

Sylva Consultancy
expert arboricultural advice

Arboricultural Report

4 Bladon Close
Oxford
Oxfordshire
OX2 8AN

October 2020

Ref: 20154

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Issued: 27th October 2020



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1. INTRODUCTION

1.1 Instructions

- 1.1.1 Instructions have been received to carry out an Arboricultural Implication Assessment on the likely impact and effect with regard to the proposal to re-develop land at 4 Bladon Close, Oxford (Appendix 1).
- 1.1.2 This appraisal assesses the impact of the proposal in relation to trees and discusses mitigation measures that may have to be adopted.

1.2. Arboricultural Survey

- 1.2.1 During October 2020, a tree survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to Design, Demolition and Construction-Recommendations' and good arboricultural practice. This is a basic data collection exercise and a record of the trees condition at the time of surveying. The tree survey data can be viewed at Appendix 2, root protection area data at Appendix 3 with the tree constraints plan listed at Appendix 4.
- 1.2.2 A desk top study of information posted on Oxford City Council's website (OCC) details that the site is not located within a Conservation Area. In addition, the website revealed that no Tree Preservation Orders (TPO's) are present on trees within or adjacent the site.

1.3 Site Description

- 1.3.1 The site is located in a quiet cul-de-sac in north Oxford. Adjacent to the western boundary is the mainline Cotswold Railway line with residential properties adjacent to the north, east and southern boundaries. The site is roughly rectangular in shape and flat.

1.4 Proposed Development

- 1.4.1 It is proposed to demolish the existing dwelling and garage and to construct a new apartment block. The purpose of this report is to assist with the design process.
- 1.4.2 All tree numbers referred to in this document relate to the tree numbers annotated on the tree constraints plan and arboricultural implication assessment plan.

2. ARBORICULTURAL SURVEY

2.1 A total of 14 trees, 3 groups and 1 hedge have been recorded within this assessment. The tree quality is assessed as follows:

U: Trees that are considered to be of such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.

A: Trees of the highest quality and value and are considered to be of such a condition as to be able to make a substantial contribution (e.g. 40 years +).

B: Trees of moderate to high value and are considered to be of such a condition as to be able to make a significant contribution (e.g. 20 years +).

C: Trees of low quality with an estimated life expectancy of at least 10 years. Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories. Young trees with a stem diameter of less than 150mm should be considered for relocation or replacement through mitigation (e.g. 10 years).

Category A, B & C trees are further divided into sub-categories. These sub-categories carry equal weight and are selected for either arboricultural values, landscape values or cultural values, including conservation. Within the British Standard 5837:2012 it is recommended to record hedge and shrub masses, however in the context of the standard it is not necessary to assess the quality of these or to provide a category classification.

The numbers of trees falling under each classification within the arboricultural survey are as follows:

U: 4 trees

A: 0 trees

B: 0 trees

C: 10 trees, 3 groups & 1 hedge

3. PRINCIPLE ARBORICULTURAL IMPLICATIONS

3.1 Introduction

3.1.1 Consideration is given to the significance of the trees identified in the arboricultural tree survey, the constraints that they are likely to pose to any development that may occur, post development implications (if any) and work requirements to trees for reasons of sound arboricultural management in order to facilitate the development (BS5837:2012 Section 5.4).

3.1.2 This appraisal assesses the impact of the potential to re-develop the site in relation to the trees and discusses mitigation measures that may have to be adopted. The following documents have been provided by the Client:

- Site Location Plan
- Proposed Site Plan

3.2 Trees

3.2.1 The trees surveyed are growing predominantly along the boundaries and to the rear of the site. The site is currently unoccupied with the garden area overgrown. Four trees have been identified as requiring removal regardless of any development due to their current condition.

3.2.2 The Wildlife & Countryside Act 1981, as amended by the Countryside Rights of Way Act 2000, provides statutory protection to birds, bats and other species that inhabit trees. These have the potential to pose additional constraints on the use and timings of works that may occur to trees located at the site. These issues are beyond my expertise and it is recommended that appropriate advice is sought prior to the implementation of any works considered within this report.

3.3 Overview

3.3.1 The appended arboricultural implications plan (Appendix 5) illustrates the proposals in relation to the tree stock. In addition to pre-development concerns, post development concerns such as debris and concerns of the trees proximity and juxtaposition to the proposal have also been considered during the design process.

3.3.2 An assessment of the design on the tree stock reveal that 5 category 'C' trees, 2 category 'C' groups and 1 category 'C' hedge require removal to implement the scheme.

3.3.3 The scheme has undergone a careful design process to ensure an efficient use of the site, whilst safeguarding the continued contribution to the greening of the immediate landscape. On the bases of the appraisal it is considered that the arboricultural impact of the scheme on the tree stock will not result in an adverse impact on the character and appearance of the site or wider landscape.

3.4 Impact of the proposal on the tree stock

Overview

- 3.4.1 Trees T5 & T6 (Plum x 2) and trees T7 and T10 (Willow x 2) have landscape values of less than 10 years in accordance with BS5837:2012. As such it is recommended to remove these trees regardless of any development occurring.
- 3.4.2 Trees assessed as category 'U' trees are of such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboriculture management. However, if category 'U' trees are placed in an inaccessible location such that concerns over public safety are reduced to an acceptable level, it may be preferable or possible to defer this recommendation.
- 3.4.3 Whilst trees in categories 'A', 'B' and 'C' are all a material consideration in the development process, the retention of category 'C' trees, being of low quality or of only limited or short-term potential, will not normally be considered necessary where they impose a significant constraint on development. Furthermore, BS 5837:2012 makes it clear that young trees, even those of good form and vitality, which have the potential to develop into quality specimens when mature "*need not necessarily be a significant constraint on the site's potential*".

3.5 Proposed New Dwellings

- 3.5.1 To implement the scheme 5 category 'C' trees (T1, T2, T3, T4 & T14), 2 category 'C' groups (G2 & G3) and 1 category 'C' hedge (H1) will be removed. Category 'C' trees, groups and hedges are assessed as being either of low quality, limited merit, low landscape benefits, no material cultural or conservation value, or only limited or short-term potential; or young trees with trunk diameter below 150mm; or a combination of these. Given the category grading that these trees have been recorded these trees are not considered as a constraint to the redevelopment of the site.

3.6 Construction

- 3.6.1 Careful consideration has been given regarding the buildability of the proposals. The arboricultural impact assessment plans illustrate that sufficient room exists to locate the site compound and contractor parking outside the RPA's of the retained trees.
- 3.6.2 Fence protection is required for retained trees and will comprise of Heras fencing and will be based on Figure 2 'Default Specification for Protective Barrier' as recommended within the British Standard 5837:2012. Where appropriate the fencing will be braced to withstand impacts.
- 3.6.3 A tree works schedule to facilitate the proposal has not yet been finalised, however it is not anticipated that pruning will be required. In the event pruning works are necessary it is judged that trees can be pruned to acceptable standards in accordance with British Standard 3998:2010 'Tree Works - Recommendations'.
- 3.6.4 New service runs have yet to be confirmed, however where possible new services will connect to existing. In the unlikely event new service runs are placed unavoidably within the RPA of trees then all new installations will be carried out in accordance with the guidelines set out in NJUG Publication No.10 and Section 7.7 of the British Standard 5837:2012.

3.7 Proposed Landscaping

- 3.7.1 Landscaping will occur in order to mitigate the tree loss and to complement the re-development of the site. New landscaping is proposed whereby suitable species for the site will be chosen.

4. SUMMARY

4.1 Conclusions

- 4.1.1 The British Standard 5837:2012 states that there is the need to avoid misplaced tree retention; for example, to attempt to retain too many unsuitable trees on a site may result in excessive pressure on the trees during the development work and subsequent demands for their removal post development. However where design permits, the retention of lower category trees can be beneficial providing screening and softening to a development and a sense of maturity to a scheme.
- 4.1.2 Careful planning of site operations are recommended so as to avoid any adverse impact to the retained trees. In order to safeguard the trees through the development it is recommended that a site specific Arboricultural Method Statement is drawn up and implemented.
- 4.1.3 It is concluded that there is an adequate juxtaposition with the retained tree stock and proposal therefore reducing any post development concerns. As such it is regarded that there will not be any future pressure to significantly prune, or to seek permission to remove trees within the site. With further regard to any concerns of debris and seasonal nuisances it is considered that this can be managed by good design and as part of the overall general maintenance of the site.

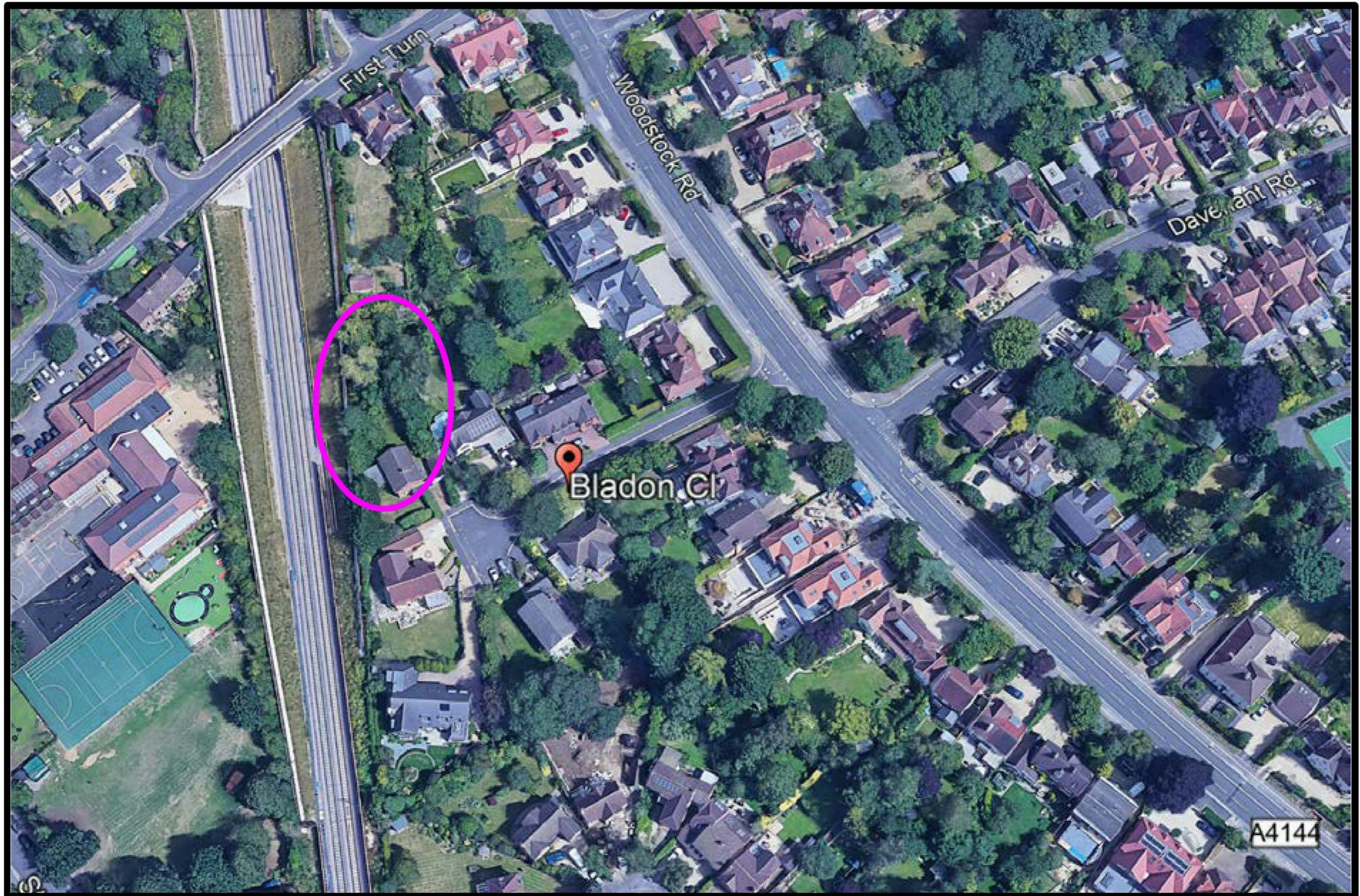
4.2 Post development tree management.

- 4.2.1 Section 8.8.2 of the British Standard: 2012 recommends post development aftercare of trees following the completion of development works. It is recommended the following is considered with regard to post development inspection of retained trees:
1. Trees that grow on a site prior development may, if adversely affected be in decline over a period of several years before they die. This varies due to age, species, condition prior to development, extent of damage during development, soil conditions and climate. It is recommended that regular inspections are undertaken.
 2. Where trees are protected by planning controls, it is recommended that the LPA is informed, and necessary agreements obtained prior to any remedial works.
 3. Following completion of a development it is recommended that the arboricultural consultant inspects the trees for signs of intolerance to the change of conditions and the effect of the development. There may be a need for additional tree works to those originally specified.
 4. Maintenance of newly planted trees is important during the establishment period, of at least two years and it is recommended an appropriate maintenance schedule is included with the Landscaping Scheme.

APPENDIX 1

Site Location Plan

Site Location Plan



APPENDIX 2

Tree Survey Data

KEY TO TREE SCHEDULE

Tree No: Relates to individual trees identified within the Tree Survey Schedule and Tree Constraints Plan

Species: Common name

Height: Estimated height expressed in meters

ST: Stem diameter of the main trunk taken at 1.5m above ground level or in accordance with Annex C BS5837:2012.

Height in M of Canopy: Information of the first significant branch and direction of growth in order to inform on ground clearance.

Abbreviations: #: Estimated
Ave: Average
A.G.L: Above ground level
SULE: Safe Useful Life Expectancy

Branch Spread: Estimated crown radius expressed in meters, taken for each cardinal compass point.

Age Class: Y Young - Less than one third of natural life expectancy
MM Middle aged - One to two thirds of natural life expectancy
M Mature - More than two thirds of natural life expectancy
OM Over mature
NP Newly Planted

Physiological Condition: G Good
F Fair
P Poor
D Dead

Notes:

Root Protection Area: This is a layout tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability and where the protection of the roots and soil structure is treated as a priority (detailed in paragraph 3.7 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

Young trees with a stem diameter of less than 150mm: Whilst the presence of young trees of good form and vitality is generally desirable (i.e those which have the potential to develop into quality mature specimens), they need not necessarily be a significant constraint on the site's potential (detailed in paragraph 4.5.10 British Standard 5837:2012 'Trees in relation to Construction-Recommendations').

Table 1 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	<ul style="list-style-type: none"> 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 the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			Dark 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	Trees 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 arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Light 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	Mid 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

TREE NO.	SPECIES	Height in (M)	CALCULATED STEM DIA (MM)	BRANCH SPREAD				HEIGHT IN M OF CANOPY	AGE CLASS	PHYS. COND	COMMENTS	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY GRADING
	(Latin)			N	E	S	W						
T1	Hawthorn <i>Crataegus monogyna</i>	10	265	2	0.5	3	2.5	3s	M	F	Growing adjacent to the western boundary. Ivy in canopy. Not regarded as a constraint. <i>Sever Ivy</i>	10 to 20	C2
T2	Hawthorn <i>Crataegus monogyna</i>	3.5	150	1.5	1.5	1.5	1.5	N/S	MM	F	Growing adjacent to the western boundary. Dense ivy present. Not a constraint. <i>Sever Ivy</i>	10 to 20	C2
T3	Crab Apple <i>Malus sylvestris</i>	8	340#	5	5.5	3.5	3.5	GL	M	F	Crab Apple with reverted rootstock. Unable to gain full access as area is overgrown. Not a constraint. <i>No work</i>	10 to 20	C2
T4	Ash <i>Fraxinus excelsior</i>	13	260#	3.5	4	3.5	3	5	MM	F	Growing adjacent to Western boundary and adjacent to the railway line. Not growing in a sustainable location. Short term value, low end of category grading. Long term should not be regarded as a constraint. <i>No work</i>	10 to 20	C2
T5	Plum <i>Prunus Domestica</i>	4.5	228#	0	5	1.5	1.5	N/A	MM	P	Poor condition, partially collapsed eastwards. Nearly dead. <i>Fell</i>	<10	U
T6	Plum <i>Prunus Domestica</i>	2	110	0	4	0	0	N/A	MM	P	Nearly dead. Partially failed eastwards. <i>Fell</i>	<10	U
T7	Weeping Willow <i>Salix chrysocoma</i>	11	440	0	0	5	0	N/A	MM	P	N/E/W side of canopy dead. Fell regardless of development. <i>Fell</i>	<10	U
T8	Norway Maple <i>Acer platanoides</i>	10	280	3	3.5	4	3	2s	MM	F	Growing towards the rear of the site. Growing through the canopy of T11. <i>Sever Ivy</i>	10 to 20	C2
T9	Weeping Willow <i>Salix chrysocoma</i>	11	350#	3	2	2	5	3.5s	MM	F	Suffered recent branch failure on southern side of the canopy. Could be pollarded. Good opportunity to re landscape area. Not a constraint. <i>Pollard</i>	10 to 20	C2
T10	Weeping Willow <i>Salix chrysocoma</i>	8	580	3	4	2.5	3	N/A	MM	P	Decay and bark death on south side of main stem. Poor specimen. Had been previously pollarded. <i>Fell</i>	<10	U
T11	Weeping Willow <i>Salix chrysocoma</i>	12	540	0	1	5	9	3s	M	F	Growing in the rear garden, leans south west. Poor form. Not regarded as a constraint. Old pruning wound on west side. Some decay present. Inspect for suitability of retention. <i>Further inspection</i>	10 to 20	C2
T12	Silver Birch <i>Betula pendula</i>	13	270	1	2	3.5	1.5	N/A	MM	F	Growing in the rear garden. Suppressed by adjacent trees. <i>No work</i>	10 to 20	C2
T13	Cherry <i>Prunus avium</i>	11	300#	1.5	1	3	5	N/A	MM	F	Growing adjacent to eastern boundary and through G3. No access. Not a constraint. <i>Sever Ivy</i>	10 to 20	C2
T14	Hawthorn <i>Crataegus monogyna</i>	10	120#	2	2	2	2	N/A	M	F	Growing on the edge of G3. Not a constraint. <i>No work</i>	10 to 20	C2

TREE NO.	SPECIES	Height in (M)	CALCULATED STEM DIA (MM)	BRANCH SPREAD				HEIGHT IN M OF CANOPY	AGE CLASS	PHYS. COND	COMMENTS	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY GRADING
	(Latin)			N	E	S	W						
G1	Plum <i>Prunus Domestica</i>	Ave 6	Ave 100	2	2	2	2	N/A	MM	F	Self seeded adjacent to the eastern boundary. Not a constraint. Average dimensions recorded. <i>No work</i>	10 to 20	C2
G2	Plum <i>Prunus Domestica</i>	Ave 11	Ave 150	2.5	2.5	2.5	2.5	N/A	MM	F	Suckering specimens adjacent to the eastern boundary. Good opportunity to replant boundary. <i>No work</i>	10 to 20	C2
G3	Mixed species	Ave 7	Ave 100	2	2	2	2	N/A	Y	F	Mixed species including as Hawthorn, Privet. Sycamore, Hazel, Berberis. Possibly planted as a mixed species hedge. Could try to manage . Mostly<75mm. Average dimensions recorded. <i>No work</i>	10 to 20	C2
H1	Mixed species	Ave 4	Ave 75	1.5	1.5	1.5	1.5	GL	MM	F	Mixed species hedge not maintained recently. Mix of Hawthorn, self seeded Ash/Sycamore with Privet. Not a constraint. Average dimensions recorded. <i>No work</i>	10 to 20	C2

APPENDIX 3

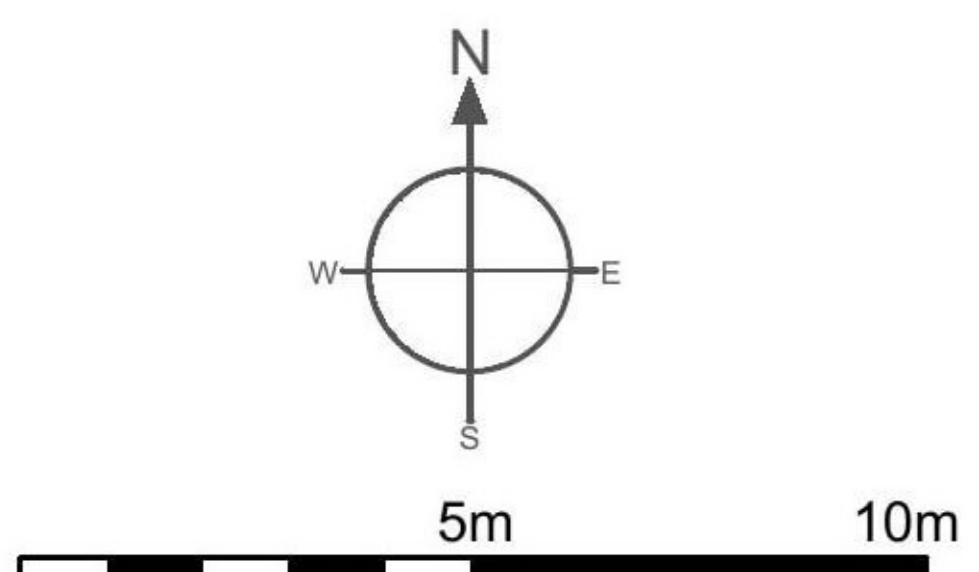
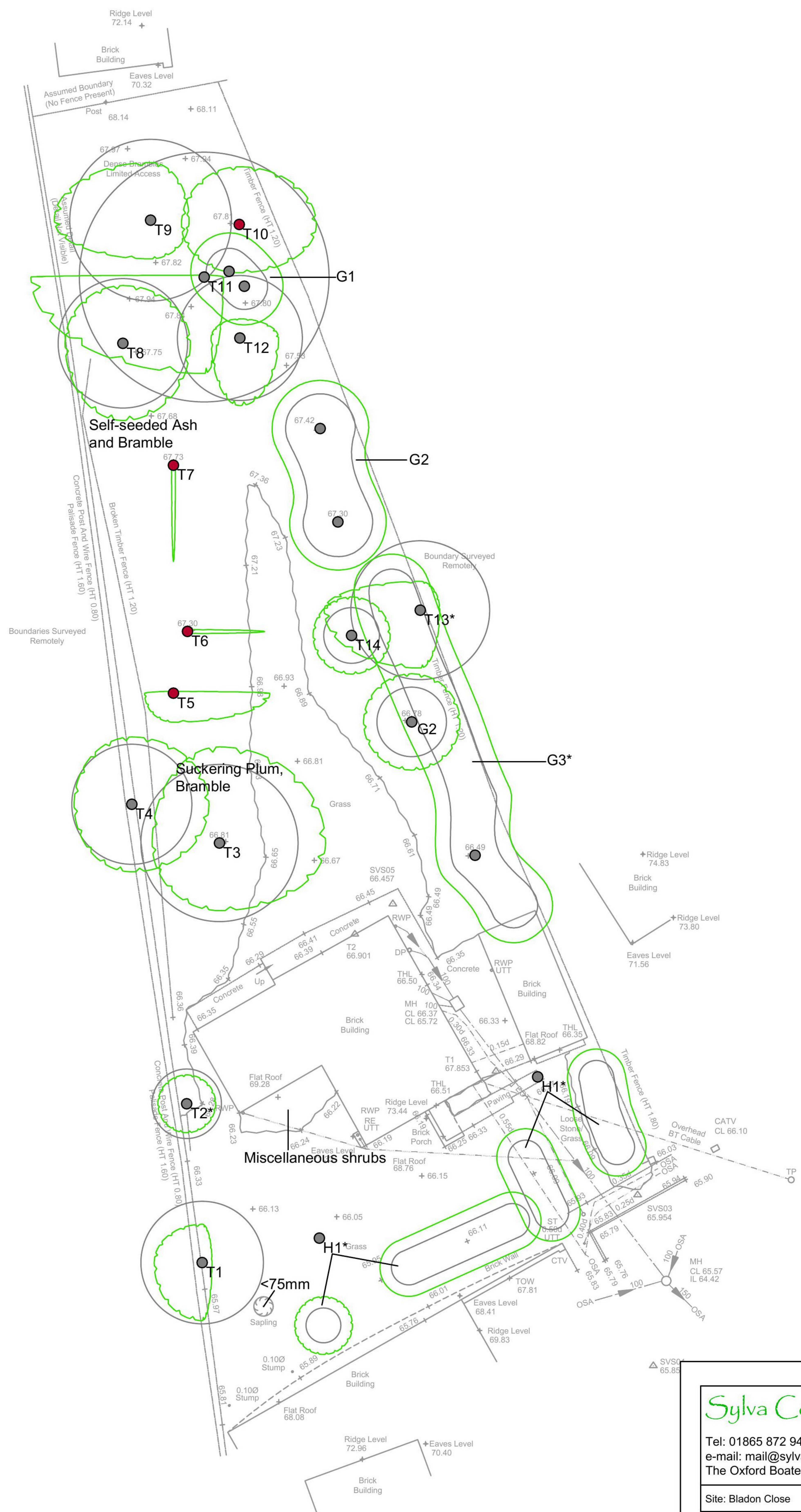
Root Protection Area

ROOT PROTECTION AREA

TREE NO.	SPECIES	NO. OF STEMS	SINGLE STEM DIA (mm)	2-5 STEMS					> 5 STEMS	ROOT PROTECTION AREA - RPA (RADIUS IN M)	RPA (M ²)	LIFE EXPECTANCY (EST YEARS)	BS5837:2012 CATEGORY
				STEM 1 (mm)	STEM 2 (mm)	STEM 3 (mm)	STEM 4 (mm)	STEM 5 (mm)	MEAN STEM DIA (mm)				
T1	Hawthorn	1	265							3.18	32	10 to 20	C2
T2	Hawthorn	1	150							1.80	10	10 to 20	C2
T3	Crab Apple	3		150	200	230				4.08	52	10 to 20	C2
T4	Ash	1	260							3.12	31	10 to 20	C2
T5	Plum	4		120	150	70	100			2.73	23	<10	U
T6	Plum	1	110							1.32	5	<10	U
T7	Weeping Willow	1	440							5.28	88	<10	U
T8	Norway Maple	1	280							3.36	35	10 to 20	C2
T9	Weeping Willow	1	350							4.20	55	10 to 20	C2
T10	Weeping Willow	1	580							6.96	152	<10	U
T11	Weeping Willow	1	540							6.48	132	10 to 20	C2
T12	Silver Birch	1	270							3.24	33	10 to 20	C2
T13	Cherry	1	300							3.60	41	10 to 20	C2
T14	Hawthorn	1	120							1.44	7	10 to 20	C2
G1	Plum	1	100							1.20	5	10 to 20	C2
G2	Plum	1	150							1.80	10	10 to 20	C2
G3	Mixed species	1	100							1.20	5	10 to 20	C2
H1	Mixed species	1	75							0.90	3	10 to 20	C2

APPENDIX 4

Tree Constraints Plan



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Arboricultural
ASSOCIATION
Fellow Member
FE593

Site: Bladon Close	1:250 @ A3
Drawing Title: Tree Constraints Plan	Oct 2020

Key:

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

Category

Root Protection Area

Crown Spread

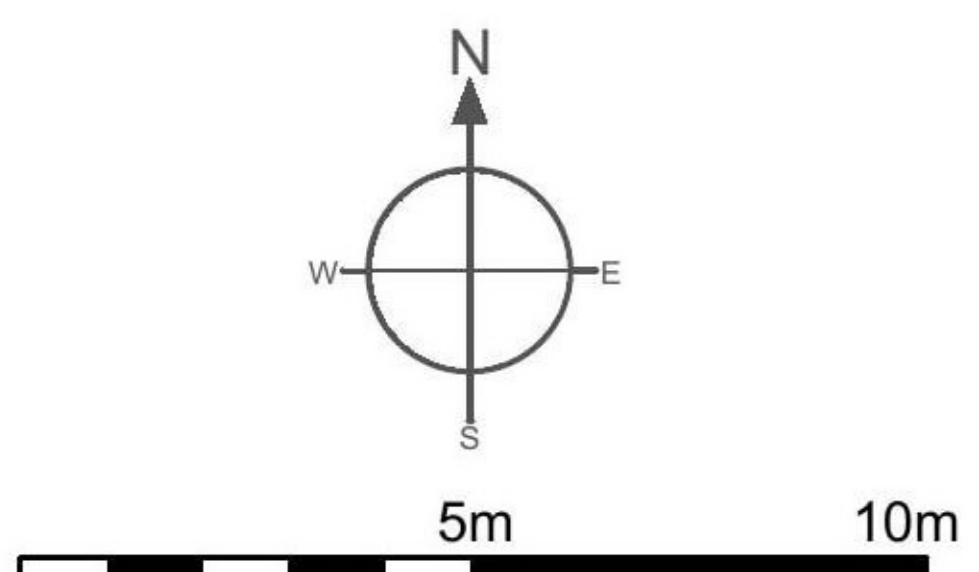
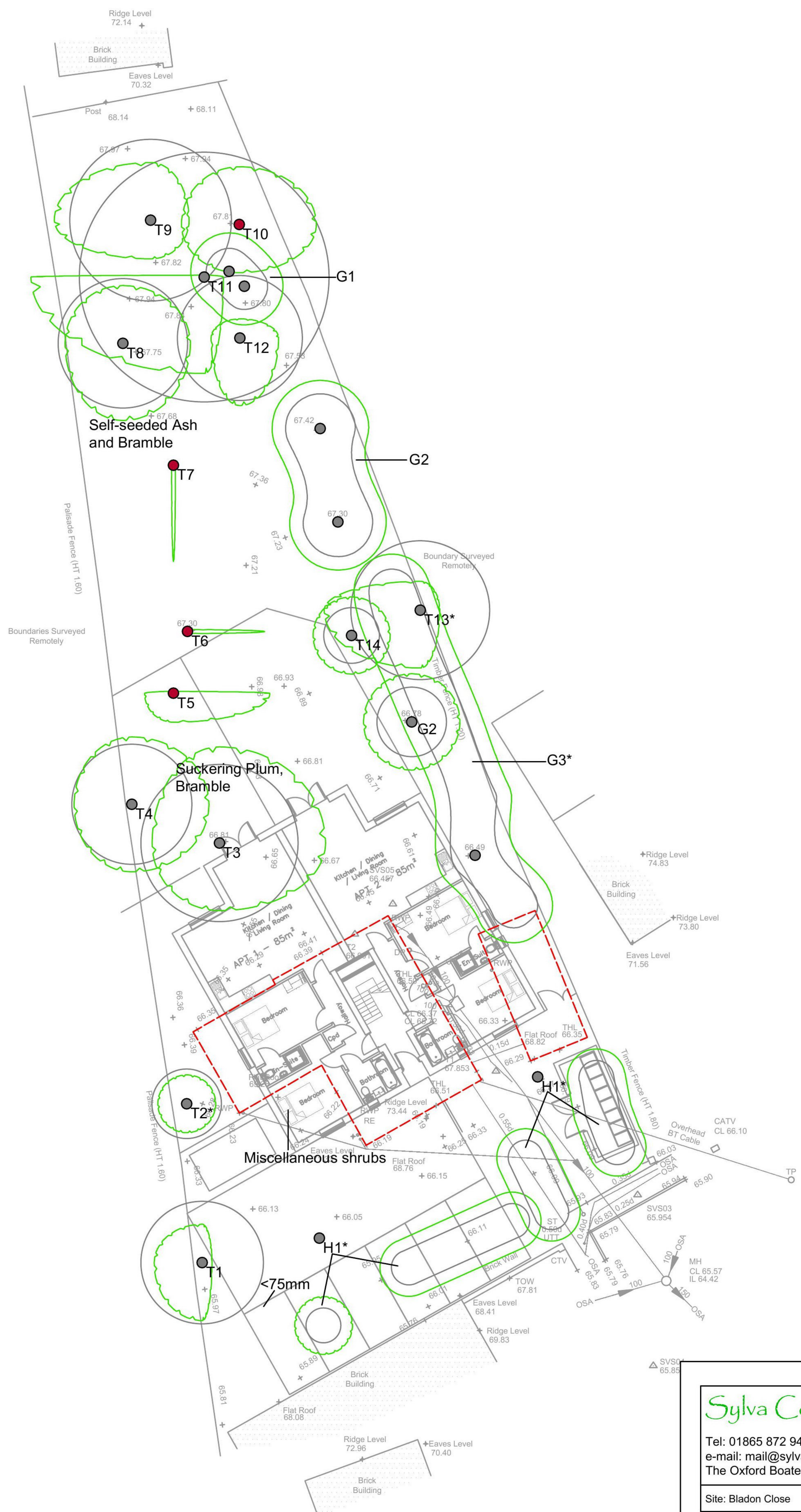
Tree Number

NOTE: Tree/group numbers marked with an * have approximate locations.

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

APPENDIX 5

Arboricultural Impact Plan



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Arboricultural Association
 Fellow Member
 FE593

Site: Bladon Close	1:250 @ A3
Drawing Title: Arboricultural Impact Assessment	Oct 2020

Key:

- Category A
- Category B
- Category C
- Category U
- Outline of Existing Buildings to be Demolished

Category 13: Crown Spread, Tree Number, Root Protection Area

NOTE: Tree/group numbers marked with an * have approximate locations.
 NOTE: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

APPENDIX 6

Qualifications

Fiona Bradshaw

MicFor; RFS Dip Arb;F. Arbor.A; Tech Cert (Arbor.A)

I have over 21 years' experience of arboriculture and I am the principal consultant at Sylva Consultancy. I hold the Royal Forestry Society's Professional Diploma in Arboriculture and the Arboricultural Associations Technicians Certificate. I am a Fellow member of the Arboricultural Association and a professional member of the Institute of Chartered Foresters, of which I am also a registered Consultant.

I have the benefit of both a local authority and private practice background and I am frequently instructed to provide advice and assistance relating to trees and the planning process. I am also experienced at compiling expert reports, providing evidence and also appearing as an expert witness at Public Inquires.

I am committed to my continued professional development which is reflected in my regular attendance of seminars and workshops.