

THE VINERY POLING

ARBORICULTURAL IMPACT ASSESSMENT & METHOD STATEMENT

for

PAUL AIREY
PLANNING
ASSOCIATES LTD



Written By:	R. Anderson
Checked By:	S Newman
Date:	10/12/2019
Revision:	
Ref:	PRI22693aia-ams

TABLE OF CONTENTS

1.	Executive Summary	3
2.	Introduction	4
3.	Arboricultural Impact Assessment	5
3.7.	Evaluation of impact of proposed tree losses	5
3.8.	Protection for retained trees	6
3.9.	Demolition & Groundworks	6
3.10.	New Hard Surfaces within RPAs	6
3.11.	Construction within RPAs	7
3.12.	Shade and future pressure to prune	7
3.13.	Services	7
3.14.	Levels and Landscaping	7
3.15.	Boundaries	7
4.	Arboricultural Method Statement	8
4.1.	Phasing of operations for tree protection	8
4.2.	Restrictions within tree protection areas	8
4.3.	Avoiding damage to stems and branches	9
4.4.	Tree protection fencing	9
4.5.	Site storage, parking, welfare facilities	10
4.6.	Tree surgery and removal	11
4.7.	Soft landscaping within RPA	12
4.8.	Installation of boundary fencing within protected areas	13

1. Executive Summary

- 1.1. For the Arboricultural Method Statement see section 4.
- 1.2. The site is currently an open field with two sections of Lawson cypress growing along the south and west sides. The proposed development consists of the construction of a light industrial building with associated drainage and parking.
- 1.3. This impact assessment is intended to evaluate the direct and indirect effects of the proposed design on the trees on site, and where necessary recommends mitigation.
- 1.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout development in the form of barriers and/or ground protection.
- 1.5. Only a 5m section of the southern section of G3 needs to be removed to allow the construction of the proposed.
- 1.6. A small area of working room will be needed within the RPA of G3
- 1.7. As good arboricultural practice, the additional removal of G35 is recommended.
- 1.8. The relationship between the buildings and retained trees is sustainable and does not result in any situations which may result in unreasonable pressure to prune requests from future occupants.
- 1.9. The Arboricultural Method Statement (AMS) has been compiled in conjunction with the Tree Protection Plan (TPP) for the purpose of feasibility and planning, as per Figure 1 of BS5837:2012. These detail any mitigation which will be necessary to ensure the protection of retained trees throughout the development.

2. Introduction

- 2.1. ACD Environmental was instructed in October 2019 to prepare the following Arboricultural Impact Assessment and Method Statement by Paul Airey Planning Associates Ltd. Reference should be made to the appended Tree Protection Plan (PRI22693-03).
- 2.2. This Method Statement is to be made available to all operatives on-site during the construction process, so that they understand the scope and importance of the measures set out for tree protection. Implementation of the protection methods and other details within this report are integral to ensuring protection for the retained trees.
- 2.3. For details of trees to be retained, and locations and types of special protection methods, reference should be made to the latest revision of Tree Protection Plan (ref: PRI22693-03), which should be displayed prominently on-site for all staff to see.
- 2.4. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor/engineer with all node points being marked clearly on site for the fencing contractor to work to. The autocad version of the Tree Protection Plan is available on request.
- 2.5. This report is based on the recommendations given in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 2.6. No details have been supplied or sought of any statutory protection which may cover the subject trees.
- 2.7. The controlling authority is Arun District Council who can be contacted at: Civic Centre, Littlehampton, West Sussex, BN17 5LF, Tel: 01903 737500.
- 2.8. Any questions relating to the content of this report should be directed in the first instance to: ACD Environmental, Courtyard House, Mill Lane, Godalming, Surrey GU7 1EY, 01483 425 714/07796 832 490, quoting the site address and report reference number.
- 2.9. The following abbreviations have been used throughout this document:
 - Root Protection Area – RPA
 - Construction Exclusion Zone- CEZ
 - Tree Protection Plan – TPP
 - Tree Protection Fencing – TPF

3. Arboricultural Impact Assessment

- 3.1. The site is currently an open field with two sections of Lawson cypress growing along the south and west sides. The proposed development consists of the construction of a light industrial building with associated drainage and parking.
- 3.2. This impact assessment is intended to evaluate the direct and indirect impacts on the trees on the site in relation to the proposed development. Any potential tree impacts are identified as per BS5837:2012 section 5.4, and details are given of proposed mitigation.
- 3.3. Any potentially damaging activities proposed in the vicinity of retained trees are identified, such that mitigation to significantly reduce or avoid this impact can be detailed in the Arboricultural Method Statement and Tree Protection Plan as recommended in BS5837:2012 section 5.4.2.
- 3.4. The development proposals are in accordance with BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'. Adequate protection can be provided to ensure all retained trees are protected throughout the development.
- 3.5. The tree survey for the site is at Appendix 2 of the Tree Report for the site ACD reference PRI22693ts.
- 3.6. This assessment is based upon the supplied layout drawing by Ref: 19011-A-P-PL.
- 3.7. **Evaluation of impact of proposed tree losses**
 - 3.7.1. Those trees which are to be removed are shown with a red dashed canopy outline on the Tree Protection Plan ACD reference PRI22693-03.
 - 3.7.2. A 5m section of G3 is to be removed as a result of the development proposals. Although G3 has been categorised as B2 this is because the trees together have a higher collective group rating. The individual trees would be of lower category C quality. The removals are on the inside of the site and will not impact on the groups screening value.
 - 3.7.3. Individually the trees to be removed are all unremarkable trees of very limited merit, such that they can be replaced with tree planting as part of the landscape proposals.
 - 3.7.4. Within the site further tree removals are proposed as good arboricultural practice. These trees growing within G35 that are all U category and have a very limited life expectancy, with some trees already collapsing. This work would be carried out as part of good property maintenance, regardless of any development on the site.
 - 3.7.5. In relation to the conception and design of development proposals, BS5837:2012 section 5.1.1 states: The constraints imposed by trees, both above and below ground should inform the site layout design, although it is recognised that the competing needs of development mean that trees are only one factor requiring consideration.

Certain trees are of such importance and sensitivity as to be major constraints on development or to justify its substantial modification. However, care should be taken to avoid misplaced tree retention; attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.7.6. It is therefore deemed acceptable to remove the listed trees and, as part of the detailed landscape design for the scheme, include suitable and sustainable replacements as and where appropriate.

3.7.7. Replacement trees will be proposed through landscape design and will more than mitigate for their removal by providing robust long term tree cover in keeping with the proposal and surrounding properties.

3.8. **Protection for retained trees**

3.8.1. BS5837:2012 section 6.2.1. states: 'All trees that are being retained on site should be protected by barriers and/or ground protection (see 5.5) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. A specification for protective fencing is given on the Tree Protection Plan. This consists of interlocking weld-mesh panels (e.g. heras) well braced by attachment to scaffold pole uprights driven firmly into the ground.

3.8.2. A 1.8m off-set has been allowed for working room between the building and G3. This results in a small incursion into the collective RPA of the group. The area where this is to take place recently had structures removed and its likely to have a less favourable rooting environment compared to the open field to the west. Therefore this working room is likely to only have a small impact on the trees within this group. In addition, in accordance with BS5837:2012 section 5.3.1 a), the area lost to encroachment is compensated for elsewhere by the tree protection fence.

3.9. **Demolition & Groundworks**

To ensure damage does not occur to trees highlighted for retention, tree protection fencing must be erected prior to ANY plant machinery entering site whatsoever. No special demolition procedures need be observed on this site, other than respecting the tree protection fencing.

3.10. **New Hard Surfaces within RPAs**

It is confirmed that no hard surfaces are proposed within the RPAs of retained trees.

3.11. **Construction within RPAs**

It is confirmed that there is no construction proposed within the RPAs of retained trees.

3.12. **Shade and future pressure to prune**

The site layout has been assessed in terms of shading and future pressure to prune. Given the orientation of the site, and the relationship between the proposed buildings and the retained trees, the juxtaposition is viable for long-term tree retention. It should also be considered that the proposed is a light industrial unit and not residential housing.

3.13. **Services**

It is fundamental to tree protection that infrastructure design is sensitively approached, as trenching close to trees may damage roots and affect tree health and stability. Details of services have not been provided at the time of writing. The Tree Protection Plan, showing the constraints posed by retained trees will be passed to the infrastructure engineers to inform their design, ensuring that all services avoid areas of potential conflict. As per BS5837:2012 Figure 1, once further details become available as part of the detailed/technical design for the site, the TPP and AMS will be revised to incorporate these details for services for inclusion in the Tender documentation.

3.14. **Levels and Landscaping**

Full details of any changes in ground levels on site remain to be finalised. Any alterations to levels close to trees may damage roots and affect tree health and stability. Unless no-dig methodology is proposed for installation of surfaces within RPAs the original levels in these areas must be noted, retained, and integrated into the engineering design of the site. Landscaping operations within the RPAs of retained trees must be carried out in a sensitive manner and be subject to a detailed method statement and arboricultural supervision.

3.15. **Boundaries**

All plot boundaries will need to be designed, positioned and installed to avoid damage to retained trees. When within RPAs, this will include hand excavation of all post holes, and the lining of any post holes with a non porous membrane to stop leachates from the concrete damaging tree roots.

4. Arboricultural Method Statement

TO BE READ IN CONJUNCTION WITH THE APPENDED TREE PROTECTION
PLAN REFERENCE: PRI22693-03

4.1. Phasing of operations for tree protection

4.1.1. Implementation of tree protection measures on the site must be carried out in the following order

- 1) Tree removals
- 2) Line of tree protection fence to be set out to node points by surveyor
- 3) Accurate erection of tree protection fence and ground protection
- 4) Site accessible to construction/demolition traffic
- 5) Demolition/site clearance
- 6) Construction
- 7) Removal of tree protection fencing
- 8) Remedial tree surgery (if required)

4.1.2. The above phasing must not be changed without approval from the project arboriculturist and agreement with the Council.

4.2. Restrictions within tree protection areas

4.2.1. Inside the exclusion area of the fencing, the following shall apply:

- No mechanical excavation whatsoever
- No excavation by any other means without arboricultural site supervision
- No hand digging without a written method statement having first been approved by the project arboriculturist.
- No lowering of levels for any purpose (except removal of grass sward using hand tools)
- No storage of plant or materials
- No storage or handling of any chemical including cement washings
- No vehicular access
- No fire lighting

4.2.2. In addition to the above, further precautions are necessary adjacent to trees:

- No substances injurious to tree health, including fuels, oil, bitumen, cement (including cement washings), builders sand, concrete mixing and other chemicals shall be stored or used within or directly adjacent to the protection area of retained trees
- No fire shall be lit such that flames come within 5m of tree foliage.

4.3. Avoiding damage to stems and branches

- 4.3.1. Care shall be taken when planning site operations in proximity of retained trees to ensure that wide or tall loads, or plant with booms, jibs and counterweights, can operate without coming into contact with retained trees. Such contact can result in serious injury to them and might make their safe retention impossible.
- 4.3.2. Consequently, any transit or traverse of plant in proximity of trees shall be conducted under the supervision of a banksman, to ensure that adequate clearance from trees is at all times maintained. In some circumstances, it may be impossible to achieve this without pruning works known as 'access facilitation pruning'.
- 4.3.3. Access facilitation pruning shall be kept to the barest minimum necessary to facilitate development and shall be carried out in strict accordance with the guidance below (Tree Surgery). Under no circumstances shall construction personnel undertake any tree pruning operations.

4.4. Tree protection fencing

- 4.4.1. The Tree Protection Plan (see the latest revision of: PRI22693-03) shows the alignment of Tree Protection Fencing (TPF), which is to be installed prior to any of the following taking place:
- Demolition
 - Plant and material delivery
 - Soil stripping
 - Utility installation
 - Construction works
 - Landscaping
- 4.4.2. Stages for installation of TPF:
- 1) Hand clearance of any vegetation to allow clear working access.
 - 2) Setting out of fencing points
 - 3) Fencing erected
 - 4) Site accessible to demolition/construction traffic
- 4.4.3. To ensure accuracy and avoid future costly adjustments, the Tree Protection Fence must be set out by a surveyor with all node points being marked clearly on site for the fencing contractor to work to.
- 4.4.4. Once erected, all TPF will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arboriculturist and approval of the local planning authority.
- 4.4.5. The typical TPF construction is suitable for areas of high intensity development, and shall comprise of interlocking weld-mesh panels, well braced to resist impacts by attachment to a scaffold framework that is set firmly into the ground. A detailed specification can be found on the TPP.

- 4.4.6. Should any alternative method of barrier construction be proposed, consultation with the project arboriculturist will be obtained to clarify the efficacy of the revised design prior to informing the local planning authority and obtaining their consent.
- 4.4.7. Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence.
- 4.4.8. All weather notices should be erected on the barriers (for example see figure below).

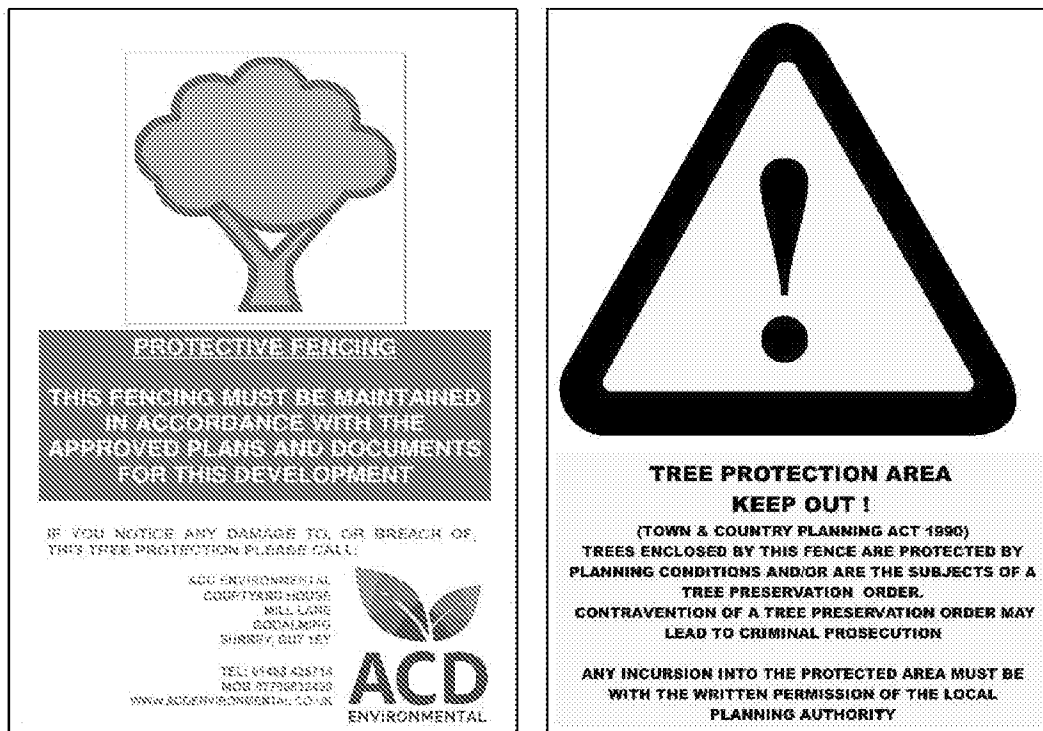


Figure 1: Tree Protection Sign (digital copies available for download at: www.acdenvironmental.co.uk)

4.5. Site storage, parking, welfare facilities

- 4.5.1. The site will require provision for; site storage, contractor parking, welfare facilities, temporary services/drainage, material drop of points, etc.
- 4.5.2. No details of these provisions are available at the time of writing of this report.
- 4.5.3. None of the above provisions will be sited within RPAs of retained trees without the input or the project arboriculturist and the consent of the Local Authority.

4.6. Tree surgery and removal

- 4.6.1. Those trees which are to be removed are shown with a red dashed canopy outline, and a dashed emblem around the trunk on the Tree Protection Plan ACD reference PRI22693-03.
- 4.6.2. If any further tree surgery works are required, a proposed specification will be submitted to, and approved by the Local Planning Authority before any works are carried out.
- 4.6.3. All work will be carried out in accordance with BS 3998:2010 Recommendations for Tree Work, industry best practice and in line with any works already agreed with the Council.
- 4.6.4. The tree surgery contractor is responsible for carrying out any relevant health and safety risk assessment, and insurance, prior to any work being carried out.
- 4.6.5. The statutory protection afforded by the Wildlife and Countryside Act and Countryside and Rights of Way Act will be adhered to. If further advice is required, particularly if bats are discovered during tree work, it will be obtained from Natural England or other competent persons and recommendations adhered to.
- 4.6.6. The stumps of any trees removed from within the Construction Exclusion Zone or the RPAs of retained trees will be either; cut flush to ground level and left in situ or ground out using a stump grinder. They will not be winched out.
- 4.6.7. All operations shall be carefully carried out to avoid damage to the trees being treated or neighbouring trees. No trees to be retained shall be used for anchorage or winching purposes.

4.7. Soft landscaping within RPA

- 4.7.1. All landscaping and associated ground preparation within exclusion zones will be carried out sensitively to ensure root damage is mitigated as much as is practicable. At no time is any heavy plant to be used within any protected area. Removal of existing vegetation will be carried out by hand, turf may be removed using a mechanical turf stripper or by hand.

Turfing

- 4.7.2. Stages for turfing gardens and open spaces:

No plant machinery¹ to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Do not reduce any high spots or excavate in any way.
- 3) Existing poor quality turf may be removed with a turf stripper.
- 4) Use good quality top-soil to level any low-lying areas and hollows, and provide a fine tilth to lay turf on. This imported soil must not result in a level increase of more than 100mm in any area.
- 5) Import turves by hand in wheelbarrow
- 6) Lay turves

Planting

- 4.7.3. Should the soil be compacted or have a poor structure which may hinder the development of any new planting, soil decompaction techniques may be used upon consultation with the project arboriculturist.

- 4.7.4. Stages for planting within tree protection areas:

No plant machinery to be used in the area for whatever reason

- 1) Remove TPF to allow access to area.
- 2) Remove existing vegetation by hand, turf may be removed using a mechanical turf stripper.
- 3) Do not reduce any high spots or excavate in any way.
- 4) Import good quality top-soil by hand (with wheelbarrow) into area.
- 5) Level to a depth of no more than 100mm with hand tools
- 6) Dig individual planting pits for each plant by hand (including hedging which must not be trench planted)
- 7) Any mulch should also be imported and spread by hand.

- 4.7.5. No works will be carried out within any protected areas if the soil moisture is of a level likely to allow compaction to occur.

¹ Including rotovators

4.8. Installation of boundary fencing within protected areas

4.8.1. Stages for installing wooden fence posts:

No plant machinery to be used in the area for whatever reason

- 1) Contact project arboriculturist to hold pre-start site meeting and 'toolbox' talk before starting work.
- 2) Remove TPF to allow access to area.
- 3) Dig post holes using hand tools, avoiding damage to the protective bark covering larger roots. Roots smaller than 25mm diameter may be pruned back using either secateurs or a hand saw, leaving a clean cut.
- 4) Damage or severance of roots above 25mm diameter must be avoided. If roots of this size are discovered, the hole should be relocated. If there are a large number of such roots it may be necessary to relocate the hole by half a fence panels length and adjust the fence panels accordingly.
- 5) Line hole with non porous lining, for example durable polythene bag.
- 6) Insert post and fill post hole with concrete to ground level.
- 7) Trim polythene to ground level

Robert Anderson *FdSc, Nd Arb, MArbor*
Arboriculturist

10 December 2019

LIMITATIONS OF USE AND COPYRIGHT

This assessment has been prepared for Paul Airey Planning Associates Ltd. All rights in this report are reserved. No part of it may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without our written permission. Its content and format are for the exclusive use of the addressee in dealing with The Vinery, Poling. Until all invoices rendered by the Consultant to the Client have been paid in full, the copyright of any documents, forms, statements, maps, plans and other such material will remain vested in ACD Arboriculture and no unauthorised use of such material may be made by the Client or any person purporting to be acting on his/her behalf. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of ACD Arboriculture ©.



**ECOLOGICAL SURVEYS * PROTECTED SPECIES LICENSING * MITIGATION * IMPACT ASSESSMENT
ARBORICULTURAL SITE MONITORING AND SUPERVISION * ARCHAEOLOGY
LANDSCAPE & VISUAL IMPACT ASSESSMENT * LANDSCAPE AUDIT * PROJECT MANAGEMENT
EXPERT WITNESS* LANDSCAPE DESIGN & PLANNING LANDSCAPE MANAGEMENT**