



Arboricultural Impact Assessment to BS5837:2012

Broomfield Court.

**751 Broomfield Road,
Glasgow,
G21 3HQ.**

17 November 2023

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If this report has been released electronically the appendices referred to herein can be found in the annexed zip folder/s as .pdf files. If this report has been released in hard copy the appendices will be bound into the back of this report. Plans are annexed separately as A0, A1, A2 or A3 as appropriate.

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Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on the 28th of July 2023 from Waheed Malik of Weila Capital to attend 751 Broomfield Road, Glasgow, G21 3HQ; grid reference, NS 62209 67254 (site) to undertake an arboricultural survey following 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, Tree Constraints Plan, Arboricultural Impact Assessment.

Site location

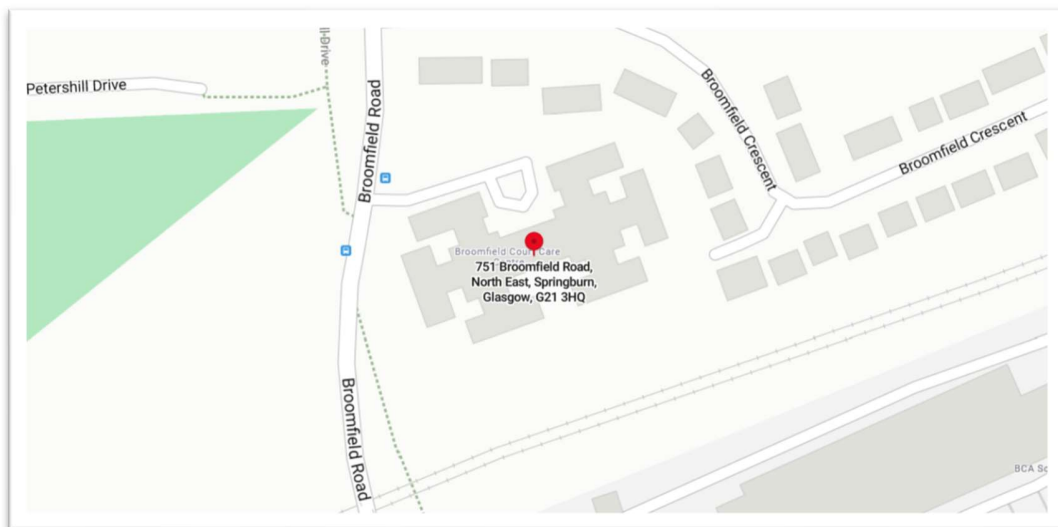


Figure 1: OS Map (Bing Maps)



Figure 2: Aerial Image of site with approximate blue line survey boundary (Bing Maps)

Executive Summary

This report describes the extent and effect of the proposed development at the site on individual trees and groups of trees within and adjacent to the site.

Trees within the site were surveyed; using a methodology guided by British Standard 5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations’ (“BS5837”).

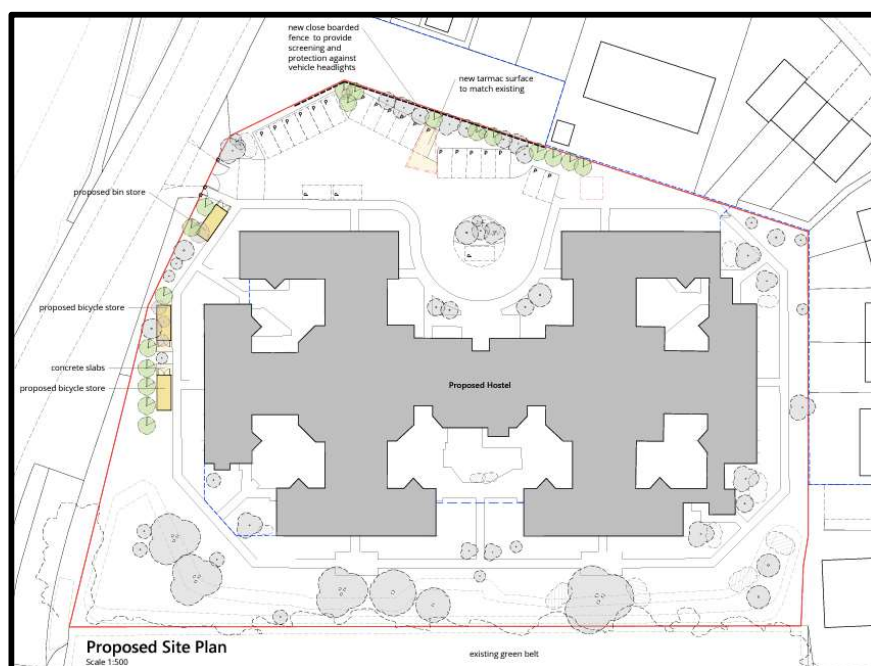
Subsequently, this report has been produced, balancing the layout of the proposed development against the competing needs of trees. This report comprises all of the requisite elements of an arboricultural implications assessment, method statement and supporting plans.

Checklist for Submission to Local Planning Authority

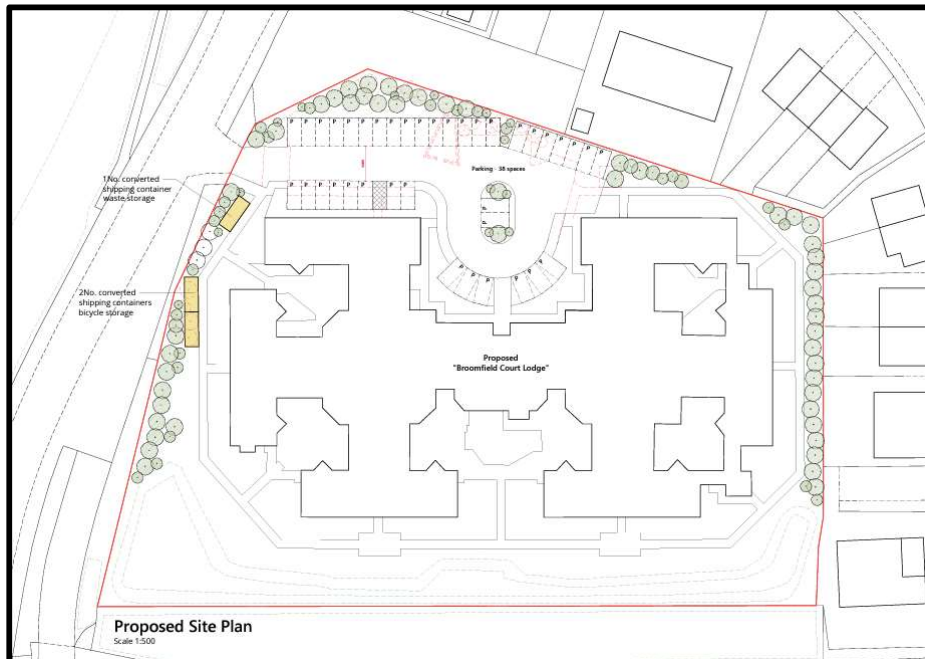
Tree survey	<input checked="" type="checkbox"/>
Tree constraints plan	<input checked="" type="checkbox"/>
Arboricultural impact assessment	<input checked="" type="checkbox"/>

This report and its appendices follow precisely the strategy for arboricultural appraisal intended to provide local planning authorities with evidence that trees have been properly considered throughout the development process.

Proposal 1.



Proposal. 2



General Information

Client: Broomfield Court

Site: 751 Broomfield Road, Glasgow, G21 3HQ

Brief proposal description: Refurbishment of existing care home facility including associated landscaping.

Table 1: Documents referred to.

Document	Reference No.
Survey Base Plan	OS tile
Proposed layout drawing	22035 PP A004
Landscape master plan drawing	N/A
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Arboricultural Impact Assessment	Arbtech AIA 01

Tree Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Ryan Wilson of Arbtech Consulting on 21st August 2023. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 1)

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

Document	Originator	Reference Number	Title
Tree Survey Base Plan	Ordnance Survey	-	OS Tile

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.

Arboricultural Impact Assessment

Table 3: Documents upon which this assessment has been based

Document	Originator	Reference Number	Title
Tree Survey Base Plan	Ordnance Survey	-	OS Tile
Proposals	Macauley Miller Architecture	22035 PP A004	Proposed Site

There are a number of issues that may need to be addressed in an arboricultural impact assessment between the trees and the proposed development, these are as follows:

- The effect and extent of the proposed development within the root protection areas (RPAs) of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood of any future remedial works to retained trees beyond which would have been scheduled as a part of usual management.

Table 4: Impacts upon the RPAs of retained trees

Tree Number	Species	Structure	Incursion
G01	Horse chestnut	Hard surfacing removal & replacement	RPA

These impacts can be seen on the Arboricultural Impact Assessment drawing number Arbtech AIA 01.

Trees to be removed

A breakdown of all tree removals and pruning works can be seen in Table 9: Summary of Tree Works

Table 5: Number of individual trees to be removed.

U	A	B	C
3	0	11	12

Table 6: Number of groups to be removed.

U	A	B	C
0	0	0	0

Table 7: Number of hedges to be removed.

U	A	B	C
0	0	0	0

Table 8: Number of shrub groups to be removed.

U	A	B	C
0	0	0	0

Mitigation tree planting will form part of the landscape proposal for the project.

Tree Works

For reasons of public safety, all tree works referred to herein must be carried out prior to any site personnel commencing works or any building materials being delivered.

Table 9 Summary of Tree Works

No.	Species	Works	Category
T5	Leyland cypress	Fell to ground level; remove stump	C1
T6	Mountain ash	Fell to ground level; remove stump	C1
T7	Mountain ash	Fell to ground level; remove stump	C2
T8	Horse chestnut	Fell to ground level; remove stump	B2
T9	Leyland cypress	Fell to ground level; remove stump	C1
T10	Mountain ash	Fell to ground level; remove stump	C1
T11	Bird cherry	Fell to ground level; remove stump	B1
T12	Narrowleaf ash	Fell to ground level; remove stump	B1
T13	Narrowleaf ash	Fell to ground level; remove stump	B1
T14	Norway maple	Fell to ground level; remove stump	B1
T15	Leyland cypress	Fell to ground level; remove stump	C1
T16	Leyland cypress	Fell to ground level; remove stump	C1
T17	Italian cypress	Fell to ground level; remove stump	C1
T19	Mountain ash	Fell to ground level; remove stump	B1
T20	Mountain ash	Fell to ground level; remove stump	B1
T21	Birch 'Youngii'	Fell to ground level; remove stump	C1
T22	Norway maple	Fell to ground level; remove stump	B1
T23	Goat willow	Fell to ground level; remove stump	C2
T24	Swedish whitebeam	Fell to ground level; remove stump	U
T25	Swedish whitebeam	Fell to ground level; remove stump	U
T26	Horse chestnut	Fell to ground level; remove stump	B1

No.	Species	Works	Category
T27	Horse chestnut	Fell to ground level; remove stump	B1
T28	Horse chestnut	Fell to ground level; remove stump	B1
T29	Mountain ash	Fell to ground level; remove stump	C1
T30	Mountain ash	Fell to ground level; remove stump	U
T31	Mountain ash	Fell to ground level; remove stump	C1

Notes

All tree work is to be undertaken in accordance with British Standard BS 3998:2010, Recommendations for tree work. All arising's are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber Lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

Tree removal

A tree should be felled in one piece only when there is no significant risk of damage to people, property or protected species (see Annex A).

Where restrictions (e.g. lack of space, buildings, other features, land ownership or use, or other trees which are to be retained) cannot be overcome, trees should be dismantled in sections.

This also applies where a tall stump is being retained but where branches are to be removed/pruned.

Extensively decayed trees can be unpredictable when they are being felled, and special precautions should therefore be taken, such as the use of a winch to guide the direction of fall.

Stump removal – stump grinding

Stump grinding should be to a minimum of 300mm deep or to extend through the base of the stump leaving the major roots disconnected if the intention is to reduce the potential for the spread of Honey fungus.

The grinding residue should be treated as arising's and removed from site.

NOTE Mechanical destruction of a stump by stump grinding is less disruptive to the site than digging out.

The hole left by stump removal, should be filled with soil or other material. The filling should be appropriate for future site usage, and for any surface treatment that is to be installed.

Where future plant growth is desired, the backfill material should be firmed in 150 mm layers by treading, avoiding excessive compaction and destruction of the soil structure.

Stump removal - digging

Stump removal by digging out should include disposal/utilisation of woody material (see Clause 13).

NOTE *Whether done by hand or machine, digging out can cause severe disturbance of the site.*

Where possible, when winching out a stump, a ground or other type of anchor should be used rather than a tree to be retained. If there is no alternative to using such a tree as an anchor, appropriate protective measures should be adopted.

After stump removal

The hole left by stump removal, whether by digging out or grinding, should be filled with soil or other material. The filling should be appropriate for future site usage and for any surface treatment that is to be installed.

Where future plant growth is desired, the back fill material should be firmed in 150mm layers by treading, avoiding excessive compaction and destruction of the soil structure.

Appendix 1: Arboricultural Impact Assessment Plan

Appendix 2: Tree Survey Schedule

BS5837:2012 Tree Survey

Arbtech Consulting Ltd.

Client: Broomfield Court
 Project: 751 Broomfield Road
 Survey Date: 21/08/2023
 Surveyor: Ryan Wilson



Unit 3, Well House Barns,
 Chester Road
 Chester
 Cheshire
 CH4 0DH
 Phone: 01244661170

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
Estimated Measurements											
G01 Various <i>See comments for details</i>	5	1	250	N E S W	1.5 1.5 1.5 1.5	0	EM A: 28.3 R: 3	Good	C: Good S: Good B: Good	Group consists of three Leyland cypress trees. And 1 mountain ash tree. Group measurements taken from the largest representative tree.	B.1 20+ yrs
Estimated Measurements											
T01 Mountain Ash <i>Sorbus aucuparia</i>	3	1	100	N E S W	1.5 1.5 1.5 1.5	1.5	SM A: 4.5 R: 1.19	Good	C: Good S: Poor B: Good	Upper section of the stem has been snapped out leading to decay.	C.1 10+ yrs
Estimated Measurements											
T02 Leyland Cypress <i>X Cupressocyparis leylandii</i>	4	1	180	N E S W	1 2 1 2	0	M A: 14.7 R: 2.16	Good	C: Good S: Good B: Fair	Twin stems growing from base, western stem appears to have previously failed then stabilised.	C.1 10+ yrs
Estimated Measurements											
T03 Leyland Cypress <i>X Cupressocyparis leylandii</i>	4	1	180	N E S W	1.5 2 1.5 2	0	M A: 14.7 R: 2.16	Poor	C: Poor S: Good B: Fair	Multiple stems growing from ground level with bark included unions typical of species. Crown is showing major Browning of the foliage. With dead wood present (up to 10% of the crown).	U <10 yrs
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 (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC	
		No	Ø (mm)	Spread (m)	Clear (m)							
T04												
Common Horse Chestnut <i>Aesculus hippocastanum</i>	5	1	200	N	3	2	SM	A: 18.1 R: 2.4	Good	C: Good S: Fair B: Good	Possible minor bleeding canker on the stem @2m high on the south side.	B.1 20+ yrs
T05											Estimated Measurements	
Leyland Cypress <i>X Cupressocyparis leylandii</i>	5	1	180	N	1.5	0	M	A: 14.7 R: 2.16	Good	C: Good S: Good B: Fair	Multiple stems growing from ground level with bark included unions typical of species.	C.1 10+ yrs
T06												
Mountain Ash <i>Sorbus aucuparia</i>	4	1	210	N	1.5	1.5	SM	A: 20 R: 2.52	Good	C: Good S: Good B: Good	Minor wound on the stem @1.5m E (15-6cm).	C.1 10+ yrs
T07												
Mountain Ash <i>Sorbus aucuparia</i>	3	1	90	N	1	0.5	EM	A: 3.7 R: 1.08	Good	C: Good S: Fair B: Good	Top of stem has been snapped out leading to decay.	C.2 10+ yrs
T08												
Common Horse Chestnut <i>Aesculus hippocastanum</i>	5	1	140	N	2	2	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs
T09											Estimated Measurements	
Leyland Cypress <i>X Cupressocyparis leylandii</i>	5	1	180	N	1.5	0	M	A: 14.7 R: 2.16	Good	C: Good S: Good B: Fair	Multiple stems growing from ground level with bark included unions typical of species.	C.1 10+ yrs
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 (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC	
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T10													
Mountain Ash <i>Sorbus aucuparia</i>	4	1	140	N	1.5	1.5	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	No notable features.	C.1 10+ yrs	
T11													
Bird Cherry <i>Prunus padus</i>	4	1	200	N	2.5	1.5	EM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
T12													
Narrowleaf Ash <i>Fraxinus angustifolia</i>	5	1	130	N	2	3	EM	A: 7.6 R: 1.55	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
T13													
Narrowleaf Ash <i>Fraxinus angustifolia</i>	5	1	140	N	1.5	3	EM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
T14													
Norway Maple <i>Acer platanoides</i>	6	1	250	N	3	3	EM	A: 28.3 R: 3	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
T15													
Leyland Cypress <i>X Cupressocyparis leylandii</i>	3	1	80	N	1.5	0	M	A: 2.9 R: 0.96	Good	C: Fair S: Good B: Fair	Multiple stems growing from ground level with bark included unions typical of species. Crown is moderately shaded leading to bare patches.	C.1 10+ yrs	
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 (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations Survey Comment	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)						
T16										Estimated Measurements	
Leyland Cypress <i>X Cupressocyparis leylandii</i>	4.5	1	100	N	1.5	0	M	A: 4.5 R: 1.19	Good	C: Fair S: Good B: Fair	C.1 10+ yrs
				E	1.5	0				Multiple stems growing from ground level with bark included unions typical of species. Crown is moderately shaded leading to bare patches.	
				S	1.5	0					
				W	1.5	0					
T17										Estimated Measurements	
Italian Cypress <i>Cupressus sempervirens</i>	3	1	90	N	1	0	EM	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good	C.1 10+ yrs
				E	1	0				No notable features.	
				S	1	0					
				W	1	0					
T18										Estimated Measurements	
Italian Cypress <i>Cupressus sempervirens</i>	3	1	90	N	1	0	EM	A: 3.7 R: 1.08	Good	C: Good S: Good B: Good	C.1 10+ yrs
				E	1	0				No notable features.	
				S	1	0					
				W	1	0					
T19										Estimated Measurements	
Mountain Ash <i>Sorbus aucuparia</i>	3	1	140	N	2.5	1.5	EM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	B.1 20+ yrs
				E	3	1.5				No notable features.	
				S	2	1.5					
				W	1.5	1.5					
T20										Estimated Measurements	
Mountain Ash <i>Sorbus aucuparia</i>	4	1	180	N	2.5	1.5	EM	A: 14.7 R: 2.16	Good	C: Good S: Good B: Good	B.1 20+ yrs
				E	2.5	1.5				No notable features.	
				S	2.5	1.5					
				W	2.5	1.5					
T21										Estimated Measurements	
Birch 'Youngii' <i>Betula youngii</i>	2.5	1	110	N	2	1.5	EM	A: 5.5 R: 1.32	Good	C: Good S: Good B: Good	C.1 10+ yrs
				E	2	1.5				No notable features.	
				S	0.5	1.5					
				W	0.5	1.5					
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 (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC	
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T22													
Norway Maple <i>Acer platanoides</i>	5	1	210	N	2.5	2	EM	A: 20 R: 2.52	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
T23											Estimated Measurements		
Goat Willow <i>Salix caprea</i>	3.5	1	80	N	2	0	SM	A: 2.9 R: 0.96	Good	C: Good S: Good B: Good	Small multi stemmed willow presenting as a shrub.	C.2 10+ yrs	
T24											Estimated Measurements		
Swedish Whitebeam <i>Sorbus intermedia</i>	5	1	130	N	0.5	1	SM	A: 7.6 R: 1.55	Poor	C: Poor S: Fair B: Good	Trees have a moderate lean to the East due to high winds. The crown is 80% dead due to wind.	U <10 yrs	
T25											Estimated Measurements		
Swedish Whitebeam <i>Sorbus intermedia</i>	5	1	130	N	0.5	1	SM	A: 7.6 R: 1.55	Poor	C: Poor S: Fair B: Good	Trees have a moderate lean to the East due to high winds. The crown is 80% dead due to wind.	U <10 yrs	
T26													
Common Horse Chestnut <i>Aesculus hippocastanum</i>	4	1	150	N	2	2	SM	A: 10.2 R: 1.8	Good	C: Good S: Fair B: Good	Wound stretching from base to crown (2m-1cm) occluding.	B.1 20+ yrs	
T27													
Common Horse Chestnut <i>Aesculus hippocastanum</i>	4	1	140	N	2	2.5	SM	A: 8.9 R: 1.68	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs	
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 (m ²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
T28 Common Horse Chestnut <i>Aesculus hippocastanum</i>	4	1	150	N	2.5	2	SM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good	No notable features.	B.1 20+ yrs
T29 Mountain Ash <i>Sorbus aucuparia</i>	3.5	1	110	N	1.5	2	EM	A: 5.5 R: 1.32	Good	C: Good S: Good B: Good	No notable features.	C.1 10+ yrs
T30 Mountain Ash <i>Sorbus aucuparia</i>	3.5	1	110	N	2	2	EM	A: 5.5 R: 1.32	Dead	C: Poor S: Good B: Good	Dead tree.	U n/a
T31 Mountain Ash <i>Sorbus aucuparia</i>	3.5	1	120	N	1.5	2	EM	A: 6.5 R: 1.43	Good	C: Good S: Good B: Good	No notable features.	C.1 10+ yrs
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

Appendix 2: Contact Details

Name	Position	Company	Contact
	Client	Brookfield Court	
	Tree Officer		
Alan Thompson	Arboricultural Consultant	Arbtech Consulting Ltd.	01244 661170 07703 676216 at@arbtech.co.uk https://arbtech.co.uk
	Site Manager		
	Main contractor		

Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech AIA 01	Alan Thompson		Arboricultural Consultant	1	17/11/2023

Limitations

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