



25 A Highgate West Hill, Highgate, London,
N6 6NP

Arboricultural Report, Tree Constraints Plan
&
Impact Assessment

Surveyor: John Crawshaw M.Arbor.A.

Survey Date: Tuesday, 16 March 2021

Report Date: Wednesday, 24 March 2021

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1. Introduction

1.1. Brief

I am instructed to inspect the trees at **25 A Highgate West Hill, Highgate, London, N6 6NP** to provide an arboricultural report and impact assessment for the trees located within and adjacent to the site, as shown on the Tree Constraints Plan enclosed.

1.2. Qualifications and experience

I have based this report on my site observations and the provided information, and I have come to conclusions in the light of my experience and qualifications. RFS Cert Arb.

M. Arbor A

1.3. Documents and information provided

I was provided with base and proposal plans.

1.4. Scope of this report

This report is only concerned with the trees shown on the enclosed plan. Trees with a diameter of less than 75mm and shrub species have not been surveyed in line with BS5837 2012.

1.5. Limitations of use and copyright

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2. Site Visit/Observations & Data Collection

2.1. Site visit

I carried out the tree survey on the **Tuesday, 16 March 2021** my observations were from ground level only.

2.2. Site description

The survey site comprises a residential dwelling with small front and rear gardens containing a variety of shrubs & trees.



2.3 Identification and location of the trees

The trees have been identified and are listed within the Tree Survey Schedule. I have plotted the locations of the trees on the plan included. All the relevant information on it is contained within this report and the provided documents. Only the significant trees are included in this report; trees with a diameter of less than 75mm (BS5837 2012) are not included unless their position was felt to be significant. All trees have been allocated a classification. The classification cascade chart can be found below.

CASCADE CHART FOR TREE QUALITY ASSESSMENT (from British Standard 5837:2012 "Trees in Relation to Design, Demolition and Construction")		
TREES FOR REMOVAL		Identification on Plan
Category and Definition	Criteria	
<p>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</p>	<p>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 U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning).</p> <p>Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.</p> <p>Trees infected with pathogens of significance to the health and/or safety of other trees nearby), or very low quality trees suppressing adjacent trees of better quality.</p> <p>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7</p>	DARK RED
TREES TO BE CONSIDERED FOR RETENTION		
Criteria – Subcategories		
Category and Definition	1. Mainly Arboricultural Qualities	2. Mainly Landscape Qualities
<p>Category A Those of high quality with a estimated remaining life expectancy of at least 40 years</p>	<p>Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>
<p>Category B Those of moderate quality with a estimated remaining life expectancy of at least 20 years</p>	<p>Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of unsympathetic past management and storm damage) such that they are unlikely to be suitable for retention for beyond 40 years; or lacking the merit for Category A</p>	<p>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</p>
<p>Category C Those of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>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</p>
		Identification on Plan
		LIGHT GREEN
		MID BLUE
		GREY

2.4. Tree Survey Schedule

Ref	Species	H/T	Stems	Dia mm	Canopy				First Branch	Crown H/T	Age	Yrs	Cat	Observations	Recommendations	RPA (r)	RPA (a)	TPO/CON
					N	E	S	W										
T1	Magnolia	5	M	300	3	3	3	3	25	2	Mature	40+	B	"Good overall condition, within neighbouring property"	None	3	28.3	CON
T2	Bull Bay Magnolia	3	M	200	1.5	1.5	1.5	1.5	2W	2	Early Mature	40+	C	Good overall condition	None	2	12.6	CON
T3	Olive	2	M	75	0.5	0.5	0.5	0.5	.5N	0.5	Young	40	C	Good overall condition	None	0.75	1.8	CON
T4	Bay	2	M	100	0.5	0.5	0.5	0.5	.5S	0.5	Young	40	C	Good overall condition	None	1	3.1	CON
T5	Laurel	4	M	150	0.5	1.5	0.5	0.5	.5S	0.5	Young	40	C	Good overall condition	None	1.5	7.1	CON
T6	Elder	4	M	100	0.5	0.5	1.5	0.5	.5S	1.5	Young	40	C	Poor quality specimen within neighbouring property	None	1	3.1	CON
T7	Conifer	10	S	250	2	2	2	2	1N	1	Early Mature	40	C	Good overall condition, within neighbouring property	None	3	28.3	CON

2.4.1. Glossary of Terms

ID: Identification on position plan

Name: Common species name

H/T: Current tree height

Stems: Single or Multiple stems

Dia: Diameter of stem at 1.5m above ground (mm)

Canopy: Canopy measurements N,E,S & W

Crown Height: Height of lowest part of crown

First Branch: Height and direction of first branch

Age: Current age

Yrs: Approximate years of life remaining

Cat: Category of importance in line with current British Standards

Obs: Observations

Recs: Recommendations

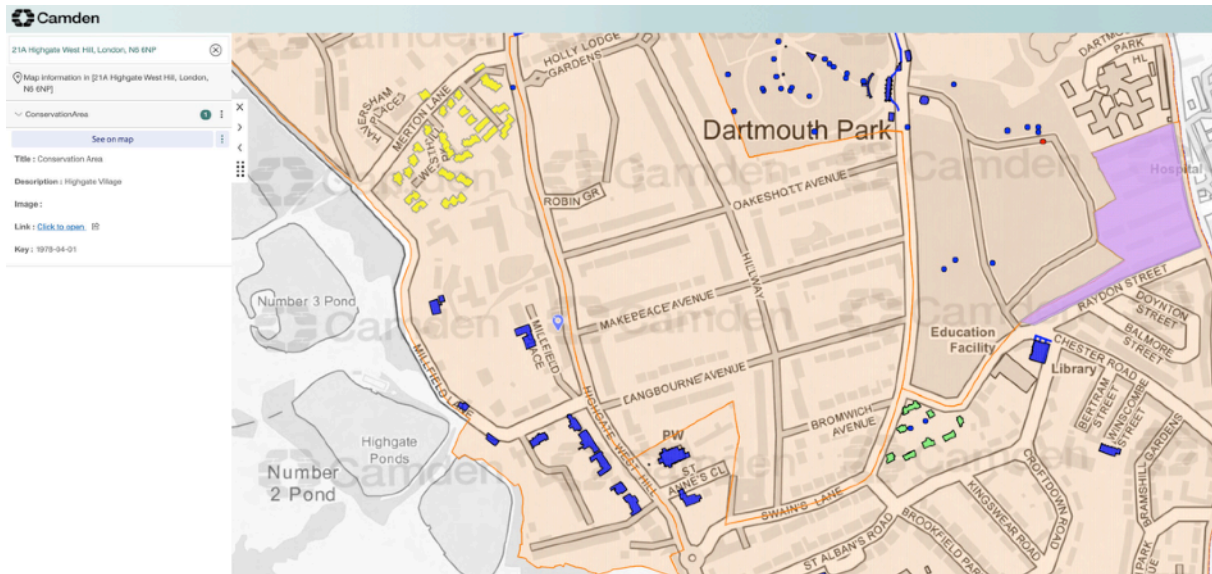
RPA (r): Root protection area (approximate area of roots Radius of circle)

RPA (a): Root protection area (approximate area of roots Area of circle)

TPO/CON: Statutory Protection

2.4.2. Statutory Protection

A thorough investigation into statutory tree protection at Camden Council revealed that the site lies within the Highgate Village Conservation Area. All trees are protected within the designated area.



2.4.3. Tree Survey Methodology

Trees, tree groups and woodlands have been considered following evaluation into one of four categories (U, A, B, C) based on tree quality as outlined in British Standard 5837 (2012) which has been followed. Categorisation of trees, following the British Standard, gives an indication as to the trees' importance in relation to the site and the local landscape and also, the overall value and quality of the existing tree stock on site. This allows for informed decisions to be made concerning which trees should be removed or retained, should development occur.

For a tree to qualify under any given category it should fall within the scope of that category's definition. In the categories A, B, C which collectively deal with trees that should be a material consideration in the development process, there are three sub-categories which are intended to reflect arboricultural, landscape and cultural values respectively. Category U trees are those which would be lost in the short-term for reasons connected with their poor physiological or structural condition. They are, for this reason, not usually considered in the planning process.

In assigning trees to the A, B or C categories the presence of any serious disease or tree related hazards are taken into account. If the disease is considered fatal and / or irremediable, or likely to require sanitation for the protection of other trees it may be categorised as U, even if they are otherwise of considerable value.

Category (A) – trees whose retention is most desirable and is of high quality and value. These trees are considered to be in such a condition as to be able to make a lasting contribution (a minimum of 40 years) and may comprise:

- Trees which are particularly good examples of their species especially rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue);
- Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups); and
- Trees or groups or woodlands of significant conservation, historical, commemorative or other value (e.g. Veteran or wood-pasture trees).

Category (B) – are trees whose retention is considered desirable and are of moderate quality and value. These trees are considered to be in such a condition as to make a significant contribution (a minimum of 20 years) and may comprise:

- Trees that might be included in the high category but because of their numbers or slightly impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage), are downgraded in favour of the best individuals;
- Trees present in numbers such that they form distinct landscape features and attract a higher collective rating than they would as individuals. Individually these trees are not essential components of formal or semi-formal arboricultural features, or trees situated mainly internally to the site and have little visual impact beyond the site; and
- Trees with clearly identifiable conservation or other cultural benefits.

Category (C) – are trees that could be removed to facilitate the development and are considered to be of low quality and value. These trees are in an adequate condition to remain until new planting could be established (a minimum of ten years) or are young trees with a stem diameter below 150mm and may comprise:

- Trees not qualifying in higher categories;

- Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value and or trees offering low or only temporary screening benefit; and
- Trees with very limited conservation or other cultural benefits.

Category (U) – trees for removal are those trees in such a condition that any existing value would be lost within 10 years and which should in the current context be removed for reasons of sound arboricultural management. Trees within this category are:

- 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;
- Trees that are dead or are showing signs of significant, immediate or irreversible overall decline; and
- Trees infected with pathogens of significance to the health and or/safety of other trees nearby trees or very low quality trees suppressing adjacent trees of better quality.

Species has been recorded by common name and recorded as such in the Arboricultural Data schedule. Height has been estimated in meter and stem diameters have been measured at 1.5 metres above ground level and recorded in millimetres. Crown spreads have been measured in half meters and taken to the point of greatest spread unless the crown has presented a pronounced asymmetrical form and therefore measurements have been taken for the four cardinal points. The measurements have always been considered in the following sequence, North, East, South, and West, and therefore appear as such within the Tree Survey Schedule.

In the assessment particular consideration has been given to the following when deciding the most appropriate British Standard Category and Sub-Category allocation:

- a. the health, vigour and condition of each tree;
- b. the presence of any structural defects in each tree and its life expectancy;
- c. the size and form of each tree and its suitability within the context of the proposed scheme; and
- d. the location of each tree relative to existing site features, e.g. its value as a screen or as a skyline feature.

Age class is assessed according to the age class categories referred to in BS 5837.

1. Y: Young trees up to five years of age;
2. EM: Early mature, trees 1/3 – 2/3 life expectancy;
3. M: Mature trees over 2/3 life expectancy;
4. OM: Over mature – declining or moribund trees of low vigour; and
5. V: Veteran - Characteristics have been noted where a tree exhibits certain characteristic features of veteran trees.

Major defects or diseases and relevant observations have also been recorded under Structural Condition. The assessment for structural condition has included inspection of the following defects:

1. The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay;
2. Soil cracks and any heaving of the soil around the base indicating possible root plate movement;

3. Any abrupt bends in branches and limbs resulting from past pruning, as it may be an indication of internal weakness and decay;
4. Tight or weak 'V' shaped unions and co-dominant stems;
5. Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994);
6. Cavities as a result of limb losses or previous pruning;
7. Broken branches;
8. Storm damage;
9. Canker formations;
10. Loose bark;
11. Damage to roots;
12. Basal, stem or branch / limb cavities;
13. Crown die-back;
14. Abnormal foliage size and colour;
15. Any changes to the timing of normal leaf flush and leaf fall patterns; and
16. Other pathological diseases affecting any part of the tree.
17. Major defects or diseases and relevant observations have also been recorded. Dead wood has been defined as the following:
18. Minor dead wood 5cm to 10cm in diameter; and
19. Major dead wood 10cm in diameter and above.

The survey was completed from ground level only, aerial inspection of trees was not undertaken. Investigations as to the internal condition of a tree have not been undertaken. Further investigations of this type can be made and have been recommended where it has been considered necessary, within the report although these investigations are beyond the scope of this report.

Evaluation of the trees condition given within this assessment applies to the date of survey and cannot be assumed to remain unchanged. It may be necessary to review these within 12 months, in accordance with sound arboricultural practice.

The individual positions of trees and groups of trees recorded in the Tree Survey Schedule. have been shown on the Tree Constraints Plan. The positions of trees are based on a topographical / land survey supplied by the development and client in dwg. format for the purpose of plotting the trees.

The Root Protection Areas (RPA) to be required by the individual and groups of trees are indicated by the Tree Constraints element of the above plans. The Root Protection Areas are formulated as described below.

Below ground constraints to future development is represented by the area surrounding the tree that contains sufficient rooting volume to ensure survival of the tree, which need protecting in order for the tree to be incorporated into any future scheme, without adverse harm to the tree or structural integrity of buildings. This is referred to as the RPA and is shown as a circle of a given radius.

The circle may be modified in shape to maintain a similar total area depending on the presence of surrounding obstacles.

3. Photographs



House frontage & T's 1 & 2



T3 Olive



T4 Bay



T5 Laurel



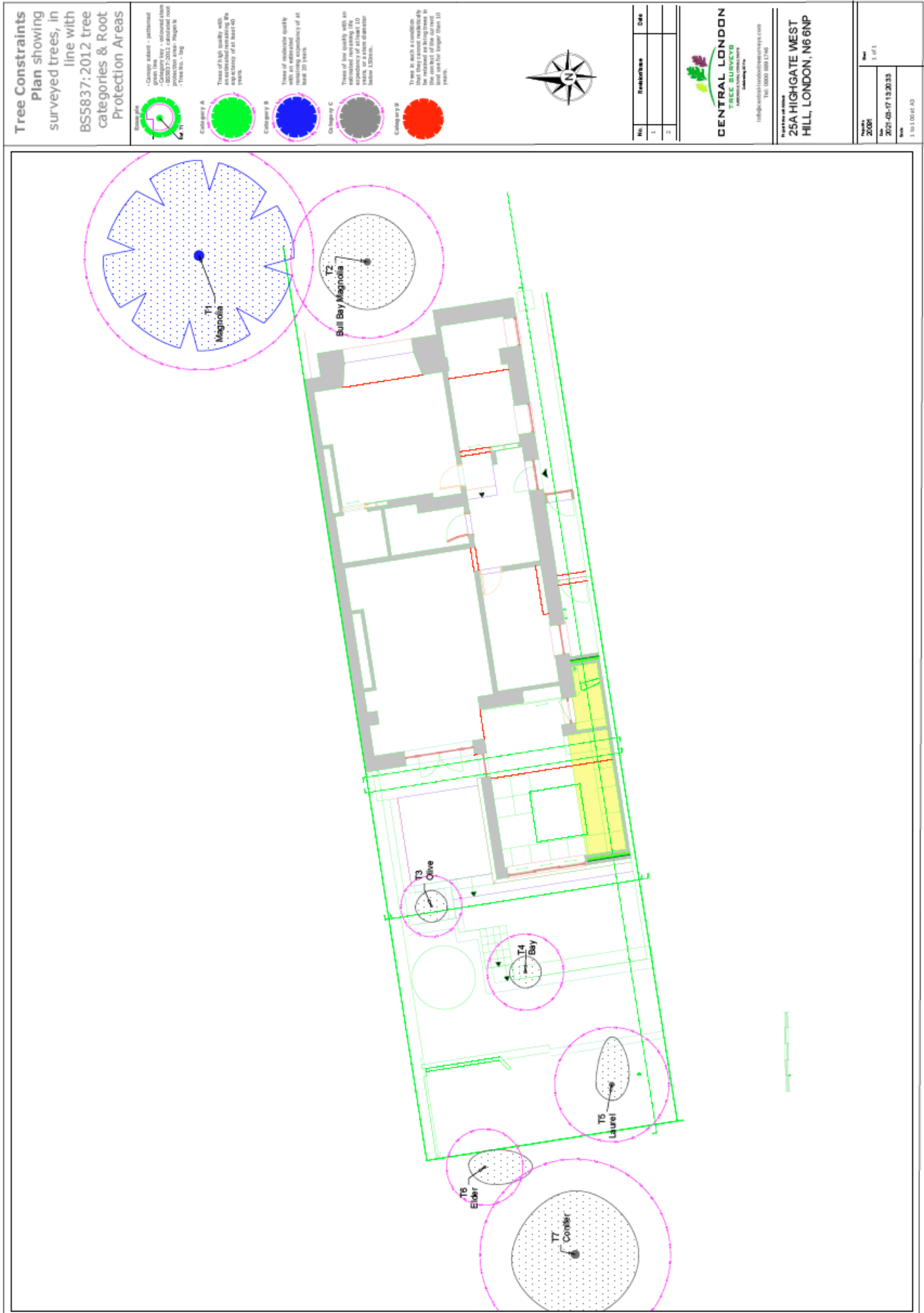
T6 Elder



Rear of house

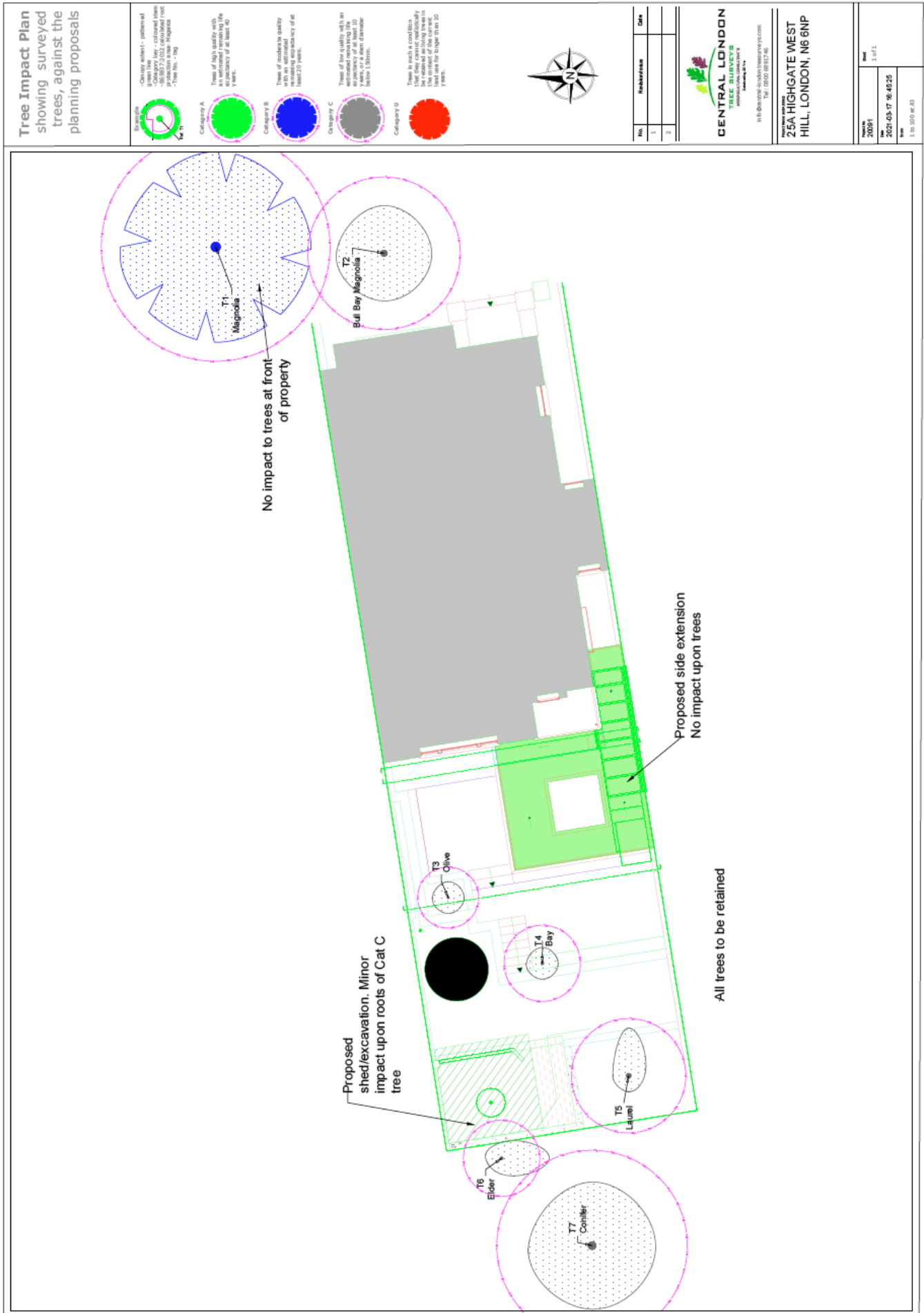
4. Tree Constraints Plan

Plan below not to scale as PDF. Please refer to original drawing for scaling



5. Tree Impact Plan

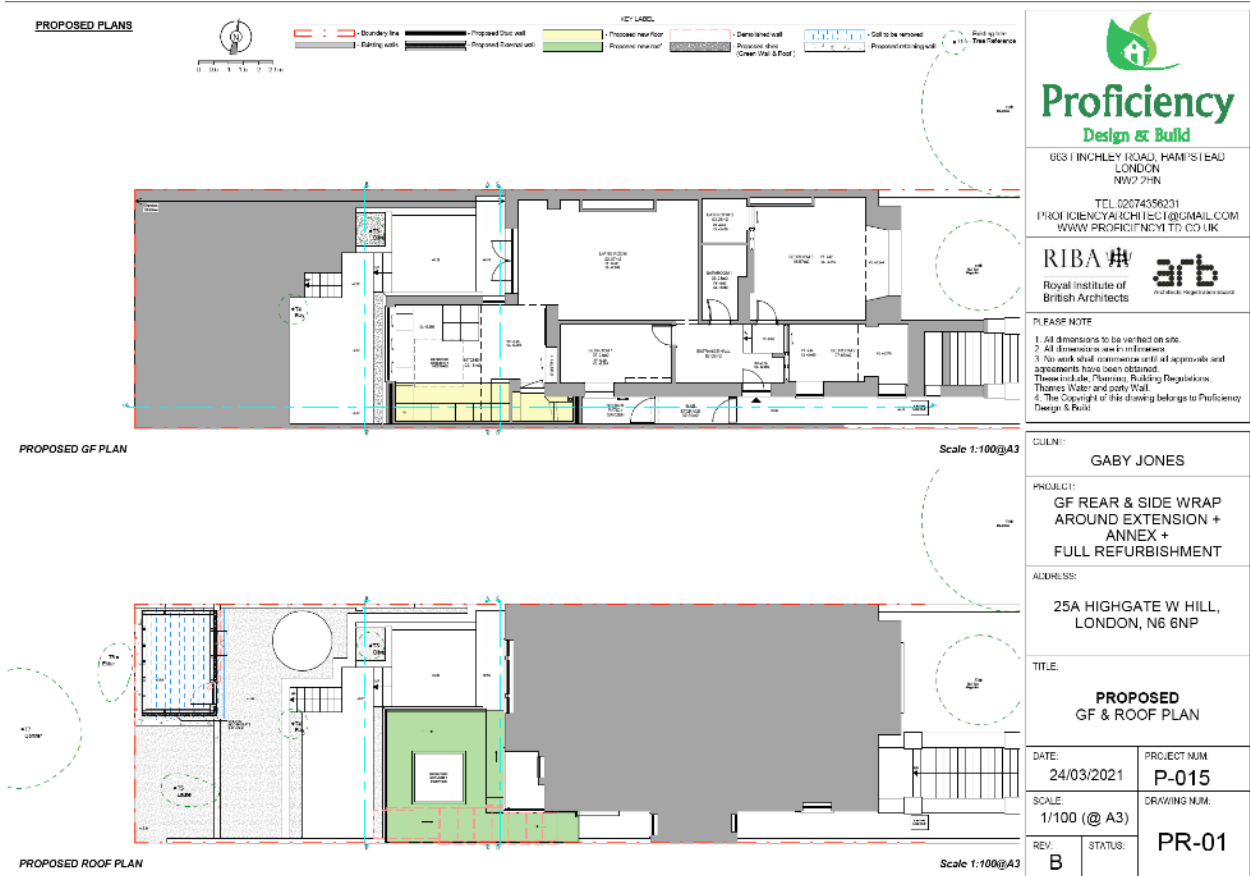
Plan below not to scale as PDF. Please refer to original drawing for scaling.



6. Arboricultural Impact Assessment

6.1 Proposals/Impact

The proposals are to extend the current property to the side and place a timber shed as shown below & on the Tree Impact Plan TIP.



7. Conclusions

All trees are protected within the Conservation Area status.

All trees can be retained and protected.

Proposals to the side of the property would pose no direct impact upon the trees.

The proposed shed, would require a small hand excavated area to provide a base for the structure. Roots from the Cat C Elder may be encountered, but could be pruned as to minimise impact. Elder responds well to pruning the limbs and roots and the impact is considered to be minor and acceptable.

No important trees are in conflict with the proposals.

Protection measures should be put in place to safeguard the retained trees during construction phases.

Reference should be made to the Wildlife and Countryside Act (1981), protection of bird and bat species, European Protected Species legislation and local planning policy.

Appendix 1. List of Tree Names

Ash	Fraxinus excelsior
Aspen	Populus tremula
Atlas cedar	Cedrus atlantica
Austrian pine	Pinus nigra
Bay willow	Salix pentandra
Beech	Fagus sylvatica
Bird cherry	Prunus padus
Black cottonwood	Populus trichocarpa
Black poplar	Populus nigra
Black walnut	Juglans nigra
Box	Buxus sempervirens
Caucasian fir	Abies nordmanniana
Cedar of Lebanon	Cedrus libani
Coast redwood	Sequoia sempervirens
Common alder	Alnus glutinosa
Common juniper	Juniperus communis
Common lime	Tilia x vulgaris
Common silver fir	Abies alba
Common walnut	Juglans regia
Corsican pine	Pinus nigra
Crab apple	Malus sylvestris
Crack willow	Salix fragilis
Cricket-bat willow	Salix alba, var caerulea
Deodar cedar	Cedrus deodara
Douglas fir	Pseudotsuga menziesii
Downy birch	Betula pubescens
English elm	Ulmus procera
Eucalypts	Eucalyptus species
European larch	Larix decidua
Fig	Ficus carica
Field maple	Acer campestre
Giant fir	Abies grandis
Grey alder	Alnus glutinosa
Grey poplar	Populus x canescens
Hawthorn	Crataegus monogyna
Hazel	Corylus avellana
Holly	Ilex aquifolium
Holm oak	Quercus ilex
Honey Locust	Gleditsia triacanthos
Hornbeam	Carpinus betulus
Horse chestnut	Aesculus hippocastanum
Italian alder	Alnus cordata
Japanese larch	Larix kaempferi
Japanese zelkova	Zelkova serrata
Large-leaved lime	Tilia platyphyllos
Lawson cypress	Chamaecyparis lawsoniana

Lodgepole pine	Pinus contorta
Lombardy poplar	Populus nigra var. italica
London plane	Platanus x hispanica
Maritime pine	Pinus pinaster
Midland thorn	Crataegus laevigata
Monkey puzzle	Araucaria araucana
Monterey cypress	Cupressus macrocarpa
Monterey pine	Pinus radiata
Noble fir	Abies procera
Norway maple	Acer platanoides
Norway spruce	Picea abies
Oriental plane	Platanus orientalis
Pedunculate oak	Quercus robur
Red alder	Alnus rubra
Red oak	Quercus rubra
Robusta poplar	Populus x robusta
Rowan	Sorbus aucuparia
Sallow (Goat willow)	Salix caprea
Scots pine	Pinus sylvestris
Serotina poplar	Populus serotina
Sessile oak	Quercus petraea
Silver birch	Betula pendula
Sitka spruce	Picea sitchensis
Small-leaved lime	Tilia cordata
Smooth-leaved elm	Ulmus carpinifolia
Snakebark Maple	Acer capillipes
Southern beech	Nothofagus antarctica
Swamp cypress	Taxodium distichum
Swedish whitebeam	Sorbus intermedia
Sweet chestnut	Castanea sativa
Sycamore	Acer pseudoplatanus
Tree of Heaven	Ailanthus altissima
Turkey oak	Quercus cerris
Wellingtonia	Sequoiadendron giganteum
Western hemlock	Tsuga heterophylla
Western red cedar	Thuja plicata
White poplar	Populus alba
White willow	Salix alba
Whitebeam	Sorbus aria
Wild cherry (Gean)	Prunus avium
Wild service tree	Sorbus torminalis
Wych elm	Ulmus glabra
Yew	Taxus baccata



0800 6891746
07734328633
info@central-londontreesurveys.com

