



Arboricultural Impact Assessment

in Relation to Proposed Construction of
Workshop Extension and Car Parking at



**James Alpe Ltd, Lincoln Way,
Clitheroe, Lancashire, BB7 1QD**

Prepared by:

Bowland 
Tree Consultancy Ltd

May 2019

**ARBORICULTURAL IMPACT ASSESSMENT
JAMES ALPE LTD, CLITHEROE**

Control sheet

Project No.: BTC1768

Site: James Alpe Ltd, Lincoln Way, Clitheroe, BB7 1QD

Client: James Alpe Ltd

Council: Ribble Valley Borough Council

Survey Date: 9 April 2019

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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
JAMES ALPE LTD, CLITHEROE**

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1.0 INTRODUCTION

Terms of Reference

- 1.1 Bowland Tree Consultancy Ltd were 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 proposed site plan to produce a Tree Impact Plan, identifying tree retention categories, crown spreads, Root Protection Areas, 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 Ribble Valley Borough 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 a tree survey was carried out on 9 April 2019, 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 eight individual trees (prefixed 'T'), five groups of trees (prefixed 'G'), and one hedge (prefixed 'H'), which have been numbered accordingly on the Tree Impact Plan (TIP), as appended. The TIP, which details the proposed site with the readily definable tree constraints, is based on a topographical survey plan and site proposal plan that were provided in electronic format by the project agents, Avalon Town Planning, and, for the purpose of this report, we presume the provided plans' details to be accurate.
- 1.5 The purpose of the TIP is to give an initial indication of the constraints that the trees present to site development, 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 Ribble Valley Borough Council's website, the site does not stand within a CA. However, the council's website does not include details of their TPOs, and it is therefore essential that the presence of any such statutory TPO protection at the site be checked directly with their planning department prior to scheduling or carrying out any tree works that are not directly related to, and subsequently authorised in accordance with, the implementation of a detailed (i.e. full) planning permission.

Protected Species

- 2.3 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. The breeding period for woodlands runs from March to August inclusive. 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 under consideration is located in an area of light industrial character on the north-eastern outskirts of the town of Clitheroe, Lancashire, and is within the administrative boundaries of Ribble Valley Borough Council. It currently consists of rough ground with various trees, and a watercourse, Mearley Brook, running through and subsequently dividing it in two (see TIP).
- 3.2 It is bordered to the north by various light industrial buildings that make up the James Alpe vehicle repair complex, to the east by vegetated rough ground, to the south by Upbrooks, which is a residential access road, and to the west by Lincoln Way. There is an existing vehicular access point into the north-eastern section of the site from Upbrooks, at the site's south-eastern corner, but there is currently no formal access into the section on the south-west side of Mearley Brook.
- 3.3 As confirmed on the topographical survey plan provided, ground levels at the site are variable, with the north-eastern and south-western sections of the site generally sloping gently towards the brook before dropping off steeply in places down to the water. There are also a number of evidently man made bunds across the site, of up to approximately one metre in height.

4.0 THE TREE POPULATION

- 4.1 As noted previously, a total of eight individual trees, five groups of trees, and one hedge were surveyed for the purpose of this appraisal. They range from young to early-mature in age, with heights up to approximately 18 metres, maximum diametrical crown spreads up to approximately 13 metres, and stem diameters up to approximately 430 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 any site 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'.
- 4.4 As detailed in Table A, overleaf, two trees and one group were categorised as moderate quality (i.e. 'B' category) and six trees, four groups, and the hedge were categorised as low quality (i.e. 'C' category).

Table A: BS5837-2012 Retention Categories of the Surveyed Trees, Groups & Hedges

	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'	T1, T4 G2	2 Trees 1 Group
Those of a low quality that should not be considered a material constraint to development	'C'	T2, T3, T5, T6, T7, T8 G1, G3, G4, G5 H1	6 Trees 4 Groups 1 Hedge
Those that should be removed for sound management reasons regardless of site proposals	'U'	-	-
			= 8 Trees, 5 Groups & 1 Hedge in Total

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

The Development Proposal

- 5.1 From the information provided to date it is understood that the application is for the construction of an extension to the south side of the existing workshop and an access road leading from said workshop to a newly constructed 29-space car park via a proposed vehicular bridge over Mearley Brook (see TIP).
- 5.2 The plans provided by the agent, Avalon Town Planning, show that various areas of soft landscaping, including the planting of a new trees, are also included as a component of the proposals.

Projected Arboricultural Losses Relating to the Development Proposals

- 5.3 As indicated on the TIP and as detailed in Table B, below, construction of the development as proposed is projected require the removal of one moderate quality (i.e. 'B' category) group, four low quality (i.e. 'C' category) trees, two low quality groups and part of one further low quality group.

Table B: Projected Arboricultural Impacts of Proposed Development & Other Tree Removal Proposals

	Ret. Cats.	Removals necessary to implement development	Removals recommended regardless of development	Total no. of removals
Those of a high quality that should be afforded appropriate consideration in the context of development	'A'	-	-	-
Those of a moderate quality that should be afforded appropriate consideration in the context of development	'B'	G2	-	1 Group
Those of a low quality that should be afforded appropriate consideration in the context of development	'C'	T3, T5, T6, T7 G1 (part), G4, G5	-	4 Trees, 2 Groups, 1 partial Group
Those that should be removed for sound management reasons regardless of plans	'U'	-	-	-
Totals		4 Trees, 3 Groups, 1 partial Group	-	= 4 Trees, 3 Groups & 1 partial Group in Total

- 5.4 Although it will be necessary to remove a number of trees in order to construct the development as proposed, it is noted that a large percentage of these trees are Ash, and that a number of the Ash trees at the site are exhibiting reductions in vitality that are likely to be symptomatic of colonisation by the prolific pathogen responsible for Ash Dieback Disease, *Hymenoscyphus fraxineus*. In turn, colonisation by Ash Dieback Disease is generally terminal and, given that Ash is a major component of the tree cover at this site, the impact of losing the trees of this species to the disease in question is subsequently projected to be substantial.

Compensation for Projected Arboricultural Losses as Part of the Scheme's Landscaping

- 5.5 As indicated on the Proposed Site Plan, provided by Avalon Town Planning, the scheme includes areas of soft landscaping, on the northern side of Mearley Brook and around the periphery of the proposed car park, which, in turn, provide sufficient space for the planting of a substantial number of new trees and shrubs.
- 5.6 The provision and delivery of a high quality landscape scheme that includes a diverse mix of site-suitable trees and shrubs is projected to adequately compensate for the necessary development-related losses and improve the site's long-term tree cover by replacing the currently dominant Ash that are likely to succumb to Ash Dieback Disease over the coming years.
- 5.7 Consequently, specific details regarding replacement tree planting, as part of a landscaping scheme, should be prepared by a suitably qualified and experienced landscape architect in accordance with the guidance listed herein at paragraphs 7.5 and 7.6. Accordingly, the provision of and adherence to a detailed landscape proposal plan can be assured through the imposition of a suitably worded condition attached to a planning approval.
- 5.8 In turn, the landscape proposal plan should be prepared in strict accordance with any relevant government guidance, specifically BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations, and section 5.6 and Table A.1 of BS5837:2012.

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 as Construction Exclusion Zones (CEZs) throughout the development process, thereby keeping the trees' root zones 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 circles on the TCP.
- 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 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 service plan showing proposed service and/or drainage runs has been provided in respect of the development under consideration. Nonetheless, the proposed site plan provided indicates that, if correctly planned, there should be sufficient space to run the services and drainage outside the RPAs of retained trees. In turn, in order to ensure that this advice is adhered to, the provision of a service plan, with all service runs and drainage routed outside retained tree RPAs, can be conditioned to a planning approval.

Arboricultural Method Statement and Tree Protection Plan

- 6.6 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.
- 6.7 In order to ensure that any such special working methods are followed, and that the retained trees are adequately protected throughout the development process, the production of and adherence to an AMS and a TPP in support of a subsequent reserved matters application, 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 removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any 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 minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

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 such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

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 carried out within and close to retained trees' RPAs should be carried out 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 Eight individual trees, five groups of trees and a hedge were surveyed in respect of a proposal for the construction of a workshop extension, vehicular bridge and car park at the site under consideration.
- 8.2 Two trees and one group were categorised as moderate quality and six trees, four groups and the hedge were categorised as low quality.
- 8.3 An appraisal of the documentation provided to date identified that implementation of the development as proposed will require the removal of one moderate quality group, four low quality trees, two low quality groups and part of one further low quality group.
- 8.4 However, a large proportion of the trees requiring removal are Ash, a number of which are exhibiting reductions in vitality that are likely to be symptomatic of colonisation by Ash Dieback Disease.
- 8.5 Consequently, the provision and delivery of a high quality landscaping scheme that involves replacing the Ash with a mix of site-suitable species new trees and shrubs, in the soft landscaped areas to the north of the brook and around the periphery of the proposed car park, is projected to compensate for the necessary development-related losses.
- 8.6 In turn, the provision of such a landscape scheme can be guaranteed through the imposition of a suitably worded condition attached to a planning approval.

- 8.7 In order to ensure the retained trees throughout the site are adequately protected throughout the development process, in strict accordance with current Government guidance and the recommendations included herein, the production of and adherence to a suitably detailed Arboricultural Method Statement and Tree Protection Plan can be conditioned to a planning approval.
- 8.8 Nonetheless, it should also be noted that all site works discussed herein must also be carried out in strict accordance with specific 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 APPRAISAL							
Site: James Alpe Ltd., Lincoln Way, Clitheroe, Lancashire, BB7 1QD							
Client: James Alpe Ltd.							

Surveyor:	Phill Harris Chartered Arboriculturist
Survey Date:	9 April 2019
Job Ref:	BTC1768

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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	Common Alder	16	420	N	2	1.5 3	EM	G	▪ Growing on bank of brook. ▪ No major structural defects visible at time of survey.	▪ Retain in context of proposed development. ▪ Protect Root Protection Area (RPA) throughout development using Temporary Protective Fencing (specification appended) to form a Construction Exclusion Zone (CEZ).	40+	B1	80	5.04
			E	5										
			S	4										
			W	3										
T2	Crack Willow	18	1x350 3x320 (ms)#	N	6.5	N/A 7	EM	M	▪ Growing on bank of brook. ▪ Multi-stemmed from ground level.	▪ Retain in context of proposed development. ▪ Prune north-east side of crown back by approximately 1.5m in order to obtain suitable clearance from proposed workshop extension to allow construction. ▪ Protect RPA throughout development using a combination of Temporary Protective Fencing, to form a CEZ, and ground protection (specification appended).	10+	C1	195	7.87
			E	7										
			S	2.5										
			W	6										
T3	Common Ash	16	2x330 1x310 1x260 (ms)	N	4	N/A 5	EM	M/P	▪ Growing from small earth mound. ▪ Four stems arise at ground level. ▪ Dense ivy to south stem. ▪ Widespread twig dieback throughout crown, which may be symptomatic of colonisation by Ash Dieback Disease.	▪ Remove in order to construct development as proposed.	10+	C1	172	7.41
			E	6										
			S	6										
			W	4										
T4	Common Alder	14	2x350 (ts)	N	3	1-N 4	EM	G	▪ Growing on bank of brook. ▪ Light ivy to stem, which subsequently impeded inspection.	▪ Retain in context of proposed development. ▪ Protect RPA throughout development using Temporary Protective Fencing to form a CEZ.	20+	B1	111	5.94
			E	4										
			S	5										
			W	4.5										
T5	Horse Chestnut	7	170	N	1.5	1.5	Y	M	▪ Primary branch arises from north-west side of stem at a height of approximately 0.4m.	▪ Remove in order to construct development as proposed.	10+	C1	13	2.04
			E	3										
			S	3.5										
			W	3										
T6	Ash	8	130	N	2.5	N/A 2	Y	M	▪ Highly biased crown north-west due to suppression by neighbouring tree.	▪ Remove in order to construct development as proposed.	10+	C1	8	1.56
			E	1.5										
			S	0.5										
			W	2.5										

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 nearest half 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 APPRAISAL								Surveyor: Phill Harris Chartered Arboriculturist	Page: 2 of 2
Site: James Alpe Ltd., Lincoln Way, Clitheroe, Lancashire, BB7 1QD								Survey Date: 9 April 2019	
Client: James Alpe Ltd.								Job Ref: BTC1768	

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)	
T7	Common Alder	16	1x300 1x270 1x250 (ms)	N E S W	5 0 1.5 4	N/A 1.5	EM	M	▪ Growing on bank of brook. ▪ Three stems arise at ground level. ▪ Dense ivy up all three stems to upper crown, which significantly impeded inspection.	▪ Remove in order to construct development as proposed.	10+	C1	102	5.7
T8	Ash	14	1x180 1x160 1x150 1x120 (ms)	N E S W	3 2 5.5 4	4-S 1	SM	M	▪ Growing on northern bank of brook at water level. ▪ Multi-stemmed from base. ▪ Occasional twig dieback, which may be symptomatic of colonisation by Ash Dieback Disease. ▪ Crown highly biased to south-west.	▪ Retain in context of proposed development. ▪ Protect RPA throughout development using Temporary Protective Fencing to form a CEZ.	10+	C1	43	3.7
G1	Hazel, Field Maple	≤ 8	≤ 3x100 (ms)#	N E S W	≤ 2.5 ≤ 2.5 ≤ 2.5 ≤ 2.5	0 ≥ 0	Y-SM	G	▪ Closely spaced group lining boundary.	▪ Remove eastern section of group in order to construct development as proposed. ▪ Retain western section, alongside brook, and protect throughout development using Temporary Protective Fencing to form a CEZ.	20+	C2	≤ 14	≤ 2.08
G2	approx. 3no. Common Alder	≤ 14.5	≤ 2x300 1x250 (ms)	N E S W	≤ 4 ≤ 5 ≤ 5 ≤ 5	N/A ≥ 2	SM	G	▪ Very closely spaced group of multi-stemmed trees.	▪ Remove in order to construct development as proposed.	20+	B1	≤ 110	≤ 5.91
G3	Hawthorn, Elder	≤ 6	≤ 5x80 (ms)#	N E S W	≤ 3 ≤ 3 ≤ 3 ≤ 3	0 ≥ 0	Y-EM	G	▪ Closely spaced group growing along northern bank of brook. ▪ Predominantly made up of Hawthorn.	▪ Retain in context of proposed development. ▪ Protect RPA throughout development using Temporary Protective Fencing to form a CEZ.	10+	C2	≤ 15	≤ 2.15
G4	2no. Ash	≤ 16.5	≤ 1x400 2x300 1x200 (ms)	N E S W	≤ 8 ≤ 7 ≤ 5 ≤ 3	N/A ≥ 5	EM	M	▪ Moderately spaced pair. ▪ Both are multi-stemmed from ground level. ▪ Dense ivy to easternmost tree.	▪ Remove in order to construct development as proposed.	10+	C1	≤ 172	≤ 7.4
G5	Ash, Hawthorn	≤ 18	≤ 430	N E S W	≤ 4.5 ≤ 4.5 ≤ 4.5 ≤ 4.5	N/A ≥ 1.5	Y-SM	M-G	▪ Moderately to closely spaced group of approximately 10 to 15 trees. ▪ All Ash in group are exhibiting moderate reductions in vitality with associated twig dieback, which may be symptomatic of colonisation by Ash Dieback Disease. ▪ Most Hawthorn are multi-stemmed from ground level. ▪ Ivy to most stems.	▪ Remove in order to construct development as proposed.	20+	C2	≤ 84	≤ 5.16
H1	Leyland Cypress	≤ 4	≤ 60	≤ 3 wide	0.25 ≥ 0	Y	G	▪ Short length of recently planted and not yet managed young hedge.	▪ Retain in context of proposed development. ▪ Protect RPA throughout development using Temporary Protective Fencing to form a CEZ.	20+	C2	N/A	≤ 0.72	

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:

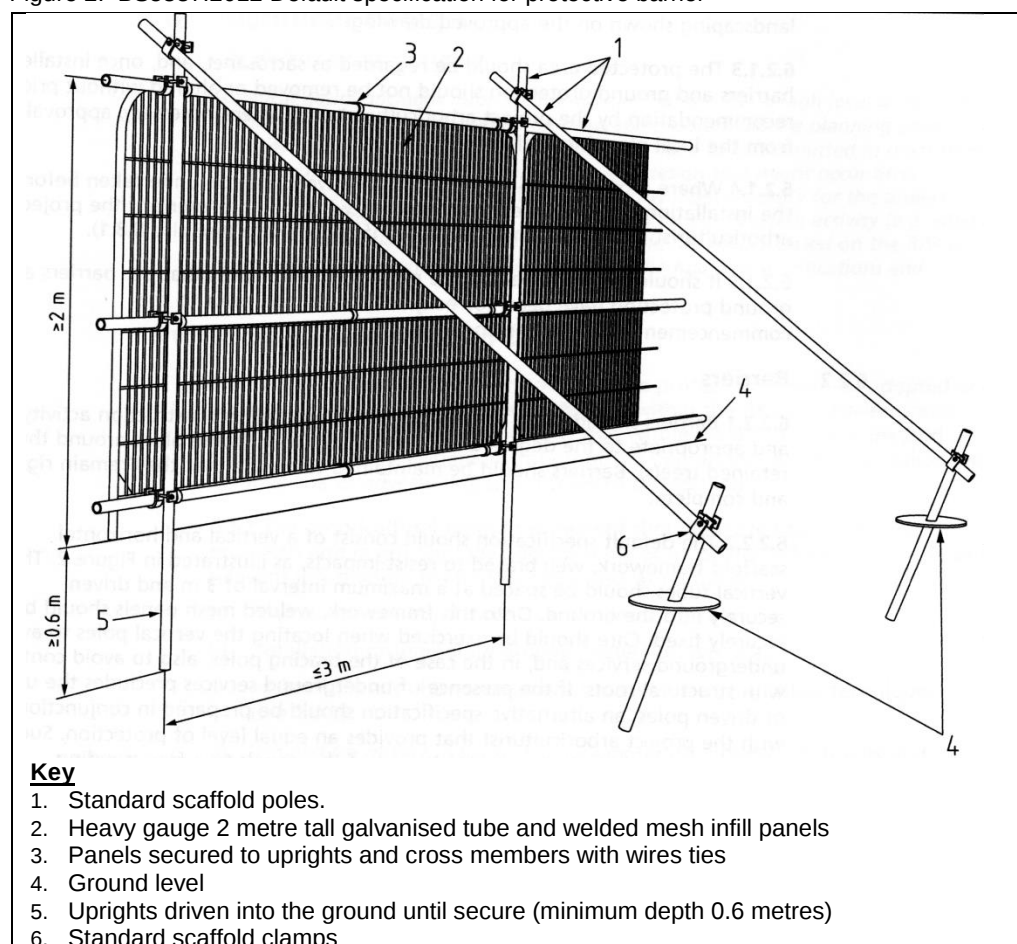
- THE PROTECTIVE FENCING MUST NOT BE MOVED
- NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE
- NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE
- NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE
- NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE
- NO EXCAVATION SHALL OCCUR IN THE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

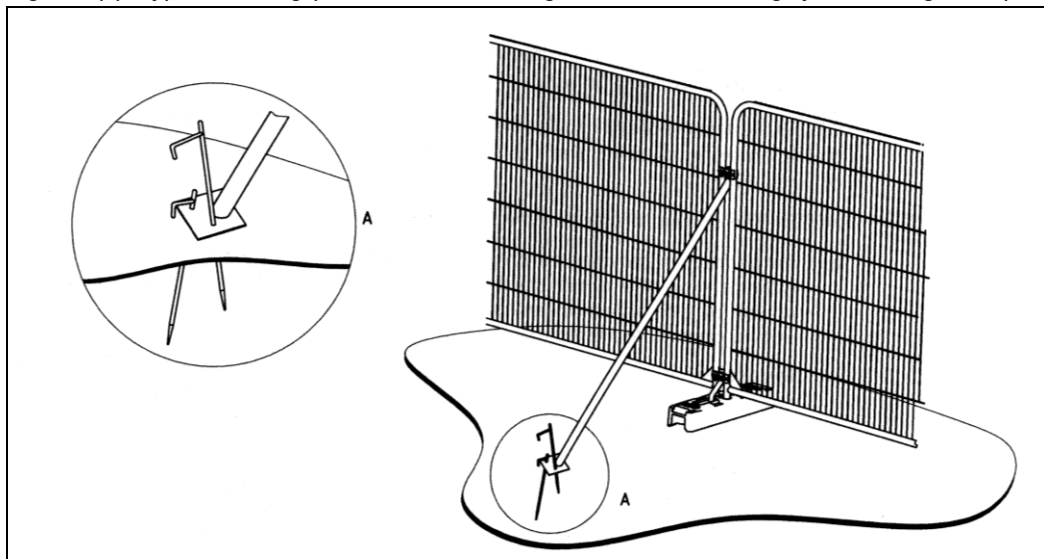
Figure 2: BS5837:2012 Default specification for protective barrier



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.

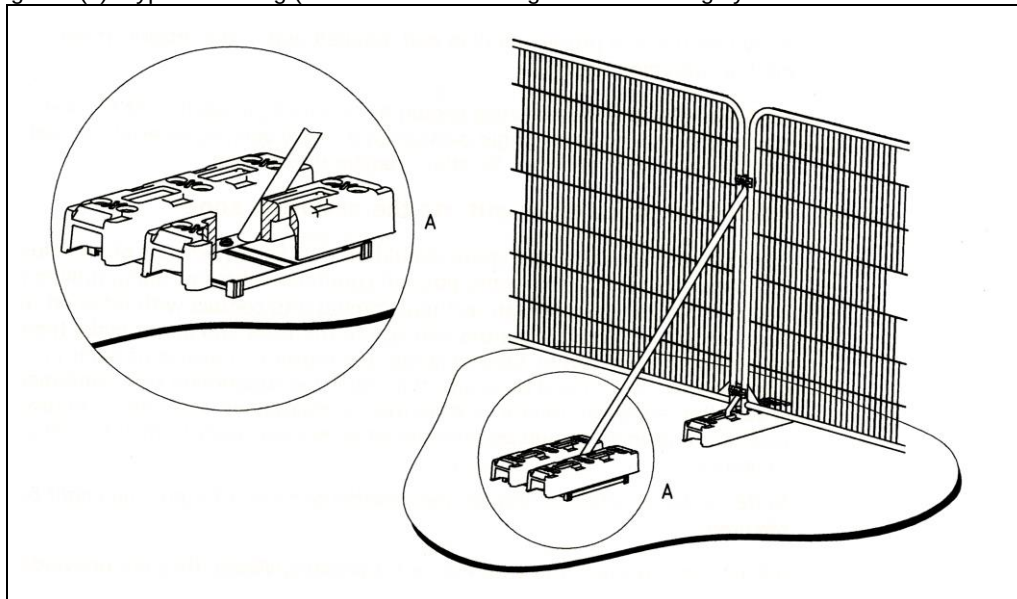
Figure 3(a): Type 2 Fencing (BS5837:2012 above-ground strut stabilising system with ground pins)



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.

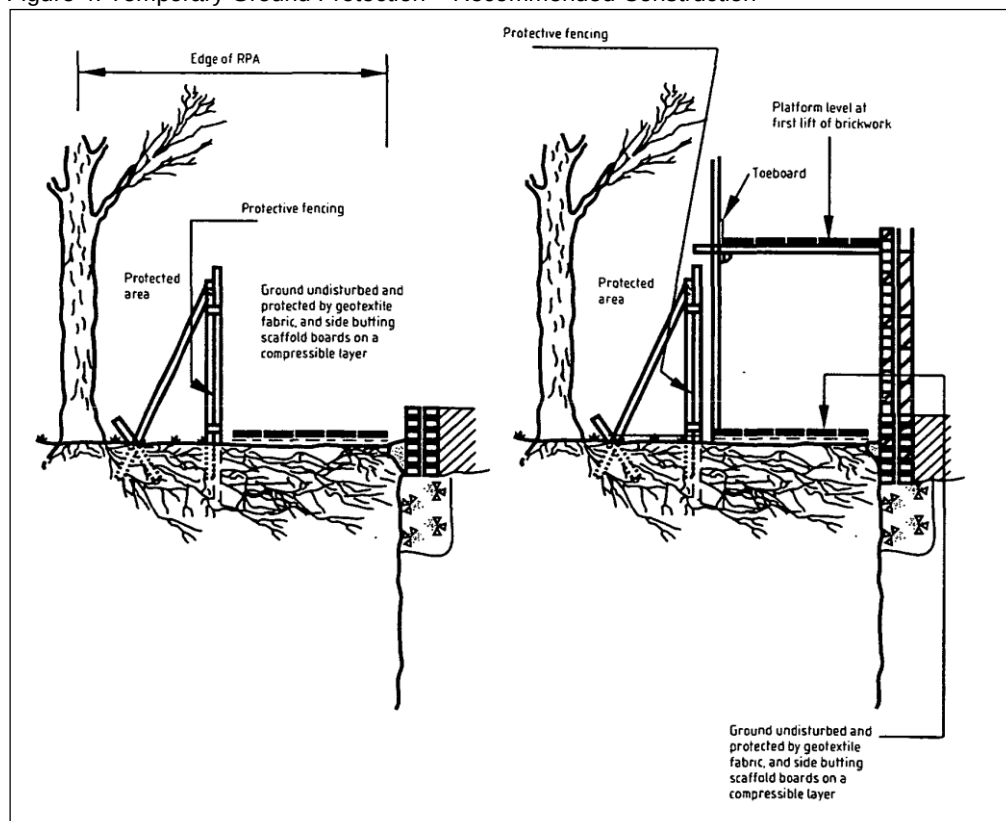
Figure 3(b): Type 3 Fencing (BS5837:2012 above-ground stabilising system with strut on block tray)

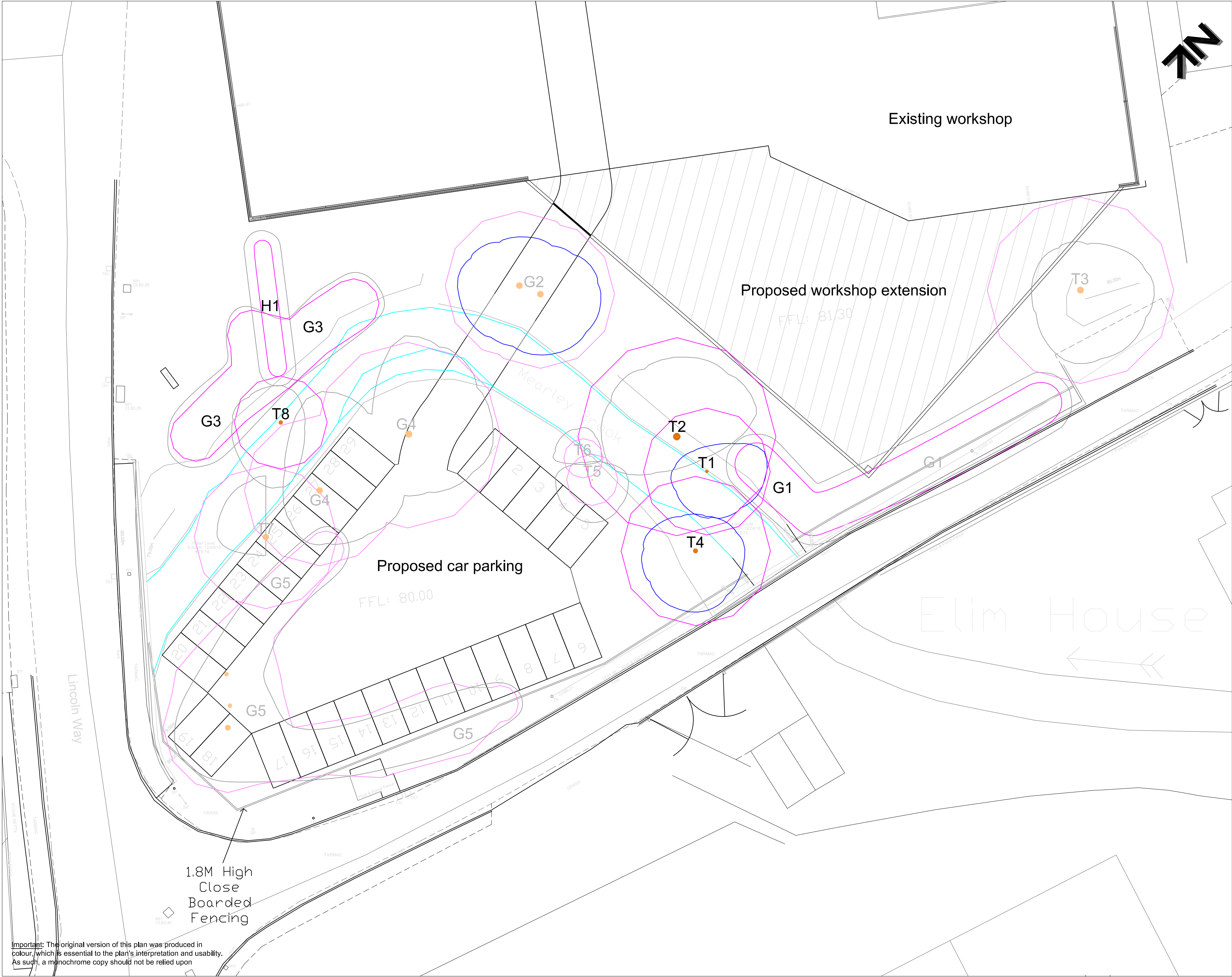


Temporary Ground Protection

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 Arboricultural Impact Assessment report 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 1: The stem locations of individual tree T6, and the majority of the trees in the groups, were not included on the topographical survey plan provided, and their locations were subsequently plotted by the arboricultural surveyor at the time of the survey using GPS siting and, where possible, measurement from existing land features. As such, the plotted locations of these trees cannot therefore be considered to be wholly accurate.
 Note 2: Trees with their identification numbers labelled in grey are recommended for removal in the context of the development

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

Project:
 JAMES ALPE LTD
 LINCOLN WAY
 CLITHEROE
 LANCASHIRE
 BB7 1QD

Client:
 JAMES ALPE LTD

Title:
TREE IMPACT PLAN
 In Relation to Proposed Construction of Workshop Extension and New Car Parking Provision

Scale: 1:200@A2
 Date: May 2019
 Drawn by: JK
 Checked by: PH

Bowland
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Ref: BTC1768-TIP

Rev: