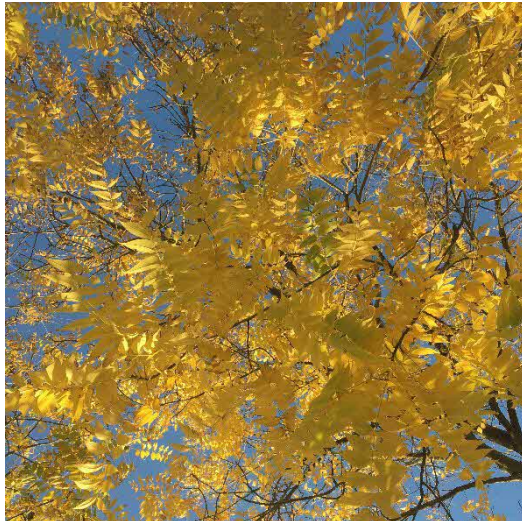
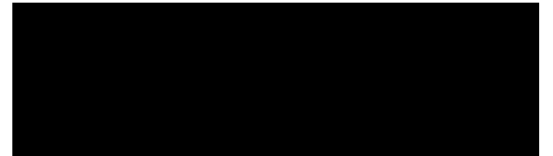




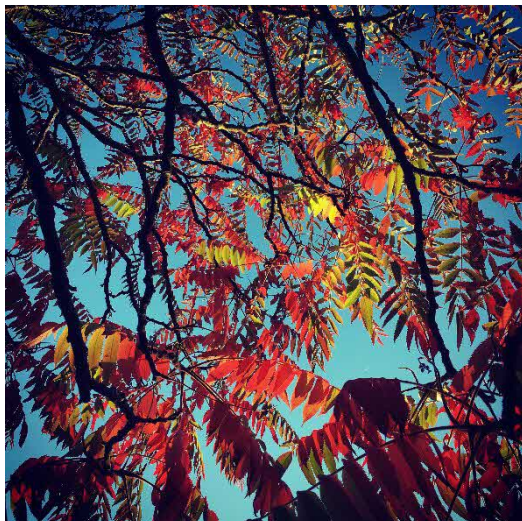
ARBORICULTURAL
CONSULTANTS



ARBORICULTURAL SURVEY, IMPACT ASSESSMENT AND PROTECTION PLAN

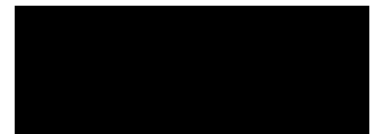
Relating to:

TWO STOREY EXTENSION



At:

SOUTH WINDS, BATTLEDOWN
APPROACH, CHELTENHAM



MHP ref: 23173_SOUTH WINDS_BATTLE APPROACH, CHELTENHAM_TS AIA TPP_V1

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Issue record

| Date | Version | Notes | Quality check |
|------------|---------|---------------|------------------|
| 10.08.2023 | V1 | Initial issue | MR 14.08.2023 |

1 INTRODUCTION

1.1 Introduction

1.1.1 My name is Justin Hobbs. I have over 20 years of experience in the arboricultural and environmental sector. I hold a BSc (Hons) Environmental Management, the Level 4 Technicians Certificate in Arboriculture, the LANTRA Professional Tree Inspection qualification, as well as other technical and trade level qualifications.

1.1.2 Since 2004 I have worked in local government as a tree officer and as a consultant arboriculturist 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 a two-storey rear extension at South Winds, Battledown Approach, Cheltenham; hereafter referred to as 'the site'.

1.3 Site details

1.3.1 For location purposes, the site can be located using the following:

- Postcode: GL52 6RE
- Grid reference: SO 96238 21922

1.4 Instruction and scope

1.4.1 I am instructed by Mr C Mellor 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:

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

2 GENERAL

2.1 Referenced document and other information

2.1.1 I have been provided with the following drawings:

- A1238P-670-05A Site Plan & Block Plan as Existing & Proposed

2.2 Statutory tree protection and other designations

2.2.1 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 |
| Ancient/veteran trees ³ | 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). | None recorded |

Table 1- statutory tree protection and other designations.

2.3 Limitations

2.3.1 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.

2.3.2 In some cases, due to topographical survey limitations, the locations of some trees, and the extent of some tree groups, are approximated.

2.3.3 Trees are living organisms and self-supporting dynamic structures. Their physiological and

¹ CDC Tree Section email communication 09.08.2023

² CDC Tree Section email communication 09.08.2023

³ <https://ati.woodlandtrust.org.uk/> Accessed 09.08.2023.

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.

2.3.4 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.

2.4 Wildlife informative

2.4.1 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.

2.4.2 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.

2.4.3 The Arboricultural Association publishes useful advice in relation to trees and nesting birds⁴.

2.4.4 Helpful advice with regards to bats and tree work is published by the UK Government⁵, the Arboricultural Association⁶ and The Bat Conservation Trust⁷.

⁴ <https://www.trees.org.uk/Help-Advice/Public/When-is-the-bird-nest-season>

⁵ <https://www.gov.uk/guidance/bats-protection-surveys-and-licences>

⁶ <https://www.trees.org.uk/Help-Advice/Public/Bats-and-trees-Who-does-what-where>

⁷ <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 3rd August 2023.

3.2 Findings

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

3.2.2 The site is a large, level rear garden of a detached property. Towards the rear of the garden are several moderate sized trees and mature trees are found in the field to the south of the property.

3.2.3 There are no trees or hedges of moderate or high quality on site.

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 a section of G1 will need to be cut back to enable the construction of the proposed extension.

5.1.3 The canopy of a pair of low-quality cherry trees will require lateral reduction by approximately 3m. The trees are of an age and condition that the trees will tolerate and recover from these pruning works. The pruning works should be undertaken by a competent arboricultural contractor and be as per BS3998.

5.1.4 Additionally, some sections of H1 (which combine with G1) will need to be removed.

5.1.5 The removal/pruning of these trees will not detract from existing public visual tree amenity and as such there will be no material harm in my opinion.

5.1.6 The simplest way to protect the retained trees within G1 and towards the rear of the garden is to erect a fence across the garden.

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 or hedges 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.

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 | 2no Cherry | 290 | 10 & 12 | 11 | 2 | M | None | Ivy clad pair of trees. Haphazard past pruning. | Fair | Fair | 10+ | C2 | As shown on plan | None |

HEDGEROWS

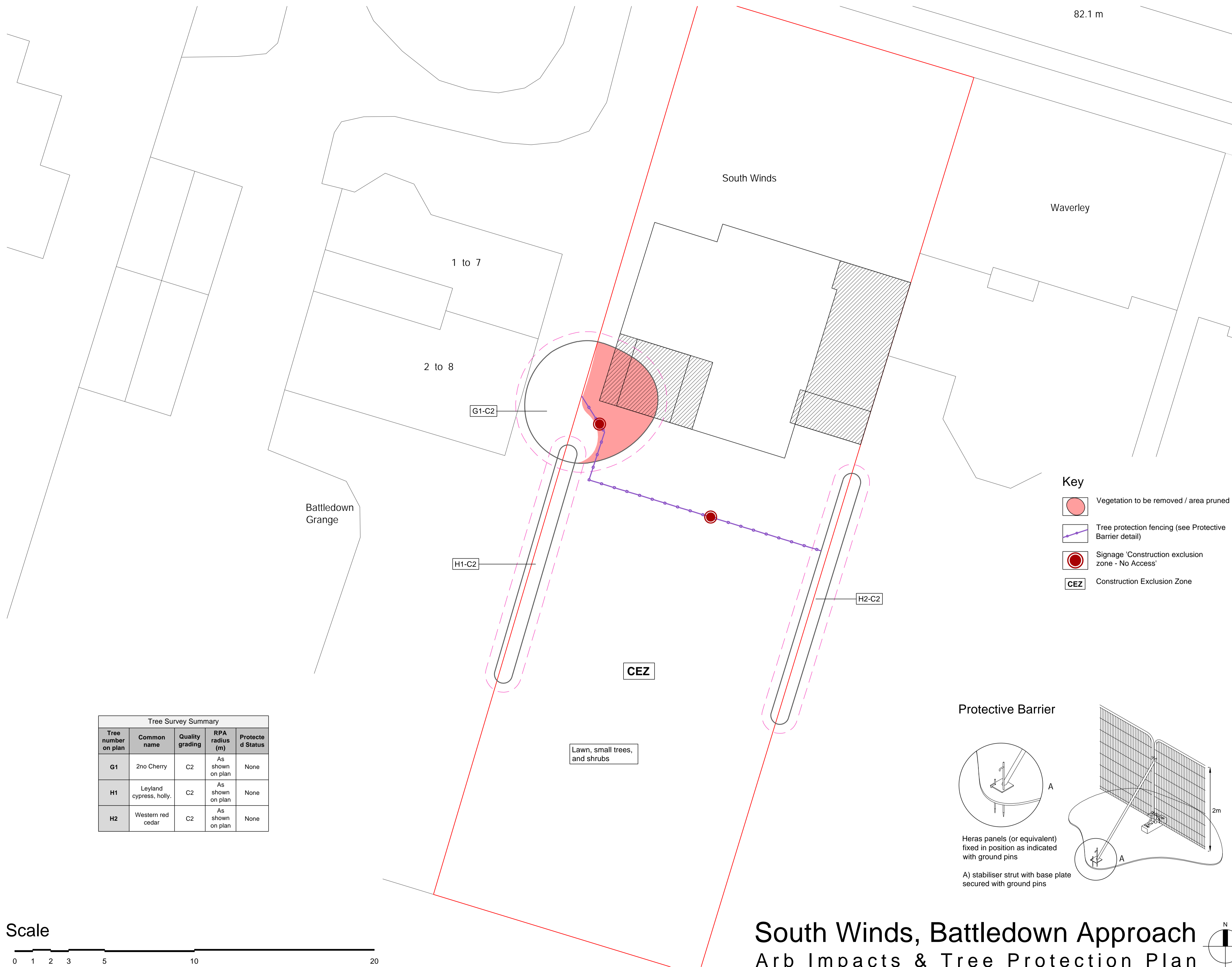
| Ref | Common names of woody species present | Estimated minimum & maximum heights (m) | Estimated average height (m) | Estimated average trunk diameter (mm) | Estimated average lateral spread (m) | Estimated average canopy height (m) | Life stage | Special status | General observations & management recommendations | Struct. cond. | Phys. cond. | ULE | Quality grading | RPA radius from canopy edge (m) |
|-----|---------------------------------------|---|------------------------------|---------------------------------------|--------------------------------------|-------------------------------------|------------|----------------|--|---------------|-------------|-----|-----------------|---------------------------------|
| H1 | Leyland cypress, holly. | 3.5 & 3.5 | 3.5 | 50 | 1 | 0 | M | None | Lower stems lifted, upper section pruned to create a high globular form. | Fair | Fair | 10+ | C2 | As shown on plan |
| H2 | Western red cedar | 3 & 3 | 3 | 50 | 1 | 0 | M | None | Either on boundary or just off-site. Pruned regularly on sides and top. | Fair | Fair | 10+ | C2 | 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"> • 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 | <ul style="list-style-type: none"> • 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 | <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 requiring intervention particularly where risk management is required. |
| 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"> • 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. <p>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.</p> |
| 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

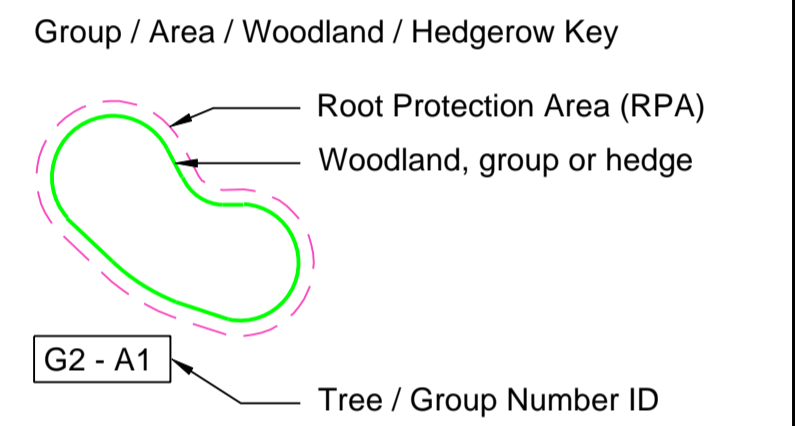
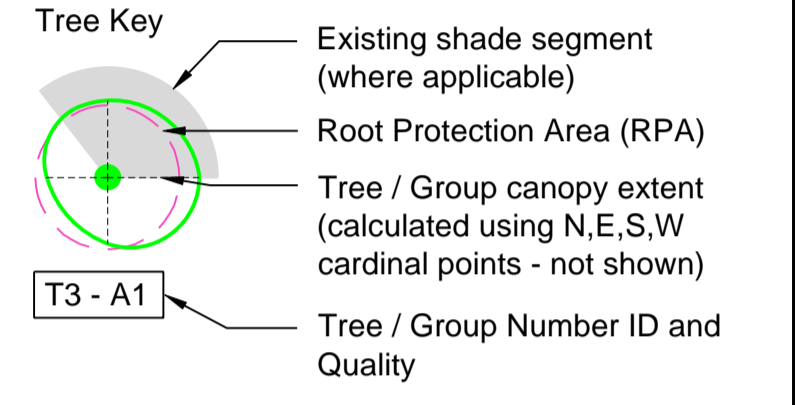


Quality and Suitability For Retention

- 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



- Key**
- Vegetation to be removed / area pruned
 - Tree protection fencing (see Protective Barrier detail)
 - Signage 'Construction exclusion zone - No Access'
 - CEZ Construction Exclusion Zone

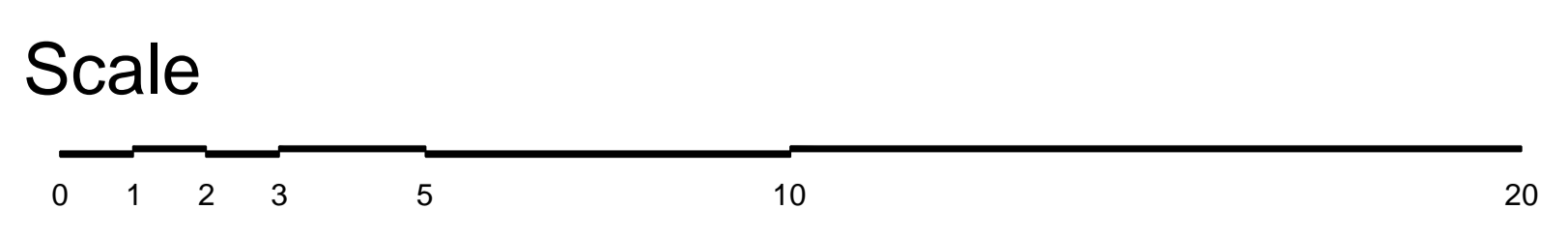
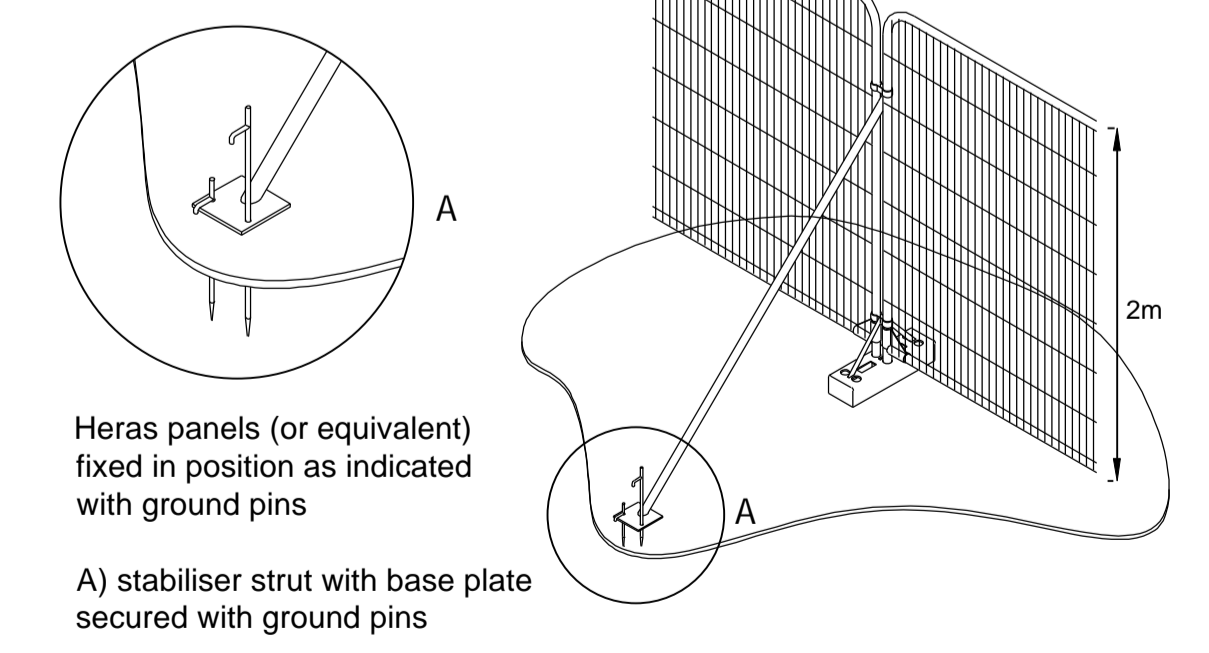
Notes

- 1) Survey Date 3rd August 2023.
- 2) Owing to limitations of topographical survey, some tree/group locations are approximate.
- 3) This drawing has been produced to be printed in colour. If you have been given this drawing in monochrome please request a colour version.
- 4) Do not scale directly from this drawing.
- 5) This drawing is to be read in conjunction with all other relevant MHP drawings and information supplied by other consultants.

| Rev. | Revisions: | Date | Drawn | Checked |
|--|-------------|----------|-------------|---------|
| Project: South Winds, Battledown Approach, Cheltenham | | | | |
| Client: Mr. C. Mellor | | | | |
| Title: Arboricultural Impact Assessment and Tree Protection Plan | | | | |
| Drawing number: | | Rev: | | |
| 23173.502 | | | | |
| Status: FOR INFORMATION | | | | |
| Drawn By: | Checked By: | Date: | Scale @ A1: | |
| GW | JH | 15-08-23 | 1:100 | |

| Tree number on plan | Common name | Quality grading | RPA radius (m) | Protected Status |
|---------------------|-------------------------|-----------------|------------------|------------------|
| G1 | 2no Cherry | C2 | As shown on plan | None |
| H1 | Leyland cypress, holly. | C2 | As shown on plan | None |
| H2 | Western red cedar | C2 | As shown on plan | None |

Protective Barrier



South Winds, Battledown Approach Arb Impacts & Tree Protection Plan

