

# Trees and Construction

## BS5837 Tree Survey, AIA & AMS

**Site:** 3 Akenside Road, London, NW3 5BS

**Ref:** 17238/A1\_AIA

**Client:** Mrs Sarkisian



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**- August 2017 -**

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<b>Revision</b>	<b>Description</b>	<b>Date</b>
_AIA	Scheme review & report release	15/08 /2017

## 1. INTRODUCTION

1.1 **Instruction:** This advice has been prepared for Mrs Sarkisian (hereafter; client) and is in respect of tree (arboricultural) related planning considerations at 3 Akenside Road, London, NW3 5BS (hereafter; site).

As the proposal relates to development works at site, the advice herein is produced in accordance with the British Standard 5837 : 2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter; BS5837).

1.2 **BS5837:** The scope of BS5837 is to provide guidance on how trees and other vegetation can be integrated into construction and development design schemes. The overall aim is to ensure the protection of amenity by trees which are appropriate for retention.

1.3 **Scope of this advice:** This assessment is produced in accordance with BS5837. This objective is to systematically assess the proposed scheme and provide suitable recommendations regarding the potential impact on trees and vice versa with associated tree protection recommendations.

1.4 Following instruction the consultant surveyed the site on the 5th July 2017 where a site walkover and BS5837 tree survey were carried out; all trees on and around the site were surveyed from ground level and plotted using the supplied site plan.

1.5 This advice is subject to caveat at Appendix I, outlines relevant terms and definitions at Appendix II and constitutes the findings of the preliminary site assessment and associated arboricultural recommendations.

1.6 The survey data and site observations used the supplied site plan to illustrate the surveyed trees in plan format as a 'Tree Constraints Plan' (hereafter; TCP). The TCP illustrates the surveyed trees and has an overlay of the proposed scheme for review. The TCP is then used as a base layer for the appended 'Tree Protection Plan' (hereafter; TPP); the TCP, TPP and tree survey data table are at Appendix III.

## 2. SITE INFORMATION & TREE ASSESSMENT

2.1 The site comprises a residential property, with a small entrance front garden directly off Akenside Road, stairs up into the upper ground floor entrance, and access to the rear garden through the property then at lower ground floor level.

When facing the property, it adjoins the residential property to the left, has a side walkway to the right with a right side residential neighbour, and fenced boundaries to the rear garden.

The rear garden has a hard surface side walkway, hard surface patio, central lawn with shallow side shrub borders and a raised planting bed to the rear boundary; the surveyed trees are within the rear garden and the close surrounds as T1 - T7 and G1.

2.2 **Proposal:** The client proposes to renovate and refurbish the existing property, construct a rear extension and install an abutting rear garden deck to the property.

This is confirmed as per the client's supplied plans via AR Architecture, of those which is most notably considered and referenced herein is the 'proposed floor plan' and 'proposed roof plan' ref: 17004\_A-3.200.100\_R0.

2.3 Trees -

2.3.1 The site requires consideration from an arboricultural perspective due to the presence of trees within and around the rear garden; these trees are clear of the existing property, but are within impacting distance of the potential construction workers' accessible area. Further, two offsite trees (T3 and T6) are close to and overhanging the site boundaries respectively and are therefore included for consideration.

2.3.2 The tree survey and objective assessment resulted in BS5837 quality/retention categories 'B - moderate' and 'C - low' being attributed to the surveyed trees, as well as 'U - poor' for the declining T2a and the diseased T7.

2.3.3 It is understood that the site is contained within a the Fitzjohns Netheral Conservation Area as per London Borough of Camden Council's [online Conservation Area resource](#).

No council contact has been instructed and hence confirmation as to whether the surveys trees are protected by Tree Preservation Order (TPO) was unavailable at the time of this writing - please advise if this detail is at your disposal and/or confirm whether a TPO check is to be made on your behalf as part of this advice.

### 3. FINDINGS & RECOMMENDATIONS

3.1 The following information, as with the prior contents of this report, should be read with the appended tree data table and tree constraints plan (17238/A1/TCP/01); this information was provided as our initial advice and is supplemented herein with a review of the scheme as the AIA (section 4) and the AMS 'considerations' (section 5).

#### 3.2 General Considerations for Tree Retention / Removal

3.2.1 Based on the offsite location of T3 and T6, their retention and protection is assumed as part of the scheme. This will include consideration for the trees' stems, crowns and RPAs, as further noted hereafter and considered within the AIA at s.4.

NOTE: Both stems of T3 and T6 are clear of the site, with encroachment of the boundary noted from the basal flare of T3. However, working or proposed construction extents which mimic or improve on the clearance from the existing garden room will ensure no stem contact and no change of circumstance for the offsite trees.

NOTE: The crowns of T3 and T6 are both actively managed, with no canopy overhang from T6, and a notable clearance from ground level to the canopy of T3 of approx. 10m+. Thus, no canopy conflicts are anticipated, with protection of the offsite trees' crowns simply achieved by designed avoidance.

NOTE: The standard circular RPAs of T3 and T6 are illustrated on the TCP. The RPA of T3 extends well into the site, which does have root growth influences and possible root growth restrictions from level changes (garden room and concrete slab). However, root growth is anticipated within the garden and the standard circular RPA is considered a fair and likely representation of T3's root growth extents. Likewise, the root growth extents from T6 are considered likely, with only a small RPA portion illustrated on the site. Hence, consideration is required for the offsite trees' RPAs.

3.2.2 T2a and T7 are both surveyed as 'U - poor', due to decline and dieback of T2a, disease of T7 and limited remaining useful life expectancy of both trees. As such, neither T2a nor T7 should be considered a constraint to the design, and their removal would be a suitable consideration for H&S tree risk management as well as in conjunction with a proposed scheme for the site; direct replacement tree planting will serve to mitigate for the removal of T2a and T7 where proposed in conjunction with a scheme.

3.2.3 Due to the small scale ornamental species (T1), small current scale (T2b, T5) or limiting spatial conditions for future growth (T4), these trees are categorised as 'C' low. Although these trees should not significantly constrain a scheme, they are suitable for retention which is encouraged for retained garden maturity and amenity from trees.

NOTE: The retention and protection of the 'C' category trees is best achieved by designed avoidance of the crowns and RPAs, with sensitive working methods where they are

encroached. Where the removal of 'C' category trees is proposed in conjunction with a scheme, replacement tree planting detail will be required within a landscape scheme. This will need to be in considered locations, suitable species and with a planting specification and maintenance programme.

### 3.3 General Consideration for Site Operations

3.3.1 The process of site operations will still be important to confirm as a construction management plan / statement, i.e. to demonstrate the pedestrian only garden access, delivery and storage of materials, sensitive site preparations and protected trees etc.

3.3.2 As a basis for tree protection the following points will need to be considered:

- Tree, vegetation and shrub clearance and any agreed pruning works prior to works commencing by a suitably qualified arboricultural contractor;
- Induction of construction personnel regarding the agreed sensitive working methods, design details for tree protection and sensitive working areas;
- The storage of building sand / chemicals clear of trees and conditions to ensure no contamination / run-off into soils on site, i.e. polythene lined storage area.

### 3.4 General Overview for Tree Protection Considerations

3.4.1 The considerations for retained trees need to be addressed in order to ensure their protection. This is to account for the potential impact on retained trees and their growing environment from the proposed development and vice versa (these follow).

#### Tree Works

Proposed tree / shrub clearance which is necessary to facilitate the scheme are to have considered alternatives but be justifiable in the context of the site layout, and are to be mitigated by a landscape scheme with replacement planting.

#### Tree Crowns

Consideration is required for existing and newly planted trees whereby a scheme will need to take account of trees reaching their full growth potential. It is always prudent to provide adequate clearance from a tree's current crown for future growth.

#### Root Protection Areas (RPAs)

It is possible to undertake construction activities within trees' RPAs which does require greater attention to tree protection, foundation designs, phasing of works etc. If it is proposed to undertake works within these areas, more specific detail is required with an application to demonstrate the feasibility of said proposal.

NOTE: The RPAs of T3 and T6 cover the largest proportion of the surveyed rear garden space, and T1, T2b, T4 and T5 within the side borders. On this basis, and knowing of possible root growth influences, it is recommended that the existing soil levels are retained and protected within the RPAs unless confirmed otherwise by monitored and recorded tree root investigations, i.e. the design needs to account for RPAs by design.

#### Demolition/Excavation Works

Any removal of existing built structures (including walkways, retaining walls etc.) or hard surfacing will need to be undertaken with great care where this occurs within or near to the anticipated rooting areas of retained trees.

Said works should adhere to the RPA restrictions, be undertaken manually with hand held non mechanical tools and ensure that existing ground levels are retained.

NOTE: The RPA of T1 has a small proportion of existing hard surface. If this is proposed for removal or alteration within the scheme, the existing hard surface will need to be removed manually with hand held tools in order to avoid ground compaction and possible root impact or loss, and the existing soil level will need to be retained.

#### Hard Landscape Works

As with previously mentioned arboricultural restrictions to demolition/construction, the proposed works should avoid retained trees' RPAs. However, where ground works are proposed within RPAs, construction methods [for hard surfacing, walls etc.] should retain the existing ground levels, be undertaken sensitively and using a no dig design.

Hence, the conversion of soft surfaced areas within RPAs to hard surfaced walkways, patios etc., should retain existing soil levels and install surfaces manually (preferably to be permeable for root availability of water and nutrients).

3.4.2 For proposed tree removals, new tree planting is to be integrated into a landscape scheme. The new trees should be of a suitable volume, species, scale, in suitably prepared planting locations with adequate space for future growth and development and to enhance the site's long term amenity contribution.

NOTE: Further to the above information which is provided as an overview of considerations for trees for design guidance, the proposed scheme (see; TCP) is reviewed hereafter at s.4 for an Arboricultural Implications Assessment (hereafter; AIA).

#### 4. SCHEME / IMPLICATIONS ASSESSMENT

4.1 For the purpose of this assessment, the proposed scheme is considered. This takes account of anticipated tree impacts, tree protection options and potential alterations to account for arboricultural features. As per s.1.6 and s.2.2 herein, the TCP shows the proposed site plan for review hereafter.

4.2 *Location of Proposed Extension* - the footprint is well clear of the surveyed trees' crown and RPAs with no conflicts or encroachments. The trees can therefore be effectively protected by installation of a temporary barrier fence during the development to exclude the stems, crowns and RPAs from the active construction area.

4.3 *Location of Proposed Deck* - the footprint of the property's abutting deck is also clear of the surveyed trees' crowns and RPAs. T1 is the closest tree, which will have an active improvement to the RPA and growth conditions by the removal of the existing hard surface. The deck installation will be manual with support posts and beams between, thus no risk to tree impact. However, it is recommended that a cautionary approach be taken towards the cement handling; when pouring the support post footing, the hand excavated pits will be lined to prevent cement leaching into surrounding soils.

4.4 *Removal of Hard Landscape* - the removal of existing hard surf patio / path is partly within the RPA of T1. This has the potential for tree root impact and will need to be undertaken manually, retain the existing soil levels, install the above mentioned deck manually and complete soft landscape reinstatement, enhancement and planting.

4.5 Based on the above review, no tree works are considered necessary to facilitate the scheme and no tree works are therefore proposed herein.

NOTE: The removal of T2a and T7 is considered a suitable consideration for H&S tree risk management. This does not form part of this scheme, but may be addressed as a s.211 tree works notice to the council (pending client consideration).

4.6 Further to the above, the tree protection methods considered suitable for the surveyed trees are outlined as Arboricultural Method Statement 'considerations' at s.5; these are intended to demonstrate that the scheme is reviewed and considered achievable in line with the guidance and recommendations of BS5837.



## 5. METHOD STATEMENT 'CONSIDERATIONS'

### 5.1 Arboricultural Construction Restrictions

5.1.1 The following restrictions are considered relevant for tree protection purposes which are illustrated on the appended Tree Protection Plan:

- a) There are no tree works proposed to facilitate the scheme and no tree works specified within this arboricultural method statement, hence, no tree works (or leaning against or attaching of objects to a tree) are permitted unless agreed in writing by the council.
- b) A secure section of Protective Barrier Fencing (hereafter; PBF) is to be installed around T1 and across the rear garden to exclude all trees from the active working area; PBF will be installed prior to site works, material delivery or construction commencing.
- c) Following the installation of PBF the fenced off section is to act as a Construction Exclusion Zone (hereafter; CEZ).
- d) No chemicals / materials are to be transported / stored / used / mixed within the CEZ, nor are these operations to occur on site without proper waste management by way of a prepared store location with polythene (or other) base liner to avoid leaching.
- e) No fires are to be lit and no machinery, plant or vehicles are to be washed down within 10m of the tree's canopy or in the CEZ.
- f) During construction processes the CEZ and RPAs will not be breached, i.e. no surface works without the prior advice of the consultant and the consent of the council; only the manual removal of the existing hard surface from the RPA of T1 is permitted, i.e. no mechanical digging or scraping is permitted within the CEZ or in a RPA.
- g) Only following construction and hard landscape completion can the PBF be removed and any remaining approved landscape works then be completed; pedestrian access only, retained and protected soil levels for the trees' RPAs and works undertaken manually with non-mechanical hand tools).

### 5.2 Protective Barrier Fencing (PBF) Specification

5.2.1 Barrier fencing is to be installed (and signed off by way of arboricultural supervision) prior to any site works, material delivery or construction commencing. It is illustrated on the Tree Protection Plan (TPP) to ease installation and is to remain for the entire duration of construction processes unless otherwise agreed in writing by the council.

5.2.2 The PBF is to consist of a series of Heras panels secured in place by driven scaffold posts or a scaffold frame to ensure that the fencing lines are well braced to resist impact and prevent access to the RPAs of retained trees as the CEZ.

### 5.3 Ground Works within RPAs (hard landscape removal)

- 5.3.1 For the removal of existing hard surfaces from the RPA of T1, the excavations must:
- Be undertaken after construction completion, so as to allow the removal of PBF;
  - Be undertaken manually with hand held tools to break out / lift and remove the existing hard surface within the RPA of T1;
  - Be undertaken manually with hand held tools to remove the sub-base;
  - Stop the excavations when the original soil level is reached, i.e. to excavate no further than the existing garden's turf level; and
  - Apply the approved landscape scheme finish, i.e. mulched border, turf etc.

### 5.4 Ground Works close to RPAs (new deck installation)

- 5.4.1 For the installation of new decking abutting the property extension, the works must:
- Follow an approved landscape plan showing type, support post location and manual installation of the posts and deck surface;
  - Undertake the works manually with only pedestrian access to the rear garden;
  - Hand excavate the support posts and line the excavated pits with polythene or other material to prevent cement leaching into soils; and
  - Install the beams and decking atop the installed support posts.

### 5.5 Additional Recommendations

- 5.5.1 This report is produced to demonstrate that the scheme is reviewed in respect of the arboricultural constraints and is considered achievable in line with the guidance of BS5837. The recommendations herein are to be approved by the council as a means of authorised tree protection of which the planning team are to have access to a copy.
- 5.5.2 This report is released to the client and architect to be distributed at their discretion. The consultant is available for any queries relating to this report and/or trees.

**This concludes our advice.**

## Appendix I

### Caveat

Any and all information supplied to Indigo Surveys Ltd by/on behalf of the client is assumed to be accurate unless otherwise informed. | This advice is limited to the observations made on the date of inspection as detailed herein and any deletion, editing or alteration will result in the advice being null and void in its entirety. | This advice in its entirety may be deemed null and void if remedial works are undertaken on any area of the site, on or after the date of the survey. | No liability is assumed by the author or by Indigo Surveys Ltd for any misuse, misinterpretation or misrepresentation of this advice. | This advice is not valid in adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events. | No responsibility is assumed either by the author of this advice or by Indigo Surveys Ltd for any legal matters that may arise as a consequence. | Neither the author nor Indigo Surveys Ltd will be required to attend court or give testimony as part of this agreement. | The responsibility for any works undertaken on the basis of the recommendations of this advice does not form part of this agreement.

## Appendix II

### Terms and Definitions

*“Arboriculturist”* - person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.

*“Competent Person”* - person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.

*“Topographical survey”* - an accurately measured land survey undertaken to show all relevant existing site features. *A method of carrying out topographical surveys is given in RICS specification Surveys of land buildings and utility services at scales of 1:500 and larger.*

*“BS5837 Tree survey”* - should be undertaken by an arboriculturist to record information about the trees on or adjacent to a site. The results of the tree survey, including material constraints arising from existing trees that merit retention, should be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.

*“Tree categorisation method”* - trees should be categorised in accordance with the BS5837 cascade chart by an arboriculturist. This is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring.

*“Root protection area (RPA)”* - layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority, shown as an arboricultural constraint in m<sup>2</sup>. The radius is calculated using the BS5837 calculation method. An arboriculturist may change the shape of an RPA but not reduce its area.

*“Arboricultural implications assessment”* - a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

*“Arboricultural method statement”* - methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.

*“Tree protection plan”* - a scale drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.

## Appendix III

**Data Table:** As appended (BS5837 Tree Survey Key & Table)

**Tree Constraints Plan:** As appended (17238/TCP/01)  
(TCP / Scheme Overlay)




**Tree Protection Plan:** As appended (17238/TPP/01)  
(Application Stage)

TREE SURVEY IN ACCORDANCE WITH BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'															
CLIENT: Mrs Sarkisian			PROJECT REF: 17238					SITE:							
CONTACT: Karine Sehn (Ar-Arch)			SURVEY DATE:					ARB CONSULTANT: Andrew Turnbull FDSc MArborA							
TREE REF. #	SPECIES	AGE	HEIGHT (in m)	CANOPY (in m) N - S - E - W			STEM (in mm)	RPA (in m)	CLEARANCE (in m)	1st BRANCH (in m)	VITALITY	LIFE EXPEC.	NOTES	BS CAT.	MANAGEMENT
T1	Golden Chain; Laburnum, Fabaceae	SM / M	4	2	3	2.5	2	155	1.9	1	basal union	Normal	20 - 40	C 1	
T2a	Golden Chain; Laburnum, Fabaceae	M	8	2.5	2	0	3	238	2.9	5	basal union	Poor	< 10	U	Recommendation for H&S tree risk / garden management - fell to ground level and plant replacement tree.
T2b	Golden Chain; Laburnum, Fabaceae	SM	9	1.5	1.5	1	1	160	1.9	6	2m - union	Normal	20 - 40	C 3	
T3	Lime	M	18	4	5	4	3	850 *	10.2	10 +	4m - union	Fair	20 - 40	B 3	
T5	Purple Plum; Prunus, Rosaceae	SM / M	6	6.5	1.5	1.5	1	188	2.3	2	1m - union	Fair	20 - 40	C / 3	
G1	Offsite: Mulberry and Elder	M - LM	6 - 8	/	/	/	/	400 *	4.8	5 +	n / a	Fair / Poor	10 - 20 / 20 - 40	C / 3	
T6	Sycamore; Acer, Aceraceae	SM / M	12	3	3	3	3	675	8.1	n / a	n / a	Fair	20 - 40	B 3	
T7	Pear; Pyrus, Rosaceae	LM	10	4	4.5	0.5	6	596	7.2	2.5	3m - West	Fair	< 10	U	Recommendation for H&S tree risk / garden management - fell to ground level and plant replacement tree / or / (if client wishes to retain tree) heavy crown reduction and monitor tree's condition.
T4	Purple Plum; Prunus, Rosaceae	Y / SM	5.5	1	0.5	1.5	0.5	120	1.4	2	1.5m - multi stem union	Fair	10 - 20	C 3	Not suitable for retention in proximity to the existing garden room - so, remove and replace elsewhere / or / increase clearance between tree stem and new structure.





  

TREE SURVEY 'KEY' - BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'	
<b>TPO/CA</b>	- On client request: presence of Tree Preservation Orders (TPO) / site location within a Conservation Area (CA) & date checked;
<b>TREE REF. #</b>	- Tree reference number: tag or plan number (T - individual tree, G - group of trees/shrubs, H - hedge);
<b>SPECIES</b>	- Genus, species and/or common name;
<b>AGE</b>	- Age classification (NP - new planting, Y - young, EM - Early-Mature, SM - semi mature, M - mature, LM - late mature, OM - over mature);
<b>HEIGHT (in m)</b>	- Approximate height of tree in metres;
<b>CANOPY (in m) N - S - E - W</b>	- Approximate branch spread in metres of the four principal compass points;
<b>STEM (in mm)</b>	- Stem diameter in millimetres: measured in accordance with s.4.6 of BS5837;
<b>RPA (in m)</b>	- Circle radius of the Root Protection Area: calculated using the stem diameter (single/multiple stem variant, as outlined within BS5837);
<b>CLEARANCE (in m)</b>	- Crown clearance in metres above the adjacent ground level;
<b>1ST BRANCH (in m)</b>	- Clearance in metres to first significant branch and direction of growth (where relevant);
<b>VITALITY</b>	- Physiological condition typically gauged from canopy cover and annual extension growth (good, fair, poor, dead);
<b>ESTIMATED REMAINING CONTRIBUTION</b>	- Approximate number of years a tree will continue to contribute without the need for oppressive arboricultural intervention, categorised in years as <10, 10-20, 20-40 and >40;
<b>NOTES</b>	- Structural and physiological condition observations;
<b>BS CAT.</b>	- BS5837 tree quality assessment category: resulting from structural/physiological condition and remaining contribution (approximate useful life expectancy); - Standard retention category U: in such a condition that any existing value would be lost within 10 years; - Standard retention category A: high quality and value, in such a condition as to be able to make substantial contribution of 40+ years; - Standard retention category B: moderate quality and value, in such a condition as to make a significant contribution of 20+ years; - Standard retention category C: low quality and value, currently in adequate condition to remain until new planting could be established 10+ years; - Standard retention sub-category, mainly due to: 1- Arboricultural values, 2- Landscape values, 3- Cultural values, including conservation;
<b>MANAGEMENT</b>	- Preliminary management recommendations (as appropriate);
<b>***</b>	- Within the survey schedule denotes an estimate

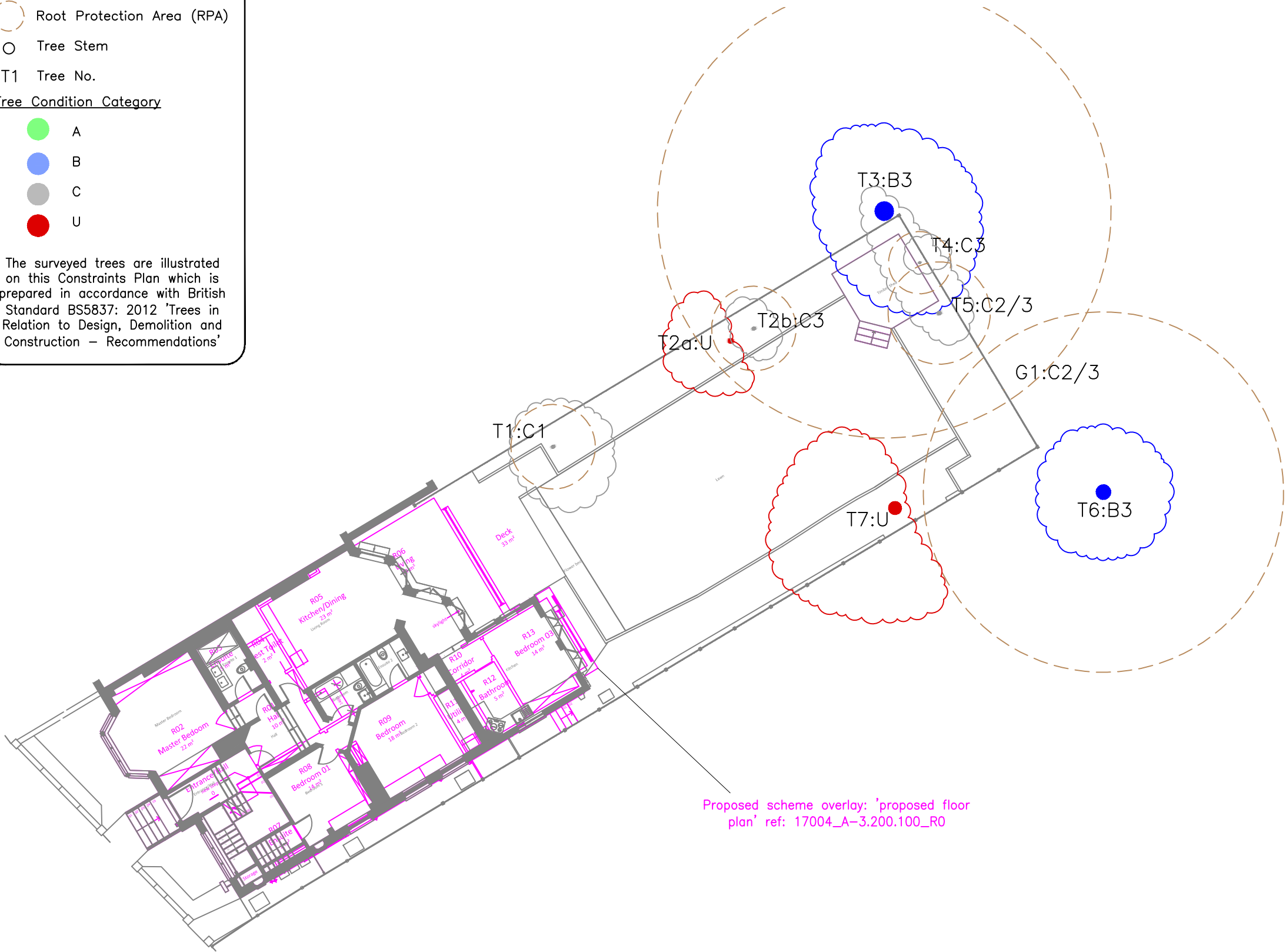
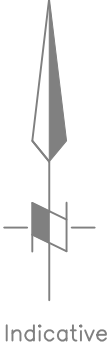
**KEY**

-  Tree Crown Spread
-  Root Protection Area (RPA)
-  Tree Stem
- T1 Tree No.

**Tree Condition Category**

-  A
-  B
-  C
-  U

The surveyed trees are illustrated on this Constraints Plan which is prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'



A	Proposed extension overlay for review	AT	TB	03/08/17
REV.	DESCRIPTION	DWN	CHK'D	DATE

CLIENT  
Mrs Sarkisian

PROJECT  
17238  
3 Akenside Road,  
NW3 5BS

TITLE  
Tree Constraints Plan  
(TCP / Scheme Overlay)

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RCK	07/07/2017	AT	10/07/2017			1:200



(Mail) Second Floor, 1 Hunter's Walk, Canal Street, Chester. CH1 4EB  
Telephone: 0333 123 7080 www.indigosurveys.co.uk

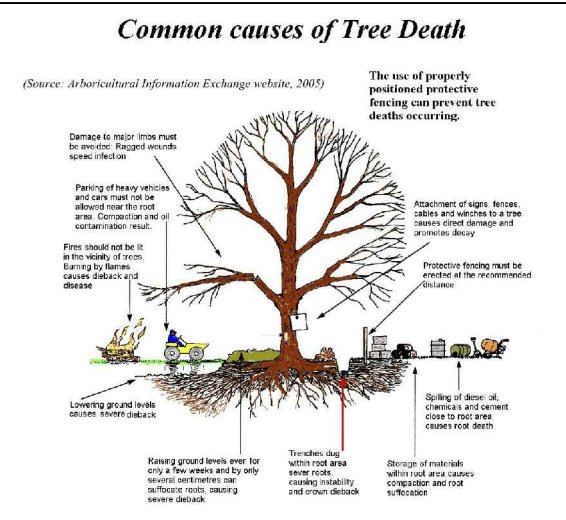
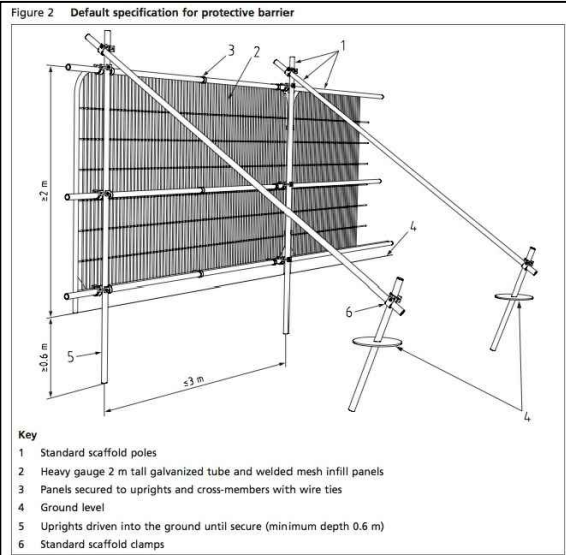
Drawing Number  
17238/TCP/01

A3  
REV. A

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Tree Protection Signage – Example

**KEY**

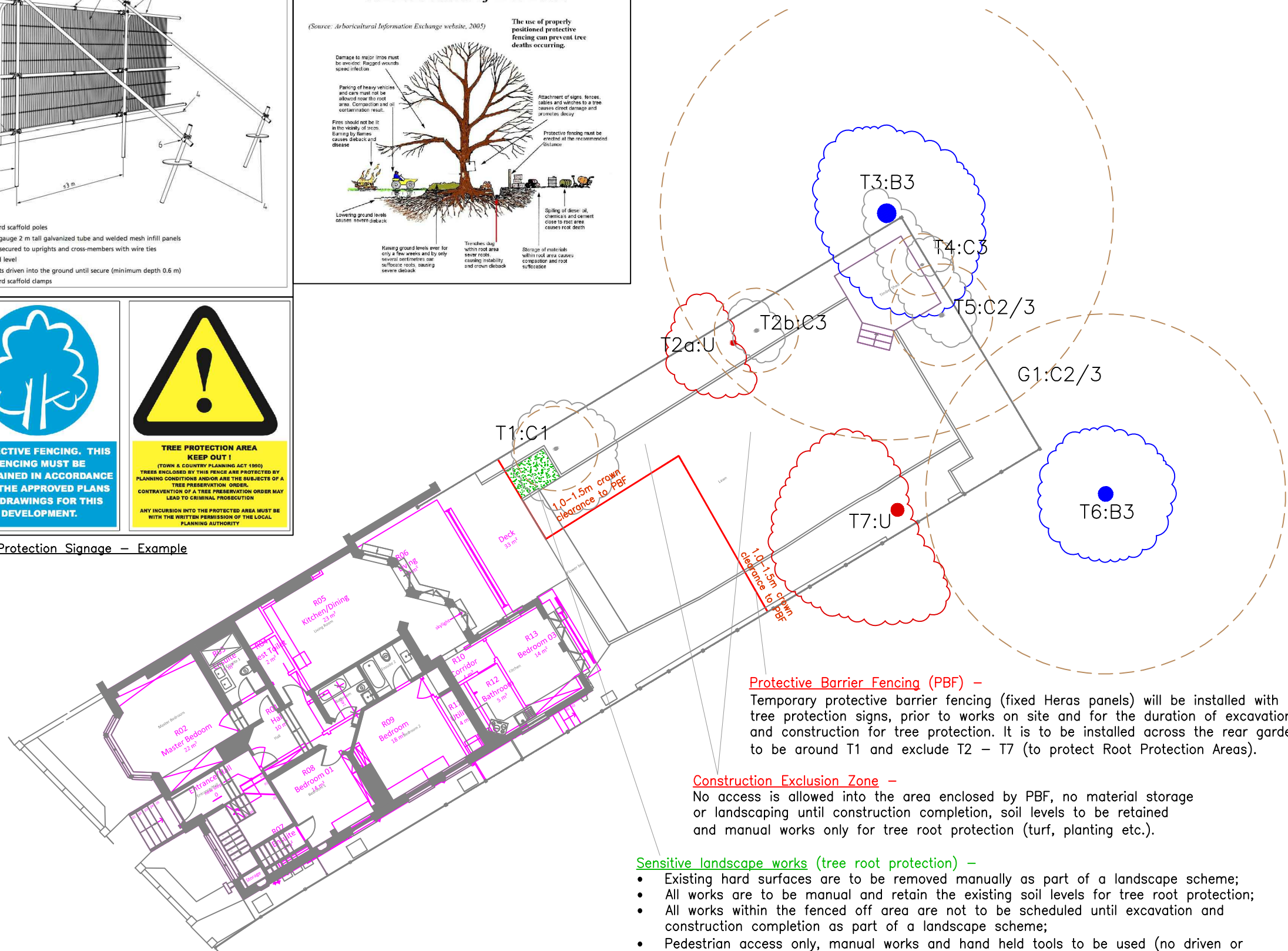
- Tree Crown Spread
- Root Protection Area (RPA)
- Tree Stem
- T1 Tree No.

**Tree Condition Category**

- A
- B
- C
- U

Indicative

The surveyed trees are illustrated as per the Constraints Plan as prepared in accordance with British Standard BS5837: 2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'



**Protective Barrier Fencing (PBF) –**  
Temporary protective barrier fencing (fixed Heras panels) will be installed with tree protection signs, prior to works on site and for the duration of excavation and construction for tree protection. It is to be installed across the rear garden to be around T1 and exclude T2 – T7 (to protect Root Protection Areas).

**Construction Exclusion Zone –**  
No access is allowed into the area enclosed by PBF, no material storage or landscaping until construction completion, soil levels to be retained and manual works only for tree root protection (turf, planting etc.).

**Sensitive landscape works (tree root protection) –**

- Existing hard surfaces are to be removed manually as part of a landscape scheme;
- All works are to be manual and retain the existing soil levels for tree root protection;
- All works within the fenced off area are not to be scheduled until excavation and construction completion as part of a landscape scheme;
- Pedestrian access only, manual works and hand held tools to be used (no driven or tracked machinery and no excavation).

/	Uses TCP/01_Rev.A as base layer	AT	TB	04/08/17
REV.	DESCRIPTION	DWN	CHK'D	DATE

CLIENT  
Mrs Sarkisian

PROJECT  
17238  
3 Akenside Road,  
NW3 5BS

TITLE  
Tree Protection Plan  
(Application Stage)

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
AT	04/08/2017	TB	04/08/2017			1:200

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

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