Arboricultural Report

Assessment of trees in relation to development for planning purposes

35 Elsworthy Road
London
NW3 3BT

August 2014

140229-PD-11a

TIM MOYA ASSOCIATES

Project	35 Elsworthy Road NW3
Report Type	Arboricultural Report for Planning
Checked by	TM
Date Checked	19/08/2014

CONTENTS PAGE

1 SUMMARY REPORT

1.1 This arboricultural report has been commissioned by Shore Securities Ltd to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed development at 35 Elsworthy Road, London NW3 3BT.

1.2 The proposal is for extensive internal modifications to include basement construction beneath the rear garden and landscape alterations.

1.3 This report includes:

- an assessment of the trees, their quality and value and constraints to development posed by these;
- the site context;
- observations on the trees;
- planning policies relevant to the consideration of the trees on the site;
- the impact of the proposed development upon the tree population in and around the site;
- methods of reducing impacts on trees; and
- measures to be taken to protect trees during the proposed works.

1.4 My conclusions are that the proposed extension and basement formation will have no adverse effect on any significant trees within or adjoining the site. Although there are a number of low quality rear garden trees which will be removed, their loss does not adversely affect the character of the area and the proposal represents an opportunity to plant new trees of good quality.

2 INTRODUCTION

Instructions

2.1 My name is Kevin Slezacek; I am an arboricultural consultant dealing with trees in relation to all forms of human activity including built development. I am a Professional Member of the Arboricultural Association, an Associate member of the Institute of Chartered Foresters and I have the Royal Forestry Society Professional Diploma in Arboriculture.

Scope and limitations

2.2 The contents of this report are copyright of Tim Moya Associates and may not be distributed or copied without the author's permission. Tim Moya Associates standard Limitations of Service apply to this report and all associated work relating to this site.

Background and documents provided

2.3 My report has been prepared with reference to the following supplied information:

- Architects layout
- Indicative landscape plan

Methodology and guidance

2.4 I have referred to British Standard 5837: Trees in relation to design, demolition and construction (2012) which provides a methodology for the assessment of trees and other significant vegetation on development sites.

2.5 BS 5837 (2012) is intended to assist decision making with regard to existing and proposed trees and sets out the principles and procedures to be applied to achieve a harmonious relationship between trees and structures that can be sustained for the long term.

2.6 The Building Research Establishment (BRE) has also produced several documents between 1998 and 2011 in relation to trees and site layout planning, sunlight, daylight, shading and urban cooling. These documents consider trees and their relationship with buildings and garden usage, including the benefits they bring in terms of welcome shade or urban cooling, advising a balanced approach to these issues in design.

Supporting Information

2.7 All TMA documents relevant to this report are listed at section 8, and included within the Appendices.

3 OBSERVATIONS AND CONTEXT

Site visit

3.1 The site was visited by my colleague Charles McCorkell on 2nd April 2014, to identify and survey the trees and to inform the client team of the main tree constraints likely on the site.

3.2 The weather at the time of the visit was dry and bright with good visibility.

Present use of the site

3.3 The existing building is three storey detached residential building which backs onto Primrose Hill.

Description of the local area

3.4 Elsworthy Road is a residential road within the Primrose Hill area of London. Most houses in the local area are large detached or semi-detached with garden areas of varying sizes.

Trees in the local area

3.5 Tree coverage in the area is provided by local authority street trees and trees within private gardens which collectively soften the building lines and provide natural greening to an intensely developed area.

3.6 The street trees in Elsworthy Road are London planes and are maintained by regular cyclical reduction which together with the mature trees in private front gardens gives the road a verdant tree lined character.

Photo 1 – Approximate site boundary shown in aerial photograph

Views of trees

Photo 2 (02/04/14) – Trees within the rear garden

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Photo 3 (02/04/14) – View of T14

Photo 4 (02/04/14) – View of existing basement level access to Primrose Hill heath

Photo 5 (02/04/14) – View of rear elevation of building

Photo 6 (02/04/14) – Front of property

Soil conditions

3.7 Soil conditions will have a significant effect upon tree growth and will influence:

- The species that will grow successfully.
- Rooting depths for different species.
- The available soil volume that can be used by roots and therefore the likely tolerance of trees and other vegetation to soil disturbance

3.8 The British Geological Survey information for the site indicates that the soils are London Clay Formation – clay, silt and sand. Soils of this type will be suitable for the growth of a large number of tree species but are also shrinkable, therefore foundations for buildings close to trees need to take account of subsidence and heave risk.

3.9 Species which are particularly suitable and grow to depth in clay soils include oak, hornbeam, poplar and willow, although a large number of species will grow very well in soils of this type.

Policy context

3.10 Planning policy at national level is set out in the government's National Planning Policy Framework (NPPF) which came into immediate effect on 27 March 2012. The NPPF replaces the previous national planning policy documents including Planning Policy Guidance (PPGs) and Planning Policy Statements (PPSs). The NPPF is a material consideration in determining planning applications.

3.11 The NPPF sets out overarching planning policy and at its core is a presumption in favour of sustainable development. Sustainable development is defined in the NPPF as having economic, social and environmental strands that are interdependent and in these areas planning should meet the needs of the present without compromising the ability of future generations to meet their own needs.

3.12 The NPPF states that planning should be "not only about scrutiny, but instead be a creative exercise in finding ways to enhance and improve the places in which people live their lives." And should "always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings;" Also that planning should contribute to conserving and enhancing the natural environment and reducing pollution."

3.13 The NPPF identifies thirteen aspects contributing to the delivery of sustainable development, including:

- establishing a strong sense of place;
- responding to local character and history; and
- providing developments that are visually attractive as a result of good architecture and appropriate landscaping

3.14 Paragraph 61 of the NPPF states “planning policies and decisions should address the connections between people and places and the integration of new development into the natural, built and historic environment.”

3.15 The NPPF states that “planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland. Unless the need for, and benefits of, the development in that location clearly outweigh the loss”.

Regional Policy

3.16 Regional planning policy consists of the London Plan 2011 and associated policy documents including the recently published Climate Change Adaptation Strategy (Managing Risks and Increasing Resilience – October 2011).

3.17 Policy 7.21 of the London Plan 2011 calls for trees and woodlands to be maintained and enhanced. The policy requires that existing trees should be retained and that any loss as a result of development should be replaced in sustainable locations. The policy suggests that, where appropriate, large canopied species should be planted (rather than smaller ornamental species).

3.18 The Mayor’s climate change adaptation strategy recommends measures to be taken to reduce a building’s contribution to the urban heat island effect in London. These include:

- Incorporating green roofs, green walls and climbing plants.
- Planting and managing deciduous trees to provide dense summer shade.

3.19 The London plan references the London Tree and Woodland Framework (LTWF) in Policy 7.21, which states: “The Mayor has published the Tree and Woodland Framework that promotes the guiding principle of ‘right place, right tree’, taking

account of the context within which a tree is to be planted and addressing the issue of planting species appropriate to expected future climates."

3.20 The LTWF provides guidance on locations which are most suitable for the growth of trees. In particular it points out that trees are most needed where they can provide people with access to nature and that tree locations should be in positions where they can develop to maturity in harmony with the surroundings. In addition the strategy suggests that soil conditions should be suitable in terms of the resources that trees will require.

Unitary Development Plan

3.21 The Camden Unitary Development Plan adopted January 2007. Relevant policies to the consideration of trees, their setting and development include:

3.22 **Policy STRA 36 Metropolitan Open Land and Public Open Space** - Policy specifically to protect and encourage the enhancement of public access to, and enjoyment of, Metropolitan Open Land, as well as to protect and enhance the existing provision of open space and to promote its additional provision.

3.23 **Policy DES 12 Parks, gardens and Squares** - Does not permit development on or under parks, landscaped spaces, or gardens where the open space forms an important element in the townscape, part of a planned estate or street layout, are characteristic features of conservation areas, provide the setting for listed buildings, or are of significant ecological value. It also sets out protection given to London Squares (incl. civic spaces such as Trafalgar Square and Parliament Square), and English Heritage registered parks and gardens in Westminster. The policy protects open spaces by limiting development adjacent to them except where it would safeguard their appearance, setting and ecological value, and preserve their historic integrity and views.

3.24 **Policy ENV 14 Metropolitan Open Land** - Ensures the protection and enhancement of the Royal Parks, their settings, and the views from them.

3.25 **Policy ENV 15 Public and Private Open Space** - Assigns similar protection to public or private open space of amenity, recreational or nature conservation value, unless the [proposed] development is essential and ancillary to maintaining or enhancing that land as valuable open space.

3.26 **Policy ENV 16 Trees and Shrub Cover** - Protects trees in conservation areas and those subject to Tree Preservation Orders and protects trees which form part of a green corridor.

Statutory Protection of trees

3.27 According to Camden Borough Council's on line mapping facility the site is located within the Elsworthy conservation area and therefore subject to statutory protection.

3.28 I am not aware of any tree preservation orders existing on this site but prior to undertaking any tree works confirmation of this should be sort from the local authority.

4 TECHNICAL INFORMATION

Tree Data

4.1 The location of trees and groups of trees are shown on the tree survey drawing 140229-P-10 at Appendix A, this plan illustrates the location of trees and the extent of the spread of their crowns. Dimensions, comments and information for each tree are given in the tree schedule 140229-PD-10 at Appendix B.

Life stage analysis

4.2 Unlike age in numerical terms (years), this description is used to describe the physical form of a tree in relation to its typical life expectancy and varies between species; for example an oak may have a young form after 20 years while a cherry tree will be middle-aged after 20 years and will have developed the appearance of a mature tree with a spreading rounded crown whilst the oak remains tall and slender with strong apical dominance.

4.3 The trees surveyed were of varying life stage. To the front of the property the off-site street tree (T1) and neighbouring T2 are both mature. The majority of trees located within the rear garden of the site and adjacent properties were a mix of early mature and mature trees.

4.4 Full details of the trees, hedges and shrubs surveyed can be found at Appendix B.

BS5837 category breakdown

4.5 The low quality or immaturity of the majority of trees resulted in only three trees and one hedge being assessed as moderate quality using the BS5837 (2012) methodology. The remaining trees and vegetation were graded as C category; in most cases this reflected the immaturity of the trees and their mediocre form.

5 ANALYSIS OF THE PROPOSAL IN RESPECT OF TREES

Proposed development

5.1 The layout for the proposed extension and development of the basement is shown on plan 140229-P-11 at Appendix A and is for extensive internal modifications to include basement construction beneath the rear garden and landscape alterations.

5.2 The proposals will result in the loss of some shrubs and 5 trees within the rear garden area. These trees and shrubs are not of significance and are not widely visible to the public.

5.3 There will be some minor landscaping works to the front garden however this will be limited to modifications to the existing layout. Where necessary, landscaping modifications can be made the subject of suitably worded planning conditions.

6 DISCUSSION.

6.1 The proposed development does not require the removal of any significant trees or trees which are important to public amenity. The development provides an opportunity for the re-landscaping of the rear and front garden areas of the property which are currently outdated and have had poor historic management.

6.2 The basement proposals have been carefully designed to avoid the root protection areas of significant trees and by following the tree protection measures detailed within this report no retained trees will be harmed.

How do the changes relate to planning policy?

6.3 I have ensured that the proposal has been assessed carefully in terms of design in relation to retained trees. I have advised on the need for appropriate protective fencing to be erected. The proposed scheme for tree protection is shown on drawing 140229-P-12 at Appendix A. Further details can be provided in response to planning conditions.

7 CONCLUSIONS

Sustainable development

7.1 The design of the proposal has considered the potential constraints of all trees and shrubs relevant to this development to ensure that the impact from the construction works are kept to a minimum.

7.2 The proposal does not involve works that will significantly affect important trees and all retained trees can be adequately protected.

7.3 As there will be no significant impact on important trees as a result of the development, the proposal complies with the requirements of National, regional and local policies and guidance in relation to the trees and their important setting.

7.4 It will be necessary to provide details of tree protection and construction methods to be used in the front garden area of the property to ensure that the roots and soil environment of trees in this area are protected.

8 TMA SUPPORTING INFORMATION

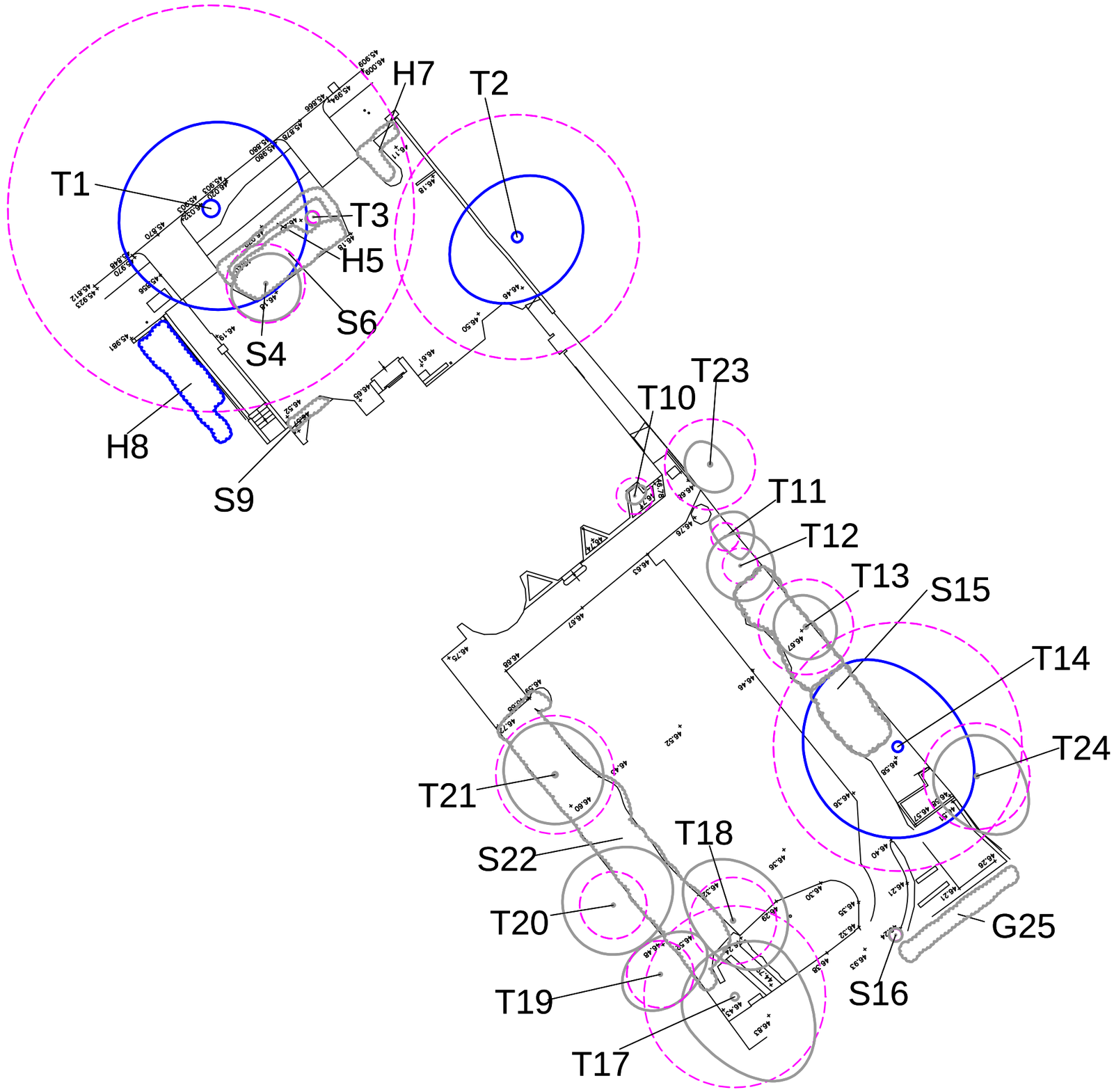
Document	Reference
Tree Schedule	140229-PD-10
Tree Survey	140229-P-10
Proposed removals	140229-P-11
Proposed protection	140229-P-12

APPENDIX A

Tree Survey 140229-P-10

Proposed Layout and Tree removals 140229-P-11

Proposed Layout and Tree protection 140229-P-12



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INVESTORS IN PEOPLE

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

BS 5837:2012 TREE RETENTION CATEGORIES

Category A
Trees of high quality and value: in such a condition as to be able to make substantial contribution (a minimum of 40 years is suggested)

Category B
Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20years is suggested)

Category C
Trees of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10years is suggested), or young trees with a stem diameter below 150mm.

Category U
Those in such a condition that the tree cannot realistically be retained as living trees in the context of the current land use for longer that 10 years.

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

-	-	

REVISIONS

Base Drawing

- - 3140859

0 5m 10m 15m

Title
Tree Survey

Client
Shore Securities Ltd

Project
35 Elsworthy Road

Date		Drawn by
March 2014		KL
Drawing No	Rev	Scale
140229-P-10	-	1:250 @ A3

DO NOT SCALE Use only figured dimensions

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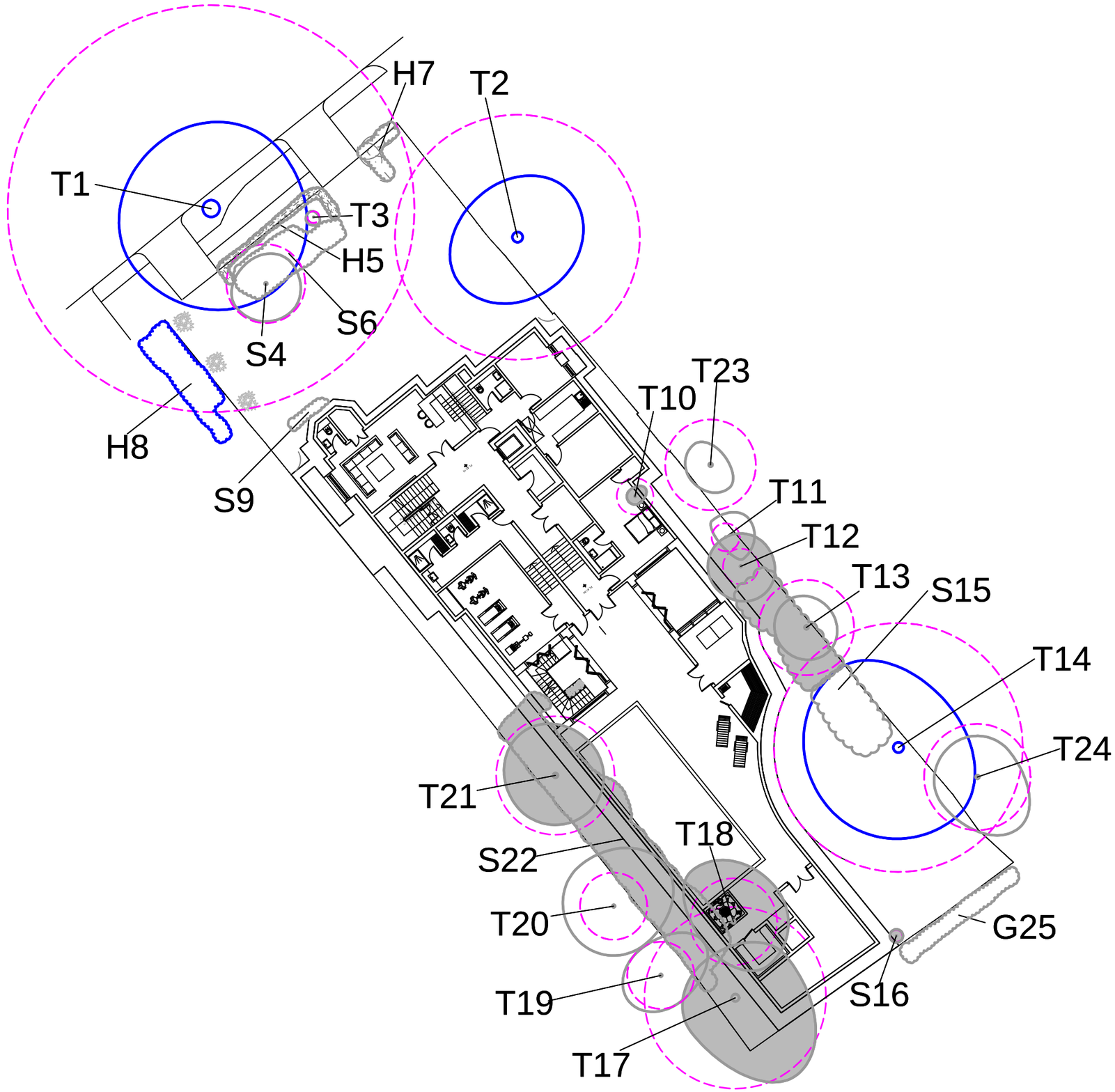

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Trees to be removed shown shaded

BS5837 Root Protection Areas
Precautionary areas within which tree roots and soil structure must be protected. All works within these areas will require special methods of work

-	-	-
REVISIONS		
Base Drawing		
-	-	REV Proposed Basement option 6

0 5m 10m 15m

Title
Proposed Layout and Tree Removals

Client
Shore Securities Ltd

Project
35 Elsworthy Road

Date	Drawn by
August 2014	DA

Drawing No	Rev	Scale
140229-P-11	-	1:250 @ A3

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ARBORICULTURAL METHOD STATEMENT

BRITISH STANDARD 5837(2012)

This method statement is in accordance with British Standard 5837: Trees in relation to design, demolition and construction - Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.

TREE SURGERY WORKS

Only tree works specified within this document may be carried out. Any uncertainty regarding trees to be pruned will be immediately confirmed with the arboricultural consultant and local authority tree officer.

All tree works will be carried out in accordance with the recommendations given in the current BS 3998 (2010).

All tree works should be carried out in accordance with the Wildlife and Countryside Act 1981 (as amended) and the Habitat Regulations 2010.

SITE SUPERVISION

All key / critical activities that will affect trees during construction will be inspected and monitored by the approved arboricultural consultant and reports issued to the client and local authority.

Supervision visits will occur as follows;

- Inspection of tree works, tree protection prior to demolition and construction works
- Monthly visits to inspect tree protection measures
- During works that may affect retained trees

PROTECTIVE FENCING

No materials or equipment other than those required to erect protective fencing, will be delivered to the site before the fencing is installed. The position of protective fencing for demolition is shown on this drawing.

Protective fencing will be constructed of robust barriers fit for the purpose of excluding demolition and construction traffic. Signs will be fixed to every third panel stating '**Tree Protection Area Keep Out - Any incursion into the protected area must be with the agreement of the local authority or arboricultural consultant**'.

The main contractor will inform the local authority officer and the arboricultural consultant that tree protection is in place before demolition or site clearance works commence.

No alteration, removal or repositioning of the tree protection for demolition will take place during the demolition phase without the prior consent of the arboricultural consultant.

SERVICES AND DRAINAGE

Methods of working for installation of the drainage runs or services will follow the guidance within Table 3 of BS 5837 (2012), or National Joint Utilities Group (NJUG) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Volume 4, issue 2, London NJUG 2007.

No works will occur within the tree protection zone without prior agreement from the arboricultural consultant. No machinery will be permitted within the TPZ at any time.

GENERAL PROTECTION METHODS

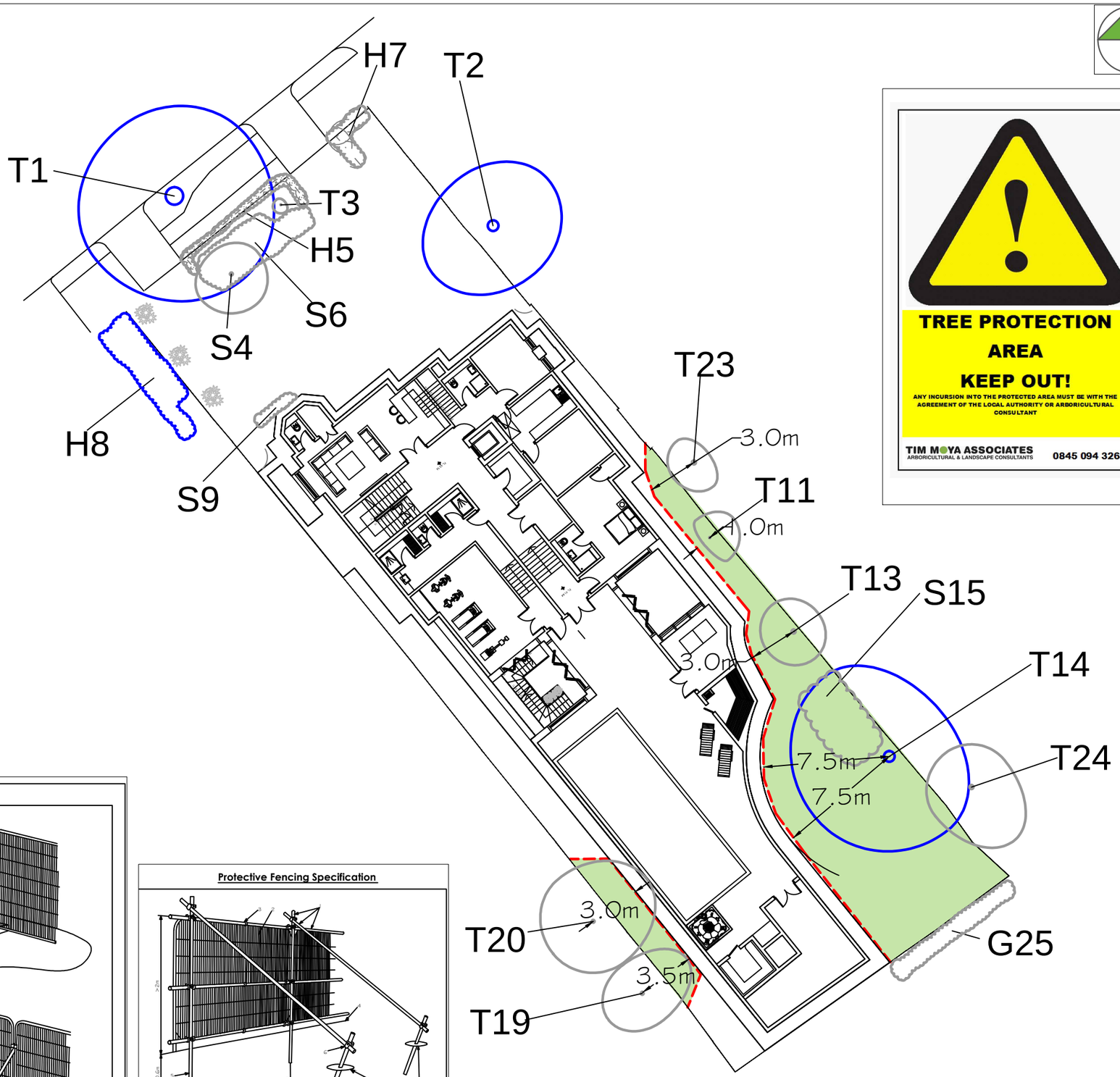
No fires will be permitted within 20m of the crown of any tree.

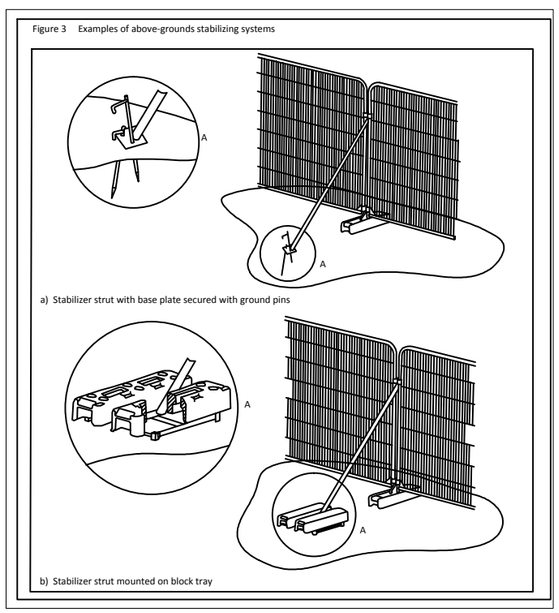
No changes in soil levels will take place within the tree protection zones without prior written consent of the local authority.

No materials, vehicles, plant or personnel will be permitted into the tree protection zones at any time without the prior consent of the arboricultural consultant.

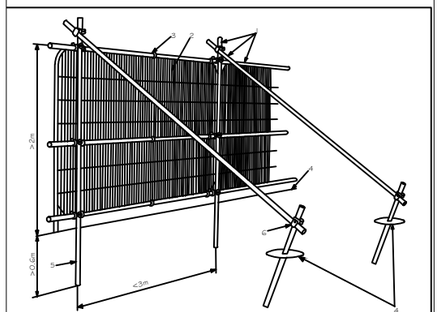
Any liquid materials spilled on site will be immediately cleared up and removed from the site. If liquid fuel or cement products are spilled within 2m of the tree protection zone, the contractor will report the incident to the arboricultural consultant immediately.

The contractor will report any damage to trees or shrubs, whether caused by construction activities or from any other cause, to the arboricultural consultant immediately.





Protective Fencing Specification



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground Level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

INVESTORS IN PEOPLE

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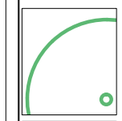
BS 5837:2012 TREE RETENTION CATEGORIES



Category A
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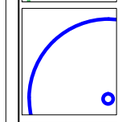
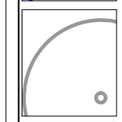


Category B
Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20years is suggested)



Category C
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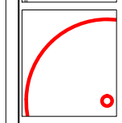

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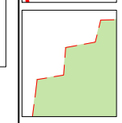

Position of protective fencing and tree protection zones.

-	-	
REVISIONS		
Base Drawing		
	-	FEV Proposed Basement option G

0 5m 10m 15m

Title
Tree Protection Plan

Client
Shore Securities Ltd

Project
35 Elsworthy Road

Date		Drawn by
August 2014		DA
Drawing No: 140229-P-12	Rev: -	Scale: 1:250 @ A3

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APPENDIX B

Tree Schedule 140229-PD-10

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ARBORICULTURAL & LANDSCAPE CONSULTANTS

35 Elsworthy Road, London, NW3 3BT

Tree/Group Number	No. of Trees	Species	DIMENSIONS Height (m)	Stem diameter (cm)	No. of Stems	Spread S (m)	Spread W (m)	Spread N (m)	Spread E (m)	Crown Clearance (m)	Life stage	Condition Notes / Recommendations	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T1	1	***Platanus x hispanica*** London plane	16.0	103	1	6.3	5.9	5.1	5.5	4.0	Mature	Structural condition Good. Physiological condition Fair. Crown reduction - Recent. Root environment - Restricted.	479.9	12.4	20-40	B2
Tree T2	1	***Tilia sp.*** Lime sp.	13.0	62	1	3.7	4.5	3.4	4.2	3.4	Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Pollard - Lapsed / Mature stems. Fork - Weak with included bark. Crown reduction - Recent. Off-site tree	173.9	7.4	20-40	B1
Tree T3	1	***Prunus sp.*** Cherry/Plum species	3.3	3	1	0.5	0.5	0.4	0.3	2.0	Young	Structural condition Fair. Physiological condition Fair. Staked tree / trees. Pruning wounds - Historic. Grafted specimen.	0.4	0.4	10-20	C2
Shrub S4	1	***Syringa sp.*** Lilac sp.	3.0	16 AVE	2	2.3	2.3	1.7	2.0	1.4	Mature	Structural condition Fair. Physiological condition Fair. Pruning wounds - Historic. Leaning trunk - Minor.	18.1	2.4	10-20	C2
Hedge H5	25	***Ligustrum ovalifolium***	1.0	2						0.0	Early Mature	Structural condition Fair. Physiological condition Good. Hedgerow - Maintained.			10-20	C1
Shrub S6	3	***other*** other	1.5	3						0.0	Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent vegetation. Mixed shrub bed			10-20	C2
	4	***Euonymus fortunei***														
	2	***Hydrangea sp.***														
	1	***Mahonia aquifolium***														
	1	***Picea abies*** Norway spruce														
	2	***Rosa sp.***														

Stem green estimated value
Stem AVE average stem diameter for multi-stemmed trees

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Tree/Group Number	No. of Trees	Species	DIMENSIONS Height (m)	Stem diameter (cm)	No. of Stems	Spread S (m)	Spread W (m)	Spread N (m)	Spread E (m)	Crown Clearance (m)	Life stage	Condition Notes / Recommendations	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Hedge H7	1	***other*** other	1.7	3						0.0	Early Mature	Structural condition Fair. Physiological condition Fair. Hedgerow - Maintained.			10-20	C2
	1	***Ilex sp.*** Holly sp.														
	7	***Ligustrum ovalifolium***														
Hedge H8	11	***Carpinus betulus*** Hornbeam	3.0	10						0.0	Semi Mature	Structural condition Good. Physiological condition Good. Hedgerow - Maintained.			20-40	B2
Shrub S9	1	***other*** other	1.4	3						0.0	Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent vegetation. Mixed shrub bed			10-20	C2
	1	***Euonymus fortunei***														
	1	***Hydrangea sp.***														
Tree T10	1	***Missing Species***	2.0	6 AVE	3	0.5	0.5	0.5	0.8	1.0	Semi Mature	Structural condition Fair. Physiological condition Good. Multi-stemmed. Pruning wounds - Historic.	3.9	1.1	10-20	C1
Tree T11	1	***Olea europaea*** Olive	2.5	5 AVE	2	1.7	0.5	1.3	1.8	1.0	Semi Mature	Structural condition Good. Physiological condition Good. Epicormic growth - Base.	2.3	0.8	10-20	C2
Tree T12	1	***Betula jacquemontii*** Himalayan birch	6.5	9	1	2.2	2.0	2.0	2.0	1.0	Semi Mature	Structural condition Fair. Physiological condition Fair. Fork - Weak with included bark.	3.7	1.1	10-20	C2
Tree T13	1	***Ilex aquifolium*** Holly	6.5	22 AVE	2	2.0	1.9	2.0	1.8	2.5	Early Mature	Structural condition Fair. Physiological condition Fair. Ivy or climbing plant. Access to inspect base - Restricted / obscured. Dbh estimated Unable to inspect closely due to ivy.	26.4	2.9	10-20	C2
Tree T14	1	***Platanus x hispanica*** London plane	15.5	63	1	5.5	5.6	6.0	4.0	4.0	Mature	Structural condition Fair. Physiological condition Good. Pollard - Regrown. Pruning wounds - Recent. Branch - Suspended. Crown reduction on neighbours side of tree	179.6	7.6	20-40	B1

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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Tree/Group Number	No. of Trees	Species	DIMENSIONS Height (m)	Stem diameter (cm)	No. of Stems	Spread S (m)	Spread W (m)	Spread N (m)	Spread E (m)	Crown Clearance (m)	Life stage	Condition Notes	Recommendations	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Shrub S15	10	***other*** other	1.7	3						0.0	Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent vegetation. Mixed shrub bed				10-20	C2
	2	***Hydrangea sp.***															
	1	***Mahonia aquifolium***															
	2	***Taxus baccata*** Yew															
Shrub S16	1	***Buxus sempervirens*** Common box	1.5	3	1	0.4	0.4	0.4	0.4	0.0	Semi Mature	Structural condition Good. Physiological condition Good. Pruning wounds - Recent.		0.4	0.4	10-20	C2
Tree T17	1	***Acer platanoides*** Norway maple	5.5	46	1	6.0	3.4	2.9	4.0	1.5	Mature	Structural condition Fair. Physiological condition Fair. Crown conflict - Structure / boundary / wire / tree. Leaning trunk - Minor. Pruning wounds - Historic. Fused limb / limbs. Pollard - Regrown.		95.7	5.5	10-20	C2
Tree T18	1	***Prunus sp.*** Cherry/Plum species	9.0	22	1	3.4	2.2	4.0	3.3	1.3	Early Mature	Structural condition Fair. Physiological condition Fair. Girdling roots - Minor. Graft defect. Pruning wounds - Historic.		21.9	2.6	10-20	C2
Tree T19	1	***Robinia pseudoacacia*** False acacia	9.5	17	1	2.0	2.5	2.0	3.3	2.7	Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible.		13.1	2.0	10-20	C2
Tree T20	1	***Robinia pseudoacacia*** False acacia	9.5	17	1	3.0	3.0	3.2	4.0	2.7	Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible.		13.1	2.0	10-20	C2
Tree T21	1	***Prunus sp.*** Cherry/Plum species	6.0	30	1	3.0	3.0	3.3	2.9	2.0	Mature	Structural condition Fair. Physiological condition Good. Pruning wounds - Historic. Branch - Broken.		40.7	3.6	10-20	C2

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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Tree/Group Number	No. of Trees	Species	DIMENSIONS Height (m)	Stem diameter (cm)	No. of Stems	Spread S (m)	Spread W (m)	Spread N (m)	Spread E (m)	Crown Clearance (m)	Life stage	Condition Notes	Recommendations	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Shrub S22	3	***other***	1.9	3						0.0	Early Mature	Structural condition Fair. Physiological condition Fair. Competition - Adjacent vegetation. Mixed shrub bed				10-20	C2
		other															
	1	***Acer palmatum cv.***															
	1	***Berberis thunbergii 'Atropurpurea'***															
	2	***Buddleia davidii***															
	1	***Ceanothus sp.***															
	2	***Cotoneaster sp.***															
	1	***Cotoneaster horizontalis***															
	1	***Euonymus sp.***															
		Spindle															
	1	***Euonymus fortunei***															
	1	***Forsythia x intermedia***															
	4	***Hydrangea sp.***															
	1	***Ilex aquifolium***															
		Holly															
	3	***Ligustrum sp.***															
	3	***Rosa sp.***															

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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35 Elsworthy Road, London, NW3 3BT

Tree/Group Number	No. of Trees	Species	DIMENSIONS Height (m)	Stem diameter (cm)	No. of Stems	Spread S (m)	Spread W (m)	Spread N (m)	Spread E (m)	Crown Clearance (m)	Life stage	Condition Notes	Recommendations	RPA (m^2)	RPR (m)	Life expectancy (yrs)	BS Category
Tree T23	1	***Ailanthus altissima*** Tree of heaven	5.0	23	1	1.8	1.5	1.6	1.0	1.5	Early Mature	Structural condition Fair. Physiological condition Fair. Crown reduction - Recent. Access to inspect base - Not possible.		23.9	2.8	10-20	C1
Tree T24	1	***Griselinia littoralis***	6.0	23 AVE	2	4.0	2.7	2.5	2.5	2.0	Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Crown conflict - Structure / boundary / wire / tree.		32.8	3.2	10-20	C2
Group G25	5	***Sambucus nigra*** Elder	5.0	8						3.0	Early Mature	Structural condition Fair. Physiological condition Fair. Access to inspect base - Not possible. Competition - Adjacent trees. Overhanging into property, located in adjacent park approx. 3m below property ground level				10-20	C2

Stem green estimated value

Stem AVE average stem diameter for multi-stemmed trees

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Table 1 of BS5837 (2012) **Cascade chart for tree quality assessment**

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see note)				
Category U Those 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	* Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) * Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline * Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7*			RED
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricutural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	GREEN
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	BLUE
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	GREY

- Feasibility Tree Surveys
- British Standard 5837 Tree Surveys
- Tree Constraints Reports & Drawings
- Appeal Statements & Proofs
- Expert Witness
- Evidence at Hearings & Public Inquiries
- Method Statements to Satisfy Planning Conditions
- Design Solutions
- Landscape Plans
- Tender Documents & Drawings
- Supervision & Inspection of Works
- Contract & Project Management
- Health & Safety Surveys
- GPS Surveys
- Computerised Tree Population Surveys
- CAD Plans & Consultancy
- Subsidence Risk Assessments
- Mortgage & Insurance Reports
- TPO Review
- Local Government Officer Contracts
- Arboricultural & Ecological Reports for Planning
- Habitat Surveys (Extended Phase 1/ Walkover/ Botanical)
- Protected Species Surveys
- Ecological Mitigation & Licencing
- BREEAM & CFSH
- Ecological Management Plans
- Hedgerow Surveys
- Landscape Analysis

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