Arboricultural Report

For Waresley Hall, Sandy, Bedfordshire



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on 8 March 2025

Introduction

This document sets out the Arboricultural Impact Assessment (AIA) and Arboricultural Method Statement (AMS) to ensure that the existing trees at Waresley Hall are protected during the installation of the proposed estate fencing. The assessment has been prepared in accordance with **BS 5837:2012 - Trees in Relation to Design, Demolition, and Construction**, follows the recommendations detailed in the existing (previously submitted) **Tree Survey** and **Tree Protection Plan** and aims to address all the concerns previously raised by the council's Arboricultural Officer.

Arboricultural Impact Assessment (AIA)

The installation of the estate fencing has been designed to minimize its impact on existing trees. The primary considerations include:

- **Root Protection**: The use of **ground screws** for the metal fence posts will ensure minimal disturbance to tree roots. Unlike traditional concrete footings, ground screws do not require excavation, thereby reducing potential damage to the **Root Protection Areas (RPAs)** of trees. Please see below, in *figure A*, an image of the type of ground screw base proposed.



Length (ground depth) = 1000 mm

Maximum width = 76 mm



Figure A – ground screw post base

- **Further Root Protection**: The use of the **Air Spade** will enable the contractor to identify the locations with the most substantial roots and choose the “path of minimal resistance”, or, the option with the least root interference. This will be judged by both the size and the number of the roots encountered in the potential fence post pit. Please see below in *figure B*, an image of the air spade system proposed to be used.



Figure B – Air Spade application

- **Construction Staging:** Work will be undertaken in phases to avoid unnecessary soil compaction and to ensure that tree protection measures are maintained throughout the project.
- **Protection from Machinery and Foot Traffic**: Heavy-duty ground protection mats will be deployed in areas where machinery or foot traffic could compact soil and harm the root system. Please see *Figure C* below:



Figure C – Ground protection mats

- **No-Dig Areas**: No-dig zones will be established within the RPAs to prevent any excavation or soil displacement. Essentially, the whole site will be a *no dig zone* as, there will not be any traditional excavations anywhere within the RPAs nor the rest of the estate.
- **Tree Retention**: All trees categorized as **Category A and B** in the Tree Survey will be retained and protected. Trees marked for removal (one Category U and one Category C) will be removed in accordance with the Tree Protection Plan.
- **Fencing type**: The type of fencing for this proposal has been carefully chosen (*Figure D*) to be in keeping with the heritage of the estate whilst also flexible on posts exact locations, in order to avoid the disturbance of any substantial roots encountered with the help of the *Air Spade*.

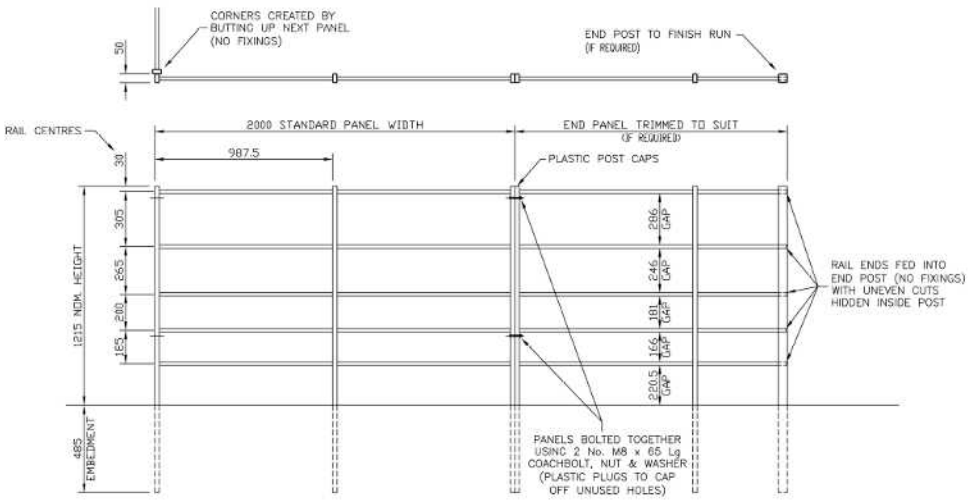


Figure D – Fencing details

Arboricultural Method Statement (AMS)

The following methodology outlines how trees will be safeguarded during the installation of the estate fencing.

1. Pre-Construction Phase

- **Tree Protection Barriers**: Prior to construction, protective fencing will be installed as per **BS 5837:2012** guidelines. This will include scaffold poles, weldmesh panels, and secure fastenings to prevent unauthorized access to RPAs. Please see *Figure E* below:
- **Marking of RPAs**: The Root Protection Areas will be clearly marked on-site to guide contractors and prevent accidental encroachment.
- **Induction & Briefing**: All site personnel will undergo an arboricultural induction to ensure awareness of tree protection measures. Signage will also be installed on the fencing as per *Figure F* below.

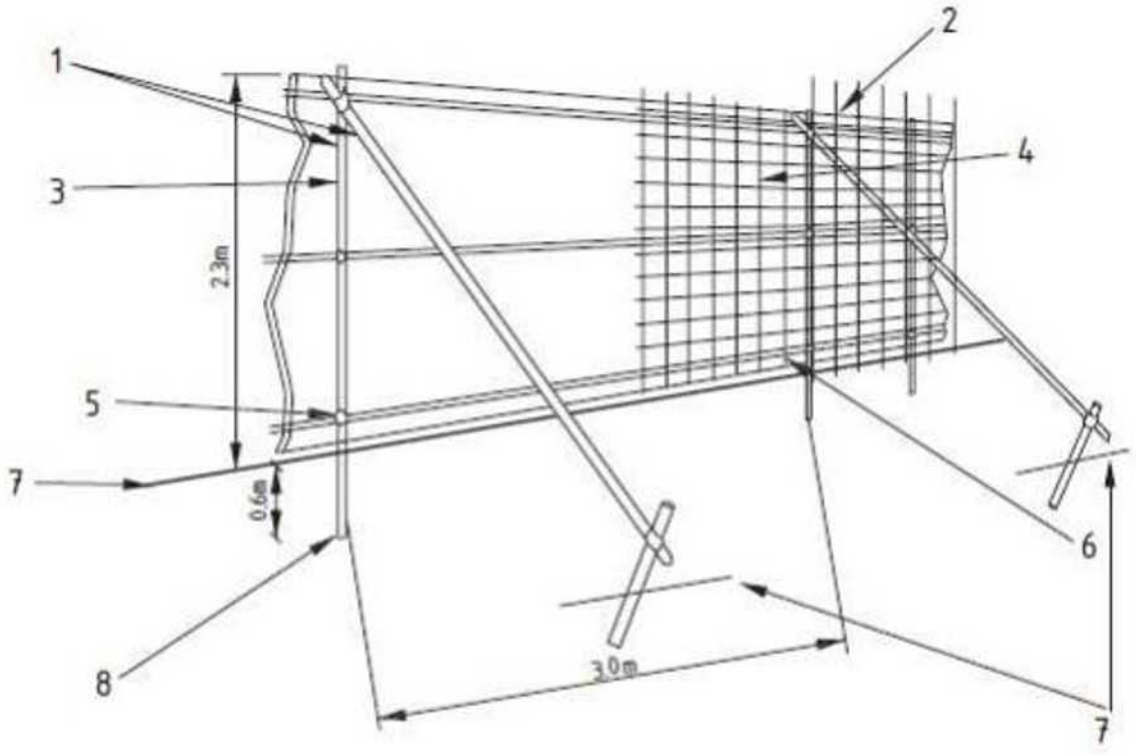


Figure E - Protecting fencing. 1.Standard scaffold poles - 2. Uprights to be driven into the ground - 3. Panels secured to the uprights by wire ties or scaffold clamps - 4. Weldmesh wired to the uprights and the horizontals – 5. Standard Clamps - 6. Wire twisted and secured on the inside face of fencing to avoid easy dismantling – 7. Ground level – 8. Approx 0.6 m driven into the ground.



Figure F – Protecting fencing signage

2. Construction Phase

- **Installation of Fencing Using Ground Screws**:
  - Ground screws will be used to secure the estate fencing instead of traditional excavation methods.
  - The screw system will be installed manually or with lightweight machinery to prevent undue stress on tree roots.
- **Use of Ground Protection Mats**:
  - Heavy-duty ground mats will be placed in working areas to distribute weight and protect soil structure.
  - This will prevent soil compaction, which can negatively affect root health and water infiltration.
- **Avoidance of Damage to Overhanging Branches**:
  - Works near trees will be carefully managed to avoid damage to overhanging branches.
  - Pruning work is required, regardless the installation of the fence, due to overgrown, epicormic growth and some low branches. These works will be carried out under the supervision of a qualified arborist.

3. Post-Construction Phase

- **Removal of Protection Measures**: Once construction is complete, all tree protection fencing and ground mats will be removed carefully to avoid damage to retained trees.
- **Inspection & Monitoring**: A final inspection of the trees will be conducted to assess any potential impacts. If any damage has occurred, appropriate remedial action (e.g., soil aeration, mulching, or selective pruning) will be taken.
- **Long-Term Tree Care**: Trees will continue to be monitored as part of ongoing site management. Mulching and watering schedules will be implemented for trees that may have experienced stress during construction.

Conclusion

The proposed installation of estate fencing at Waresley Hall has been designed to minimize its impact on existing trees. The use of ground screws instead of traditional concrete footings significantly reduces root disturbance, while the phased approach and use of ground protection mats ensure the long-term health of retained trees. By adhering to this Arboricultural Impact Assessment and Method Statement, the project will be completed with minimal risk to the valuable tree stock on-site.