

Manor House, Linton

Arboricultural Method Statement and Tree Protection Plan

March 2024

Report reference	1548.B
Revision	4
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Approved by	Andrew Westgarth (CEnv BS 5837:2012)
Issue date	13/03/2024

This report is valid for a period of 12 months from the issue date.

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1 Introduction

1.1 *Introduction and Background*

- 1.1.1.1 This report contains an Arboricultural Method Statement and Tree Protection in support of an application for development at Manor House, Linton, LS22 4HN. The study area extends to approximately 0.16 ha and is centred on grid reference SE 38873 47032.
- 1.1.1.2 A tree survey of the site was carried out in March 2021.
- 1.1.1.3 Arboricultural Survey Report and Impact Assessment, Manor House, Linton March 2021.
- 1.1.1.4 The tree report was produced to support the design of the proposed development. As part of this survey the relevant qualitative tree data was recorded to assess the condition of the existing trees, their constraints upon the prospective development and the necessary protection and construction specifications required to allow their retention as a sustainable and integral part of the completed development. Information is given on condition, age, size, and indicative positioning of all the trees, both on and affecting the site. This is in accordance with the British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations.

1.2 *Aims*

- 1.2.1.1 This Arboricultural Method Statement has been produced to provide guidance and information required to protect the retained trees on site. The method statement has been produced in accordance with BS 5837:2012. Possible mitigation measures will be outlined where the proposed development comes into conflict with retained trees and vice versa.
- 1.2.1.2 A copy of this method statement must be made available to all contractors on site during the development stage to ensure all parties comply with protection measures outlined within.
- 1.2.1.3 This method statement has been produced specifically for this site and therefore cannot be used for any other site.

1.3 *Trees Within the Site*

- 1.3.1.1 The survey results are shown in Appendix 1 (Tree Survey Results – Table 1) and Appendix 2 (Tree Protection Plan). The trees included within this survey comprise of six individual trees, three tree groups and one hedgerow group.
- 1.3.1.2 G1 has been removed since the tree survey was conducted in March 2021, therefore will not be included in this Method Statement.

2 Arboricultural Method Statement

2.1 *Introduction*

- 2.1.1.1 The following Method Statement will outline the procedures and requirements needed to protect the retained trees on site and complete the development without detrimental effect on retained trees.

2.2 *Sequence of Events*

- 2.2.1.1 For the purposes of protection for the retained trees, the development works on site should be completed in line with the following sequence of events;

Installation of tree protection

Construction phase

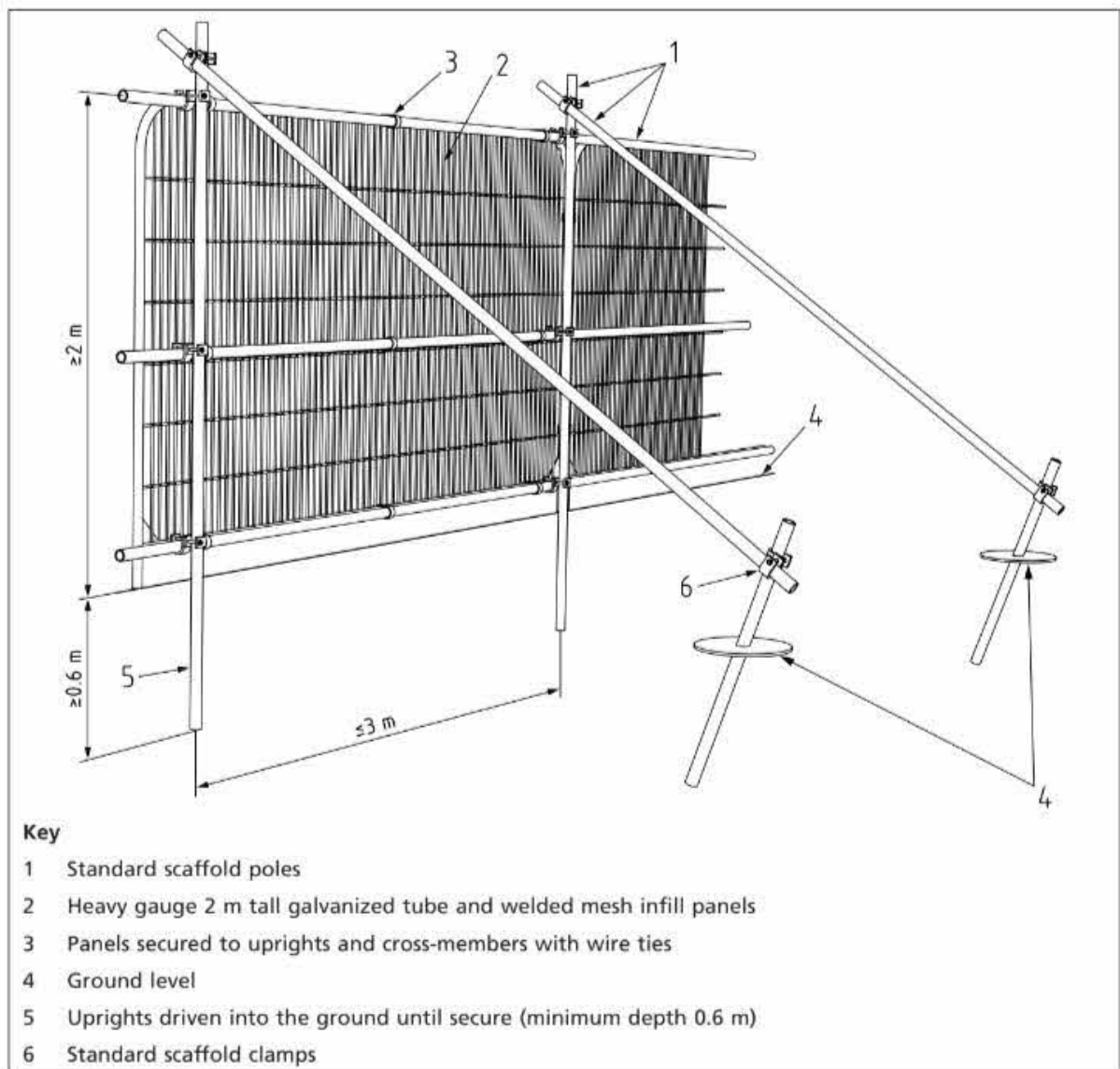
Removal of tree protection

2.3 *Tree Protection*

Standard Fencing

- 2.3.1.1 The Tree Protection Plan (TPP), shown in Appendix 2, details the position of the Tree Protection Fencing (TPF). This fencing will comprise of the type detailed below in Figure 1. TPF must be erected before any development or stripping of soil commences.
- 2.3.1.2 Once erected, TPF will not be removed or altered without prior agreement of an arboriculturist and approval of the local planning authority.
- 2.3.1.3 Barriers should be fit for the purpose of excluding constructive activity, and appropriate to the degree and proximity of work taking place around the retained trees. Special attention should be paid to ensuring that barriers remain rigid and complete. Once the barrier fencing has been installed, construction work can commence. All-weather notices should be erected on the barrier with words such as: "Construction Exclusion Zone – Keep Out".
- 2.3.1.4 Refer to Figure 1 for the specification of the required Tree Protection Fencing.
- 2.3.1.5 It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them. In the event of any panel or support becoming damaged, this must be immediately reinforced by adding panels with the designs below as appropriate. The tree protection fencing is to be inspected weekly by an appointed member of staff on site.
- 2.3.1.6 Before any works take place within the site, full BS5837 fencing will be used to ensure the safeguard of the tree RPAs, until there is no risk from damage from the construction activity. To be effective the fencing must be robust and clearly signed.

2.3.1.7 Figure 1. Specification for Protective Barrier (Tree Protection Fencing – TPF) (Taken from Figure 2 of Section 6 BS5837:2012)



2.4 Alternative Specification

2.4.1.1 Due to the work access needed along G2, the standard specification of Tree Protection Fencing will not allow suitable access needed for construction. It is proposed that an alternative specification of fixed protection fencing is to be used which will accommodate this.

2.4.1.2 2 metre tall, welded mesh panels standing in rubber or concrete feet where possible joined using a minimum of two anti-tamper couplers installed so they can only be removed from inside the protected area. The fence couplers should be at spaced least 1 metre apart, but uniformly across the whole barrier.

2.4.1.3 No other areas on site are to use alternative TPF until consulted and approved by the LPA.

2.5 *Ground Protection*

- 2.5.1.1 New temporary ground protection will be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.
- 2.5.1.2 The ground protection might comprise one of the following:
- a) for pedestrian movements only, 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;
 - b) for pedestrian-operated plant up to a gross weight of 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;
 - c) for wheeled or tracked construction traffic exceeding 2 t gross weight, 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

2.6 *Root Protection Areas (RPAs)*

- 2.6.1.1 Based on the tree survey data (Appendix 1), root protection areas (RPAs) have been determined for trees on site.
- 2.6.1.2 A topographical survey was undertaken to detail the location of trees within the site. The location of individual trees is shown in Appendix 2; it should be noted however that topographical surveys are not always comprehensive, and it is recommended that the root protection zones and therefore the location of the Protective Fencing is measured on site during installation (using collected data for RPAs and canopy spreads). Any deviation from the location of the proposed Protective Fencing should be confirmed with the tree officer at the Local Planning Authority (LPA).
- 2.6.1.3 The RPA is designed to protect, at least, a functional minimum of tree root mass to ensure that the trees survive the construction process.
- 2.6.1.4 It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

2.7 *Restrictions Within RPAs*

- 2.7.1.1 Inside the exclusion area of the Tree Protective Fencing (TPF), the following shall apply:
- 2.7.1.2 No mechanical excavation and no excavation by any other means without prior agreement and stipulation on ground protection requirements from the LPA.
- 2.7.1.3 No hand digging without a written method statement having first been approved by the arboriculturist or the LPA.
- 2.7.1.4 It is vital that current soil condition is maintained within the RPA of retained trees and areas of proposed tree planting. Effects on bulk density on the soil from construction activity and the quality of the soil can impact on the trees severely as roots have adapted to the current conditions.
- 2.7.1.5 Under no circumstances must construction machinery pass over unprotected soils within the RPA of retained trees.

2.8 *Construction within and adjacent to the RPA*

- 2.8.1.1 Depending on the time of year construction takes place, where there is potential for a significant build-up of dust on the foliage of retained trees, then the hosing down of trees should be planned for, if works are during the growing season.
- 2.8.1.2 To avoid damage to tree roots, existing ground levels should be retained within the RPA. Intrusion into soil (other than for piling) within the RPA is generally not acceptable, and topsoil within it should be retained in situ. However, limited manual excavation within the RPA might be acceptable, subject to justification. Such excavation should be undertaken carefully, using hand-held tools and preferably by compressed air soil displacement.
- 2.8.1.3 If any roots are exposed, they should immediately be wrapped, or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.
- 2.8.1.4 Roots smaller than 25 mm diameter may be pruned back, 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 of 25 mm diameter and over should be severed only following consultation with an arboriculturist, as such roots might be essential to the tree's health and stability.
- 2.8.1.5 Prior to backfilling, retained roots should be surrounded with topsoil or uncompacted sharp sand (builders' sand should not be used because of its high salt content, which is toxic to tree roots), or other loose inert granular fill, before soil or other suitable material is replaced. This material should be free of contaminants and other foreign objects potentially injurious to tree roots.

2.9 *Removal of Existing Foundations*

- 2.9.1.1 Removal of foundations may be required where existing foundations are not deemed suitable for the proposed development.
- 2.9.1.2 Where this is necessary, foundations are to be broken up through use of hand tools only i.e. concrete breaker or pick. Broken materials are to be removed by hand only and not with the use of mechanical equipment.
- 2.9.1.3 Works must be completed under arboricultural supervision.

2.10 *Avoiding Damage to Tree Crowns*

- 2.10.1.1 Great care must be exercised when working close to retained trees. Plant and machinery with booms, jibs and counterweights and the passage of tall or wide loads should be controlled by a banksman to maintain adequate clearance.
- 2.10.1.2 Under no circumstance shall construction personnel undertake any tree pruning operations.

2.11 *Site Access, Location of Site Compounds/Buildings and Storage of Materials*

- 2.11.1.1 All storage areas, cement mixing and washing points must be outside RPAs unless otherwise agreed with the LPA.
- 2.11.1.2 The storage of oils, fuels or chemicals within the compound shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%.
- 2.11.1.3 If there is multiple tankages, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%.
- 2.11.1.4 All filling points, vents, gauges, and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land, or underground strata.

- 2.11.1.5 Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund. All material storage facilities and work areas must consider the effects of sloping ground on the movement of potentially harmful liquid spillages towards or into protected areas.

3 Site Monitoring

- 3.1.1.1 Site monitoring and supervision by the project arboriculturist will be required on a regular basis throughout the development.
- 3.1.1.2 Crucial stages throughout the development will require supervision, these will be decided and agreed upon during the pre-commencement meeting and will include the following key stages;
 - Installation of tree protection fencing
 - Installation of Site buildings and storage areas
 - Excavation within RPAs of T1 and T5.
 - Installation of ground protection within RPAs of T1, T4, T5 and T6
 - Removal of existing foundations
 - Removal of tree protection
- 3.1.1.3 Prior to construction, there will be seven days written notice given to the LPA that the protection measures are in place, to allow inspection and approval of works.
- 3.1.1.4 Supervision of these crucial stages will be reported back to the LPA after each intervention.
- 3.1.1.5 Regular site monitoring visits will also be required during the construction phase to ensure tree protection measures remain in place and have not been modified or moved without prior notification and approval from the arboriculturist and local planning authority.
- 3.1.1.6 All site visits are to be recorded with the date and time and any findings or comments on tree protection and observed procedures will be noted.
- 3.1.1.7 All comments and observations must be communicated to the LPA.

Appendix 1. Tree Constraints Table

Tree/ Group Ref No.	Species	Height (m)	Crown Spread (m)				Crown Clearance	Stem diameter (mm)	Age class	Physiological Condition	Structural Condition	Condition	Management recommendat ions	ERC	Cat Grade	Radius of Nominal Circle (m)	RPA SqM
			W	N	S	E											
T1	Sycamore	10	3.5	1.5	3.5	1.5	4	360	M	F	F	Mature tree to rear of building located up the bank on higher ground. Tree has been heavily reduced retaining small crown, tree not visible outside of the site.	Retain	10+	C1	4.32	58.64
T2	Sycamore	10	3.5	2.5	2.5	1.5	6	480	M	F	F	As above, located along bank	Retain	10+	C1	5.76	104.24
T3	Sycamore	7.5	1	1.5	1	1	6	320	M	F	F	As above located at top of bank	Retain	10+	C1	3.84	46.33
T4	Sycamore	9	2	1.5	1.5	1.5	3.5	340	M	F	F	As above located at top of bank.	Retain	10+	C1	4.08	52.30
T5	Sycamore	21.5	7	7	8	6.5	8 over building	3 stems 520, 710, 540	M	G	G	Very large multi stemmed tree, inclusion in SE stem, however reaction wood growth evident indicating strengthening of union. Large crown with significant height that will be moderately visible in wider landscape. Recent pruning has removed lower limbs giving high canopy clearance. Minor deadwood throughout. No other concerns identified.	Retain - remove deadwood over building	20+	B2	12.4	482.40
T6	Sycamore	14	4.5	1.5	4.5	1.5	4.5	270	EM	G	F	Located to rear of building up the bank. Tall slender tree with slight incline in stem to SW before vertical due to light suppression.	Retain	20+	B2	3.24	32.98

													Uneven crown. Limited visibility in wider landscape, no obvious defects or signs of ill health identified.					
G1	Lawsons cypress	21.5	5	5	5	5	0	800	M	G	G		Group very large cypress which exhibit good condition, visible to external areas.	Retain	20+	A2	9.6	289.57
G2	Mixed cypress	10	2	2	2	2	2.5	250	M	G	G		Line of Cypress forming screen around end of building. Visible from road side.	Retain	20+	B2	3	28.28
G3	Cypress, sycamore, birch	15	4	4	4	4	2.5	300	EM	G	G		Area of dense tree to rear of building and at top of the bank. No obvious defects or signs of ill health identified. Good area of canopy within the property.	Retain	20+	B2	3.6	40.72
H1	Cypress	10	2	2	2	2	0	150	EM	G	G		Line of Cypress trees along boundary, mostly still young to early mature.	Retain	20+	C1	1.8	10.18

Key:

Tree/ Group Ref No. – tree/group number, to be recorded on tree survey plan where necessary.

Species – common and scientific names where possible.

Height – overall height of tree in metres.

Stem Dia – stem diameter, in millimetres at 1.5m above adjacent ground level (on sloping ground to be taken on the upslope of the tree base) or immediately above the roof flare for multi-stemmed trees.

Branch spread – in meters taken at the four cardinal points to derive an accurate representation of the crown (to be recorded on the tree survey plan where necessary).

Height of cc – height of crown clearance – in meters above adjacent ground level to inform on ground clearance, crown stem ratio and shading.

Age class – young (Y), young mature (YM), mature (M), over mature (OM) and veteran (V).

Physiological condition – e.g., good (G), fair (F), poor (P) and dead (D).

Structural condition – e.g. collapsing, the presence of decay and any physical defect.

Management recommendations – including further investigations of suspected defects that require more detailed assessment and potential wildlife habitat.

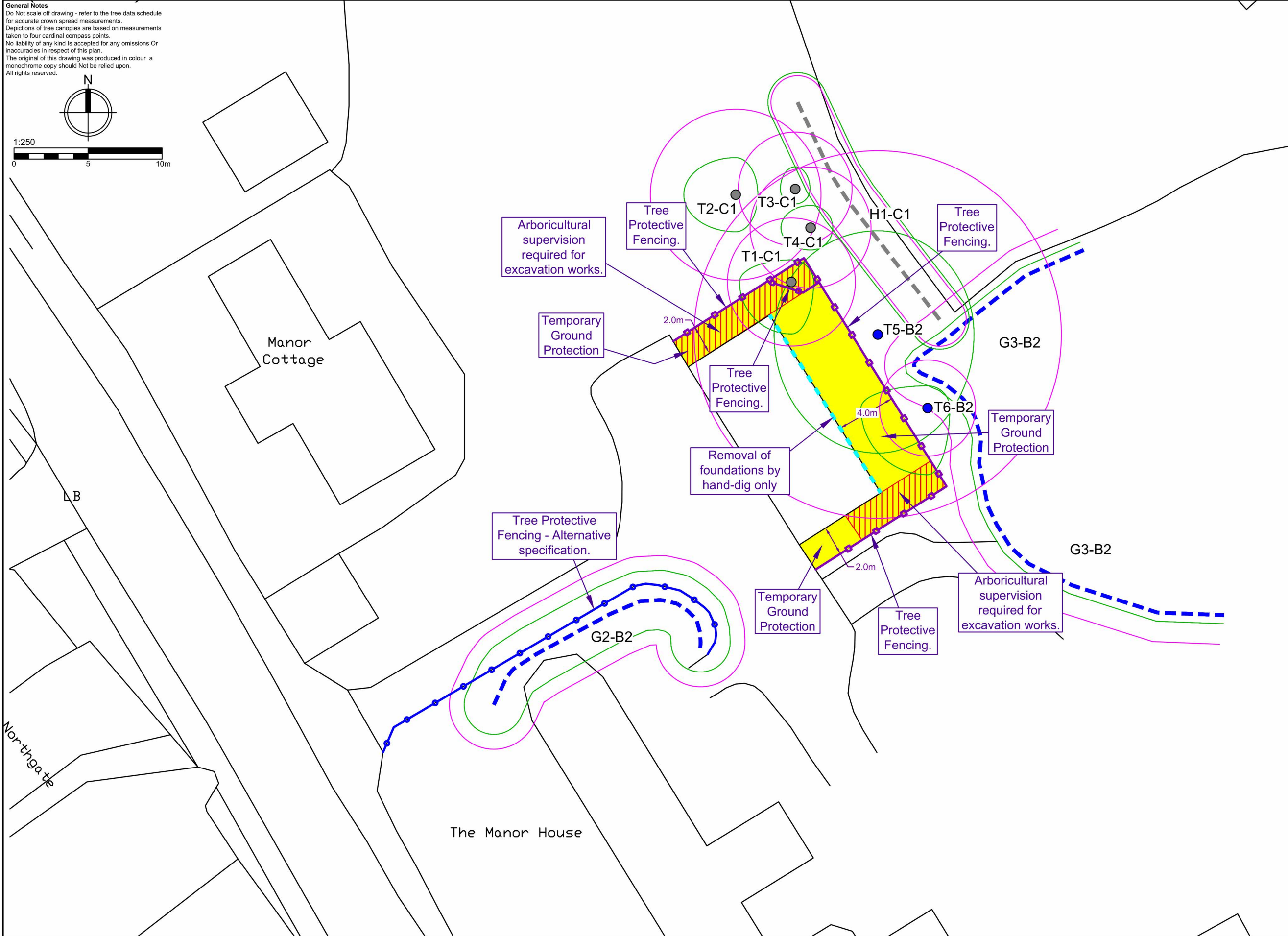
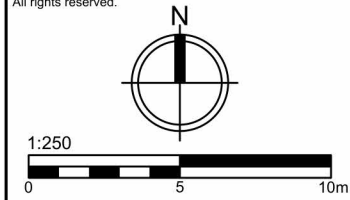
ERC – estimated remaining contribution – in years e.g. less than 10, 10-20, 20-40, more than 40.

Cat grade – category grade – U or A to C, to be recorded in plan on the tree survey plan where possible.

RPA – Root protection area calculated from BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations in sq/m. Where indicated, dimensions of radius of circle or sides of square based around centre point of trunk calculated for design purposes.

Appendix 2. Tree Protection Plan

General Notes
 Do Not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
 The original of this drawing was produced in colour a monochrome copy should not be relied upon.
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Key

- Trees**
Showing Canopy extents, category colour and tag number (with category).
- Category A**
Trees of high quality with an estimated remaining life expectancy of at least 40 years.
- Category B**
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
- Category C**
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.
- Category U**
Trees in such a condition that they can not realistically be retained as living trees in the context of the current land use for longer than 10 years.
- Tree Groups**
Shown as dashed centre/boundary line. Colour represents category (see above).
- BS 5837:2012 Root Protection Area**
- Tree Protective Fencing**
- Tree Protective Fencing Alternative Specification**
- Removal of Foundations by Hand-dig Only**
- Ground Protection**
- Arboricultural supervision required for excavation works.**

Tree Protection Plan			
Client Kevin Brown			
Site/Project Manor House, Northgate Lane, Linton, LS22 4HN			
Scale/Sheet 1:250 - A3	Date 12/03/2024		
Drawing No 1548.B	Rev 1	Drawn By CS	Checked By DB
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