

TREE SURVEYING



ASSOCIATES LTD

The Old Smithy
Holloway
Malmesbury
SN16 9HX

Findings of BS5837 Tree Quality Survey

And

Arboricultural Method Statement

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Executive Summary

1. The proposed garage removal and rebuilding will have minimal impact on the existing trees.
2. Demolition and removal of existing garage to be carried out without impacting the trunks or branches of adjacent trees, by erection of a tree root zone protection fence to remain in situ during demolition and construction, with no storage of materials allowed within.

Section 1: Introduction

- 1.1. Tree Surveying Associates Ltd have been commissioned by Peter Webb of The Old Smithy Holloway, Malmesbury, SN16 9HX to undertake a BS5837 Tree Quality Survey at the property address (hereafter referred to as the 'site').
- 1.2. This report has been prepared to accompany a full planning application for a prospective garage development on-site. An Arboricultural Impact Assessment and Arboricultural Method Statement is included at Section 4 of this report to set out the potential impact on the adjacent trees and the associated tree protection measures, arboricultural working methods and management recommendations to accompany the detailed planning application.

Tree Survey

- 1.3. The BS5837 tree survey was carried out on 30th March 2026 by Philip Cowpland. The weather conditions were clear and still.
- 1.4. The work involved collecting data relating to the tree stock within and adjacent to the site, in order to inform the proposed development. Where appropriate, recommendations for the removal of trees or tree works are made in order to facilitate the proposed development or to improve the overall condition of the existing tree stock.
- 1.5. No invasive investigations or climbing inspections were necessary to confirm visual or audible signs of defect or debility and no tissue or soil samples were undertaken. Where identified, signs of substantial defects or debility significant to the pre-development context have been recorded.
- 1.6. Three trees were surveyed, as shown on the **Findings of Tree Quality Survey** plan located to the rear of this report. Selected site photography is included at **Appendix 4**.

Survey Methodology

- 1.7. The pre-development survey and assessment was undertaken in accordance with British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' (hereafter BS5837:2012).
- 1.8. In accordance with the above recommendations, the tree survey included affected trees within the site boundary that were measured over 7cm diameter at breast height (dbh).
- 1.9. The tree survey involved collecting the following data:
 - Tree Number / Group Reference;
 - Species;
 - Height;
 - Branch Spread (in metres taken at the four cardinal points);
 - Crown Clearance (in metres above the adjacent ground level);
 - Age Class;
 - Physiological Condition;
 - Structural Condition;
 - Estimated Remaining Contribution (in years);
 - Management Recommendations; and
 - Notes.
- 1.10. For further clarification, please refer to the tree survey explanatory notes in **Appendix 1**.

Tree Categorisation

- 1.11. The quality and value of each tree or group of trees has been recorded in accordance with the Cascade Chart for Tree Quality Assessment included at **Appendix 3**. The purpose of the tree categorisation method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made in conformity with BS5837:2012, concerning which trees should be removed or retained, should development occur.
- 1.12. Categories A, B and C deal with trees that should be a material consideration in the development process and are divided into subcategories that reflect arboricultural, landscape and cultural values.
- **Category Grading A:** Trees of high quality and value, which are in such a condition as to be able to make a substantial contribution from an arboricultural, landscape or cultural perspective;
 - **Category Grading B:** Trees of moderate quality and value, which are in such a condition as to make a significant contribution from an arboricultural, landscape or cultural perspective;
 - **Category Grading C:** Trees of low quality and value, which are currently in adequate condition to remain until new planting could be established or young trees with a stem diameter below 150mm; and
 - **Category Grading U:** Trees which are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.
- 1.13. The subcategories included within the Cascade Chart for Tree Quality Assessment (1, 2 and 3) are intended to reflect arboricultural, landscape and cultural values respectively. Findings for each tree group surveyed are illustrated on the **Findings of Tree Quality Survey** plan contained at the rear of this report and listed within the Tree Survey Table at **Appendix 2**.

Preliminary Management Recommendations

- 1.14. Recommendations made for the management of trees (e.g. tree works) prior to any proposed development are not a detailed 'specification' for tree work and should not be considered as such. These recommendations are proposed on the basis that they are advised and undertaken by a qualified arboricultural contractor working in accordance with best practice as, for instance, embodied in BS3998:2010 Recommendations for Tree Work, or in the European Tree Pruning Guide, published in 2001 by the Arboricultural Association.

Limitations

- 1.15. The comments made are based on observable factors present at the time of inspection and are based on maximising the trees' safe life expectancy given their existing context. Although the health and stability of trees in their current context is an integral part of their suitability for retention, it must be stressed that this report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.
- 1.16. No tree is entirely safe, given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site. Assessment of the potential influence of trees upon buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effects of incremental root or branch growth, are specifically excluded from this report.
- 1.17. Measurements were taken using a diameter tape. Where this was not possible or reasonably practical, measurements have been estimated by eye.

Un-assessable Risks

- 1.18. Any alteration to the site boundary could change the current circumstances and may invalidate this report and any recommendations made. A lack of recommended work does not imply that a tree does not pose an unacceptable level of risk and likewise, it should not be implied that a tree will present an acceptable level of risk following the completion of any recommended work.
- 1.19. The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Bats are also a European protected species and are additionally protected under the Conservation (Habitats & c) Regulations 1994 and 2010 (as amended).

Section 2: Findings of the Tree Survey

Site Description

- 2.1. The site is located on the south side of Holloway, Malmesbury. It is on level land, in the gardens of The Old Smithy. The site is broadly rectangular and aligned to the north. The site consists of existing residential property with field wetland and hard surface driveway.
- 2.2. The subject trees are located to the south of the adjacent existing garage/store structure, which appears to be of timber construction.

Tree Preservation Orders

- 2.3. As confirmed by reference to the Wiltshire Planning map, the site is within the Malmesbury Conservation Area. No trees are protected by a Tree Preservation Order.

Species Composition

- 2.4. A total of 1 species were recorded. 2 x Oak (Quercus sp.)

Health, Physiological and Structural Condition

- 2.5. The survey involved ground level examination of the external features of the trees. The trees appear in good health showing normal vigour and vitality. Definitions and criteria for assessing a tree's physiological and structural condition are included in the Tree Survey Explanatory Notes at **Appendix 1**.

Age Class

- 2.6. Definitions and criteria for assessing a tree's age classification are included in the Tree Survey Explanatory Notes at **Appendix 1**.
- 2.7. The trees are semi-mature specimens.

Category Grading

- 2.8. The trees are in good overall condition, with no significant observable defects, other than a normal amount of small diameter dead wood throughout the crown. They are visible from adjacent properties and riverside footway.

Section 3: Management and Development

Implications

Root Protection Areas

- 3.1. The **Findings of Tree Quality Survey** plan located to the rear of this report shows the approximate extent of Root Protection Areas (RPAs). The RPAs have been calculated in accordance with the methodology set out within Appendices C and D of BS5837: 2012, using the stem diameter dimensions obtained during the site visit.
- 3.2. The RPAs are considered to contain sufficient rooting volume to ensure the survival of the tree and should be left undisturbed in order to avoid damage to the roots or rooting environment surrounding the tree. Particular care is needed regarding the proximity of trees which may become enclosed within new development, or are disturbed by unsuitable working methods or proximity during the construction phase of a development.
- 3.3. Whilst the locations of RPAs must be respected, and development or excavations avoided wherever within them, regulated minor works can be undertaken within the root protection area in some cases, but this must be carried out carefully by hand, avoiding damage to roots. Appropriate protective measures should be implemented to avoid desiccation and undue disturbance of roots if a tree is to be retained. Hand digging rather than excavation by mechanical means has proved to be an effective way of limiting the effects of construction within RPAs.
- 3.4. Any sudden and major alteration of the soil or surface conditions within RPAs will lead to progressive shoot and branch dieback until the roots have adapted to the altered conditions and have been able to source sufficient water and oxygen levels. If damage is progressive or so severe that the tree is unable to adapt then it is likely that the tree will ultimately die. It should be noted that in general, with increased maturity of a specimen, the ability of that tree to adapt to dramatic alterations in relation to its root system is lessened.

Management Recommendations

- 3.5. The tree survey table at **Appendix 2** includes prescriptive management works.
- 3.6. Prior to commencement of works, the designate RPA areas must be fenced off with rigid fixed fencing as in the Arboricultural Method Statement.
- 3.7. Where any construction activity within or adjacent to RPAs is unavoidable or where works are to be undertaken in close proximity to lower lying canopies, appropriate working methods, including tree protection and signage will need to be sought as a matter of detailed design in order to safeguard trees during the construction phase of the development. A detailed tree protection strategy is included within the Arboricultural Method Statement at Section 4 of this report.
- 3.8. Any new landscape planting should be undertaken between October and March, avoiding days when the ground is frozen. Container-grown trees can be planted at any time of year, if planting is done in late spring or summer they should be watered during dry spells throughout the first growing season. Any deadwood / tree removal or management must be subject to wildlife and planning considerations / constraints. Ideally work should be timed to avoid the bird nesting season wherever possible (1st March to 31st August). If not, each tree will need to be searched for nesting birds prior to clearance. If a nest is found the tree and its immediate surroundings will need to be left undisturbed until nesting is complete.

Section 4: Arboricultural Impact Assessment & Arboricultural Method Statement

Arboricultural Impact Assessment

- 4.1. T1 and T2 are both outside the proposed construction area.
- 4.2. The arboricultural impact in terms of tree loss is nil.
- 4.3. Tree damage and future stress can be mitigated with arboricultural management and enhancement works such as future soft landscaping within the bare surface area beneath the tree canopies. Impacts upon retained trees can be managed through the use of protective barriers, ground protection and sensitive construction methodologies as specified below.

Tree Protection Plan

- 4.4. The retained trees must be protected from unnecessary damage during the construction process. Tree protection on development sites is of paramount importance if they are to be retained successfully. The inevitable stress caused by development near existing trees can, if provision for adequate protection is not made, be a strain that can severely damage the trees or even result in their failure.
- 4.5. Tree protection measures are illustrated on **Plan 2** and outlined further below.

Arboricultural Method Statement

- 4.6. The purpose of an Arboricultural Method Statement (AMS) is to safeguard the retained trees on site during the construction process. The following information sets out the methodology and approach for all proposed works that could affect such trees.
- 4.7. Compliance with this AMS will be a requirement of all relevant contractors associated with the development, including initial ground works and landscaping. Copies of this report will be available for inspection on site and all personnel shall be made aware of the key implications of the AMS, namely to ensure that during the construction phase of the development:
- The site manager and all other personnel are provided with this document;
 - All requirements of this Tree Protection Scheme are adhered to;
 - The site manager and site personnel are updated of any approved changes or variations to this document (approval for alterations must be obtained in writing from the LPA);
 - Site personnel must work in accordance with this document at all times, or in accordance with any approved variation; and
 - The tree protection measures are left in place until the construction phase of development is completed, except with the written consent of the LPA.

General Site Precautions

- 4.8. The following points must be observed during both advanced works and the construction process:
- No fires will be lit on site;
 - Cutting down, uprooting, damaging or otherwise destroying any retained tree is prohibited;
 - No access will be permitted inside tree protection / non-intervention areas (unless authorisation is obtained in writing from the LPA);
 - No materials, equipment or debris will be stored within the RPA at any time;
 - Notice boards, telephone wires or other services must not be attached to any part of retained trees; and
 - Materials which will contaminate the soil (e.g. concrete, cement, chemical toilets, diesel oil, vehicle washings etc) must not be permitted within, or close to RPAs of retained trees. Consideration must be given to the slope of the site such that contamination of soil in the RPA would not occur if there were spillage, seepage or displacement elsewhere on-site.
- 4.9. Planning of on-site operations must take sufficient account of wide or tall loads in order that they can operate without coming into contact with retained trees. Given the proximity of existing trees to the site access and proposed works, any transit or traverse of plant during tree clearance prior to the erection of tree protection fencing must be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times.

Site Preparation / Timing and Order of Operations

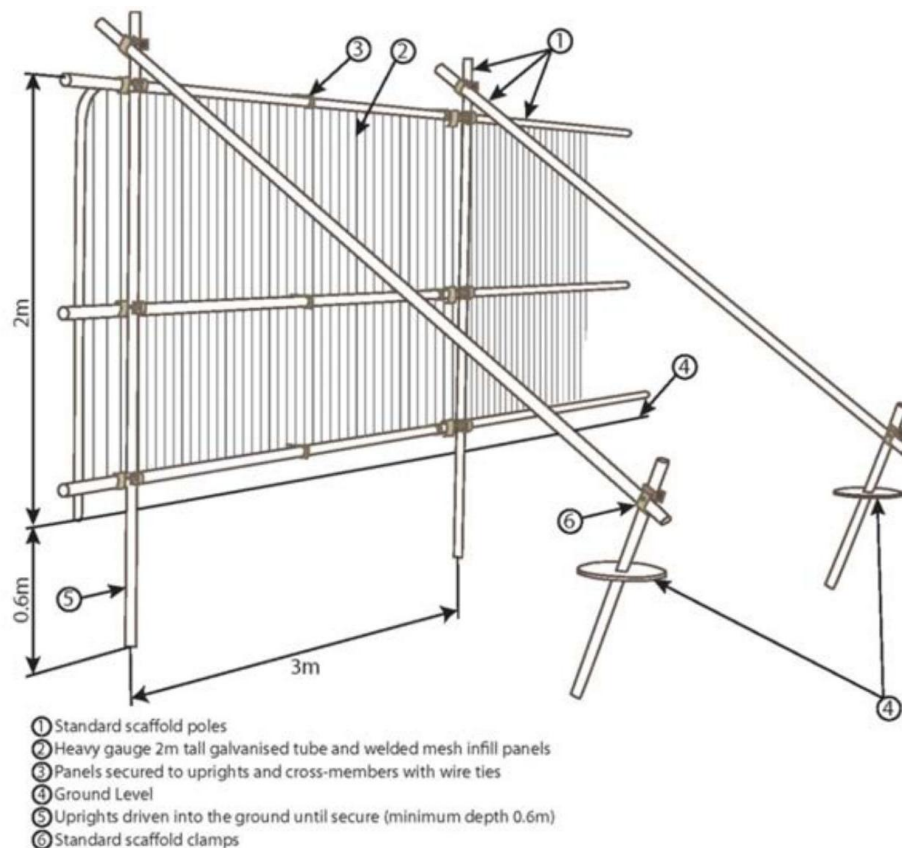
- 4.11. The development must be carried out in the following order unless otherwise agreed in writing with the LPA. Each step must be completed before moving onto the next:
1. Tree Works (facilitation pruning or other initial required management works and agreed tree removal).
 2. Installation of tree protection barriers and temporary ground protection in areas indicated on plan and areas of special engineering.
 3. Construction.
 4. Sensitive removal of remaining temporary ground protection and barriers.
 5. Landscaping.

Preliminary Tree Works / Facilitation Pruning

- 4.12. It is not anticipated that any preliminary tree pruning works are required.

Protection Barriers

- 4.13. Once any pre-construction tree management works and tree removal (as specified at paragraph 4.1) has been undertaken, protective fencing will be erected in line with BS 5837 (2012) as illustrated on **Plan 2** to safeguard retained trees during the construction phase of the development.
- 4.14. The fencing consists of a scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m to add further stability. Onto this, weldmesh panels will be securely fixed with wire or scaffold clamps (see extract of BS 5837 below). Sensitive working methods will be required beyond the fence line, particularly when within RPA margins. Minor pruning works and/or the temporary tying back of branches may be required to facilitate implementation of temporary tree protective fencing in relation to lower lying canopies. The protective fencing will remain in position for the duration of the site-wide construction activities.



- 4.15. All-weather notices will be attached to the barriers with words such as 'Construction Exclusion Zone – No Access' (see signage examples below).



- 4.16. Once the BS5837 tree protective fencing has been erected, any areas of RPA that extent beyond the fencing will be safeguarded by way of temporary ground protection.
- 4.17. If during construction there are any excessive levels of dust build-up on retained trees then trees must be hosed down immediately with a clean water supply.

Special Working Methods and Services

- 4.18. Where minor construction works are required within and along the defined limits of Root Protection Areas, including within any no-dig construction areas, or where the RPAs extend beyond the line of protective fencing, all works will be undertaken by hand to avoid damage to the protective bark covering any larger roots.
- 4.19. Any roots encountered which are smaller than 25mm in diameter can be pruned back, preferably to a side branch using a proprietary cutting tool. Roots larger than 25mm diameter should only be severed following on-Site agreement with an arboricultural consultant, as they may be essential to the tree's health and stability.
- 4.20. All construction or tree management works must be undertaken sensitively and with regard to the RPAs and canopies of adjacent retained trees. If scaffolding is needed within the defined RPAs (i.e. within any areas between proposed buildings and established protective fencing) then inter-linked ground protection boards placed on top of a compression-resistant layer consisting of 150mm depth of woodchip laid onto a geotextile membrane must be implemented to safeguard the rooting environment with RPAs.
- 4.21. If any removal of debris and site waste, or the movement of materials or machinery is required in close proximity to tree canopies and RPAs care will be needed to ensure that low or conflicting branches are not damaged. Debris must be manually removed and demolition or digging will be undertaken sensitively and by hand, particularly within the RPAs where excavating into the root zone must be avoided. Debris to be removed from RPAs manually must be moved across temporary ground protection in a way that prevents compaction of soil (as specified at paragraph 4.15). Alternatively, it can be lifted out by machines provided this does not disturb RPAs.
- 4.22. For the purposes of this report, the provision of new services includes the provision of electricity cabling, gas supply and water pipes. Where such services are required, no linear pipelines or service ducts should be implemented within the defined RPAs, unless it can be linked to any existing underground service runs.

Soft Landscaping within RPAs

- 4.23. Any proposals for soft landscaping within RPAs will need to ensure that no excavation or cultivation occurs within RPAs and soft landscaping proposals must avoid proposed service runs. Only good quality permeable top soil will be implemented. It will be trodden in but not over compacted in preparation for planting. Cultivation and planting works must only be carried out by hand and with great care to avoid damage to retained tree roots.

Procedures for Incidents

- 4.24. If any breach of the approved tree protection measures occurs:
- The site manager must be informed immediately;
 - The Local Planning Authority Tree officer or other Planning Officer and Tyler Grange LLP shall be notified; and
 - Swift action must be taken to halt the breach and prevent any further breach.

Amendments

- 4.25. Issues sometimes arise on development Sites which require amendments to the previously agreed tree protection details. Any amendments to the AMS will be discussed with the Arboricultural Consultant and agreed in writing with the LPA prior to being implemented. Copies of paperwork relating to any amendments shall be attached to the Site AMS to provide a definitive record of what has been approved.

Appendix 1: Tree Survey Explanatory Notes

Tree Numbers

'T' prefixes have been used to identify individual trees and commence with 'T1'.

'G' prefixes have been used to identify groups of trees.

Species

Species are listed by their common name, both in the schedule and in the report text.

Height and Stem Diameter

The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres (mm). The diameter measurement of multi-stemmed trees is taken immediately above the root flare. Tree heights are measured in metres (m).

Crown Spread and Height of Crown Clearance

Radial crown spread is measured in metres and is listed for each of the four cardinal points. The canopy shape for individually surveyed trees depicted on the accompanying plans accurately represents the canopy spread as measured on-site.

The height crown clearance is measured above ground in metres from the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower.

Age Class

The age of each tree is defined as follows:

Young - within the first third of life expectancy;

Young-Mature - within the second third of life expectancy;

Mature - within the last third of life expectancy;

Over mature - Tree in decline; and

Veteran – tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. For the purpose of this report the term 'ancient tree' and 'veteran tree' are interchangeable.

Physiological and Structural Condition

The physiological or structural condition of each tree is defined as either; good, fair, poor or dead. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

An assessment of a tree's physiological condition is defined as:

Good – fully functioning biological system showing expectant vitality for the species i.e. normal bud growth, leaf size, crown density and wound closure.

Fair – fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure

Poor – a biological system with limited functionality showing clear physiological decline, disease or significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure.

An assessment of a tree's structural condition is defined as:

Good – no significant structural defects.

Fair – structural defects which could be alleviated through remedial tree surgery or arboricultural management practices

Poor – structural defects which cannot be alleviated through tree surgery or arboricultural management practices.

Estimated Remaining Contribution (ERC) in Years

The Estimated Remaining Contribution (ERC) for each tree is based on species and existing and apparent physiological and structural condition of the tree. The ERC may affect the proposed development layout, since the longer the tree is likely to live the greater the contribution it will make and the greater the need for retention.

<10 - Unsuitable for retention

10 - 20 - Can be retained in the short term

20 – 40 - Will continue to offer benefits for the foreseeable future

40+ - Good longevity potential

Appendix 2: Tree Survey Table

Ref.	Species	Measurements	Survey Notes	Retention Category	RPA	Recommendations	Photo
T001	Pedunculate oak (<i>Quercus robur</i>)	Height (m): 12 Stem Diam(mm): 350 Spread (m): 5N, 6E, 5S, 6W Crown Clearance (m): 4 Lowest Branch (m): 2.5(S) Life Stage: Semi Mature Rem. Contrib.: 50+ Years	Physiological Cond: Good Structural Cond: Good	B2	Radius: 4.2m. Area: 55 sq m.	No tree pruning works required. Pre Construction fencing to protect RPA.	
T002	Pedunculate oak (<i>Quercus robur</i>)	Height (m): 12 Stem Diam(mm): 390 Spread (m): 5N, 6E, 5S, 6W Crown Clearance (m): 4 Lowest Branch (m): 2.5(W) Life Stage: Semi Mature Rem. Contrib.: 50+ Years	Physiological Cond: Good Structural Cond: Good Historic root heave, stabilised.	B2	Radius: 4.7m. Area: 69 sq m.	No tree pruning works required. Pre Construction fencing to protect RPA.	

Appendix 3: BS 5837:2012 Cascade Chart for Tree Quality Assessment

TREES FOR REMOVAL

Category and Definition		Criteria			Identification on Plan
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		- 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 (i.e. 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. (NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve)			DARK RED
TREES TO BE CONSIDERED FOR RETENTION					
Category and Definition		Criteria - Subcategories			Identification on Plan
		1. Mainly Arboricultural Values	2. Mainly Landscape Values	3. Mainly Cultural Values, including Conservation	
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 remedial 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 benefits.	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 150mm		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 temporary/transient landscape benefit.	Trees with no material conservation or other cultural value.	GREY

Appendix 4: Site Photography

T1

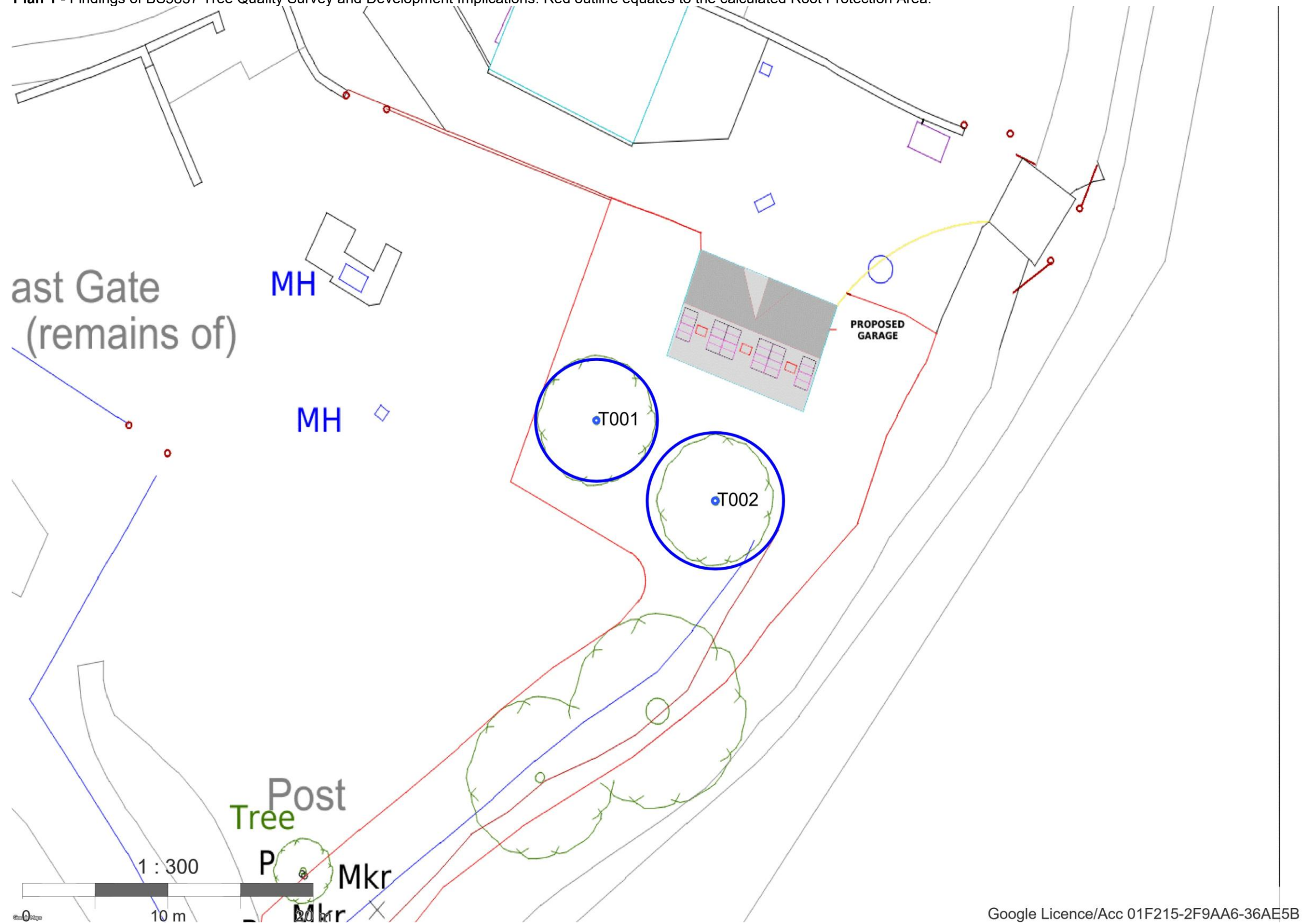


T2



Plans- indicative only not to scale

Plan 1 - Findings of BS5837 Tree Quality Survey and Development Implications. Red outline equates to the calculated Root Protection Area.



Plan 2 – Tree Protection Strategy

