



**TREE SURVEY,
ARBORICULTURAL IMPACT ASSESSMENT,
TREE PROTECTION PLAN & HEADS OF
TERMS FOR THE ARBORICULTURAL METHOD
STATEMENT Rev:1,**

with regard to proposed development at:

**Culworth Close, Pikes Hill Avenue,
Lyndhurst, SO43 7AX,**

for:

Mr Percival.

Job no. MJC-21-0185

7th March 2022.

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1.0 Instruction

1.1 MJC Tree Services Limited have been instructed by Sanders Design Services, acting on behalf of Mr Percival, as follows:

“Re: Development Site Tree Survey & Reports in Accordance With BS5837:2012 at Culworth Close, Pikes Hill Avenue, Lyndhurst, SO43 7AX.

To visit the above site and carry to carry out the following:

- *To carry out a ground level and visual survey of trees on and adjacent to the site that are identified for survey and assessment under the criterion given in British Standard 5837:2012 ‘Trees in Relation to Design, demolition and Construction – Recommendations’ (BS5837:2012):*
- *To draw up a Tree Constraints Plan and tree survey schedule in accordance with BS5837:2012, using as a base plan a topographical survey plan (or similar) of the site showing all tree stems on and immediately adjacent to the site, existing site features and spot levels, that will need to be supplied, via email, as a .dwg (AutoCAD) file to the above office before the survey can be undertaken:*
- *To discuss the proposed development of the site with the design team and, if necessary, the Local Planning Authority in the light of the identified tree constraints with a view to arriving at a proposed layout and design that is acceptable in arboricultural planning terms:*
- *To draw up an Arboricultural Implications Assessment for the proposed development, using the tree constraints information for reference and a proposed site layout (including all access and service plan details) that will need to be supplied, via email, in an electronic (.dwg or AutoCAD) format to the above office before the report can be completed:*
- *To draw up a Tree Protection Plan and Arboricultural Method Statement for the proposed development. To discuss the content of the Statement with the design team and site contractor(s) as necessary to arrive at a workable solution to the tree protection requirements of the site:*
- *To combine these elements into a single report:*
- *To supply the completed report in an electronic format as a .PDF file, with the plans available as .dwg (AutoCAD) files.”*

1.2 During the discussions among the design team it became clear that the foundation for the proposed development would need to be of a specialised and tree root friendly design. In order to avoid the expense and time involved in designing this foundation in detail at the application stage, i.e. at a point in the process where it is not known whether the proposed development will be granted planning permission, it has been decided to establish in principle the performance requirements of this foundation in tree protection terms, and to confirm with the design team that the implications of such a design can be accommodated by the proposed development. Therefore, this report does not contain an Arboricultural Method Statement as referred to in the instruction above, but it does contain a Tree Protection Plan and Heads of Terms for the Arboricultural Method Statement.

2.0 Qualifications and Caveats

2.1 The author of this report is a:

- Fellow of the Institute of Chartered Foresters:
- Chartered Arboriculturist:
- Chartered Surveyor:
- Registered Consultant of the Institute of Chartered Foresters.
- Professional Member of the Arboricultural Association:

He also holds the Royal Forestry Society's Professional Diploma in Arboriculture and has over 27 years' experience in UK arboriculture. A full CV and CPD record are available as a .pdf file upon request to the above office.

2.2 The tree survey was preliminary in nature and was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be required then this will be highlighted in the recommendations.

2.3 Trees are living organisms whose health and condition can change rapidly. The health, condition and safety of trees in high use areas should be checked on a regular basis, preferably at least once every eighteen months. The conclusions and recommendations in this report are based only on the observations made by the author during the tree survey.

2.4 This report is for the sole use of the above-named client and refers only to those trees identified within. It may not be reproduced in whole or in part, or sold, lent, hired out or divulged to any third party not directly involved in the subject matter, without our consent. Use by any other person(s) in attempting to apply its contents for any purpose other than stated in this report renders the report invalid for that purpose.

2.5 This report is supplied subject to our terms and conditions in force at the time of our instruction by the client.

3.0 Introduction

- 3.1 This report is presented largely in the form of annotated plans with a tree survey schedule that are intended to be read in the sequence they are presented, cross referencing as instructed in the annotations.
- 3.1.1 The reason for this graphical form of presentation is to make its interpretation easier by the greater design team and the demolition/construction team. These teams work in a graphical environment, and if the arboricultural reports involved in the design and demolition/construction processes are to be easily interpreted by these teams they must also be presented in a graphical environment. To do otherwise would create an unhelpful disconnect between the arboricultural information and the design and demolition/construction teams. It also allows the report and the proposed development to be assessed on site by officers of the Local Planning Authority (LPA) whilst referencing a small number of single page documents, thereby avoiding the need to keep flicking backwards and forwards through a written report whilst holding open a large site plan.
- 3.1.2 The layout and order of the plans and schedule are intended to illustrate a logical progression from the existing site (Tree Survey Plan and Tree Survey Schedule), through the proposed development, its impact on the trees in terms of tree losses, the establishment of conflicts with the retained trees and how these conflicts will be resolved in principle (Arboricultural Impact Assessment), to the specific tree protection measures required and the identification of where specific arboricultural methodologies are required (Tree Protection Plan and Heads of Term for the Arboricultural Method Statement).
- 3.2 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "*...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development*". The tree works required as a result of the proposed development are detailed in the Arboricultural Impact Assessment plan.
- 3.3 An Arboricultural Method Statement has not been drawn up and submitted with this report for the reasons set out at section 1.2 above. This approach is in compliance with the recommended flow chart provided in Figure 1 of BS5837:2012, which makes it clear that the arboricultural methodologies, i.e. the method statement, should be drawn up AFTER statutory planning permission has been granted, and not before.

4.0 Summary

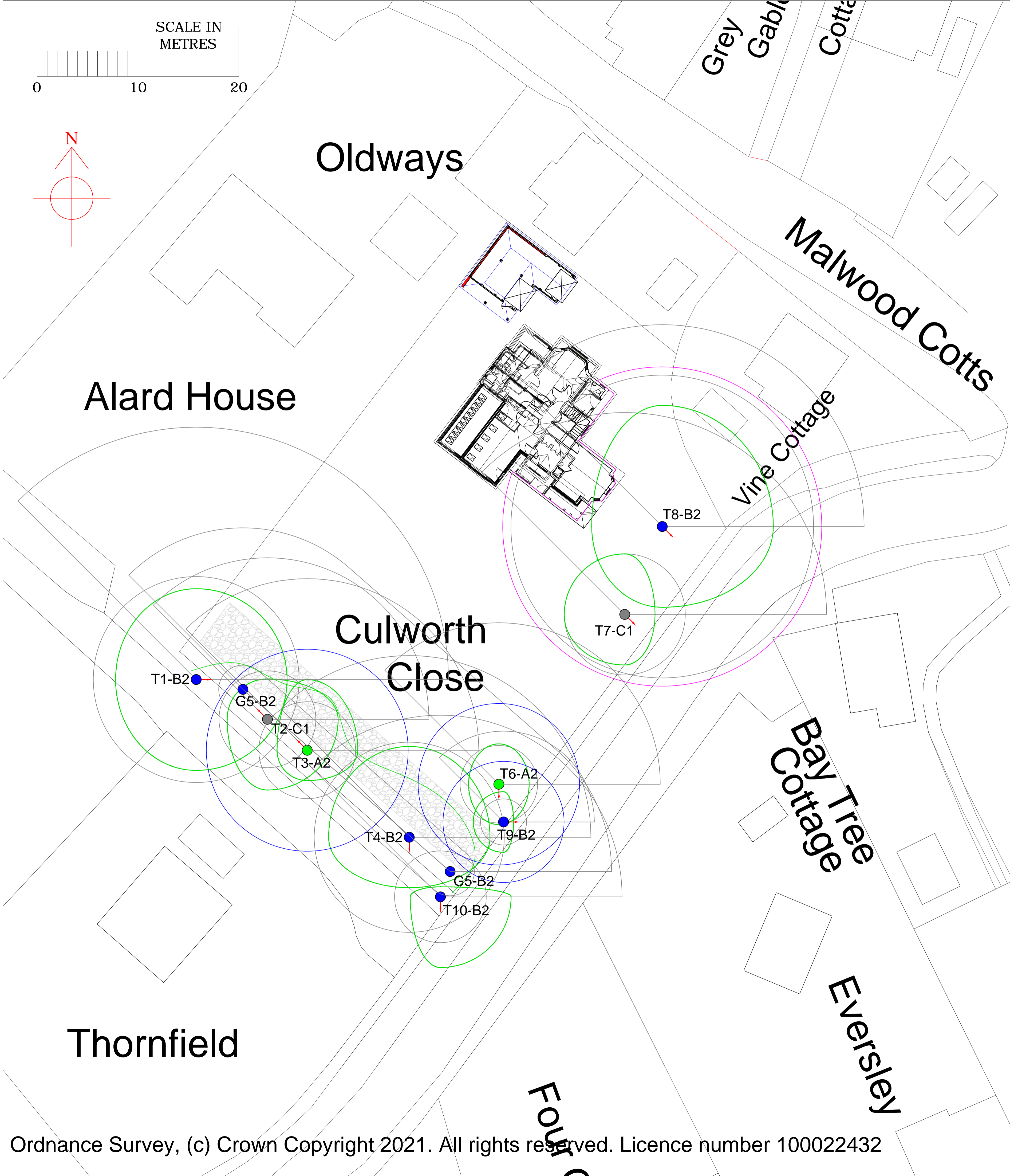
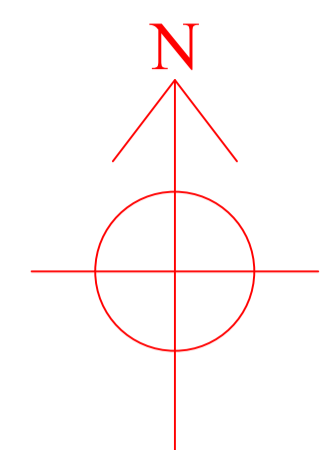
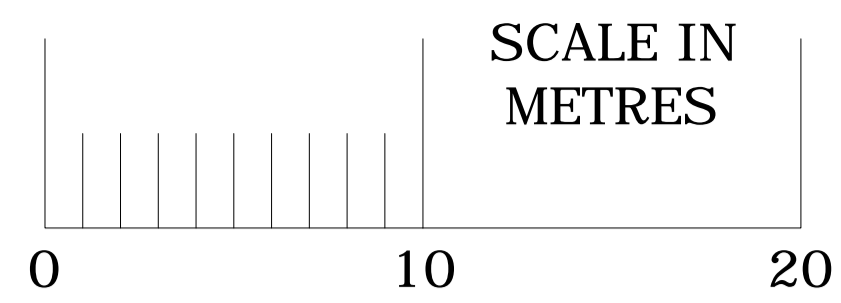
- 4.1 It is proposed to construct a detached and single-storey garage and workshop building on site as illustrated in the Arboricultural Impact Assessment plan.
- 4.2 The text in the Arboricultural Impact Assessment plan has demonstrated that the proposed development is both justified in arboricultural planning terms, and can, in principle at least, be constructed in a way that provides sufficient protection to the retained trees. Therefore, there are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested in the Arboricultural Impact Assessment plan and detailed in the Tree Protection Plan are undertaken. In order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:
- Adherence to the Tree Protection Plan (see enclosed Tree Protection Plan):
 - The pre-commencement drawing up and approval of a comprehensive Arboricultural Method Statement that must be followed throughout the development works:
 - The pre-commencement drawing up and approval of an underground service plan that avoids the RPA of retained trees.
- 4.2.1 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.

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5.0 Tree Constraints Plan



Tree Constraints Plan Notes

- 1.0 Introduction
- 1.1 The tree survey was carried out on the 23rd November 2021.
- 1.2 The survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (BS5837:2012).
- 1.3 The survey was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be considered necessary then this will be highlighted in the recommendations section of the tree survey schedule.
- 1.4 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development". Any tree works required as a result of the proposed development will be listed separately in the Arboricultural Impact Assessment plan (AIA).
- 2.0 The Trees
- 2.1 The details of the individual tree survey are provided on the following tree survey schedule.
- 2.2 The tree constraints have been calculated and are illustrated in accordance with BS5837:2012.
- 2.3 The locations of the trees were established by the author making a measured survey of fixed points whilst on site. The degree of accuracy achieved by this method of plotting is considered sufficiently accurate for the needs of this report and plan.
- 2.4 Root Protection Areas (RPA)
 - 2.4.1 The indicative and circular RPA of the surveyed trees has been derived by using the calculation provided at section 4.6.1 of BS5837:2012 and are illustrated either by a grey circle in this plan, or as an amalgamated RPA for groups and/or woodlands
 - 2.4.1.1 The RPA of tree no. T8 extends under the footprint of the nearby dwelling. It has been considered reasonable to assume that this structure will have formed an effective barrier to root growth in the past.
 - 2.4.1.2 Section 4.6.2 of BS5837:2012 states "Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution."
 - 2.4.1.3 In order to comply with this requirement, the indicative RPA of tree no. T8 that extends under the dwelling has been excluded, and the equivalent area evenly added to the remaining RPA that was considered unrestricted to form an irregular polygon, illustrated with a magenta margin in this plan, as follows.
 - 2.4.2 In tree constraint and arboricultural planning terms, the modified RPA bounded by a magenta line takes precedence over the circular and grey indicative RPA.
- 2.5 The areas of potentially significant shade illustrated in this plan have been derived following the guidance provided at section 5.2.2 Note 1 of BS5837:2012. This area does not indicate an area where development may not take place, it merely indicates an area where tree shade may have an adverse impact on a proposed development if that part of the development has a need for high levels of direct and natural light e.g. patios and living room windows, and it may also reduce useable amenity space in gardens.
- 2.6 Some of the surveyed trees were considered to have significant potential for future growth. The potential and estimated mature crown spread of these trees is illustrated by a blue crown spread margin in this plan.
- 2.7 The online mapping system provided by the Local Planning Authority (LPA) was consulted on the 3rd December 2021 in order to check on the protected status of the surveyed trees. This check indicated the following.
 - 2.7.1 Tree nos. T1, T2, T3, T4, T7 and T8 are protected by a Tree Preservation Order, therefore no works may be carried out on these trees without first obtaining written permission from the LPA, unless those works fall under a very limited number of exemptions written into the regulations.
 - 2.7.2 The Beech and Common Oak trees in group no. G5 may also be protected by a Tree Preservation Order, but they could be just outside the boundary of the Order. Therefore, it would be prudent to carry out no works on these trees without first obtaining written permission from the LPA, unless those works fall under a very limited number of exemptions written into the regulations.
 - 2.7.3 The site is not in a Conservation Area.
- 2.8 The online Multi Agency Graphical Information for the Countryside (MAGIC) mapping system provided by DEFRA was consulted on the 3rd December 2021 in order to check whether any ancient woodlands were present on or close to the site. This check indicated that no ancient woodlands were present on or close to the site.
- 2.9 The tree survey has not identified any ancient and/or veteran trees on or close to the site.
- 3.0 The Site
- 3.1 The site comprised the rear garden of Culworth Close and sloped gently up from the north east to the south west.
- 3.2 Surrounding land use was as follows; to the north, west and south was residential development; to the east was public highway with residential development beyond.
- 3.3 An online check with the British Geological Survey's Geology of Britain Viewer was made on 3rd December 2021.
 - 3.3.1 This check indicated that the soils on site were likely to be made up of the following:
 - Bedrock Geology: Chama Sand Formation – Sand, silt and clay.
 - Superficial deposits: None recorded.
 - 3.3.2 These types of soils may be subject to significant and persistent volumetric changes in response to moisture content. Therefore, there could be a risk of tree root related subsidence on this site, and this risk must be allowed for and accommodated in any proposed development of the site.
 - 3.3.3 The local topsoil will be prone to rapid compaction to the point that tree root growth is impeded. In areas where the existing soil structure needs to be protected i.e. in the RPA of retained trees or proposed new tree and shrub planting areas, the soil must be protected from demolition and construction activities and traffic by either tree protection barriers or adequate temporary ground protection.

MJC TREE SERVICES LIMITED

Site:
Culworth Close, Pikes Hill
Avenue, Lyndhurst,
SO43 7AX.

TREE CONSTRAINTS PLAN

Plan no. MJC-21-0185-01
rev:1

This is based on the supplied OS map, amended by MJC on 26/01/2022.

This plan was produced in colour. A monochrome version must not be relied upon.

KEY

- T1 Category U tree or group and ref' no'
- T1 Category A tree or group and ref' no'
- T1 Category B tree or group and ref' no'
- T1 Category C tree or group and ref' no'
- G1 ○ G1 Trees in a group that have been collectively surveyed and recorded.
- Crown spread of surveyed trees, hedges and shrubs, amalgamated for groups
- Estimated mature crown spread for trees with significant potential for future growth
- Indicative root protection area (RPA), amalgamated for groups
- Modified root protection area (RPA)
- ↗ Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
- ▨ Areas of potentially significant shade constraint for A, B & C grade trees and groups, based on surveyed heights and amalgamated for groups
- ▨ Existing mineral surfaced drive

SCALE
1:200 © A1

6.0 Tree Survey Schedule

TREE SURVEY SCHEDULE

Key:

- **Ht** = Height estimated in metres.
- **Stem Diam** = Stem or trunk diameter, measured and calculated in accordance with Annex C and section 4.6 of BS5837:2012.
 - **oi** = Measurement taken over ivy, which is likely to produce an exaggerated figure;
 - **cmb** = combined stem diameter value for multi stem trees.
- **Crown Spread** = Crown spread to the cardinal points in metres, measured by pacing.
- **1st significant branch ht' & direction** = First significant branch height in metres and direction of growth e.g. N = North.
- **Crown base ht'** = Minimum distance between surrounding ground level at the trunk base and the base of the main crown, estimated by eye in metres.
- **Life stage** is chosen from the four following categories;
 - Y = Young;
 - SM = Semi mature;
 - EM = Early mature;
 - M = Mature;
 - OM = Over Mature.
- **General observations** = Particularly of structural and/or physiological condition, significant features and defects, and the effect these may have on the health, stability and safe retention of the tree.
- **Preliminary management recommendations** = any significant works identified as necessary in the current context, and not taking into account any development of the site..
- **Rem' cont'** = an estimate, in years, of the remaining period over which the tree can be retained at an acceptable level of risk whilst still providing significant amenity benefits with no significant management intervention.
- **Reten' Cat'** = Desirability for retention category. Refers to BS5837:2012 which categorises trees on development sites into one of four categories – A, B, C or U, A being very good and U meaning that felling is appropriate regardless of any proposals. The suffix 1, 2 or 3 refers to a subcategory relating to tree, landscape or cultural/ecological values respectively.
- **AGL** = Above ground level
- **#** = Estimated dimension.
- **TYP** = Typical dimension where several are present.
- **n/a** = Not applicable.
- **n/k** = Not known.

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direction of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T1	Common Lime	25#	850#	1	9#	9#	9#	8#	4.5#	E#	3.5#	M#	<ul style="list-style-type: none"> • This tree is protected by Tree Preservation Order no. 116/02 as part of group no. G7. • The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. • The tree was a prominent boundary feature that was clearly publicly visible. • The trunk bifurcated at approximately 3 metres above ground level with a potentially weak fork, although this was not considered to be structurally significant at the time of survey. • Significant quantities of Mistletoe were present in the crown. 	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 10.2 metres; area = 327 square metres. 	20+#	B2#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T2	Beech	16	400 @ 1.3m agl	1	4	7	7#	4#	1.5	NW	4	EM	<ul style="list-style-type: none"> • This tree is protected by Tree Preservation Order no. 116/02 as part of group no. G7. • The tree contributed to boundary screening but was not a publicly prominent individual. • Significant bark killing was present on the eastern side of the trunk from approximately 1.6 metres above ground level to 3 metres above ground level. • The bark was beginning to shed and only limited callous growth was present around the periphery of the resulting wound and it was considered likely that the exposed wood would start to significantly decay before the tree had the opportunity to completely callous over the wound. • Therefore, the long-term retention of this tree was not anticipated. • Low branching was present hence stem diameter at 1.3 metres above ground level used to calculate the root protection area. 	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 4.8 metres; area = 72 square metres. 	10+	C1
T3	Common Oak	17	400	1	7	5	3	3#	8.4	NW	8.4	EM	<ul style="list-style-type: none"> • This tree is protected by Tree Preservation Order no. 116/02 as part of group no. G7. • The tree was a significant boundary feature that was a publicly prominent individual and had significant potential for future growth. 	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 4.8 metres; area = 72 square metres. 	40+	A2

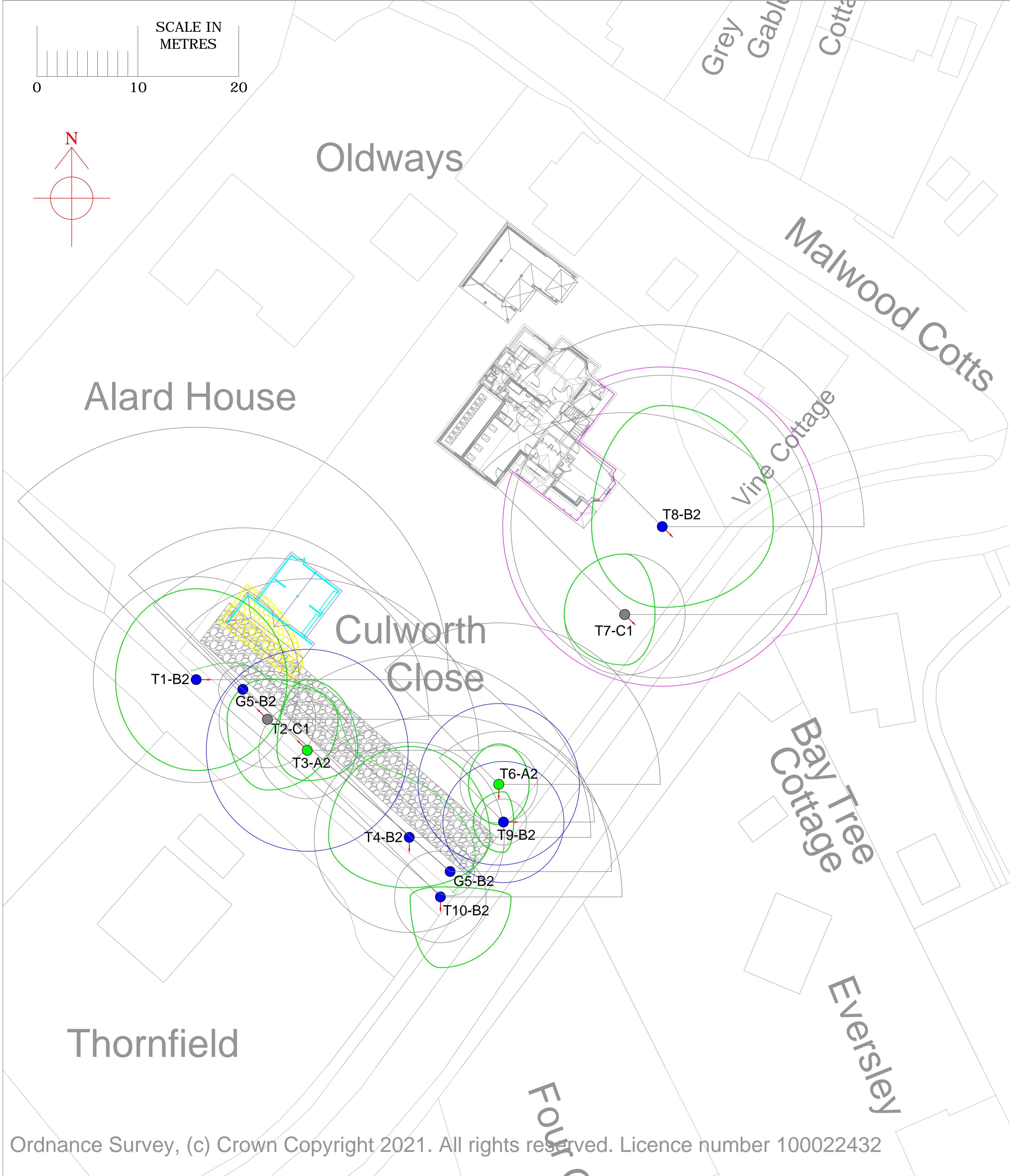
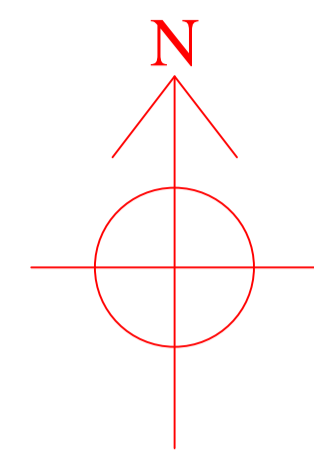
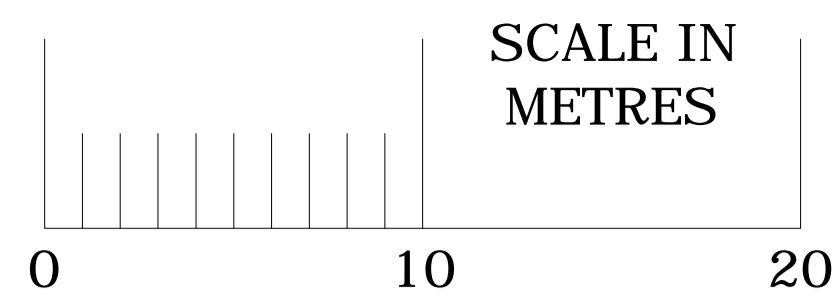
Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direction of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T4	Common Oak	18	650 + 440 = 785 cmb	2	9	8	5	8#	2	S	5	EM	<ul style="list-style-type: none"> This tree is protected by Tree Preservation Order no. 116/02 as part of group no. G7. The tree was two stemmed from below ground level but the stems were so close together it was considered very likely that they both shared a common root stock and have therefore been regarded as a single tree. The tree was a significant boundary feature that was publicly prominent as an individual. The two stems crossed at approximately 2 metres above ground level and were beginning to form an abrasion wound that could ultimately develop into a natural brace. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 9.4 metres; area = 279 square metres. 	40+	B2
G5	Bay Laurel Cherry Laurel Holly Beech Common Oak	16 max	200 typical	1 typical	As per plan	As per plan	As per plan	As per plan	N/A	N/A	0	SM - EM	<ul style="list-style-type: none"> The Beech and Common Oak trees in this group may be protected by Tree Preservation Order no. 116/02 as part of group no. G7, but they may also be outside the boundary of this group. The irregular but broadly linear group straddled the site boundary and made a significant contribution to low level screening. Some of the larger trees within the group have been topped in the past. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 2.4 metres; area = 18 square metres. 	20+	B2

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T6	Common Alder	16	320	1	4	3	4	3	5	S	5	SM	<ul style="list-style-type: none"> The tree was an attractive roadside feature with some potential for future growth. One basal bark wound was present on the north western side of the trunk base. Strong callous growth was present around the periphery of this wound and the wood exposed did not seem to be significantly decayed. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 3.8 metres; area = 46 square metres. 	40+	A2
T7	Silver Birch	20	500	1	6#	3#	5#	6#	3	SE	2.5	M	<ul style="list-style-type: none"> This tree is protected by Tree Preservation Order no. 116/02 as tree no. T22. Access around the tree was impeded by outbuildings and stored materials, therefore, the crown spread measurements have been estimated. The tree was an attractive roadside feature. However, given its age and the noted short life expectancy of this species in Southern England, (Mitchell 1978), the long-term survival of this tree was not anticipated. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 6.0 metres; area = 113 square metres. 	10+	C1

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direction of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T8	Monterey Pine	20	1530 @ 0.5m agl	1	12	11	8	7#	4	SE	4	M	<ul style="list-style-type: none"> • This tree is protected by Tree Preservation Order no. 116/02 as tree no. T23. • The tree was a prominent roadside feature. • The crown overhung the existing dwelling and a percentage of the driveway. • The crown had been reduced in the past but seems to have regrown strongly and numerous cones were present throughout the crown. • The trunk bifurcated at approximately 1.3 metres above ground level with an enlarged fork, hence stem diameter measurement at 0.5 metres above ground level used to calculate the root protection area. • The bifurcated stems had variously crossed and fused further up into the tree and this had improved stability of the lower bifurcation fork. • The crown had been lifted over the drive and highway on several occasions in the past, creating a number of branch removal wounds and stubs but none of these seemed to be significantly decayed at the time of survey. • Given the size and scale of the tree and its proximity to the existing dwelling, its' very long-term retention was not anticipated. 	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 15.0 metres; area = 707 square metres. 	20+	B2
T9	Holly	9	190	1	3	1	3#	3#	3	E	2.3	EM	<ul style="list-style-type: none"> • The tree was an attractive roadside feature with some potential for future growth. 	<ul style="list-style-type: none"> • No works currently identified. • RPA: radius = 2.3 metres; area = 16 square metres. 	20+	B2

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 st sig' branch ht' (m)	Direc- tion of 1 st sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T10	Sycamore	18#	200# + 200# + 230# + 100# = 378 cmb	4#	1#	7#	7#	3#	6#	S#	4#	EM#	<ul style="list-style-type: none"> The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance. The crown was asymmetric as a result of competition for light and space with nearby trees. The tree was multi stemmed from just above ground level with potentially weak basal forks developing. The presence of this structural defect means the very long-term retention of this tree is not anticipated. The tree was an attractive roadside feature that contributed to the verdant street scene. 	<ul style="list-style-type: none"> No works currently identified. RPA: radius = 4.5 metres; area = 65 square metres. 	20+#	B2#

7.0 Arboricultural Impact Assessment Plan



Arboricultural Impact Assessment

1.0 Introduction

- 1.1 It is proposed to construct a detached and single-storey garage and workshop building on site.
- 1.2 In this plan, the proposed development layout is illustrated in cyan and blue.
- 1.3 In order to provide context with the existing site, and highlight the proposed development, the existing site layout plan is also illustrated in pale grey in this plan.
- 1.4 The trees, their constraints, and areas where specific tree protection measures are required, are illustrated in accordance with the key.

2.0 Tree Works

- 2.1 The proposed development does not require the removal of any trees.
- 2.2 The proposed development requires the crown lifting of tree no. T1 to 5.5 metres above ground level over the proposed building footprint in order to create a 1 metre clearance over the ridge of the proposed building. This crown lifting will require raising the crown over the proposed building by 2 metres compared to the existing crown height. This crown lifting requirement is considered acceptable in arboricultural planning terms for the following reasons.
 - 2.2.1 The crown lifting will not have any significant impact on the public view of the tree as the crown lifting only requires the removal of the lowest parts of the crown, and the vast majority of the crown, including the upper part of the crown that is publicly visible, will be untouched. Therefore, the crown lifting will not have a detrimental impact on the local public amenities.
 - 2.2.2 As the crown of this tree already overhangs the existing garden and drive, it is reasonable to conclude that a degree of crown lifting will be required in the current context of the site in order to maintain reasonable vehicular and pedestrian access. Therefore, the proposed development is not creating an entirely new crown lifting requirement, but it is creating an increased crown lifting requirement compared to the current context of the site.
 - 2.2.3 T1 is a Lime, and this species is noted as being very tolerant of pruning. By way of example, this genus is commonly successfully managed as pollard trees in urban situations where the entire crown is removed periodically, and these trees thrive under this management. Therefore, it is reasonable to conclude that the crown lifting required by the proposed development will have no significant and long term detrimental biological impact on the tree.
 - 2.2.4 T1 seems to be an offsite tree, and therefore beyond the ownership and control of my client. However, this factor does not prevent my client carrying out this crown lifting as they have the common law right to cut back overgrowth from neighbouring trees as far as the boundary line if desired, providing they discharge their common law duty of care to avoid causing unreasonable damage to their neighbour's tree.
 - 2.2.5 T1 is protected by a Tree Preservation Order (TPO), but this fact does not prevent my client proposing this crown lifting as part of a planning application as sections 197 and 198 of the current Town & Country Planning Act make all trees on or close to a proposed development site a material consideration in the application determination process, irrespective of the trees' protected status. However, if planning permission is granted for the proposed development, technically, it will be necessary to make a separate application under the TPO to carry out the crown lifting as it is physically possible to construct the proposed development without carrying out the crown lifting.

3.0 Root Protection Areas (RPA)

- 3.1 The proposed development encroaches over the RPA of tree no. T1. The area of this encroachment, and an additional 500mm wide working margin around this area of encroachment, is illustrated as the 'Precautionary area' in this plan. The justification for this encroachment, and the measures required to restrict the arboricultural impact of this encroachment to an acceptable level are detailed below.
 - 3.1.1 Section 5.3.1 of BS5837:2012 allows for the construction of structures over the RPA of retained trees "where there is an overriding justification and if technical solutions to the construction over the RPA are available that will adequately protect the retained trees. Technical solutions to the construction of the proposed building are available and set out below.
 - 3.1.2 The proposed development will be used as a garage, and as such it will need to be accessible from the existing drive, whilst avoiding the need to construct a significantly longer drive and the building taking up too much of the rear garden space. Therefore, the building needs to be adjacent to the existing drive on site and towards the western corner of the garden, and this proximity will result in the encroachment over the RPA of T1.
 - 3.1.3 Allowing for a 500mm working margin around the proposed development footprint, the proposed development covers 33 square metres of T1's RPA. The total RPA for T1 is 327 square metres, which means the proposed development covers less than 11% of T1's RPA. This percentage of encroachment does not exceed the 20% limit stipulated by section 7.4.2.3 of BS5837:2012. Therefore, the extent of encroachment is acceptable in principle.
 - 3.1.4 In order to provide adequate protection to the retained trees, the following measures will need to be taken.
 - 3.1.4.1 Before any construction works commence, the 'Precautionary area' area will be covered by temporary ground protection. The type of ground protection to be used will be dependant on the anticipated loads it will need to carry, and will be specified in the Arboricultural Method Statement to be drawn up after statutory planning permission has been granted.
 - 3.1.4.2 The foundations for the building will need to be designed by a competent engineer and set predominantly at or above ground level. Examples of suitable types of foundation are as follows.
 - 3.1.4.2.1 Piles, with site investigation used to determine their optimal location whilst avoiding damage to roots important for the stability of the tree, by means of hand tools or compressed air soil displacement, to a minimum depth of 600 mm.
 - 3.1.4.2.2 Beams, laid at or above ground level, and cantilevered as necessary to avoid tree roots identified by site investigation.
 - 3.1.4.2.3 The design team understand these requirements and the impact they will have on proposed levels, and they have expressed confidence that these requirements are achievable.
- 3.2 No underground service or drain plan has been supplied, however, it is considered that sufficient space exists across the site, and especially to the north and north east of the proposed development, that is not restricted by the RPA of retained trees for these to be routed around, and therefore avoid conflict with, the RPA. The LPA have the power to ensure this occurs by granting permission subject to a condition requiring the pre-commencement submission and approval of an underground service and drain plan.
- 3.3 The remaining RPA of retained trees can be adequately protected by the use of tree protection barriers and temporary ground protection (see following Tree Protection Plan for details).
- 3.4 The above tree protection measures will restrict the arboricultural impact of the proposed development to an acceptable level. The LPA can ensure that these tree protection measures are carried out by granting planning permission for the proposed development subject to planning conditions requiring compliance with the following Tree Protection Plan, and the pre-commencement drawing up and approval of an Arboricultural Method Statement.

4.0 Future Pressures to Unreasonably Prune or Fell Retained Trees

- 4.1 The inappropriate retention of trees within a new development can lead to future conflicts between the residents of the new development and the trees, thereby creating future pressures to unreasonably prune or fell trees that had been retained in the design and development process. Section 5.3.4 d) of BS5837:2012 requires this issue to be considered and avoided at the design stage of a proposed development. In order to comply with this requirement, the following considerations have been made.
 - 4.2 Crown proximity.
 - 4.2.1 The proposed development will be overhung by the crown of tree no. T1. If the proposed development was to be used as a dwelling space, this crown proximity could create feelings of overbearance and dominance in the minds of future residents, that in turn could result in pressures to unreasonably prune or fell the tree. However, the proposed development will be used as a garage and workshop, and it is unlikely that the same feelings of overbearance and dominance will be created. Therefore, crown proximity is unlikely to result in any significant pressures to unreasonably prune or fell T1.
 - 4.2.2 It will be necessary to periodically crown lift T1 in the future in order to maintain adequate clearance over the ridge of the proposed building. However, this will not be a frequent or overly onerous pruning requirement, and a similar, albeit lesser, crown lifting requirement already exists in order to maintain clearance over the existing drive, so the proposed development has merely moved the existing crown lifting requirement 2 metres further up. Therefore, this future crown lifting requirement will not result in any additional pressures to unreasonably prune or fell T1 compared to the current context of the site.
 - 4.2.3 The retained trees will drop related debris onto the proposed development and this could result in blocked gutters and down pipes. In order to avoid this issue creating legitimate pressures to prune or fell the retained trees in the future, the following measures will need to be taken.
 - 4.2.3.1 Install leaf and litter guards, or similar protective measures to the gutters and down pipes. Alternatively overshoot roof edges with drip edges and under slung gutters can be used to avoid blockages.
 - 4.2.3.2 Locate all downpipes at the maximum distance possible from the crowns of retained trees.
 - 4.2.3.3 Ensure all downpipes are fitted with open downspouts that discharge onto open grill drains in order to permit easy clearing of both the downpipe and the drain.
 - 4.2.3.4 If these measures are incorporated into the design of the proposed development, tree related debris should not result in any significant pressures to unreasonably prune or fell the retained trees.
- 4.3 Tree shade.
 - 4.3.1 At the layout design stage, the indicative shade segment suggested at section 5.2.2 Note 1 of BS5837:2012 was used to assess the impact of shade on the proposed gardens and dwellings.
 - 4.3.2 This assessment indicated that the proposed development would experience significant tree shade, but given the proposed use of the proposed development as a garage and workshop, the building has no requirement for high levels of direct sunlight. Therefore, tree shade should not result in any legitimate pressures to unreasonably prune or fell the retained trees.

5.0 Summary

- 5.1 The above has demonstrated that the proposed development is both justified in arboricultural planning terms, and can, in principle at least, be constructed in a way that provides sufficient protection to the retained trees. Therefore, there are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested above and detailed in the Tree Protection Plan are undertaken in order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:
 - 5.1.1 Adherence to the Tree Protection Plan (see enclosed Tree Protection Plan);
 - 5.1.2 The pre-commencement drawing up and approval of a comprehensive Arboricultural Method Statement that must be followed throughout the development works;
 - 5.1.3 The pre-commencement drawing up and approval of an underground service plan that avoids the RPA of retained trees.
- 5.2 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.

MJC TREE SERVICES LIMITED

Site:
Culworth Close, Pikes Hill
Avenue, Lyndhurst,
SO43 7AX.

ARBORICULTURAL IMPACT ASSESSMENT PLAN

Plan no. MJC-21-0185-01
rev:1

This is based on the supplied OS map and proposed layout plan 'perc sht2' amended by MJC on 07/03/2022.

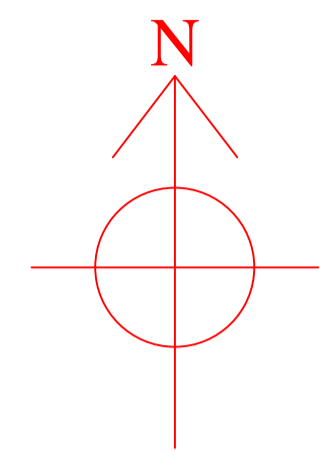
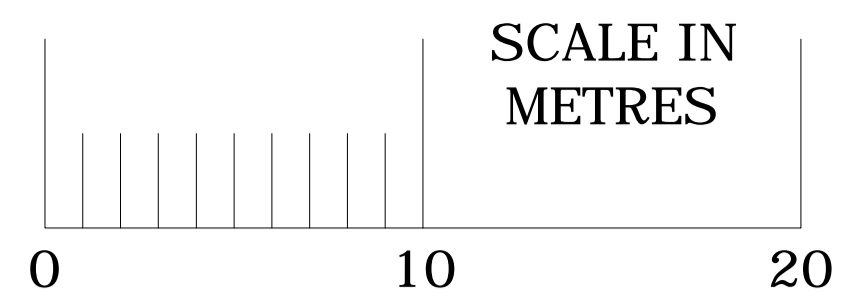
This plan was produced in colour. A monochrome version must not be relied upon.

KEY

- Existing site layout in grey
- Proposed site layout in colour
- Precautionary area
- T1 Category U tree or group and ref' no'
- T1 Category A tree or group and ref' no'
- T1 Category B tree or group and ref' no'
- T1 Category C tree or group and ref' no'
- G1 Trees in a group that have been collectively surveyed and recorded.
- Crown spread of surveyed trees, hedges and shrubs, amalgamated for groups
- Estimated mature crown spread for trees with significant potential for future growth
- Indicative root protection area (RPA), amalgamated for groups
- Modified root protection area (RPA)
- Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
- Areas of potentially significant shade constraint for A, B & C grade trees and groups, based on surveyed heights and amalgamated for groups
- Existing mineral surfaced drive

SCALE
1:200 @ A1

8.0 Tree Protection Plan & Heads of Terms for the Arboricultural Method Statement



Alard House

Oldways

Culworth Close

Thornfield

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Grey Gable Cottages

Malwood Cottages

Vine Cottage

Bay Tree Cottage

Eversley

Four Cottages

Tree Protection Plan & Heads of Terms for the Arboricultural Method Statement

1.0 Introduction.

1.1 The proposed construction works will be carried out in strict accordance with the following tree protection measures, and an Arboricultural Method Statement to be drawn up and approved after planning permission has been granted. This method statement should not be drawn up at this stage of the development process in order to comply with the recommended flow chart provided in Figure 1 of BS5837:2012, which makes it clear that the arboricultural methodologies, i.e. the method statement, should be drawn up AFTER statutory planning permission has been granted, and not before.

2.0 Tree Works.

2.1 Before any construction works commence, and before any construction vehicles, equipment and materials are delivered to site, the following tree works will be carried out:

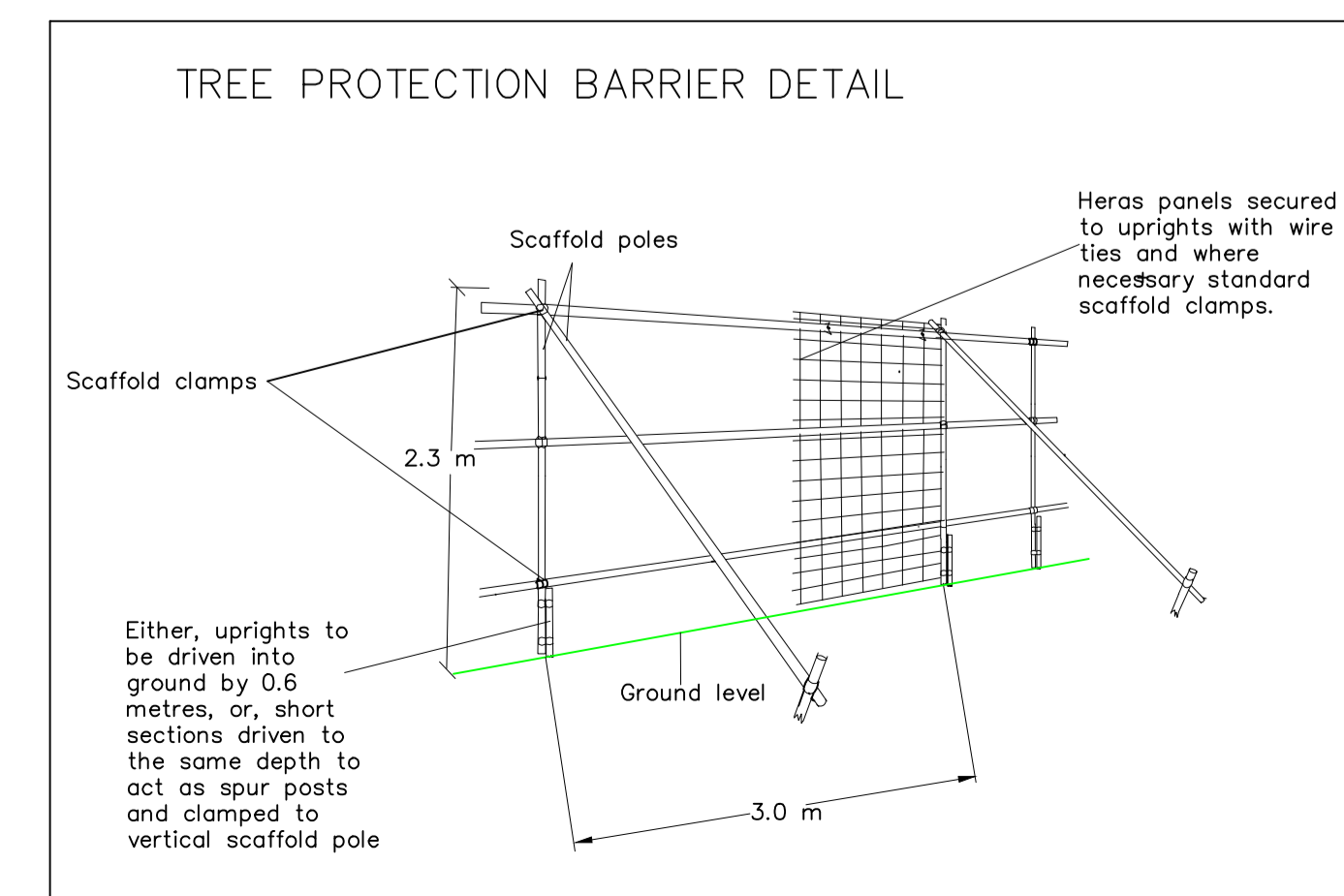
- 2.1.1 Crown lift tree no. T1 to 5.5 metres above ground level over the proposed building footprint in order to create a 1 metre clearance over the ridge of the proposed building.
- 2.2 All tree works will be carried out in accordance with the following stipulations.
 - 2.2.1 All tree works will be carried out in accordance with BS3998:2010 wherever that Standard is applicable.
 - 2.2.2 All works will be carried out in accordance with all applicable health & safety and environmental protection legislation.
 - 2.2.3 All tree works will be carried out in such a way that no collateral harm is caused to trees to be retained.
 - 2.2.4 All arisings will be disposed of in an approved manner and off site unless otherwise instructed by the client or site manager.

3.0 Tree Protection Measures

- 3.1 After the tree works are completed, but before any construction works commence, and before any construction vehicles, equipment and materials, other than only those necessary for the erection of the tree protection barriers and the installation of the temporary ground protection, are delivered to site, the tree protection barriers will be erected at the positions illustrated in this plan.
 - 3.1.1 This barrier will either comply with the recommendations in BS5837:2012 i.e. as a first choice the illustration in this plan, or where this design of barrier is not feasible, the barrier will comply with the following specification.
 - 3.1.1.1 The barrier will comprise a minimum 2m tall welded mesh fence panels on rubber or concrete feet secured with ground pins.
 - 3.1.1.2 The fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
 - 3.1.1.3 The distance between the fence couplers should be at least 1m and should be uniform throughout the fence.
 - 3.1.1.4 The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins.
 - 3.1.1.5 Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray.
 - 3.1.2 The barrier will have an A3 size informative/warning notice attached on the construction site side, at approximately 1.6 metres above ground level, and at no more than 6 metres intervals. An example of a suitable notice is enclosed with this report and follows this plan.
 - 3.1.3 No construction access whatsoever will be permitted in the construction exclusion zones formed by the tree protection barriers.
 - 3.1.4 The tree protection barriers will be retained in place and intact until all construction activities have been completed and all construction materials, equipment and vehicles have been removed from the site.
- 3.2 After the tree works are completed, but before any construction works commence, and before any construction vehicles, equipment and materials, other than only those necessary for the erection of the tree protection barriers and the installation of the temporary ground protection, are delivered to site, the 'Precautionary area' and the 'Temporary ground protection area' illustrated in this plan will be covered by temporary ground protection. The type of ground protection to be used will be dependant on the anticipated loads it will need to carry as follows.
 - 3.2.1 For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane.
 - 3.2.2 For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.
 - 3.2.3 For wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.
 - 3.2.4 In all cases, the objective should be to avoid compaction of the soil, which can arise from the single passage of a heavy vehicle, especially in wet conditions, so that tree root functions remain unimpaired.
 - 3.2.5 The temporary ground protection over the 'Temporary ground protection area' will be retained in place and intact until all construction activities have been completed and all construction materials, equipment and vehicles have been removed from the site, unless the Arboricultural Method Statement dictates its prior removal.
 - 3.2.6 The temporary ground protection over the 'Precautionary area' will be retained in place and intact until the Arboricultural Method Statement dictates its removal.
- 3.3 When any large and/or tall and/or jibbed vehicles/equipment are operating or manoeuvring close to the crowns of trees to be retained, a specific banksperson will be appointed to supervise the movement and ensure that no damage is caused to the crowns of these trees through impact.
- 3.4 All activities usually carried out in the compound area, e.g. the storage of materials and equipment, the mixing of concrete and mortar, the siting of rest cabins and the site office etc., will take place outside the construction exclusion zones created by the tree protection barriers, and the 'Precautionary area' and the 'Temporary ground protection area'.
- 3.5 Any facilities for the storage of oils, fuels or chemicals shall be located outside the construction exclusion zones created by the tree protection barriers, and the 'Precautionary area' and the 'Temporary ground protection area', in tanks on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%.
- 3.6 All underground services will be carefully routed so as to avoid crossing the RPA of all the retained trees.
- 3.7 No fires will be permitted on site.
- 3.8 All construction activities will be carried out in accordance with the Arboricultural Method Statement to be drawn up and approved after planning permission has been granted.
- 3.9 The Arboricultural Method Statement will need to cover the following heads of terms.

4.0 Heads of Terms for the Arboricultural Method Statement

- 4.1 The method statement will need to cover the following elements:
 - 4.1.1 Responsibility for implementation of the Tree Protection Plan and Arboricultural Method Statement:
 - 4.1.2 Arboricultural monitoring timetable:
 - 4.1.3 Phasing of works:
 - 4.1.4 Distribution of Tree Protection Plan and Arboricultural Method Statement:
 - 4.1.5 General measures, including access, storage of materials etc.:
 - 4.1.6 Tree works:
 - 4.1.7 Tree protection barrier erection:
 - 4.1.8 Temporary ground protection installation:
 - 4.1.9 Construction works – building foundations in the 'Precautionary area'.



MJC TREE SERVICES LIMITED

Site:
Culworth Close, Pikes Hill Avenue, Lyndhurst, SO43 7AX.

TREE PROTECTION PLAN & HEADS OF TERMS FOR THE ARBORICULTURAL METHOD STATEMENT

Plan no. MJC-21-0185-03 rev:1

This is based on the supplied OS map and proposed layout plan "perc sht2" amended by MJC on 07/03/2022.

This plan was produced in colour. A monochrome version must not be relied upon.

KEY

- Existing site layout in grey
- Proposed site layout in colour
- Precautionary area
- Temporary ground protection areas
- Tree protection barriers: dimensions in mm
- Construction exclusion zone (CEZ)
- Category U tree or group and ref' no'
- Category A tree or group and ref' no'
- Category B tree or group and ref' no'
- Category C tree or group and ref' no'
- Trees in a group that have been collectively surveyed and recorded.
- Crown spread of surveyed trees, hedges and shrubs, amalgamated for groups
- Indicative root protection area (RPA), amalgamated for groups
- Modified root protection area (RPA)
- Existing mineral surfaced drive

SCALE
1:200 @ A1

9.0 Tree Protection Barrier Sign



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



**TREE PROTECTION AREA
KEEP OUT !**
(TOWN & COUNTRY PLANNING ACT 1990)
**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**
ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

10.0 References

- Mitchell 1978 = Mitchell, A. (1978) *Trees of Britain & Northern Europe* (second edition). In: Collins Field Guide; Harper Collins Publishers, p206.
- BS5837:2012 = British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- BS3998:2010 = British Standard 3998:2010 'Tree work – Recommendations'.