Trees and Construction

BS5837 Tree Survey Assessment

Site: 13 Glenmore Road,
London, NW3 4BY

Ref: 16336/A1_Rev.A_AIA

Client: Mrs Cristina Edge

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Arboricultural Consultant (Author):
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- November 2016 -

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Revision	**Description**	**Date**
/	First report release	21/11/2016
A	Review and final release to client	24/11/2016

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1. INTRODUCTION

1.1 **Instruction:** This advice has been prepared for Mrs Cristina Edge (hereafter; client), is based on the information referenced herein and is in respect of the tree related planning considerations at 13 Glenmore Road, London, NW3 4BY (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 advice has been produced in accordance with BS5837 and is intended to demonstrate the site's realistic arboricultural constraints which assisted the design process. The objective is to systematically assess and provide recommendations regarding the proposal's potential impact on trees and vice versa for construction.

1.4 Following instruction the consultant surveyed the site on the 17th October 2016. A site assessment and BS5837 tree survey were carried of one tree on site (T1) and two offsite trees (T2 and T3), i.e. all trees on and around the site.

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 site plan as supplied by the clients architect, 'AR Architecture'. The site plan was used to illustrate the surveyed trees in plan format as a Tree Constraints Plan (hereafter; TCP) which also illustrates the proposed scheme for review and consideration herein.

Further to the TCP / Scheme Overlay having been reviewed herein, the resulting tree works and protection methods for retained trees are then illustrated on the appended Tree Protection Plan (hereafter; TPP)

The tree sure data table, TCP and TPP are at Appendix III.

2. SITE INFORMATION & TREE ASSESSMENT

2.1 The site is a residential ground floor apartment with direct access off Glenmore Road, through the building and into the rear garden which is the subject of this advice.

The rear garden is only accessed via the property, it is bound to each side and the rear by the fences of the neighbour's residential gardens and is limited in soft planting.

The grounds are a mix of lapsed borders, now either empty or with Ivy overgrowth, and hard surfaces of a mixed block paving arrangement.

2.2 **Proposal:** The client proposes a scheme of internal 'ground floor' refurbishment and excavation of the 'basement floor' level to have a rear garden access with basement level opening and steps up to ground level.

The scheme includes new rear garden landscaping with a mix of hard surface installation and soft surface dress (mulch / gravel) and planting (low level shrubs etc.).

This is confirmed as the *'proposed plans'* ref: 16003_P200 (hereafter; proposed scheme) which shows both the proposed ground floor and proposed basement floor levels and is referenced / reviewed herein.

2.3 <u>The Trees</u> -

2.3.1 The site requires arboricultural consideration due trees being present on and around the site; T1 - T3 are within impacting distance of the site and neighbour's buildings, the site boundaries and rear garden spaces and hence the proposed construction area.

2.3.2 Site access was provided which enabled direct survey of T1, and a visible of T2 and T3 from a short distance. This tree survey and objective assessment resulted in BS5837 quality / retention categories of 'C - low' being attributed to the individual trees.

2.3.3 As above, three trees were surveyed and are categorised as 'C' for low quality. This is either due to the need for pruning to manage the canopy size having with a resulting limited form and remaining contribution (T1), due to their limited scale and contribution (T2), or due to their poor form and limited long term potential (T3).

2.3.4 During the survey, no inherent defects or decline to the trees was noted and hence they were considered suitable for retention and consideration in the short term. However, this assessment considers the wider impact of tree retention and the longevity of arboricultural considerations in relation to the proposed works.

2.3.5 It is understood that none of the surveyed trees are subject to protection by tree Preservation Order, but that the site is contained within a Conservation Area. Hence, all of the surveyed trees are afforded protection and intended works would need to be subject to prior notification to the LBO Camden Council's Arboricultural Dept.

3. FINDINGS & RECOMMENDATIONS

3.1 The following information, as with the prior contents of this report, are to be read with the appended tree data table and TCP (16336/TCP/01). This advice serves as an objective overview of the arboricultural considerations and a scheme review.

3.2 For the purpose of this assessment the '*proposed scheme*' is reviewed. Further to the arboricultural comments below, and in reference to the proposed scheme, comments are made where relevant as '*NOTE*'.

NOTE: This review accounts for necessary tree works, necessary / anticipated tree removals for the scheme, tree protection options, mitigation tree planting recommendations and potential alterations to account for suitable arboricultural features.

3.3 General Considerations for Tree Retention / Removal (T1)

3.3.1 T1 is on site, it grows with the hard surface surrounds and appears to have fair vigour although some of the growth is leggy, and the crown does again encroach the property. The tree's canopy has previously been heavily reduced, resulting in exposed upward pruning wounds with the onset of crown decay and cavity potential, weak regrowth branch attachments and a poorly impacted form, thus limiting the tree's remaining life.

3.3.2 T1 is well established and is mature, although Birch species are fairly fast growing and short lived, i.e. 50-70 years in urban and confined situations Tree retention would be suitable as part of the continued residential use. However, this would be subject to restorative pruning to manage both the tree's risk to the property users and the surrounding neighbour's, and ongoing pruning to maintain clearance from the property, i.e. 1.5-2.0m; this would negatively impact on amenity from trees.

3.3.3 Subject to better clearances from structures and the absence of heavy pruning, T1 might have otherwise attained 'B' category for moderate quality. However, the rear garden's modest size and close proximity of T1 to the property are such that the tree crown has outgrown the available space and heavy crown reduction has been required. This has been undertaken and the resulting crown is limited with poor regrowth attachments, decay points and a reduced amenity with ongoing requirements for pruning.

3.3.4 Further to the above assessment it is concluded that T1 would be suitable for retention but only where regular pruning works were undertaken, thus impacting the tree's amenity. Hence, T1 is not considered to be of sufficient quality or safe long term retention to justify a significant design constraint and may therefore be considered for removal and replacement, i.e. for H&S risk management in conjunction with a scheme.

NOTE: The scheme's basement / garden courtyard excavation conflicts with the RPA of T1. The impact represents circa. 14% of the tree's total RPA, which in isolation is considered

to be tolerable, although the presence / absence of roots, the volume, and the potential for large roots in the excavation area are possible. In light if this either of the following options are considered suitable and were presented to the client for their consideration:

(a) Excavate a ground investigation trench along the line of the excavation footprint to confirm the presence / absence of roots and inform root pruning needs; or
(b) Remove and replace T1.

NOTE: Based on the above options (a) and (b), the removal and replacement of T1 is preferable in order to alleviate the current building encroachment from T1's crown and avoid the continued pruning requirements from the large canopy within the small garden space.

Hence, the removal and replacement of T1 should concentrate on suitable species, i.e. to occupy but not outgrow the available space or conflict with the existing structures, or a smaller pairing of trees for mixed interest, i.e. Paperbark Maple & Juneberry.

3.4 General Considerations for Tree Retention / Removal (T2)

3.4.1 T2 is offsite, and although it is categorised as 'C' for low quality based on limitations due to form, Ivy cover and structure, the tree's retention is to be assumed by default (due to ownership) unless otherwise agreed / informed by the tree owner.

3.4.2 Due to the tree's crown asymmetry, no crown overhang or encroachment is noted onto the site. The RPA is circa. 3.6m radius which encroaches the site's rear corner beneath hard surfaces which are likely to have influenced root growth. Hence, the constraints imposed by T2 are limited and should not significantly constrain the scheme.

NOTE: The scheme's impact is limited to the basement level excavations. Further, this incurs only on the outer RPA extents of T2 and is beneath the hard surface area. Hence, only fibrous root growth is anticipated, and cautionary protection of soils is recommended during site works to avoid negative impact on tree roots and their growing conditions.

3.5 General Considerations for Tree Retention / Removal (T3)

3.5.1 T3 is offsite, and although it is categorised as 'C' for low quality based on structural limitations, limited form and requirement for ongoing pruning to fit the spatial constraints, the tree's retention is to be assumed by default (due to ownership) unless otherwise agreed / informed by the tree owner.

3.5.2 T3 has a multiple stem crown with a scrubby form and a minor canopy overhang of the site's rear boundary. Also, the stem is in close proximity to the rear boundary and hence the RPA encroachment to site is circa. 2.0m.

NOTE: The proposed scheme is clear of both the tree's crown and the RPA, meaning no tree impact. However, due to the tree's possible root presence on site, cautionary protection of the soil levels during site works is again recommended to avoid negative impact.

3.6 Considerations for Tree Protection

3.6.1 Depending on the level of tree retention/removal, the protection methods for retained trees will vary. However, based on the trees' limitations and considerations in respect of the scheme, it is assumed that T1 will be removed and replaced which is considered suitable, whereas, the protection of the offsite trees (T2 and T3) will be implemented as a cautionary measure. For the protection of T2 and T3, it is considered most suitable to install temporary ground protection with a combination of construction restrictions.

3.6.2 The process of site is important to confirm as a construction/management plan with site set-up, access, welfare, delivery, storage, plant etc.

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

- Completion of all agreed tree works works prior to works commencing by a suitably qualified arboricultural contractor;
- Induction of construction personnel regarding the exclusion of works (including access and storage) from a designated tree protection area;
- Retention / replacement of the existing boundary fence for offsite tree protection, i.e. to exclude the tree crowns and RPAs from site works;
- The protection of the soils to ensure no contamination/run-off into soils in proximity to trees or on higher ground; and
- The approved landscape works will be completed within RPAs sensitively, manually with hand operated tools and to retain the existing soil levels.

3.6.4 As per s.3.4 and s.3.5, no notable conflict is anticipated with T2 or T3. Hence, protection of these trees is to be achieved by site management. This is subject to soil levels being retained within an agreed area inset to the site for tree root retention and protection.

3.6.5 *Root Protection Areas (RPA)* - it is possible to undertake site works within retained trees's RPAs which requires attention to tree protection, foundation designs, phasing of works etc. However, based on the proposed scheme, the lower level garden / courtyard space will be excavated and the remaining grounds within the garden retained.

3.6.6 *Sensitive Demolition/Excavation Works* - the removal of existing structures (including stairways, small outbuildings, retaining walls etc.) or hard surfacing will need to be undertaken with great care where this occurs within or near to anticipated RPAs.

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; this is most likely to concern the existing driveway and hard landscaping within RPAs.

3.6.7 *Hard Landscape Works* - as with previously mentioned arboricultural restrictions to demolition/construction, the works should avoid trees' RPAs. However, where such

works are proposed, construction methods [for hard surfacing, walls etc.] should retain the existing ground levels, be undertaken sensitively and using a no dig design.

The existing hard surfaced areas within RPAs can be replaced on a like for like basis or of a preferential surface treatment; the soil levels will need to be retained and protected.

3.7 Tree Works & Planting

3.7.1 The tree removal (T1) and pruning (T3) are recommended and/or required to facilitate the scheme. These are to be mitigated by a garden design ; new tree planting will be required to replace and enhance the site's canopy cover in conjunction with a general scheme of hard and soft landscaping with appropriate / supplementary planting.

TREE WORK SUMMARY

NUMBER	TREE REMOVALS / PRUNING WORKS	
T1	Remove	Remove and replace in conjunction with the scheme: - to be replaced with 1x 'standard' Paperbark Maple; *Acer griseum* at the north-east corner and 1x Juneberry; *Amelanchier ballerina* centred at the north boundary within tree pits.
T3	Pruning	Prune all growth back to the boundary line prior to any site works, including material delivery, excavation or construction.
Retained trees (T2 and T3)		(a) Retain, or remove and replace the boundary fence which is to be in place until construction completion for tree protection; (b) Retain the existing hard surface and lay polythene and ply boards atop the RPAs of T2 and T3 to protect their roots and growing conditions and until the hard landscape stage.

3.7.2 The selected removal of T1 and pruning of T3 will impact on the site's canopy cover initially. However, the limited remaining life and defects to T1 are such that retention and constraint of a scheme is not considered suitable. Further, the removal of T1 and pruning of T3 will have no negative impact on the long term amenity and the scheme will allow for mixed tree interest to suit the site and enhance amenity and biodiversity.

3.7.3 The removal of T1 will need to be supplemented by detailed landscape / tree planting detail as part of a garden design (this may be as part of planning conditions), i.e. to include species, cultivar and nursery stock selection, location , planting process, tree pit design and a maintenance for the first 3-5 years; details to be aligned with BS8545:2012.

NOTE: Further to this objective overview of the BS5837 tree survey data table and TCP/ Scheme Overlay, the site operations and tree protection measures considered suitable are outlined at s.4 as Arboricultural Method Statement 'considerations'.

4. METHOD STATEMENT 'CONSIDERATIONS'

4.1 Arboricultural Construction Restrictions

4.1.1 The following restrictions are considered relevant for tree protection purposes:

a) Tree works are to be completed prior to any and all site works: no tree works not specified at s.3.7 of this report are permitted unless agreed in writing by the council.

b) Temporary ground protection is to be installed for retained trees for the area between the rear boundary and the basement/courtyard excavation, i.e for T2 and T3 (see; TPP). This will define the Construction Exclusion Zone (CEZ) for retained soils and protected soil conditions, and will be installed prior to site works commencing.

c) Following the tree works and temporary tree protection, the protected areas mean that -
- No chemicals/materials are to be transported/stored/used/mixed within a CEZ;
- 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 a CEZ;
- During construction processes a CEZ / RPA may not be breached, i.e. no surface works, without the prior advice of the consultant and the consent of the council; and
- No mechanical digging or scraping is permitted within a CEZ or RPA.

d) Only following construction completion can the tree protection measures be removed and any remaining landscape works completed (ground levels to be retained within RPAs and works undertaken manually with non-mechanical hand tools).

4.2 Arboricultural Site Monitoring / Supervision

4.2.1 Once tree works and protection measures are in place, tree conflicts are not anticipated and the potential for damage is managed by avoidance. Scheduled inspections are therefore advised over frequent attendance from a retained Arboriculturalist.

4.2.2 As above, the site should be checked by a qualified Arboriculturalist throughout the project to ensure tree protection measures are adhered to, i.e. (a) prior to tree works and tree protection installation to confirm agree works, (b) after tree works and protection installation to confirm completion of works, (c) after excavation to confirm adherence to tree protection, (d) half way during the development, (e) after construction completion, prior to tree panting and landscape works to inspect and confirm suitable preparations, and (f) prior to the removal of the protective measures / completion of landscape.

4.2.3 The above inspections are recommended in order to sign off the site as having correctly adhered to the arboricultural method statement.

4.3 Underground utilities

4.3.1 Any new underground utilities are to utilise the construction area and areas clear of retained tree's RPAs (the rooting areas for T2 and T3) and avoid the need for works in proximity to retained trees and new tree planting pits.

4.3.2 Certainly, utility installations will aim to be -

- Located outside of CEZs and RPAs; and
- Installed only after PBF to ensure the retained trees and their RPAs are protected.

4.4 Additional Recommendations & Report Handling

4.4.1 The surveyed trees have been subject to a detailed inspection and the arboricultural considerations detailed within this advice. The advice herein is intended to guide a suitable design in consideration for the site's valuable amenity assets.

Based on the scheme review herein, it is confirmed that the removal of T1 and pruning of T3 is proposed in conjunction with the scheme but can be mitigated by suitably considered tree selection, planting and maintenance. Further, the site's amenity from trees can be enhanced with this same consideration for a detailed garden design .

4.4.2 The finer details of the tree planting proposals are to be included within a detailed garden design . This is to include hard and soft landscape with details of tree planting locations, species and stock selection, planting, installation and maintenance; this is to be undertaken by the appointed landscape architect in accordance with BS8545:2012 with the full support of the arboricultural consultant where required.

4.4.3 This report is produced to demonstrate that the scheme is considered and reviewed against the arboricultural constraints and is achievable as per the guidance of BS5837. These recommendations are to be approved by the council as a means of authorised tree work and protection with a final AMS after the garden design review.

4.4.4 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.

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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 categorization 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^2. 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 finalized 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: *'TCP / Scheme Overlay'*	As appended (16336/TCP/01)
Tree Protection Plan: *'Application Stage'*	As appended (16336/TPP/01_Rev.A)

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

TREE SURVEY IN ACCORDANCE WITH BRITISH STANDARD 5837:2012 'TREES IN RELATION TO DESIGN, DEMOLITION & CONSTRUCTION - RECOMMENDATIONS'

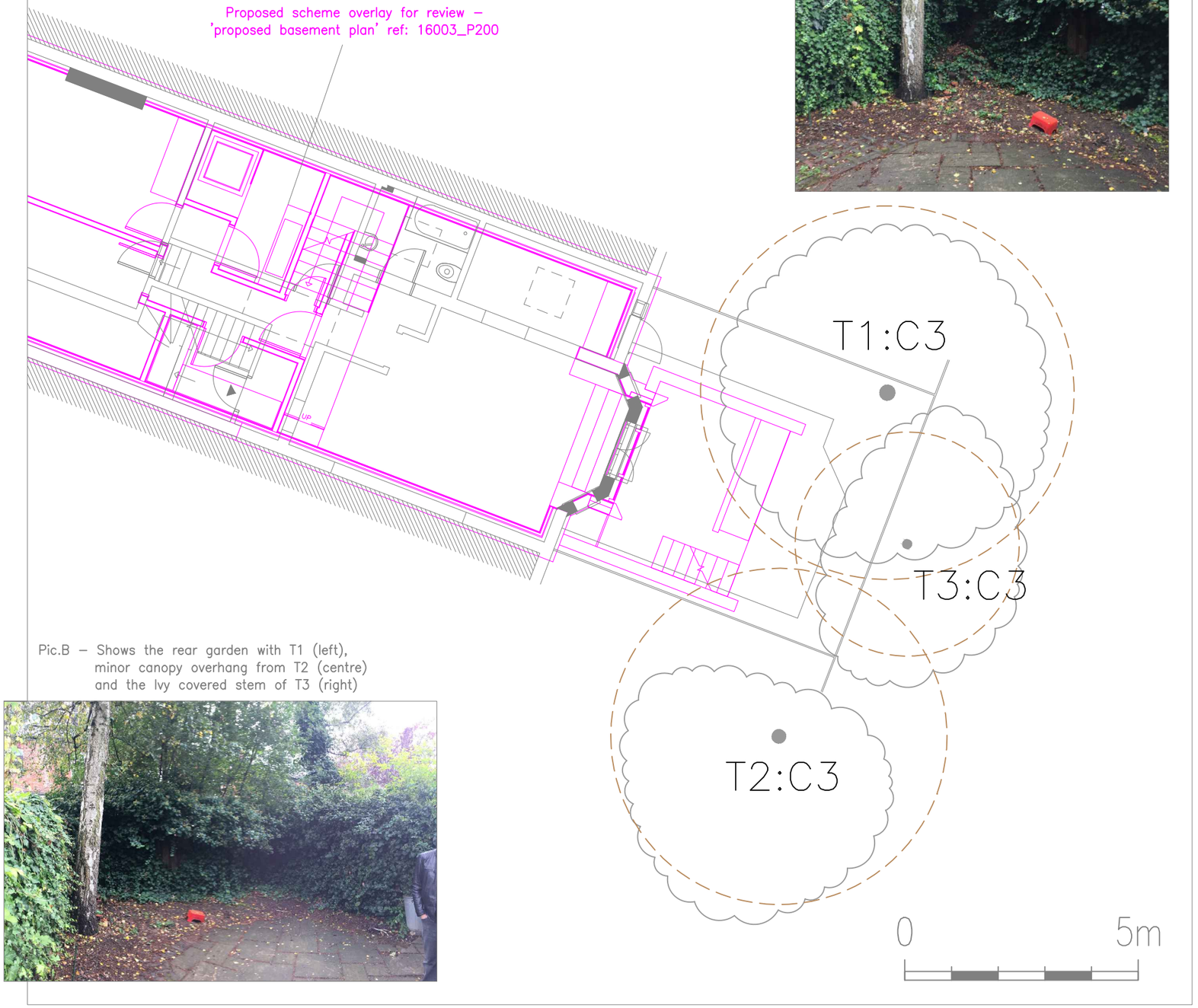
CLIENT: Mrs Cristina Edge ***PROJECT REF:*** 16336 ***SITE:*** 13 Glenmore Road, London, NW3

CONTACT: A R Architecture ***SURVEY DATE:*** 17 October 2016 ***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	Birch; Betula, Betulaceae	M	14	3.5	3.5	3.5	3.5	335	4.0	2.5	5m - S.West	Fair	20 - 40	Growing within the confined space of the courtyard garden, fenced boundaries, hard surface surrounds of the garden, surf and planted borders within neighbours' properties, single stem, co-dominant union at 9-10m, multiple stem upper crown, leggy growth, previously reduced, no encroaching the property with almost full garden overhang.	C / B	3	
T2	Birch; Betula, Betulaceae	SM / M	11	1	4	2.5	3	300 *	3.6 *	n / a	n / a	Fair	10 - 20	Offsite, within the side neighbour's garden, Ivy covered structure, multiple stem crow , limited form, no site overhang.	C	3	
T3	Goat Willow; Salix, Salicaceae	SM / M	7	3	3	2.5	1.5	200 *	2.4 *	2	n / a	Normal	10 - 20	Offsite, within the rear neighbour's garden, leaning growth direction from base, scrubby and conflicted crown growth with reaction growth.	C	3	

Pic.A – Directed towards T1, shows hard surface cover and single stem

Proposed scheme overlay for review – 'proposed basement plan' ref: 16003_P200



Pic.B – Shows the rear garden with T1 (left), minor canopy overhang from T2 (centre) and the Ivy covered stem of T3 (right)

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

REV.	DESCRIPTION	DWN	CHK'D	DATE
/	Scheme overlay for review	RCK	AT	21/10/16

CLIENT

Mrs Cristina Edge

PROJECT

16336
13 Glenmore Road,
London, NW3

TITLE

Tree Constraints Plan
(TCP / Scheme Overlay)

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RCK	20/10/2016	AT	21/10/2016			1:100

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

Drawing Number

A3

16336/TCP/01

REV. /

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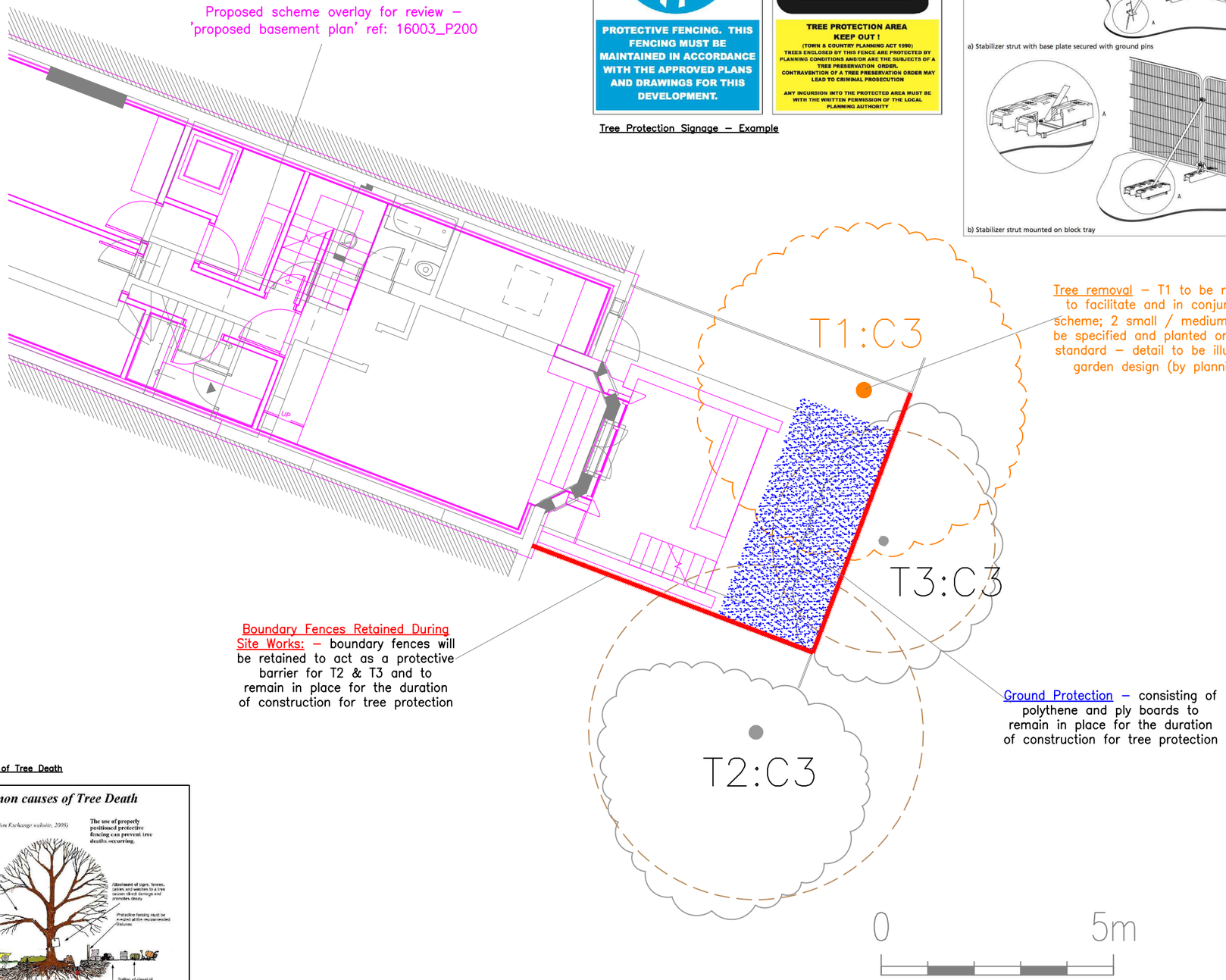
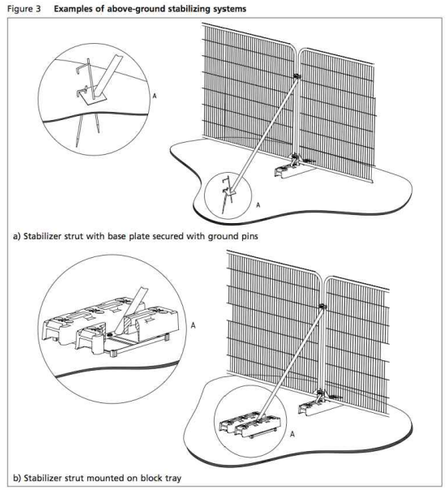


Tree Protection Signage – Example



Tree removal – T1 to be removed in order to facilitate and in conjunction with the scheme; 2 small / medium scale trees will be specified and planted on site, i.e. heavy standard – detail to be illustrated within a garden design (by planning condition)

Boundary Fences Retained During Site Works: – boundary fences will be retained to act as a protective barrier for T2 & T3 and to remain in place for the duration of construction for tree protection

Ground Protection – consisting of polythene and ply boards to remain in place for the duration of construction for tree protection

KEY

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

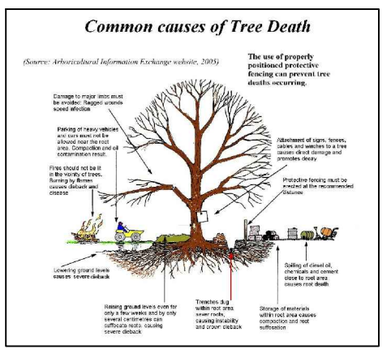
Tree Condition Category

- A
- B
- C
- U

Indicative

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

Common causes of Tree Death



DO NOT SCALE FROM DRAWING

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REV.	DESCRIPTION	DWN	CHK'D	DATE
A	Tree protection / planting notes	AT	AE	23/11/16
/	Uses TCP/16336 as a base layer	TB	AT	11/11/16

CLIENT

Mrs Cristina Edge

PROJECT

16336
13 Glenmore Road,
London, NW3

TITLE

Tree Protection Plan
(Application Stage)

DWN	DATE	CHK'D	DATE	APP'D	DATE	SCALE
RCK	20/10/2016	AT	21/10/2016			1:100

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Drawing Number

16336/TPP/01

A3

REV. A