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Arboricultural Survey
Impact Assessment & Method Statement
Report (BS5837:2012)

Site

33a Greenland Road
London
NW1 0AX

Client

Mr Dan Harris

Date of Report:

October 2023

Report Reference:

AIA/MF/0190/23

Report Prepared by:

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Contents

1.0 Instructions

1.1 This report has been commissioned by Mr Dan Harris to survey, assess and provide an Arboricultural Impact Assessment and Method Statement for the trees sited within close proximity of proposed development works at 33a Greenland Road, London, NW1 0AX.

2.0 Introduction

2.1 A site visit was conducted on 18th October 2023 to survey and assess the trees. The weather at the time of inspection was mild and bright with trees in early autumn mode.

2.2 The tree survey, report and recommendations have been compiled for the 2 no. trees (T1-T2) surveyed within the site and neighbouring sites where relevant.

2.3 The details of the subject trees are set out in the tree survey table in *Appendix A*. The trees were surveyed on the date and time shown above and the tree survey assessment information for the tree describing size, condition and surroundings are found within this appendix.

2.4 The trees located within the site are shown in tree survey drawings T001-T003, Appendix B, and these correspond to the tree survey results table, Appendix A. Photographs of the trees can also be found in Appendix C.

2.5 This report and the opinions within it have been produced by Marcus Foster, a qualified arboriculturist and Professional Member of the Arboricultural Association with over 20 years experience and holding a National Diploma in Arboriculture, the Arboricultural Association's Technicians Certificate, Professional Tree Inspection Certificate (LANTRA) as well as a degree in History and Society. Work experience within the industry includes work as a Contracts Manager for an Arboricultural Association Approved Company, a Local Authority Tree Preservation Officer and an independent Arboricultural Consultant. As a consultant many of projects undertaken are in the inner London Boroughs of Islington, Hackney, Westminster, Camden, Southwark and RBKC, making Marcus Foster familiar with the most recent requirements of development and constraints on urban trees.

3.0 Survey Details and Scope

3.1 The site survey included the 2 no. trees (T1-T2) as shown in the survey, *Appendix A*, and also highlighted on the site plans, *Appendix B*.

3.2 The trees and hedges were surveyed from ground level from within their site location. The diameter of the trunks have been measured using a DBH tape at 1.5m height. The height of the trees have been estimated.

3.3 The following information was recorded for each tree and is shown in the Tree Schedule included in *Appendix A*:

- Number: an identity number which cross-references locations shown on the plan in Appendix A with the schedule in Appendix B.
- Species: listed by common names
- Tree Height: height in metres (m)
- Tree Spread: spread in metres (m)
- Stem diameter: measured in millimetres (mm) and taken at 1.5m above ground level
- Age Class: Y (young); EM (early-mature); M (mature); OM (over-mature)
- Vitality: G (good); F (fair); P (poor); D (dead)
- Structural Condition: G (good); F (fair); P (poor); D (dead)
- General Condition Specific comments relating to each tree
- Estimated Remaining Contribution (years)
- BS5837 Category Grading
- Protection Distance m2 Area (where applicable – BS5827: 2012)
- Protection Distance Radius (where applicable – BS5827: 2012)

3.4 Information recorded in the tree survey, *Appendix A* is expanded in the report findings and preliminary recommendations have been made in *Section 5*.

3.5 Findings as shown within *Appendix A* and assessed within *Section 5* are also highlighted within *Appendix B* which incorporates the Tree Constraints Plan (TCP) - drawing T002 addressing areas where arboricultural solutions are required. The Tree Protection Plan (TPP) - drawing T003 provides outline tree protection measures.

4.0 Survey Limitations

4.1 No soil excavations have been carried out.

4.2 This report only considers the trees and conditions at the time of inspection. As the inspection was only visual no guarantee can be given concerning the condition of the wood at present in any of the trees inspected and furthermore that no future problems or deficiencies may arise.

4.3 The survey has been undertaken as a survey of the trees without prior influence of the development and implicating factors.

4.4 No invasive tools were used during this site survey.

4.5 It should be noted that vegetation including shrubs within this / the neighbouring sites have not been included in the survey as none were within close or relevant proximity .

4.6 The survey has been undertaken from within the site and adjacent public highway only.

4.7 No additional documentation unrelated to the property or development has been referred to for the trees or the property for the compilation of this report.

5.0 Tree Survey Summary

5.1 The trees have been surveyed in accordance with BS5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012) and have been rated as follows:

Category 'A' trees

Trees of high quality with an estimated remaining life expectancy of at least 40 years. Trees have been categorised as 'A' trees for one of the following reasons:
- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'A' category trees have a **green** outline as denoted within the site plan key / survey.

N/A

Category 'B' trees
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. Trees have been categorised as 'B' trees for one of the following reasons
- Mainly arboricultural qualities
- Mainly landscape qualities
- Mainly cultural values including conservation

Within the Site Plan (Appendix B) those trees rated as 'B' category trees have a **blue** outline as denoted within the site plan key.

T2

Category 'C' trees
Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Trees have been categorised as 'C' trees for one of the following reasons

- Arboricultural qualities - unremarkable trees of very limited merit
- Mainly landscape qualities
- Trees with no material conservation or cultural value

Within the Site Plan (Appendix B) those trees rated as 'C' category trees have a **grey** outline as denoted within the site plan key.

T1

Category 'U' trees
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.Within the Site Plan (Appendix B) those trees rated as 'U' category trees have a **red** outline as denoted within the site plan key.

N/A

5.2 The trees have been surveyed taking into account condition, general health and form without the development process influencing the survey. In addition they have also been surveyed taking account of amenity value that is offered in relation to both the landscape and surrounding buildings and streetscape. This report outlines the impact that the proposed development will have on the overall treescape and landscape; it provides recommendations to ensure that long-term amenity value for the area is retained.

5.3 The report has been written with close reference to the British Standard Guidance, British Standard 5837: 2012 'Recommendations for trees in relation to construction' (BS5837: 2012), which addresses the juxtaposition between trees and structures. The Arboricultural Impact Assessment highlights areas where the trees will require protection which should be addressed within the Arboricultural Method Statement (AMS) and/or Tree Protection Plan (TPP) specific to the site and proposed scheme, and corroborating with all construction and landscape method statements as relevant.

5.4 The report specifies precautions which shall be taken when working close to retained trees. Important terms include:

Root Protection Area (RPA)
The area defined as requiring protection from development from retained trees within BS5837 (2012). Using a calculation provided within BS5837 a radius distance is provided based on a measurement of the main stem taken at 1.5m height.

Construction Exclusion Zone (CEZ)
This is the RPA where no construction activity should occur and damage is prevented by either installing fencing to restrict access or installing ground protection that allows limited access above the ground, while protecting the rooting environment below.

Due to site constraints and the encroaching nature of development for an area within the RPA outside the CEZ where works are proposed, works must be carried out with care to minimise any impact on the tree rooting environment.

Tree Protection Plan (TPP)
The document which defines the extent and methodology of tree protection for the entire development process. This should be referred to AT ALL TIMES by the principal contractor and shall ensure safe protection of all retained trees on site.

Precautionary Area
An area where works must be undertaken with direct consultation with methodology as specified within the AMS report and / or scheme of Arboricultural supervision

6.0 Arboricultural Impact Assessment

Site Overview

6.1 The 2 no. trees (T1-T2) are located within 33a Greenland Road, London, NW1 0AX and adjoining properties which is within the London Borough of Camden. The following statutory checks have been made for the site:

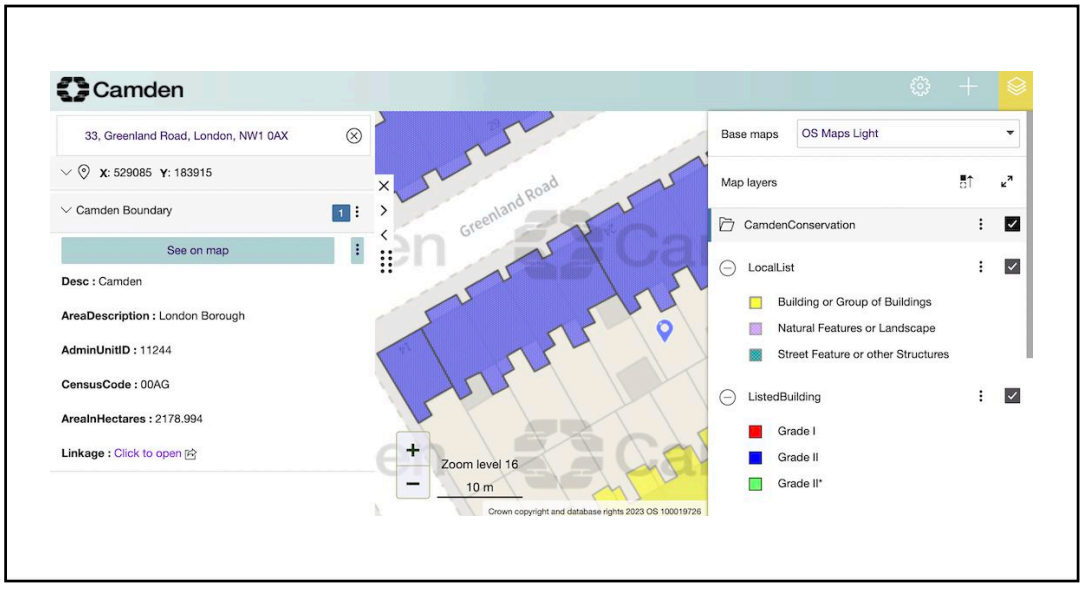
CONSERVATION AREA STATUS
N/A

TREE PRESERVATION ORDER (TPO) STATUS
TPO protection check has not been undertaken. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order , and those trees without. This is principally because a detailed planning consent overrides any TPO protection

6.2 The trees are sited as follows:

33a Greenland Road - tree T1
42 Camden Road - tree T2

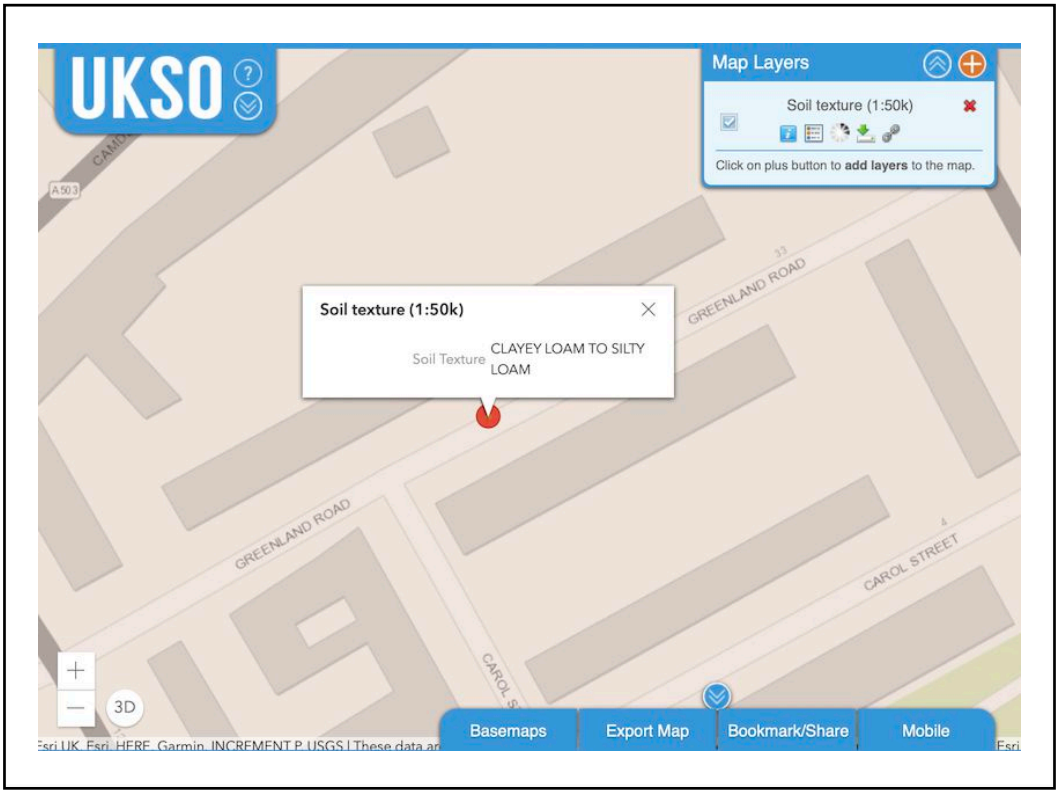
6.3 Extracted maps onfirms site location and absence of statutory protection:



Extract from:
https://opendata.camden.gov.uk/People-Places/Camden-Conservation-Areas-Map/d2m6-mjue

6.4 The underlying soil to this area is classified as 'clayey loam to silty loam' within the UK Soil Observatory (www.ukso.org) - a medium to heavy soil mix. The presence of a clay element within the soil is significant in terms of both tree protection and foundation design. Clay soils can experience substantial volume changes when vegetation extracts moisture from the ground and they are also prone to compaction when wet; therefore with potential for volumetric change in the soil post development.

6.5 The soil profile is confirmed as below:



EXTRACT FROM:
https://mapapps2.bgs.ac.uk/ukso/home.html

6.6 Any foundations should also be designed in accordance with the recommendations contained within NHBC Chapter 4.2 (National House Building Council, 2010) and should account for the possibility of both subsidence and heave from relative soil conditions which are recommended to be researched specifically to the site.

6.7 For the purposes of this report, reference has been made to the following plans for the proposed development which comprises the proposal for construction of a timber garden outbuilding, with associated final landscapes.

London Town Cabins
Garden Outbuilding Proposal for33A Greenland Road, London, NW1 0AX Proposal for a 4.4m x 4.4m timber garden outbuilding with Water closet

6.8 The summary of arboricultural impact which shall be assessed is as follows:

- General development / construction works within close proximity of retained trees
- Retention of all trees
- Selective ground works in accordance with tree protection measures within the RPA of retained trees T1 & T2
- Potential compaction and damage of the retained trees in relation to the development and landscape process
- Potential damage to canopies of the retained trees surrounding the site during development and landscape process
- The use of and storage of materials and chemicals on site within close proximity of the trees
- Impact of development upon trees via future occupancy

6.9 The trees and the impact from the proposed development are evaluated within this section to determine overall arboricultural impact from the proposed development. Where trees are retained the Root Protection Area (RPA) for each tree is evaluated in relation to proposed development works. The following is assessed within this section:

(i) Where tree protection measures are deemed appropriate these are highlighted

(ii) No mitigation for tree loss is required as no trees are proposed for removal

Arboricultural Impact Assessment

6.10 The trees sited within and surrounding the subject site are of the following species:

Ash (*Fraxinus excelsior)*
Sycamore (Acer pseudoplatanus)

6.11 The main attributes of the trees are as follows:

(i) Tree T1, Ash - 'C' category: Lean to east. Cavity to south filled; largely occluded. Union at 4m height. Previous low limb failure to east. 4 main stems developed to crown which is heavily reduced to high pollards. Partial absence of regenerative growth from selective high pollards. Pruning points lapsed 1-2 years

(ii) Tree T2, Sycamore - 'B' category: Off site to west. Absent crown to west from supression previously from Ash T1. Boundary wall, brick wall between tree and subject site; limited overhanging crown

Summary photographs of the trees are shown within *Appendix C* with full findings within the Tree Survey Schedule - *Appendix A*.

6.12 To the rear of the property where garden building is proposed the potential impacts for individual trees are as follows:

- Ground works within RPA of T1 & T2
- Final landscape works within RPA of T1 & T2
- Future occupancy of structure within close proximity of retained trees
- Site infrastructure including storage of materials, chemicals, site welfare associated with development process including refurbishment works within RPA of T1 & T2 for development process

6.13 For the development there is incursion to the RPA of retained trees as follows for the garden building:

T1 - incursion to southern RPA for 8.6m RPA radius
T2 - incursion to southern RPA for 6.0m RPA radius

It is noted that there is no impact to the crowns of trees T1 and T2 due to heavily managed reduction / pruning of both.

6.14 Protection of all trees highlighted for retention is justified based on the following:

(i) Limited RPA incursion for retained trees.The incursion shall be for an area subject to selective groundworks via structural engineering methodology of helical screw piles which shall not impact the tree's root worked with tree protection measures

(ii) Application of tree protection measures incorporating
- Precautionary Area for trees T1 & T2
- Tree protection fencing for T1
- Off site location for T2 affording protection to the main stem of this tree
- Ground protection applicable for T1 & T2

(iii) Limited extent of landscape works

(iv) No tree works required for implementation of development

6.15 In relation to the helical pile system in particular the works required for these incursions are mitigated within the RPA of T1 & T2 as follows:

- Excavations for ground works within area of piles only as proof digs to ensure no major root severance
- Loading of structure above RPA
- Rainwater discharge beneath structure within RPA which will retain capacity for gaseous exchange
- Limited use of concrete and chemicals
- No grading of existing topography for works including minor landscape works only due to level garden

6.16 In relation to future occupancy it is clear that the site shall not be detrimentally impacted from the shading of those trees retained due to historic existence of trees and the garden building with its limited size.

6.17 The following tree protection measures shall be applied as specified within Section 7, AMS and the TPP which shall mitigate against any potential damage ensuring all trees remain protected:

(i) TREE PROTECTION FENCING
Fencing for areas exposed to construction works shall be implemented as shown within the AMS & TPP
(ii) GROUND PROTECTION
Ground protection for RPA area exposed to construction works shall be implemented as shown within the AMS & TPP

(iii) PRECAUTIONARY AREA
For the precautionary area / RPA of T1 & T2 as outlined within the AMS (Section 7 of this report) & TPP a Precautionary Area shall be applied to protect trees from the development process
(iv) PROTECTION FROM SITE STORAGE, INFRASTRUCTURE & WELFARE
Site storage, mixing of chemicals and site welfare shall be sited outside of the RPA of retained trees

Summary of Arboricultural Impact

6.18 The proposed development requires tree protection measures and mitigation for the implementation of development as follows:

Tree Protection applicable to the following trees:
T1 & T2

Mitigation applicable for the removal of the following trees:
N/A

The tree protection measures shall ensure that the development does not detrimentally impact the amenity value and canopy cover of the site including those trees neighbouring the site.

6.19 In summary the arboricultural impact as outlined within drawing T003 - Tree Protection Plan (TPP) shall require the following tree protection measures

(i) TREE PROTECTION FENCING
(ii) GROUND PROTECTION
(iii) PRECAUTIONARY AREA (T1 & T2) for ground works associated with helical screw piles
(iv) PROTECTION FROM SITE STORAGE, INFRASTRUCTURE & WELFARE

7.0 Arboricultural Method Statement

7.1 The following tree protection measures require close adherence AT ALL TIMES as outlined within this report. The measures are outlined within Tree Protection Plan (TPP) - drawing T003.

7.2 **Tree Works**

7.2.1 Tree Works are not required as is confirmed within Schedule of Works - Section 9.

7.3 **Tree Protection Fencing**

7.3.1 Protection of the trees highlighted for retention must be implemented as explained below and as specified within the TPP - drawing T003.

7.3.2 These measures must remain for the entire construction process in order to provide a comprehensive barrier from the trees

- The area surrounding the trees must be surrounded by protective fencing as outlined in TPP - T003

- The protective fencing used must be suitable for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained trees.

- This barrier must remain rigid and complete during the entire construction process. Protection is not required surrounding entire trees where boundary treatments intervene in RPA's as the remainder of the root plate will remain unaffected by virtue of being located within the neighbouring properties

- The type of fencing used must be that as described in the current British Standard 5837: 2012 'Recommendations for trees in relation to construction'. This consists of a scaffold framework as outlined in the British Standard, comprising a vertical and horizontal framework, well braced to resist impacts, with the vertical tubes spaced at a maximum of 3m. A weldmesh panel should be securely fixed with wire or scaffold clamps to the framework.

- Once the Exclusion Zone has been protected by fencing all weather notices as included in *Appendix D* must be put onto the barrier warning that the area is a construction exclusion zone.

- No heavy plant shall come into contact with any part of the canopies of the trees.

- No building materials or chemicals shall be stored within the tree protection zone as indicated on the TPP

7.4 **Ground Protection**

7.4.1 Ground protection must be applied as shown within the TPP with the following fully adhered to:

- Implementation of 75mm bark mulch layer overlapped with minimum 15mm plyboard surface or load bearing ground protection boards to provide ground protection for development process
- No storage of spoil within this area
- No storage of chemicals within this area

7.4.2 Where applied, ground protection shall be removed for final landscapes works within the RPA of retained trees.

7.5 **Storage of Construction site related materials, plant and spoil / Site Welfare & Site Office**

7.5.1 A designated storage area / site welfare & office must be confirmed at pre-commencement stage which is located outside of the RPA of retained trees and within existing hard standing. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

7.5.2 Site welfare and the site office must be confirmed at pre-commencement stage which is located outside of the RPA of retained trees. Strict adherence to this area must be made to this area and any amendment would require written consent from the tree officer.

7.6 **Precautionary Area**

7.6.1 For the 'Precautionary Area' / incursion within RPA of retained trees T2, T5, T7 Precautionary Area denoted within the TPP highlight where the following works are required:

(i) HELICAL SCREW PILES *or similar structural engineering methodology* (within RPA of T1 & T2)
All excavations / ground works associated with the rear extension shall be applied as per specifications within this AMS

7.6.2 The application of selective foundations shall require very limited extent of excavations - only those to determine correct pile locations. Withinn BS5837 (2012) the Standard makes provision for undertaking excavations in RPAs, explaining that all excavation must be carried out carefully using spades, forks and trowels, It is important not to damage the bark and wood of any roots. For this area, these tools should be used with no machinery used for the preliminary works.

7.6.3 For this area the following shall apply:

- All works within Precautionary Area highlighted within 'Toolbox Talk'

- With all below ground level works for determining suitable locations for selective foundations for this area undertaken by hand, the severance of any larger roots encountered up to 25mm diameter should then be undertaken by the supervising arboricultural consultant to ensure clean severance

- The supervising arboriculturist shall provide guidance and consultation during this stage of the ground works AT ALL TIMES

7.6.4 For undertaking excavations within the precautionary area guidance is applicable

Tree Root Severance Guidance
The contractors must be aware of tree protection guidance in relation to tree roots which must be applied as follows:

- The severance of any tree roots encountered larger than 25mm in diameter MUST NOT occur without prior consultation with the Local Authority Tree Officer or appointed Arboricultural Consultant.

- If at any point it is deemed not possible to continue with excavations without having to damage very significant tree roots, the Local Authority Tree Officer and / or the appointed Arboricultural Consultant must be contacted.

The following tools shall be applicable for such works:

7.7 **Helical Screw Pile (or similar) structural Methodology**

7.7.1 For the precautionary areas / RPA of retained trees in relation to proposed structural works within the RPA of trees T1 & T2 the following methodology with tree protection measures shall be applied at all times:

GROUND WORKS SEQUENCE

PRECAUTIONARY WORKS AREA IDENTIFIED
A Precautionary area is an area where tree protection for excavations and Helical screw pile works require implementation within RPA of retained trees.

↓

All works within precautionary area highlighted within 'Toolbox Talk'

↓

Initial hand dug locations of proposed helical screw pile locations to be undertaken in accordance with AMS tree protection measures to ensure no severance of major roots.

↓

The exact location of each pile location and evidence of no tree root damage must then be documented

7.8 **Final Landscape Works**

7.8.1 For final landscaping works the following must apply where carried out within the RPA of retained trees

- No reduction in levels of the underlying soil surface will occur during final landscaping works within the RPA of retained trees
- Close adherence with detailed root protections specifications as outlined within this report for installation of pergola and shed
- No compaction of soils for establishing level base

7.8.2 No soakaway shall be sited within the RPA of retained trees.

7.9 **Installation of utility services**

7.9.1 The installation and/or amendment of utility services within the RPA of retained trees must be via air spading method only within the RPA.

7.9.2 Air spade techniques must be operated by qualified contractors with all work and findings documented. Air spades utilise a two-tool air compressor and hand-held lance to dislodge soil, using highly pressurised jets of air. This allows trenches to be excavated without causing the significant root damage associated with the use of conventional digging techniques such as, spade or excavator buckets. Example imagery is shown below:

Example imagery of air spade use for implementing utilities beneath root plate (existing)

7.9.3 Reputable companies providing this service include as follows (list not exhaustive):

https://www.ruskins.co.uk/airspade
http://www.dfclark.co.uk/bionomique-service/air-spade-investigation-and-remediation/

8.0 Communication, Monitoring and Compliance

8.1 In ensuring that all Tree Protections Specifications as highlighted within this AMS are closely adhered to at all times, it is important to set out for the long term of the development, communication details for key individuals and tasks that require monitoring.

8.2 For all tree protection measures these must be considered as sacrosanct and should not be removed or altered without prior written consent from the Local Authority tree officer and/or consulting arboriculturist.

8.3 The local authority arboriculturist will have free access to the site and forward any concerns / recommendations directly to the consulting arboriculturist.

8.4 The following individuals and organisations are central to the delivery of the scheme in relation to the tree protection measures it requires:

CONSULTING ARBORICULTURIST
Name - Marcus Foster MArborA
Telephone - 07812024070
Contact - Marcus Foster
Email - mail@marcus-foster.com

LONDON BOROUGH OF CAMDEN - TREE OFFICER

Name - Arboricultural Services - London Borough of Camden
Telephone - 020 7974 5939
Contact - Nick Bell - Tree Officer
Email - nick.bell@camden.gov.uk

9.0 Tree Works Schedule

9.1 Any tree work shall be carried out to BS 3998; 2010 Recommendations for Tree Work.

9.2 Tree works to be undertaken at pre-commencement stage.

TREE WORKS SCHEDULE: 33a Greenland Road, London, NW1 0AX				
Tree No.	Common Name	BS5837 Category	Tree Works	Reasons for works
T1	Ash	C	No action required	/
T2	Sycamore	B	No action required	/

NOTE: Wildlife & Habitat Protection Guidelines
The tree work specifications included within this report do not provide an exemption from the requirements to comply with the Wildlife and Countryside Act 1981, the Habitats Regulations 1994 and the Countryside and Rights of Way Act 2000, or any acts offering protection to wildlife. Of particular note is the protection offered to bats, birds and their nests, whilst being built or in use. It must be noted that failure to comply with the Acts may result in a criminal prosecution.

Appendices

Appendix A

Tree Survey Schedule
(BS5837:2012)

33a Greenland Road
London
NW1 0AX

Colour Key: BS5837: 2012 (see Section 3.6)

- Category A
- Category B
- Category C
- Category U

BS5837:2012 TREE SURVEY
SITE: 33a Greenland Road, London, NW1 0AX | SURVEY DATE: 18th October 2023

Tree No	Species	Height (m)	DBH (mm)	Spread (m) N/E/S/W	Age	Structural Condition	Vitality	BS5837 (2012) Rating	Remaining Contribution (years)	Comments / Structural Condition	First branch height (m)	First canopy height (m)	Root Protection Area (RPA) m2	Root Protection Area (RPA) Radius (m)
T1	Ash	18	720	5 6 6 5	M	F	F	C1	10+	Lean to east. Cavity to south filled; largely occluded. Union at 4m height. Previous low limb failure to east. 4 main stems developed to crown which is heavily reduced to high pollards. Partial absence of regenerative growth from selective high pollards. Growth lapsed 1-2 years	8	7	234.55	8.6
T2	Sycamore	18	500 (e)	4 4 4 5	EM	F	G	B1	20+	Off site to west. Absent crown to west from supression previously from Ash T1. Boundary wall, brick wall between tree and subject site; limited overhanging crown	6	6	113,11	6.0

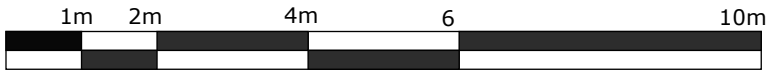
Appendix B

Existing Tree Survey (T001)
Tree Constraints Plan (T002)
Tree Protection Plan (T003)
(BS5837:2012)

33a Greenland Road
London
NW1 0AX

Colour Key: BS5837: 2012 (see Section 3.6)

- Category A
- Category B
- Category C
- Category U



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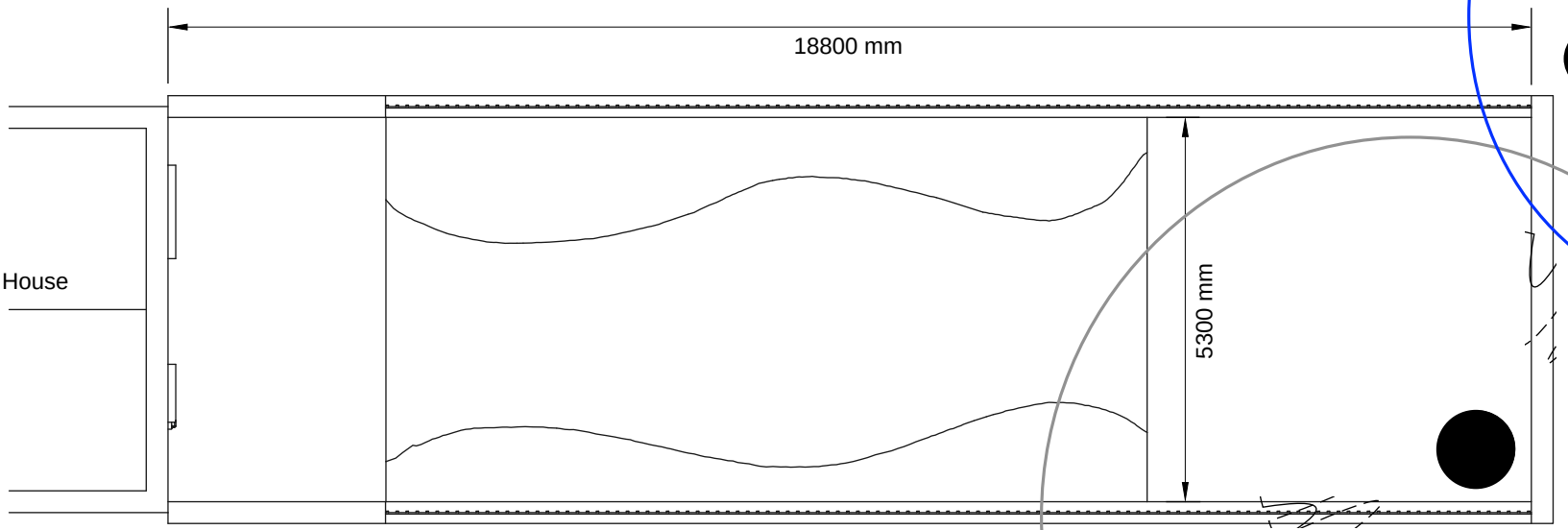

T2

T1

KEY

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U
	RPA RADIUS

BS5837 (2012) Tree Survey Notes

1. In accordance with BS5837(2012) this drawing is a colour coded schedule and should not be read in black and white

2. If received electronically it is the recipients responsibility to print this drawing to correct scale. Only written dimensions should be used where not printed to scale.

3. This drawing should be read in conjunction with all other relevant drawings and specifications

4. Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided

5. Off site trees have been plotted based on site visit survey and locations are not based upon topographiccal survey

Rev.	Date		Checked

JOB TITLE
33a Greenland Road

DWG TITLE
Existing Tree Survey

SCALE
1:100 @ A4

DATE
Oct 23

JOB NO
AIA/MF/0190/23

DWG NO.
T001

T: 0781 2024070
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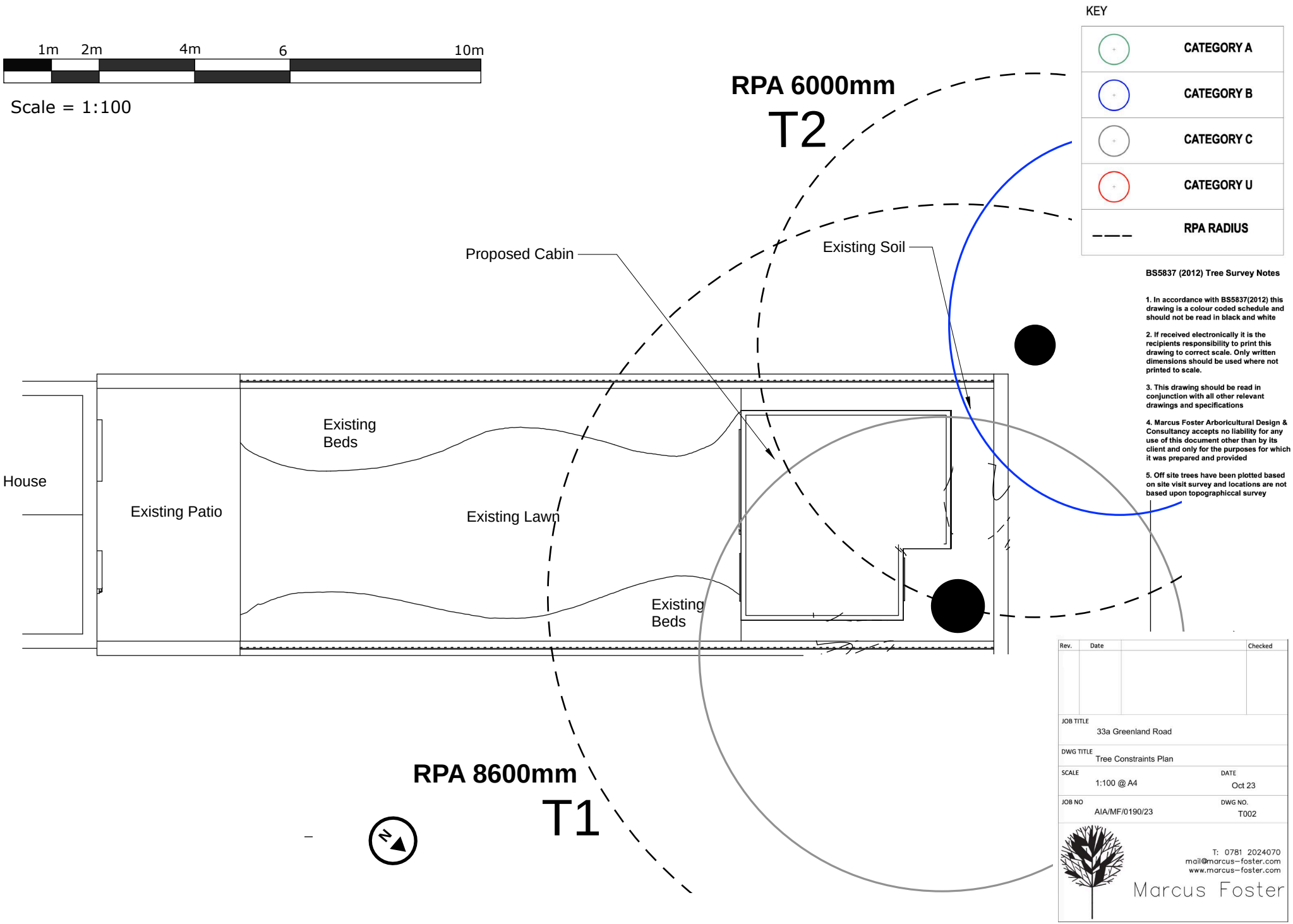
Marcus Foster


1m
2m
4m
6
10m
Scale = 1:100
KEY
CATEGORY A
CATEGORY B
CATEGORY C
CATEGORY U
RPA RADIUS
RPA 6000mm
T2
Proposed Cabin
Existing Soil
House
Existing Patio
Existing Beds
Existing Lawn
Existing Beds
RPA 8600mm
T1
N
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Rev.
Date
Checked
JOB TITLE
33a Greenland Road
DWG TITLE
Tree Constraints Plan
SCALE
1:100 @ A4
DATE
Oct 23
JOB NO
AIA/MF/0190/23
DWG NO.
T002
T: 0781 2024070
mail@marcus-foster.com
www.marcus-foster.com
Marcus Foster

1m 2m 4m 6 10m

Scale = 1:100

KEY

- CATEGORY A
- CATEGORY B
- CATEGORY C
- CATEGORY U
- RPA RADIUS

TREE PROTECTION KEY

GROUND PROTECTION
EXISTING HARD LANDSCAPE RETAINED UNTIL FINAL LANDSCAPE WORKS. PROPOSED HARD LANDSCAPES ABOVE EXISTING SURFACES

PRECAUTIONARY AREA
ALL WORKS UNDERTAKEN IN ACCORDANCE WITH AMS

TREE PROTECTION FENCING
SITE HOARDING / SHUTTERING

RPA 6000mm

T2

RPA 8600mm

T1

Proposed Cabin

Existing Soil

House

Existing Patio

Existing Beds

Existing Lawn

Existing Beds

GROUND PROTECTION

PRECAUTIONARY AREA

BS5837 (2012) Tree Survey Notes

1. In accordance with BS5837(2012) this drawing is a colour coded schedule and should not be read in black and white

2. If received electronically it is the recipients responsibility to print this drawing to correct scale. Only written dimensions should be used where not printed to scale.

3. This drawing should be read in conjunction with all other relevant drawings and specifications

4. Marcus Foster Arboricultural Design & Consultancy accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided

5. Off site trees have been plotted based on site visit survey and locations are not based upon topographiccal survey

BASAL SHUTTERING TREE PROTECTION SPECIFICATION

KEY

The fencing must fully enclose the main stem and initial buttress roots of the tree by being constructed as a self supporting structure to the following specifications:

Minimum height: 2.4m
Plywood Specification: 25mm thickness, external grade
Supporting Structure: 4" x 2" softwood timbers to form structure within shuttering
NOTE: - No ground supports permitted
- Structural integrity of structure to be determined by building contractor and approved by supervising

PRECAUTIONARY AREA TOOLS - REFER TO AMS

Rev.	Date		Checked

JOB TITLE: 33a Greenland Road

DWG TITLE: Tree Protection Plan

SCALE: 1:100 @ A4

DATE: Oct 23

JOB NO: AIA/MF/0190/23

DWG NO.: T003

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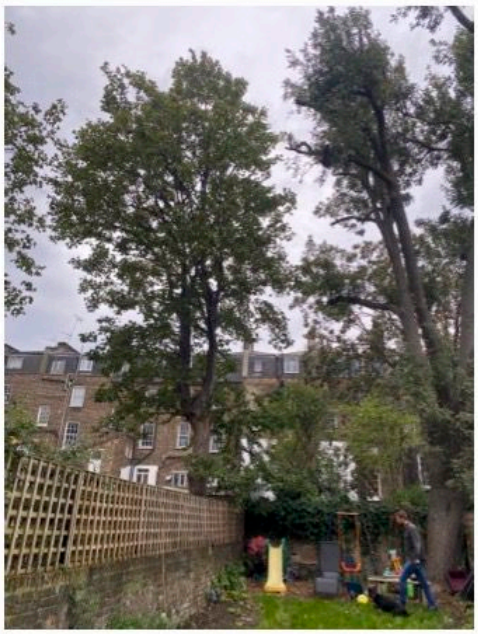
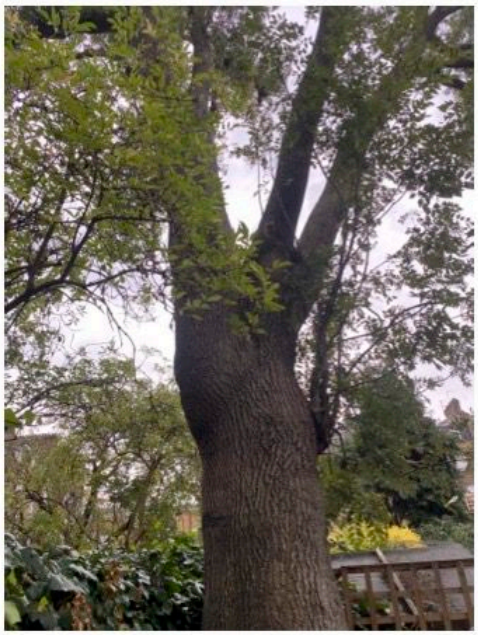
Appendix C:
Tree Survey Photographs



Trees T1 & T2 viewed to west

Tree T1 viewed to north



Main stem and initial crown of T1 viewed to north

Tree T2 viewed to west

Appendix D:
Tree Protection Notice

Generic Tree Protection Notice
(BS5837: 2012):

Notice to be clearly shown on site where fencing constructed
AT ALL TIMES

Appendix E
Tree Protection Fencing Specifications

TREE PROTECTION FENCING SPECIFICATION (BASAL SHUTTERING)

BASAL SHUTTERING

Specification of Basal Shuttering Tree Protection
The fencing must fully enclose the main stem and initial buttress roots of the tree by being constructed as a self supporting structure to the following specifications:

Plywood Specification: 25mm thickness, external grade
Supporting Structure: 4" x 2" softwood timbers to form structure within shuttering
NOTE: - No ground supports permitted
Structural integrity of structure to be determined by building contractor and approved by supervising arboriculturilt
Tree Protection Fencing Notices: 5 x Notices

Example of Basal Shuttering Tree Protection

Appendix F: References

1. BS5837: British Standard: Trees in relation to design, demolition and construction - Recommendations, British Standard (2012)

2. Principles of Tree Hazard Assessment and Management, Lonsdale, D. (Department for Transport, Local Government and the Regions, 1999)

3. The Body Language of Trees, Mattheck, C. and Breloer, H. (HMSO, 1994)

4. Trees in Britain, Philips, R. (Pan Books, 1978).

5. Diagnosis of Ill Health in Trees, Strouts, R. and Winter, (TSO, 1994)

6. National Planning Policy Framework February 2019 Ministry of Housing, Communities and Local Government

7. NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2), (November 2007)

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