

Arboricultural Impact Assessment

WC-443.1a

Community of the Resurrection,
Stocks Bank Road, Mirfield WF14 0BN



Woodsage Consulting Ltd

Unit 2, Hey End Farm, Luddendenfoot, Halifax,
West Yorkshire HX2 6JN

T: 07962401997

E: info@woodsage.co.uk

W: <https://woodsage.co.uk>





Report type:	Arboricultural Impact Assessment
Report reference:	WC-443.1
Revision:	a
Client:	Community of the Resurrection
Site address	Community of the Resurrection, Stocks Bank Road, Mirfield WF14 0BN
Grid reference:	SE 19026 20809
Report prepared by:	Jack Delaney MICFor MArborA
Date:	27 th March 2026

Limitations of use and copyright

© 2026 Woodsage Consulting Ltd. All rights in this report are reserved.

This document has been prepared with all reasonable skill, care, and diligence, on behalf of the client in accordance with the agreed terms of contract and/or written agreement.

The contents and format of this document are for the exclusive use of the addressee in dealing with this specific site. Woodsage Consulting Ltd does not authorise, consent, or condone any party, other than the client, relying upon the services and information provided.



Contents

EXECUTIVE SUMMARY	3
1. INTRODUCTION	4
1.1. INSTRUCTION AND SCOPE OF REPORT	4
1.2. SITE DETAILS	4
1.3. SITE TOPOGRAPHY AND ELEVATION	5
1.4. DESK BASED STUDY AND PLANNING CONTEXT	5
1.5. DEVELOPMENT PROPOSALS.....	5
2. METHODS.....	6
2.1. SURVEY DETAILS	6
2.2. SURVEY PERSONNEL	6
2.3. SURVEY METHODOLOGY.....	6
2.4. CONSTRAINTS.....	7
3. SURVEY RESULTS	9
3.1. ARBORICULTURAL OBSERVATIONS	9
3.2. TREE CATEGORISATION.....	10
4. IMPACT ASSESSMENT.....	11
4.1. TREE REMOVALS	11
4.2. FACILITATION PRUNING.....	11
4.3. TREE ROOT PROTECTION AREAS (RPAs).....	11
4.4. UNDERGROUND UTILITIES.....	13
5. RECOMMENDATIONS	14
5.1. TREE WORKS.....	14
5.2. LEGAL CONSTRAINTS.....	14
5.3. TREE PROTECTION	14
5.4. REPLACEMENT TREE PLANTING	15
5.5. ADDITIONAL INFORMATION.....	16
TABLES AND FIGURES	
FIGURE 1.1: AERIAL IMAGERY SHOWING THE APPLICATION SITE RED LINE BOUNDARY	4
TABLE 2.1: <i>BS 5837: 2012</i> CASCADE CHART	6
TABLE 3.1: BOTANICAL FAMILIES BY SPECIES AND GENERA RICHNESS	9
TABLE 3.2: SUMMARY OF <i>BS 5837: 2012</i> TREE CATEGORIES RECORDED AT THE SITE	10
TABLE 4.1: SUMMARY OF TREE RPAs WHICH WILL BE IMPACTED BY PROPOSED PERMANENT HARD SURFACING	11
TABLE 5.1: TREE REPLACEMENT REQUIREMENTS BY <i>BS 5837:2012</i> CATEGORY	15
TABLE 5.2: SUGGESTED TREE SPECIES FOR REPLANTING AT THE SITE	15
APPENDICES.....	17
APPENDIX 1: TREE SURVEY SCHEDULE	17
APPENDIX 2: IMAGES OF TREES.....	23
APPENDIX 3: OUTLINE ARBORICULTURAL METHOD STATEMENT (AMS)	30
APPENDIX 4: TREE CONSTRAINTS PLAN	38
APPENDIX 5: TREE PROTECTION PLAN 1 (DEMOLITION PHASE)	39
APPENDIX 6: TREE PROTECTION PLAN 2 (CONSTRUCTION PHASE)	40
APPENDIX 7: TREE PROTECTION PLAN 3 (LANDSCAPING PHASE)	41



Executive Summary

Woodsage Consulting Ltd have been instructed by the Community of the Resurrection to prepare an Arboricultural Impact Assessment in relation to the proposed development of the site.

The external works proposed as part of the development include:

- Removal of existing buildings, including an outbuilding (from the northern boundary), a lodge house, and a plant room;
- Erection of a new visitor entrance to North Wing & East Wing;
- Widening of the visitor entrance to improve visibility of the site entrance;
- Relocation of existing car parking spaces away from the building;
- Construction of a new, easily identifiable entrance;
- Extension and modification of the East Wing building;
- Opening up of the infill extension to the North Wing to provide a guest refectory, linking the new reception area to the rear lawn;
- Creation of a new private garden for the brethren, accessible from the refectory via new doorway; and,
- Erection of a replacement plant room

According to information which is available on the website of the Kirklees Council, none of the trees at the site are subject to tree preservation orders and the site is not located within a conservation area.

The site survey identified a total of 23 individual trees and five groups of trees with the potential to be impacted by the development proposals. These include:

- one category A tree of high quality;
- 12 category B trees of moderate quality; and,
- 10 category C trees and five groups of low quality.

The proposed development will necessitate the removal of one category B tree, two category C trees, and two category C two groups. Three category B trees will also require facilitation pruning.

Proposed car parking bays which will be installed onto existing uncovered ground within the RPA of one category B tree will be constructed upon a permeable 'no-dig' geo-cellular confinement system.

The proposed replacement plant room, which will be erected within the RPAs of three category B trees, and one category C tree, will be constructed upon a concrete slab base that will be laid on top of the existing levels.

The RPAs of the retained trees are to be suitably protected throughout the development process by temporary tree protection fencing and ground protection.

Although the removal of predominantly low-quality trees is anticipated to have a negligible impact upon the local amenity, on-site replacement tree/hedge planting will be carried out upon completion of the development, which will help to enhance the amenity of the site in the long-term.

Providing the recommendations made within this report are followed, the development is considered achievable with minimal impact in arboricultural terms to the site and surrounding area.



1. Introduction

1.1. Instruction and Scope of Report

- 1.1.1.** Woodsage Consulting Ltd have been instructed by the Community of the Resurrection to prepare an Arboricultural Impact Assessment in relation to the proposed development of the site.
- 1.1.2.** The purpose of this report is to allow the local planning authority (LPA) to assess information regarding trees at the site as part of the planning submission and to demonstrate to the LPA that appropriate consideration has been given to the subject of trees as part of the development.
- 1.1.3.** In accordance with *BS 5837:2012*¹ this report sets out to:
- assess the quality and value of the trees on and immediately adjacent to the site;
 - identify trees for removal and/or retention in relation to the development proposals;
 - prescribe tree protection measures, which will ensure the successful retention of the retained trees at the site (these measures will be further detailed in an outline Arboricultural Method Statement (AMS)); and,
 - where necessary, provide preliminary recommendations for replacement tree planting.
- 1.1.4.** The contents of this report are concerned with arboricultural issues alone. Although other disciplines such as engineering and ecology may be referenced, it is important to gain advice from an appropriate expert on these matters.

1.2. Site Details

- 1.2.1.** The application site red line boundary - hereafter referred to as 'the site' and shown in **Fig. 1.1**, below - is located in the town and civil parish of Mirfield, approximately 3.9 miles to the north-west of Huddersfield town centre. The site is accessed south off Stocks Bank Road.



Figure 1.1: Aerial imagery showing the application site red line boundary².

¹ British Standards (2012). *BS 5837:2012 - Trees in Relation to Design, Demolition and Construction: Recommendations*. British Standards Institute, London.

² Microsoft Corporation (2026). *Bing Maps* [online]. Available at: > www.bing.com/maps?cp=53.683301%7E-1.713451&lvl=17.8&style=h < [accessed 24th March 2026].



- 1.2.2.** The site is centred on OS Grid Reference SE 19026 20809 and covers approximately 0.33 ha.
- 1.2.3.** The site is primarily home to the House of the Resurrection, Church of the Resurrection, and College of the Resurrection. The site also includes a plant room, a retreat house, a bed and breakfast, and a series of smaller lodges which are privately rented. The main entrance into the site is located to the north.

1.3. Site Topography and Elevation

- 1.3.1.** The site lies at an elevation ranging between 87-91 m above ordnance datum (AOD).
- 1.3.2.** The topography of the site falls away gradually from the north to south.

1.4. Desk Based Study and Planning Context

- 1.4.1.** According to the Cranfield Soil and Agrifood Institute³, the soils in the surrounding area consist of *Soilscape 17*. These are acidic, loamy, and clayey soils, that are slowly permeable and seasonally wet. No further detailed soil analysis was carried out as part of the survey.
- 1.4.2.** According to information which is available on the website of the Kirklees Council⁴, none of the trees at the site are subject to tree preservation orders (TPOs) and the site is not located within a conservation area.

1.5. Development Proposals

- 1.5.1.** The development proposals are set out in full within the Design and Access Statement⁵ which has been prepared by ArkleBoyce.
- 1.5.2.** The external works proposed as part of the development include:
- Removal of existing buildings, including an outbuilding (from the northern boundary), a lodge house, and a plant room;
 - Erection of a new visitor entrance to North Wing & East Wing;
 - Widening of the visitor entrance to improve visibility of the site entrance;
 - Relocation of existing car parking spaces away from the building;
 - Construction of a new, easily identifiable entrance;
 - Extension and modification of the East Wing building;
 - Opening up of the infill extension to the North Wing to provide a guest refectory, linking the new reception area to the rear lawn;
 - Creation of a new private garden for the brethren, accessible from the refectory via new doorway; and,
 - Erection of a replacement plant room

³ Cranfield University (2026). *Land Information System (LandIS) - Soilscales Viewer* [online]. Available at: > www.landis.org.uk/soilscales < [accessed 24th March 2026].

⁴ Kirklees Council (2026). *TPO/Conservation Area Map* [online]. Available at: > www.kirklees.gov.uk/beta/trees-listing-and-conservation/tree-preservation-orders.aspx < [accessed 24th March 2026].

⁵ ArkleBoyce (2026). *Community of the Resurrection: Design and Access Statement*, Ref: 22024_05.



2. Methods

2.1. Survey Details

- 2.1.1. The site survey was carried out on Thursday the 25th of September 2026.
- 2.1.2. The weather at the time of the survey was fine and dry; visibility of the trees was not impeded.

2.2. Survey Personnel

- 2.2.1. The survey was carried out by Jack Delaney. Jack is a Chartered Arboriculturalist (Member of the Institute of Chartered Foresters) and has worked in the arboricultural sector for 20 years. Jack holds an FdSc in Arboriculture with distinction and is a Professional Member of the Arboricultural Association. Jack is also a LANTRA qualified Professional Tree Inspector and is a trained and registered user of Quantified Tree Risk Assessment (QTRA).

2.3. Survey Methodology

- 2.3.1. Only substantial trees with a stem diameter of 75 mm or above were included as part of the survey, as is recommended in *BS 5837:2012*.
- 2.3.2. The trees were inspected from ground level using the Visual Tree Assessment (VTA)⁶. Although notable defects of trees were recorded, the site survey did not constitute a full tree safety assessment. No specialist decay detection equipment was used as part of the survey, though sounding and probing tools were used where necessary.
- 2.3.3. In circumstances where trees form a cohesive feature, they have been recorded, assessed and plotted as groups, hedgerows, or woodlands. Whilst not every tree within a group, hedgerow, or woodland has been surveyed, a representative sample has been measured in order to calculate the crown spread and root protection area (RPA).
- 2.3.4. Tree information was recorded in accordance with *Section 4.4* of *BS 5837: 2012*, and includes tree species, height, stem diameter at breast height (DBH), crown spread, crown clearance, life stage, condition (physiological and structural), and safe useful life expectancy (SULE).
- 2.3.5. Trees were allocated to one of four categories (U, A, B or C) as defined in **Tab. 2.1**, below, to reflect amenity value and suitability for retention, in consideration of the development proposals.

Table 2.1: BS 5837: 2012 *cascade chart*¹.

BS 5837: 2012 Category	Definition	Retention	Colour code
Category A	Trees of high quality with an estimated remaining life expectancy of at least 40 years; trees that are particularly good examples of their species, especially if rare or unusual.	Highly desirable	Light green
Category B	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years; trees lacking the special quality to merit category A designation.	Desirable	Dark blue
Category C	Trees of low quality with an estimated remaining contribution of at least 10 years, or 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.	Feasible, but may be removed if posing a constraint to development	Grey

⁶ Mattheck, C., Breloer, H. (1994). *The Body Language of Trees, a Handbook for Failure Analysis*. Her Majesty's Stationary, London.



BS 5837: 2012 Category	Definition	Retention	Colour code
Category U	Trees that have serious, irremediable, structural and/or physiological defects, including those that will become unviable after removal of other category U trees.	Potentially unfeasible	Red

2.3.6. Subcategories 1, 2 and 3 have also been applied to the trees, to reflect arboricultural (1) and landscape (2) qualities, and cultural values (3), respectively.

2.3.7. Tree dimensions were determined using the following methods⁷:

- Tree heights were measured from the base of the main stem to the top of the crown, using an electric clinometer
- Crown spreads were measured at each cardinal point, using a laser distometer
- Crown clearances were measured from the base of the main stem to the first significant branch, using an electric clinometer

2.3.8. The DBH of trees was measured at 1.5 m above ground level using a diameter tape measure, employing the methods detailed in *Annex C of BS 5837:2012*. DBHs were then used to calculate tree RPAs using the following equations:

1. For single stem trees, the RPA was calculated as a circle with a radius 12 times the DBH
2. For trees with 2-5 stems, the combined stem diameter was first calculated using the formula:

$$\sqrt{(\text{Stem 1 DBH})^2 + (\text{Stem 2 DBH})^2 + \dots (\text{Stem 5 DBH})^2}$$

3. For trees with 6 or more stems, the combined stem diameter was first calculated using the formula:

$$\sqrt{(\mu \text{ DBH})^2 \times \text{number of stems}}$$

2.3.9. For tree groups, hedgerows, and woodlands, the calculated RPAs are based on an offset from the canopy edge. This offset is determined with reference to the trees with the largest stem diameters and crown spreads located at the edge of the group, hedgerow or woodland.

2.3.10. For ancient and veteran trees (including those on the boundary of tree groups or woodlands), RPAs have been calculated in accordance with government standing advice⁸. This is based on a calculation of fifteen times the DBH or a minimum of five metres beyond the crown spread, whichever results in the greater area, with adjustments made where necessary to reflect site conditions.

2.3.11. Where access to trees was obstructed or obscured, DBH, height, and crown spread measurements may have instead been estimated

2.4. Constraints

2.4.1. The survey was constrained by the season in which it took place; certain tree pathogens and/or defects, for example, the fructifications of decay fungi are only visible at specific times of the year.

⁷ Height, crown spread and crown clearance have been recorded to the nearest half metre for dimensions up to 10 m, and the nearest whole metre for dimensions over 10 m.

⁸ Natural England (2026). *Ancient woodland, ancient trees, and veteran trees: advice for making planning decisions* [online]. Available at: > www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions < [accessed 24th March 2026].



- 2.4.2.** The locations of the trees shown in the ***Tree Constraints Plan*** in ***Appendix 4*** have been determined using a topographical plan of the site, which was provided by ArkleBoyce.
- 2.4.3.** Where tree stem locations are not shown on the topographical plan, these have been plotted using a combination of GPS, site features, and manual measurements. Aerial imagery has also been utilised to plot tree group canopy spreads. Although these methods provide a good representation of the surveyed trees, it should be noted that the GPS used is not sub-metre accurate and aerial imagery may not reflect the exact current dimensions of the trees.
- 2.4.4.** There are trees on the site which:
- are situated within dense areas of vegetation; and/or,
 - are covered by epiphytic plants and/or epicormic shoots.

Whilst such trees were surveyed insofar as was reasonably practicable, the accuracy of such data cannot be guaranteed.



3. Survey Results

3.1. Arboricultural Observations

3.1.1. The site survey identified a total of 23 individual trees and five groups of trees with the potential to be impacted by the proposed development.

3.1.2. The surveyed trees comprise a total of 17 species, 16 genera, and 13 families.

Table 3.1: Botanical families by species and genera richness.

Family	No. of Species	No. of Genera
<i>Sapindaceae</i>	3	2
<i>Fagaceae</i>	2	2
<i>Rosaceae</i>	2	2
<i>Betulaceae</i>	1	1
<i>Malvaceae</i>	1	1
<i>Scrophulariaceae</i>	1	1
<i>Oleaceae</i>	1	1
<i>Ulmaceae</i>	1	1
<i>Aquifoliaceae</i>	1	1
<i>Ginkgoaceae</i>	1	1
<i>Myrtaceae</i>	1	1
<i>Fabaceae</i>	1	1
<i>Moraceae</i>	1	1

3.1.3. **Tab. 3.1**, above, indicates that there is moderate diversity in terms of the range of botanical families, genera, and species at the site.

3.1.4. Tree stock diversity is important for a range of ecological reasons and contributes to:

- increased resilience to pests and diseases;
- improved adaptability to climate change;
- enhanced biodiversity through the support of a wider range of invertebrates, birds, fungi, and mammals; and,
- greater structural continuity and long-term canopy stability.

3.1.5. The tree species and cultivars recorded at the site include sycamore *Acer pseudoplatanus*, Japanese maple *Acer palmatum* ‘Atropurpureum’, red horse chestnut *Aesculus x carnea*, silver birch *Betula pendula*, summer lilac *Buddleia davidii*, common hawthorn *Crataegus monogyna*, cider gum *Eucalyptus gunnii*, European beech *Fagus sylvatica*, common ash *Fraxinus excelsior*, maidenhair tree *Ginkgo biloba*, common holly *Ilex aquifolium*, silver-margined holly *Ilex aquifolium* ‘Argentea Marginata’, common laburnum *Laburnum anagyroides*, black mulberry *Morus nigra*, Japanese cherry *Prunus serrulata*, sessile oak *Quercus petraea*, small-leaved lime *Tilia cordata*, and wych elm *Ulmus glabra*.

3.1.6. T001, T002, T004, T005, T006, T007, T008, T009, T010, T011 T016, T017, T021, T023, and T024 comprise a mix of semi-mature, early-mature, and mature trees. Many of these are positioned prominently along the site frontage with Stocks Bank Road; consequently, these trees make a significant contribution to the local amenity.



- 3.1.7.** T001, T002, T004, T005, T006, T007, T016, and T017 are located in proximity to the existing lodge house which is to be demolished and the proposed replacement plant room. As such, these trees are anticipated to present the main arboricultural constraint to the proposed development.
- 3.1.8.** T003, T011, T012, T014, T015, T018, T019, G001, G002, G003, G004, and G005 comprise young and semi-mature trees that are less visible from outside the site and therefore make a negligible contribution to local amenity.

3.2. Tree Categorisation

3.2.1. The surveyed trees include:

- one category A tree of high quality;
- 12 category B trees of moderate quality; and,
- 10 category C trees and five groups of low quality.

3.2.2. There were no category U trees with SULEs of less than 10 years recorded at the site.

3.2.3. A summary of the *BS 5837:2012* categories of trees at the site is provided in **Tab. 3.2**, below

Table 3.2: Summary of BS 5837:2012 tree categories.

BS 5837:2012 Category	Description	Tree/Group Ref.	Line Totals
A	High-quality trees, which should be retained throughout the proposed development.	T021	1 Tree
B	Moderate-quality trees, which should where possible be retained throughout the proposed development.	T001, T002, T004, T005, T007, T008, T009, T010, T016, T017, T023, T024	12 Trees
C	Low-quality trees, which, if removed to facilitate the development, can be readily mitigated.	T003, T006, T011, T012, T013, T014, T015, T018, T019, T022 G001, G002, H001, H002, G003	10 Trees 5 Groups
U	Trees of such a condition that they cannot realistically be retained in the context of the current land use for longer than 10 years	-	-
Totals:			23 Trees 5 Groups

3.2.4. The full results of the survey can be viewed in the **Tree Survey Schedule** in **Appendix 1**. Images of the trees can be viewed in **Appendix 2**. Tree locations, and the above and below ground constraints posed by trees, can be viewed in the **Tree Constraints Plans** in **Appendix 4**.



4. Impact Assessment

4.1. Tree Removals

- 4.1.1. The proposed development will necessitate the removal of T017, T018, T019, H003, and H004. G002 will also require partial removal.
- 4.1.2. T017, T018, and T019 are located on a raised embankment adjacent to the existing car park. This embankment will be excavated to facilitate construction of the new visitor entrance, and as such, removal of T017, T018, and T019 will be required. G002 is also located on the same raised embankment and will require partial removal.
- 4.1.3. H003 and H004 are located in areas of the site which will be relandscaped; therefore, H003 and H004 will require removal to facilitate the development.
- 4.1.4. T018, T019, G002, H003, and H004 are comprised of category C trees of low quality. The removal of low-quality trees will not have a substantial impact upon the amenity of the site.
- 4.1.5. Although the removal of T017 (category B) is regrettable, the tree is not prominently situated within the wider landscape. Furthermore, the presence of substantial surrounding tree cover reduces its individual contribution to site amenity; as such, removal of T017 is not anticipated to result in a significant adverse impact on amenity.

4.2. Facilitation Pruning

- 4.2.1. Branches extending south-west from T001, and north-west from T003 and T005 overhang the site of the proposed replacement plant room. T001, T003, and T005 have crown clearances of between 1 m and 2 m above ground level, while the proposed plant room will measure 4.5 m at the roof apex and 2.5 m at the eaves.
- 4.2.2. To facilitate the proposals and to avoid damage to the trees during construction, it is recommended that the crowns of T001, T003, and T005 are lifted to provide a minimum clearance of 5.5 m above ground level.

4.3. Tree Root Protection Areas (RPAs)

- 4.3.1. Existing uncovered ground within the RPAs of T001, T002, T003, and T006 will be covered by new permanent hard surfacing. These RPA infringements are summarised in **Tab. 4.3**, below.

Table 4.1: Summary of tree RPAs which will be impacted by proposed permanent hard surfacing.

Tree Ref:	BS 5837:2012 Category	Total RPA (m ²)	Permanent Hard Surfaces Proposed on Existing Uncovered Ground within RPA (m ²)		Total Impacted RPA
			Car Parking Spaces	Plant Room	
T001	B2	283.5	13.3 ⁹	29.6	15%
T002	B2	232.3	-	3.6	2%
T003	B2	221.7	-	5	2%
T006	C2	216.4	-	4.9	2%

- 4.3.2. **Tab. 4.1**, above demonstrates that the permanent hard surfacing proposed within tree RPAs falls within acceptable parameters (less than 20%), with reference to guidance set out in *Section 7.4* of *BS 5837: 2012*.

⁹ Although a further 9.4 m² of the RPA of T001 will be covered by car parking bays, these will be positioned over the existing footprint of the removed lodge house. Therefore, the impact of this aspect of the proposals on tree roots will be negligible.



4.3.3. The proposals for the proposed permanent hard surfacing within tree RPAs are considered feasible, providing that the mitigation measures set out below are implemented during construction.

Plant Room:

- To be constructed upon a concrete slab, which will be laid onto existing ground levels and will not exceed an area greater than 20% of existing uncovered ground within tree RPAs.
- Prior to laying the concrete slab, existing vegetation and any other protruding objects can be cleared from the surface using hand tools. Any dips or hollows can be filled with a granular material that will remain gas and water permeable throughout its design life.
- If excavations within tree RPAs during the installation of the concrete slab are unavoidable, they must be undertaken using either compressed air soil displacement or hand tools, subject to prior approval from the Project Arboriculturalist.
- If roots are encountered during installation of the concrete slab which occur in clumps or that are greater than 25 mm diameter, then these should not be severed without first consulting with the Project Arboriculturalist. If roots under this diameter are present, then these can be pruned using an appropriate sharp pruning tool, such as pruning saw or secateurs.
- Any tree roots which are temporarily exposed during installation of the concrete slab should be covered with sharp sand or dampened hessian sacks to prevent desiccation.
- The concrete slab sub-base material should be washed or graded, so that it contains no fine material (e.g. clean angular stone).
- Due to the highly alkaline leachate produced during the curing of wet concrete, the base of the concrete slab should be lined with a geotextile separation layer before the concrete is poured.
- The concrete will be mixed outside of tree RPAs and transported to location.
- The concrete base can then be concealed locally around the plant room by grading into the adjoining ground levels using good quality topsoil.

Car Parking Spaces:

- To be constructed upon a 'no-dig' geo-cellular confinement system that is positioned on top of the existing soil levels.
- The geo-cellular confinement system and final surfacing finish should be permeable, which will help to maintain infiltration of water and free gaseous exchange between tree roots and the atmosphere.
- If excavations within the RPA during the installation of the geo-cellular confinement system are unavoidable, they must be undertaken using either compressed air soil displacement or hand tools, subject to prior approval from the Project Arboriculturalist.
- If roots are encountered during installation of the geo-cellular confinement system which occur in clumps or that are greater than 25 mm diameter, then these should not be severed without first consulting with the Project Arboriculturalist. If roots under this diameter are present, then these can be pruned using an appropriate sharp pruning tool, such as pruning saw or secateurs.
- Any tree roots which are temporarily exposed during installation of the geo-cellular confinement system should be covered with sharp sand or dampened hessian sacks, to prevent desiccation.
- The excavations required during installation of conventional kerbs and edgings typically involve strip trenching, which can cause significant damage to tree roots. Within tree RPAs, this should be avoided either by using alternative 'trenchless' edge support solutions (e.g.



pressure-treated timber stakes and edging boards) or, where appropriate, by omitting edge supports altogether.

- 4.3.4.** The temporary tree protection fencing and ground protection - which are detailed in **Sections A3.5** and **A3.7** of the **Outline AMS** in **Appendix 3**, and which are shown in the **Tree Protection Plans** in **Appendices 5, 6, and 7** - will help to ensure that the RPAs of the retained trees are suitably protected from development activities.

4.4. Underground Utilities

- 4.4.1.** At the time of writing, the client had not provided detailed plans indicating the location of proposed utilities and/or service runs. Details of all new utilities, drainage routes, and final site levels should be submitted to the Project Arboriculturalist to enable an assessment of their potential impact on the retained trees.
- 4.4.2.** Any installation of new utilities as part of the development should be carried out in accordance with the National Joint Utilities Group (NJUG) guidance, *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Volume 4)*.



5. Recommendations

5.1. Tree Works

5.1.1. Prior to development works commencing:

- T017, T018, T019, H003, and H004 should be removed;
- approximately 18 m² of G002 should be removed; and,
- the crowns of T001, T003, and T005 should be lifted to provide a minimum clearance of 5.5 m above ground level.

5.2. Legal Constraints

5.2.1. According to information which is available on the website of Kirklees Council⁴, none of the trees at the site are subject to TPOs or conservation area status. However, as the allocation of TPOs can be subject to change, it is recommended that this is confirmed in writing with the Kirklees Council prior to undertaking any works. Killing or damaging a protected tree is a criminal offence and may result in prosecution and an unlimited fine.

5.2.2. All tree works, including tree removals, should be carried out by a fully insured and suitably qualified arboricultural contractor who is able to comply with *BS 3998: 2010*¹⁰.

5.2.3. Trees provide valuable habitat for wild birds, bats, and many other forms of wildlife. The risks posed to these should be suitably assessed before the recommendations within this report are completed.

5.2.4. Under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* and the *Wildlife and Countryside Act 1981 (as amended)*:

- it is an offence to intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or in, on or near a nest containing eggs or young, or to disturb the dependent young of such a bird; and
- it is an offence to deliberately damage or destroy a bat roost (breeding site or resting place), even if the roost is not occupied at the time.

5.3. Tree Protection

5.3.1. Construction, and any other works involving excavations can cause irreversible damage to trees, particularly those which have reached maturity, which are far less capable of adapting to alterations in their surrounding environment. Whilst above-ground injuries are usually obvious, root damage is often concealed, though can have equally devastating impacts to tree health.

5.3.2. Direct root damage includes root severance, which can be caused by digging of trenches and ditches, and the stripping of topsoil. Indirect damage may involve the raising of soil levels, alterations in drainage patterns, the laying of impervious surfaces, and soil compaction.

5.3.3. Compaction of soils is a common cause of death or damage to retained trees on development sites. Soil compaction reduces soil pore space, which in turn reduces soil air, the passage of water and available nutrients. These anaerobic conditions prevent root growth and the proliferation of soil microbes essential to tree health. Symptoms in trees may include crown die-back, sparse and small foliage, and poor extension growth; however, these are usually not evident until well after

¹⁰ British Standards (2010). *BS 3998:2010 - Tree Works: Recommendations*. British Standards Institute: London.



the occurrence of compaction. Even one pass of a vehicle in wet conditions can cause significant and potentially irreversible soil compaction.

- 5.3.4.** To avoid both direct and indirect damage to the retained trees, temporary tree protection fencing and ground protection should be installed in the following phases
1. Prior to demolition of the lodge house, plant room, and garage commencing, temporary tree protection fencing and ground protection should be installed in the locations shown in **Tree Protection Plan 1 (Demolition Phase)**, which can be viewed in **Appendix 5**
 2. Once demolition works have been completed, to facilitate the construction phase the tree protection fencing and ground protection should then be repositioned, as directed in **Tree Protection Plan 2 (Construction Phase)**, which can be viewed in **Appendix 6**
 3. Once construction works have been completed, to facilitate the landscaping phase the ground protection can be removed and the tree protection fencing can be repositioned, as directed in **Tree Protection Plan 3 (Landscaping Phase)**, which can be viewed in **Appendix 7**
- 5.3.5.** It is recommended that development works follow the **Outline AMS** provided in **Appendix 3**. This includes the specifications for temporary tree protection fencing, temporary ground protection, geo-cellular confinement, and other protective measures to be adhered to throughout the development.
- 5.3.6.** As aspects of the development may be subject to change, the **Outline AMS** should be reviewed by the Project Arboriculturalist prior to the commencement of development works.

5.4. Replacement Tree Planting

- 5.4.1.** The proposed development will necessitate the removal of one category B tree, two category C trees, and two category C two groups. It is therefore recommended that replacement tree and hedge replanting is carried out upon completion of the development.
- 5.4.2.** **Tab. 5.1**, below, provides suggested replacement tree planting ratios; however, these will be subject to agreement with Kirklees Council.

Table 5.1: Tree replacement requirements by BS 5837:2012 category.

BS 5837:2012 Category	No. of Trees to be Felled		No. of Replacement Trees Required	
	Individual Trees	Hedges	Individual Trees	Hedges
B	1	-	5	-
C	2	2	4	4

- 5.4.3.** Tree planting is an essential consideration in the layout, design and future use of the site, the local landscape character, and the contextual surroundings. As trees generally form the dominant elements of the long-term landscape structure, careful consideration needs to be given to their ultimate height and spread, form, habit, colour, density of foliage, and maintenance implications, in relation to both the built form of the new development, and the retained landscape features.
- 5.4.4.** **Tab. 5.2**, below, presents a selection of species that are appropriate for planting at the site, together with their ultimate mature sizes. The species which are listed in **Tab. 5.2** are considered suitable for the site conditions and will also help to improve tree stock diversity.

Table 5.2: Suggested tree species for replanting at the site.

Tree Species	Ultimate Height	Ultimate Spread
Field Maple <i>Acer campestre</i>	10-15 m	4-8 m



Tree Species	Ultimate Height	Ultimate Spread
Hornbeam <i>Carpinus betulus</i>	15-25 m	8-12 m
Sweet chestnut <i>Castanea sativa</i>	20-30 m	16-20 m
Silver birch <i>Betula pendula</i>	15-20 m	8-10 m
Bird cherry <i>Prunus padus</i>	10-15 m	4-8 m
Rowan <i>Sorbus aucuparia</i>	10-12 m	4-6 m
Common yew <i>Taxus baccata</i>	8-12 m	8-10 m
Common alder <i>Alnus glutinosa</i>	15-20 m	8-12 m
Sweetgum <i>Liquidambar styraciflua</i>	20-25 m	12-16 m

5.4.5. The specifications, locations, and maintenance requirements of any proposed tree planting should be further detailed in a tree planting plan, which should adhere to *BS 8545: 2014*¹¹.

5.5. Additional Information

5.5.1. All visual observations and recommendations specified within this document relate to the condition of the trees and surroundings at the time of the survey. As such, any subsequent changes to landform in the proximity of the trees could invalidate the advice given.

5.5.2. Trees are dynamic living organisms, and their condition can change rapidly; the information given in this report is therefore valid for a period of 12 months. This period may be reduced if significant changes occur to the trees, or the ground conditions, which surround them.

¹¹ British Standards (2010). *BS 8545:2014 - Trees from nursery to independence in the landscape: Recommendations*. British Standards Institute, London.



Appendices

Appendix 1: Tree Survey Schedule

Table Key						
Tree/Group Ref: Reference numbers, as illustrated in the <i>Tree Constraints Plan</i> in Appendix 4			DBH: Diameter at breast height (1.5 m), in millimetres			
Height (Ht.): Overall height of tree, in metres			SULE: Safe useful estimated life expectancy of the tree, in years			
Crown Spread (CS): Radius of crown, measured at each cardinal point, in metres			Crown Clearance (CC): Clearance from ground level of lowest branch, in metres			
Structural Condition (SC): An assessment of structural condition. G = Good; F = Fair; D = Decaying; C = Collapsing; PD = Physical Defect			Physiological Condition (PC): An assessment of physiological condition for species and age of the tree. G = Good; F = Fair; P = Poor; D = Dead			
Species: Common (and <i>binomial name</i>)			#: Denotes estimated value			
Age	Young (Y): Newly planted or self-seeded tree		Early-mature (EM): Trees in second-third of life expectancy for species type		Over-mature (OM): Mature trees which have entered stages of natural decline	
	Semi-mature (SM): Trees in within first-third of life expectancy for species type		Mature (M): Trees in final-third of life expectancy for species type		Veteran/Ancient (V/A): Trees of any age with veteran characteristics or which are remarkably old for the species type	
BS 5837: 2012 Categories	Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years, and that are particularly good examples of their species type			Category C: Unremarkable trees of low- quality offering limited arboricultural merit and/or of such impaired condition that they do not warrant in higher categorisation		
	Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years, though lacking the necessary qualities to warrant Category A designation			Category U: Trees which display serious, irremediable, structural and/or physiological defects		

Individual Trees

Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837: 2012 Category	Recommendations
						N	E	S	W						
T001	Small-leaved lime <i>Tilia cordata</i>	M	40-80	24	790	10	6	6	5	2	Lapsed pollard. Asymmetrical form due to proximity with adjacent trees. Minor deadwood < 100 mm in diameter scattered throughout the crown. Dense epicormic growth on main stem up to 9 m, which partially obscures tree features and potential defects.	F	F	B2	Crown lift to 5.5 m
T002	Small-leaved lime <i>Tilia cordata</i>	M	40-80	21	720	9	4	5	5	1.5	Asymmetrical form due to proximity with adjacent trees. Bifurcates at 9 m into two co-dominant stems; the angle of this branch union is > 25°, and therefore, it is unlikely to contain included bark. Major deadwood > 100 mm in diameter scattered throughout the crown. Dense epicormic growth	F	F	B2	No works recommended



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837: 2012 Category	Recommendations
						N	E	S	W						
											on main stem up to 9 m, which partially obscures tree features and potential defects.				
T003	Sessile oak <i>Quercus petraea</i>	M	40-80	19	700	1	9	10	7	1.5	Asymmetrical form due to proximity with adjacent trees. Dense ivy <i>Hedera helix</i> established on main stem and first order branches, which obscures tree features and potential defects.	F	F	B2	Crown lift to 5.5 m
T004	Wych elm <i>Ulmus glabra</i>	SM	10-20	9	210	6	2.5	1	1.5	2	Asymmetrical form due to proximity with adjacent trees. Approaching age where Dutch elm disease <i>Ophiostoma novo-ulmi</i> is likely to impact.	F	F	C1	No works recommended
T005	Sessile oak <i>Quercus petraea</i>	SM	40-80	15	320	1	4	8	8	1.5	Asymmetrical form due to proximity with adjacent trees.	F	F	B1	Crown lift to 5.5 m
T006	Red horse chestnut <i>Aesculus x carnea</i>	M	10-20	14	690	4	4.5	5	6	2.5	Bifurcates at 2m into two co-dominant stems; the angle of this branch union is < 25°, and therefore, it may contain included bark. Multiple bacterial target cankers on main stem and first order branches, which is a typical feature of the species type. Dense ivy <i>Hedera helix</i> established on the main stem and first order branches, which obscures tree features and potential defects.	F	PD	C1	No works recommended
T007	European beech <i>Fagus sylvatica</i>	M	40-80	22	640	7	6	6	6	2	Minor deadwood < 100 mm in diameter scattered throughout the crown	F	G	B2	No works recommended
T008	European beech <i>Fagus sylvatica</i>	EM	40-80	19	470	5	7	6	4	1	Asymmetrical form due to proximity with adjacent trees. Minor deadwood < 100 mm in diameter scattered throughout the crown	F	F	B2	No works recommended
T009	Sycamore <i>Acer pseudoplatanus</i>	M	40-80	21	590	9	6	4.5	5	11	Asymmetrical form due to proximity with adjacent trees. Branch cavity at 2 m on north aspect of main stem, approx. 25 cm (h) x 25 cm (w), and probed to 40 cm. Dense ivy <i>Hedera helix</i> established on main stem and first order branches, which obscures tree features and potential defects.	F	PD	B2	No works recommended



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837: 2012 Category	Recommendations
						N	E	S	W						
T010	Sycamore <i>Acer pseudoplatanus</i>	EM	20-40	20	560	6	5	6	6	2	Historic mechanical damage to base of main stem, from ground level to 2 m; some visible decay to the exposed ripewood, though with extensive wound wood forming around margins of defect. Minor deadwood < 100 mm in diameter scattered throughout the crown	F	PD	B2	No works recommended
T011	Wych elm <i>Ulmus glabra</i>	SM	10-20	13	310	5	4.5	3	3	2	Dense ivy <i>Hedera helix</i> established on main stem and first order branches, which obscures tree features and potential defects. Approaching age where Dutch elm disease <i>Ophiostoma novo-ulmi</i> is likely to impact.	F	G	C1	No works recommended
T012	Common holly <i>Ilex aquifolium</i>	SM	20-40	5	100 100 100 100	3	3	2	3	0	Multiple-stemmed tree. No obvious significant defects, though of limited arboricultural merit, and lacks the necessary qualities for higher BS 5837 categorisation.	F	F	C1	No works recommended
T013	Common ash <i>Fraxinus excelsior</i>	Y	40-80	6	90	2	2	2	2	0.5	No obvious significant defects, though of limited arboricultural merit, and lacks the necessary qualities for higher BS 5837 categorisation.	G	G	C1	No works recommended
T014	Ginkgo biloba <i>Ginkgo biloba</i>	Y	40-80	6	110	2	2	2	2	2	Unable to access base of main stem due to dense vegetation; DBH and CS estimated. No obvious significant defects, though of limited arboricultural merit, and lacks the necessary qualities for higher BS 5837 categorisation.	G	G	C1	No works recommended
T015	Silver-margined holly 'Argentea Marginata ' <i>Ilex aquifolium</i> 'Argentea Marginata '	Y	20-40	7.5	170#	1	4	2	1	2	Unable to access base of main stem due to dense vegetation. Leaning main stem and asymmetrical form due to proximity with adjacent trees. Limited arboricultural merit and lacks the necessary qualities for higher BS 5837 categorisation.	G	F	C1	No works recommended
T016	Eucalyptus cider gum <i>Eucalyptus gunnii</i>	EM	20-40	22	470	3.5	5	4	3	8	No obvious significant defects, though lacks the necessary qualities for higher BS 5837 categorisation.	G	G	B2	No works recommended



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837: 2012 Category	Recommendations
						N	E	S	W						
T017	Sessile oak <i>Quercus petraea</i>	EM	80 +	15	440	6	6	6	5	3	Minor deadwood < 100 mm in diameter scattered throughout the crown	F	G	B2	Remove tree
T018	Common hawthorn <i>Crataegus monogyna</i>	SM	20-40	8	230	3.5	3	3	3.5	2	No obvious significant defects, though of limited arboricultural merit, and lacks the necessary qualities for higher BS 5837 categorisation.	F	F	C1	Remove tree
T019	Common laburnum <i>Laburnum anagyroides</i>	SM	5-10	5.5	130	4	0.5	1	6	2	Heavily leaning main stem and asymmetrical form due to proximity with adjacent trees. Dog rose <i>Rosa canina</i> established throughout the crown.	F	PD	C1	Remove tree
T021	Black mulberry <i>Morus nigra</i>	M	40-80	6.5	480	6	7	4.5	6	0	No obvious significant defects.	G	G	A2	No works recommended
T022	Japanese maple <i>Acer palmatum</i> 'Atropurpureum'	SM	20-40	6	220	3	2.5	3.5	2.5	2	Bifurcates at 1 m into two co-dominant stems; the angle of this branch union is < 25°, and therefore, it may contain included bark.	F	F	C1	No works recommended
T023	Japanese cherry <i>Prunus serrulata</i>	EM	20-40	10	440	5	5	6	6	2	Bifurcates at 2 m into multiple co-dominant stems; the angles of these branch unions are all < 25°, and therefore, they may contain included bark.	F	F	B1	No works recommended
T024	Silver birch <i>Betula pendula</i>	EM	40-80	12	420	4	4	4	4	0	No obvious significant defects, though lacks the necessary qualities for higher BS 5837 categorisation.	G	G	B2	No works recommended



Groups of Trees

Group Ref:	Species Composition	Age	SULE	Mx. Ht.	Mx. DBH	Approx. No. of Stems	CC	Comments	PC	SC	BS 5837:2012 Category	Recommendations
G001	Sycamore <i>Acer pseudoplatanus</i> European beech <i>Fagus sylvatica</i> Common ash <i>Fraxinus excelsior</i> Common holly <i>Ilex aquifolium</i> Laurel cherry <i>Prunus laurocerasus</i> Elder <i>Sambucus nigra</i> English yew <i>Taxus baccata</i> Wych elm <i>Ulmus glabra</i>	Y SM	20-40	8	230	40	0	Dense understorey group. No obvious significant defects, though of limited arboricultural merit and lacks the necessary qualities for higher BS 5837 categorisation.	F	F	C1	No works recommended
G002	Summer lilac <i>Buddleia davidii</i> Hazel <i>Corylus avellana</i> Common holly <i>Ilex aquifolium</i> Laurel cherry <i>Prunus laurocerasus</i> Rhododendron <i>Rhododendron ponticum</i> English yew <i>Taxus baccata</i> Wayfaring tree <i>Viburnum lantana</i>	Y SM	20-40	8	240	30	0	Dense understorey group. No obvious significant defects, though of limited arboricultural merit, and lacks the necessary qualities for higher BS 5837 categorisation.	F	F	C1	Partial removal of group (refer to Tree Constraints Plan in Appendix 4)



Group Ref:	Species Composition	Age	SULE	Mx. Ht.	Mx. DBH	Approx. No. of Stems	CC	Comments	PC	SC	BS 5837:2012 Category	Recommendations
H003	European beech <i>Fagus sylvatica</i>	SM	40-80	3.5	110	40	0	Linear group of trees forming hedge. No obvious significant defects, though of limited arboricultural merit and lacks the necessary qualities for higher BS 5837 categorisation.	G	G	C2	Remove group
H004	European beech <i>Fagus sylvatica</i>	SM	40-80	2.5	100	20	0	Linear group of trees forming hedge. No obvious significant defects, though of limited arboricultural merit and lacks the necessary qualities for higher BS 5837 categorisation.	G	G	C2	Remove group
G005	Sycamore <i>Acer pseudoplatanus</i> Summer lilac <i>Buddleia davidii</i> Common ash <i>Fraxinus excelsior</i> Wych elm <i>Ulmus glabra</i>	Y	20-40	5	80	4	1	Group containing approx. four self-seeded trees. No obvious significant defects, though of limited arboricultural merit and lacks the necessary qualities for higher BS 5837 categorisation.	G	G	C1	No works recommended



Appendix 2: Images of Trees

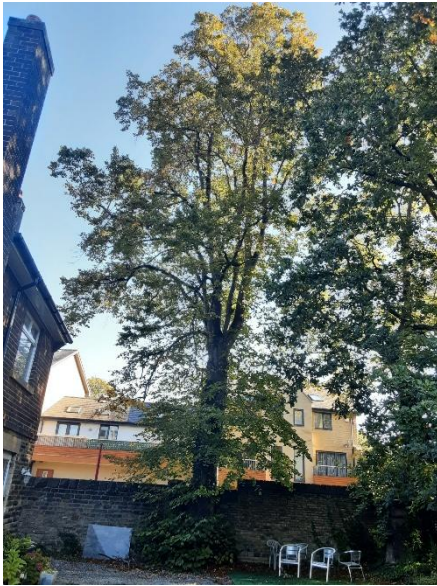


Plate 1: T001

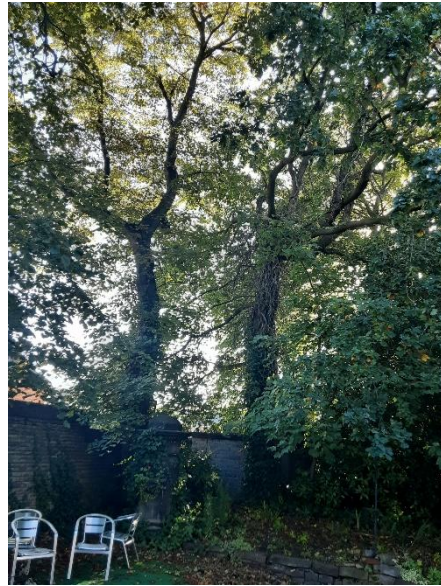


Plate 2: T002 (left) & T003 (right)



Plate 3: T004

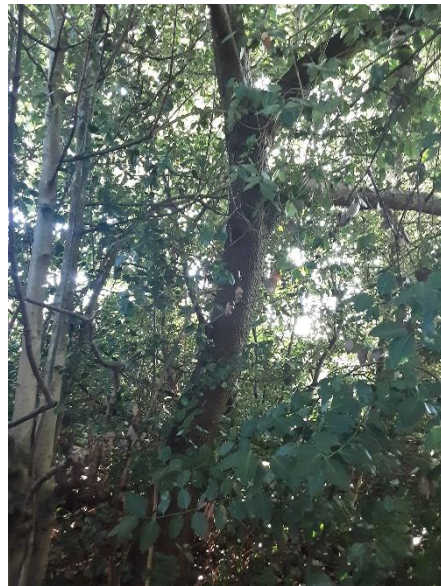


Plate 4: T005



Plate 5: T006



Plate 6: T007



Plate 7: T008



Plate 8: T009



Plate 9: T010



Plate 10: T011



Plate 11: T012



Plate 12: T013



Plate 13: T014



Plate 14: T015



Plate 15: T016



Plate 16: T016 (left) & T017 (right)



Plate 17: T018 and T019



Plate 18: T021



Plate 19: T022



Plate 20: T023



Plate 21: T024



Plate 22: G001



Plate 23: G002



Plate 24: G003



Plate 25: G004



Plate 26: G005



Appendix 3: Outline Arboricultural Method Statement (AMS)

A3.1 Introduction

A3.1.1 Woodsage Consulting Ltd have been instructed by the Community of the Resurrection to prepare an Outline AMS in relation to the proposed development of the site.

A3.1.2 The external works proposed as part of the development include:

- Removal of existing buildings, including an outbuilding (from the northern boundary), a lodge house, and a plant room;
- Erection of a new visitor entrance to North Wing & East Wing;
- Widening of the visitor entrance to improve visibility of the site entrance;
- Relocation of existing car parking spaces away from the building;
- Construction of a new, easily identifiable entrance;
- Extension and modification of the East Wing building;
- Opening up of the infill extension to the North Wing to provide a guest refectory, linking the new reception area to the rear lawn;
- Creation of a new private garden for the brethren, accessible from the refectory via new doorway; and,
- Erection of a replacement plant room

A3.1.3 This Outline AMS should be read in conjunction with the Arboricultural Impact Assessment (Ref: WC-443.1a).

A3.2 Timing of Works

A3.2.1 It is not the Project Arboriculturist's role to determine the timing and implementation of works on site however, an input into the process can avoid issues once work is underway.

A3.2.2 The phasing of works should be carried out in accordance with **Tab. A3.1**, below.

Table A3.1: Development Sequence and Tree Protection Measures.

Stage	Description
1	Site induction
2	Carry out the tree works which are detailed in Section A3.4 of this AMS .
3	Install the temporary tree protection fencing and ground protection to the specifications detailed in Sections A3.5 and A3.7 of this AMS , in the locations shown in Tree Protection Plan 1 (Demolition Phase) .
4	Inspection of tree protection measures by the Project Arboriculturist.
5	Carry out demolition of lodge house, plant room, and garage: <ul style="list-style-type: none"> • Precautionary measures detailed in Section A3.6 of this AMS to be followed throughout the demolition phase
6	Reposition the temporary tree protection fencing and temporary ground protection to the locations shown in Tree Protection Plan 2 (Construction Phase) .
7	Inspection of tree protection measures by the Project Arboriculturist.
8	Carry out construction works: <ul style="list-style-type: none"> • Precautionary measures detailed in Section A3.6 of this AMS to be followed throughout the construction phase • Installation of replacement plant room concrete slab footing to follow the method statement provided in Section A3.8 of this AMS • Installation of new car parking bays within tree RPAs to follow the method statement provided in Section A3.9 of this AMS
9	Once construction works are completed, remove the temporary ground protection and reposition the temporary tree protection fencing, as directed in Tree Protection Plan 3 (Landscaping Phase) .
10	Inspection of tree protection measures by the Project Arboriculturist.



Stage	Description
11	Carry out soft-landscaping works which cannot be completed with the temporary ground protection in position: <ul style="list-style-type: none"> • Precautionary measures detailed in Section A3.6 of this AMS to be followed throughout the landscaping phase
12	Remove the temporary tree protection fencing once landscaping works are completed.
13	Final inspection by the Project Arboriculturalist.

A3.3 Site Supervision

- A3.3.1** Prior to works commencing, it is the responsibility of the main contractor, or assigned agent, to ensure that details regarding tree protection are understood and adhered to by all site personnel.
- A3.3.2** During the site induction, the final AMS and copies of the **Tree Protection Plans**, which can be viewed in **Appendices 5, 6, and 7**, should be made available to all contractors attending the site.

A3.4 Tree Works

- A3.4.1** Prior to development works commencing, the tree works summarised in **Tab. A3.2**, below should be completed.

Table A3.2: Schedule of tree works.

Tree Ref.	Recommendations
T001	<ul style="list-style-type: none"> • Crown lift to provide a minimum clearance of 5.5 m above ground level
T003	
T005	
T017	<ul style="list-style-type: none"> • Remove trees
T018	
T019	
G001	<ul style="list-style-type: none"> • Partial removal of group (refer to Tree Constraints Plan in Appendix 4)
H003	<ul style="list-style-type: none"> • Remove hedges
H004	

- A3.4.2** According to information which is available on the website of Kirklees Council, none of the trees listed in **Tab. A3.2** are subject to TPOs or conservation area status. However, as the allocation of TPOs can be subject to change, it is recommended that this is confirmed in writing with the Kirklees Council prior to undertaking any works. Killing or damaging a protected tree is a criminal offence and may result in prosecution and an unlimited fine.
- A3.4.3** All tree works, including removals, should be carried out by a fully insured and suitably qualified arboricultural contractor, who is able to comply with **BS 3998: 2010 - Tree Works: Recommendations**.
- A3.4.4** Trees provide valuable habitat for wild birds, bats, and many other forms of wildlife. The risks posed to these should therefore be suitably assessed before the recommendations within this AMS are completed.



A3.5 Temporary Tree Protection Fencing

A3.5.1 The temporary tree protection fencing shall be installed prior to the commencement of development works and should be fit for the purpose of excluding site personnel and machinery. The default specification should be in accordance with *BS 5837: 2012 - Trees in Relation to Design, Demolition and Construction: Recommendations*.

A3.5.2 Specification: Barriers shall be a minimum 2 m high and should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in **Fig. A3.1** and **Fig. A3.2**, on the next page.

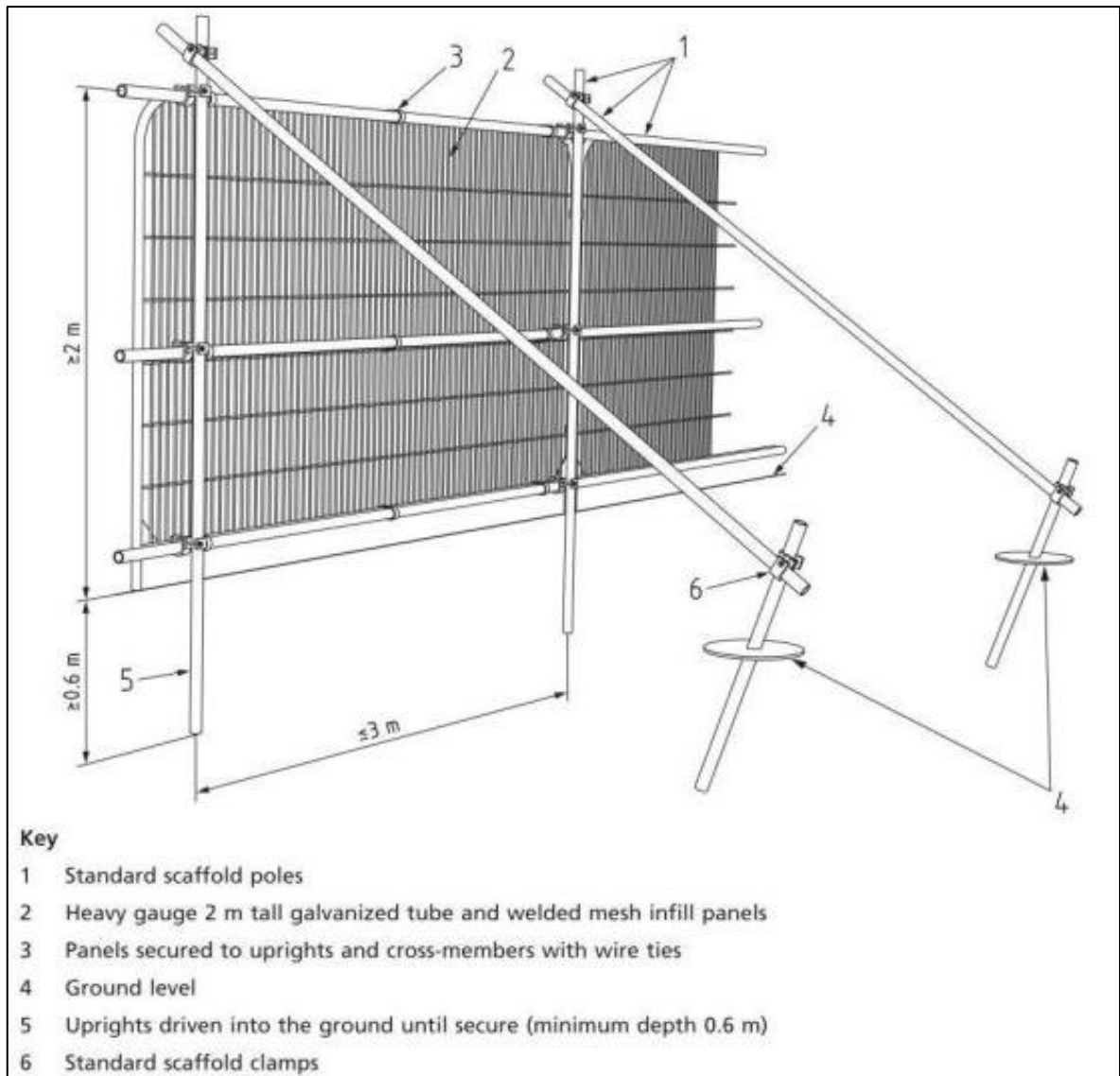


Figure A3.1: BS 5837: 2012 default specifications for temporary tree protection fencing.

A3.5.3 The vertical tubes shall be spaced at a minimum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed.

A3.5.4 All-weather notices shall be attached to the barriers at 9 m intervals with the words 'TREE PROTECTION ZONE - NO ACCESS' clearly visible.

A3.5.5 Location: The temporary tree protection fencing should be installed in the following phases:



1. Prior to demolition of the lodge house, plant room, and garage commencing, tree protection fencing should be installed in the locations shown in ***Tree Protection Plan 1 (Demolition Phase)***
2. Once demolition works have been completed, to facilitate the construction phase the tree protection fencing should be repositioned as directed in ***Tree Protection Plan 2 (Construction Phase)***
3. Once construction works have been completed, to facilitate the landscaping phase the tree protection fencing should be repositioned as directed in ***Tree Protection Plan 3 (Landscaping Phase)***

A3.5.6 The protected areas should be regarded as sacrosanct, and once installed, tree protection fencing should not be removed or altered without prior consultation with the Project Arboriculturist.

A3.5.7 If any breach in the tree protection fencing occurs, it is the Site Manager's responsibility to report this to the Project Arboriculturist, so that appropriate measures may be taken.



Figure A3.2: Examples of scaffold framework temporary tree protection fencing.

A3.6 Precautionary Measures

A3.6.1 No materials hazardous to tree health, such as oil, bitumen or cement should be stored within the temporary protective fencing. Where possible, this area should be extended to 10 m away from the fencing.

A3.6.2 Where there is a risk of polluted water runoff into root protection areas (RPAs), heavy duty plastic sheeting and sandbags must be used to contain any spillages and prevent contamination. No fires should be lit within 20 m of the protective fencing.

A3.6.3 In favourable conditions, tree roots are typically concentrated within the top 60 cm of soil; therefore, existing levels within tree RPAs should be observed and maintained.

A3.6.4 Any unavoidable excavations into the soil within tree RPAs should be undertaken using either compressed air soil displacement or hand tools, subject to prior approval from the Project Arboriculturist. If roots are encountered which occur in clumps or which are greater than 25 mm in diameter, these should not be severed without first consulting the Project Arboriculturist.

A3.7 Temporary Ground Protection

A3.7.1 Due to site constraints and to allow for suitable working space during the development, the temporary tree protection fencing adjacent to T001, T002, T003, and T006 will be setback from the



default *BS 5837:2012* positioning. As a result, uncovered ground within RPAs will be exposed to development activities.

A3.7.2 Temporary ground protection should therefore be installed throughout the demolition and construction phases of the development, in the locations shown in ***Tree Protection Plan 1 (Demolition Phase)*** and ***Tree Protection Plan 2 (Construction Phase)***.

A3.7.3 The temporary ground protection must remain in place until all demolition and construction works are completed.

A3.7.4 The temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. Depending on the anticipated load, the temporary ground protection will comprise one of the following:

- For pedestrian movements, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane
- For pedestrian-operated plant with a gross weight of up to 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane
- For wheeled or tracked plant exceeding a gross weight of 2 t, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected



Figure A3.3: Temporary ground protection panels suitable for pedestrian-operated plant with a gross weight of up to 2 t.

A3.7.5 Any vehicles, plant, or machinery operating within the RPA of T001, T002, T003, and T006 must ensure that it does so upon adequate ground protection at all times.

A3.8 Installation Method Statement for Concrete Slab Foundations within Tree RPAs

A3.8.1 The RPAs of T001, T002, T003, and T006 will be impacted by proposals to erect a replacement plant room which will be constructed upon a concrete slab.



A3.8.2 Installation of the concrete slab must therefore adhere to the method statement:

1. Access onto uncovered ground within tree RPAs will be by pedestrian movements only. No heavy machinery, vehicles, or plant will be operated on uncovered ground within tree RPAs.
2. The location of the concrete slab, which is shown in the **Tree Protection Plan**, will be clearly marked on site prior to the commencement of works.
3. The concrete slab will be laid onto existing ground levels and will not exceed an area greater than 20% of existing uncovered ground within the RPAs of T001, T002, T003, and T006.
4. Prior to pouring the concrete slab, existing vegetation and any other protruding objects can be cleared from the surface using hand tools. Any dips or hollows can be filled with a granular material that will remain gas and water permeable throughout its design life.
5. If excavations within tree RPAs during the installation of the concrete slab are unavoidable, they must be undertaken using either compressed air soil displacement or hand tools, subject to prior approval from the Project Arboriculturalist.
6. If roots are encountered during installation of the concrete slab which occur in clumps or that are greater than 25 mm diameter, then these should not be severed without first consulting with the Project Arboriculturalist. If roots under this diameter are present, then these can be pruned using an appropriate sharp pruning tool, such as pruning saw or secateurs.
7. Any tree roots which are temporarily exposed during installation of the concrete slab should be covered with sharp sand or dampened hessian sacks to prevent desiccation.
8. The concrete slab sub-base material should be washed or graded, so that it contains no fine material (e.g. clean angular stone).
9. Due to the highly alkaline leachate produced during the curing of wet concrete, the underside of the concrete slab should be lined with a geotextile separation layer before the concrete is poured.
10. The concrete should be mixed outside of tree RPAs and transported to location.
11. The concrete base can then be concealed locally around the plant room by grading into the adjoining ground levels using good quality topsoil.

A3.9 Installation Method Statement for Car Parking Bays within Tree RPAs

A3.9.1 Proposed car parking bays within the RPA of T001 shall be constructed upon a geo-cellular confinement system (recommended products include Cellweb® and Terram Geocell®).

A3.9.2 A cross-sectional diagram illustrating the components of a Cellweb® geo-cellular confinement system can be viewed in **Fig. A3.4**, below.

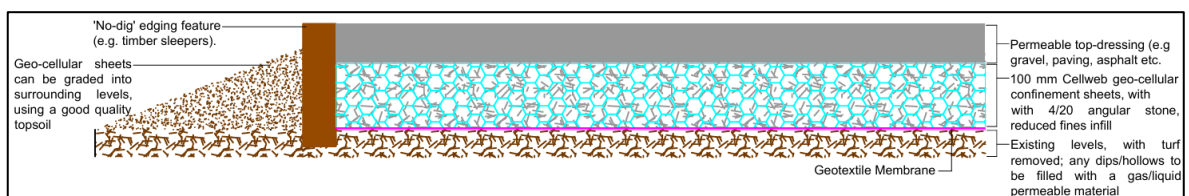


Figure A3.4: Cross-sectional diagram of a Cellweb® geo-cellular confinement system.

A3.9.3 Installation of the geo-cellular confinement system should be carried out using 'no-dig' methods, and should adhere to the following guidelines:

1. Clear existing vegetation and any other protruding objects from the surface using hand tools only. The geo-cellular confinement system does not require any further excavation into the existing levels. If existing hard surfacing beneath the demolished lodge house is to be removed inside the RPA of T001, this should be carried out sensitively, using hand tools only.



2. Fill any major hollows with a granular material that will remain gas and water permeable throughout its design life.
3. Cover surface with a non-woven, geotextile separation filtration layer, with a minimum thickness of 300g/m² and a CBR puncture resistance of 4000 N. Geotextiles made from recycled products are becoming increasingly available and can be used in the geo-cellular confinement system providing that there is sufficient tensile strength and puncture resistance.
4. Apply 100 mm Cellweb® geo-cellular confinement sheets and infill with 4/20 aggregate (**Fig. A3.5**). The infill material should be washed or graded, so that it contains no fine material. The amount of infill that will be required can be estimated using the following equation:

Quantity of 4/20 stone infill required = m² of coverage x depth of geocells (m) x 2 tonnes

5. Install pressure-treated timber board or sleeper edging directly on top of existing grade levels. The sleepers/edging boards shall be held in place with stakes, which can be subsequently concealed by grading into the adjoining ground levels using good quality topsoil. Alternatively, no kerbs or edgings could be used at all.



Figure A3.5: Cellweb® geo-cellular confinement sheets being installed.

6. Install permeable top dressing (e.g. gravel, permeable resin bound gravel, permeable asphalt etc.)

A3.9.4 In favourable conditions, tree roots are typically concentrated within the top 60 cm of soil; therefore, the existing levels within the RPA of T001 must be observed and maintained during installation of the geo-cellular confinement system.

A3.9.5 If roots are encountered during the installation of the geo-cellular confinement system that are less than 25 mm diameter, these may be pruned back by making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or which are greater than 25 mm diameter should be severed only following consultation with the Project Arboriculturalist.

A3.9.6 The geo-cellular confinement system should be installed at an early stage of the development, prior to the construction of the proposed new visitor entrance and replacement plant room. This will



ensure that tree roots and the surrounding soils are afforded adequate protection from construction activities and traffic throughout the construction phase.

A3.10 Responsibility and Site Management

A3.10.1 It is the responsibility of the main contractor or assigned agent to ensure that details regarding tree protection are understood and followed by all site personnel.

A3.10.2 Inspections by the Project Arboriculturalist are to be undertaken at the following stages of the development:

1. Once the temporary tree protection fencing and ground protection has been installed in the locations shown in ***Tree Protection Plan 1 (Demolition Phase)*** and prior to demolition works commencing
2. Once demolition works have been complete, and the temporary tree protection fencing and ground protection has been repositioned to the locations shown in ***Tree Protection Plan 2 (Construction Phase)***
3. Once construction works have been complete, the temporary ground protection has been removed, and the temporary tree protection fencing has been repositioned to the locations shown in ***Tree Protection Plan 3 (Landscaping Phase)***
4. Upon completion of the development works.

A3.10.3 After each inspection, a letter should be submitted by the Project Arboriculturalist to the LPA Arboricultural Officer, to confirm if the method statement has been followed correctly, and if trees have not been adversely affected by development works.

A3.11 Project Arboriculturalist Contact Details


Mr Jack Delaney MICFor
Woodsage Consulting Ltd
Unit 2, Hey End Farm,
Shield Hall Lane,
Luddendenfoot,
West Yorkshire HX2 6JN
Tel: 07962401997
Email: jack@woodsage.co.uk

**Appendix 4:
Tree Constraints Plan**

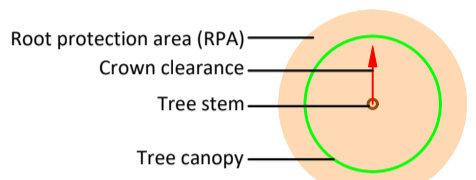
Project:	Community of the Resurrection, Mirfield
Drawn by:	Jack Delaney
Date:	27th March 2026
Scale:	1:200 @ A1
Drawing Number:	WC-443.1a.4

Do not scale off this drawing - to be reproduced in colour only

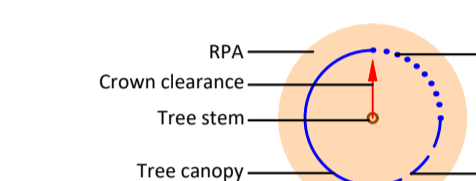
Map Key:

 Application site red line boundary

Category A trees of high quality

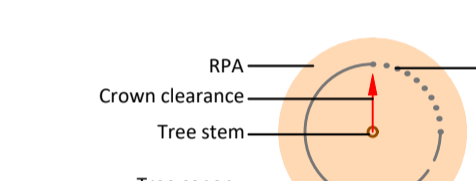
 Root protection area (RPA)
Crown clearance
Tree stem
Tree canopy

Category B trees of moderate quality

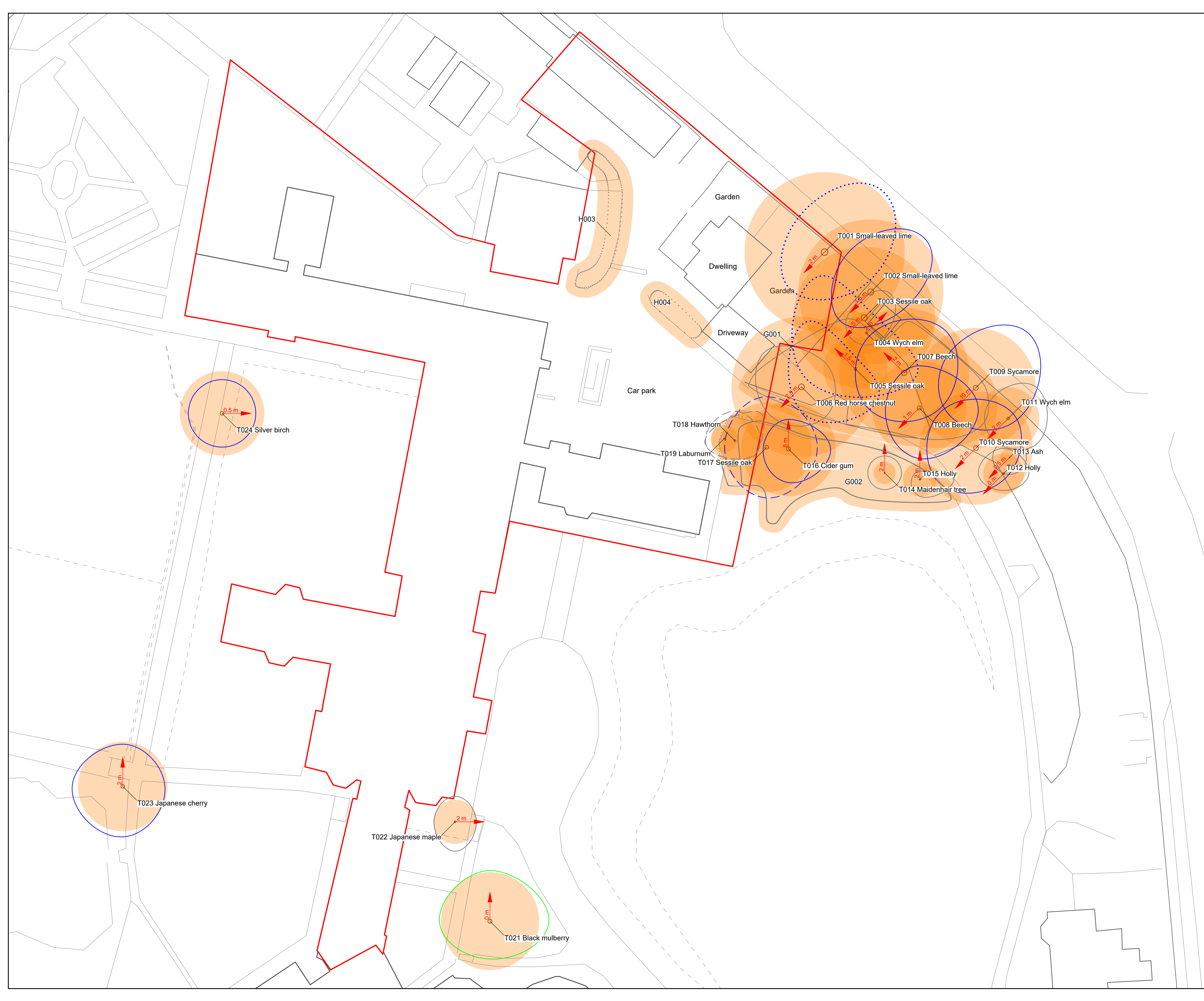
 RPA
Crown clearance
Tree stem
Tree canopy

Individual trees requiring facilitation pruning shown with dotted line
Individual trees requiring removal shown with dashed line

Category C trees/groups of low quality

 RPA
Crown clearance
Tree stem
Tree canopy

Groups of trees requiring removal or partial removal shown with dotted line
Individual trees requiring removal shown with dashed line


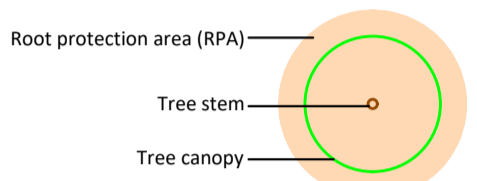
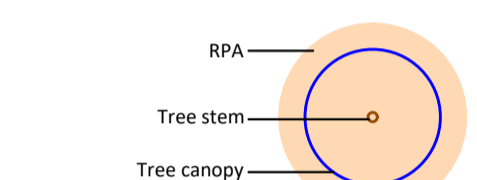
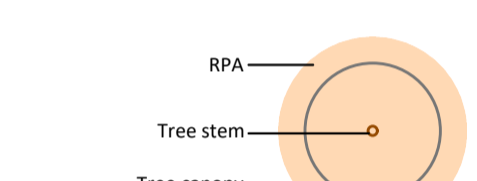




Appendix 5: Tree Protection Plan 1 (Demolition Phase)

Project:	Community of the Resurrection, Mirfield
Drawn by:	Jack Delaney
Date:	27th March 2026
Scale:	1:200 @ A1
Drawing Number:	WC-443.1a.5

Do not scale off this drawing - to be reproduced in colour only

Map Key:

	Application site red line boundary
Category A trees of high quality	
	Root protection area (RPA) Tree stem Tree canopy
Category B trees of moderate quality	
	RPA Tree stem Tree canopy
Category C trees/groups of low quality	
	RPA Tree stem Tree canopy
	Temporary tree protection fencing, to BS 5837: 2012 specification, as detailed in Section A3.5 of the <i>Outline Arboricultural Method Statement (AMS)</i> .
	Temporary ground protection, to BS 5837: 2012 specification, as detailed in Section A3.7 of the <i>Outline AMS</i> .



Blue dashed line denotes outline of existing garages to be removed.

Blue dashed line denotes outline of existing lodge house to be removed.

Blue dashed line denotes outline of existing plant room to be removed.


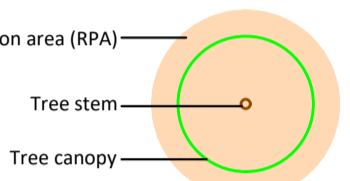
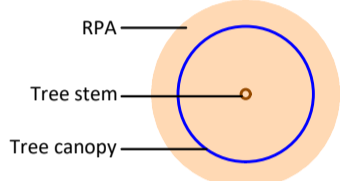
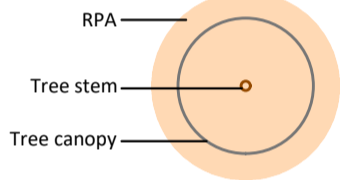


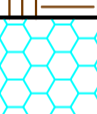


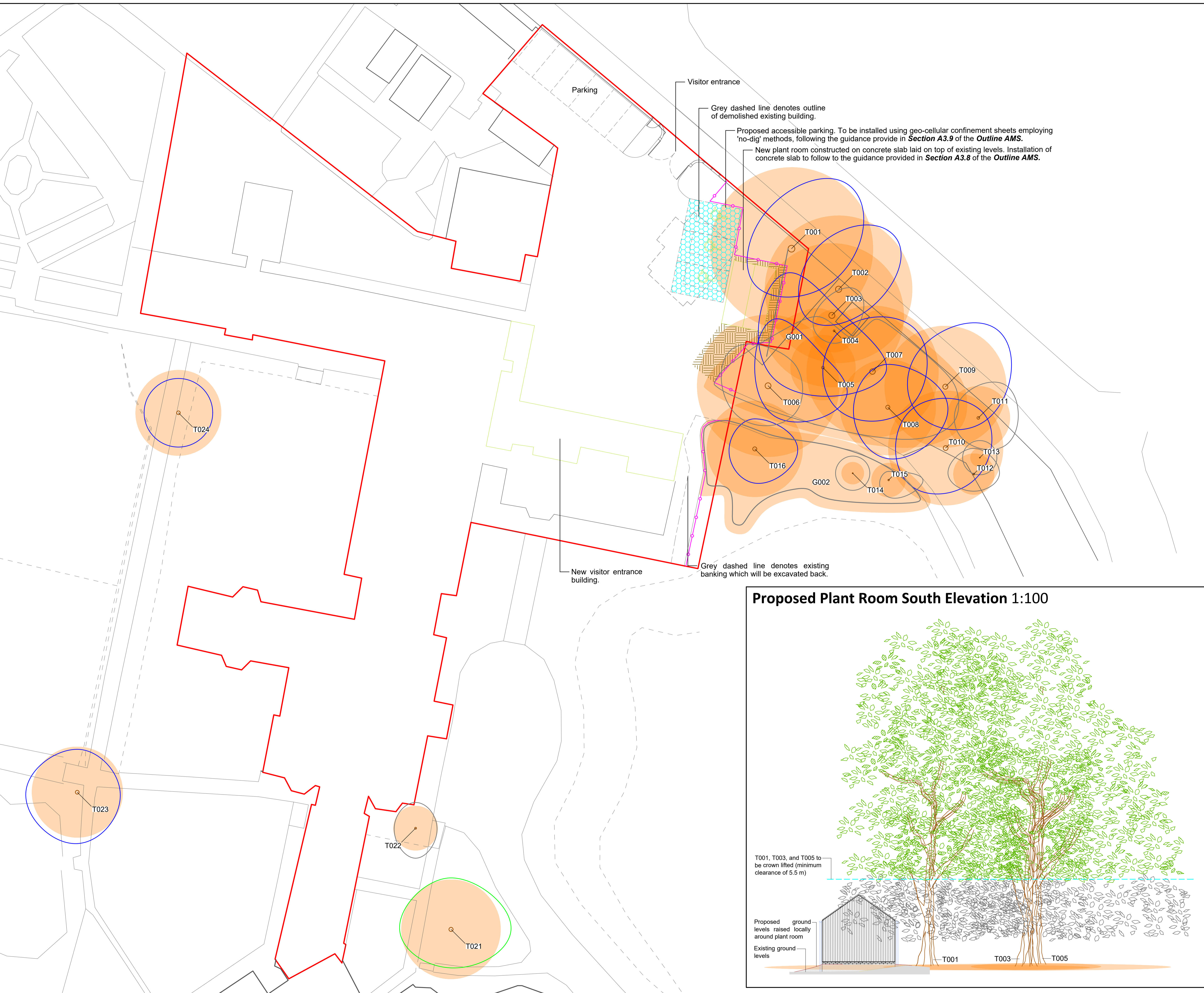
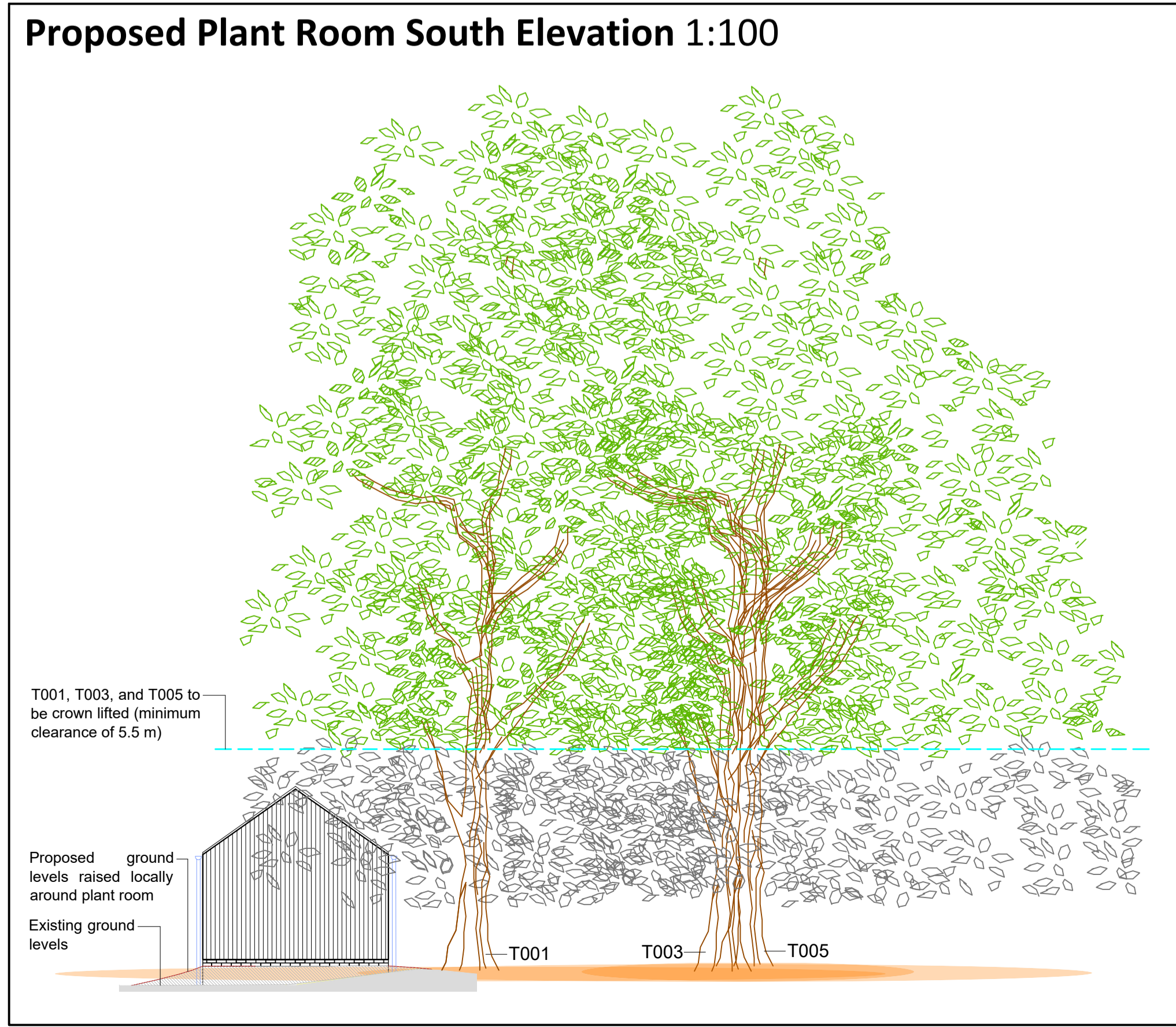
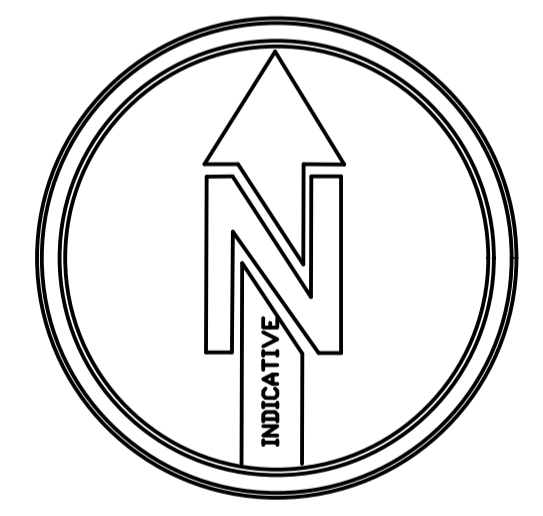
Appendix 6: Tree Protection Plan 2 (Construction Phase)

Project:	Community of the Resurrection, Mirfield
Drawn by:	Jack Delaney
Date:	27th March 2026
Scale:	1:200 @ A1
Drawing Number:	WC-443.1a.6

Do not scale off this drawing - to be reproduced in colour only

Map Key:

	Application site red line boundary
Category A trees of high quality	
	Root protection area (RPA) Tree stem Tree canopy
Category B trees of moderate quality	
	RPA Tree stem Tree canopy
Category C trees/groups of low quality	
	RPA Tree stem Tree canopy
	Temporary tree protection fencing, to BS 5837: 2012 specification, as detailed in Section A3.5 of the Outline Arboricultural Method Statement (AMS).
	Temporary ground protection, to BS 5837: 2012 specification, as detailed in Section A3.7 of the Outline AMS.
	Permeable surface dressing laid onto geo-cellular confinement sheets, installed using 'no-dig' methods (refer to Section A3.9 of the Outline AMS)




**Appendix 7: Tree Protection Plan 3
(Landscaping Phase)**

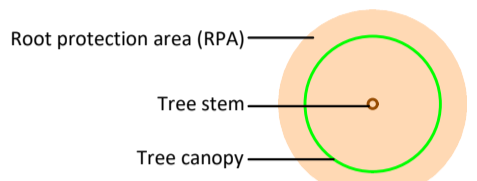
Project:	Community of the Resurrection, Mirfield
Drawn by:	Jack Delaney
Date:	27th March 2026
Scale:	1:200 @ A1
Drawing Number:	WC-443.1a.7

Do not scale off this drawing - to be reproduced in colour only

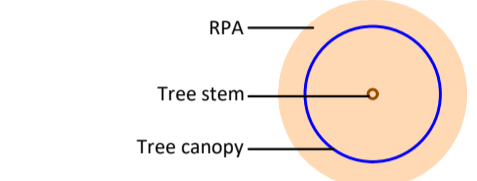
Map Key:

 Application site red line boundary

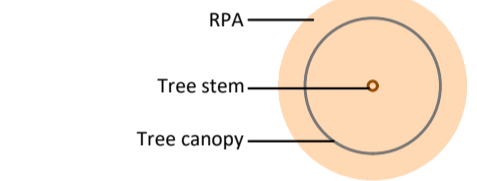
Category A trees of high quality


 Root protection area (RPA)
Tree stem
Tree canopy

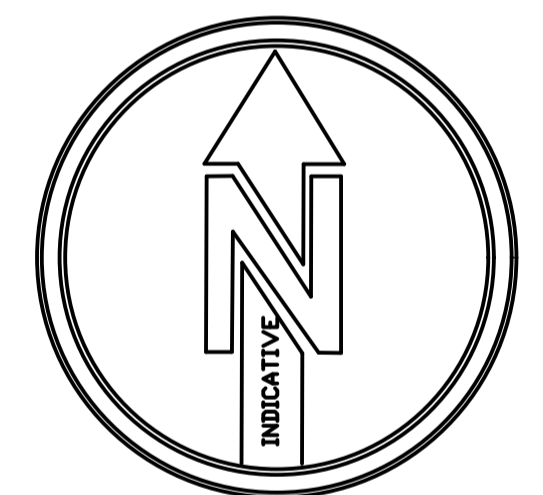
Category B trees of moderate quality

 RPA
Tree stem
Tree canopy

Category C trees/groups of low quality

 RPA
Tree stem
Tree canopy

 Temporary tree protection fencing, to BS 5837: 2012 specification, as detailed in Section A3.5 of the Outline Arboricultural Method Statement (AMS).



Proposed landscaping around new storage room within the RPAs of T001, T002, T003, and T006 will be permeable (e.g. bark/mulch/gravel/grass) and will be laid on top of the existing levels. No excavations are to be carried out within tree RPAs.

Landscaping

Landscaping

