



**16 Sunset View  
Barnet  
EN5 4LB**

**Phase II Arboricultural Impact Assessment (AIA)  
(Ref. 101 631)**

**Date: 20/07/2020**

Prepared by:

Russell Ball BSc. (Hons.), P.G. Dip. LM, CBiol., MRSB

Royal Society of Biology *Chartered Biologist*

International Society of Arboriculture *Certified Arborist*

LANTRA Approved *Professional Tree Inspector*

International Society of Arboriculture *Qualified Tree Risk Assessor*

No. 1 Landford Close, Rickmansworth, WD3 1 NG

Mobile: 078844 26671

Email: [russell@arboleuro.co.uk](mailto:russell@arboleuro.co.uk)

[www.arboleuro.co.uk](http://www.arboleuro.co.uk)

## CONTENTS

- 1.0 Instructions & Terms of Reference
- 2.0 Introduction
- 3.0 General Data
- 4.0 Statutory Controls
- 5.0 Wildlife Habitats
- 6.0 Tree Report at 16 Sunset View Barnet EN5 4LB
- 7.0 Conclusions
- 8.0 Recommendations
- 9.0 Owners Liability Acts
- 10.0 References

## APPENDICES

- 1. Tree Survey Schedules & Table 1 - Category Grading (Quality Assessment)
- 2. Tree Protection Plan
- 3. Arboricultural Method Statement
- 4. Tree Protection Barrier Specification
- 5. Outline CV and Professional Experience

**For Local Planning Authorities that have previously seen our standard report format are directed to Sections 4-7 that contain the key relevant information for this planning application.**

## **1.0 INSTRUCTIONS & TERMS OF REFERENCE**

### **1.1 INSTRUCTIONS**

Arbol Euro Consulting Ltd. is instructed to assess trees in regard to the approved development. See section 6.1.2. Specifically this AIA is to discharge a Barnet Council *Tree Protection* Planning Condition. We visited the site on 19/07/2021 to carry out the tree survey.

**NB** This report does not seek to authorise any tree works (see Section 4.1).

Please be advised that this is a Development Control – and not a Building Control – focused document. In regard to the latter, this deals with foundation depth and design in relation to trees using NHBC/Zurich national guidance. For advice, consult with the local council Building Control Officer or an approved NHBC inspector in order to gain Full Plans Approval or a Completion Certificate. The latter are governed by the Building Act 1984 and Building Regulations 2010. As such the above Building Control issues are outside the remit of a Consulting Arborist.

Our tree reporting is in-line with BS:5837 (2012) and our tree survey assessments are consistent with the LANTRA professional tree inspector criteria. However, please be advised\* that this AIA does not necessarily provide any guarantees that the associated Local Planning Authority will agree with the opinion of the Consulting Arborist or grant planning consent based on the content and findings of this AIA report.

\* As per our Terms & Conditions.

### **1.2 PHASE 1, 2 & 3: ARBORICULTURAL IMPLICATION ASSESSMENTS (AIA) IN CONTEXT**

**1.2.1 Phase 1 (AIA1).** The initial stage for trees within the development process is a survey of those trees that should be retained and those that may/should be removed. Retention trees are allocated Root Protection Areas (RPAs) that are then detailed on a Tree Constraints Plan (TCP). The RPAs provide for sufficient rooting (soil) volume to ensure that trees are successfully retained during and after the completed development. The TCP represents Phase 1 of an Arboricultural Implications Assessment (AIA1). It indicates a notional development footprint for any given site but moreover, it **may affect the value of land** earmarked for development. The AIA1 is **only** a baseline survey. It is not intended to represent, in isolation, the supporting information for an LPA\* application: to obtain full planning permission.

\* Local Planning Authority

**1.2.2 Phase 2 (AIA2).** The next stage is for ‘site layout master planners’ to factor the tree constraints into draft layout proposals. This draft is then referred to the consulting Arborist for further implication assessment, to arrive at a ‘best fit’ scheme, which achieves site proposal viability whilst allowing for the retention of appropriate trees. This layout review represents Phase 2 of an Arboricultural Implications Assessment (AIA2). Once it has been agreed, the consulting Arborist can then prepare a supporting report to accompany the planning application. This report should demonstrate that the trees have been properly considered such that the site layout is defensible in arboricultural terms, both at the application stage and also, if necessary, at Appeal. As the proposal develops, the AIA2 also involves the consulting Arborist working as part of the development team to secure discharge of any initial (frequently pre-commencement) tree related LPA planning conditions. These will need to be formally discharged to avoid any breach of Condition and/or enforcement action.

**1.2.3 Phase 3 (AIA3).** All the effort put into the pre-application phases (AIA12) to protect retention trees is likely to fail without effective site supervision. Arboricultural Implications Assessment (AIA3) covers the **on-site project implementation**, including arranging (LPA) approved tree

removal/ pruning, overseeing the installation of tree protection fencing, ground protection and any special engineering works through to periodic reporting on the retention of tree protection measures. Many if not all of the latter are usually specified as LPA planning conditions that need to be formally discharged. All personnel associated with the construction process must be familiar with the specified Tree Protection Plans (TPP) and Arboricultural Method Statements (AMS) that affect the site. The TPP and AMS should be retained on site at all times and they should be included in the site's Project Management Plan.

1.2.4 Phases 1–3 are in line with BS 5837; 'Trees in relation to design, demolition and construction - Recommendations' (2012).

### 1.3 TREES & BUILDING SUBSIDENCE/HEAVE ISSUES

Assessing the potential influence of trees upon load-bearing soils beneath existing and proposed structures, resulting from water abstraction by trees on shrinkable soils, was not included in the contract brief and is not, therefore, considered in any detail in this report. **Arbol EuroConsulting** cannot be held responsible for damage arising from soil shrinkage or heave issues related to the retention or removal of trees on site.

### 1.4 TREE SAFETY MATTERS AND TREE RISK ASSESSMENT

The BS:5837 tree survey is carried out in sufficient detail to gather data for and to inform the current project. Our appraisal of the structural integrity of trees on the site is of a preliminary nature and sufficient only to inform the current project. The tree assessment is carried out from ground level – as is appropriate for this type of survey - without invasive investigation. The disclosure of hidden tree defects cannot therefore be expected. Whilst the survey is not specifically commissioned to report on matters of tree safety, we report obvious visual defects that are significant in relation to the existing and proposed land use.

Lastly and to further clarify, this BS:5837 survey does not constitute a full *Visual Tree Assessment* (= TRAM\* Level 2 - *Basis Assessment*) that would ordinarily be carried out for Tree Risk Assessment reporting. In effect, this BS:5837 survey equates to a TRAM Level 1 *Limited Visual Assessment*.

\* "Tree Risk Assessment Manual" (2<sup>nd</sup> edition) Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lilly (2017) International Society of Arboriculture

### 1.5 SITE OBSERVATIONS

This report has been based on my site observations and in light of my experience. This along with my qualifications are appended to this report.

### 1.6 CAVEATS

The author does not have formal qualifications in the areas of structural engineering or law. However, making comment on such matters from an arboricultural perspective is both within the normal scope of our instructions and also within the range of the author's experience. Notwithstanding this, specialist professional advice should be sought to clarify/confirm any observations on engineering or legal matters that this report may contain.

## 2.0 INTRODUCTION

### 2.1 THE ASSESSMENT METHODOLOGY

The British Standard BS:5837 'Trees in relation to design, demolition, construction - Recommendations' (2012) provides "guidance on the principles to be applied to achieve a satisfactory juxtaposition of trees.....with structures". The Standard recommends that trees with categories A-C (where A is the highest quality) are a material consideration in the development process. Such trees may then become a constraint for a planning proposal. Category U trees are those that will not be expected to exist for long enough to justify their consideration in the planning process (i.e. no more than 10 years). Tree categories are used with the number 1, 2, or 3 to signify whether the category was made based on arboricultural, landscape or cultural (including conservation) values respectively. The tree categories are shown on plan by colour-coding:

**Category A** (green colour-coded): Good examples of their species with an estimated life expectancy of at least 40 years.

**Category B** (blue colour-coded): Not suitable for an 'A' category due to impaired condition or a tree lacking special 'A' qualities: with an estimated life expectancy of at least 20 years.

**Category C** (grey colour-coded): Unremarkable trees of very limited merit or with a significant impaired condition not warranting an 'A' or 'B' category: with an estimated life expectancy of at least 10 years. See young trees below.

**Category U** (red colour-coded): Structurally defect / dead tree.

Reasonably young trees below 150mm stem diameter would normally be given a C category (if they satisfy the retention quality criteria). However, as they are small they could be replaced/transplanted and as such they should not be regarded as a significant constraint on a development.

## 2.2 ARBORICURAL IMPACT ASSESSMENT (AIA)

We have considered - with access permitting for 3<sup>rd</sup> party trees - the following BS:5837 (2012) recommendations:

1. Tree Categories (Quality Assessment).
2. Crown Spread measured to the four cardinal compass points for single specimens only.
3. Tree Constraints.
4. Tree retention & protection

*N.B. Trees and shrubs are living organisms whose health and condition can change rapidly, for this reason the BS 5837 grades along with any conclusions or tree management recommendations remain valid for a period of 12 months.*

The specific tree report is documented in Section 7 of this report.

## 3.0 GENERAL DATA

### 3.1 GENERAL

The three phases of an Arboricultural Implication Assessment were outlined in Section 1.1.1-1.1.4. In addition, during the development process for retention trees, there may be three and even four constraints to consider - Construction Exclusion Zone (CEZs):

- CEZ 1: Root Protection Area (see 3.1.1).
- CEZ 2: Tree Crown Protection (see 3.1.2).
- CEZ 3: Tree Dominance (see 3.1.3).
- CEZ 4: New Tree Planting Zone (see 3.1.4).

The above CEZ's are explained further below.

#### 3.1.1 CEZ 1: ROOT PROTECTION AREA (RPA)

The RPA, calculated in m<sup>2</sup>, should be protected before and during any demolition/construction works. This ensures the effective retention of trees by preventing physical damage to (a) roots and (b) their rooting environment (typical problems - soil compaction; soil level changes and soil capping that can impede gaseous exchange to living roots\*). The RPA is based on a radial measure from the centre of the tree stem, which is calculated by multiplying the stem diameter by a factor of twelve. With the AIA1, the RPA is only shown indicatively on the preliminary Tree Constraints Plan (TCP), as its shape may be subject to amendment as the design progresses.

During the AIA2, the derived radial measure is converted by the consulting Arborist into the actual area to be protected, having due regard to prevailing site conditions and how these may have affected the tree(s).

The means of protecting the RPA will include the installation of Tree Protection Fencing prior to the start of any demolition or construction work on site, the prohibition of various harmful

activities within the RPA (e.g. mechanical excavation, soil stripping & trenching, fire lighting, materials storage and creating excessive sealed surfacing), and may include the use of temporary ground protection and/or special engineering solutions where construction is proposed near to retention trees or within the RPA.

\* Roots must have oxygen for survival, growth and effective functioning.

### **3.1.2 CEZ 2: TREE CROWN PROTECTION ZONE**

This is the area above ground occupied by the tree crown (branches) and considers the required demolition/construction working space necessary for the development. The possibility of an acceptable quantum of pruning may be considered: subject to Council permission/consent (see Section 4.1.1).

Arising from the above, the means of protecting CEZ 2 is likely to include providing an adequate separation distance between retention trees and new buildings. This will relate to the CEZ 3: below.

### **3.1.3 CEZ 3: TREE DOMINANCE ZONE**

This is the area above ground dominated by the tree in relation to issues of shading, seasonal debris and the safety apprehension by the site owner/occupier. This area is assessed by considering the height and spread of the tree (now and in the future) relative to the proposed buildings, cross-referenced with the intended end-use. As such, what is assessed is the likely psychological effect of the tree(s) on the end-user.

The purpose of identifying CEZ 3 is to protect trees from post-development pressure by the site's end-users, who may, if resentful of the trees, seek to procure excessive pruning treatments (i.e. the bad practice of topping & lopping) or even to have them removed. This is a common LPA concern, which may lead to application withdrawals, refusals and/or dismissed Appeals.

The means of protecting CEZ 3 is likely to include optimising the site layout and room type (especially in relation to new residential dwellings), such that any adverse impacts of trees are reduced to an acceptable minimum. The key principle is to ensure adequate separation distances between trees and new buildings: notably with habitable space & primary windows.

### **3.1.4 CEZ 4: NEW PLANTING ZONE**

In some cases, it may be appropriate to identify and protect areas (see soil conservation below) intended for new landscape planting, which can fail to establish if the soil has been heavily compacted or contaminated during the demolition/construction process. The means of protecting CEZ 4 will either be by fencing prior to the start of construction/demolition works or by pre-planting soil remediation once construction has finished. Topsoil protection in areas destined for new planting is frequently an economic measure, saving on soil structure remediation and tree (failure) replacement costs.

**NB** Soil conservation is the process of protecting soil from degradation within a defined area. The physical, chemical and biological properties of a native soil can take hundreds of years to develop but can be destroyed in minutes (i.e. by demolition/construction traffic). Soil conservation is the most effective way to protect soil for future tree planting.

## **4.0 STATUTORY CONTROLS**

### **4.1 PLANNING LEGISLATION (TREES)**

#### **4.1.1 STATUTORY TREE PROTECTION**

Trees can be protected in law – via Tree Preservation Orders (TPOs) or by virtue of them growing in a Conservation Area (CA) – by the Government's Town & Country Planning Act 1990. (the Act). Trees may also be protected by Planning Conditions. If any of these apply, written LPA permission/consent is required before protected trees can be pruned or felled\*. Contravention of the Act may carry a fine of up to £20,000 and a criminal record.

\* Exceptions include those trees that are dead/hazardous or those that are causing an actionable nuisance to a third-party. In any event, evidence must be provided to defend the removal of such trees.

#### 4.1.2 TREES ON/OFF SITE

The subject site is within a Conservation Area (CA). Therefore, no tree pruning or felling works (*if required*) should commence at this property until the necessary written consent or *full* planning permission have been obtained from the LPA in respect of this CA.

#### 4.2 WILDLIFE LEGISLATION

The Wildlife and Countryside Act 1981, the Habitats Regulations 1994 (or any other acts offering wildlife protection) form the basis for UK legal wildlife protection. It is not a defence to claim that harm was accidental/unintentional in the course of carrying out tree works (i.e. the negligence of *reckless* harm can now be applied). There is therefore an onus on the operative to check for the presence bird of nesting/bat roosts (e.g. holes, limb cracks/splits or cavities) prior to carrying out any tree work. The bird nesting season is considered to run from March to August, but due to the vagaries of climate change, nesting birds can be found outside of this core period. Bats and their roosts are afforded the highest protection in UK Law.

Specifically:

##### Bats

All British bats, as well as their roosts and breeding sites are protected under British Law. The Wildlife and Countryside Act 1981 schedule 5 and The Habitat Regulations make it an offence to:

- Deliberately disturb bats
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport a bat or any part of a bat

##### Birds

The Wildlife and Countryside Act 1981 makes it an offence to:

- Intentionally kill injure or take a wild bird
- Destroy a nest while in use or take or destroy eggs.

#### 5.0 WILDLIFE HABITATS

A cursory assessment of wildlife habitat values of trees and hedgerows on the site was carried out during the survey. No protected or exceptional habitats were identified and details were not recorded. However, trees and hedgerows of most species provide valuable nesting sites for a wide range of birds and it is likely that nesting birds will be present on the site during the period March to September. We have not been made aware of the presence of roosting bats and have not identified any obvious signs of roost sites. However, this does not mean that roost sites are absent.

#### 6.0 No 16 Sunset View Barnet EN5 4LB: TREE REPORT (to be read in conjunction with the appended Tree Protection Plan and Tree Survey)

##### 6.1 THE PROPERTY AND THE APPROVED DEVELOPMENT

**6.1.1 Site description:** A large semi-detached property with an attached single garage and utility room. This garage is accessed by a sloped crazy-paved driveway. The rear garden is extensive with grassed areas, patios, a sunken garden, studio and shed.

**6.1.2 The approved development:** Demolition of the existing utility room and part of the existing garage to construct a new dining room with new utility room.

The location and detail of the proposed development and the positioning and numbering of the trees can be found plotted on the Tree Protection Plan at Appendix 2. **NB** The original of this plan was produced in colour – a monochrome copy should not be relied upon.

## 6.2 TREES/LARGE SHRUBS ON-SITE

**6.2.1 Front:** The well-managed high hedging of the Portuguese laurel S1 has good form and clearly merits a B-grade.

**6.2.2 Rear:** The only tree of merit is the dominate yew T5. The remaining trees are low-grade due to suppressed/unnatural crown form or by the fact that they have been recently planted. Regardless of this approved development, within 12 months the declining *Sorbus* T6 should be considered for removal. **NB** As T6 is sited in a Conservation Area its removal will be subject to written Consent from the Local Planning Authority (Council).

## 6.3 TREES OFF-SITE

There are no close-proximity off-site trees.

## 6.4 IMPACT PROPOSAL ON TREES (to be read in conjunction with the Tree Protection Plan - TPP - at Appendix 2 and the Arboricultural Method Statement at Appendix 3)

**6.4.1 Underground Utilities:** As these will be taken-off those already existing within the property there will be no Root Protection Area issue for any on site trees/shrubs.

### 6.4.2 CEZ 1: Root Protection Areas (RPAs)

#### 6.4.2.1 Footprint of the Approved Build

There is no RPA incursion with any of the trees/large shrubs. In order to facilitate development the furthest NW pergola post will be removed and the *Solanum Crispum* climber transplanted. See photo appended on the tree survey and Note 1 on the appended TPP.

#### 6.4.2.2 Construction Activity

As set out below, tree protection measures will required and there should be adequate site supervision (see section 6.6.2 below and section 4.0 within the appended AMS).

**Tree Protection Barriers (TPBs):** As per the appended Tree Protection Plan, if *temporary* TPBs are installed – to establish Construction Exclusion Zones (CEZ) at the front and the rear - this will afford adequate RPA protection for all retention trees/large shrubs including the pergola and C1. **NB** As this is a light-build project the normal robust staked and braced TPBs will not be required rather booted TPBs with sections **clamped together** and stabilizing struts so they cannot be moved.

On no account will these CEZs be used for the storage/preparation of any construction/building materials.

**Temporary Storage of Machinery and/or Materials:** There is adequate space at the front (crazy paved drive) including the rear garden and patio. In regards to the front drive, on no account will cement or other noxious substances (e.g. diesel or solvents) be mixed/prepared or stored. Rationale - this area is within the RPA of the Portuguese laurel S1 and such substances can seep down into the underlying (RPA) soil and harm/result in root mortality. See note 2 on the appended Tree Protection Plan. In any event the front drive may be used for a skip.

**Temporary Site Office:** As this is a light-build project no such office will be required



### 6.4.3 CEZ 2: Tree Crown Protection Zones

#### Construction Vehicle Site Access (access facilitation pruning)

There is adequate clearance over the frontage drive (see photo below) with no CEZ 2 issue with this build project.

Photo showing the Portuguese laurel (S1) and the driveway clearance



### 6.4.4 CEZ 3: Tree Dominance Zones

There are no such issues with this build project.

### 6.4.5 CEZ 4: New Tree Planting Zone

There is no such issue with this build project.

## 6.5 TREE PROTECTION DURING CONSTRUCTION

**6.5.1 Tree Protection:** The protection of retention trees is *paramount* to the granting of planning permission, the discharge of tree protection Planning Conditions, the design of the development and the future health, stability and success of the trees. It is widely recognised that mature trees add value to both land and property values.

**6.5.2 The Root Protection Area (RPA):** RPAs around retention trees should be maintained by the erection of a *temporary* tree protection barrier (TPB) as described at Appendix 4 to this report. The position and extent for the TPB will normally concur with the radius/squared area of the RPA. This staked-off area shall be known as the **Construction Exclusion Zone (CEZ)**. The integrity of the TPB to protect **CEZs** should be maintained for the duration of the entire development works. The **CEZs** marked-up on the appended Tree Protection Plan.

## **6.6 ARBORICULTURAL METHOD STATEMENT**

### **6.6.1 Purpose & Use**

In consideration of the above issues, we have included an Arboricultural Method Statement (AMS) at Appendix 3, which details working methods in relation to trees. This AMS lays down the methodology for any demolition and/or construction works that may have an effect upon trees on and adjacent to this site. It is essential within the scope of any contracts - related to this development - that this AMS is observed and adhered to. It is recommended that this document forms part of the work schedule and that specifications are issued to the building contractor(s) and these should be used to form part of their contract.

### **6.6.2 Site Supervision**

An individual – ideally the Site Agent - must be nominated to be responsible for all arboricultural matters on site (specific responsibilities are set out in the appended Arboricultural Method Statement). This person must:

- be present on site for the majority of the time;
- be aware of (a) the Tree Protection Plan and (b) the tree protection measures to be installed and maintained throughout the build;
- have the authority to stop any work that is causing, or has the potential to cause, harm to any retention trees;
- be responsible for ensuring that all site operatives are aware of their responsibilities toward on/off site trees and the consequences of the failure to observe these responsibilities;
- make immediate contact with the designated Consulting Arborist (contact number listed on the appended AMS) in the event of any tree related problems occurring, whether actual or potential.

### **6.6.3 AMS Adoption**

If conflicts between any part of a tree and the build arise in the course of the development these can – and should be – resolved quickly and at little costs if a qualified and experienced Consulting Arborist is contacted promptly. Lack of such care will likely lead to the decline and even death of affected trees: often with legal ramifications. The loss or damage to retention trees can spoil design, affect site sale ability and reflects badly on the construction and design personnel involved. Conversely, trees that have received careful handling during construction add considerably to the appeal and value of the finished development.

## **7.0 CONCLUSIONS**

### **7.1 THE APPROVED DEVELOPMENT AND POTENTIAL IMPACT ON TREES**

**7.1.1** The approved development will not require the removal of any trees/large shrubs. In order to facilitate development the furthest NW pergola post will be removed and the *Solanum Crispum* climber transplanted. See Note 1 on the appended TPP. Regardless of this approved development, within 12 months the declining *Sorbus* should be considered for removal.

**7.1.2** As plotted on the Tree Protection Plan at Appendix 2, with the implementation (in a timely manner) of the tree protection measures specified in this report there will be no CEZ 1 (RPA) impact on the retention trees.

**7.1.3** We believe that this AIA serves to discharge the Barnet Council *Tree Protection* Planning Condition associated with this Approved development.

**7.1.4** There are no CEZ 2, CEZ 3 or CEZ 4 issues with this application.

7.1.5 See the Arboricultural Method Statement at Appendix 3.

**7.1.6 Site Supervision Responsibilities:** This will be an essential element during the proposed build to ensure effect tree protection. See section 4.0 in the appended in the Arboricultural Method Statement.

## **8.0 RECOMMENDATIONS**

### **8.1 EXECUTION OF CONTRACT**

It is recommended that the Architect specifies in writing to the building contractor that tree care conditions apply to the execution of the contract. Lack of care frequently results in the damage, decline and eventual death of trees. This can adversely affect design aims & site sale-ability, and reflects poorly on the contractors and design personnel involved. Trees that have been the recipients of careful handling during construction add considerably to the appeal and value of finished developments.

### **8.2 PROPOSED REVISIONS TO THE SCHEME**

We advise that all proposed revisions in respect of external layout, orientation of primary windows, location of underground services, external surfacing and/or landscaping; having implications for retention trees should be referred to us for review.

## **9.0 OCCUPIERS LIABILITY ACTS**

Attention is drawn to the provisions of the Occupiers liability Acts (England & Wales - 1957 & 1984), which place a responsibility upon landowners to ensure the safety of others entering their land whether by invitation or permission: inclusive of trespassers. There is a special responsibility to ensure the safety of children, who may be unaware of hazards. Annual inspections of trees by a competent person, or following storm events, together with implementation of any remedial tree work recommendations, should ensure compliance with the legislation regarding the above legislation.

## **10.0 REFERENCES**

- *BS 5837; 2012 'Trees in relation to design, demolition and construction - Recommendations'* British Standards Institute, London.
- Arboricultural Association guidance note *"The use of cellular confinement systems near trees: a guide to good practice"* (2020).
- *BS 3998; 2010 'Tree Work Recommendations'* British Standards Institute, London
- *NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees'* 2007 National Joint Utilities Group (NJUG) Volume No. 4: No. 1.
- Arboricultural Practice Note 12; 2007 – AAIS
- *'Availability of Sunshine'* BRF; - CP 75/75
- *'Tree Roots in the Built Environment'* 2006 - Dept. for Communities & Local Government (DCLG).
- *'Up by Roots: healthy soils & trees in the built environment'* 2008 James Urban, International Society of Arboriculture.
- *'Arboriculture'*; 1999 3<sup>rd</sup> edition R. Harris, J. Clarke & N. Matheny. Prentice Hall.
- *'Soil Management for Urban Trees'* 2014 International Society of Arboriculture, Best Management Practice series.

Russell Ball BSc. (Hons.), P.G. Dip. LM, CBiol., MRSB.  
Technical Director: Arbol EuroConsulting Ltd.  
Royal Society of Biology **Chartered Biologist**  
International Society of Arboriculture **Certified Arborist** (ID: UI-1287A)  
LANTRA Approved **Professional Tree Inspector** (Ref: HO00178227 504187)  
International Society of Arboriculture **Qualified Tree Risk Assessor** (ID: 2148)

No. 1 Landford Close Rickmansworth WD3 1 NG  
Mobile: 078844 26671  
Email: [russell@arboleuro.co.uk](mailto:russell@arboleuro.co.uk)



APPENDIX 1

TREE SURVEY SCHEDULE  
(see appended at end of report)  
1 page

## APPENDIX 2

### TREE PROTECTION PLAN (see appended to the report)

**NB** The original of this plan was produced in colour – a monochrome copy should not be relied upon.

APPENDIX 3

ARBORICULTURAL METHOD STATEMENT

3 pages

**ARBORICULTURAL METHOD STATEMENT (AMS)**  
**Site: 16 Sunset View Barnet EN5 4LB**

**To be read in conjunction with the Tree Report sections 6-8 and Tree Protection Plan at Appendix 2.**

NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

This AMS lays down the methodology for any demolition and/or construction works that may have an effect upon trees on and adjacent to this site. It is essential within the scope of any contracts - related to this development - that this AMS is observed and adhered to. It is recommended that this document forms part of the work schedule and that specifications are issued to the building contractor(s) and these must be used to form part of their contract.

Consulting Arborist contact details: Russell Ball – mob. No. 078844 26671

**SEQUENCE OF WORKS**

From commencement of the subject development, the following methodology will be implemented in the manner and sequence described:

1. Arboricultural pruning and/or removal works.
2. Erect *temporary* Tree Protection Barriers (TPBs) to establish the fenced-off Construction Exclusion Zones (CEZ): **before** any demolition and/or construction works begin on-site.
3. Main construction works.
4. Site Supervision Responsibilities
5. Remove TPBs.

**1. ARBORICULTURAL PRUNING AND/OR REMOVAL WORKS**

1. None required.
2. In order to facilitate development the furthest NW pergola post will be removed and the *Solanum Crispum* climber transplanted. See Note 1 on the appended TPP.

**2. ERECT TEMPORARY BRACED TREE PROTECTION BARRIERS (TPBs)**

1. Prior to demolition and/or construction, the main contractor will erect the TPBs as per the appended Tree Protection Plan (TPP) and as detailed in the 'Tree Protection Barrier Specification' at Appendix 4 of this report. See also Appendix MS(ii) below. This will establish the fenced-off **Construction Exclusion Zones: CEZs** (marked up on the TPP).
2. As this is a light-build project the normal robust staked and braced TPBs will not be required rather booted TPBs with sections **clamped together** and stabilizing struts so they cannot be moved.
3. On no account shall these CEZs be used for the storage/preparation of any construction/building materials.
4. Prior to commencement of any site demolition, construction, preparation, excavation or material deliveries, the Consulting Arborist will inspect installation of the TPB and the CEZs. Any damage occurring to the TPB during the demolition or construction phase will be made good by the main contractor.

**3. MAIN CONSTRUCTION WORKS**

1. **Temporary Storage of Construction Material/Equipment:** See areas plotted on the appended TPP. Front Drive: On no account shall cement or other noxious substances (e.g. diesel or solvents) be mixed/prepared or stored within this area. Such substances can seep down into the underlying (S1 RPA) soil and harm/result in root mortality. See note 2 on the appended Tree Protection Plan. In any event the front drive may be used for a skip.
2. **Construction Exclusion Zone (CEZ):** There must be no (a) storage of construction material/equipment or (b) preparation of noxious substances (e.g. cement) in any area designated as the CEZ and enclosed by the TPB.
3. Before commencing work on site, all operatives must be briefed by the **Site Agent/Contract Manager** on the importance of protecting both on and off-site trees. The basis of this briefing will be the protection measures as set out on the Tree Protection Plan (TPP) including the position of **Tree Protection Barriers** and **Construction Exclusion Zones**. NB During the demolition and/or construction the **Site Agent/Contract Manager** will be responsible for all tree protection measures. See also **Site Supervision Responsibilities** below.



#### 4. SITE SUPERVISION RESPONSIBILITIES

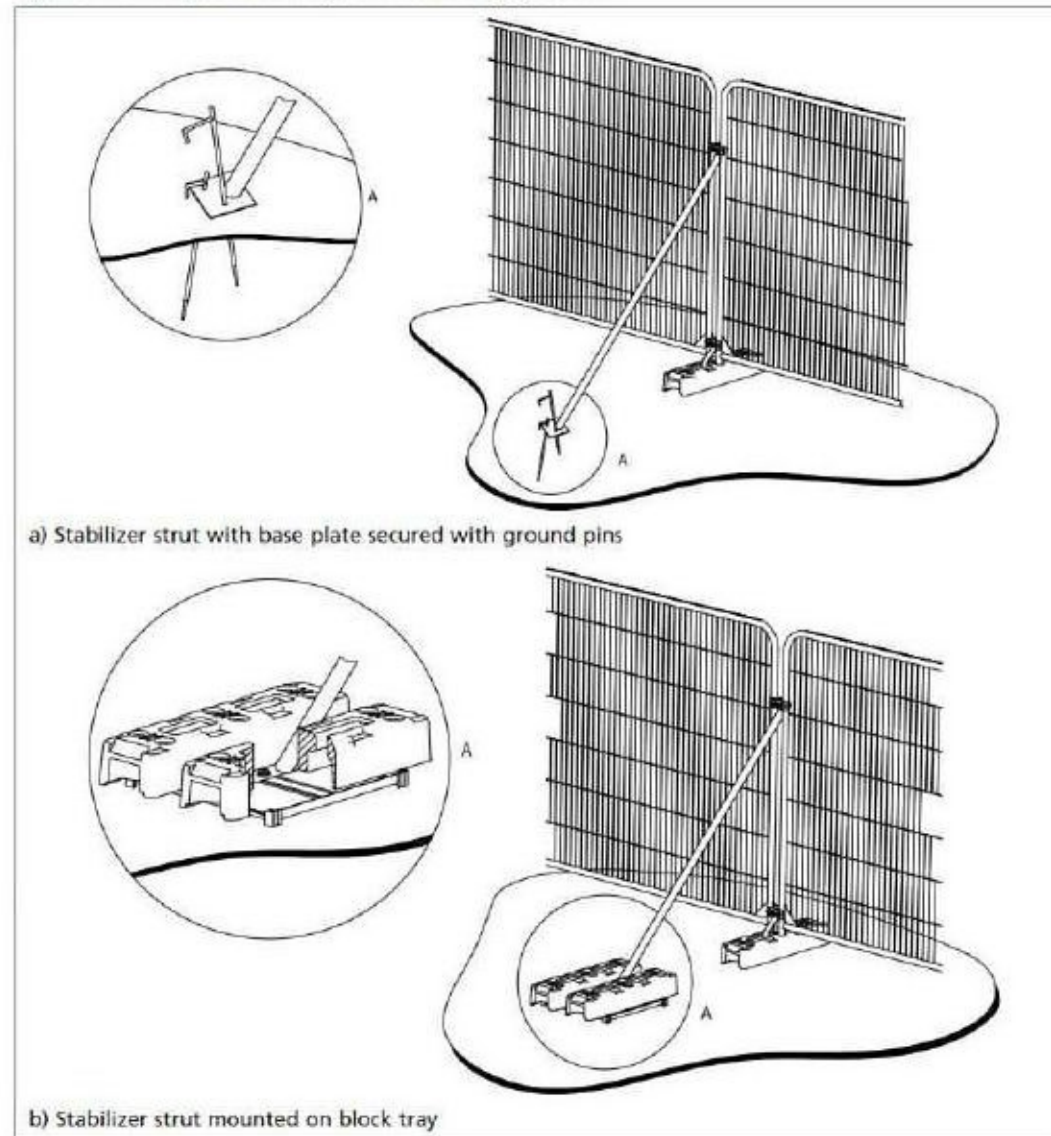
1. It will be the responsibility of the main contractor to ensure that any tree protection planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.
2. The main contractor must assign tree protection monitoring duties to one or more individuals working at the site, who will be responsible for all tree protection monitoring and supervision (see the *Site Personnel Induction Form* at Appendix MS ii).
3. The individual(s) assigned tree protection monitoring duties must:
  - Be present on site for the majority of the time;
  - Be aware of (a) the Tree Protection Plan and (b) the tree protection measures to be installed and maintained throughout all phases of the development;
  - Be responsible for ensuring all tree protection measures are adhered to as detailed in the Arboricultural Impact Assessment (AIA) report and Arboricultural Method Statement (AMS);
  - Ensure all site operatives without exception read and understand the tree protection and control measures detailed in the AMS;
  - Keep on file all individual Site Personnel Induction Forms which must be signed by all site operatives (including sub contractors) indicating they have read and understood the control measures detailed within the AIA report and AMS;
  - Maintain a written record of Tree Protection / Construction Exclusion Zone inspections, to be kept up to date by the person(s) who have been designated the inspection and monitoring duties;
  - Have the authority to stop any work that is causing, or has the potential to cause, harm to any retention trees;
  - Be responsible for ensuring that all site operatives including sub contractors are aware of their responsibilities toward on/off site trees and the consequences of the failure to observe these responsibilities;
  - Make immediate contact with the Consulting Arboriculturist in the event of any tree related problems occurring, whether actual or potential. (Contact details including telephone number and email address are listed on the Title Page).
4. The Construction Exclusion Zone fencing, ground protection and all signs must be maintained in position at all times and checked on a regular basis by the on-site person(s) who have been designated that responsibility.
5. The main contractor will be responsible for contacting the Local Planning Authority and the Consulting Arboriculturist at any time issues are raised relating to the trees on site.
6. If at any time pruning works are required, permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998:2010 Tree Work – Recommendations (As updated).
7. The main contractor will ensure the build sequence and phasing is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position and undisturbed until completion of ALL construction works on the site.
8. The main contractor will be responsible for ensuring all site operatives including sub-contractors do not carry out any process or operation that is likely to adversely impact upon any tree on site.

#### 5. REMOVAL OF TEMPORARY TREE PROTECTION BARRIERS (TPBs)

1. The TPBs will be removed only upon completion of the construction.

**APPENDIX MS(i)**

Figure 3 Examples of above-ground stabilizing systems



**APPENDIX MS(ii)**  
Site Personnel Induction Form

**Name:**

**Site Address:**

**Date:**

Declaration	Tick to Confirm
I have read and understand the Arboricultural Method Statement and the requirements to be employed / actioned at the site regarding tree protection.	
I understand that all tree protection measures (fencing and ground protection) must not be moved or disturbed throughout the development project without prior agreement with the Consulting Arboriculturist.	
I understand that certain operations must only be undertaken under supervision of the Consulting Arboriculturist or a suitably qualified Arborist and/or must not be undertaken without their approval.	
I acknowledge that any concerns I have regarding the protection of trees at and adjacent to the development site will be brought to the attention of the Site Manager/Supervisor.	
I acknowledge that I must not cause direct or indirect damage to any on site or neighbouring tree, either above or below ground level during the course of my daily operational duties.	

**Signed:**.....

APPENDIX 4

TREE PROTECTION BARRIER  
SPECIFICATION

1 page only

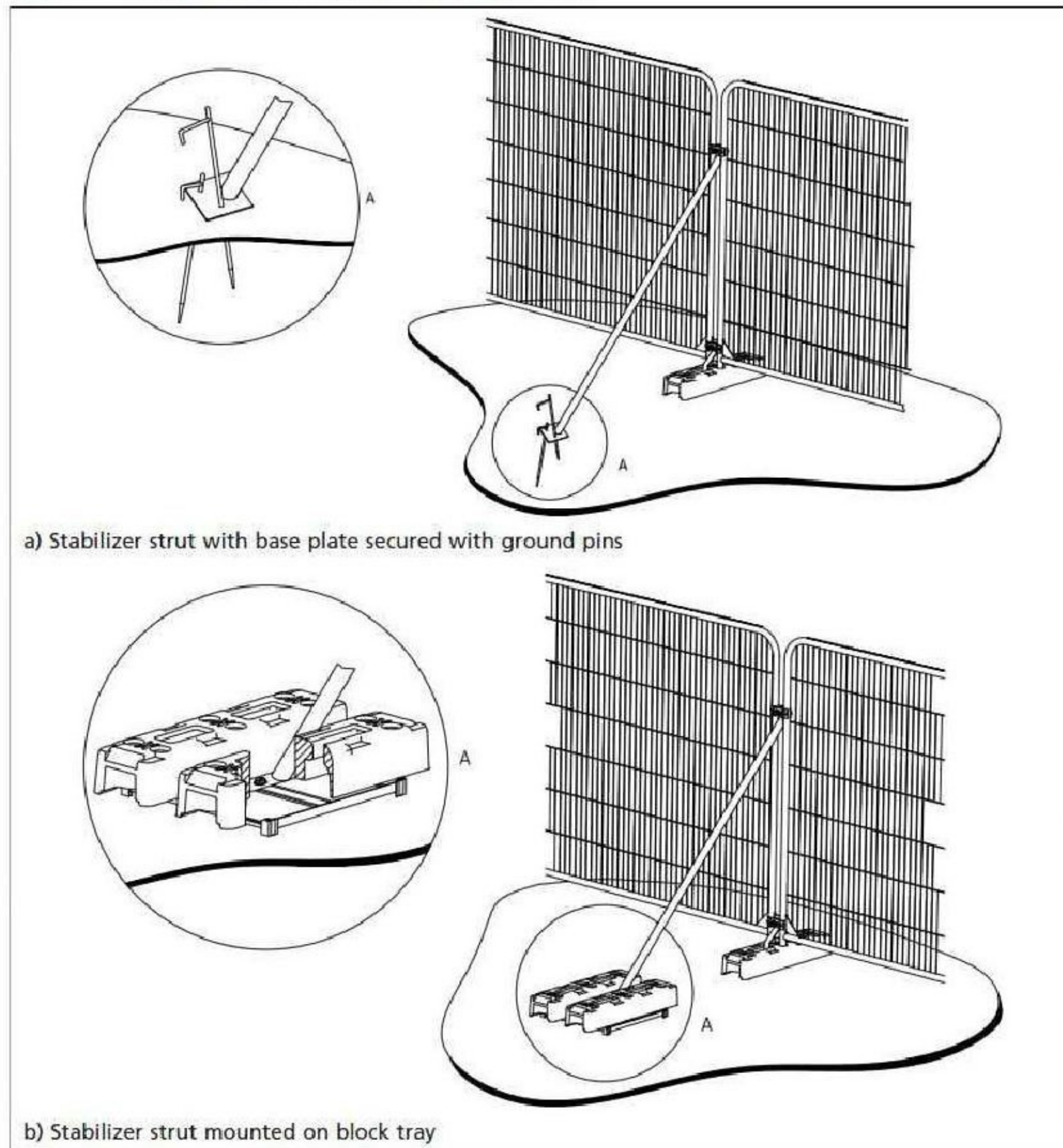
## TREE PROTECTION BARRIER SPECIFICATION

The Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) enclosed by temporary protective fencing must:

1. Be erected prior to any site works, demolition or construction works, delivery of site accommodation or materials and must remain for the duration of the demolition/construction works. All-weather notices should be attached to the barriers with the following wording: **“CONSTRUCTION EXCLUSION ZONE – NO ACCESS”**
2. Be protected by temporary protective fencing and other measures as specified and as defined by area (m<sup>2</sup>) on the drawings (Tree Protection Plan - TPP).
3. Preclude the storage or tipping of all materials and substances, in addition, toxic substances such as fuels, oils, additives, cement, or other deleterious substances within 5.0 metres of an exclusion zone.
4. Any incursion into the Root Protection Area (RPA) and Construction Exclusion Zone (CEZ) as indicated on the Tree Protection Plan (TPP) must be by prior arrangement, following consultation with the Local Planning Authority.

### Temporary Tree Protection Barrier (Specification taken from BS:5837 -2012)

Figure 3 Examples of above-ground stabilizing systems



## APPENDIX 5

### OUTLINE CURRICULUM VITAE AND PROFESSIONAL EXPERIENCE

Russell Ball BSc. (Hons.), P.G. Dip. LM, CBIol., MSB.  
Chartered Biologist

**Qualifications**

- BSc. (Hons.) Botany (Manchester University).
- Post Graduate Diploma: Landscape Management (Manchester University).
- Royal Society of Biology **Chartered Biologist** (since 1995).
- International Society of Arboriculture **Certified Arborist** No. UI 1287A (2017)
- *LANTRA* Approved **Professional Tree Inspector** (Ref: HO00178227 504187)
- International Society of Arboriculture **Qualified Tree Risk Assessor** (ID: 2148)

**Professional Experience (1984-2012)**

- Tree Works Contractor.
- Harrow Council: Assistant Tree Officer (Parks Dept.)
- London Tree Officers Association: Executive Officer.
- International Society of Arboriculture (European office): Senior Executive.
- Arbol Euro Consulting: Technical Director (**Madrid, Spain**).
- Harrow Council: Principal Tree Preservation (TPO) Officer. During my employ with Harrow Council I served on the Executive Committee of the "*London Tree Officers Association*".
- Arbol Euro Consulting Ltd: Technical Director (**London, UK**).

**Professional Memberships**

- International Society of Arboriculture (ISA). President of the ISA UK/I Chapter (2010-2012).
- Arboricultural Association
- Consulting Arborist Society
- Royal Society of Biology
- Royal Horticultural Society (Chelsea Flower Show *Silver-Gilt* medal Winner: *Rainforest Belize* – 1996)

**Contact Details**

- Mobile: 078844 26671
- Email: [russell@arboleuro.co.uk](mailto:russell@arboleuro.co.uk)



## HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS = MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE & DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, N = NORMAL
ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837 CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION: SUB CATEGORY REFERS TO ARBORICULTURAL (1), LANDSCAPE (2) & CULTURAL/CONSERVATION VALUES (3).
BS 5837 RPA:	ROOT PROTECTION AREA BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M <sup>2</sup> )
BS 5837 RADIUS:	PROTECTIVE DISTANCE RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE CEZ) AND PROTECTIVE BARRIER

**TREE SURVEY SCHEDULE**

**2014 © ARBOL EURO CONSULTING LTD.**

<b>SITE:</b>	16 Sunset View Barnet EN5 4LB
<b>CLIENT:</b>	MR M. WEISS
<b>BRIEF:</b>	CARRY OUT A PHASE II ARBORICULTURAL IMPACT ASSESSMENT ON THE APPROVED DEVELOPMENT AT THE ABOVE SITE.

<b>SURVEYOR:</b>	R. BALL
<b>ASSESSMENT DATE:</b>	19/07/21
<b>VIEWING CONDITIONS:</b>	SUNNY - CLEAR
<b>JOB REFERENCE:</b>	101 631

PAGE: 1 of 2

TREE HEDGE GROUP NO.	SPECIES (COMMON NAME)	AGE RANGE/ LIFE STAGE	HEIGHT (m)	RADIAL CROWN SPREAD (m)				CROWN CLEARANCE & DIRECTION OF GROWTH (m)	STEM/ MULTI-STEM* DIA. (mm)	VITALITY	COMMENTS/STRUCTURAL MORPHOLOGY	PRELIMINARY MANAGEMENT	CATEGORY & SUB-CATEGORY GRADING BS 5837	BS 5837 RPA RADIUS (m)	BS 5837 RPA (m <sup>2</sup> )
				N	E	S	W								
S1	Portuguese Laurel	M	7.0	1.3	1.3	1.3	1.3	1.8	Est. Av. 120 x 12	N	Well-managed boxed high-hedging that provides important public visual amenity in the immediate locale	None at time of survey (NATS)	B2	4.8	67.5
T1	Ornamental Apple	Y	1.7	0.3	0.3	0.3	0.3	0.2	20	N	Newly planted (presently insignificant) fruit tree	NATS	C1	0.24	0.18
T2	Bay	EM	7.5	1.7	1.7	1.7	1.7	1.7	* 130; 110	N	Average crown form – provides some useful screening of the studio	NATS	C1	2.1	13.1
T3	Hawthorn	EM	3.5	1.2	1.2	1.2	1.2	1.4	* 90; 80; 70; 60	N	Pyramidal unnatural crown form	NATS	C1	1.8	10.4
T4	Norway Maple	EM	9.0	4.5	3	3	3	1.9	220	N	Suppressed by T5 and also T6	NATS	C2	2.6	21.9
T5	English Yew	EM	9.0	3.5	3.5	3.5	3.5	2.2	430	N	Dominate crown form	NATS	B1	5.1	83.6
T6	<i>Sorbus</i>	OM	7.0	-	-	-	-	-	-	P	Highly suppressed tree (competition from T5). Northern crown is dead (no visual tree assessment signs as to the cause). Remainder of crown is sparse. Evident that T6 is entering into a spiral of decline	Consider tree removal within 12 months. (NB Tree is within a Conservation Area). Importantly, this will allow the western crown section of T5 to develop	U	-	-
C1	Mix of Clematis; Rose; Honeysuckle and <i>Solanum Crispum</i>	-	-	-	-	-	-	-	-	-	Climbers growing on a linear garden pergola. See appended photo	NATS	-	-	-



Pergola with C1 as viewed along the garden path looking due south with the *Solanum Crispum* climber in the foreground  
**NB** Conifer trees along the neighbouring fence boundary now removed (advised with Barnet Council Consent)



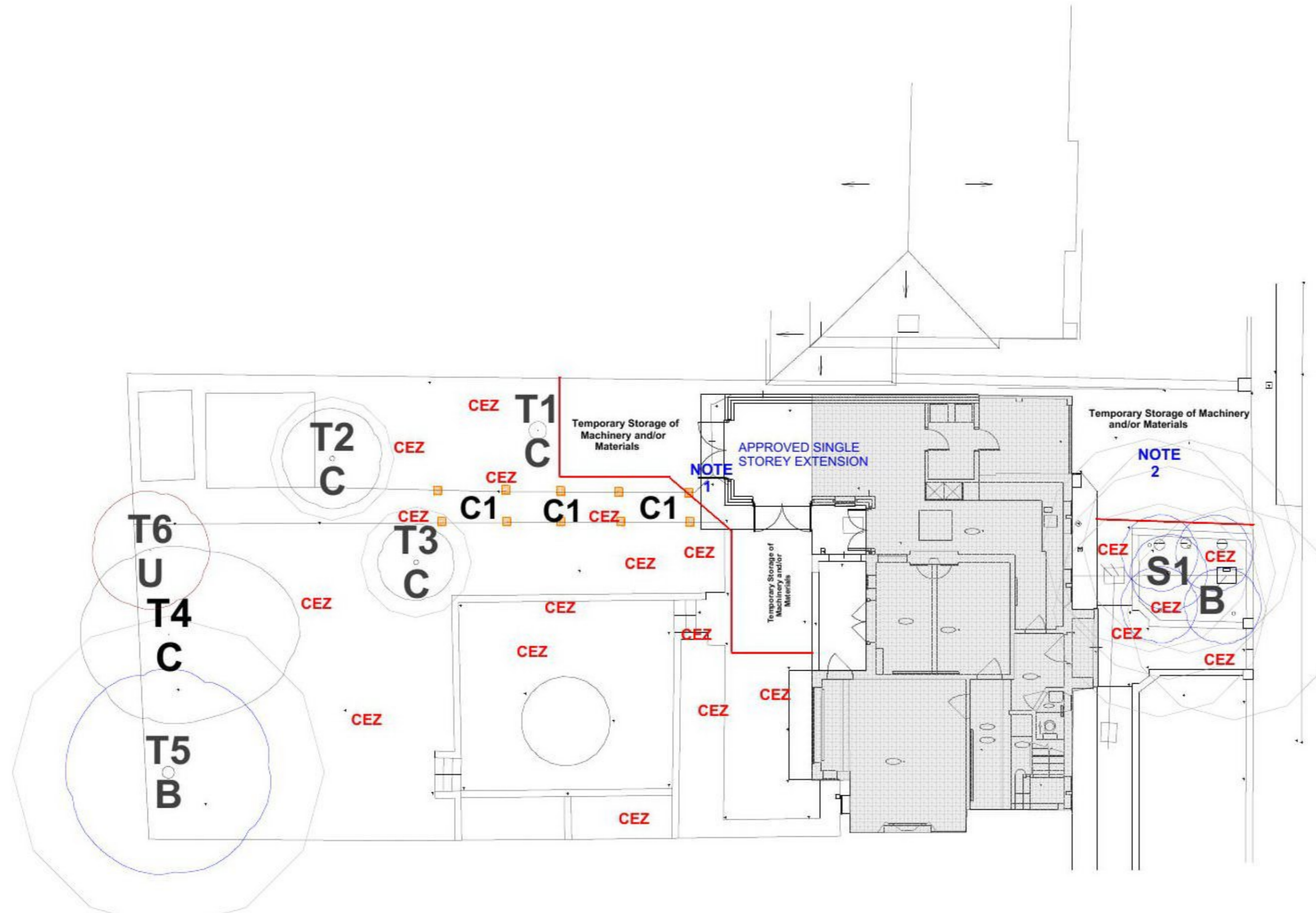
SCALE: 1:200 @ A3	DATE: 7/20/2021
MAP FILENAME: 101 631	
<small>Plan Technology Services Ltd. Email: info@arbolconsulting.co.uk Maps based on Ordnance Survey MasterMap or 1:25000 MB scale data © All Rights Reserved. All Rights Reserved. © Crown Copyright</small>	



The original of this drawing was produced in colour - a monochrome copy should not be relied upon

**NOTES**

1. To facilitate development the furthest NW pergola post will be removed and the Solanum Crispum climber transplanted.
2. Front Drive: no account will cement or other noxious substances (e.g. diesel or solvents) be mixed/prepared or stored in this area.



**THIS TREE PROTECTION PLAN MUST BE READ IN CONJUNCTION WITH THE ARBORICULTURAL METHOD STATEMENT THAT ACCOMPANIES THE TREE REPORT (IN APPENDIX 3)**

**KEY**

- Root Protection Area (RPA)
- Crown Spread
- BS: 5837 Retention Grade
- Temporary Booted & Braced Tree Protection Barrier (TPB)

**CEZ = Construction Exclusion Zone**

