



BS5837:2012

**Trees in relation to design, demolition and construction –
Recommendations**

Tree Survey

Hevercourt Limited

**Hevercourt Care Home,
Goodwood Crescent,
Gravesend,
DA12 5EY**

30 September 2021

Author: Chris Wren BSc (Hons) MArborA

Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 25th August 2021 from Hevercourt Limited to attend Hevercourt Care Home, Goodwood Crescent, Gravesend, DA12 5EY; grid reference, TQ 65178 71075 (site) to undertake an arboricultural survey a to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees and Tree Constraints Plan.

I am Chris Wren, an arboricultural surveyor for Arbtech Consulting Ltd. I undertook the tree survey on the 8th September 2021 and subsequently, have produced this summary of my findings.

I have ten years of industry experience and hold a BSc (Hons) in arboriculture and urban forestry. I am a professional member of the Arboricultural Association and a member the Institute of Chartered Foresters.

The advice below and appended is underwritten by our Professional Indemnity insurance for the business practice of Arboricultural Consultancy in the sum of one million Pounds Sterling in each and every claim.

Table 1: Documents referred to.

Document	Reference No.
Survey base drawing	BPS1361.01 of 08
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Tree Survey Schedule	Arbtech TS 01
Tree Constraints Plan	Arbtech TCP 01

Tree Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Chris Wren on the 8th September 2021.

During the survey, I categorised the trees using "Table 1 – Cascade chart for tree quality assessment" of the BS5837:2012 (see Appendix 1).

A total of 40No individual trees, 3No groups of trees, 1No hedges and 1No woodlands were surveyed. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Multiple shrubs and small saplings occupy the site, none of which are above 75mm diameter at or close enough to each other to form a group.

Table 2: Documents upon which this tree survey has been based.

Document	Originator	Reference Number	Title
Topo	Blueprint Surveys Ltd	BPS1361.01 of 08	Site Plan

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

Site description

The property is a care home with attached garden and parking areas. The site is uniformly level and is situated on the southern edge of Gravesend.



Figure 1: OS Map (Bing Maps)



Figure 2: Aerial Image of Site (Google Maps)

It has been proposed to extend the building to the west, south, north and east adding additional bedrooms and lounge space

It is likely that arboricultural impacts can be addressed with arboricultural methodology or minor amendments to the proposal.

BS5837:2012 Scope

This standard recognises that there can be problems for development close to existing trees which are to be retained, and of planting trees close to existing structures. This standard sets out to assist those concerned with trees in relation to construction to form balanced judgements. It does not set out to put arguments for or against development, or for the removal or retention of trees. Where development, including demolition, is to occur, the standard provides guidance on how to decide which trees are appropriate for retention, on the means of protecting these trees during development, including demolition and construction work, and on the means of incorporating trees into the developed landscape.

Methodology

The methodology used to assess the trees was the British Standard 5837:2012 'Trees in Relation to Construction' tree survey method. The aim of the survey is to establish which trees are moderate and good quality; suitable for retention and justifying protection. And, which trees are low or poor quality; either undesirable or unsuitable to retain and protect.

The tree survey includes all trees included in the land survey red line boundary plan, as well as any that may have been missed, and it should categorize trees or groups of trees, including woodlands for their quality and value within the existing context, in a transparent, understandable and systematic way. Where the arboriculturist has deemed it appropriate, the trees have been tagged with small metal or plastic tags, placed as high as is convenient on the stem of each tree.

Whilst master plan proposals for the development of the site might be available, the trees have been surveyed without taking these into consideration. All detailed design work on site layout should take into consideration the results of the tree survey (and the TCP).

Trees forming groups and areas of woodland (including orchards, wood pasture and historic parkland) are identified and considered as groups where the arboriculturist has determined that this is appropriate, particularly where they contain a variety of species and age classes that could aid long-term management. It is often expedient to assess the quality and value of such groups of trees as a whole, rather than as individuals. However, an assessment of individuals within any group has been undertaken if they are open-grown or if there is a need to differentiate between them.

The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories: A, B, C, or U (highest to lowest quality respectively). The categories are differentiated on the tree survey plan by colour, or by suffixing the category adjacent to the tree identification number on the TCP.

The survey schedule lists all the trees or groups of trees. The following information is also provided:

- Sequential reference number (to be recorded on the tree survey plan);
- Species (common and/or taxonomic names);
- Height in meters (m);
- Trunk diameter in millimetres (mm) at 1.5 m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
- Crown (branches) spread in meters taken at the four cardinal and/or intercardinal compass points;
- Height of crown clearance above adjacent ground level in meters (m);
- Age class
- Physiological condition
- Structural condition
- Comments/description of features
- Estimated remaining contribution
- Retention Category as described by application of the BS5837:2012 **Cascade Chart for Tree Quality Assessment (Appendix 1)**

Definitions

Arboriculturist

An arboriculturist (or arboricultural consultant) is a person who has, through relevant education, training and experience, gained recognized qualifications and expertise in the field of trees in relation to construction.

Tree Survey

A tree survey should be undertaken by an arboriculturist and should record information about the trees on a site independently of and prior to any specific design for development. As a subsequent task, and with reference to a design or potential design, the results of the survey should be included in the preparation of a tree constraints plan, which should be used to assist with site layout design.

Tree Constraints Plan

A TCP is a plan, typically delivered as an AutoCAD drawing (.dxf or .dwg file format), prepared by an arboriculturist for the purposes of layout design showing the root protection area and representing the effect that the mature height and spread of retained trees will have on layouts through shade, dominance, etc.

Root Protection Area

An RPA is a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².

Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m²), identified by an arboriculturist, to be protected during development, including demolition and construction work, by the use of barriers and/or ground protection fit for purpose to ensure the successful long-term retention of a tree.

Arboricultural Impact Assessment

This is a study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Tree Protection Plan

A TPP is a plan, typically delivered as an AutoCAD drawing (.dwg file format), prepared by an arboriculturist showing the finalized layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement, which can be shown graphically.

Arboricultural Method Statement

This is a methodology for the implementation of any aspect of development that has the potential to result in loss of or damage to a tree. The AMS is likely to include details of an on-site tree protection monitoring regime.

Recommendations

With the benefit of making an assessment of your planning proposals, we make the following recommendation to ensure that there are no irrevocable issues to the proposed retained trees and so that no conditions relating to arboriculture are attached to any planning consent secured; obtain an arboricultural report to include:

- a) An arboricultural impact assessment (AIA);
- b) An arboricultural method statement (AMS); and
- c) A tree protection plan drawing (TPP).

Limitations

Trees were inspected from using visual observation from ground level only. Trees were not climbed or inspected below ground level. Inaccessible trees will have best estimates made about the location, physical dimensions and characteristics. Trees have been grouped where BS5837 guides us that it is expedient to do so. Trees have been excluded from the survey if they are found by us to be sufficiently far away from the proposed developable area or if they are outside of the red line boundary plan showing the expectations of our Client for the extent of the survey. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

Appendices

The following documents were released to the Client as appendices to this report:

- Survey Schedule (.pdf)
- Tree Constraints Plan drawing (.dwg/.dxf & .pdf)

If you require clarification of information contained herein, please do not hesitate to contact us via 01244 660558.

Yours Sincerely,



Chris Wren BSc (Hons) MArborA. Arboricultural Surveyor

Appendix 1: Cascade Chart for Tree Quality Assessment

Cascade Chart for Tree Quality Assessment (BS5837:2012)

Category and definition	Criteria (including subcategories when 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 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 might be desirable to preserve; see 4.5.7.</i>			Dark 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)	Light green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic management and storm damage), such that they are unlikely to be suitable for retention of beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Mid blue
Category C Trees of low quality with an estimated remaining expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape value	Trees with no material conservation or other cultural value	Grey

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Appendix 2: Schedule of Trees

BS5837:2012 Tree Survey

Arbtech Consulting Ltd.

Client: Hevercourt Limited
 Project: Hevercourt Care Home, Goodwood Crescent, Singlewell,
 Gravesend, Kent, DA12 5EY

Survey Date: 08/09/2021

Surveyor: Chris Wren



Unit 3, Well House Barns
 Chester Road
 Chester
 Cheshire
 CH4 0DH
 Phone: 01244 661170

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
G01												
Robinia	14	4	590 (Eq)	N	5.5	8	M	A: 157.7	Good	C: Good	Group of four false acacia, either planted as a group or regrowth from an old stump that's no longer present. Group historically topped at 8m, regrowth up to 80mm diameter and 6m long. Northern two stems in physical contact at 2.5m and beginning to fuse together. Fifth stem historically removed at ground level approx. 500mm diameter. Surrounding stems beginning to include wound/stump by up to 290mm. Dimensions recorded represent average for the group.	B.2
Robinia pseudoacacia				E	5.5	3		R: 7.08		S: Fair		20+ yrs
				S	5.5	9				B: Good		
				W	5.5	3						
G02												
Various	5	1	120	N	1	2	EM	A: 6.5	Good	C: Good	Estimated Measurements	
See comments for details				E	1	0		R: 1.43		S: Good	Group primarily comprising of hawthorn, plum and ash. Dimensions recorded represent average for the group.	C.2
				S	1	0				B: Good		40+ yrs
				W	1	0						
G03												
Various	5	1	130	N	2	2	M	A: 7.6	Good	C: Good	Group primarily comprising of elder. Basal area obscured by ivy and debris. Stems and canopy obscured by ivy and Russian vine. Dimensions recorded represent average for the group.	C.2
See comments for details				E	3	0		R: 1.55		S: Ivy		10+ yrs
				S	2	2				B: Not visible		
				W	2	2						
H01												
Various	2	1	60	N	0.5	0	M	A: 1.6	Good	C: Good	Formally maintained firethorn hedge. Dimensions recorded represent average for the hedge. Stems and basal area obscured by canopy.	C.2
See comments for details				E	0.5	0		R: 0.71		S: Not visible		40+ yrs
				S	0.5	0				B: Not visible		
				W	0.5	0						
Age Classifications:	N	Newly planted	EM	Early Mature	Condition:			C	Crown	Stems:	Ø	Diameter
	Y	Young	M	Mature				S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature				B	Basal area	ERC:		Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T01												
Himalayan Birch <i>Betula utilis</i>	11	4	267 (Eq)	N E S W	2.5 3 3 3	2 2 2 2	M A: 32.2 R: 3.2	Good	C: Good S: Good B: Good	Stems diverge between 1 and 1.5m, unions included. Sub dominant stem on north side topped at approx. 5m, regrowth up to 5mm diameter and 500mm long.		B.1 20+ yrs
T02												
Silver Birch <i>Betula pendula</i>	11	1	270	N E S W	2 2 2 2	2 2 2 2	EM A: 33 R: 3.24	Fair	C: Good S: Good B: Good	Foliage uniformly chlorotic and discoloured, cause not visible at time of survey.		C.1 10+ yrs
T03												
Silver Birch <i>Betula pendula</i>	11	1	320	N E S W	5.5 5.5 5.5 5.5	3 3 2 2	M A: 46.3 R: 3.83	Good	C: Good S: Good B: Good	No significant features noted at time of survey.		B.1 20+ yrs
T04												
Common Hawthorn <i>Crataegus monogyna</i>	5	3	214 (Eq)	N E S W	2.5 2.5 2.5 2.5	2 2 2 2	M A: 20.7 R: 2.56	Good	C: Good S: Good B: Not visible	Basal area obscured by undergrowth. Stems diverge between 0.5 and 1.5m, unions included.		B.1.2 40+ yrs
T05												
Silver Birch <i>Betula pendula</i>	10	1	380	N E S W	3 2.5 4 4.5	2 3 2 2	M A: 65.3 R: 4.55	Good	C: Good S: Good B: Good	Crown on eastern side reduced and raised to give clearance to the adjacent property, pruning wounds up to 130mm diameter with callus wood to 30mm. Exposed wood in pruning wounds uniformly desiccated and beginning to decay into the stem, as typical of species.		B.1 20+ yrs
T06												
Sweet Chestnut <i>Castanea sativa</i>	10	1	540	N E S W	3.5 4 4 5	3 3 2 2	M A: 131.9 R: 6.47	Good	C: Good S: Fair B: Good	Historically topped at 5m and all lateral branches removed, regrowth up to 110mm diameter and 6m long.		B.1.2 40+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T07												
Cabbage Tree <i>Cordyline australis</i>	3	3	160 (Eq)	N	0.5	2	SM	A: 11.6 R: 1.92	Good	C: Good S: Good B: Good	Stems diverge at 0.3m, unions included.	C.2 10+ yrs
T08												
Cabbage Tree <i>Cordyline australis</i>	3	3	117 (Eq)	N	0.5	2	SM	A: 6.2 R: 1.4	Good	C: Good S: Fair B: Fair	Historically topped at 0.3m, regrowth up to 100mm diameter and 2.7m long. Physical wound (likely the decaying pruning wound) at ground level. Wound approx. 270mm tall and 150mm wide with callus wood to 40mm.	C.1 10+ yrs
T09												
Robinia <i>Robinia pseudoacacia</i>	15	1	750	N	7	3	M	A: 254.5 R: 9	Good	C: Good S: Good B: Good	Major deadwood (>75mm diameter and/or longer than 2m) throughout crown.	A.1 40+ yrs
T10												
Corsican Pine <i>Pinus nigra var.maritima</i>	15	1	580	N	4	8	M	A: 152.2 R: 6.96	Good	C: Good S: Good B: Good	Crown raised to current dimensions, pruning wounds approx. 80mm diameter with callus wood to 20mm.	B.1.2 40+ yrs
T11												
Common Beech <i>Fagus sylvatica</i>	12	1	490	N	6	3	M	A: 108.6 R: 5.87	Good	C: Good S: Fair B: Good	Stem bifurcates at 3m, union compressed. Sub dominant stem bifurcates at 3.5m, Union included with natural braces between the stems.	B.1.2 40+ yrs
T12												
Norway Maple <i>Acer platanoides</i>	11	1	520	N	7	4	M	A: 122.3 R: 6.23	Good	C: Good S: Good B: Good	Crimson king variety. Major deadwood (>75mm diameter and/or longer than 2m) throughout crown.	A.1.2 40+ yrs
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Y Young M Mature S Stem SM Semi-mature OM Over Mature B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio												

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T13												
Common Beech <i>Fagus sylvatica</i>	15	1	510	N E S W	6 4 4.5 4.5	5 6 5 5	M A: 117.7 R: 6.12	Good	C: Good S: Good B: Good	Asymmetrical crown due to proximity of companion trees.		B.1.2 40+ yrs
T14												
Manna Ash <i>Fraxinus ornus</i>	10	1	470	N E S W	4 4 5 3	7 7 3 6	EM A: 99.9 R: 5.63	Good	C: Good S: Good B: Good	Three wounds on stem between 1.5 and 2m. Wounds are old 'flush cut' pruning wounds that have damaged the branch bark collar and are up to 300mm diameter with callus wood up to 40mm.		B.1.2 20+ yrs
T15												
Red Horse Chestnut <i>Aesculus carnea</i>	9	1	260	N E S W	4 3 3 3	4 4 3 4	EM A: 30.6 R: 3.12	Fair	C: Good S: Good B: Good	Pruning wound on stem at 2m, wound approx. 260mm diameter with callus wood to 30mm. Pruning wound has cut through the branch bark collar.		C.1 20+ yrs
T16											Estimated Measurements	
Silver Birch <i>Betula pendula</i>	9	1	280	N E S W	3 3 3 4	6 6 2 6	M A: 35.5 R: 3.36	Good	C: Good S: Ivy B: Not visible	Off site tree. Ivy on stem to apex. Basal area obscured by 2m fence and undergrowth. Asymmetrical crown due to proximity of companion trees.		C.2 10+ yrs
T17											Estimated Measurements	
Sycamore <i>Acer pseudoplatanus</i>	10	2	322 (Eq)	N E S W	5 3 5 3	5 5 5 2	M A: 46.9 R: 3.86	Good	C: Good S: Ivy B: Not visible	Off site tree. Ivy on stem to apex. Basal area obscured by 2m fence and undergrowth. Asymmetrical crown due to proximity of companion trees.		B.1.2 20+ yrs
T18												
Common Alder <i>Alnus glutinosa</i>	14	1	450	N E S W	5 4 4 4	4 4 4 4	M A: 91.6 R: 5.39	Good	C: Good S: Good B: Good	Major deadwood (>75mm diameter and/or longer than 2m) throughout crown.		B.1.2 40+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T19													
Sycamore <i>Acer pseudoplatanus</i>	13	2	345 (Eq)	N	5	3	M	A: 53.8 R: 4.13	Good	C: Good S: Fair B: Fair	Physical wounds at ground level and 2.5m. Lower wound approx. 100mm diameter and callus wood to 40mm. Upper wound approx. 250mm diameter with callus wood to 120mm. Stems diverge at 0.5m, union included.		B.1.2 20+ yrs
T20												Estimated Measurements	
Common Alder <i>Alnus glutinosa</i>	6	1	250	N	0		SM	A: 28.3 R: 3	Fair	C: Good S: Ivy B: Not visible	Off site tree. Ivy on stem to apex. Ivy beginning to smother tree. Basal area obscured by 2m fence and undergrowth.		U <10 yrs
T21													
Common Horse Chestnut <i>Aesculus hippocastanum</i>	7	3	266 (Eq)	N	1	3	EM	A: 31.9 R: 3.18	Good	C: Good S: Good B: Good	Stem diverges at 1m, unions included.		B.1 40+ yrs
T22													
Mountain Ash <i>Sorbus aucuparia</i>	4	1	140	N	2	1	EM	A: 8.9 R: 1.68	Fair	C: Good S: Good B: Good	Approx. 10% of the foliage has died from sun scorch. Remaining crown appears as normal.		C.1 20+ yrs
T23													
Mountain Ash <i>Sorbus aucuparia</i>	4	1	140	N	2	1	EM	A: 8.9 R: 1.68	Fair	C: Good S: Good B: Good	Approx. 10% of the foliage has died from sun scorch. Remaining crown appears as normal.		C.1 20+ yrs
T24												Estimated Measurements	
Norway Maple <i>Acer platanoides</i>	8	2	268 (Eq)	N	5	4	EM	A: 32.6 R: 3.22	Good	C: Good S: Good B: Not visible	Off site tree. Basal area and lower stem obscured by 2m fence and undergrowth. Stems diverge at 1.5m, union included.		B.1 40+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T25												
Plum <i>Prunus domestica</i>	8	1	240	N E S W	3 3 3 3	3 2 4 3	M A: 26.1 R: 2.88	Good	C: Good S: Good B: Good	No significant features noted at time of survey.		C.1 20+ yrs
T26												
Lawson Cypress <i>Chamaecyparis lawsoniana</i>	6	1	210	N E S W	2 0.5 1 2	0 2 2 2	EM A: 20 R: 2.52	Good	C: Good S: Good B: Not visible	Off site tree. Asymmetrical crown due to proximity of companion tree and fences. Basal area obscured by 2m boundary fence.		C.1 20+ yrs
T27												
Common Hawthorn <i>Crataegus monogyna</i>	7	1	290	N E S W	4 2 2 2	2 3 3 3	M A: 38.1 R: 3.48	Good	C: Good S: Good B: Good	Stem divides into four codominant stems at 1m, diameter recorded below stem divergence, unions included.		B.1 20+ yrs
T28												
Silver Birch <i>Betula pendula</i>	9	1	380	N E S W	5 3 4 4	7 5 5 5	M A: 65.3 R: 4.55	Good	C: Good S: Fair B: Not visible	Off site tree. Basal area obscured by 2m boundary fence. Historically topped at 4m. Regrowth up to 210mm diameter and 5m long. Topping wounds not visible from ground level.		B.1 20+ yrs
T29												
Wild Cherry <i>Prunus avium</i>	7	1	250	N E S W	2.5 3 3 3	3 2 3 3	EM A: 28.3 R: 3	Good	C: Good S: Ivy B: Not visible	Basal area obscured by ivy. Ivy on stem to 3m.		B.1 20+ yrs
T30												
Himalayan Birch <i>Betula utilis</i>	10	1	260	N E S W	5 3 3 4	2 2 2 2	M A: 30.6 R: 3.12	Good	C: Good S: Good B: Good	Stem divides into 4 codominant stems at 2m, unions included.		B.1.2 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T31													
Himalayan Birch <i>Betula utilis</i>	10	1	260	N E S W	2 6 4 4	2 2 2 2	M A: 30.6 R: 3.12	Good	C: Good S: Good B: Good	No significant features noted at time of survey.			B.1.2 20+ yrs
T32													
Norway Spruce <i>Picea abies</i>	6	1	180	N E S W	3 3 2 1	4 4 4 4	EM A: 14.7 R: 2.16	Good	C: Good S: Good B: Good	Stem leans at 15° from vertical to the northeast from base to apex.			C.1 20+ yrs
T33											Estimated Measurements		
Norway Spruce <i>Picea abies</i>	7	1	240	N E S W	3 3 3 3	5 4 4 4	M A: 26.1 R: 2.88	Good	C: Good S: Ivy B: Not visible	Ivy on stem to 3m. Basal area obscured by debris and ivy.			B.1 20+ yrs
T34											Estimated Measurements		
Common Hawthorn <i>Crataegus monogyna</i>	5	1	190	N E S W	3 2 3 2	2 2 2 2	EM A: 16.3 R: 2.27	Good	C: Good S: Not visible B: Not visible	Off site tree. Stem and basal area obscured by 2m boundary fence. Historically topped at 2m, regrowth up to 80mm diameter and 3m long.			C.1 40+ yrs
T35											Estimated Measurements		
Cherry <i>Prunus sp.</i>	5.5	1	220	N E S W	2 3 3 3	2 2 2 2	A: 21.9 R: 2.64	Good	C: Good S: Not visible B: Not visible	Off site tree. Stem and basal area obscured by 2m boundary fence.			C.1.2 20+ yrs
T36													
Western Red Cedar <i>Thuja plicata</i>	8	1	590	N E S W	2.5 2.5 3 3	1 1 1 1	M A: 157.5 R: 7.08	Good	C: Good S: Not visible B: Good	Stem divides into multiple co dominant stems at 1.5m, diameter recorded below unions. Stems unions included. Stems obscured by canopy.			B.1 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T37												
Himalayan Birch <i>Betula utilis</i>	7	1	210	N	4	2	M	A: 20 R: 2.52	Good	C: Good S: Good B: Not visible	Basal area obscured by undergrowth.	B.1 20+ yrs
T38												
Pittosporum <i>Pittosporum tenuifolium</i>	3	4	119 (Eq)	N	0.5	2	EM	A: 6.4 R: 1.42	Good	C: Good S: Good B: Not visible	Basal area and stem unions obscured by undergrowth. Stems diverge at ground level.	C.1 20+ yrs
T39												
Silver Birch <i>Betula pendula</i>	12	1	430	N	4.5	3	M	A: 83.7 R: 5.16	Good	C: Good S: Good B: Good	Stem divides into four codominant stems at 1.5m, unions included. Diameter recorded below unions.	B.1 20+ yrs
T40												
Silver Birch <i>Betula pendula</i>	7	1	290	N	1.5	6	M	A: 38.1 R: 3.48	Good	C: Good S: Good B: Good	Physical wound on western side of stem at 2m, wound approx. 400mm tall and 160mm wide with callus wood to 80mm.	B.1 20+ yrs
T41												
Silver Birch <i>Betula pendula</i>	9	1	320	N	5.5	2	M	A: 46.3 R: 3.83	Good	C: Good S: Good B: Good	Asymmetrical crown due to proximity of companion trees.	B.1 20+ yrs
W01											Estimated Measurements	
Various <i>See comments for details</i>	12	1	350	N	4	2	M	A: 55.4 R: 4.19	Good	C: Good S: Not visible B: Not visible	Off site woodland. Dimensions recorded represent average for the group. Basal areas and stems obscured by 2m boundary fence, canopy, undergrowth and ivy.	B.2 40+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Appendix 3: Tree Constraints Plan

Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech TSR 01	Chris Wren		Surveyor	2	30/09/2021

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