



Image courtesy of Google 2024

Arboricultural Impact Assessment

Police Training Centre, Royal Victoria Country Park,
Netley Abbey, Southampton, SO31 4TS

**Erection of 3.0-metre-high steel mesh security fence to site boundaries, with
vehicular entrance gates
and widening of access drive from Hamble Lane.**

HCC Arb Reference: P-EBC-NetleyPoliceTrainingFENCE-SS23671-AIA-1.1

David Harris, (ND Arb) Date of report: 03/02/25

Hampshire Highways Arboriculture, Bishops Waltham Depot, Botley Road.

E: arbconsult@hants.gov.uk

Report for HCC Corporate Estate & Partners. Jeff Japes, Building Surveyor. Property Services Team

Executive Summary

The proposal is to:

1. *Construct a secure boundary fence, with vehicular entrance gates and minor road widening.*

- 1.1 The proposal will result in the removal of several poor quality, category C trees, and some areas of understory shrubs, including rhododendron, cherry laurel, and clipped Chinese privet hedging.
- 1.2 Eastleigh Borough Council public view mapping indicates that there are no trees on the site that are protected by Tree Preservation Orders, and the site does not stand in a Conservation Area. It is assumed that the trees that stand on the site are all under the management of the Police and Crime Commissioner's Office. Trees on the site boundary with Hampshire County Council (HCC) Royal Victoria Country Park will be the management responsibility of HCC.
- 1.3 Whilst not a constraint in relation to tree management, the site enjoys a Grade II listing as a historic park or garden associated with the former Royal Victoria Military Hospital.
- 1.4 Several small maturing aspen poplars stand on the northern boundary of the site with the "Hamble Rail Trail" footpath and the railway line. As well as being problematic trees to manage in this location, some of these poplars are displaying early symptoms of decline. It is proposed to coppice the poplars and allow them to regrow as multi-stemmed coppice stools. This will make future maintenance via re-coppicing more straightforward and with less impact towards the nearby Hamble Rail Trail and railway line.
- 1.5 Several mature English oaks stand on and adjacent to the site perimeter. It is occasionally difficult to be precise with ownership of some of these trees, owing to the porous nature of existing boundary. However, in each case, these trees are found to be at least category B, and will be given all the arboricultural protection afforded under the relevant British Standards.
- 1.6 Several small trees will need to be crown lifted to enable vertical height clearance above the new fence. These works will not significantly alter the amenity of the trees but will remove a portion of their photosynthetic mass, and result in small diameter wounds that the trees will need to respond to. This is felt to be acceptable in this case.
- 1.7 The new fence will be a 358 welded mesh panel attached to a steel support structure, with the steel posts dug into the ground. This type of fencing features light-weight individual components and lends itself to manual installation. The post holes will be polythene lined to prevent chemical seepage from the post-fix materials used. Materials and equipment can be restricted to existing hard stand areas, and in places appropriate load-spreading temporary trackway can be laid to enable access.
- 1.8 A tree-friendly method statement for the installation of the fence is provided in section 9 of the accompanying arboricultural method statement.
- 1.9 The pre-installation tree works, and removal, shrub/scrub clearance, and the installation of the fence will all be carried out under close arboricultural supervision if a condition is added to ensure this happens.
- 1.10 Overall, the wider impact to trees and amenity is minor and temporary.

Glossary

Term	Meaning
RPA	Root Protection Area
CEZ	Construction Exclusion Zone
BS5837:2012	British Standard for trees in relation to design, demolition, and construction - recommendations
BS3998:2010	British Standard: recommendations for tree work
AIA	Arboricultural Impact Assessment
AMS	Arboricultural Method Statement
TPP	Tree Protection Plan

Contents

1	Introduction	4
2	Methodology.....	4
	Caveats & Limitations.....	5
3	Tree Survey	6
4	The proposal.....	6
5	Tree impact assessment.....	7
6	Conclusion	8

Appendix A – Tree works schedule, including the requirement for arboricultural supervision.

Appendix B – BS5837 tree survey findings.

1 Introduction

- 1.1 This arboricultural impact assessment (AIA) is produced at the request of Hampshire County Council Corporate Estate and Partners.
- 1.2 This AIA describes the impact of the proposal and makes recommendations on:
 - The overall impact of the scheme in terms of those trees that need to be removed to facilitate the proposal.
 - How this loss of asset may be mitigated.
 - How retained trees will be safeguarded to minimise any impact of the proposal.
 - Any special engineering etc. that is necessary on arboricultural grounds.
- 1.3 This impact assessment covers the area impacted by the new security fencing and the installation of this fencing, and it includes trees outside the immediate proposal area if they are within zone of influence as well as those growing within the area.

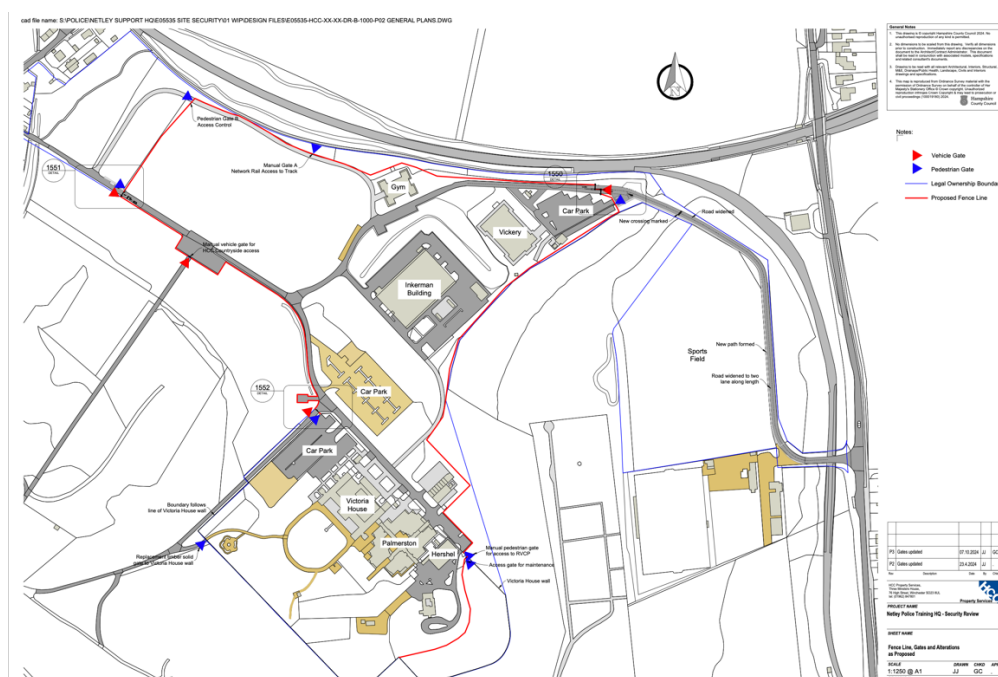
2 Methodology

- 2.1 Given the relatively low-level impact of the proposals it is thought trees can be safely protected through provision of a work specification, tree protection fencing and ground protection where necessary. A full BS5837 document is overly complex for this fence installation.
- 2.2 An initial tree impact assessment was carried out in summer 2024 during an accompanied site walkover. The result of this assessment is found in the tree works specification detailed in section 3 below.
- 2.3 The stem diameter of trees is used to calculate the root protection area (RPA) which is plotted and then adjusted as necessary for site features. The RPA is the area in which most tree roots are anticipated to be growing. As root damage is a common cause of tree loss, the RPA is deemed an area of provisional exclusion for construction activity.
- 2.4 An access assessment, to include provision for handling and storage of materials, was also undertaken during the site walk over.
- 2.5 Trees are a material consideration in the planning process and as such must be included as part of the decision-making process. Veteran trees are afforded special protection through planning: none will be impacted by these proposals.

Caveats & Limitations

- 2.6 This AIA has been carried out to assess the trees in the context of development: the purpose of this report is to determine the constraints (both above and below ground) which need to be considered in relation to trees. As the impact is initially assessed as minor, a lower level of detail is felt to be appropriate. This will not put trees at higher risk. Landscape quality shrubs and maintained hedges, small and poor-quality trees – such as elms suffering from Dutch Elm Disease, and poor-quality young trees such as those suppressed by adjacent vegetation; are noted but not necessarily detailed in the tree survey.
- 2.7 Root protection areas are calculated in line with the BS5387:2012 and are adjusted as necessary to reflect topographical constraints on site. This is based upon professional observations and experience and has not been confirmed by e.g., trial-pitting. As the required excavations for the fence posts is both highly selective and minimally intrusive, this is felt to be acceptable.
- 2.8 No significant canopy cover will be lost, and the minor pruning of the type that would be carried out under routine maintenance is considered acceptable. For this reason, no mitigation for canopy loss is offered.

The ownership, site layout and fencing alignment is shown in the clip below.



- 2.9 The site extends to some 20 hectares of formal and informal gardens, lawns, sports and recreational fields, woodland, historic buildings, service buildings, roads, and parking areas. The boundary between the site and the adjacent HCC country park is historically porous, and in places relies on physical features to define the boundary.
- 2.10 The site has been checked for the presence of any Tree Preservation Orders (TPO) or any other legal status or constraints such as Conservation Area, Covenants or planning conditions relevant to trees using the online mapping system for Eastleigh Borough Council here:
<https://emaps.eastleigh.gov.uk/WebMaps/Map.aspx?MapName=WebmapsNoLocalPlan>
- 2.11 The SINC at HCC Royal Victoria Country Park West Wood, stands adjacent to elements of the northeastern and southern fence alignment. There will be no incursion into the SINC.

3 Tree Survey

- 3.1 The trees on site generally provide amenity and offer greening and screening to the site, affording a softening of the built environment and cooling of the environment locally. Educational environments where trees are present are shown to improve academic outcomes¹ so the presence of trees is a positive attribute to be fully protected through the proposal. The tree survey findings are found in Appendix A.

4 The proposal

- 4.1 The proposed new '358-mesh' fence, will be 3.0m tall and constructed from metal. This means that it will be a relatively lightweight structure that can be manually installed. Fencing materials and equipment movements will be restricted to existing hard stand areas (presently a 3m wide asphalt road) and where site or weather conditions dictate; an appropriate load-spreading temporary trackway can will be laid to enable access.
- 4.2 No physical tree protection measures are proposed, as the fence is to be installed in the woodland and adjacent to existing trees; it would be almost impossible to use the "standard" tree protective barriers. Where practical the existing fence will be retained. The replacement fence line will closely follow the existing fence line or sit just inside it. This will cause minimum new disturbance. For areas of new installation, a specific arboricultural method statement is provided, which must be closely followed.

¹ <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2018.01669/full> and <https://www.sciencedirect.com/science/article/abs/pii/S1618866717307033>

5 Tree impact assessment

This is assessed as low and temporary. There are some pruning works listed in the tree survey schedule at appendix A.

- 5.1 There is potential for damage to and loss of retained trees during the installation phase through the following activities:
- I Direct damage to trees through equipment impact, for example impact from machinery buckets, jibs and tracks resulting in bark damage and exposure of the cambium, increasing the risk of pathogen ingress, and increasing the demand on the trees' energy reserves.
 - II Unnecessary tree surgery necessitated by accidental impact of equipment to branches opening wounds and removing live material.
 - III Indirect damage through soil compaction (e.g., vehicles, storage, and footfall) reducing the air and water available to the tree's roots and leading to dieback in the canopy, sometimes only evident years later.
 - IV Severance of the roots through digging, excavation, or piling – particularly within the rpa.
 - V Ongoing pruning in future to allow trees and new infrastructure, footpaths, and roads etc. to exist side by side.
 - VI Contamination of land near the trees resulting in root death and, in extreme circumstances, tree failure. Contamination can be from sources such as cement/concrete overspill, fuels, or hydraulic fluid. Due to the structure of soil, these contaminants can encounter roots even if the spillage occurs outside the RPA.
 - VII Choosing the right time in the tree's growth cycle can reduce the impact any works may have on the trees. In this case the pruning is relatively light, so this risk is low unless accidental damage occurs.
 - VIII Positive impact can be brought about where works allow trees suppressed by close growth to e.g., buildings or other vegetation to have more space to develop a more open form; by management techniques where none have previously been employed or have been allowed to lapse; by replacement species being more appropriate to the location than before or by tree planting being an active and integral part of the development with suitable aftercare programmes implemented.

- 5.2 To reduce the likelihood of harm, it is very important that robust tree protection measures are followed after agreed tree pruning and/or removal has occurred, and prior to any other work starting on site. The “standard” tree protection barrier methods are not specified in this case, owing to the nature of the proposed new security fence installation, and the straightforward access from the often immediately adjacent existing hard stand areas and roads etc.
- 5.3 In places, the RPA of retained trees extends beneath the immediately adjacent access roads, driveways and hard standing areas etc. Where the RPA is suitably protected by these existing hard surfaces, it will be permissible to operate plant and machinery etc. within that part of the RPA only.
- 5.4 The scheme has the potential to have a negative impact on the following trees:

Reference	Description	Potential for harm
T1-T7 T10-T26	Individual trees growing prominently around the perimeter of the site. All recorded as category A, B or C in the supporting tree survey.	Compaction of the soil around the roots, harm to roots-due to movement and post-hole digging. Broken branches and torn bark caused by careless use of implements.
T8-T9	Not related to the proposed new fencing but noted for completeness: T8 crack willow and T9 poplar, recommended for removal due to safety concerns.	Both trees are recommended to be removed on safety grounds. As of 18/02/25 T8 willow has recently lost a significant upright stem, currently hung up in the canopy of T9 poplar, and suspended over the parking area serving the gym.
G1-G6 G9-G11	Groups of trees of varying ages and condition. Often dense understory of shrubs and self-seeded young trees.	The proposal will favour retaining the better-quality young trees, often <75mm diameter, and removing the dead and dying English elms, and young trees displaying poor form and defects.

The supporting arboricultural method statement describes ways to reduce the impact on these trees.

6 Conclusion

- 6.1 There is no loss of any trees that are deemed to be category A or B within the proposed removal of existing fencing and installation of new fencing.
- 6.2 The proposal will result in the removal of approximately 50 poor quality, category C and U trees, with stem diameters of less than 150mm. Some areas of understory shrubs will be

coppiced, and several metres of under-maintained and low aesthetic quality hedge will be pruned back and in places removed.

- 6.3 Pruning is necessary to relieve encroachment and to achieve the necessary the height clearance above and along the fence line. These works are generally minor and will not reduce the canopy cover by a meaningful amount. In some instances, the existing canopies are low over access points and driveways/footways, so some remedial pruning would be required regardless of the new fence being installed.
- 6.4 For much of the fence route through G5-G6 and G8-G11, the required minor pruning will be masked by the existing often dense vegetation.
- 6.5 In terms of wider arboricultural due diligence; it is proposed to coppice the several small maturing hybrid poplars that stand in G7 on the northern boundary of the site with the “Hamble Rail Trail” footpath and the railway line. This will make future maintenance via re-coppicing more straightforward and with less seasonal impact towards the nearby Hamble Rail Trail and railway line.
- 6.6 In order to give confidence in achieving reasonable arboricultural outcomes, it is recommended that the protection measures outlined in the tree protection plan (TPP) and arboricultural method statement (AMS) are conditioned through the planning process and enforced on site.

Appendix A - Tree works schedule

Tree no.	Common name	Stem diam mm	Works required for proposal	Arboricultural supervision required	Owner
T1	English oak	320	Crown lift	No	HCC
G1	Ash/elm	200	Crown lift. Remove poor specimens.	No	PCC
T2	Turkey oak	320	Crown lift	No	PCC
T3	Turkey oak	320	Crown lift	No	PCC
G2	Holm oak etc	100	Crown lift. Remove poor specimens.	No	PCC
G3	Elder/Hawthorn etc	100	Prune to clear fence line	Yes	PCC
G4	Ash, field maple etc	250	Prune to clear fence line	No	HCC
T4	Lawson cypress	300	Prune to clear fence line	No	HCC
T5	Sycamore	300	Prune to clear fence line	No	HCC
T6	Poplar	1200	None	No	HCC
T7	Sycamore	280	Prune to clear fence line	No	HCC
G5	Ash, English oak, holm oak etc	<350	Prune to clear fence line. Remove poor specimens.	Yes	PCC
G6	Ash, English oak, holm oak etc	<350	Prune to clear fence line. Remove poor specimens.	Yes	PCC
G7	Aspen	<350	Coppice for management	Yes	PCC
T8	Crack willow	<350	Coppice for management	N/A	PCC
T9	Hybrid poplar	<450	Coppice for management	N/A	PCC
G8	Wild cherry etc	<300	Prune to clear fence line	Yes	PCC
T10	Turkey oak	822	Prune to clear fence line	Yes	PCC
G9	Hazel	<250	Prune/coppice to clear fence line	Yes	HCC
T11	English oak	<900	Prune to clear fence line	Yes	HCC
T12	Silver birch	435	None	Yes	PCC
T13	English oak	710	Prune to clear fence line	Yes	PCC
T14	English oak	<600	Prune to clear fence line	Yes	PCC
T15	English oak	<350	Prune to clear fence line	Yes	HCC
T16	Silver birch	435	None	Yes	HCC
T17	English oak	<900	Prune to clear fence line	Yes	HCC
T18	English oak	<800	Prune to clear fence line	Yes	HCC
T19	English oak	<1000	Prune to clear fence line	Yes	HCC
T20	Turkey oak	698	None	Yes	PCC
T21	Turkey oak	660	None	Yes	PCC
G10	Turkey oak etc	<300	Prune to clear fence line	Yes	PCC
T22	English oak	1065	Prune to clear fence line	Yes	PCC
T23	English oak	1062	Prune to clear fence line	Yes	PCC
T24	English oak	785	None	Yes	PCC
T25	Scots pine	544	Prune to clear fence line	Yes	PCC
T26	English oak	<1000	Prune to clear fence line	Yes	HCC
G11	Holly, birch etc	<100	Prune to clear fence line. Coppice shrubs. Remove poor specimens.	Yes	PCC

Appendix B – BS5837 Tree Survey.

