

***Addressing All Aspects of Arboricultural Consultancy***

**BS5837 ARBORICULTURAL REPORT,  
ARBORICULTURAL IMPACT ASSESSMENT  
& METHOD STATEMENT**

<b>OUR REFERENCE</b>	<b>AC.2016.114</b>
<b>CLIENT</b>	<b>Mr Karl Noonan</b>
<b>SITE</b>	<b>Flat 2, 68 Priory Road, Camden, London, NW6 3RE</b>
<b>REPORT BY</b>	<b>I S Thompson (known as Tom) M. Arbor. A., BSc. (Hons) Arb, MSc. eFor</b>
<b>DATE</b>	<b>9<sup>th</sup> August 2016</b>
<b>DATE OF SITE VISIT</b>	<b>8<sup>th</sup> August 2016</b>

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**Flat 2, 68 Priory Road, Camden, London, NW6 3RE**

**Application Ref No Unknown**

**Side extension to existing residential ground floor apartment.**

**Report produced by**

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Principal Arboricultural Consultant**

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Signed

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Date.....11<sup>th</sup> August 2016.....





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## **1 TERMS OF REFERENCE**

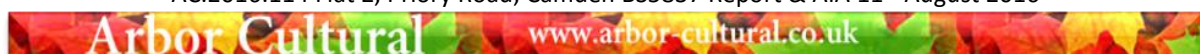
**1.1** I have been instructed in writing by Mr Karl Noonan with regards to a planning application to be made by himself in respect of the above extension to his property at Flat 2, 68 Priory Road, Camden, London, NW6 3RE and report on the following in accordance with BS 5837 Trees in Relation to Design, Demolition and Construction - Recommendations 2012:

- I. Tree survey
- II. Arboricultural Impact Assessment
- III. Arboricultural Method Statement
- IV. Tree Protection Plan

**1.2** The site was surveyed by I Thompson (known as Tom) on Monday 8<sup>th</sup> August 2016 in the morning. The weather was dry and sunny and visibility was good. The relative quantitative and qualitative tree data was recorded in order to assess the condition of the trees, their value, and any constraints that they pose to the prospective development and where necessary the tree protection measures and construction methods required to ensure their safe retention.

**1.3** The tree information recorded relates to the tree condition, age, safe useful life expectancy, location, canopy spread, canopy height and tree height and direction of first significant branch as well as any tree work that is required.

**1.4** I have based this report on my site observations and investigations and I have come to conclusions in the light of my qualifications obtained and experience gained whilst working in the field of arboriculture. I have qualifications and practical experience in arboriculture and forestry and list the details in Appendix I.





## **1.5 LIMITATIONS AND USE OF COPYRIGHT:**

**1.5.1** All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means without our written permission. Its contents and format are for the exclusive use of Mr Noonan and his associates. It may not be sold, lent out or divulged to any third party not directly involved in this situation without the written consent of Arbor Cultural Ltd. This report will remain the intellectual property of Arbor Cultural Ltd. until payment has been received in full.

**1.5.2** This report contains all my advice and opinions and any representation and/or statements that have or may have been made which are not specifically and expressly included in this report should not be relied upon and no responsibility is taken for the accuracy of such statements.

**1.5.3** The Inspections were carried out on the basis of ground level, Visual Tree Assessment (VTA) examination of external features of each individual tree. Binoculars were used to assess the aerial parts. The report and recommendations relate to the condition of the trees and their relationship to their surroundings at the time of inspection only. All measurements, proportions and assessments of age are approximate.

**1.5.4** Visual assessment, in accordance with accepted arboricultural practice, was based on apparent vitality (leaf cover, extension growth), presence of deadwood and die back, fractured and detached limbs, evidence of excessive basal movement and external indications of stem and basal decay likely to affect the structural condition of the tree. No decay detection equipment either invasive or non-invasive was employed.







**1.5.5** Trees are living organisms whose health and condition can change rapidly. The conclusions and recommendations in this report are only valid for one year. This report will be invalidated if there are any changes to the site as it stands at present, e.g. building of extensions, excavation works, importing of soils, extreme weather events etc.

**1.5.6** The survey findings are of a preliminary nature with regard to assessment of risk of direct damage (by contact) from trees to built structures. No soil samples were taken or trial pits were dug, therefore no risk assessment was carried out with regard to subsidence (indirect damage). No parts of the drainage or service systems were inspected on site as I am not qualified to do so.

**1.5.7** If you, or your advisers, have at your disposal any information to suggest that the property is or has been suffering any tree related structural defect, I would ask that you release the information to us. All relevant data is presented within this report together with any recommendations for further analysis, as appropriate.

**1.6** A principle aspect of tree inspections in relation to proposed developments is an assessment of the risk posed by trees in proximity to people or property. Generally, tree risk will increase with the age of the trees. The benefits afforded by the trees will also increase with age. The management recommendations will be guided by an analysis of the risk posed by the trees and the benefits afforded by them.



## **1.7 Documentation**

**1.7.1** The following documentation was provided when the work was commissioned.

- Letter/Email to confirm commission of the work.
- Plans of the site, showing the existing and proposed layout.

## **1.8 Disclaimer**

**1.8.1** I have no connection with any of the parties involved in this situation that could influence the opinions expressed in this report.

**1.8.2** Following an initial site meeting with Mr Noonan to discuss the position of the extension, the following arboricultural information is provided in support of the application.



## 2 INTRODUCTION

### 2.1 Site

**2.1.1** The proposed site of the extension is within the current boundary of 68 Priory Road, Camden, London, NW6 3RE, and will be adjacent to a number of currently unprotected but significant trees. Following the site visit the measures in this report are designed so as to minimise any likely impacts of the trees on the new structure and its foundations and any likely impacts of the construction on the trees, see plan AC.2016.114 TPP-01 Rev A attached.

### 2.2 Trees

**2.2.1** The trees are located in the front garden along the western boundary with two of them in the adjacent property and two in the rear garden. They collectively provide a contribution to the appearance and character of Priory Road and soften the views from the road frontage. A schedule of the significant trees, their condition and category of retention is attached as Appendix VI.

**2.2.2** The property contains a mix of semi-mature to over-mature trees with the species including lime, cabbage palm, rowan, cherry laurel and apple. The closest retained tree to the proposed extension is a young rowan tree T9 at a distance of around 1.5 metres.



- 2.2.3** An accurate topographical survey of the site was not provided. The tree locations were measured in relation to the site boundaries and other known features and triangulated and are accurate to +/-1m. So the drawing number AC.2016.114 TPP-01 Rev A provides a good representation of the tree location in relation to the site and the proposed extension.
- 2.2.4** The trees have been assessed and categorised in relation to the methodology in Table 1 of BS 5837 (2012) Trees in Relation to Design, Demolition and Construction, as specified in Appendix III. The results are recorded in Appendix VI.
- 2.2.5** Any trees not included individually in the survey were either in groups or had other trees whose constraints exceeded theirs in respect to the proposed development and all associated works.
- 2.2.6** All tree works considered necessary for health and safety reasons or to facilitate the development will be agreed with the Local Planning Authority and undertaken in accordance with the planning conditions attached to the planning consent. They will be undertaken in accordance with British Standard 3998 (2010) Recommendations for Tree Works, unless otherwise specified with clear justification for any deviation from the British Standard. This will be undertaken by an arboricultural contractor approved by the Local Authority Tree Officer.
- 2.2.7** If at any time additional pruning works are required permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998 Recommendations for Tree Works (2010), unless otherwise specified with clear justification for any deviation from the British Standard. This will be undertaken by an arboricultural contractor approved by the Local Authority Tree Officer.



## **2.3 Proposed Development**

**2.3.1** The proposed works consist of a small side extension to the existing ground floor apartment.

## **2.4 Issues of Light and Shading**

**2.4.1** The proposed position of the new extension will place their nearest point 1.5 metres away from the nearest retained tree T9 a young rowan tree. The extension is positioned to the north of the rowan tree, so shadows of the tree cast at full mature height will be on the buildings. The use of the building and the provision of adequate windows will negate this. As a result of this it is anticipated that there will not be any increased pressure for tree pruning as a result of the proposed development.

## **2.5 Description (including levels)**

**2.5.1** This is currently a detached residential dwelling with an existing hard standing area to the front (west) and to the side (south). The rear garden extends to the east. The site is at a sunken level compared to the road with a path that slopes down and then some steps leading down to the front entrance. Once down the steps the rest of the property and garden are essentially on the same level.

## 2.6 Soils

**2.6.1** There is no information provided about the soils and there was no on-site investigation undertaken but the British Geological Society viewer indicates that the sub soil is London clay with a drift layer of Langley silt. There was no information about the drift layer.

### **3 ARBORICULTURAL IMPACT ASSESSMENT**

#### **3.1 Presence of Tree Preservation Orders (TPO) or Conservation Area Designation**

**3.1.1** The Local Planning Authority has not yet been contacted to establish whether any Tree Preservation Order (TPO) covers any of the trees, or to determine if the site is situated within a Conservation Area (CA). It would be necessary to determine whether either of these planning controls are in operation before commencement of any tree works.

#### **3.1.2 Exemptions**

There are a number of exemptions when this notification or permission are not required. They are detailed below:

- Removal of an imminent threat to people or property
- Removal of deadwood or dead trees

#### **3.2 Effects on the amenity value of the trees by the development and facilitation pruning**

**3.2.1** The only tree to be affected directly by the proposed development is T9 a small young rowan tree, that will be cut back to the boundary, thus there is no detrimental effect to the amenity value of the area.

### **3.3 Potential incompatibilities between the layout and the trees proposed for retention**

**3.3.1** No construction of foundations or installation of services is to take place within any Root Protection Area (RPA). There theoretical RPA's have been used, as it is hard to predict where the actual ones will be, but the proposed extension is well outside of these, and at a lower existing level than the trees are.

**3.3.2** The crowns of all trees will be retained unaffected by the proposed development, with the exception of the small rowan tree T9, which will be cut back to the boundary in accordance with my client's legal rights. All tree surgery works will be undertaken prior to construction activity and in accordance with the Arboricultural Method Statement Section 12, Remedial Tree Works.

**3.3.3** Site access will be from the western end of the site which is the existing entrance and hard standing pedestrian access point and pathway.

### **3.4 Infrastructure requirements – Highway Visibility, Lighting, CCTV, Services**

**3.4.1** There is no requirement for any tree removal or pruning to create adequate highway visibility. There will be no requirement for street lighting or CCTV visibility or services close to any of the trees.

**3.4.2** No services or other infrastructure requirements will have any impact on the retained trees.



### **3.5 Mitigating tree loss and new planting**

**3.5.1** There is limited space for new tree planting. As there are no trees being removed as part of this application, there is no replacement planting proposed.

### **3.6 Proximity of trees to structures**

**3.6.1** The impact of trees on buildings and vice versa and allowance for future growth have all been considered in the siting of the new buildings and structures. Tree size, future growth, light/shading, leaf and fruit nuisance etc. have received due attention and are not considered to be an issue. This is due to the considerable distance of the retained trees from the development and the protection measures proposed within this report.

**3.6.2** As the proposed works are outside the RPA of all trees it is likely that only a small number of minor roots of less than 25mm diameter will be encountered during foundation construction. Any severance of a small number of minor roots will have an insignificant effect on the future growth and health of the retained trees.

**3.6.3** The structure has been placed well outside of the RPA's of all retained trees and therefore exceeds the recommendations of BS 5837.

**3.6.4** Overall the processes of construction are highly unlikely to have a detrimental effect upon the health of the retained trees assuming recommendations made in this report are adhered to at all times by the contractors e.g. the positioning of a stout fence is placed between the retained trees and all construction activities prior to commencement of any works and for it to remain intact and in position throughout the duration of the construction activities.

### **3.7 Issues to be addressed by the arboricultural method statement**

- **Protective fencing to be established around the retained trees**
- **Site access**
- **Contractors parking, welfare facilities and storage areas**
- **Demolition**
- **Remedial tree work**

## ARBORICULTURAL METHOD STATEMENT

### Tree Protection throughout the Duration of Demolition and Construction Works

*All of the details specified in this method statement will need to be supervised by an Arboricultural Consultant with suitable qualifications and experience.*

Arboricultural Method Statement includes a Tree Protection Plan to identify:

- Trees to be retained – identified with a dashed line with RPA written within it and green, blue or grey location marker circles and the corresponding A, B or C category label.
- Protective fence positions identifying the Construction Exclusion Zones (CEZ).
- Measurements to identify fence positioning in relation to centre of tree or other known features
- Contractor huts and storage areas

## 1 Construction Exclusion Zone

**1.1** No works will be undertaken within any Construction Exclusion Zone (CEZ). The CEZs are to be afforded protection at all times and will be protected by fencing. A protective fence shall be erected prior to the commencement of any site works e.g. before any materials or machinery are brought on site, development or the stripping of soil commences. The fence shall have signs attached to it stating that this is a Construction Exclusion Zone and that **NO WORKS are Permitted within the fence**, see Image 4 in Appendix II. The tree protection fencing may only be removed following completion of all construction works.

**1.2** The fence is required to be sited in accordance with the Tree Protection Plan ref AC.2016.114 TPP-01 Rev A enclosed with this method statement. They must ideally be constructed as per Figure 2 in BS 5837 2012 and be fit for the purpose of excluding any construction activity, (See Appendix II). Any other fence or barrier used must be fit for the purpose.

**1.3** All tree protection fencing shall be regarded as sacrosanct and will not be removed or altered without prior written consent of the Local Authority Tree Officer.

## **2 Ground Protection Measures**

**2.1** The tree protection fencing will extend to the edge of the existing concrete path. The concrete path will be retained and will act as ground protection during the construction process.

## **3 Access Details**

**3.1** There will be no access for construction vehicles. All deliveries will have to be unloaded in the road and carried into the site by hand. They will be stored as shown on the plan AC.2016.114 TPP-01 Rev A.

## **4 Contractors car parking**

**4.1** This will be off-site.

## **5 Site Huts and Toilets**

**5.1** This is a small scaled development so a site office is not required. The welfare facilities in the property will be used by the site workers.

## **6 Storage Space**

**6.1** This will be in the front garden, as shown on the tree protection plan AC.2016.114 TPP-01 Rev A

## **7 Additional Precautions**

**7.1** No storage of materials or lighting of fires will take place within any construction Exclusion Zone. No mixing or storage of materials will take place up a slope where they may leak into a Construction Exclusion Zone.

**7.2** There shall generally be a presumption against burning on site. Where it does occur no fires will be lit within 20 metres of any tree stem and will take into account fire size and wind direction so that, no flames come within 5m of any foliage. Situations where fires are not permitted at all are:

- Where the ground is waterlogged as the heat will transfer through the water and damage tree roots significant distances away.
- During periods of drought, where there are peaty or highly organic soils, as there is a risk of underground fires occurring.

- 7.3** No notice boards, cables or other services will be attached to any tree.
- 7.4** Materials which may contaminate the soil will not be discharged within 10m of any tree stem. When undertaking the mixing of any material it is essential that, any slope of the ground does not allow contaminants to run towards a tree root area.

## **8 Demolition**

- 8.1** There will be no demolition within any of the RPAs of retained trees, so there will not need to be any special measures or precautions undertaken other than the tree protection fencing, which shall be installed prior to any site works commencing.

## **9 Hard Surfaces within the RPA**

- 9.1** There is no construction of any new hard surfaces within the RPA of any retained trees, so there is no requirement for any no-dig surface construction method statements.

## **10 Construction within the RPA (No-dig)**

- 10.1** There is no construction within the RPA of any retained trees, so there is no requirement for any construction method statements to address this issue.



## **11 Foundation Designs**

**11.1** As there is no construction of foundations within the RPA of any retained trees there will be no requirement for any alternative foundation designs.

## **12 Remedial Tree Works**

**12.1** Tree works (see schedule at Appendix VI) will be undertaken in one phase, and this will be undertaken prior to any construction or demolition works and prior to the installation of any tree protection measures. All tree works are to be carried out in accordance with BS 3998 (British Standard Recommendations for Tree Work 2010) unless otherwise specified with clear justification for any deviation from the British Standard.

**12.2** It is only proposed to cut back the overhanging branches from the rowan tree T9, taking it back to the site boundary in accordance with my client's common law rights.

**12.3** If at any time additional pruning works are required permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998 Recommendations for Tree Works 2010, unless otherwise specified with clear justification for any deviation from the British Standard.

### **13 Use of Herbicides**

**13.1** It is not planned to use any herbicide in the proposed development. However, if any is required it shall be systemic, spot applied, and mixed according to manufacturer's recommendations.

### **14 Contingency Plan**

**14.1** Water is readily available on site and will be used to flush spilt materials through the soil and avoid contamination to tree roots. At the time of any spillage the main contractor will contact an arboriculturist for advice.

### **15 Responsibilities**

**15.1** It will be the responsibility of the main contractor to ensure that the planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.

**15.2** The main contractor will be responsible for contacting the Local Planning Authority at any time issues are raised related to the trees on site.

**15.3** The main contractor will ensure the build sequence is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position until completion of **ALL** construction works on the site.

- 15.4** The fencing, signage and ground protection measures must be maintained in position at all times and shall be checked on a regular basis by an on-site person designated that responsibility.
- 15.5** The main contractor will be responsible for ensuring sub-contractors do not carry out any process or operation that is likely to adversely impact upon any tree on site or those immediately adjacent to it.

## **16 Arboricultural Supervision**

- 16.1** Since BS5837 was amended in 2012 site supervision has been identified as a key element of the process of protecting trees during construction. It requires that there is “an auditable system of arboricultural site monitoring. This should extend to arboricultural supervision whenever construction and development activity is to take place within or adjacent to any RPA.”

### **16.2 Site Supervision**

- 16.2.1** A site agent must be nominated to be responsible for all arboricultural matters on site. They must be nominated for each phase of work, if demolition and construction contracts are to be awarded separately. The agent(s) must:

- **Be present on site for the majority of the time**
- **Be aware of the arboricultural responsibilities. This will require a site briefing/meeting between the agent and arboricultural consultant prior to the commencement of each phase of works**
- **Have the authority to stop any work that is causing or has the potential to cause harm to any trees**
- **Be responsible for ensuring that all site operatives are aware of their responsibilities towards trees on the site and the consequences of failure to observe these responsibilities**
- **Make immediate contact with the local authority and/or a retained arboriculturist in the event of any tree related problems occurring, whether actual or potential**
- **Contact details for Arbor Cultural Ltd are provided within this report**
- **Contact details for local authority tree officer are;**

**Tree officer**                    **James Remmington**  
**Address**                        **5PS, 4th Floor, Camden Town Hall, Judd Street, London, WC1H 9JE**  
**Main Switchboard**        **0207 974 4444**  
**Email**                            **<mailto:james.remmington@camden.gov.uk>**

### **16.3      Arboricultural Consultant**

**16.3.1** A suitably qualified arboricultural consultant should be appointed to oversee development works and liaise with the council and the developer and contractors during the construction phase in order to ensure compliance with these guidelines.

- 16.3.2** Note: Failure to fulfil planning conditions or breaches of statutory legislation can lead to delays due to “stop notices” and can lead to the prosecution of contractors and company directors.
- 16.3.3** Adequate site supervision can protect the developer from delays, wasted expense and criminal prosecution.
- 16.3.4** The arboriculturalist will arrive at the site, check in at the site office and be safely escorted around the site by the site agent, checking the maintenance of tree protection measures. Routine visits will generally be unannounced. However, the arboriculturalist will also visit subject to advance notification and agreement to supervise any agreed works within the RPA.
- 16.3.5** Monitoring will involve a schedule of routine visits. The frequency of these visits will vary depending on the size of the proposed development and the site-specific constraints. For private single residential developments this will normally involve monthly supervision but for larger sites with multiple structures this could be weekly or fortnightly. This will need to be agreed with the local tree officer.
- 16.3.6** These visits will include a pre-commencement meeting to ensure that all tree protection measures have been implemented and a sign-off sheet at the end of the development. Each visit will be accompanied by a small report detailing the findings identifying any actions and addressing any issues that have arisen. This is to provide ongoing liaison between the local planning authority (LPA) and all personnel involved in the site development. Any defects requiring rectifying must be notified to the site agent the client and the LPA by email as soon as possible.

**16.3.7** Emergency situations will be notified by phone calls. Appropriate records will be kept and made available to the LPA if required to show evidence of the site monitoring. An example of this is shown in Appendix V.

**16.3.8** Supervision will not require the arboriculturist to be present throughout all operations, to ensure that all tasks are carried out as per the approved methodology. They will be required at key times during any planned or unplanned incursions into the tree protection areas. This supervision will require the arboriculturist to attend site, if not for the whole task, to ensure that the arboricultural objectives that are met. Where tasks are ongoing, provided that the arboriculturalist is satisfied that the method statement is being followed and after an appropriate briefing the supervision may be reduced to telephone or email contact between the site supervisor and the arboriculturist.

**16.4 The critical stages for site supervision are as follows:**

- I Prior to the start of construction, all tree protection measures as described must be checked as appropriate and signed off by an arboriculturalist. There will be a pre-commencement meeting with all party attendance, including LPA tree officer, to ensure that there are no unresolved issues.
  
- II At predetermined activity related times as specified in Table 1. The tree protection measures as described must be checked as being retained and signed off by an arboriculturalist. All defects to be reported to the client and LPA.



- III The potentially damaging activity to the trees must be observed by a suitably qualified arboriculturalist to ensure that the method statements are adhered to and the damage is kept to an absolute minimum. All defects to be reported to the client and LPA.
  
- IV At periodic intervals during the construction process, the tree protection measures must be checked as being retained and signed off. All defects to be reported to the client and LPA.
  
- V At the end of the construction phase, an arboricultural consultant must check that no damage has occurred to the trees and any remedial measures, e.g. de-compaction of soil must be recommended as required and remedial measures undertaken as soon as practicable. The outcome shall be reported to the client and local authority

**16.4.1** The site supervision visits will be documented and circulated to the site agent, developer, architect and Local Planning Authority as appropriate. The reports will detail the date of the visit, the operations being supervised and any issues that require action to meet the aims and objectives of this method statement.

**Table 1 Site Supervision Programme**

	<b>Activity</b>	<b>Comments</b>
1	Inspection of all tree protection measures to ensure that it is secure and fit for purpose prior to work commencing. This will need to be signed off by the arboriculturalist.	Report any defects or damage to the client and the LPA and ensure that they are made good.
2	Pre-commencement meeting with all party attendance, including LPA tree officer, to ensure that there are no unresolved issues. This will need to be signed off by the arboriculturalist.	Report any defects or damage to the client and the LPA and ensure that they are made good.
3	Monthly monitoring of site and tree protection measures. This will need to be signed off by the arboriculturalist.	Report any defects or damage to the client and the LPA and ensure that they are made good.
Final	Completion of work, removal of all tree protection measures and inspection of trees and root zone for any damage. Any compaction of the soil must be rectified with remedial measures and damaged branches taken back to suitable growth points with a clean cut. This will need to be signed off by the arboriculturalist.	Report any defects or damage to the client and the LPA and ensure that they are made good.

## 17 Replacement Planting

**17.1** As most of the trees are being retained unaffected it is not proposed to plant any replacement trees as part of this planning application. There remains a good canopy cover both in the property and the wider area.



## References and Bibliography

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## APPENDIX I – QUALIFICATIONS AND EXPERIENCE

### I S Thompson (known as Tom) BSc (Hons Arb), MSc eFor, M. Arbor. A Cert Arb

#### 1 QUALIFICATIONS

Subjects	Level	Dates
International Society of Arboriculture Certified Arborist	Pass	May – 2012
Professional Tree Inspection Course (LANTRA)	Pass	April - 2011
BSc Hons Arboriculture	(2.1)	2008 - 2009
FdSc Arboriculture	Distinction	2004 - 2007
MSc. Environmental Forestry (MSc eFor)	Pass	2001 - 2002
BSc. Hons Env Science (Conservation Management)	(2.2)	1997 - 2000
Environmental Studies	Access Course	1996 - 1997
Forestry & Practical Environmental Skills	NVQ I & II	1996 – 1997

#### 2 CAREER SUMMARY

Tom Thompson began his career with trees in 1994 completing various practical forestry and environmental courses with BTCV as well as undertaking various voluntary roles within this field whilst studying to gain entry to university. During the completion of a degree in Environmental Science from the University of Surrey he spent six months working on sustainable forestry operations in British Columbia, Canada. He then spent one month on a forest based work camp in Japan before commencing an MSc in Environmental Forestry at the University of Wales Bangor.

He then spent five years working in new woodland creation, firstly for ADAS in the National Forest and then for 18 months with the Forestry Commission in Cobham, Kent. During this time, he began a degree in Arboriculture through Myerscough College.

This course enabled him to make the transition from forestry to arboriculture where he spent 5 years as a tree officer, firstly at St Albans and then more recently at King's Lynn and West Norfolk. He joined Connick Tree Care in May 2012, where he worked as an Arboricultural Consultant for 2 years. He has been the Principal Arboricultural Consultant at Arbor Cultural Ltd. since it was founded in June 2014.

#### 3 AREAS OF EXPERTISE

- Tree hazard risk assessments for tree owners
- Decay assessment and mapping
- Mortgage and Insurance reports to assess the influence of trees on buildings
- Pre-development site surveys and arboricultural implication studies
- Tree management reports to prioritise maintenance programs
- Tree related insurance claims
- Diagnosis of tree disorders
- General arboricultural advice
- Woodland design for conservation





**4 SELECTED CONTINUAL PROFESSIONAL DEVELOPMENT**

Risk Assessment D Lonsdale & J Barrel	ISA & CSA	June	2013
BS 5837 Training	Tree Life Training	May	2013
Pests and Diseases Road Show	Arboricultural Association	April	2013
Subsidence; Giles Biddle Part 2	Arboricultural Association	April	2013
Arboricultural Consultancy Course	Arboricultural Association	April	2013
Subsidence Seminar		March	2013
BS 5837 2012 & Tree Regs Changes	Arboricultural Association	May	2012
BS 3998 Changes to Standard	London Tree Officers Association	May	2012
Bat Course for Arboriculturalists	AA & Bat Conservation Trust	April	2012
Tree Biomechanics (Germany)	Claus Mattheck	Oct	2011
Designing with Trees	T Kirkham & P Thurman	Sept	2011
Urban Forest–Climate Change, Shade & SUDS	Peter MacDonagh	Sept	2011
Arb Consultancy Report Writing	Consulting Arb Society	July	2011
BS5837 Seminar on new 2011 draft	Arb Association & ICF	June	2011
BS3998 Road show presenting 2010 document	Arb Association	May	2011
New Pests and Diseases Advance	David Rose	Mar	2011
Fungal Management Strategies	Barcham Nursery	Nov	2010
Perfect Roots & Tree Growth	Gary Watson	June	2010
Fungi Recognition and Response	Tree Life Training	May	2010
Visual Tree Assessment	Claus Mattheck	May	2010
Arboriculture in Planning	Arb Solution	April	2010
Trees and the Law Charles Minors	Barcham Nursery	Oct	2009
Tree Related Subsidence	Tree Life Training	Oct	2009
CAVAT as a management tool	NATO	Sept	2009
CAVAT Training	NATO	Sept	2009
THREATS Tree Assessment	JFL Arboriculture	Aug	2009
BS 5837 (Trees in Relation to Construction)	Tree Life Training	Jul	2009
Trees and Hard Surfaces	NATO	June	2009
BS 5837 (Trees in Relation to Construction)	Richard Nicholson	May	2009
Native Woodland Plan Advisor	F C Wales		2002

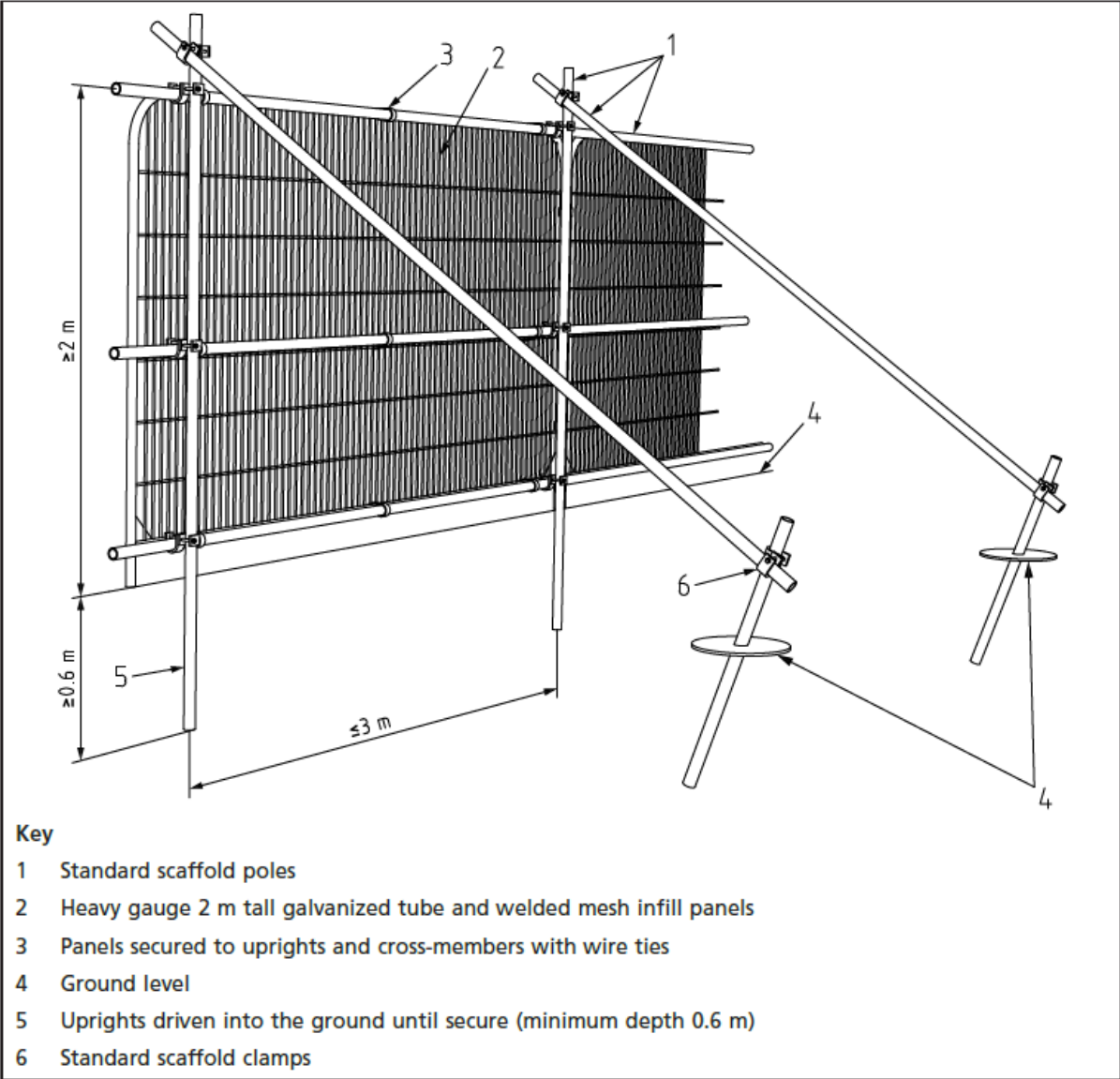
**5. PROFESSIONAL AFFILIATIONS**

Arboricultural Association Professional Member	since 2008
International Society of Arboriculture Certified Arborist	since 2012
Consulting Arboriculturalist Society	Since 2013
Royal Forestry Society	since 1999





**APPENDIX II                      SPECIFICATIONS FOR TREE PROTECTION MEASURES**



**Figure 1                      Default Tree Protection Fencing Design BS5837 (2012)**



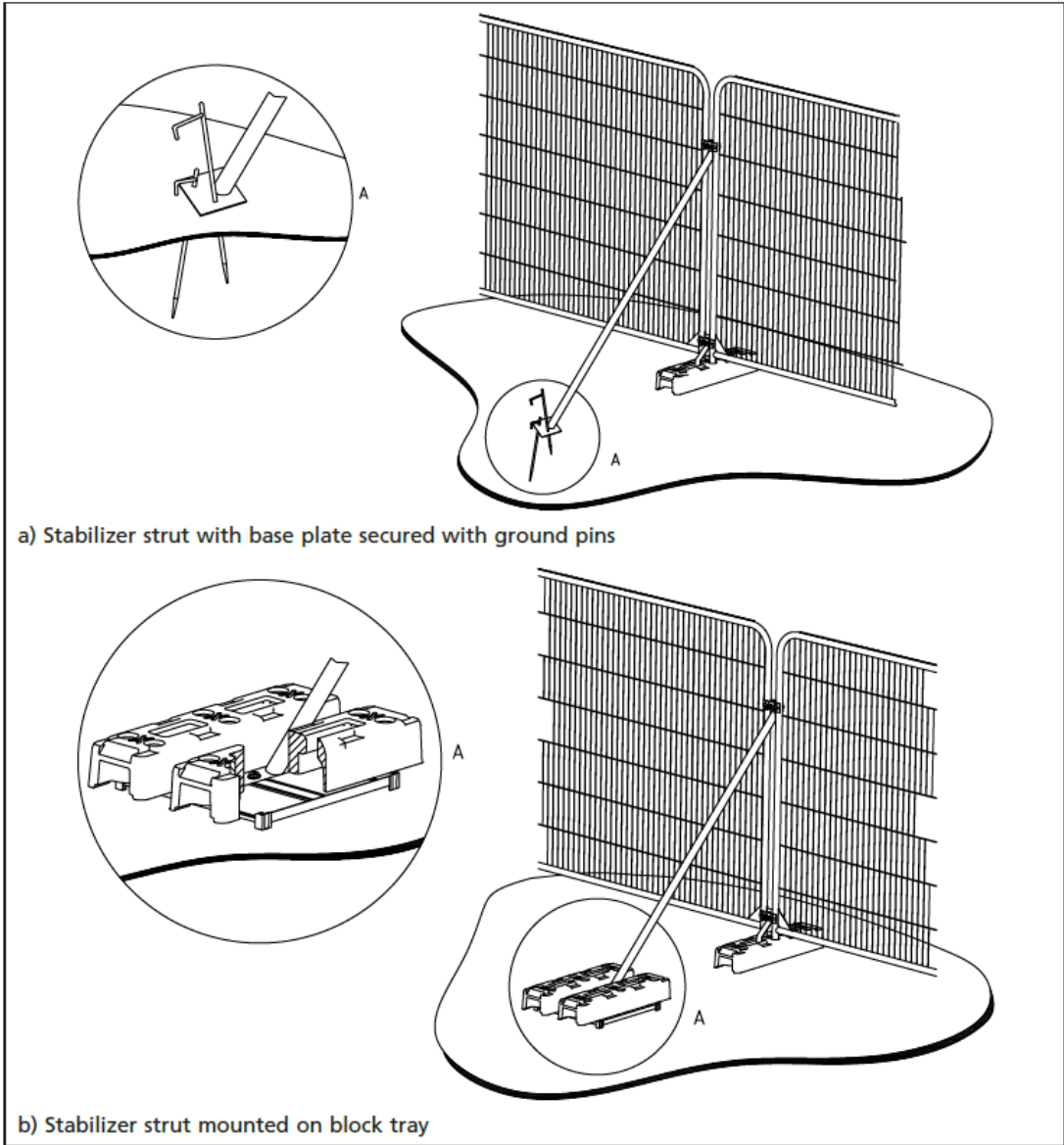


Figure 2 Tree Protection Fencing Design for Hard Surfaced Areas Only (BS5837 2012)

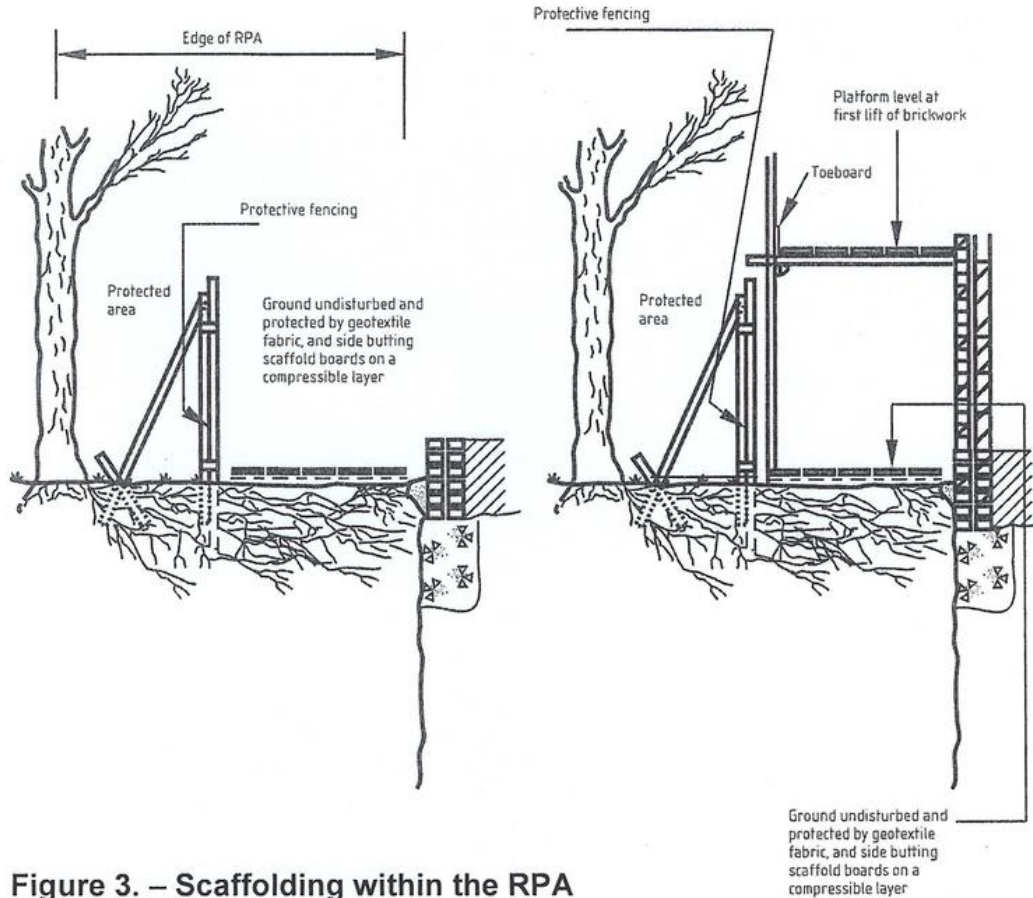


Figure 3. – Scaffolding within the RPA



# CONSTRUCTION EXCLUSION ZONE - NO ACCESS

This area has been identified as a tree protection  
zone, no access is to be permitted.

DO NOT ENTER WITHOUT SPECIFIC INSTRUCTION  
OR SUPERVISION

Figure 4 Construction Exclusion Zone Signage



## APPENDIX III KEY TO BS5837 TREE SURVEY RECORDS

### Tree No.

Tree numbers applied as T1 etc. to each tree are as per the Tree Survey Plan and subsequent drawings, where trees occur as a cohesive group these are suffixed with a G, they are assessed as such, with all size data being given as mean figures unless otherwise stated. Any trees on-site and off-site that are appropriate to be included but are omitted from the topographical survey supplied are included in the schedule, though their positions are shown only indicatively.

### The measurement conventions are as follows.

- a) Height, crown spread and crown clearance are recorded to the nearest half metre (crown spread is rounded up) for dimensions up to 10 m and the nearest whole metre for dimensions over 10 m.
- b) Stem diameter is recorded in millimetres, rounded to the nearest 10 mm (0.01 m).
- c) Estimated dimensions (e.g. for off-site or otherwise inaccessible trees where accurate data cannot be recovered) should be clearly identified as such (e.g. suffixed with a "#").

### Height (m)

Tree height measured in metres.







### **Stem Diameter (mm)**

Stem diameter in millimetres measured at 1.5m above ground level. Where the stem is divided below 1.5m, measurement is taken as directed by BS 5837 Annex C.

### **Branch Spread (m)**

Radial crown spread in metres, measured for each of the four cardinal points of the compass from the centre of the trunk.

### **Height of Lowest Branch (m) and direction of growth**

Height above ground in metres of the lowest branch and use of the 4 cardinal points of the compass



**Life Stage:**

- Y Young** A recently planted or establishing tree that could be transplanted without specialist equipment, i.e. up to 12-14cm stem diameter.
- SM Semi-Mature** An establishing tree which is still exhibiting apical dominance and has significant growth potential.
- EM Early-Mature** A tree that has reaching its ultimate potential height and has lost its apical dominance, and whose growth rate is slowing down but will still has potential for a significant increase in stem diameter and crown spread and has a significant safe life expectancy remaining
- M Mature** A tree with limited potential for any increase in size but with reasonable safe useful life expectancy.
- OM Over Mature** A senescent or moribund specimen with a limited safe useful life expectancy.
- V Veteran** A tree of great age for species with important biological, aesthetic, conservation or cultural value. Trees are in a state of decline due to old age.





## Condition of Trees

**Physiological Condition (P)** An assessment of the physiological condition (i.e. health/vitality) of the tree categorised into:

- Good** A tree in a healthy condition with no significant problems
- Fair** A tree generally in good health with some problems that can be remediated
- Poor** A tree in poor health with significant problems that can't be remediated
- Dead** A tree without sufficient live material to sustain life

**Structural Condition (S)** An assessment of the structural/safe condition of the tree categorised into:

- Good** A tree in a safe condition with no significant defects.
- Fair** A tree in a safe condition at present but with defects or with significant defects that can be remediated.
- Poor** A tree with significant defects that can't be remediated

*Notes related to both physiological and structural condition follow the categorization in order support the statement and give greater detail on the true quality and value of the tree.*



### **Preliminary Management Recommendations**

These may include further investigations for the presence or extent of decay or climbed inspections, ivy removal or pruning works when access is a non-moveable aspect etc. (NB this is not intended to be a specification for tree work and further advice maybe required prior to implementation). Trees assessed as being in apparently immediately hazardous condition will be notified to the client separately as soon as practicable.

### **Estimated Remaining Life Contribution**

This is an estimate of the remaining life contribution in years that the tree or group of trees is expected to have based on species, condition on the site in its current context. The following bands are used:

- <10** Tree is dead or dying and unlikely to contribute beyond 10 years
- 10+** Tree is assessed as being able to contribute to the site for 10+ years
- 20+** Tree is assessed as being able to contribute to the site for 20+ years
- 40+** Tree is assessed as being able to contribute to the site for 40+ years

### **Quality and Value Category Grade**

<b>U</b>	<b>Trees that cannot be realistically retained</b>	<b>Dark red</b>
<b>A</b>	<b>Those trees of HIGH value quality to retain</b>	<b>Light green</b>
<b>B</b>	<b>Those trees of MODERATE quality to retain</b>	<b>Mid blue</b>
<b>C</b>	<b>Those trees of LOW quality to retain</b>	<b>Grey</b>

### **Deadwood Categorisation**

**Minor Deadwood**     Less than 50mm in diameter or less than 3m in length

**Major Deadwood**     Greater than 50mm in diameter or greater than     3m in length

**APPENDIX IV IMAGES**



**Image 1** Base if T1, on left and T2 and T3, right



**Image 2** T2 and T3 to left of the entrance and T6 and T7 to the right of the entrance



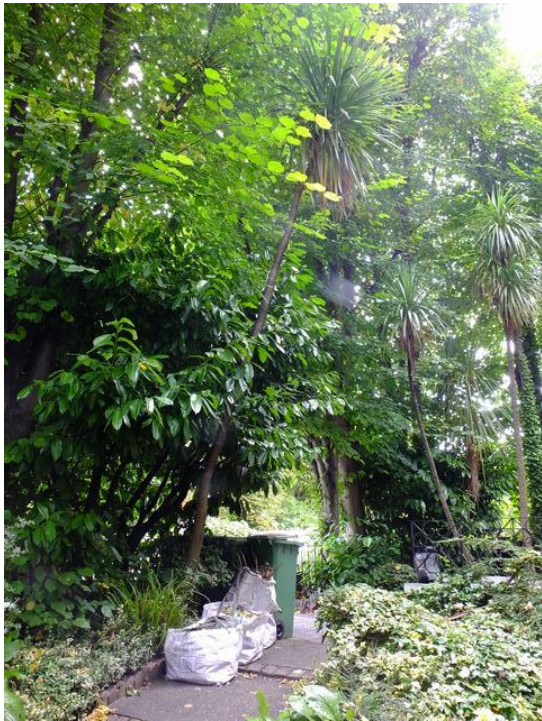


**Image 3** T8, in the centre at the rear



**Image 4** T4, Chery laurel bush





**Image 5** Cabbage palms, T5 on left and T1 on the right



**Image 6** T9, a small rowan tree in the adjacent property



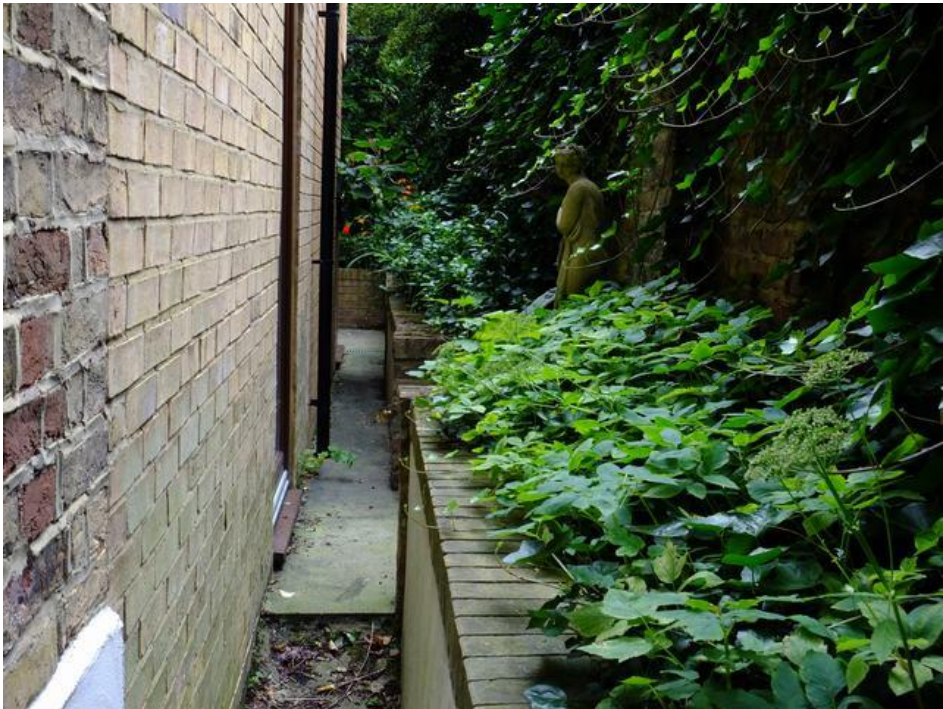


**Image 7** T10, an aging apple tree in the rear garden, behind a retaining wall



**Image 8** Stems of apple tree with signs of decay





**Image 9** Rear planting bed is to be retained so there is no need for fencing due to access



**Image 10** Path sloping down to the entrance





**Image 11** Inspection cover for existing services, so roots likely to have been restricted or severed

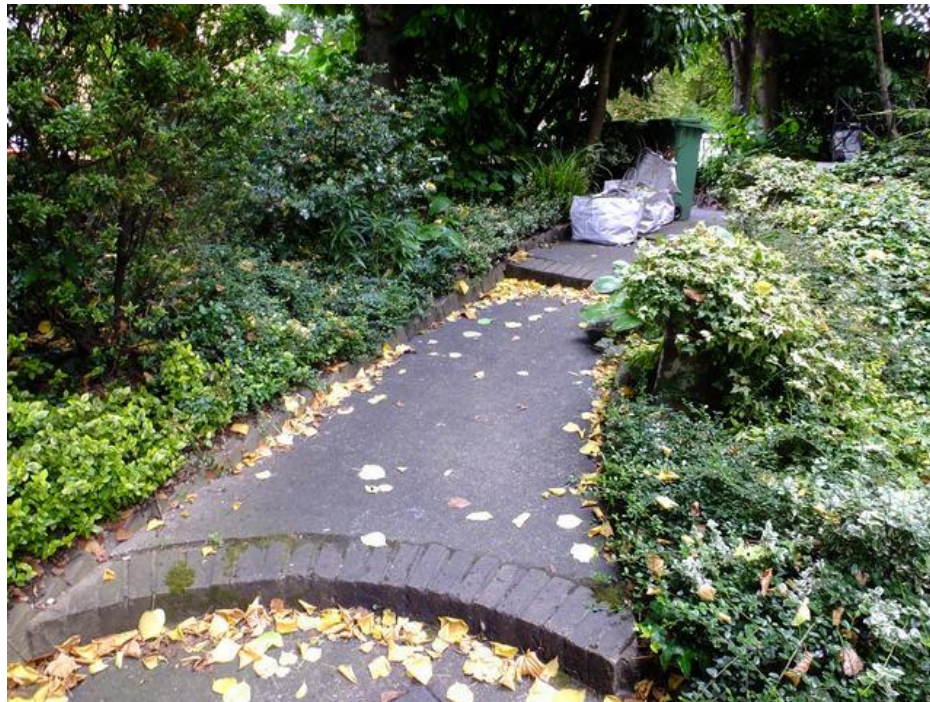


**Image 12** Steps leading down to the entrance, with some space for materials





**Image 13** Further space to the front of the apartment for materials to be stored



**Image 14** View looking up the path to the site entrance



**APPENDIX V ARBORICULTURAL SUPERVISION RECORDING TEMPLATE**

<b>Client:</b>		<b>Planning Ref:</b>	
<b>Local Authority:</b>		<b>Date:</b>	
Site Address			
Proposal:			
<b>Visit Checklist</b>	<b>Y/N</b>		<b>Y/N</b>
Tree Protection Fencing in place		Tree protection as approved	
Ground Protection in place		Ground Protection as approved	
Tree or Ground protection breached		Trees damaged	
Site Agent briefed by AC			
AC briefed by Site Agent			
LPA informed			
Remedial action required			
<b>Comments</b>			
<b>Recommendations</b>			
<b>Outcome</b>			
<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>5</b>			



**APPENDIX VI - TREE SURVEY RECORDS**

**Date of Survey - 8th August 2016**

Tree Id No	Tree Species	Stem Diam (mm)	Stem No	Tree Hgt (m)	Ult Hgt (m)	Crown Height N, E, S, W (m)				FSB Hgt (m)	FSB Dir	Life Stage	Life Exp	BS 5837 Cat Pre	BS 5837 Cat Post	Canopy Spread N, E, S, W (m)				Phys & Struct Condition	Comments	Recommended Work	RPA Annex D (m)
T 1	Cabbage palm, <i>Cordyline australis</i>	60, 110	2	6	6	6	6	4	6	-	-	EM	40+	C1	C1	1	1	3	3	P Good, S Fair	Twin stemmed with on stem leaning out towards the south west.	No Action Required at this time (NAR).	1.5
T 2	Lime, <i>Tilia europaea</i>	360	1	14	14	2	2	2	2	-	-	EM	40+	B2	B2	2	3	2	3	P Good, S Fair	Lapsed pollard from 2m, with high pollard at around 12m. Epicormic growth at 2m and 12m.	NAR	4.2
T 3	Lime, <i>Tilia europaea</i>	160, 240	2	12	12	2	2	2	2	-	-	EM	40+	B2	B2	2	3	3	3	P Good, S Fair	Lapsed pollard from 2m, with high pollard at around 10m. Epicormic growth at 2m and 10m.	NAR	3.6
T 4	Cherry laurel, <i>Prunus laurocerasus</i>	50#	6	4	4	2	2	2	2	-	-	EM	40+	C2	C2	4	2	4	2	P Good, S Fair	Maintained as a hedge.	NAR	1.5
T 5	Cabbage palm, <i>Cordyline australis</i>	100	1	6	6	5	5	5	5	-	-	EM	40+	C1	C1	0.5	0.5	0.5	0.5	P Good, S Fair	Leaning to the east. Avoid this stem with the tree protection fencing.	NAR	1.2
T 6	Lime, <i>Tilia europaea</i>	410	1	12	12	2	2	2	2	-	-	EM	40+	B2	B2	3	3	2	3	P Good, S Fair	Lapsed pollard from 2m, with high pollard at around 10m. Epicormic growth at 2m and 10m.	NAR	4.8
T 7	Lime, <i>Tilia europaea</i>	350	1	12	12	2	2	2	2	-	-	EM	40+	B2	B2	2	3	3	3	P Good, S Fair	Lapsed pollard from 2m, with high pollard at around 10m. Epicormic growth at 2m and 10m.	NAR	4.2



**APPENDIX VI - TREE SURVEY RECORDS**

**Date of Survey - 8th August 2016**

Tree Id No	Tree Species	Stem Diam (mm)	Stem No	Tree Hgt (m)	Ult Hgt (m)	Crown Height N, E, S, W (m)				FSB Hgt (m)	FSB Dir	Life Stage	Life Exp	BS 5837 Cat Pre	BS 5837 Cat Post	Canopy Spread N, E, S, W (m)				Phys & Struct Condition	Comments	Recommended Work	RPA Annex D (m)
T 8	Lime, <i>Tilia europaea</i>	320	1	12	12	4	4	4	4	-	-	EM	40+	B2	B2	3	3	3	2	P Good, S Fair	Lapsed pollard from 2m, with high pollard at around 10m. Epicormic growth at 2m and 10m.	NAR	3.9
T 9	Rowan, <i>Sorbus aucuparia</i>	50#	1	7	10	2	2	2	2	-	-	SM	40+	C1	C1	1	2	2	2	P Good, S Good	Small tree	Cut back to the site boundary	N/A
T 10	Apple, <i>Malus domestica</i>	210, 180	2	5	5	2	6	2	2	3	W	M	40+	C1	C1	2	0	4	4	P Good, S Fair	Stem decay on both main stems.	NAR	3.3