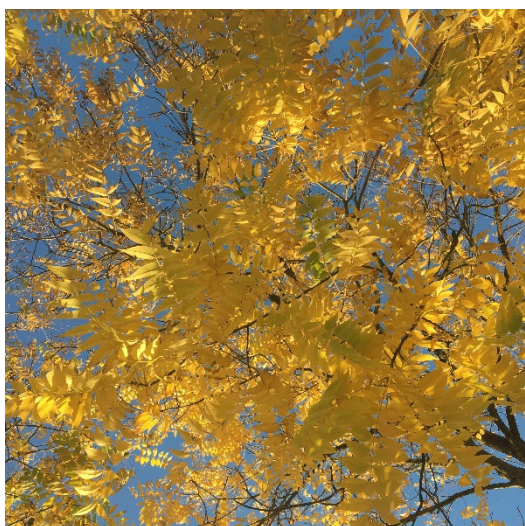




ARBORICULTURAL
CONSULTANTS



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ARBORICULTURAL SURVEY, IMPACT ASSESSMENT AND PROTECTION PLAN

Relating to :

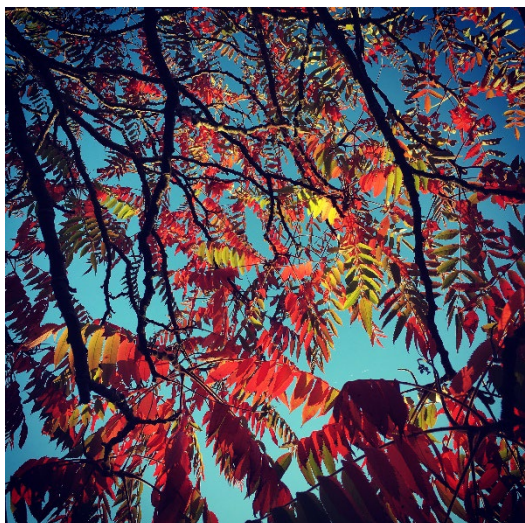
NEW RESIDENTIAL DEVELOPMENT AND
ASSOCIATED INFRASTRUCTURE

At:

LAND EAST OF SPITFIRE ROAD, CALNE

Instructed by:

ROBERT HITCHINS LIMITED



MHP ref: 23284 LAND EAST OF SPITFIRE ROAD, CALNE_TS AIA TPP_V4

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Issue record

Date	Version	Notes	Quality check
05.02.2024	V1	Initial issue	Mr 05.02.2024
21.01.2025	V2	Layout change	MR 21.01.2025
23.01.2025	V3	Issue date amends	MR 21.01.2025
27.06.2025	V4	Layout change	MR 27.06.2025

1 INTRODUCTION

1.1 Introduction

1.1.1 My name is Matt Reid. I am a Chartered Arboriculturist and Registered Consultant of the Arboricultural Association and the Institute of Chartered Foresters. I hold the Level 6 Diploma in Arboriculture (ABC Awards) as well as other technical and trade level qualifications. I am also a Professional Member of the Arboricultural Association.

1.1.2 I have worked in the arboricultural industry since 1999. My initial trade and professional experience comprised six years as an arboricultural contractor and climbing arborist. Following this I spent seven years as a local government tree officer. Since 2012 I have worked in private practice as an arboricultural consultant specialising in planning related matters and tree risk management.

1.2 Background

1.2.1 An application for planning permission is to be submitted for new residential development and associated infrastructure on land to the east of Spitfire Road, Calne; hereafter referred to as 'the site'.

1.3 Instruction and scope

1.3.1 I am instructed by Robert Hitchins Limited to visit the site and to carry out an assessment of arboricultural features in accordance with British Standards (BS) 5837:2012 'Trees in Relation to Design Demolition and Construction – Recommendations'.

1.3.2 I am to prepare the following information in relation to the proposals:

- Tree survey in accordance with BS5837:2012
- Arboricultural Impacts Assessment
- Tree Protection Plan.

2 GENERAL

2.1 Statutory tree protection and other designations

2.1.1 I have carried out desk-based tree-related constraints checks in relation to the site. These are outlined in *Table 1*.

Statutory tree protection and other designations		
	General summary information	Relevant to site?
Conservation Area ¹	- All trees with a trunk diameter greater than 75mm at 1.5m height are protected in the same way as for TPO (see below). - Six weeks' notice must be given to the Local Planning Authority (LPA) prior to carrying out any tree works so that possible requirement for TPO can be assessed.	No
Tree Preservation Order (TPO) ²	- It is an offence to cut down, uproot, top or lop, wilfully damage or wilfully destroy relevant trees or woodlands. - Formal permission must be applied for (and granted) by the LPA before carrying out tree works. - Penalties of up to £20K (Magistrates Court) or unlimited fine (Crown Court).	No

Table 1- statutory tree protection and other designations.

2.2 Limitations

- 2.2.1 In some instances, I have been unable to access or clearly observe the trunks of trees. Where this is the case, I have done my best to accurately estimate dimensions and tree condition.
- 2.2.2 Trees are living organisms and self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. As such, the findings and recommendations of my tree survey are limited to 24 months from the date of my site visit.
- 2.2.3 It is beyond the scope of this report to assess the potential for woody vegetation to cause subsidence/heave-related and/or direct contact-type structural damage. This matter may need to be addressed separately by a suitably qualified structural engineer.

2.3 Wildlife informative

- 2.3.1 Tree works should not be carried out until a reasonably detailed inspection of relevant trees

¹ [Wiltshire Planning Explorer \(arcgis.com\)](https://wiltshireplanningexplorer.arcgis.com) Accessed 05.02.2024

² [Wiltshire Planning Explorer \(arcgis.com\)](https://wiltshireplanningexplorer.arcgis.com) Accessed 05.02.2024

has been carried out to determine if bat roosts and/or bird nests are present.

- 2.3.2 It is a criminal offence to intentionally damage/destroy the nest of any wild bird while it is in use or being built. Similarly it is an offence to intentionally/recklessly disturb roosting bats or to damage or destroy a bat roost.
- 2.3.3 The Arboricultural Association publishes useful advice in relation to trees and nesting birds³.
- 2.3.4 Helpful advice with regards to bats and tree work is published by the UK Government⁴, the Arboricultural Association⁵ and The Bat Conservation Trust⁶.

³ <https://www.trees.org.uk/Help-Advice/Public/When-is-the-bird-nest-season>

⁴ <https://www.gov.uk/guidance/bats-protection-surveys-and-licences>

⁵ <https://www.trees.org.uk/Help-Advice/Public/Bats-and-trees-Who-does-what-where>

⁶ <https://www.bats.org.uk/about-bats/where-do-bats-live/bat-roosts/roosts-in-trees>

3 ARBORICULTURAL SURVEY

3.1 Site visit

3.1.1 I visited the site on 8th January 2024.

3.2 Findings

3.2.1 My findings are set out within the survey schedule at **Appendix 1**.

4 TREE CONSTRAINTS AND DESIGN ADVICE

4.1 Tree Quality Assessment

4.1.1 Surveyed trees are represented using colour coding to indicate their quality and thereby suitability for retention. The quality assessment is as follows:

Quality grade	Definition
A	Green: high quality with estimated remaining life expectancy of at least 40 years.
B	Blue: moderate quality with estimated remaining life expectancy of at least 20 years
C	Grey: low quality with estimated remaining life expectancy of at least 10 years
U	Red - unsuitable for retention. Cannot realistically be retained for longer than 10 years

4.2 Below Ground Constraints

4.2.1 In accordance with BS5837:2012, below ground constraints, or Root Protection Areas (RPAs), for the surveyed trees are plotted onto the Tree Survey and Constraints Plan. These are represented as a circle with a broken red line centred on the base of each tree stem with a radius of 12 times stem diameter (measured at 1.5m above ground level).

4.2.2 BS5837:2012, a root protection area (RPA) is defined as *"a layout design 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 should be treated as a priority". "The default position [when considering design layout in relation to RPAs] should be that structures are located outside the RPAs of trees to be retained"*.

4.2.3 Root systems can be damaged in several ways:

- Root severance
- Soil compaction

- Contamination by spilled materials eg cement/diesel.

4.3 Above Ground Constraints

4.3.1 Above ground constraints posed by trees describe the capacity for trees to have an overbearing or dominating effect on new developments; usually post occupancy. Typical above ground constraints include a number or combination of inconveniences including shading, branch spread, perceived fear of tree failure during strong winds and so on. If not adequately considered, above ground constraints can lead to repeated future requests to fell or heavily prune retained and protected trees.

4.3.2 The above ground parts of trees can be damaged in several ways:

- Impact damage through contact with construction site plant
- Inappropriate pruning
- Other factors, for example, heat damage caused by bonfires.

5 ARBORICULTURAL IMPACT ASSESSMENT (AIA) & TREE PROTECTION PLAN (TPP)

5.1 Arboricultural Impact Assessment

- 5.1.1 A combined AIA and TPP is included at **Appendix 2**.
- 5.1.2 The plan shows the tree survey and constraints information in relation to the proposed layout and confirms that no significant existing trees must be removed. Tree removals are limited to G1, which is a dense and unremarkable mass of vegetation that can be effectively mitigated by new tree and shrub planting as part of an approved scheme of landscaping.
- 5.1.3 The willow trees comprising G5 are in a partial state of collapse due to trunk decay and the weight of old outgrown pollard regeneration. Pruning work is therefore recommended to repollard the trees so that they and the habitat and character features that they provide can be retained.
- 5.1.4 All other woody vegetation on the site shall be retained as part of the proposals and can be effectively protected during the construction process by use of fit for purpose tree protection barriers.

5.2 Tree Protection Plan

- 5.2.1 The Tree Protection element of the plan demonstrates how retained trees can be effectively retained as part of the construction of the proposals.
- 5.2.2 Locations and specifications of tree protection barriers are provided.
- 5.2.3 Tree protection barriers must be put in place before any other work is carried out on site and remain in place for the duration of construction works.

6 CONCLUSION

6.1 Conclusion

6.1.1 I conclude that the development proposals are feasible from an arboricultural perspective for the following key reasons:

- No significant trees shall be removed to enable the construction of the proposals.
- Tree protection measures can be put in place to ensure that construction works do not result in damage to the retained trees and hedges.
- New tree planting can be carried out that will enhance the arboricultural qualities of the site into the future.

APPENDIX 1 – TREE SURVEY SCHEDULE

GROUPS

Ref	Common names of woody species present	Estimated average trunk diameter at 1.5m (mm)	Estimated minimum & maximum heights (m)	Estimated average height (m)	Estimated average canopy height (m)	Life stage	Special status	General observations & management recommendations	Struct. cond.	Phys. cond.	ULE	Quality grading	RPA radius from canopy edge (m)	Protected status
G1	Blackthorn, hawthorn	100	5-3	4	0	EM	None	Dense and overgrown.	Fair	Good	10+	C2	As shown on plan	None
G2	Blackthorn, hawthorn	100	6-3	4	0	EM	None	Dense and overgrown.	Fair	Good	10+	C2	As shown on plan	None
G3	Crack willow, field maple,	200	12-4	9	1	EM	None	Informal group at corner of site.	Fair	Good	10+	C2	As shown on plan	None
G4	Crack willow	500	15-12	15	1	EM	None	A worthwhile cohesive group.	Fair	Good	20+	B2	As shown on plan	None
G5	White willow	1100	16-14	15	1	OM	None	Two lapsed pollards with previous partial structural failure and heartwood decay. Recommend repollard the two main trees and establish new pollard heads on any other smaller stems.	Poor	Good	20+	B3	As shown on plan	None

HEDGEROWS

Ref	Common names of woody species present	Estimated minimum & maximum heights (m)	Estimated average height (m)	Estimated average trunk diameter (mm)	Estimated average lateral spread (m)	Estimated average canopy height (m)	Life stage	Special status	General observations & management recommendations	Struct. cond.	Phys. cond.	ULE	Quality grading	RPA radius from canopy edge (m)
H1	Hawthorn, blackthorn	4-3	3.5	100	5	0	M	None	Spreading form. Unmanaged.	Fair	Good	20+	B2	As shown on plan
H2	Hawthorn, blackthorn, field maple, hazel, ash	3-1	2	100	2.5	0	EM	None	Previously managed by flailing.	Fair	Good	20+	B2	As shown on plan
H3	Hawthorn, blackthorn, elder, willow	6-2	4.5	200	5	0	M	None	Some gaps. Generally unmanaged.	Fair	Good	10+	C2	As shown on plan
H4	Blackthorn, hawthorn	8-5	6	200	4	0	M	None	Compact form. Generally unmanaged. Northern extent previously flailed.	Fair	Good	20+	B2	As shown on plan

KEY

Assessment criteria	Description
Reference number on plan	T: Tree, G: Group, W: Woodland, H: Hedgerow. This reference is recorded on the Tree Survey and Constraints Plan against the relevant survey item.
Common name (Scientific name)	Common names: normal type. Scientific names where required: italic type in brackets
Heights	Unit: metres (m). Recorded to the nearest half metre for heights upto 10m and to the nearest whole metre for heights above 10m.
Stem diameter	Unit: millimetres (mm). Rounded to the nearest 10mm. Single and multi-stemmed trees are measured at 1.5m above highest ground level or otherwise as in accordance with Annex C, BS5837:2012.
Estimates	Measured tree dimensions are identified by an '-' in the adjacent 'Estimate' column. Where dimensions have been estimated (offsite, or otherwise inaccessible survey items) this is clearly identified by a '#' in the adjacent 'Estimate' column.
Crown spread	Unit: metres (m). Directions refer to the four compass points (north, east, south, west). Dimensions are rounded-up to the nearest half metre for heights up to 10m and to the nearest whole metre for heights above 10m.
Estimated average lateral spread	Unit: metres (m). For hedgerows only. An estimate of the average width between branch tips.
Crown clearance height	Unit: metres (m). The existing height above ground level of: - First significant branch and the compass direction of its growth: North (N), North-east (NE), East (E) , South-east (SE) etc. - Canopy (height between branch tips and ground level).
Life stage	Y – young (stake dependent), SM - Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature), EM – Early Mature (not yet having reached 75% of expected mature size), M – Mature (anything else up to normal life expectancy for the species), OM – Over Mature (anything beyond mature and in natural decline), V – Veteran, A - Ancient (any tree displaying characteristics described by the Ancient Tree Forum and referenced by Natural England).
Special status	- None - Veteran: any tree judged to meet criteria as defined by the Ancient Tree Forum - Ancient: any tree judged to meet criteria as defined by the Ancient Tree Forum¹
General observations and preliminary management recommendations	General observations are recorded in relation to a survey item's structural and/or physiological condition (eg the presence of any decay and physical defect) and /or any preliminary management recommendations that may be appropriate.
Structural condition	- Good: without any observable significant biomechanical structural weaknesses - Fair: with minor biomechanical structural flaws. Some remedial action may be required - Poor:with significant biomechanical weaknesses requiring intervention particularly where risk management is required.
Physiological condition	- Good: no indications of impaired physiological function and in optimum condition for age and species - Fair: with indicators of reduced vitality. Some intervention may be required - Poor: with significantly impaired physiological function for age and species
Remaining contribution	Useful life expectancy, or the length of time a tree's is estimated to be able to make a useful contribution, is expressed in years as: <10, 10+, 20+, 40+.
Quality grading	Assessed in accordance with Table 1, BS5837:2012. Colours relate to depiction on the Tree Constraints Plan. - Category A (Green) Trees of high quality with an estimated remaining life expectancy of 40 years - Category B (Blue) Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. - Category C (Grey) Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm. - Category U (Red) Unsuitable for retention. Trees in such a poor condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Note - A, B and C trees are also given a sub-category of 1, 2 or 3 which reflects their arboricultural, landscape or cultural and conservation values respectively. Each subcategory has an equal weight, for example an A1 tree has the same retention priority as an A3 tree. More than one sub-category may be applied to a survey item as appropriate.
RPA radius	Root Protection Area (RPA): a layout design tool. Unit: metres (m). Radial distance from tree centre to define a circle that indicates on the Tree Survey Plan the minimum rooting area required to maintain tree's viability. Calculated in accordance with Annex D, BS5837:2012
RPA area	Unit: square metres (m ²). The area of the RPA radius circle described above. Applies only to individual trees.

¹ LONSDALE, D. (Ed). Ancient and other veteran trees: further guidance on management. The Tree Council. London. 2013.

APPENDIX 2 – ARBORICULTURAL IMPACT ASSESSMENT AND TREE PROTECTION PLAN

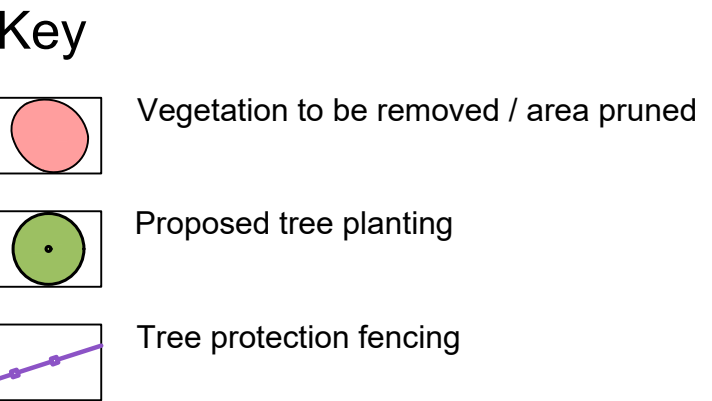
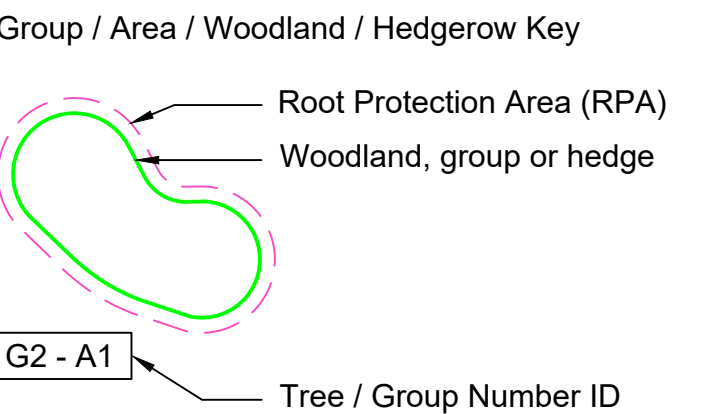
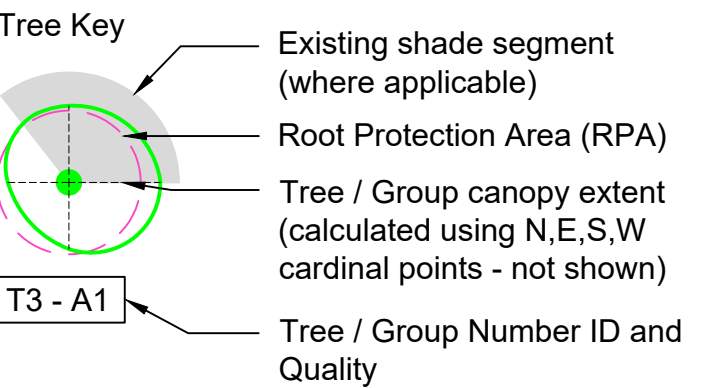
Tree Survey Summary				
Tree number on plan	Common name	Quality grading	RPA radius (m)	TPO
G1	Blackthorn, hawthorn	C2	10+	As shown on plan
G2	Blackthorn, hawthorn	C2	10+	As shown on plan
G3	Crack willow, field maple	C2	10+	As shown on plan
G4	Crack willow	B2	20+	As shown on plan
G5	White willow	B3	20+	As shown on plan
H1	Hawthorn, blackthorn	B2	As shown on plan	As shown on plan
H2	Hawthorn, blackthorn, field maple, hazel, ash	B2	As shown on plan	As shown on plan
H3	Hawthorn, blackthorn, elder, willow	C2	As shown on plan	As shown on plan
H4	Blackthorn, hawthorn	B2	As shown on plan	As shown on plan

Quality and Suitability For Retention

- Category A - High quality and value (Highly desirable for retention)
- Category B - Moderate quality and value (Desirable for retention)
- Category C - Low quality and value (Optional for retention)
- Category U - Poor quality and value (Unsuitable for retention)

Root Protection Areas (RPA)

Root Protection Areas (RPA) identified are in accordance with BS5837:2012. RPA's are shown as a pink dashed polyline



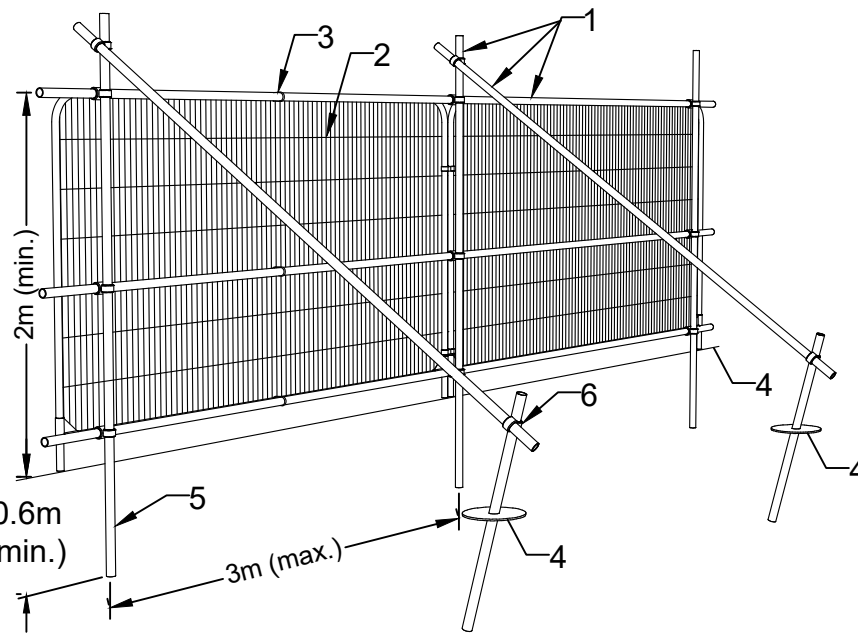
Notes

- 1) Survey Date 8th January 2024.
- 2) This drawing has been produced to be printed in colour. If you have been given this drawing in monochrome please request a colour version.
- 3) Do not scale directly from this drawing.
- 4) This drawing is to be read in conjunction with all other relevant MHP drawings and information supplied by other consultants.

B	Client base layout changes	25-06-25	AB	MR
A	Client base layout changes	21-01-25	AB	MR
Rev:		Date:	Drawn:	Checked:
Revisions:				

Project:	Land South of Spitfire Road, Calne		
Client:	Robert Hitchins Ltd.		
Title:	Arboricultural Impact Assessment and Tree Protection Plan		
Drawing number:	23284.502	Rev:	B
Status:	FOR INFORMATION		
Drawn By:	GW	Checked By:	MR
Date:	23-01-24	Scale @ A1:	1:500

Protective Barrier



Scale

0 2 5 10 20 50

Land South of Spitfire Road, Calne
Arb Impact Assessment and Tree Protection Plan

