



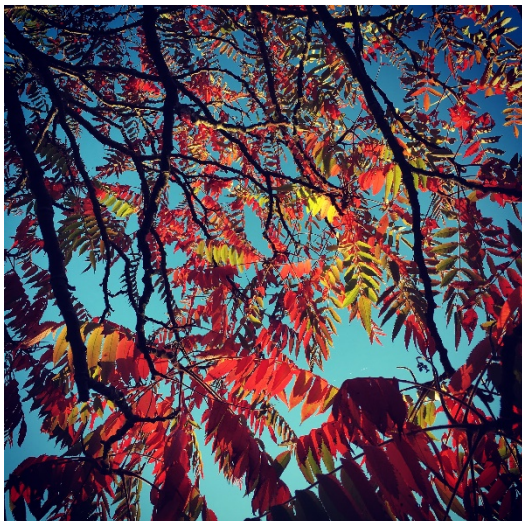
ARBORICULTURAL
CONSULTANTS



Matt Reid Dip Arb L6 (ABC), MIC For, MArborA
Chartered Arboriculturist



ARBORICULTURAL SURVEY, IMPACT ASSESSMENT AND PROTECTION PLAN



For:
DETAILED APPLICATION FOR
ERECTION OF TWO DWELLINGS

At:
LAND OFF RISSINGTON ROAD,
LITTLE RISSINGTON

MHP ref: 20014_LAND OFF RISSINGTON ROAD, LITTLE RISSINGTON_TS
AIA TPP_V2

CONTENTS:

1 INTRODUCTION 1
 2 GENERAL 3
 3 ARBORICULTURAL SURVEY 5
 4 TREE CONSTRAINTS AND DESIGN ADVICE 6
 5 ARBORICULTURAL IMPACT ASSESSMENT (AIA) & TREE PROTECTION PLAN (TPP) 8
 6 CONCLUSION 10
 APPENDIX 1 – TREE SURVEY SCHEDULE
 APPENDIX 2 – ARBORICULTURAL IMPACT ASSESSMENT PLAN
 APPENDIX 3 - TREE PROTECTION PLAN

Issue record

Date	Version	Notes
11.08.2021	V1	Initial issue
12.08.2021	V2	Client name change. Addition 5.1.4

1 INTRODUCTION

1.1 Introduction

1.1.1 My name is Matt Reid. I am a chartered arboriculturist with 20 years industry experience. I hold the Level 6 Diploma in Arboriculture (ABC Awards) as well as other technical and trade level qualifications. I am a professional member of both the Arboricultural Association and of the Institute of Chartered Foresters.

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 Outline planning permission has been granted by Cotswold District Council for erection of two dwellings on land adjacent to Rissington Road, Little Rissington. The planning reference is 21/00385/OUT.

1.2.2 This application was supported by arboricultural information which principally dealt with constraints that were posed by trees beside the road on the southern boundary of the site.

1.2.3 The new owners of the site now wish to apply for detailed planning permission at the site. The new owners have also observed that the condition of some of the trees at the site may have deteriorated since the original tree survey was carried out.

1.3 Site details

1.3.1 For location purposes, the site can be located using the following grid reference: SP 19417 19767.

1.4 Instruction and scope

1.4.1 I am instructed by Brunel Homes 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'.

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

- Updated 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 the following desk-based tree-related constraints checks in relation to the site.

	General summary information	Relevant to site?
Conservation Area ¹	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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
Timber volume	<ul style="list-style-type: none"> Forestry Act 1967 limits felling of volumes of timber in any calendar quarter to 5 cubic metres (m³) unless a Felling Licence has been issued by the Forestry Commission. Any felling beyond this threshold may result in prosecution and/or issue of a Restocking Notice 	Yes
Ancient woodland ³	<ul style="list-style-type: none"> Ancient Woodland is broadly defined as land that has been continuously wooded since 1600AD. It is irreplaceable habitat and is afforded a high level of protection by the National Planning Policy Framework (NPPF). 	No
Ancient/veteran trees ⁴	<ul style="list-style-type: none"> Broadly defined as trees that are old for their species that have biodiversity, cultural and heritage value. Like ancient woodland such trees are irreplaceable habitats and are afforded a high level of protection by the National Planning Policy Framework (NPPF). 	No
<p>Note: specific exceptions and exemptions do apply in relation to the summary information above. Where relevant these are highlighted in the following paragraphs.</p>		

¹ [My Cotswold: Cotswold District Council a](#) Accessed 15.07.2021.

² [My Cotswold: Cotswold District Council a](#) Accessed 15.07.2021.

³ <https://magic.defra.gov.uk/magicmap.aspx> Accessed 15.07.2021.

⁴ <https://ati.woodlandtrust.org.uk/> Accessed 15.07.2021.

2.2 Limitations

- 2.2.1 In some instances, I have been unable to access or clearly observe the trunks of trees as they are offsite. Where this is the case, I have made my best endeavours 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.

2.3 Wildlife informative

- 2.3.1 Tree works should not be carried out until a reasonably detailed inspection of relevant trees 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 birds⁵. Helpful advice with regards to bats and tree work is published by the UK Government⁶, the Arboricultural Association⁷ and The Bat Conservation Trust⁸.

⁵ <https://www.trees.org.uk/Help-Advice/Public/When-is-the-bird-nest-season>

⁶ <https://www.gov.uk/guidance/bats-protection-surveys-and-licences>

⁷ <https://www.trees.org.uk/Help-Advice/Public/Bats-and-trees-Who-does-what-where>

⁸ <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 24th June 2021.

3.2 Findings

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

3.3 General observations

3.3.1 The two veteran ash trees that are within the hedge on the southern boundary of the site are showing signs of quite advanced ash-dieback disease. The trees have branches that extend over the road and, given the embrittlement, that occurs within branches that are affected by the disease, it is now my view that the trees need to be re-pollarded to manage the level of risk posed to road users.

3.3.2 I also note that because of the disease both trees now are likely to have a very short remaining useful life expectancy (see 4.2.4-5).

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.

4.2.4 I note that ash trees T2 & T4 are unlikely to flourish (see 3.3) . Realistically, the viable management option now is to retain the trunks within the hedgerow for habitat benefit and carry out new tree planting elsewhere in the site.

4.2.5 On this basis, it is my opinion that the RPAs that were applied to these trees as part of the outline proposals no longer apply.

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 An AIA plan 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 a section of hedgerow and one moderate quality horse chestnut (T1) must be removed. Also a field maple at the rear of the site must be removed and a section of hedge cut back.

5.1.3 This chestnut tree is visible from the road and its removal will be noticeable to the public. However, in my view, the significance of the loss of the tree needs to be considered in a wider landscape context. In other words, the presence of many mature and native trees in the surrounding locality means that the loss of the horse chestnut (which is a planted, non-native 'naturalised' species) will not significantly detract from local public visual amenity or the character of the wider Area of Outstanding Natural Beauty.

5.1.4 Similarly, I do not consider that the removal of T5 is significant. The tree is set well back within the site and does not make a major contribution to local public visual amenity. In practice, although the tree is shown as removed, it will be possible for the trunk/stump to be retained to regenerate as part of the hedge.

5.1.5 The plan also shows an extension of the driveway into the south-eastern corner of the site and construction of a car port. Under previous site conditions this design feature would have been an incursion into a veteran tree buffer zone and likely to have been considered unacceptable. However, given the likely prognosis for the ash trees, I now consider that this is a reasonable amendment to the design.

5.1.6 I have had some input to the development of the detailed layout for the site. In doing so I have encouraged addition of new tree planting as part of the proposals. Although there will be a relatively minor short-term impact associated with tree and hedge removals, it is my view that the new tree planting will exponentially enhance the developed site with time.

5.1.7 Fit for purpose tree protection barriers will be required to afford protection to retained trees, in particular field maple T3.

5.2 Tree Protection Plan

5.2.1 A Tree Protection Plan is included at **Appendix 3**.

- 5.2.2 The Tree Protection element of the plan demonstrates how retained trees can be effectively retained as part of the construction of the proposals. 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.
- 5.2.4 The plan also outlines proposals for new tree planting in at the front of the site.

6 CONCLUSION

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

- Veteran trees at the site are moribund and therefore their root protection areas should no longer function as constraints to development.
- Proposed tree removals are relatively insignificant when considered in the context of the wider well-treed landscape.
- Tree protection measures can be put in place to ensure that construction works do not result in damage to the retained trees.
- New tree planting can be incorporated into a scheme of landscaping for the site that will, over time, result in a positive outcome.

APPENDIX 1 – TREE SURVEY SCHEDULE

TREES

Ref	Common name	Height (m)	Est	Stem dia (mm)	Est	N	Est	E	Est	S	Est	W	Est	Estimated first branch height (m)	1st branch direction	Estimated canopy height (m)	Life stage	Special status	General observations & management recommendations	Struct. cond.	Phys. cond.	ULE	Quality grading	RPA / VTB radius (m)	RPA / VTB area (m2)	TPO / Conservation Area
T1	Horse chestnut	13	#	480	-	7	-	7	-	6	#	6	-	2	N	1.5	EM	None	Reasonable tree with no significant defects.	Good	Good	20+	B1	6	104	None
T2	Common ash	18	#	1010	#	8	-	2	-	5	#	7	-	3	NW	2	OM	None	Lapsed pollard with extensive trunk hollowing below bolling. Dense ivy. Ash dieback well-established and likely to curtail tree's useful life. Repollard to manage risk to road users and to maintain trunk for habitat benefit.	Fair	Fair	10+	C3	15	707	None
T3	Field maple	12	#	375	#	7	-	6	-	5	#	6	#	2	N	2	M	None	Multi stemmed from base. A worthwhile hedgerow tree.	Fair	Good	20+	B1	5	64	None
T4	Common ash	13	#	1010	#	9	-	7	-	7	#	6	-	4	N	5	OM	None	Lapsed pollard with extensive trunk hollowing below bolling. Dense ivy. Ash dieback well-established and likely to curtail tree's useful life. Repollard to manage risk to road users and to maintain trunk for habitat benefit.	Fair	Fair	10+	C3	15	707	None
T5	Field maple	11	#	490	#	6	#	6	#	7	#	5	#	1.5	E	3	M	None	Attractive rounded crown form.	Good	Good	20+	B1	6	109	None

HEDGEROWS

Ref	Common names of woody species present	Estimated minimum & maximum heights (m)	Estimated average height (m)	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	Damson, hawthorn, field maple, hazel,	9-5	7	3	0.5	M	None	Unmanaged with areas of dense ivy. Would benefit from proactive management.	Fair	Good	20+	B2	As shown on plan
H2	Pear, field maple, hawthorn, crack willow	10-6	7	5	1	M	None	Unmanaged. Would benefit from proactive management.	Fair	Good	20+	B2	As shown on plan

KEY

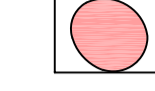
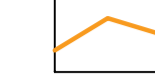
Assessment criteria	Description
Reference number on plan	T: Tree, G: Group, W: Woodland, H: Hedgerow. This reference is recorded on the Tree Survey and Constraints Plan against the relevant survey item.
Common name (Scientific name)	Common names: normal type. Scientific names where required: italic type 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: <ul style="list-style-type: none"> • 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).
Special status	<ul style="list-style-type: none"> • None • Veteran: any tree judged to meet criteria as defined by the NPPF, Forestry Commission, Natural England and the Ancient Tree Forum • Ancient: any tree judged to meet criteria as defined by the NPPF, Forestry Commission, Natural England and 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	<ul style="list-style-type: none"> • 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.
Physiological condition	<ul style="list-style-type: none"> • 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. <ul style="list-style-type: none"> • High quality or Category A (Green) Trees of high quality with an estimated remaining life expectancy of 40 years • Moderate quality or Category B (Blue) Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. • Low quality or 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. • Unsuitable for retention Category U (Red). 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 if appropriate.
RPA / VTB 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 Veteran Tree Buffer (VTB): radial area around a veteran tree that must be maintained as undisturbed. Calculated in accordance with Forestry Commission and Natural England Standing Advice. ²
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.





² <https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences#ancient-and-veteran-trees>

APPENDIX 2 – ARBORICULTURAL IMPACT ASSESSMENT PLAN

Key

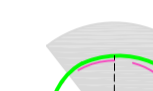
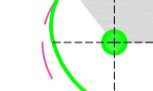
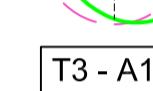

-  Tree to be removed/pruned
-  Visibility splay



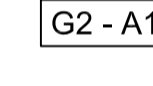
Quality and Suitability For Retention

-  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

- Tree Key**
-  Existing shade segment (where applicable)
 -  Root Protection Area (RPA)
 -  Tree / Group canopy extent (calculated using N,E,S,W cardinal points - not shown)
 -  Tree / Group Number ID and Quality

- Group / Area / Woodland / Hedgerow Key**
-  Root Protection Area (RPA)
 -  Woodland, group or hedge
 -  Tree / Group Number ID

Notes

- 1) Survey Date 27th January 2020.
- 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.

Revisions: _____

Project: Land off Rissington Road, Little Rissington

Client: Aqua Construction

Title: Arboricultural Impact Assessment Plan

Drawing number: 20014.503

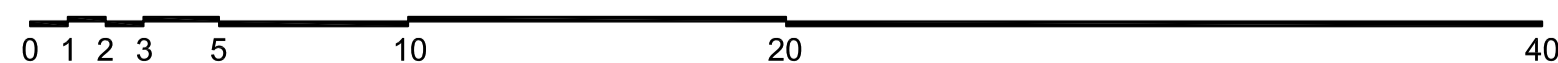
Status: FOR INFORMATION

Drawn By: GW Checked By: MR Date: 10-08-21 Scale @ A1: 1:200

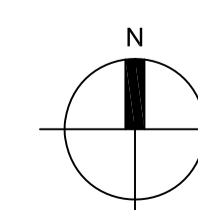
Tree number on plan	Common name	Quality grading	RPA radius (m)
T1	Horse chestnut	B1	6
T2	Common ash	C3	15
T3	Field maple	B1	5
T4	Common ash	C3	15
T5	Field maple	B1	6
H1	Damson, hawthorn, field maple, hazel	B2	As shown on plan
H2	Pear, field maple, hawthorn, crack willow	B2	As shown on plan



Scale

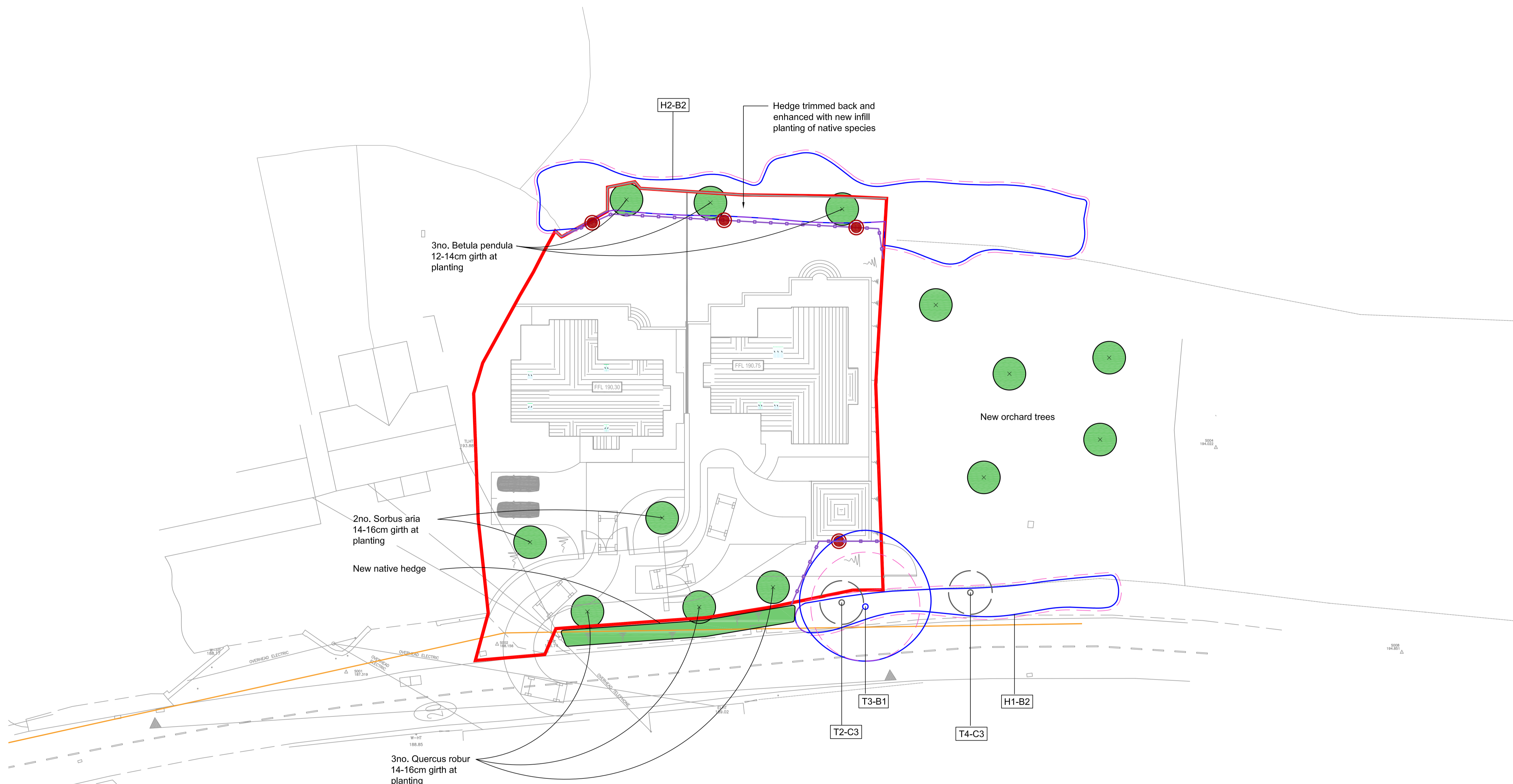


**Land off Rissington Road
Arboricultural Impact Assessment Plan**



MHP ARBORICULTURAL 79 THE PROMENADE CHELTENHAM GL50 1PJ
T: 01242 259 259 E: info@mhp-arb.com www.mhp-arboriculture.com

APPENDIX 3 - TREE PROTECTION PLAN

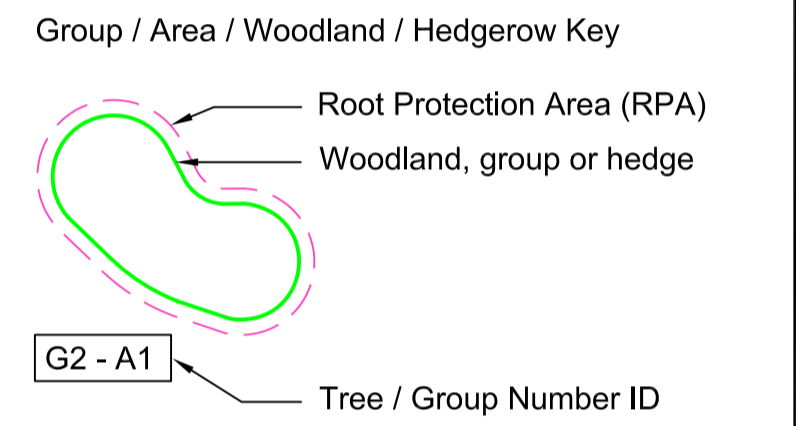
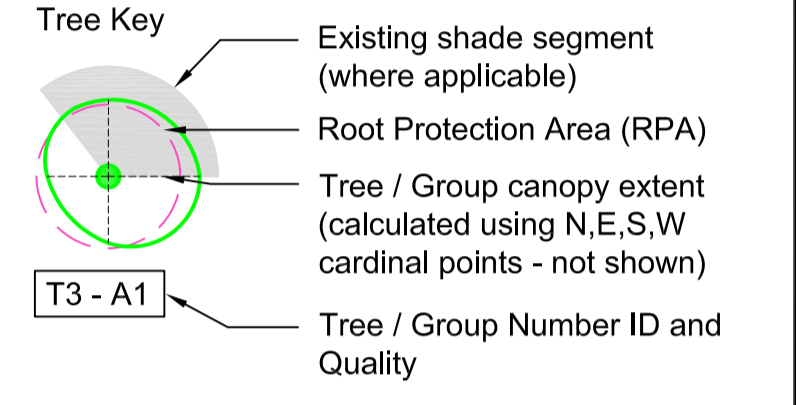


Quality and Suitability For Retention

- 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



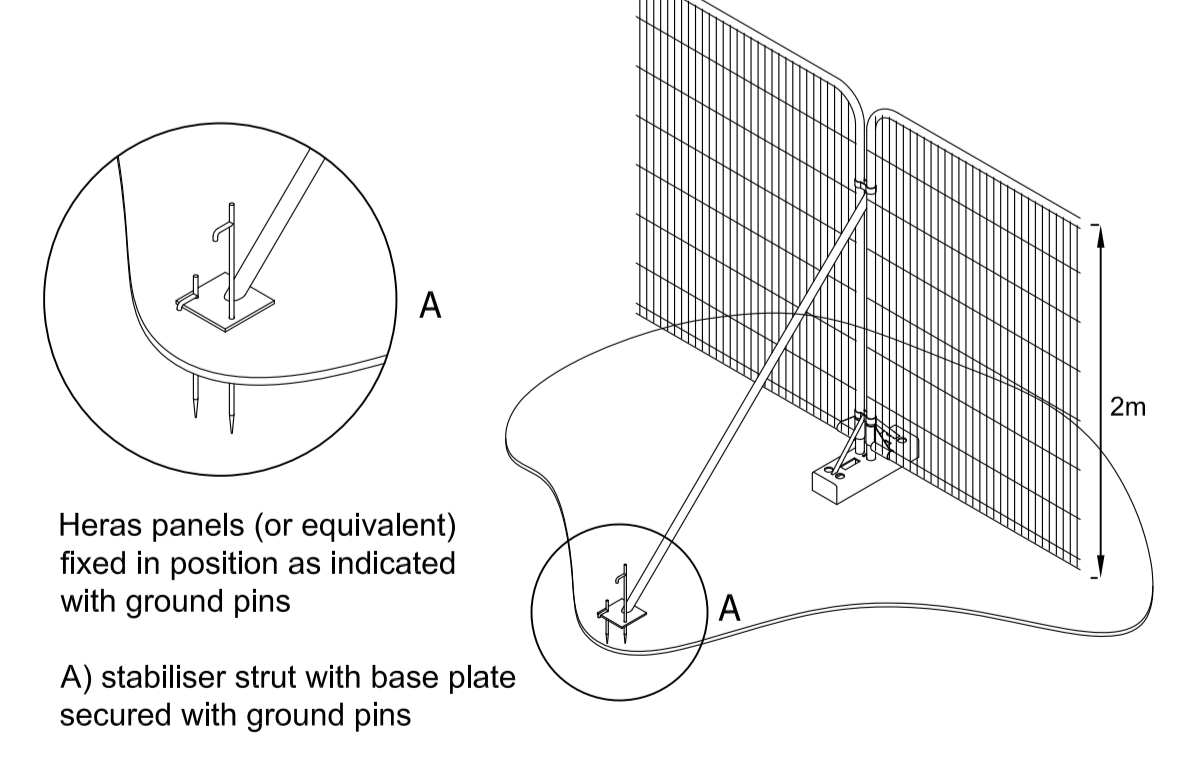
Notes

- 1) Survey Date 27th January 2020.
- 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.

Key

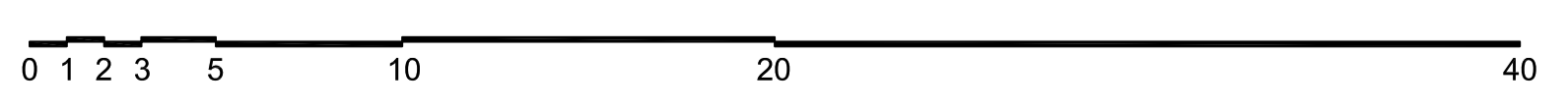
- Tree Protection Fencing
- Area of no dig construction
- Signage 'Construction exclusion zone - No Access'
- Proposed tree
- Visibility splay

Protective Barrier



Tree number on plan	Common name	Quality grading	RPA radius (m)
T1	Horse chestnut	B1	6
T2	Common ash	C3	15
T3	Field maple	B1	5
T4	Common ash	C3	15
T5	Field maple	B1	6
H1	Damson, hawthorn, field maple, hazel	B2	As shown on plan
H2	Pear, field maple, hawthorn, crack willow	B2	As shown on plan

Scale



**Land off Rissington Road
Tree Protection Plan**

