) Hand clearance of vegetation if needed to allow clear working access.
- 2) Setting out of fencing point (see **Appendix 3** for correct distance from retained trees).
- 3) Fencing erected.
- 4) Pre-construction meeting with Local Planning Authority and site manager to check tree protection fencing.
- 5) Site accessible to demolition/construction traffic.

3.3.3 As stated on the BS5837, once all TPF are erected they will be regarded as sacrosanct, and will not be altered in any way from their agreed position at any time without prior recommendation by the project arboriculturist and approval of the Local Planning Authority.

3.3.4 The TPF shall comprise of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is firmly set into the ground (for example see figure below).



- 1 Standard scaffold poles
- 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
- 3 Panels secured to uprights and cross-members with wire ties
- 4 Ground level
- 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
- 6 Standard scaffold clamps

3.3.5 All weather notice should be erected on the barriers (for example see figure below).





### **3.4 Site storage, Parking Welfare facilities, etc.**

- 3.4.1 The site will require provision for; site storage contractor parking, welfare, temporary services/ drainage, material drop points, etc.
- 3.4.2 No details of provisions are available at the time of writing this report.
- 3.4.3 None of the above provision will be sited within RPAs of retained trees without consent of the project arboriculturist and the consent of the Local Authority.

### **3.5 Tree Surgery**

- 3.5.1 The surgery works to be carried out on site are marginal and recommended as part of good arboricultural practice (see Action Plan on **Appendix 2**)
- 3.5.2 If any further work is to be carried out, it will be submitted to, and approved by the Local Authority.
- 3.5.3 All work will be carried out in accordance with BS3998, 2010 industry of best practice.
- 3.5.4 The tree surgery company shall be chosen from The Arboricultural Association's Approved Contractor list. All work shall be undertaken at the appropriate time and after consent has being granted for approval of the site Agent.
- 3.5.5 All tree surgery works will adhered to the Wildlife and Countryside Act, 1981 and the Countryside and Right of Way Act, 2000.

### **3.6 Installation of no-dig road surface**

- 3.6.1 To safeguard tree roots within the area of the proposed new driveway a Cellular Confinement System CCS of 75-200mm is to be used.
- 3.6.2 Stages for installation of the cellular confinement system:
  - 1. Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before stating any works.
  - 2. Removing existing hard surfaces (paving, tarmac etc.) Hand tools should be used if possible. If machinery is required for this operation, it must be used only on existing surfaces or outside the protection area or tree canopy. (the project arboriculturist must approve the use of any machinery) The sub base of hard surfaces or foundations should be left untouched where possible to avoid any root disturbances and to provide a base for the new surface.
  - 3. Lay a non-woven Geotextile (such as TreeTex T300) over soil grade level (if necessary levelled, by non-compacted washed sand) and fix in place.

4. Lay the CCS over the Geotextile, making sure that the system is secured open during the infill process by using either steel staples or wooden pegs.
  5. Kerbs and edging to be installed directly over existing soil grade level. For light structures, a treated peg and board may be acceptable. For heavier and more substantial structures, drilled kerbstones, railway sleepers, gabion, etc. will be appropriate for the task.
  6. Fill the CCS with clean angular stones of 20-40mm which will remain un-compacted. Machinery to be used only on already filled areas.
  7. Cover top with a non-woven Geotextile (TreeTex T300).
  8. Install porous wearing surface such as small block paving, washed gravel, porous asphalt.
- 3.6.3 The above specification meets the following criteria which provide the right conditions for tree survival and future growth:
- Maintain oxygen diffusion through new surface to rooting area (5-12% by volume, Smith, 2006)
  - Maintain sufficient passage of water to the rooting area (12-40% by volume, Coder, 2000)
  - Avoid compaction by maintaining a soil structure sufficient to sustain root growth, soil bulk density below 1.4g/cc, Harris 2004.

### **3.7 Hard Surface Removal**

- 3.7.1 No hard surface removal within RPA's will occur without arboricultural supervision
- 3.7.2 Stages for hard surface removal within tree protection areas:
1. Project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
  2. No plan machinery to be sited or driven over exposed rooting area.
  3. Plant machinery to run only on existing hard surfaces with consent from arboriculturist.
  4. Plant may be used to peel away existing tarmac and concrete.
  5. Where any sub-base is not likely to contain roots, it may be also removed after approval from project arboriculturist.
  6. Underlying ground levels to be retained. No further excavation to occur.

7. Any exposed roots and surrounding newly exposed areas to be covered with up to 100mm of top-soil, preferably from elsewhere on site. If top-soil is to be imported in, it should be in line with BS3882 (BSI 2007 British Standard Institute) soil must be spread by hand after be placed in designated areas by plant machinery.

### 3.8 Soft Landscape

3.8.1 All landscaping and ground preparation within exclusion zones will carried out sensitively to ensure root damage is mitigated as much as is practicable. No heavy plant machinery is to be used within protected areas. The removal of existing vegetation will be carried out by hand, turf may be removed using a mechanical turf stripper or by hand.

3.8.2 Stages for laying turf/ planting within gardens and open spaces:

1. Project arboriculturist to hold pre-start meeting and 'toolbox' talk before starting work.
2. No plant machinery to be used in the area for whatever reason.
3. Remove TPF to allow for work access.
4. Re-erect TPF to secondary location if required and shown on TPP.
5. Use good quality soil to fill any low-lying area and hollows. The imported soil must not result in level increase of more than 100mm in any area.
6. Import turf by hand or wheelbarrow.
7. Lay turf.
8. **(Planting)** follow steps 1 to 5.
9. Dig individual planting pits for each plant by hand, this includes hedges and planting trenches must **not be dug**.
10. If mulch is to be imported it also must be spread by hand.

3.8.3 No work will be carried out within any protected area if the soil moisture is of a level likely to allow compaction to occur.

### 3. Declaration

I hereby confirm that this tree survey and report was undertaken and completed by,

**Carlo Vannini Dip. Arb, (RFS)**

**who is employed by Gavin Jones Group.**

Signed: 

Date: 11/03/2015

## 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)			
<b>Category U</b> 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) *Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline *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  <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>	
		<b>1 Mainly arboricultural qualities</b>	<b>2 Mainly landscape qualities</b>
		<b>3 Mainly cultural values, including conservation</b>	
Trees to be considered for retention			
<b>Category A</b> <b>Trees of high quality</b> 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
<b>Category B</b> <b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years		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, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
<b>Category C</b> <b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm		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 with material conservation or other cultural value
		Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees with no material conservation or other cultural value
		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	

## **Appendix 2: Action Plan**

Faraday Property Management  
1-33 Avenue Road  
London  
NW8 6BX



## Gavin Jones

The Plantation  
Woburn Hill  
Addlestone  
Surrey  
KT15 2QG

Phone: 01932833833  
Mobile: 07791396703  
info@gavinjones.co.uk

### BS5837 Survey Work Analysis

Tree: 1	Priority:	Actions Required:		Done
Tree of Heaven <i>Ailanthus altissima</i>		No action	No action	No
Tree Comment:				
Survey Comment: Old pruning wounds on stem and scaffolds limbs, suppressed canopy on west due to adjacent lime. Invasive species, moderate quality and value.				
Tree: 2	Priority: 6 Months	Actions Required:		Done
Common Lime <i>Tilia europaea</i>		Remove	Epicormic growths	No
Tree Comment:				
Survey Comment: Tree growing adjacent to road, old pruning wounds throughout canopy. Good value in terms of visual landscape.				
Tree: 3	Priority: N/A	Actions Required:		Done
Wild Cherry <i>Prunus avium</i>		See Comment	See Comment	No
Tree Comment:				
Survey Comment: Remove secondary stem growing toward sign post, stem leaning and unbalanced.				
Tree: 4	Priority:	Actions Required:		Done
Sycamore <i>Acer pseudoplatanus</i>		No action	No action	No
Tree Comment:				
Survey Comment: Tree growing on south side, close to driveway. Previously reduced.				

## BS5837 Survey Work Analysis

<b>Tree: 5</b>	<b>Priority:</b>	<b>Actions Required:</b>	Done
Common Yew		No action	No
<i>Taxus baccata</i>		No action	
Tree Comment:			
Survey Comment: Small yew growing adjacent to road.			
<b>Tree: 6</b>	<b>Priority:</b>	<b>Actions Required:</b>	Done
Common Yew		No action	No
<i>Taxus baccata</i>		No action	
Tree Comment:			
Survey Comment: Small yew growing adjacent to road.			
<b>Tree: 7</b>	<b>Priority: 3 Months</b>	<b>Actions Required:</b>	Done
Tree of Heaven		Remove	No
<i>Ailanthus altissima</i>		Major dead wood	
Tree Comment:			
Survey Comment: Canopy is unbalanced toward building due to heavy pruning, remove major dead wood.			
<b>Tree: 8</b>	<b>Priority:</b>	<b>Actions Required:</b>	Done
A Group		Remove	No
--		Major dead wood	
Tree Comment:			
Survey Comment: Group of shrubs and small self set trees of low value but good screening quality. Remove major dead wood.			
<b>Tree: 9</b>	<b>Priority:</b>	<b>Actions Required:</b>	Done
Robinia		No action	No
<i>Robinia pseudoacacia</i>		No action	
Tree Comment:			
Survey Comment: Bark wound on main stem with no decay. Good value in terms of visual landscape.			



## Report selection criteria.

Projects.

BS5837

Date Range.

Any Date

Work types.

----> No action :: No action  
----> Remove :: Epicormic growths  
----> Remove :: Major dead wood  
----> See Comment :: See Comment

Latest Survey.

All surveys for the selected trees.  
---> Last survey for each selected tree.

Work Completed.

---> Work Completed  
---> Work Not Completed

**Number of trees in selected Project(s)      9**

**Number of trees in Report selection      9**

### **Appendix 3: Tree Protection Plan (TPP)**



The Plantation, Woburn Hill,  
Addlestone, Surrey, KT15 2QG  
Tel: 01932 833833  
email: info@gavinjones.co.uk

## 1-33 Avenue Close

### Tree Protection Plan (TPP)

Author: Carlo Vannini Dip Arb (RFS)

SCALE :

1 : 1000

@ A4

DATE :

11/03/2015

MAP FILE REFERENCE :

MSURV/PEAR/CV/Avenue Close TPP 2015



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Crown Spread      Root Protection Area



Category 'A'



Category 'B'



Category 'C'



Category 'U'

0



60m

Tree Protection Fence (TPF)

RPA Distance

Cellular Confinement System (CCS)