# ARBORICULTURAL REPORT *BS 5837:2012*

# INITIAL TREE SURVEY
&
# ARBORICULTURAL METHOD STATEMENT

**SITE ADDRESS:**
The Old Vicarage, Bagshot Road, Chobham, GU24 8DA

**CLIENT:**
Mr Alex Vero

**REF NO:**
D3058.V1.0-TS.AMS

**INSPECTION DATE:**
1st of November 2023

**PREPARED BY:**
Tom Butterfield BSc(HONS) DipArb L4
6th of November 2023

| REPORTS | INCLUDED |
|---|---|
| ~INITIAL TREE SURVEY~ | ✓ |
| ~TREE SURVEY SCHEDULE~ | ✓ |
| ~TREE CONSTRAINTS PLAN~ | ✓ |
| ~ARBORICULTURAL IMPACT ASSESSMENT~ | ✘ |
| ~TREE SURVEY SCHEDULE + REQUIRED WORKS FOR THE PROPOSAL~ | ✓ |
| ~TREE PROTECTION PLAN~ | ✓ |
| ~ARBORICULTURAL METHOD STATEMENT~ | ✓ |

| Issue No | Author | Issue Date | Additions/alterations | Notes |
|---|---|---|---|---|
| D3058.V1.0 (Original) | TB | 06/11/2023 | NA | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

*TABLE OF CONTENTS*



# BIBLIOGRAPHY

- BS5837:2012. "Trees in relation to design, demolition and construction – Recommendations".
- Mattheck, C., Breloer, H. (2006). "The body language of trees a handbook for the failure analysis". London: TSO.
- www.mapapps.bgs.ac.uk/geologyofbritain/home.html

# INTRODUCTION

| | |
|---|---|
| **CLIENT** | Mr Alex Vero |
| **INSPECTION DATE** | 1st of November 2023 |
| **SITE LOCATION /S** | The Old Vicarage, Bagshot Road, Chobham, GU24 8DA |
| **INSPECTED BY** | Tom Butterfield BSc (HONS) DipArb L4 |

## 1.0 Terms And Abbreviations

| | |
|---|---|
| Tree Preservation Order | TPO |
| Conservation Area | CA |
| Arboricultural Impact Assessment | AIA |
| Arboricultural Method Statement | AMS |
| British Standard 5837:2012 – Trees in Relation to Design, Demolition and Construction - Recommendations | BS5837 |
| Root Protection Area | RPA |
| Root Protection Radius | RPR |
| Local Planning Authority | LPA |
| Tree Protective Fencing | TPF |
| Diameter of the stem at breast height (1.5 meters) | DBH |
| Tree Survey Schedule | TSS |
| Construction Exclusion Zone | CEZ |
| Sustainable Urban Drainage System | SUDS |
| Cellular Confinement System | CCS |
| Ground Protection | GP |

## 2.0 Contact Details

| Contact | Name | Company | Contact details | Issued |
|---|---|---|---|---|
| Client | Mr Alex Vero | NA | alex@alexvero.com | ✓ |
| Arboricultural Consultant | Mr Tom Butterfield | Dryad Tree Specialists Ltd | tom@dryad-trees.co.uk 01483 455555 | |
| LPA Tree Officer | Mr Alistair Barnes | Surrey Heath Borough Council | Alastair.Barnes@surreyheath.gov.uk | |
| Architect | / | / | / | |

## 3.0 Brief And Purpose

3.1 This Arboricultural report was commissioned by Mr Alex Vero in October 2023.

3.2 To survey trees likely to be affected by the development in accordance with BS5837.

3.3 To make recommendations for effective tree protection strategies for the duration of the development.

3.4 To produce an Arboricultural Method Statement and Tree Protection Plan for the proposal.

3.5 To provide the necessary Arboricultural information for the planning requirements of the LPA (Surrey Heath Borough Council) to release and fulfil any tree-related conditions for the approval of planning permission.

## 4.0 Executive Summary (EXAMPLE)

4.1 TPF and GP will be installed before the development begins.

4.2 The existing stable structure will be dismantled following an inward style of demolition. The existing foundations are to be left in situ and NOT removed.

4.3 Heras fencing around the existing stable and the ground protection may be removed once the stable is removed.

4.4 The existing cleft post and rail fencing with orange pedestrian barriers attached will make up the tree protection fencing for the duration of the building phase.

4.5 The proposed stable will be built outside of the RPA's of retained trees.

4.6 Existing services are to be used—excavations are to be outside the RPAs of retained trees.

# 5.0 Proposal

5.1 The proposal is to build a new stable building following the removal of the existing one.

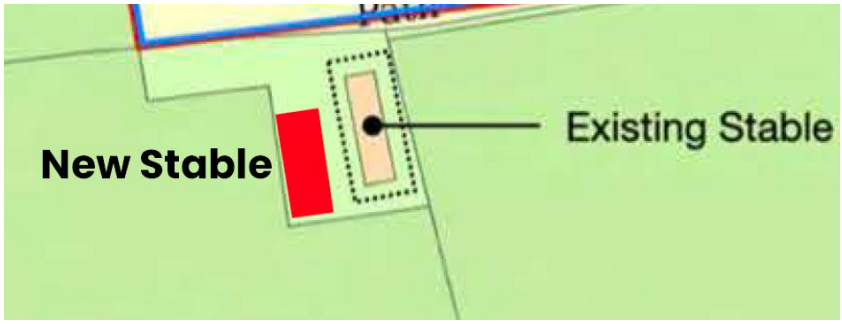



Figure 1

# 6.0 Planning Information

6.1 The site falls under the jurisdiction of Surrey Heath Borough Council, the LPA for this area.

6.2 A planning application was submitted to Surrey Heath Borough Council, Reference 23/0665/FFU.

6.3 The planning application was granted permission on the 21st of September, subject to conditions.

6.4 This report addresses the Arboricultural aspect of the planning application (Condition No. 4) so planning conditions may be fulfilled by using appropriate Arboricultural methodologies.

# 7.0 Document Source

| Document | Source | Format |
|---|---|---|
| Site plan | Mr Alex Vero | PDF: 23_0665_FFU-LOCATION_PLAN-1718963 |
| Layout plans and proposal | Mr Alex Vero | PDF: 23_0665_FFU-SITE_BLOCK_PLAN-1718964 |

# 8.0 Site Detail & Soil Assessment

8.1 The site is located to the South of the property (The Old Vicarage).

8.2 The site consists of an old, dilapidated stable with the Paddock to its front.

8.3 There is no significant rise or fall across the site.

8.4 The soil type on-site, at a scale of 1:50,000 as revealed by Online British Geological Society, is classified as:

- Bedrock: "Bagshot Formation" consisting of sand and sedimentary bedrock.
- Superficial deposits: "River Terrace Deposits" consisting of sand and gravel.

8.5 It is widely accepted the soil is not shrinkable, indicating it will be less vulnerable to compaction and subsidence than that of clay soil.

8.6 Note – No soil samples were taken on-site to confirm these findings.

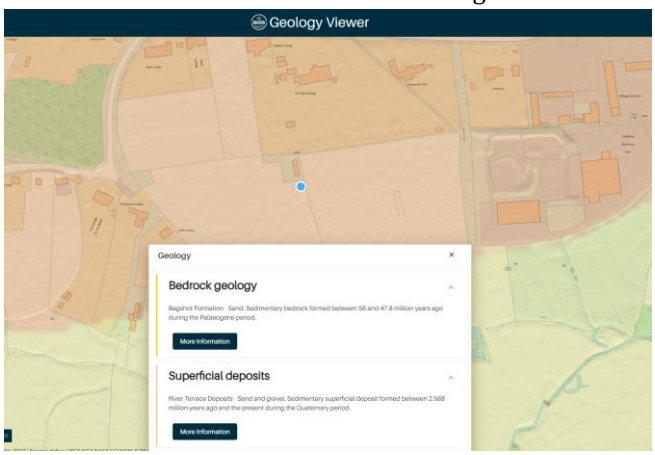



Figure 2 – BGS 2023

# TREE SURVEY

## 9.0 The Scope of the Survey

9.1 Only trees likely to be affected by the development (including neighbouring trees) were recorded in the tree survey.

9.2 Only trees with a DBH of 75mm or greater were surveyed in accordance with BS5837.

9.3 A full hazard assessment of the trees (including an assessment of decay, defects and their implications), as well as ecological implications, have not been undertaken, as it is seen to go beyond the scope of this report.

9.4 Observations, including any hazards, have been identified and documented in the Tree Survey Schedule with recommendations (Appendix 1).

## 10.0 Tree Survey Methodology

10.1 The trees were surveyed on the 1st of November 2023.

10.2 The tree survey was undertaken as to the recommendations of British Standards BS5837:2012.

10.3 The trees were plotted using a laser measure, rolling wheel, tape measure and landmarks such as buildings to give approximate measurements as to the locations of the trees on-site and on the map. If a more precise tree location is required, then a qualified surveyor should be instructed to perform a full topographical survey of the site.

10.4 The trees were assessed from ground level using Visual Tree Assessment (Mattheck, et al. 1993) with the aid of binoculars and a mallet where necessary. No invasive techniques were employed to assess the structural integrity of the trees, or were soil samples taken.

10.5 Measurements are approximate but give a fair representation of the dimensions of the trees. Tree heights were estimated by eye, the crown spreads paced out, and the DBH's were measured with a rounded down centimetre diameter tape. Where the tree stems were not accessible, they have were estimated, and a "?" was placed after the figure in the Tree Survey Schedule.

## 11.0 Tree Details

11.1 The total number of trees recorded is as follows:

- Individual Trees (T): Two (2)

11.2 Full details of the surveyed trees can be found in the TSS (Appendix 1), and the tree locations can be found in the Tree Constraints Plan and Tree Protection Plan (Appendix 3).

11.3 The quality and value of the trees on site have been categorised in accordance with BS5837, and the grading system is as follows:

- **A Grade** – Trees of high quality and value, with a life expectancy of more than 40 years
- **B Grade** – Trees of moderate quality and value, with a life expectancy of more than 20 years
- **C Grade** – Trees of low quality and value, with a life expectancy of more than 10 years
- **U Grade** – Trees for removal, with a life expectancy of less than 10 years

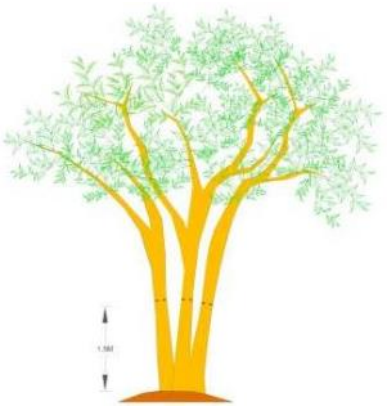
(For full details on BS5837 cascade for tree quality assessment, refer to Appendix 2)

11.4 Quality and overview of existing tree stock:

| Grade | A | B | C | U |
|---|---|---|---|---|
| Tree No. | 1 | 1 | 0 | 0 |

# 12.0 Root Protection Area

12.1 The RPA radius is calculated by multiplying the tree's stem diameter at 1.5m above ground level by 12. For multi-stem trees, the RPA radius is calculated by multiplying a formulated stem diameter by 12, as shown below.



Multi-stem diameter calculations:

For Trees with 2 – 5 stems:

$$\sqrt{(Stem\ diameter\ 1)^2 + (Stem\ diameter\ 2)^2 \ldots . + (Stem\ diameter\ 5)^2}$$

For Trees with more than 5 stems:

$$\sqrt{((Mean\ stem\ diameter)^2\ x\ Number\ of\ stems)}$$

12.2 The figures should provide retained trees with sufficient rooting material to survive and remain healthy during the proposed development and beyond.

12.3 The RPA of each tree has been plotted as purple dashed circles on the constraints plans.

# 13.0 Current Tree Protection Status

| Protection type | Constraints/details |
|---|---|
| Tree Preservation Order (TPO) | ✘ |
| Conservation Area (CA) | ✘ |

13.1 Details checked with Surrey Heath Borough Council (LPA) via their interactive website on the 6th of November 2023.

13.2 No further forms of communication were initiated to confirm these findings.

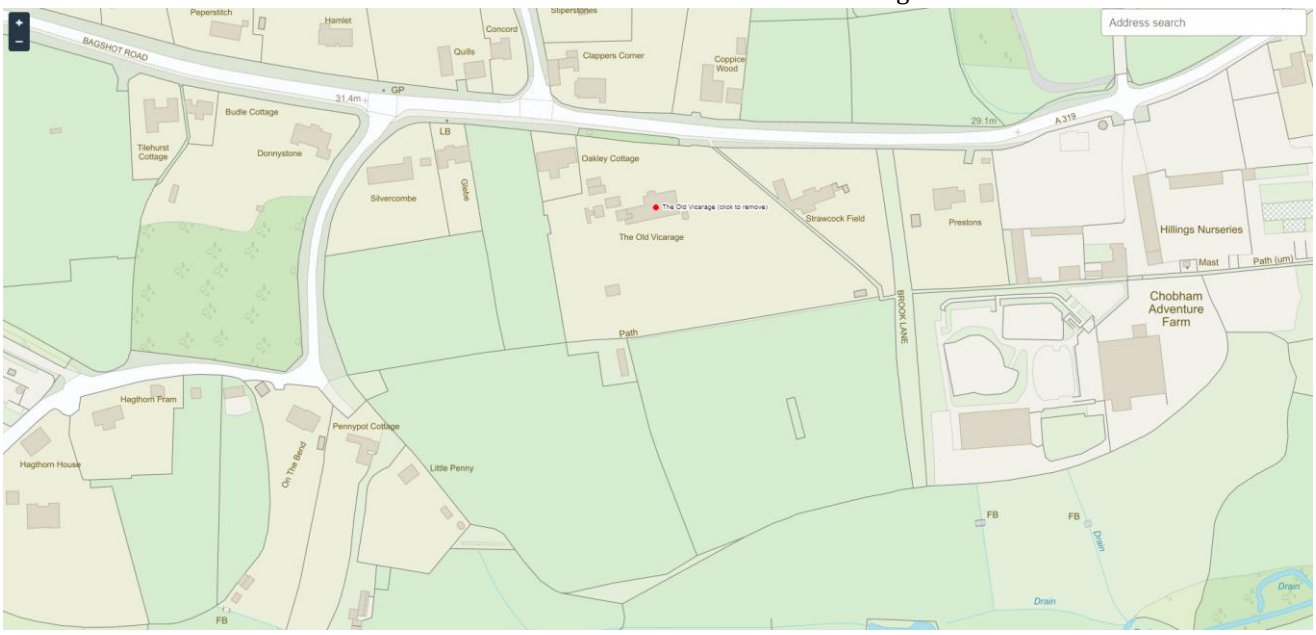



Figure 3 – Surrey Heath Website 2023

# ARBORICULTURAL METHOD STATEMENT

## 14.0 Introduction

14.1 The AMS will demonstrate how aspects of the build that have the potential to result in the loss or damage to a tree may be mitigated, allowing retained trees an adequate level of protection.

14.2 To safeguard retained trees on-site during the development works, the implementation of tree protection measures are to take place and be adhered to at all times as detailed below. This will protect the above and below-ground parts of retained trees and preserve soil structure.

14.3 The basic principle is that the area inside the TPF creates a Construction Exclusion Zone (CEZ). The soil structure and roots, where any ground protection has been used, are also protected during development.

14.4 All tree protection outlined in the AMS is to be fully implemented and Arboricultural inspections and supervision are to be carried out as detailed in this Method Statement.

14.5 All personnel will be made aware of the key implementation of the AMS during site inductions. A copy of this Method Statement is to be made freely available to all site personnel.

14.6 As of 2005, Local Planning Authorities have the power to **serve Temporary Stop Notices** if agreed tree protection measures have been breached or not carried out sufficiently. Strictly adhering to this AMS will ensure that such costly and time-consuming action may be avoided.

## 15.0 Site Management

15.1 The site manager will be responsible for briefing and inducting all site personnel working within RPAs or canopies of retained trees, making them aware of tree constraints, and providing a copy of the Arboricultural Method Statement.

15.2 The site induction will include movement of plant, excavation, mixing and pouring of cement and concrete.

15.3 The site manager will be responsible for day to day running of the site, the protection of all retained trees and liaising with the Arboricultural Consultant on arising tree matters.

15.4 Any incidence of damage to retained trees will be documented by the site manager, who will report the incidences to the Arboricultural Consultant immediately and cease works in this area until appropriate mitigation has been agreed with the LPA.

## 16.0 General Site Precautions

16.1 The following points will be observed at all times:

- **No** mechanical digging or scraping is allowed within defined RPAs.
- **No** fires are to be lit within 10m from the edge of the tree canopy.
- **No** access is permitted inside the CEZ or TPF.
- **No** materials, equipment or debris to be stored within the CEZ or RPAs of retained trees.
- Notice boards, telephone cables or other services will not be attached to retained trees.
- Materials that may contaminate the soil (cement mixer, fuel, vehicle washings) will not be permitted to operate or allow runoff into the RPAs of retained trees or soils.
- Site operations must be carried out in such a way as to avoid damage to the aerial part of the trees.

## 17.0 Site Storage, Parking, Welfare Etc

17.1 The site will require provision for site storage, contractor parking, welfare facilities, temporary services/drainage, material drop-off points, etc.

17.2 None of the above provisions is to be located within RPAs of retained trees or within the Construction Exclusion Zone without input from the project Arboricultural Consultant and the prior consent of the Local Planning Authority.

# 18.0 Stages Checklist, Sequencing, Inspection, Supervision

18.1 Effective tree protection relies on good understanding and implementation of the AMS with a logical sequencing of events and Arboricultural inspections/supervision.

18.2 The Arboricultural Consultant will document each visit and inspection and communicate the details to the client and LPA. This will provide ongoing evidence of compliance with the planning conditions.

18.3 The final details of any supervision and frequency of site visits will be agreed at the pre-commencement meeting.

## Tree Protection Removal Notification

18.4 Once all of the construction works have been completed and all material and machinery have been removed from the site, the Arboricultural Consultant and the LPA Tree Officer shall be notified, informing them of the intent to remove the tree protection measures.

## Key Stages, Arboricultural Monitoring and Supervision Sign off Checklist

18.5 The checklist below is a guide that should be followed during the course of the development when certain Arboricultural activities are to take place.

18.6 Key stages within the suggested sequencing of works are as follows:

| Stages Checklist (To be filled in during the project) | | | | |
|---|---|---|---|---|
| **Stage** | **Tree No.** | **Task / Activity** | **Personnel** | ✓ |
| 1 | All | Issue Arboricultural Report to Client | **AC** | ✓ |
| 2 | All | Personnel to be briefed on the AMS as part of a site induction | **C / SM / CON** | |
| 3 | All | Erect Tree Protection Fencing:<br>Heras fencing around stable (Demolition Phase of stable).<br>Orange pedestrian barrier against existing cleft chestnut post and rail.<br>Photographic evidence supplied by the client. | **C / AC** to inspect | |
| 4 | All | Install temporary ground protection<br>Photographic evidence supplied by the client. | **C / AC** to inspect | |
| 5 | All | Installation of the site set-up | **C / SM & CON** | |
| 6 | All | Undertake and complete demolition of stable (Foundation to be left in situ)<br>Photographic evidence supplied by the client. | **C / AC** to inspect | |
| 7 | All | Remove Tree Protection Fencing around the stable and block-off the Paddock.<br>Remove ground protection<br>Photographic evidence supplied by the client. | **C / AC** to inspect | |
| 8 | All | Undertake and complete construction of new stable | **C / SM & CON** | |
| 9 | All | Notification to Arboricultural Consultant and Tree Officer of intent to remove tree protection measures | **C / SM / TO / AC / CON** | |
| 10 | All | Remove Tree Protection Fencing | **C/ SM & CON** | |
| 11 | All | COMPLETE | | |
| Arboricultural Consultant **(AC)** \| Client **(C)** \| Site Manager **(SM)** \| Tree Officer **(TO)** \| Contractor **(CON)** | | | | |

# 19.0 Tree Works

19.1 No tree works are required to facilitate the development.

19.2 If the need for additional tree pruning is required during the development, the Arboricultural Consultant will be contacted to advise on appropriate works and liaise with the LPA as required.

19.3 All tree works will be carried out in accordance with BS 3998:2010 'Recommendations for Tree Work' (as amended), and to current Arboricultural Best Practice standards. Tree works will be carried out by a suitably qualified and experienced Arboricultural Contractor (Arborist) holding the necessary insurance cover (£10,000,000 recommended). The contractor should carry out the relevant site-specific Risk Assessment and record such information before the commencement of tasks and work following current health and safety standards, practices and legislation. Lists of suitable contractors are available from the Arboricultural Association at www.trees.org.uk/find-a-professional/Directory-of-Tree-Surgeons.

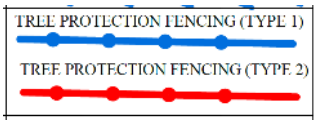
19.4 Subject to the approval of this report, tree works that facilitate the development may be undertaken without seeking additional permission.

# 20.0 Protected Species – Bats And Birds

20.1 With respect to the Wildlife and Countryside Act 1981, any contractor, prior to working on these trees, must ensure that the trees do not provide a habitat for nesting birds or bats. Should nesting birds or active birds' nests be present, then work must cease until after the nesting season.

20.2 If the works are likely to destroy or disturb bats or their roosts, the appropriate Statutory Nature Conservation Organisation must be notified and allowed a reasonable amount of time to advise on whether the proposed work should be carried out, and if so, the method to be used.

# 21.0 Tree Protective Fencing (TPF)




21.1 Tree Protective Fencing is required to ensure RPAs of retained trees and soil structures are safeguarded during the development, creating the Construction Exclusion Zone (CEZ).

21.2 It is essential the barriers are erected before the development begins and remain in situ for the duration of the development.

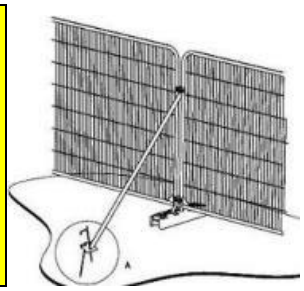
21.3 The CEZ should be seen as sacrosanct; only authorised persons are to have access to the area following permission from the LPA.


## Specification for TPF:

21.4 The installation and specifications as per BS5837 are as follows:

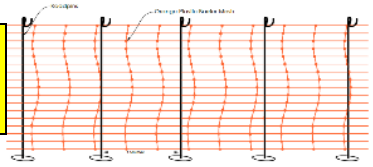
- ***TYPE 1/Secondary Specification**: FENCING ON PINNED BASEPLATE.*

*The barrier is to consist of 2m tall welded mesh panels (Heras fencing) secured on pinned rubber or concrete feet. The weldmesh panels shall be securely fixed and joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers shall be at least 1m and shall be uniform throughout the fence. The panels shall be supported on the inner side by stabiliser struts, attached to a base plate secured with ground pins. (Appendix 4). Weatherproof signs (Appendix 4) to be placed on the fencing at regular intervals of no less than every 6m.*



- ***TYPE 2**: ORANGE PEDESTRIAN BARRIER.*

*Fencing to consist of orange plastic pedestriasn barrier mesh attached securely to the existing cleft post and rail fencing with cable ties. Weatherproof signs (Appendix 5) to be placed on the fencing at regular intervals of no less than every 3m.*



21.5 The location of the TYPE 1 fencing is illustrated in the TPP (Appendix 3) as a thick blue fence line, and the TYPE 2 fencing is illustrated as a thick red fence line.

21.6 The Paddock is surrounded by cleft post and rail fencing that will act as tree protection fencing. The orange pedestrian barrier will be fixed to the post and rail fencing, providing a good visual barrier to create Tree Protection Fencing and Exclusion Zone.

21.7 The TYPE 1 fencing should be installed during the removal of the stable block. Once the stable has been removed, the fencing may be partially removed and relocated to seal off the Paddock and form the construction exclusion zone.

21.8 The remaining TPF (TYPE 2) will remain in place until development has completed Stage 9 (Stages Checklist), thereafter, it will be carefully removed following notification to the Arboriculturalist and or the Local Authority Tree Officer.

## Stages for Installation of Fencing:

- Hand clearance of any vegetation to allow clear working access.
- Setting out fencing points.
- Fencing is erected as per the above specification.
- Arboricultural Consultant to inspect and sign off the installation.

# 22.0 Ground Protection

GROUND PROTECTION

22.1 Any soil containing roots (RPA) may be subject to compaction damage and so warrants protection.

22.2 Where it is anticipated that pedestrian or vehicle access will be required over the RPA of a retained tree, suitable ground protection will be installed over the RPA to minimise root damage from compaction.

22.3 The Ground Protection should be installed and maintained during the demolition of the stable.

22.4 Once the stable is removed (stage 6 – Stages Checklist), and the fencing is to be relocated, the ground protection may also be removed.

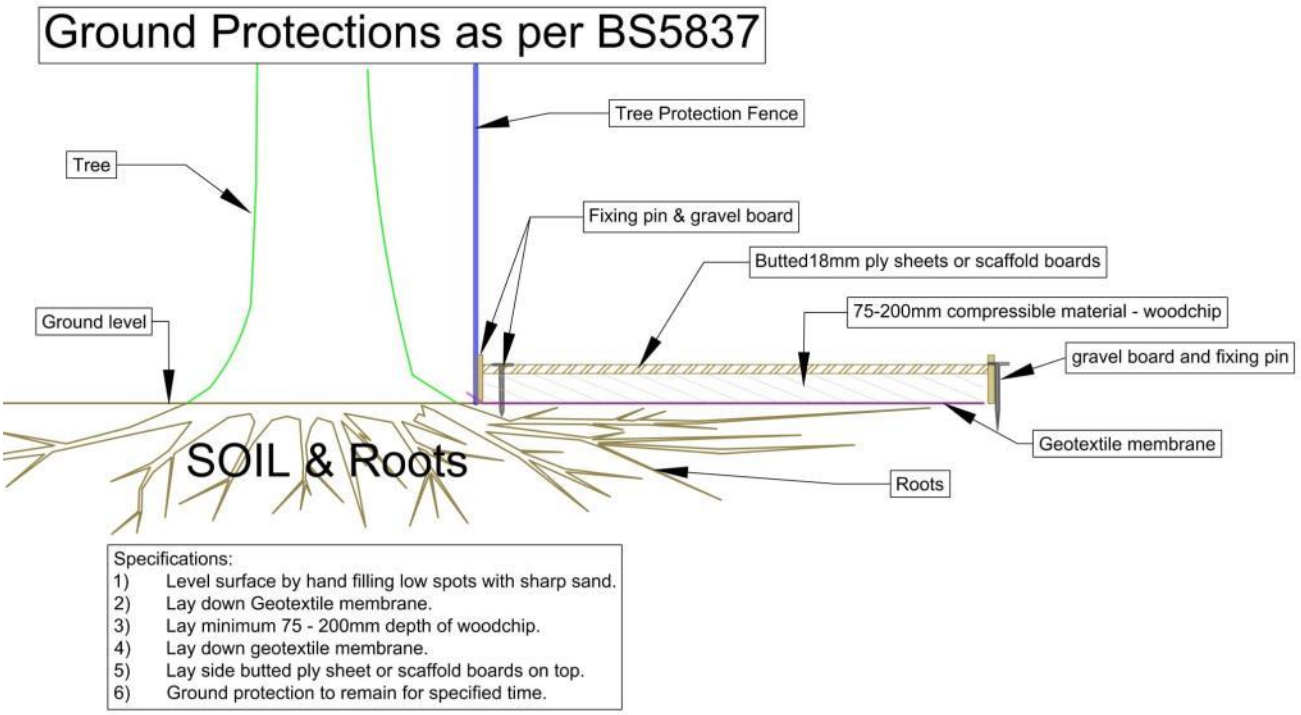
## Ground Protection Specification & Installation – Over Soft Ground

22.5 The area of ground protection is illustrated on the TPP (Appendix 3) as yellow shading.

22.6 The default installation and specification as per BS5837:2012 (Appendix 4) is as follows:

FOR THE WEIGHT OF PEDESTRIANS, SCAFFOLDING, AND PEDESTRIAN OPERATED PLANT MACHINERY; UP TO 2 TONS:

- Remove any large stones and debris by hand from the area to be protected.
- Lay down a Geotextile Membrane over the ground and secure with pins.
- Lay down 100 – 200mm of compressible material (e.g. wood chip) over the membrane.
- Place scaffold boards abutted or thick ply sheets (18mm) over the compressible material.




# 23.0 Site Access And Hard Surfaces

23.1 There is currently an old purpose-made track leading from Pennypot Lane to the Noth West corner of the Paddock where the entrance gate is located.

23.2 No hard surfacing is to be removed or installed within the RPAs of retained trees.

# 24.0 Demolition

### Existing stable Within RPA

24.1 Removing the stable structure shall be carried out only when the surrounding tree protection fencing is installed.

24.2 Removing the stable shall follow an "inward style" process; the walls and roofs are carefully pulled back in on themselves and not allowed to fall in the direction of the trees and their respective RPA's.

24.3 The concrete base/foundations of the stable are to be left in situ so as not to disturb any tree roots that may have grown up to and around the foundations.

24.4 Once the stable structure is removed, the fencing around the stable may be relocated and the ground protection removed.

24.5 Photographic evidence of the above is to be provided by the client.

# 25.0 Foundations And Construction

25.1 The proposed stable foundation is to be installed outside of the RPAs of retained trees.

25.2 No foundations are to be installed within the RPA of retained trees.

25.3 If new foundations are to be installed within the RPAs of retained trees, then the Arboricultural Consultant is to be contacted, and a revised AMS is to be written and approved by the LPA in accordance with BS5837.

# 26.0 Underground Services

### Electricity supply

26.1 The electricity supply to the existing stable will be used for the new stable.

26.2 The electric route will be taken from the existing stable directly to the proposed stable and will reside outside of the RPAs of retained trees.

### Water supply

26.3 The water supply to the existing stable will be used for the new stable.

26.4 The water supply is directly across the Paddock to the West, so the supply will be picked up sooner and outside of the RPAs of retained trees.

### Other

26.5 No new subterranean services are to be installed within RPAs of retained trees; therefore, no incursions within RPAS of retained trees are expected.

26.6 If changes to the layout of the services, or additional services are to be installed within the RPAs of retained trees, the Arboricultural Consultant is to be contacted, and a revised AMS is to be written and approved by the LPA in accordance with BS5837.

# 27.0 Final Soil Levels

27.1 Final soil levels are to remain the same as the original soil level within the RPAs of retained trees.

27.2 The ground within the RPAs are not to be mechanically scraped or altered at any time.

27.3 If final soil levels are to change within RPAs of retained trees, the Arboricultural Consultant is to be contacted and a revised AMS is to be written and approved by the LPA in accordance with BS5837.

# 28.0 Soft Landscaping and Fencing

28.1 Landscaping outside of the Tree Protection Fencing may take place at any time during the development.

28.2 All landscaping within the Tree Protection Fencing (CEZ) may take place following the completion of Stage 9 (Stages Checklist).

28.3 The ground within the RPAs is not to be mechanically scraped at any time.

28.4 The clearance of any vegetation and ground within the RPAs shall be carefully carried out by hand.

28.5 Vehicles shall not be allowed to track over the RPAs of retained trees.

### Fencing

28.6 Any fencing installation within the Construction Exclusion Zone should be carried out following the completion of Stage 9 (Stages Checklist).

28.7 Any fences to be erected within the RPAs of retained trees are to be installed as follows:

28.8 Close board (feather edge) fencing is recommended, as the length of fencing bays can be adjusted to accommodate any roots found.

28.9 Post holes are to be carefully **dug by hand** to maximum depth and kept as narrow as possible (max 300mm diameter).

28.10 To excavate the post holes, follow the Manual Excavation guidelines in Section 29.0 of this report.

28.11 If roots larger than 25mm in diameter are encountered, then the hole is to be abandoned, backfilled with soil and the hole relocated.

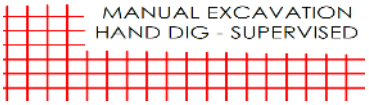
28.12 The holes are to be lined with a membrane to prevent Lime contamination into the surrounding soil before filling.

### Other

28.13 No additional landscaping is to take place within RPAs of retained trees.

28.14 If additional landscaping is required within the RPAs of retained trees, the Arboricultural Consultant is to be contacted and a revised AMS is to be written and approved by the LPA in accordance with BS5837.

## 29.0 General Manual Excavation




29.1 Manual excavations within RPAs of retained trees are to be carried out **by hand** to an agreed depth under the supervision of the attending Arboricultural Consultant.

29.2 The soil is to be loosened with a pickaxe or fork then removed with an air-spade, shovel or trowel.

29.3 Any roots encountered smaller than 25mm in diameter may be carefully pruned, leaving the smallest wound possible.

29.4 Any roots encountered larger than 25mm in diameter shall be carefully excavated around to avoid causing damage to the protective bark. The Arboricultural Consultant is to decide whether it is feasible to remove or retain the root.

29.5 Any roots revealed shall be covered with hessian to avoid desiccation.

29.6 All arising spoil is to be removed from the RPA straight away, and compaction of the exposed soil is to be avoided at all costs (No walking or tracking over).

29.7 **Lime leaching protection** - If contaminating materials (cement/concrete) are to be used; then a suitable plastic membrane is to be placed between it and the soil to prevent Lime leaching of the soil and contact with the roots.

30.0 Appendices

# Appendix 1 – Tree Survey Schedule BS5837:2012

**Site**: The Old Vicarage, Bagshot Road, Chobham, GU24 8DA
**Client**: Mr Alex Vero
**Survey Date**: 1st of November 2023
**Ref No**: D3058.V1.0-TS.AMS
**LPA**: Surrey Heath Borough Council
**Weather**: Fair / Showers
**Inspector**: Tom Butterfield BSc (HONS) DipArb L4

# Tree Survey Schedule With Required Works

Dryad Tree Specialists Ltd,
Oak Hill,
Wood Street Village,
Guildford, GU3 3ET.
www.dryad-trees.co.uk
branchline@dryad-trees.co.uk

| Prefix | ID | Species | No. Trees | No. Stem | HT (m) | Crown Spread (m) N | E | S | W | LB/Bear | LB/Ht(m) | DBH (mm) | Age | Landscape | RPR (m) | RPA ($m^2$) | Vitality | Structure | BS Cat | Life (yrs) | Notes and Observations | Required Works | Reason |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| T | 1 | *Quercus robur* (English Oak) | 1 | 1 | 23 | 11 | 11 | 12 | 11 | S | 3 | 1830 | OM | H | 15.0 | 706.9 | Good | Fair | A2 | 40+ | Large single-stem specimen. Cavity at 3m associated with lower limb loss in the past. Crown breaks down 5- 7m. Large spreading crown. Small volume of dead wood throughout the crown. A footpath runs beneath the crown. An old cavity at the base on the North West and West sides has been historically filled with concrete. Sounding the stem doesn't indicate stem hollowing. No pathogenic fungus was identified around the base. The crown has been selectively reduced in the past | None | / |
| T | 2 | *Quercus robur* (English Oak) | 1 | 1 | 10 | 6.5 | 7 | 7 | 8 | E | 2 | 1030 | M | M | 12.4 | 479.9 | Good | Fair | B2 | 20+ | Single stem. The crown breaks into multiple stems from 3-5m. Several dead branches throughout the crown. Woodpecker hole on the underside of the rising limb to the West, with Internal decay – The growth beyond is minimal and considered acceptable for the time being. The top side of the rising limb to the West has a long exposed sapwood wound. A small area of decay at the base on the North side was identified – Not thought to be significant. No pathogenic fungus was identified around the base | None | / |

## Tree Survey Schedule Key

# Tree Survey Schedule Key and Notes

| | | | | |
|---|---|---|---|---|
| **Prefix** | | Refers to: | **ID** | Refers to a unique identification number or tag number for the given tree or group. Corresponds to the Tree Constraints Plan and Tree Survey Schedule |
| | T | Tree | | |
| | NT | Neighbouring Tree | | |
| | G | Group | | |
| | NG | Neighbouring Group | | |
| | W | Woodland | | |
| | H | Hedge | | |
| **No. Trees** | Refers to the number of trees in a group | | | |
| **No. Stem** | Refers to the number of stems per individual tree | | | |
| **Height** | Describes the approximate height of the tree from ground level or buttress flare in meters | | | |
| **Crown Spread** | Refers to the radius of the canopy in meters from the stem of the tree in the directions of North, East, South and West | | | |
| **LB/Bear** | Lowest Branch Bearing: Refers to the directions of the lowest point of the canopy in meters | | | |
| **LB/Ht(m)** | Lowest Branch Height: Refers to the ground clearance from the ground level to the height of the lowest point of the canopy in meters | | | |
| **DBH** | Diameter at Breast Height. Stem diameter of the tree trunk measured in millimetres. If the tree is multi-stemmed, each diameter is recorded in the survey and a final DBH is calculated in accordance with BS5837 | | | |
| **Age** | | | Refers to the age class of the tree: | |
| | Y | Young | Young = Usually less than 10 years old | |
| | SM | Semi-Mature | Semi-Mature = Significant future growth to be expected, both in height and crown spread (typically below 30% of life expectancy) | |
| | EM | Early Mature | Early Mature = Full height almost attained. Significant growth may be expected in terms of crown spread (typically 30-60% of life expectancy) | |
| | M | Mature | Mature = Full height attained. Crown spread will increase but growth increments will be slight (typically 60% or more of life expectancy) | |
| | OM | Over Mature | Over Mature = A level of maturity whereby significant management may be required to keep the tree in a safe condition | |
| | V | Veteran | Veteran = A level of maturity whereby the crown has undergone natural or aided regression (veteranisation), significant management may be required to keep the tree in a safe condition. Typically contributes richly to ecological diversity | |
| **RPR** | The radius of the **R**oot **P**rotection **R**adius given in meters. The minimum area of ground requiring protection thorough developments | | | |
| **RPA** | The radius of the **R**oot **P**rotection **A**rea given in meters. The minimum area of ground requiring protection thorough developments | | | |
| **Vitality** | | | Refers to the vitality of the tree: | |
| | G | Good | Having above average vitality | |
| | F | Fair | Having average vitality | |
| | P | Poor | Having well below average vitality is struggling to survive and may be dying | |
| | D | Dead | Tree is dead | |
| **Structure** | | | Refers to the structure of the tree: | |
| | G | Good | Tree presents no significant structural defects | |
| | F | Fair | Tree presents some structural defects, unlikely to lead to high priority works | |
| | P | Poor | Tree presents significant structural defects that may lead to high priority works | |
| | D | Dead | Tree is dead | |
| **Landscape** | | | Refers to the Landscape contribution value of the tree: | |
| | H | High | Exceptional or very attractive specimen, observable by a significant number of people and locations | |
| | M | Medium | Attractive specimen, Medium potential to be observable by many people or vice versa | |
| | L | Low | Unattractive specimen or largely hidden from view | |
| **BS CAT** | Retention category refers to the BS5837, (See Appendix 2) list quality and value.<br><br>"A"-high, "B"-moderate, "C"-Low and "U"-Remove.<br><br>List retentions criteria. "1"- Arboricultural, "2"-Landscape and "3"- Cultural / Conservational | | | |
| **Life Exp** | Life Expectancy: An estimated useful remaining contribution in years before the tree requires removal. Classed as (<10), (>10), (20+), (40+) | | | |
| **Reasons** | Refers to the reason a recommendation is made. Typically to facilitate the development, access, good Arboricultural practice or Health and Safety | | | |

# Appendix 2 –Cascade chart for tree quality assessment

# BS 5837:2012. Trees in relation to design, demolition and construction - Recommendations

## Cascade Chart for tree quality assessment

| Trees to be considered for retention (see Note) | | | | Identification on Plan |
|---|---|---|---|---|
| **Category U**<br>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 [e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning]<br>• Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline<br>• 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<br>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7. | | | Dark Red<br>RGB Code: 127-000-000 |
| | **1 Mainly Arboricultural qualities** | **2 Mainly landscape qualities** | **3 Mainly cultural values, including conservation** | Identification on Plan |
| **Trees to be considered for retention** | | | | |
| **Category A**<br>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<br>RGB Code: 000-255-000 |
| **Category B**<br>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 remediable defects, including unsympathetic past management and storm damage]. such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the cate or A destination | 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 value | Mild Blue<br>RGB Code: 000-000-255 |
| **Category C**<br>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm | 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 only temporary/transient landscape benefits | Trees with no material conservation or other cultural value | Grey<br>RGB code: 091-091-019 |

# Appendix 3
# Tree Constraints Plans
# Tree Protection Plan

D3058.V1.0.A3.TCP (Tree Constraints Plan)

D3058.V1.0.A3.TPP (Tree Protection Plan)

N

W E

S

T1-A2

T2-B2

Existing Stable

Cleft post and rail fencing

Cleft post and rail fencing

Cleft post and rail fencing

0 (m) 1 2 3 4 5 6 7 8 9 10

## Notes:

BS5837 Tree Retention Categories

**CATEGORY A**
Trees of a high quality with an estimated remaining life expectancy of at least 40 years
***Apply Arrow Butt=the direction of lowest part of canopy***

**CATEGORY B**
Trees of a moderate quality with an estimated remaining life expectancy of at least 20 years.

**CATEGORY C**
Trees of a low quality with an estimated remaining life expectancy of at least 10 years

**CATEGORY U**
Tree of poor condition that cannot be realistically retained as living trees in the context of the current land use for longer than 10 years

**ROOT PROTECION AREA**
Precautionary areas - soil structure must be protected.


Dryad Tree Specialists
Oak Hill
Wood Street Village
Guildford
GU3 3ET

(01483) 455 555

DRYAD tree specialists
www.dryad-trees.co.uk


CLIENT: Mr Alex Vero

SITE: The Old Vicarage, Bagshot Road, Chobham, GU24 8DA

TITLE: Tree Constraints Plan

| SCALE AT A3: | DATE: | DRAWN: |
|---|---|---|
| 1:200 | 06/11/2023 | Tom B |

| PROJECT NO: | DRAWING NO: | REVISION: |
|---|---|---|
| D3058.V1.0 | D3058.V1.0-A3-TCP | 1.0 |

N

W E

S

T1-A2

Temporary Ground Protection to be in place during removal of the existing stable.
It may removed when the existing stable has been removed and the fencing set back accross the paddock.

Photographic evidence to be supplied to the LPA

CONSTRUCTION EXCLUSION ZONE

Cleft post and rail fencing

Existing Stable

Existing stable building to be demolished following an inward style process whereby the roof and walls are carefully pulled back on on themselves.

The existing foundation is to be left in situ and NOT removed.

One complete, the fencing around the building can be removed and put across the paddock entrance to form the new exclusion zone.

Photographic evidence to be supplied to the LPA

Existing Water supply

Electricity supply From existing stable

The existing Chestnut Cleft post and rail fencing is to be retained and to act as Tree Protection Fencing. Orange pedestrian barrier will be securely attached to the existing fencing and appropriate signs erected.

Photographic evidence to be supplied to the LPA

Proposed Stable

Site Access

Temporary storage Area (O/S RPA`s)

Cleft post and rail fencing

CONSTRUCTION EXCLUSION ZONE

CONSTRUCTION EXCLUSION ZONE

T2-B2

0 (m) 1 2 3 4 5 6 7 8 9 10

Notes:

BS5837 Tree Retention Categories

CATEGORY A
Trees of a high quality with an estimated remaining life expectancy of at least 40 years

CATEGORY B
Trees of a moderate quality with an estimated remaining life expectancy of at least 20 years.

CATEGORY C
Trees of a low quality with an estimated remaining life expectancy of at least 10 years

CATEGORY U
Tree of poor condition that cannot be realistically retained as living trees in the context of the current land use for longer than 10 years

ROOT PROTECION AREA
Precautionary areas - soil structure must be protected.

TREES / GROUPS TO REMOVE PRIOR TO DEVELOPMENT COMMENCING

GROUND PROTECTION

CONSTRUCTION EXCLUSION ZONE

TREE PROTECTION FENCING (TYPE 1)

TREE PROTECTION FENCING (TYPE 2)

The Warning sign below is to be attached to the Tree protective fencing once erected

**TREE PROTECTION AREA**

THESE ENCLOSED BY TREE FENCING ARE PROTECTED BY PLANNING CONDITIONS AND ARE SUBJECTS OF TREE PRESERVATION ORDERS (TREES, HEDGEROWS, WOODLANDS & ECOLOGICAL HABITATS NOT TPO)

CONTRAVENTION OF TREE PROTECTION ORDERS MAY LEAD TO **CRIMINAL PROSECUTION**

THE FOLLOWING **MUST BE OBSERVED BY ALL PERSONS:-**

- THE PROTECTIVE FENCING MUST NOT BE REMOVED
- NO PERSON SHALL ENTER THE PROTECTED AREA
- NO MACHINE OR PLANT SHALL ENTER THE PROTECTED AREA
- NO MATERIALS SHALL BE STORED IN THE PROTECTED AREA
- NO SPOIL SHALL BE DEPOSITED IN THE PROTECTED AREA
- NO EXCAVATION SHALL OCCUR IN THE PROTECTED AREA

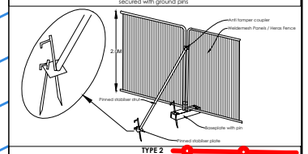
**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY**

KEEP OUT!

TREE PROTECTION FENCING (TPF)

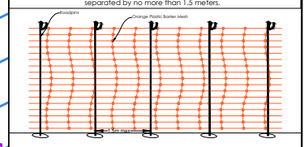
**TYPE 1**

**Secondary Specification** - Protective fencing shall consist of a heras fencing framework in accordance with figure 3 of British Standard 5837 (2012): comprising 2m tall welded mesh (Heras fencing) panels on rubber or concrete feet. The weldmesh panels shall be securely fixed and joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. the distance between the fence couplers shall be at least 1m and shall be uniform throughout the fence. The panels shall be supported on the inner side by stabilizer struts, attached to a base plate secured with ground pins



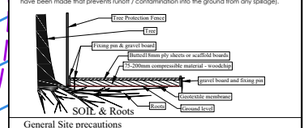

**TYPE 2**

**Orange Plastic Barrier Mesh** - Protective fencing shall consist of orange plastic barrier mesh supported in a series of road pins separated by no more than 1.5 meters.




GROUND PROTECTION

For pedestrian and vehicle weights up to 2000KG within the RPA the installation of ground protection shall be in the form of a single thickness of scaffold boards or ply board on top of a compressible layer of woodchip (100 - 200mm deep) laid onto a geotextile, or supported by scaffold. For heavier traffic a proprietary system such as GreenTek Ground-Guards (heavy duty plastic ground protection mats clipped together) laid above (50mm deep layer of compressible woodchip. Or; pre-cast reinforced concrete slabs. No storage or mixing of potentially hazadous materials within these areas; such as diesel fueling or cement mixing (unless specific precautions have been made that prevents runoff / contamination into the ground from any spillage).




General Site precautions

The following points will be observed at all times:

- No mechanical digging or scraping is allowed within defined RPAs.
- No fires to be lit on site.
- No access permitted inside the CEZ or TPF.
- No materials, equipment or debris to be stored within the CEZ or RPAs of retained trees.
- Notice boards, telephone cables or other services will not be attached to retained trees.
- Materials that may contaminate the soil (cement mixer, fuel, vehicle washings) will not be permitted to operate or allow run off into the RPAs of retained trees or soils.
- Site operations will avoid damage to the aerial part of the tree.


Dryad Tree Specialists
Oak Hill
Wood Street Village
Guildford
GU3 3ET
(01483) 455 555
DRYAD tree specialists
www.dryad-trees.co.uk


CLIENT: Mr Alex Vero

SITE: The Old Vicarage, Bagshot Road, Chobham, GU24 8DA

TITLE: Tree Protection Plan

| SCALE AT A3: | DATE: | DRAWN: |
|---|---|---|
| 4.999999 | 06/11/2023 | Tom B |
| PROJECT NO: | DRAWING NO: | REVISION: |
| D3058.V1.0 | D3058.V1.0-A3-TPP | 1.0 |

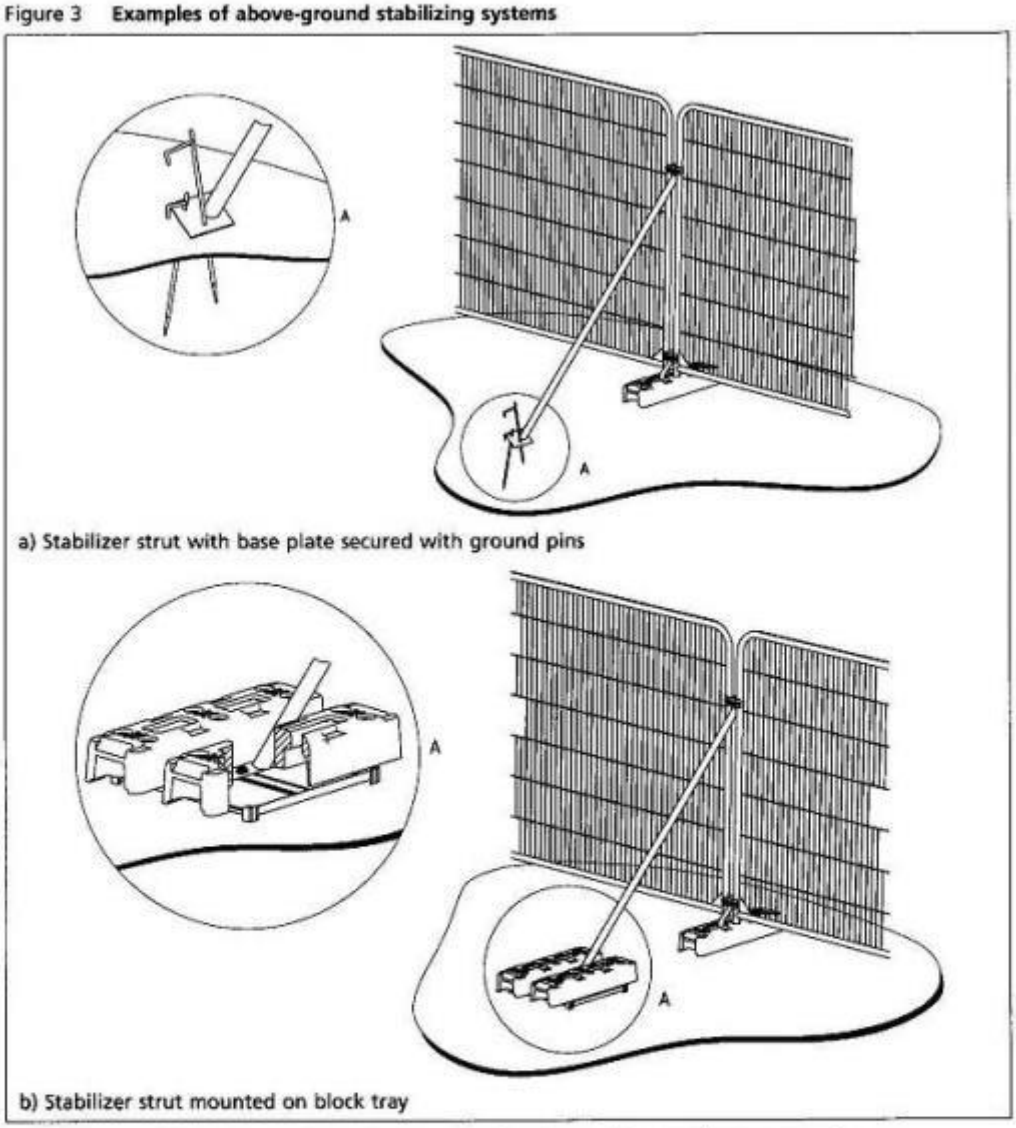
# Appendix 4 – Tree Protection

## Tree Protection Fencing

TYPE 1: SECONDARY SPECIFICATION - HERAS FENCING ON PINNED BASEPLATE



Figure 3 **Examples of above-ground stabilizing systems**




a) Stabilizer strut with base plate secured with ground pins

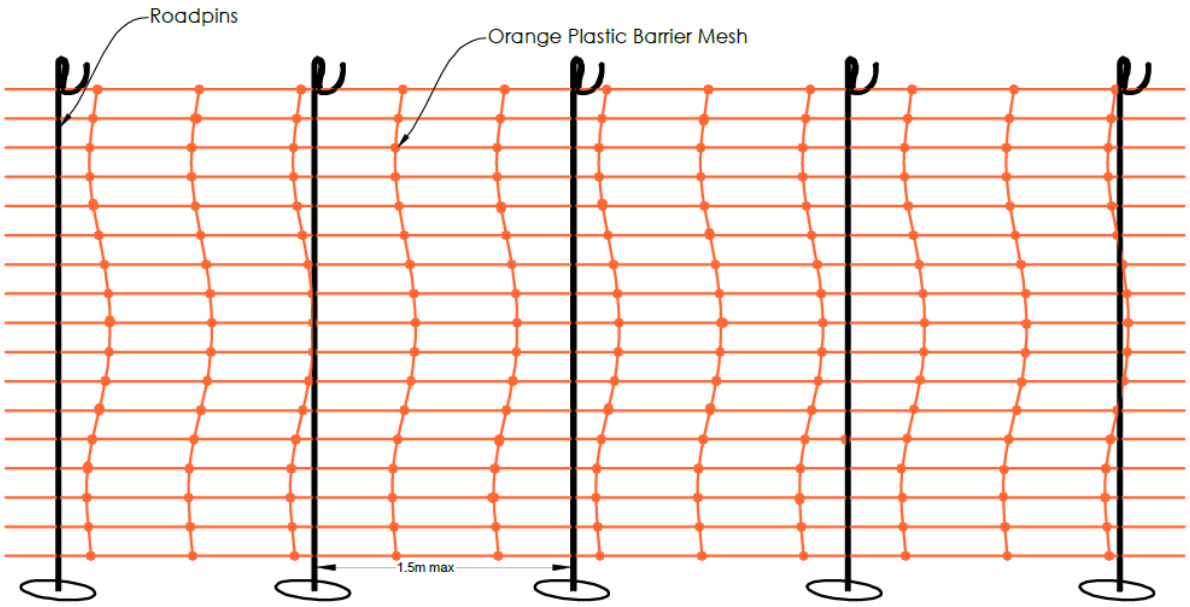
b) Stabilizer strut mounted on block tray

### 6.2.3 Ground protection during demolition and construction

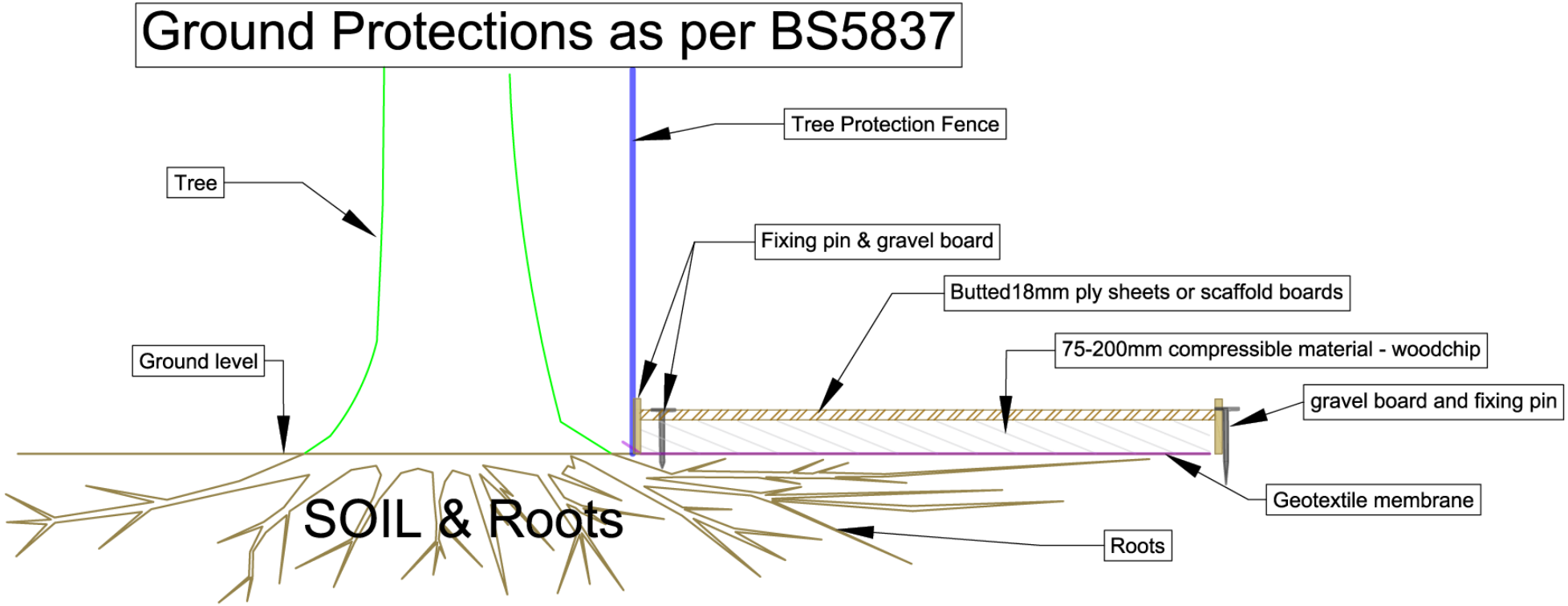
**6.2.3.1** Where construction working space or temporary construction access is justified within the RPA, this should be facilitated by a set-back in the alignment of the tree protection barrier. In such areas, suitable existing hard surfacing that is not proposed for re-use as part of the finished design should be retained to act as temporary ground protection during construction, rather than being removed during demolition. The suitability of such surfacing for this purpose should be evaluated by the project arboriculturist and an engineer as appropriate.

TYPE 2: ORANGE PLASTIC PEDESTRIAN BARRIER ON ROAD PINS




## Ground Protection



# Appendix 5 - Exclusion sign for CEZ

# TREE PROTECTION AREA

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND ARE SUBJECTS OF A TREE PRESERVATION ORDER
(TOWN & COUNTRY PLANNING ACT 1990)

**CONTRAVENTION** OF TREE PRESERVATION ORDERS MAY LEAD TO **CRIMINAL PROSECUTION**

## THE FOLLOWING **MUST** BE OBSERVED BY ALL PERSONS:-

- THE PROTECTIVE FENCING MUST NOT BE REMOVED
- NO PERSON SHALL ENTER THE PROTECTED AREA
- NO MACHINE OR PLANT SHALL ENTER THE PROTECTED AREA
- NO MATERIALS SHALL BE STORED IN THE PROTECTED AREA
- NO SPOIL SHALL BE DEPOSITED IN THE PROTECTED AREA
- NO EXCAVATION SHALL OCCUR IN THE PROTECTED AREA

**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSON OF THE LOCAL PLANNING AUTHORITY**

# KEEP OUT!

**PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.**

**TREE PROTECTION AREA**

**KEEP OUT !**

**(TOWN & COUNTRY PLANNING ACT 1990)**
**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.**
**CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**

**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY**