

Sylva Consultancy
expert arboricultural advice

ARBORICULTURAL REPORT

Oak Ridge
Cow Lane
Steeple Aston
Oxfordshire
OX25 4SG

June 2023

Ref: 22158

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1. INTRODUCTION

1.1 Instructions

- 1.1.1 Instructions have been received from Jon Silversides to undertake an arboricultural impact assessment on land at Oak Ridge, Steeple Aston (Site Location Plan Appendix 1).
- 1.1.2 This arboricultural impact assessment has been prepared to assess the likely impact and effect regarding the proposal to construct a new home study building and store. This appraisal assesses the impact of the proposal in relation to the trees surveyed and discusses mitigation measures that may have to be adopted.

1.2 Arboricultural Survey

- 1.2.1 A tree survey has been 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 (RPA) data at Appendix 3 with the tree constraints plan provided at Appendix 4.

2. TREE PROTECTION

- 2.1 A desktop study of information posted on the Cherwell District Council (CDC) interactive mapping system was carried out on the 9th June 2023.
(<https://cherwell.maps.arcgis.com/apps/webappviewer/index.html?id=79616c90743d4da98b291ebd1683fe50&extent=396524.73111%2C202503.5161%2C497066.5989%2C256081.7483%2C27700>)
- 2.2 CDC's interactive mapping system indicates that select trees are subject to a Tree Preservation Order (TPO) (01/2017)

TPO Reference No. T1 Sylva's Ref No.'s T2 (Horse Chestnut)
- 2.3 A TPO ***prohibits the cutting down, uprooting, topping, lopping, willful damage or willful destruction to protected trees or woodlands unless permission has been granted by the LPA.***

3. ARBORICULTURAL SURVEY

3.1 Two trees 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 the following sub-categories. These sub-categories carry equal weight and are selected for either arboricultural values, landscape values or cultural values, including conservation:

- 1: Mainly arboricultural qualities.
- 2: Mainly landscape qualities.
- 3: Mainly cultural values, including conservation.

The British Standard 5837:2012 also recommends recording hedges 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:

A summary of the trees in each of the four categories is provided below:

BS 5837 (2012) Category	No. of Trees	No. of Groups	No. of Hedges	Tree Number
U	0	0	0	
A	0	0	0	
B	2	0	0	T1, T2
C	0	0	0	

4. PRINCIPLE ARBORICULTURAL IMPLICATIONS

4.1 Introduction

- 4.1.1 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).
- 4.1.2 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.
- 4.1.3 All tree numbers referred to in this document relate to the tree numbers annotated on the tree constraints plan and arboricultural impact assessment plan (Appendix 5).

4.2 Site Description

- 4.2.1 The site is located to the east of the village of Steeple Aston. The site is located to the south of the Cow Lane with residential properties adjacent to the eastern and western boundaries. An access lane is located directly to the south of the property. A row of existing outbuildings are present adjacent to the eastern boundary.

4.3 Trees

- 4.3.1 Two trees have been recorded within the survey.
- 4.3.2 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.

4.4 Overview

- 4.4.1 The appended arboricultural impact plan 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.
- 4.4.2 An assessment of the design on the tree stock reveal that no trees will be removed to implement the scheme.
- 4.4.3 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 basis 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.

4.5 Impact of the proposal on the tree stock

Overview

4.5.1 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*".

4.6 Proposed Development

4.6.1 The scheme comprises of the demolition of the existing outbuildings and the construction of a new home office and store area. The new building will occupy the existing footprint.

4.6.2 Investigation work to assist with the foundation design was carried out. The investigation work consisted of the excavation of 3 trial pits so that both the ground conditions and extent of the rooting mass of the adjacent horse chestnut tree (T2) could be established.

4.6.3 The investigation work findings illustrated that the soil profile consists of a 100mm thick existing concrete slab, 200mm of 'fill' with the topsoil layer depth commencing at 350mm. No roots were observed in the upper 300mm. Consequently it is proposed to construct the new building using a series of screw piles. The new ground floor slab will utilise the void created when the existing concrete slab and fill layer are removed.

4.6.4 By using a screw pile style foundation and by utilising the existing outbuilding footprint it is concluded that the horse chestnut tree can be successfully retained. Regarding the relationship with the above ground components no material change will occur.

4.7 Construction

4.7.1 Careful consideration has been given regarding the buildability of the proposals. The arboricultural impact plan illustrates that sufficient room exists to locate the site compound and contractor parking outside the RPA's of the retained trees.

4.7.2 Fence protection is required for the retained trees. The fencing 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.

4.7.3 In addition to tree protection ground protection measures are also required to facilitate access for the works. It is recommended that the ground protection comprises of Duradek Mats or other similar product that is fit for purpose.

4.7.4 A tree pruning works schedule to facilitate the proposal has not yet been finalised, however it is not anticipated that tree pruning will be required. In event pruning works to trees are required it is judged that trees can be pruned to acceptable standards in accordance with British Standard 3998:2010 'Tree Works - Recommendations'.

- 4.7.5 New service runs have not yet been finalised. Where new services fall within the RPA's of retained trees all proposed service installations will be carried out in accordance with the guidelines set out in Section 7.7 of the British Standard 5837:2012.

5. SUMMARY

5.1 Conclusions

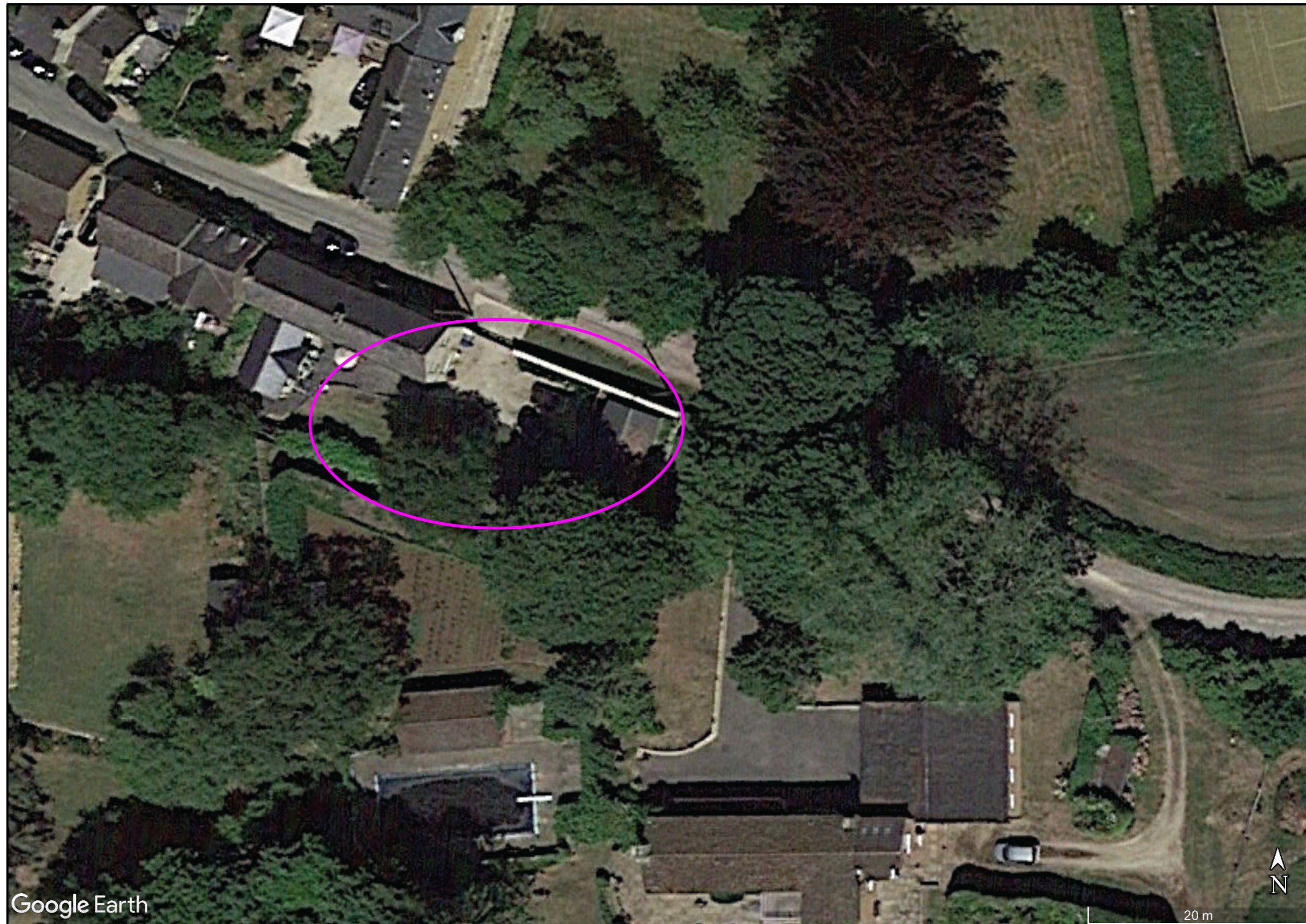
- 5.1.1 The British Standard 5837:2012 states that there is the need to avoid misplaced tree retention; for example, to attempt to retain too many unsuitable trees on a site may result in excessive pressure on the trees during the development work and subsequent demands for their removal post development. No trees will be removed to facilitate the scheme.
- 5.1.2 Consideration for both the direct impact and indirect impact of a development with respect to retained trees needs to be assessed. With respect to the retained tree stock, it is considered that their successful integration into the layout can be achieved.
- 5.1.3 Careful planning of site operations must be carried out to avoid any adverse impact to the retained trees. To safeguard the trees through the development it is advised that a site-specific Arboricultural Method Statement is drawn up and implemented.

5.2 Post development tree management.

- 5.2.1 Section 8.8.2 of the British Standard 5837:2012 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 to 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 Local Planning Authority 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.

APPENDIX 1

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').

CASCADE CHART FOR TREE QUALITY ASSESSMENT

Category and definition Criteria (including subcategories where appropriate) Identification on plan

Trees unsuitable for retention (see Note)

<p>Category U</p> <p>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>	<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</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>	<p>Dark Red</p>
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1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
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Trees to be considered for retention

<p>Category A</p> <p>Trees of high quality with an 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 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)</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</p>	<p>Light Green</p>
<p>Category B</p> <p>Trees of moderate quality with an 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 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</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>Trees with material conservation or other cultural value</p>	<p>Mid Blue</p>
<p>Category C</p> <p>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</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>	<p>Trees with no material conservation or other cultural value</p>	<p>Grey</p>

TREE SURVEY BS5837:2012

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
	(<i>Latin</i>)			N	E	S	W						
T1	Jacquemont's Birch <i>Betula utilis</i> var.jacquemontii	10	390	4	2.5	3.7	5	1.7w	MM	F	Young middle mature specimen. Pleasant garden feature. No Work	20 to 40	B2
T2	Horse Chestnut <i>Aesculus hippocastanum</i>	18	1250	6.5	7	7	6.5	5	M	F	Noteworthy tree with in site. Has been previously pruned back over existing single storey building. No Work	20 to 40	B2

APPENDIX 3

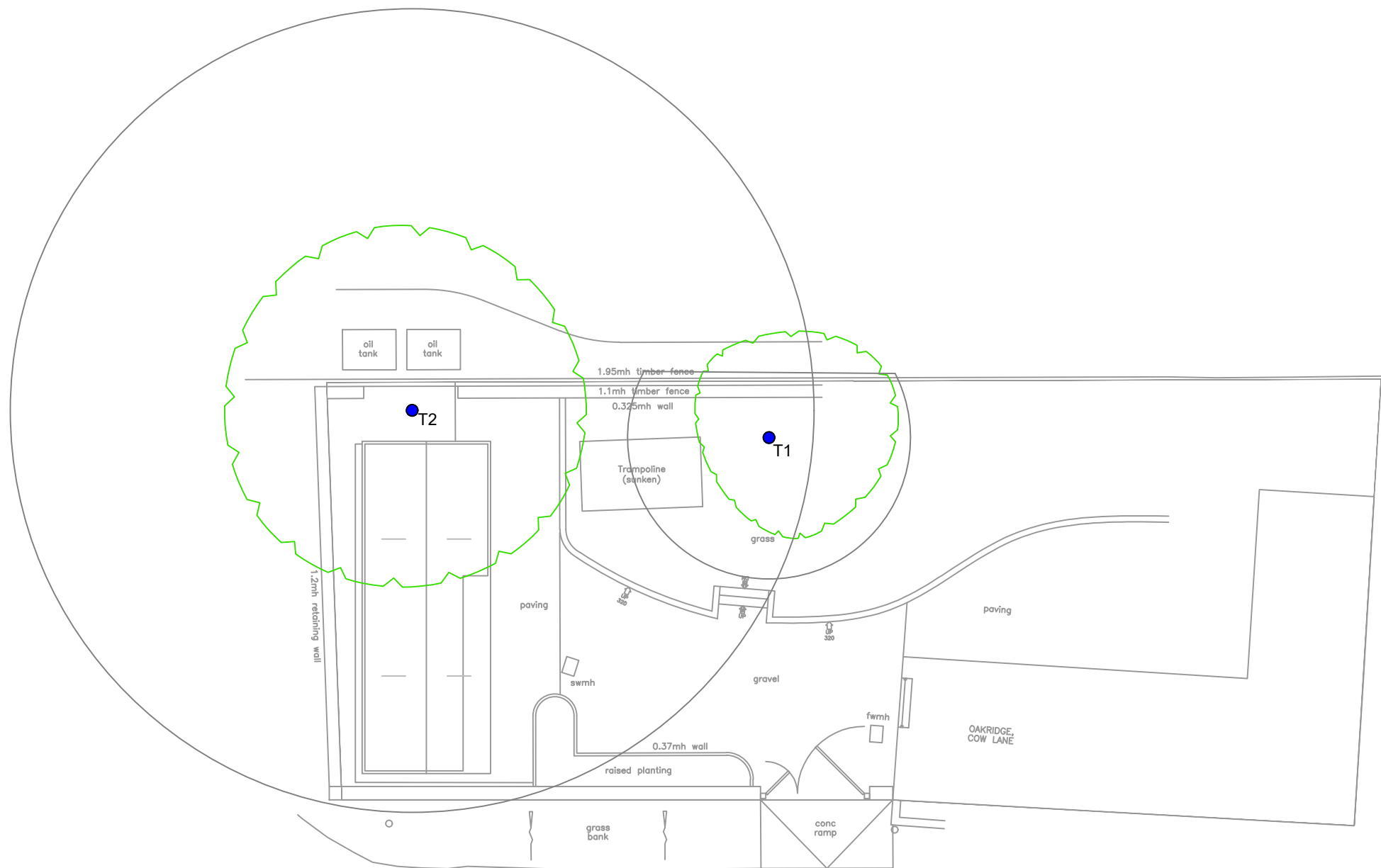
ROOT PROTECTION AREA

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	Jacquemont's Birch	1	390							4.68	69	20 to 40	B2
T2	Horse Chestnut	1	1400							15.00	707	20 to 40	B2

APPENDIX 4

TREE CONSTRAINTS PLAN



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Arboricultural
 A S O C I A T I O N
 F5593

Site: Oakridge	1:200 @ A3
Drawing Title: Tree Constraints Plan	June 2023 Rev A

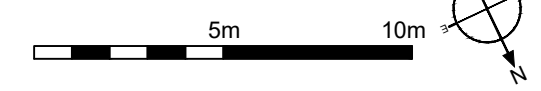
Key:

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

Category ——— Crown Spread
 Root Protection Area ——— Tree Number

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

ARBORICULTURAL IMPACT ASSESSMENT PLAN



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Arboricultural Association
 A S O C I A T I O N
 Since Member
 FE593

Site: Oakridge	1:200 @ A3
Drawing Title: Arboricultural Impact Assessment	June 2023

Key:

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

Category ——— Crown Spread
 Root Protection Area ——— Tree Number

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

APPENDIX 6

PHOTOGRAPHS



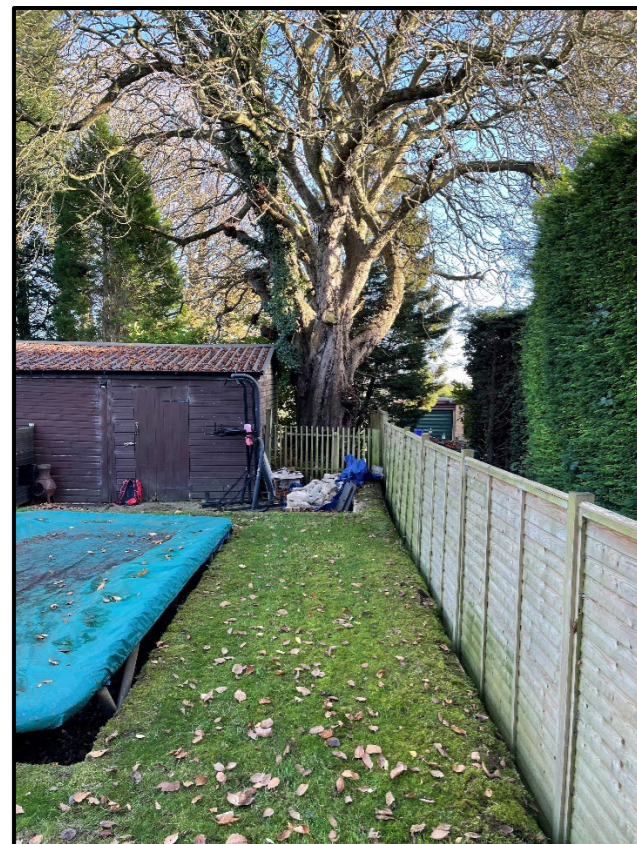
Photograph 1

View of the existing outbuildings. T2, horse chestnut to the right of the image



Photograph 2

View of the rear of the existing outbuildings



Photograph 3

View of the existing outbuildings. T2, horse chestnut to the right of the image



Photograph 4

Long distance view of the existing outbuildings. T2, horse chestnut to the right of the image

APPENDIX 7

QUALIFICATIONS

QUALIFICATIONS

Fiona Bradshaw

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

I have over 24 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.