



Arboricultural Impact Assessment

in Relation to Proposed Construction of Two Building Extensions at



**Langdale Hall, Upper Park Road,
Manchester, M14 5RJ**

Prepared by:

Bowland 
Tree Consultancy Ltd

May 2022

**ARBORICULTURAL IMPACT ASSESSMENT
LANGDALE HALL, MANCHESTER**

Control Sheet

Project No.: BTC1929

Site: Langdale Hall, Upper Park Road, Manchester, M14 5RJ

Client: NJOY Student Living

Council: Manchester City Council

Survey Date: 2 March 2020 & 17 September 2021

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DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or located in areas of restrictive ground vegetation, cannot therefore be expected. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only. Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regard to tree structural integrity, and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks. For these reasons the tree assessment advice only remains valid for one year from the date that the trees were last inspected.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters and other measurements of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potential risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will inform the relevant Council of the matter. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted by the arboriculturist at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

This document is intended as a guide to identify key tree related constraints to site development only, and the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

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**ARBORICULTURAL IMPACT ASSESSMENT
LANGDALE HALL, MANCHESTER**

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1.0 INTRODUCTION

Terms of Reference

- 1.1 Bowland Tree Consultancy Ltd was instructed to:
- a) Survey, as individuals or by group, all trees having reasonable potential to affect or to be adversely affected by the proposed development of the site under consideration;
 - b) Annotate the existing and proposed site plans to produce a Tree Constraints Plan and a Tree Impact Plan, identifying tree retention categories, crown spreads, Root Protection Areas, trees proposed for removal, trees proposed for retention, etc.;
 - c) Prepare a tabulated Tree Survey Schedule based on guidance specified BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations;
 - d) Evaluate the potential tree related impacts and design conflicts of the proposals, based on the supplied development proposal plan(s);
 - e) Advise on removal, retention and management options for the trees in the current context and in the context of the proposed development;
 - f) Advise on suitable retained tree protection measures required during development; and
 - g) Produce an Arboricultural Impact Assessment report outlining the main tree related issues and reasonably foreseeable tree impacts in relation to the proposals and indicating suitable compensation and mitigation provisions and retained tree protection measures.

Scope and Purpose of Report

- 1.2 By detailing foreseeable tree related issues this report is intended to assist the Local Planning Authority (LPA), in this case Manchester City Council, in their review of the proposed development and, as such, should be supplied to them in support of the planning application to which it pertains. Essentially, it provides an initial analysis of the impacts that the proposed development is projected to have on trees located within the site and, where practicable, on land immediately adjacent to its boundaries. It also offers guidance on suitable retained tree management and compensation for projected losses, along with advice on appropriate tree protection measures in accordance with current guidance in the context of the proposals.

Site Visit, Data Collection and Tree Plans

- 1.3 Further to the instruction it is confirmed that the most recent tree survey was carried out 17 September 2021, in accordance with the preceding disclaimer, and all tree data collected on site is set out in the attached tabulated Tree Survey Schedule (TSS) at Appendix One which, for ease of interpretation, should be read alongside the appended BS5837:2012 Table 1.
- 1.4 The survey identified 23 individual trees (prefixed 'T'), three groups of trees (prefixed 'G'), and one hedge (prefixed 'H') which have been numbered accordingly on the Tree Constraints Plan (TCP) and Tree Impact Plan (TIP), as appended. The TCP, which details the existing site with the readily definable tree constraints, is based on the topographical survey plan supplied, whilst the TIP, which also has an overlay of the site proposal plans, is based on the proposed development plan supplied. Both the topographical survey plan and the proposed site plan were provided in electronic format by the client, NJOY Student Living and, for the purpose of this report, the provided plans' details are presumed to be accurate.
- 1.5 The purpose of the TCP and the TIP is to give an initial indication of the constraints that the trees present to site development and the associated projected impacts of the proposals, and should subsequently be used by the LPA's tree specialist to preliminarily assess if the proposed development is viable in accordance with BS5837:2012 and, along with the information provided in this report, as a basis for the LPA to request further details regarding specific matters relating to trees at suitable stages in the planning process.

2.0 STATUTORY PROTECTION IN RESPECT OF TREES AND ASSOCIATED WILDLIFE

Tree Preservation Orders and Conservation Area Designations

- 2.1 The Town and Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees of over 75 mm diameter that stand within the curtilage of a Conservation Area (CA). Subject to certain exemptions, an application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or to remove trees within a CA that are not protected by a TPO.
- 2.2 According to Manchester City Council's planning department website the site does not stand within a CA. However, the council do not currently have an online database of their TPOs, and it is therefore essential that the presence of any such statutory tree protection in relation to the surveyed trees be checked directly with their planning department prior to scheduling or carrying out any tree works that are not directly related to the implementation of a detailed (i.e. full) planning permission.

Protected Species

- 2.3 Bird nesting season runs from March to August inclusive. Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.
- 2.4 All bat species and their roosts are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats & Species Regulations 2010 (as amended). In this respect it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If any bat roosts are subsequently identified then it is essential that works are halted immediately and that a suitably qualified and experienced ecologist investigates and advises on appropriate actions prior to works continuing.
- 2.5 In turn, any subsequent works carried out in relation to any protected species must be carried out under guidance from a suitably qualified and experienced ecologist and in strict accordance with the guidance provided in BS42020:2013 - Biodiversity – Code of Practice for Planning and Development and, with regard to bats, in strict accordance with BS8596:2015 - Surveying for Bats in Trees and Woodlands.

Felling Licences

- 2.6 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to remove growing trees amounting to more than five cubic metres of timber in a calendar quarter. Felling Licences are administered by the Forestry Commission and contravention of the associated controls can incur substantial penalties.
- 2.7 A felling licence is, however, not required for the felling of trees immediately required for the purpose of carrying out development authorised by a full (i.e. detailed) planning permission granted under the Town and Country Planning Act 1990.

3.0 THE SITE AND THE SURROUNDINGS

- 3.1 The site is located in an area of mixed residential character in the suburb of Victoria Park approximately 3 kilometres south/south-east of Manchester city centre. It forms the northern section of the Langdale Hall student accommodation complex and currently consists of a two-storey U-shaped brick-built student accommodation building, with an area of mown amenity grass with footpaths to its centre and south, and with trees within soft surfaced areas with associated paving and footpaths to its north, east and west (see TCP).
- 3.2 The site under consideration for development is bordered to the west and north by adjacent residential properties with gardens, to the east by Upper Park Road, and to the south by the wider Landscape Hall student accommodation complex. The topographical survey plan provided indicates that there are only minor variations in ground levels throughout the site of up to approximately 1 metre, with the lowest point to the south-west and the highest point to the north-east, as detailed on the TCP.

4.0 THE TREE POPULATION

- 4.1 As noted previously, a total of 23 individual trees, three groups of trees, and one hedge were surveyed for the purpose of this appraisal. They range from young to mature in age, with heights of up to 18 metres, maximum diametral crown spreads up to approximately 19 metres, and stem diameters up to approximately 740 millimetres. Details regarding specific tree dimensions and other pertinent information, such as structural defects and physiological deficiencies, are included in the Tree Survey Schedule (TSS) at Appendix One.
- 4.2 In respect of the survey, it should be noted that tree quality is categorised within the existing context without taking the development proposals into account. However, recommendations for works included in the TSS take both current site usage into consideration and the proposed site development where there are definable development related issues with regard to specific trees.
- 4.3 Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect the TSS includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (Appendix One). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention'.

Table A: BS5837-2012 Retention Categories of the Surveyed Vegetation

	Ret. Cats.	Tree/Group/Hedge Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	'A'	-	-
	'B'	T3, T5, T7, T11, T12, T14, T23	7 Trees
Those of a low quality that should not be considered a material constraint to development	'C'	T1, T4, T6, T8, T9, T10, T13, T15, T17, T18, T19, T20, T21, T22, G1, G2, G3, H1	14 Trees 3 Groups 1 Hedge
Those that should be removed for sound management reasons regardless of site proposals	'U'	T12, T16	2 Trees
			= 23 Trees, 3 Groups & 1 Hedge in total

- 4.4 In turn, as detailed in Table A, above, seven trees were categorised as moderate quality (i.e. 'B' category), 14 trees, the three groups and the hedge were categorised as low quality (i.e. 'C'

category), and two trees were categorised as unsuitable for retention (i.e. 'U' category) regardless of the site proposals (see TSS for specific details of the surveyed vegetation).

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

The Development Proposal

- 5.1 From the information provided by the agents for the client, DC & MG Associates, it is understood that the proposal is for the construction of two two-storey building infill extensions to the existing student accommodation block, with one to the north-east of the building and one to the north-west, as detailed on the appended TIP.

Projected Arboricultural Losses Relating to the Development Proposals

- 5.2 From the information provided to date it is projected that construction of the development as proposed can be undertaken whilst retaining all the surveyed trees at the site.

Special Design, Materials and Working Methods for Construction within RPAs

- 5.3 The appraisal identified that the proposed extensions encroach within the RPAs and canopies of several of the trees that are proposed for retention, as detailed on the TIP and at Table C, below. Nonetheless, it should be noted that such works are permissible under current government guidance (i.e. BS5837:2012) providing that they are planned and implemented whilst providing a suitable level of protection to the trees in question, such as through the use of appropriate hand-held tools, retaining existing ground levels within the trees' RPAs, and using designs that avoid localised ground compaction and root damage. As such, it will subsequently be necessary to ensure that the trees under consideration are suitably protected in strict accordance with current government guidance through the use of special working, construction and protection measures, the preliminary details of which are set out in Table C, below.

Table C: Elements of Proposal with Potential to Impact Upon Trees and Subsequent Specialist Working Methods

Element of Proposal with Potential to Impact Upon Retained Trees	Applicable Trees	Proposed Specialist Working and Construction Methods	Relevant BS5837 Section(s) to be Adhered to	Information Required and Relevant Specialist(s)*
Construction of building extensions within retained tree RPAs and canopies	T5, T7, T11, T12, T14	- Proposed extensions to be constructed using a combination of a cantilever design from the existing constructed foundations and mini or screw piles, with the structural steel works and floor base of the applicable areas of the building being set above ground level in order to avoid ground disturbance in retained trees' RPAs. - Initial investigations to be carried out by hand, under arboricultural supervision, within proposed locations of any screw piles or mini piles in order to ensure absence of tree roots in areas under consideration for excavation. In turn, should significant roots be encountered then alterations to design will be necessary in order to ensure appropriate tree root protection. - Proposed extensions to have flat roofs, with finished building height to be approximately equal to that of the existing building, as informed by agent for client.	7.3 & 7.5	Foundations of proposed extensions to be constructed in accordance with specific details to be provided by project structural engineer to project arboriculturist, with latter to then prepare a detailed site and development specific Arboricultural Method Statement and Tree Protection Plan

*All documentation and information supplied by the stated professional(s) should afford a suitable level of protection for the tree(s) under consideration in accordance with BS5837:2012

- 5.4 In addition to the details included at Table C it is also essential that, in order to avoid damage to above ground tree parts during construction works, all on site operations involving plant with

booms, jibs and counterweights are planned in advance under arboricultural direction, and subsequently carried out under the supervision of a banksman.

- 5.5 As such, it will subsequently be necessary to ensure that the trees under consideration are suitably protected in strict accordance with current government guidance through the use of special working and protection measures, preliminary details of which are given in Table C.
- 5.6 Consequently, in order to ensure adequate protection of retained trees, special working methods for proposed demolition of adjacent buildings, can be included in a suitably detailed site and development specific Arboricultural Method Statement and Tree Protection Plan, the provision of which and adherence to can be conditioned to a planning permission (see paragraphs 6.7 and 6.8 for further details regarding Arboricultural Method Statements and Tree Protection Plans).

6.0 RECOMMENDATIONS FOR SUCCESSFUL TREE RETENTION IN THE CONTEXT OF DEVELOPMENT

Root Protection Areas and Construction Exclusion Zones

- 6.1 Adequate protection of the Root Protection Areas (RPAs) of retained trees during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2012, are ground areas that should be protected by temporary protective fencing and, where identified as necessary, temporary ground protection measures as Construction Exclusion Zones (CEZs) throughout the development process, thereby keeping the trees' root-zones, as far as is practicable, free from disturbance. Consequently, the RPA distances, as detailed in the TSS (see 6.2) and on the TCP, give an idea of the on-site below-ground constraints in respect of tree roots and assist in planning for appropriate tree retention in relation to feasible development.
- 6.2 The TSS includes two columns listing the RPAs of the individually surveyed trees and, where applicable, the largest of the trees in any surveyed groups as overall areas in square metres and as radial distances. The RPAs are indicated as magenta coloured shapes on the TCP and the TIP.
- 6.3 With regard to CEZs the design, materials and construction of the fencing should be appropriate for the intensity and type of site construction works, should conform to at least section 6.2 of BS5837:2012, and should be secured by the imposition of a suitably worded planning condition. A default Temporary Protective Fencing and Ground Protection Specification is included at Appendix Two.

Underground Utilities and Drainage

- 6.4 The installation of underground utilities in close proximity to trees can cause serious damage to their roots. As such, it is essential that utilities be routed outside RPAs unless there is no other available option. Where RPAs cannot be avoided then guidelines set out in the National Joint Utilities Group publication 'Volume 4: NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2) – Operatives Handbook' should be followed (e.g. trenches of a very limited width to be hand dug or the use of directional drilling).
- 6.5 To date, no detailed service plan showing proposed service and/or drainage runs has been provided in respect of the development under consideration. However, due to the coverage of the site by the RPAs of various trees it is likely that drainage and/or service runs will be required to pass through retained trees' RPAs.

- 6.6 As such, it will therefore be essential to install the drainage and services in strict accordance with the guidance detailed in section 7.7 of BS5837:2012 and the guidelines detailed at paragraph 6.4. In turn, in order to ensure that this advice is adhered to, the provision of a detailed service and drainage plan with exact service routes and detailed works specifications, and an associated Arboricultural Method Statement and Tree Protection Plan (see paragraphs 6.7 and 6.8, below) can be conditioned to a planning approval.

Arboricultural Method Statement and Tree Protection Plan

- 6.7 Government guidance recommends that, where considered expedient by the LPA, an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) be prepared detailing special mitigation construction issues in relation to the development under consideration. Essentially, the AMS and TPP describe and detail the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process.
- 6.8 In order to ensure that any special working methods are followed, such as those detailed at Table C, and that the retained trees are adequately protected throughout the development process, the production of an AMS and adherence to the appended draft TPP, inclusive of provision for a detailed review and subsequent update of the document by the project Arboriculturist, can be conditioned to a planning approval.

7.0 OTHER RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations

- 7.1 Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site development proposals and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents

- 7.2 No tree pruning or removals should commence until necessary consents have been obtained from the LPA as part of a planning approval or in respect of statutory tree protection (e.g. TPOs).

Arboricultural Contractors

- 7.3 All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the current UK industry standards and in accordance with industry codes of practice.

Contractors and Subsequently Identified Tree Defects

- 7.4 Tree contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then these should be notified immediately to the client and to the project arboricultural consultant.

New Tree Planting

- 7.5 All tree planting at the site should be carried out in accordance with BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations, and in accordance with the guidance detailed in section 5.6 and Table A.1 of BS5837:2012.

Landscaping Within and Close to Retained Trees' RPAs

- 7.6 Any landscaping works subsequently carried out within and close to retained trees' RPAs should be undertaken in strict accordance with the guidance detailed in section 8 of BS5837:2012. As is the case with 7.5, above, a requirement for these works to conform with the current guidance detailed in BS5837:2012 can be conditioned to a planning approval.

Retained Tree Management

- 7.7 Any tree risk management appraisals and subsequent recommendations made in this report were based on observations and site circumstances at the time of the survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress.
- 7.8 In this respect, it should be noted that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. In turn, it is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

8.0 SUMMARY AND CONCLUSIONS

- 8.1 Twenty-three individual trees, three groups of trees, and one hedge were surveyed in respect of a proposal to construct two two-storey corner infill extensions to an existing student accommodation building at the site under consideration.
- 8.2 Seven trees were categorised as moderate quality, 14 trees, the three groups and the hedge were categorised as low quality, and two trees were categorised as unsuitable for retention regardless of the site proposals.
- 8.3 An appraisal of the documentation provided to date identified that construction of the development as proposed can evidently be completed whilst retaining all of the surveyed trees on site.
- 8.4 Nonetheless, the appraisal identified that the proposed extensions encroach within the RPAs and canopies of several of the trees that are proposed for retention, but that such works are permissible under current government guidance (i.e. BS5837:2012) providing that they are planned and implemented whilst providing a suitable level of protection to the trees in question.
- 8.5 As such, it will subsequently be necessary to ensure that the retained trees are suitably protected in strict accordance with current government guidance through the use of special working, construction and protection measures, the preliminary details of which are included herein.
- 8.6 In regard to the above it is subsequently recommended that, in order to ensure successful existing tree preservation over the long-term, it is essential that the retained trees are protected in strict accordance with current Government guidance and the recommendations included herein.
- 8.7 Accordingly, in order to ensure adequate protection of retained trees then the aforementioned special consideration factors included herein should be included in a suitably detailed Arboricultural Method Statement and Tree Protection Plan, the provision of which and adherence to can be conditioned to a planning permission.

- 8.8 It is therefore concluded that, providing that the specialist design and build features are utilised and implemented in strict accordance with current government guidance, as aforementioned, the proposed extensions can be constructed whilst ensuring the successful retention of trees on and adjacent to the site.
- 8.9 As a final point, it should also be noted that all site works must be carried out in strict accordance with any advice and recommendations made by the project ecologist where applicable and, in turn, in accordance with current government guidance relating to biodiversity, wildlife and development.

REFERENCES

- BS42020:2013 - Biodiversity – Code of Practice for Planning and Development. BSI British Standards, London.
- BS8596:2015 - Surveying for Bats in Trees and Woodlands. BSI British Standards, London.
- BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations. BSI British Standards, London.
- BS3998:2010 - Tree Work - Recommendations. BSI British Standards, London.
- BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations. BSI British Standards, London.
- National House Building Council (2017). NHBC Standards Chapter 4.2 - Building Near Trees. NHBC, Amersham.
- National Joint Utilities Group (2007). Volume 4: NJUG Guidelines For, The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT							
Site:	Langdale Hall, Upper Park Road, Manchester, M14 5RJ						
Client:	Njoy Student Living						

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Dates:	2 March 2020 & 17 September 2021
Job Reference:	BTC1929

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)	
T1	Sycamore	10	310	N E S W	4 4 5 6	3-W 5	SM	G	Stem base approximately 200mm and 300mm from boundary wall and internal retaining wall respectively, with subsequent high likelihood of causing structural displacement over mid to long-term.	- Retain tree in context of proposed development. - Ensure protection of tree's Root Protection Area (RPA) through establishment of Construction Exclusion Zone (CEZ) in accordance with appended temporary fencing specification (see paragraph 6.1 of Arboricultural Impact Assessment (AIA)). - Monitor adjacent walls for structural displacement.	10+	C1	43	3.72
T2	Common Hawthorn	10	450	N E S W	3 4 4 2	3 3	M	MD	- Moderately severe stem lean south east. - Stem almost in contact with boundary fence. Stem bifurcates at a height of approximately 2.5m. - Crown showing signs of a severe reduction in vitality with very small leaves and very sparse foliage cover. - Evidently in decline with subsequent short projected remaining life expectancy.	Remove tree due to decline and subsequent short projected remaining life expectancy.	<10	U	92	5.4
T3	Sycamore	14	2x220 (ts)	N E S W	3 3 3.5 3.5	4 5	SM	G	Stem bifurcates at a height of approximately 1.3m with a slightly tight fork.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	20+	B1	44	3.73
T4	Sycamore	14	300	N E S W	0 3 4 4.5	6-S 7	SM	M	Highly biased crown south due to suppression by neighbouring tree.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	41	3.6
T5	Common Beech	16	640	N E S W	5 7 6 5.5	9 8	EM	G	- Large basal burr to west side of stem at ground level. - Large number of relatively large diameter pruning wounds up stem, resultant of previous crown lifting works.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification and through construction of proposed extension within RPA on pile and beam foundation at or raised above ground level (see Table C of AIA).	40+	B1	185	7.68

Headings and Abbreviations:

No.	Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species:	Common name
Height:	In metres, to half nearest metre - where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree
Stem Diam.:	Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread:	Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown
Branch & Canopy Clearances:	Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point - to inform on crown to height ratio, potential for shading, etc.
Life Stage:	Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC:	Physiological Condition - a measure of the tree(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments:	Comments relating to the tree(s)' overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc.
Management Recommendations:	Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate
ERC:	Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
Cat. Grade:	Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA m²:	Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
RPA Radius (m):	Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
# (Estimated Dimensions):	Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT								Surveyor: Phill Harris Chartered Arboriculturist	Page: 2 of 5
Site: Langdale Hall, Upper Park Road, Manchester, M14 5RJ								Survey Dates: 2 March 2020 & 17 September 2021	
Client: Njoy Student Living								Job Reference: BTC1929	

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)	
T6	Sycamore	13	370	N E S W	2 4.5 3 4.5	6.5 6	SM	M	- Moderate stem lean east. - Slightly biased crown south. - Crown showing signs of a reduction in vitality.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	62	4.44
T7	Common Beech	18	750	N E S W	9 6 9 7	8-S 8	M	M	- Located on opposite side of mesh security fence and subsequently not inspected closely. - Built up ground levels around stem base. - Crown showing signs of a reduction in vitality.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification and through construction of proposed extension within RPA on pile and beam foundation at or raised above ground level (see Table C of AIA). - Prune tree to lift crown in order to obtain a 1.5m clearance from height of proposed extension roof.	20+	B1	254	9
T8	Common Oak	14	240	N E S W	2 2 4 4	7 6	Y	G	- Standing within area with restricted potential for future growth due to proximity to building and considering species and potential size at maturity. - Attenuated form with small crown to height ratio.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	26	2.88
T9	Wild Cherry	9	180	N E S W	0 3.5 5 1	N/A 5	Y	G	- Standing within area with restricted potential for future growth due to proximity to building and considering species and potential size at maturity. - Severe stem lean south and highly biased crown south-east due to suppression by neighbouring trees.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	15	2.16
T10	Common Oak	19	650	N E S W	8 5 9.5 6	7-N 6	EM	M/P	- Located on opposite side of mesh security fence and subsequently not inspected closely. - Has sustained several secondary and tertiary branch failures in upper crown, which has subsequently negatively impacted tree's form. - As such, crown reduction works should be considered as a management option. - Crown showing signs of a substantial reduction in vitality with moderately sparse foliage cover and large amount of deadwood to approximately 150mm diameter.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification. - Climbing arboriculturist to carry out aerial inspection of branch system to check for defects, and to subsequently advise client regarding suitability of crown reduction works. - Tree consultant to monitor tree's physiological condition through cyclical inspections.	10+	C1	191	7.8

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT							
Site:		Langdale Hall, Upper Park Road, Manchester, M14 5RJ					
Client:		Njoy Student Living					

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Dates:	2 March 2020 & 17 September 2021
Job Reference:	BTC1929

Page: 3 of 5

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T11	Common Lime	19	570	N 6 E 4 S 6 W 3	11 7	SM	M	- Located on opposite side of mesh security fence and subsequently not inspected closely. - Light ivy to lower stem. - Relatively small crown to height ratio.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification and through construction of proposed extension within RPA on pile and beam foundation at or raised above ground level (see Table C of AIA). - Sever ivy from around circumference of tree's stem base.	20+	B1	147	6.84
T12	Common Beech	19	630	N 9 E 7 S 9 W 4	4-S 8	M	G	- Located on opposite side of mesh security fence and subsequently not inspected closely. - Dead ivy up stem and into primary branches.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification and through construction of proposed extension within RPA on pile and beam foundation at or raised above ground level (see Table C of AIA). - Prune tree to lift crown in order to obtain a 1.5m clearance from height of proposed extension roof.	20+	B1	180	7.56
T13	Sycamore	18.5	560	N 2.5 E 2.5 S 5 W 2.5	6 6	EM	M	- Stem bifurcates at a height of approximately 2m with a tight compression fork. - Dead ivy up stem and into primary branches. - Crown showing signs of a moderate reduction in vitality.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	142	6.72
T14	Sycamore	18	550	N 5.5 E 8 S 7 W 7	6-S 5	EM	M	- Located in dense shrub group and lower stem not subsequently viewed closely. - Dead ivy up stem and into primary branches. - Crown showing signs of a moderate reduction in vitality.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification and through construction of proposed extension within RPA on pile and beam foundation at or raised above ground level (see Table C of AIA). - Prune tree to lift crown in order to obtain a 1.5m clearance from height of proposed extension roof.	20+	B1	137	6.6
T15	Leyland Cypress	11.5	620	N 3 E 3 S 3 W 3	3 2.5	M	G	- Stem base approximately 300mm from boundary wall. - Evidently very heavily topped at a height of approximately 11m.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification. - Monitor adjacent wall for structural displacement.	10+	C1	174	7.44

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT							
Site:		Langdale Hall, Upper Park Road, Manchester, M14 5RJ					
Client:		Njoy Student Living					

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Dates:	2 March 2020 & 17 September 2021
Job Reference:	BTC1929

Page: 4 of 5

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)	
T16	Common Ash	17	600	N E S W	5 6 6 7	5-NW 6	EM	M	▪ Moderate stem lean east. ▪ Moderately dense ivy up stem. ▪ Branches almost in contact with building. ▪ Crown showing multiple symptoms of colonisation by Ash Dieback Disease. ▪ Short projected remaining life expectancy due to colonisation by Ash Dieback Disease.	▪ Remove tree due to colonisation by Ash Dieback Disease and subsequent short projected remaining life expectancy.	<10	U	163	7.2
T17	Cornelian Cherry	5	6x70 (ms)	N E S W	2.5 3 2.5 2	1.5	SM	G	▪ Multi-stemmed from ground level. ▪ Evidently previously very heavily topped.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	13	2.06
T18	Sycamore	16.5	500	N E S W	4 7 6 6	5 5	EM	G	▪ Stem approximately 1m from neighbouring residential property to west. ▪ Dead ivy up stem. ▪ Stem bifurcates at a height of approximately 3.5m with a slightly tight fork. ▪ Branches in contact with roof of neighbouring residential property to west.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification. ▪ Monitor adjacent wall for structural displacement. ▪ Prune tree to obtain a 1.5m clearance from neighbouring building.	10+	C1	113	6
T19	Leyland Cypress	23.5	900	N E S W	3 3 3 3	1 2	M	G	▪ Very dense branch system and crown, and subsequently unable to view branches above a height of approximately 3m.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	366	10.8
T20	Weeping Cherry	2	280	N E S W	2.5 2.5 3.5 2.5	N/A 0.5	EM	G	▪ Stem divides into multiple primary branches at a height of approximately 2m.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	20+	C1	35	3.36
T21	Silver Birch	16.5	380	N E S W	3.5 6 6 1	6-SE 1	EM	G	▪ Part of group with trees T27 and T28. ▪ Moderate stem lean and moderately biased crown south-east due to partial suppression by neighbouring trees in group.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	20+	C1	65	4.56
T22	Apple	5.5	210	N E S W	0 3 5 3	2-W 1	SM	G	▪ Part of group with trees T26 and T28. ▪ Moderate stem lean and highly biased crown south due to partial suppression by neighbouring trees in group.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	40+	C1	20	2.52

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT							
Site:		Langdale Hall, Upper Park Road, Manchester, M14 5RJ					
Client:		Njoy Student Living					

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Dates:	2 March 2020 & 17 September 2021
Job Reference:	BTC1929

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No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T23	Silver Birch	17	490	N 5 E 4 S 6.5 W 6.5	7-W 6	M	G	- Part of group with trees T26 and T27. - Number of unoccluded and partially occluded pruning wounds up stem to approximately 300mm diameter, evidently resultant of previous crown lifting works. - Branch tips in contact with student accommodation building to west.	- Retain tree in context of proposed development. - Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification. - Prune tree's crown to obtain a 1m clearance from building.	20+	B1	109	5.88
G1	1no. Beech, 1no. Wych Elm, 5no. Syringa	≤ 8	≤ 100	N ≤ 1 E ≤ 1 S ≤ 2 W ≤ 2	N/A ≥ 1	Y	G	- Closely spaced group of several young trees and multi-stemmed shrubs. - Young trees have highly biased crowns south-west due to suppression by larger neighbouring trees.	Prune group to attain sufficient canopy clearance from proposed building extension and adjacent working area.	10+	C1	≤ 5	≤ 1.2
G2	Leyland Cypress	≤ 10	≤ 200#	N ≤ 3 E ≤ 1 S ≤ 3 W ≤ 1	N/A ≥ 4	Y	G	- Very closely spaced linear group located on neighbouring land to north. - Evidently planted as hedge but not maintained as such.	Ensure protection of tree's RPA through establishment of CEZ in accordance with appended temporary fencing specification.	10+	C1	≤ 18	≤ 2.4
G3	1no. Common Hawthorn, 1no. Sycamore, 1no. Holly, Privet	≤ 10	≤ 2x160 (ts)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	N/A ≥ 2	SM	M	Loose group of shrubs with areas of dense Privet.	Prune group to attain sufficient canopy clearance from proposed building extension and adjacent working area.	10+	C1	≤ 23	≤ 2.72
H1	Privet	4	N/A	≈ 1 Wide	N/A N/A	SM	G	Length of managed hedge along boundary.	Retain hedge in context of proposed development.	10+	C1	N/A	≈ 1

BS5837:2012 Table 1 – Cascade Chart for Tree Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.</i>			Red
	1. Mainly arboricultural qualities	2. Mainly landscape qualities	3. Mainly cultural values, including conservation	
Trees to be considered for retention				
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; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	Blue
Category C Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation			

- TEMPORARY PROTECTIVE FENCING & GROUND PROTECTION SPECIFICATION -

Construction Exclusion Zones (CEZs), shall be enclosed by **Temporary Protective Fencing** and/or, where necessary, **Temporary Ground Protection Measures**. The fencing/ground protection Type(s), locations, and extents shall be agreed, in writing, with the Local Planning Authority (LPA). In turn, the **Temporary Protective Fencing** and/or **Temporary Ground Protection Measures** shall:

1. be constructed as in accordance with the Type 1, Type 2 or Type 3 'Temporary Protective Fencing Construction' sections and, where applicable the 'Temporary Ground Protection Measures' section, as detailed herein and agreed, in advance with the LPA;
2. be retained in place throughout the development process until completion of the project, and only removed following receipt of written permission from the LPA;
3. be sited in the area(s) defined by the Root Protection Areas on the associated Tree Impact Plan, or as the CEZs on the Tree Protection Plan;
4. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
5. preclude any delivery of site accommodation and/or materials and/or plant machinery;
6. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties;
7. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance; and
8. be affixed with a 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1, below), at every 10.0 metre length of protective fencing.
9. Important: Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Figure 1: CEZ Warning Sign

**- TREE PROTECTION AREA –
KEEP OUT!**

(TOWN & COUNTRY PLANNING ACT 1990)

**THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING
CONDITIONS AND/OR SUBJECTS OF A 'TREE PRESERVATION ORDER',
THE CONTRAVENTION OF WHICH MAY LEAD TO CRIMINAL
PROSECUTION**

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

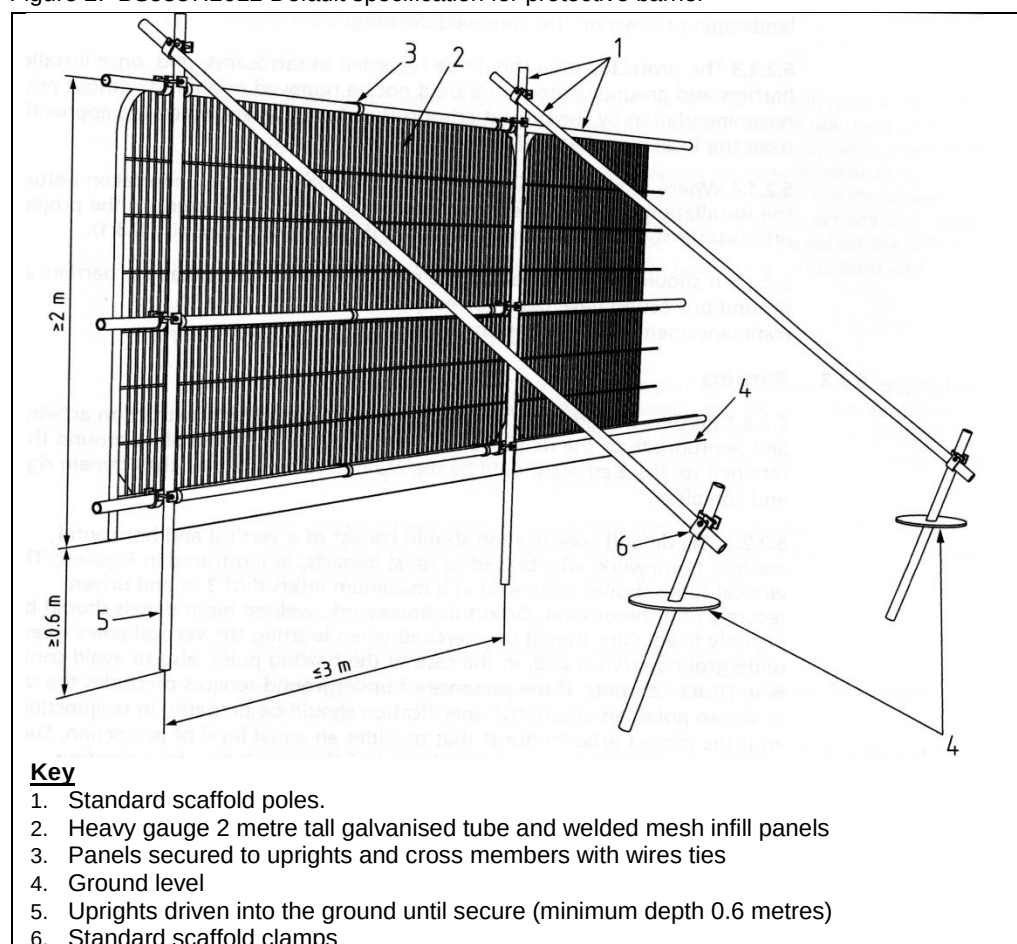
- THE PROTECTIVE FENCING MUST NOT BE MOVED
- NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE
- NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE
- NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE
- NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE
- NO EXCAVATION SHALL OCCUR IN THE EXCLUSION ZONE
- NO FIRES SHALL BE LIT IN THE EXCLUSION ZONE

**ANY INCURSION INTO THE EXCLUSION ZONE MUST BE WITH THE
WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY**

Type 1 (i.e. 'Default') Temporary Protective Fencing Construction (see Figure 2, below)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per points 3 to 5 of Figure 2, overleaf.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per points 4 to 5.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

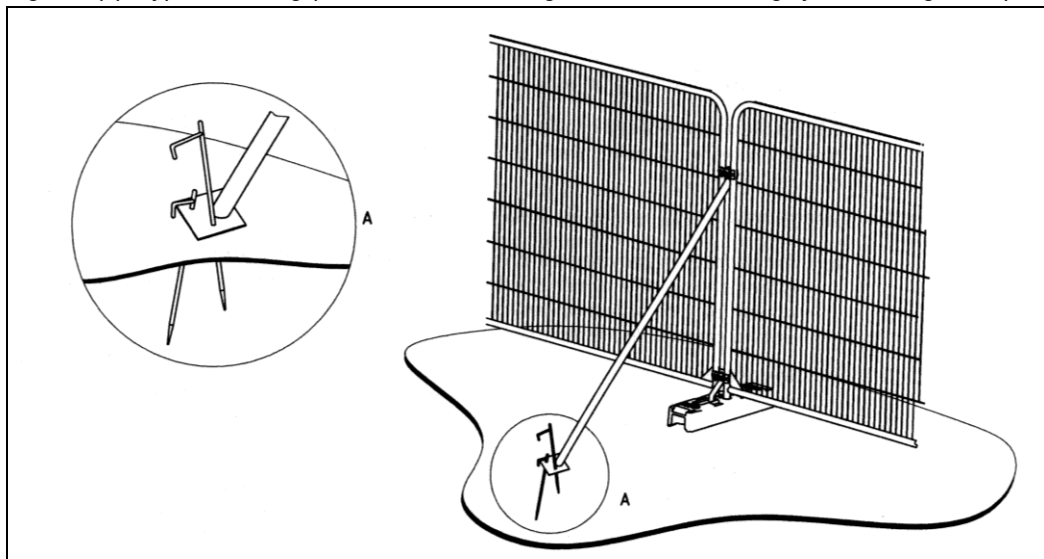
Figure 2: BS5837:2012 Default specification for protective barrier



Type 2 Temporary Protective Fencing Construction (see Figure 3(a), below)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall stand on rubber or concrete feet.
3. The panels shall butt together, and be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
4. The distance between the fence couplers shall be at least 1.0 metre, and shall be uniform throughout the fence.
5. The panels shall be supported on the inner side by stabiliser struts, which shall be clamped to the scaffold framework at a 45° angle and extend back into the CEZ and shall be attached to a base plate, which shall be secured to the ground with pins (Figure 3a).
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

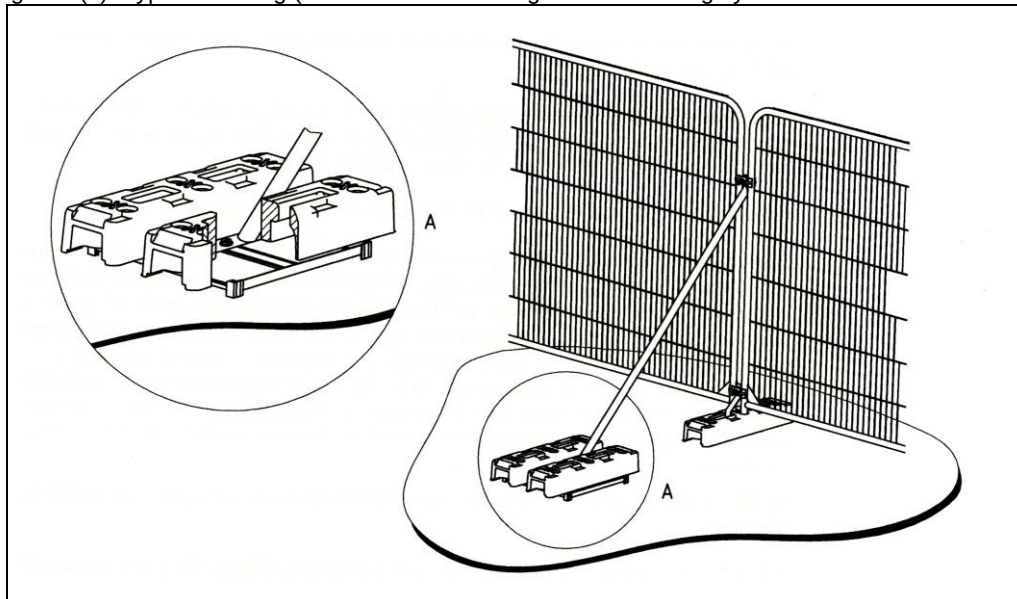
Figure 3(a): Type 2 Fencing (BS5837:2012 above-ground strut stabilising system with ground pins)



Type 3 Temporary Protective Fencing Construction (see Figure 3(b), overleaf)

1. Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 metres in height.
2. The panels shall stand on rubber or concrete feet.
3. The panels shall butt together, and be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
4. The distance between the fence couplers shall be at least 1.0 metre, and shall be uniform throughout the fence.
5. The panels shall be supported on the inner side by stabiliser struts, which shall be clamped to the scaffold framework at a 45° angle and extend back into the CEZ and shall be attached to a block tray base (Figure 3b).
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Figure 1) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion of erection, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Protective Fencing.

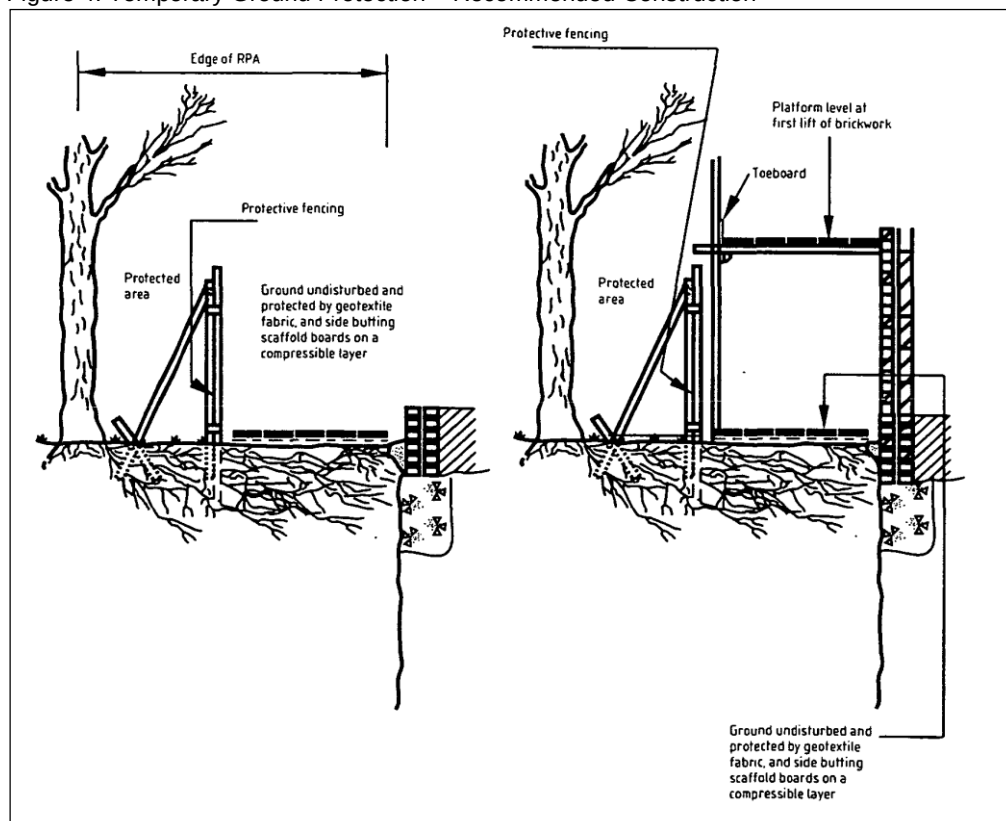
Figure 3(b): Type 3 Fencing (BS5837:2012 above-ground stabilising system with strut on block tray)

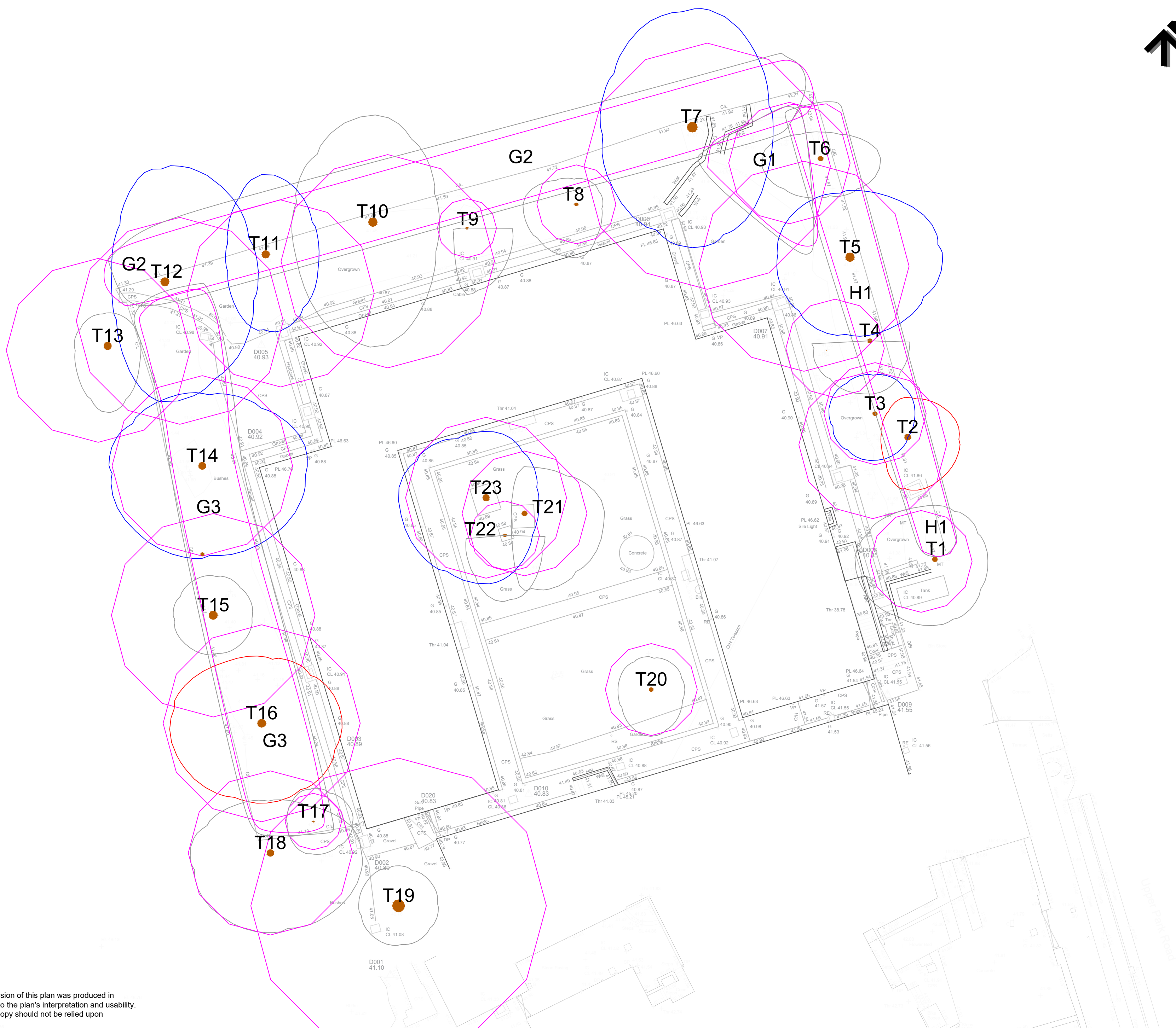
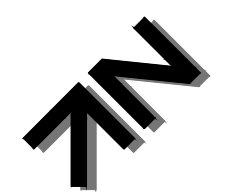


Temporary Ground Protection

1. Any necessary Temporary Ground Protection areas shall conform to Figure 4, below, unless otherwise agreed with the LPA.
2. The Ground Protection Area shall be left undisturbed and covered by a semi-permeable geotextile membrane which shall, in turn, be covered by a compressible layer consisting of a material such as woodchip.
3. Side-butting scaffold boards shall then be fitted to cover the Ground Protection Area.
4. On completion of installation, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, shall inspect the Temporary Ground Protection.
5. The Temporary Ground Protection shall remain in place until completion of the project and only removed following receipt of written permission from the LPA.

Figure 4: Temporary Ground Protection – Recommended Construction





Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon

KEY

T = Individual Tree
G = Group of Trees
H = Hedge

Please refer to associated Tree Survey Schedule and associated appendices for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

Category 'A' Tree/Group/Hedge
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group/Hedge
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group/Hedge
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group/Hedge
Those in Such a Condition that they Cannot Realistically be Retained as Living Trees in the Context of the Current Land Use for Longer Than 10 Years

Note: The stem locations of tree T13 was not plotted on the topographical survey based site plan provided, and its location was subsequently plotted by the arboricultural surveyor using GPS stiling and estimation at the time of the survey. As such, the plotted location of this tree cannot therefore be considered to be wholly accurate

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Note 2: The RPAs of trees T7, T10, T14, T11 and T12 have been offset accordingly in order to take into consideration their locations close to the retaining wall to the site's northern boundary and the RPAs of trees T1, T2, T4, T5 and T6 have been offset to take into consideration their locations close to the wall and road that runs along the site's eastern boundary

Project:
LANGDALE HALL
UPPER PARK ROAD
MANCHESTER
M14 5RJ

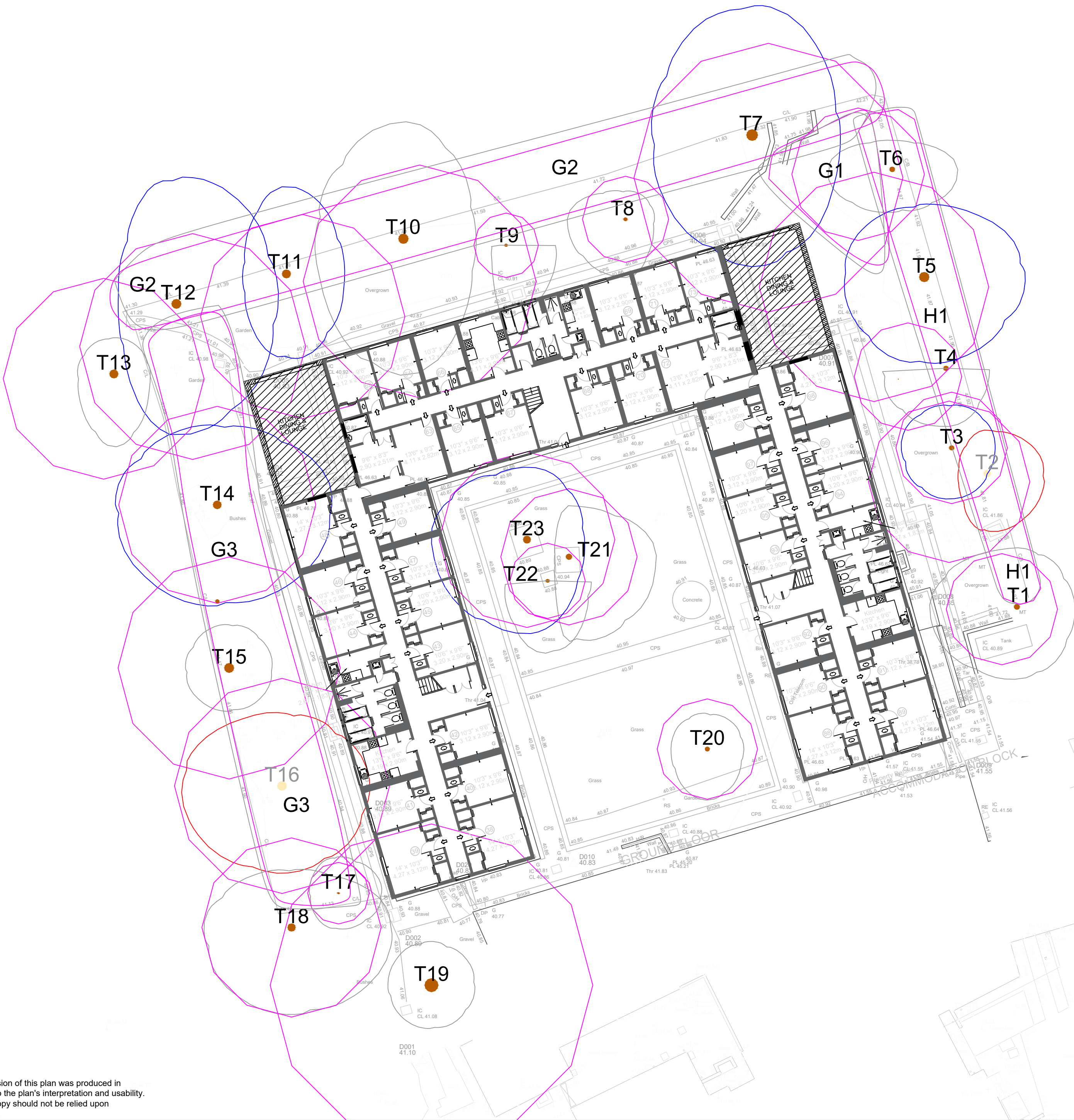
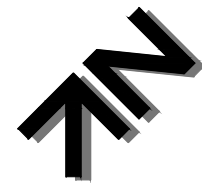
Client:
NJOY STUDENT LIVING

Title:
TREE CONSTRAINTS PLAN
In Relation to Proposed Construction of Two Infill Extensions

Scale: 1:200@A2
Date: September 2021
Drawn by: PH
Checked by: WS

Bowland
Tree Consultancy Ltd
e: info@bowlandtreeconsultancy.co.uk
t: 01772 437150

Ref: BTC1929-TCP Rev: A



Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon

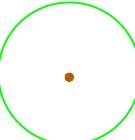
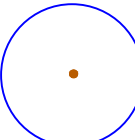
KEY

T = Individual Tree
G = Group of Trees
H = Hedge

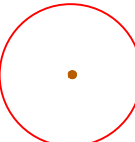
Please refer to associated Tree Survey Schedule and associated appendices for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

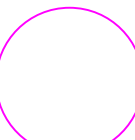
-  Category 'A' Tree/Group/Hedge
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years
-  Category 'B' Tree/Group/Hedge
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years
-  Category 'C' Tree/Group/Hedge
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

-  Category 'U' Tree/Group/Hedge
Those in Such a Condition that they Cannot Realistically be Retained as Living Trees in the Context of the Current Land Use for Longer Than 10 Years

Note: The stem location of tree T13 was not plotted on the topographical survey based site plan provided, and its location was subsequently plotted by the arboricultural surveyor using GPS siting and estimation at the time of the survey. As such, the plotted location of this tree cannot therefore be considered to be wholly accurate

Root Protection Areas (RPAs):

-  RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Note 2: The RPAs of trees T7, T10, T14, T11 and T12 have been offset accordingly in order to take into consideration their locations close to the retaining wall to the site's northern boundary and the RPAs of trees T1, T2, T4, T5 and T6 have been offset to take into consideration their locations close to the wall and road that runs along the site's eastern boundary

Project:
LANGDALE HALL
UPPER PARK ROAD
MANCHESTER
M14 5RJ

Client:
NJOY STUDENT LIVING

Title:
TREE IMPACT PLAN
in Relation to Proposed Construction of Two Infill Extensions

Scale: 1:200@A2
Date: May 2022
Drawn by: PH
Checked by: JL



Ref: BTC1929-TIP

Rev: