arbtech

Arboricultural Survey to BS5837:2012

Nant Hall Road,
Prestatyn,
Denbighshire,
LL19 9LP.
01 December 2024

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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.

1. Introduction

Arbtech Consulting Limited (Arbtech) received written instruction in November 2024 from Richards Moorehead & Lainge to attend Nant Hall Road, Prestatyn. Denbighshire, LL19 9LP (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, Tree Constraints Plan.

I am Russell Pearce, an arboricultural consultant at Arbtech Consulting Ltd. I undertook the tree survey on 30th November 2024 and subsequently have produced this summary of my findings. I have over 10 years' arboricultural experience in both local authority and private practise environment, and also hold the LANTRA professional tree inspection certificate.

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	24_5837_08_78
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Tree Survey Schedule	Arbtech TS 01
Tree Constraints Plan	Arbtech TCP 01

2. Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Russell Pearce on 30th November 2024, conditions were overcast.

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 95 No. individual trees were surveyed within 1 large group. Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

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

Document	Originator	Reference Number	Title
Tree Constraints Plan	ROAVR Group	24_5837_08_78	Tree Constraints Plan

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and advanced 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.

Survey Site/Extents

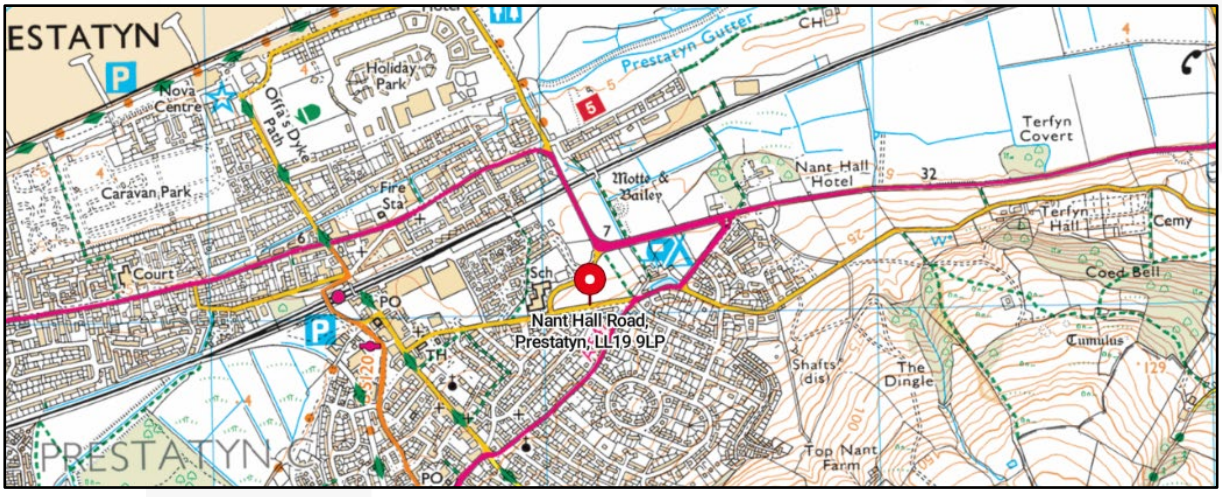

Figure 1: Ordnance Survey of location (Bing Maps)

Figure 2: Aerial Image of site with approximate red line boundary (Google Earth)

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3. 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.

4. 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:

a) reference number (to be recorded on the tree survey plan);
b) species (common or scientific names);
c) height in meters (m);
d) stem diameter in millimetres (mm) at 1.5m above adjacent ground level or immediately above the root flare for multi-stemmed trees;
e) branch spread in meters taken at the four cardinal compass points;
f) height of crown clearance above adjacent ground level in meters (m);
g) age class (newly planted, young, semi-mature, early mature, mature, over mature);
h) physiological condition (e.g. good, fair, poor, decline and dead);
i) structural condition (e.g. good, fair, poor or not visible);
j) comment about the tree, its location and preliminary management recommendations, including further investigation of suspected defects that require more detailed assessment and potential for wildlife habitat;
k) The retention category referring to the quality and useful contribution in years; **U** = <10yrs; **A** = >40yrs; **B** = >20yrs; **C** = >10yrs. The retention subcategory referring to the type of amenity; 1 = Arboricultural; 2 = Landscape; 3 = Cultural including conservation (see Appendix 1 Cascade chart for tree quality assessment).

5. 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 plan, typically delivered as an AutoCAD drawing (.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 m^2.

Construction Exclusion Zone (also termed Tree Protection Zone)

A construction exclusion or tree protection zone is an area based on the RPA (in m^2), 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 (AIA)

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 (TPP)

A TPP is 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 (AMS)

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.

6. 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.

7. Appendices

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

- Survey Schedule (.PDF)
- Tree Constraints Plan drawing (.DWG & .PDF)

If you require clarification of information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

Alan Thompson
Arboricultural Consultant

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at@arbtech.co.uk

Appendix 1: Table 1 Cascade chart for tree quality assessment

BS5837:2012 Trees in relation to design, demolition and construction – Recommendations

Table 1 **Cascade chart for tree quality assessment**

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. *NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7.*			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 dominate 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

Appendix 2: Schedule of Trees

ARBTECH

Tree Survey Schedule
Nant Hall Road, Prestatyn, Denbighshire, LL19 9LP

Client	Jon Stoddard – Richards Moorehead & Lainge Ltd
Survey Date	30/11/2024
Weather Conditions	Overcast
Surveyor	Russell Pearce

Key:

Tree No.	A unique number or reference to identify trees or groups as shown on associated plans.
Species	Common and/or taxonomic name.
Ht.	The height of the tree in metres (m).
Trunk Diameter	The stem diameter in millimetres (mm) taken at 1.5m above ground level unless otherwise specified.
Crown Spread	The extents of the crown taken, in meters (m), at cardinal points of the compass: North (N); East (E); South (S) and West (W); or intercardinal points: Northeast (NE); Southeast (SE); Southwest (SW); Northwest (NW)
Crown Clear.t	The height of the crown above the current ground level, in meters (m), taken at cardinal points of the compass: North (N); East (E); South (S) and West (W); or intercardinal points: Northeast (NE); Southeast (SE); Southwest (SW); Northwest (NW)
Age Class	Age classification: Young (Y); Semi-mature (SM); Early Mature (EM); Mature (M); Over Mature (OM).
Phys. Cond.	The general physiological condition of the tree: Good; Fair; Poor; Decline; Dead.
Struct. Cond.	The general structural condition of the tree: Good, Fair, Poor, Hazardous.
Comments	Notes and general comments on the structural condition of the tree, its environment and it estimated remaining contribution.
Est. Rem. Cont.	Estimated remaining contribution (years): <10; 10+; 20+ 40+
Cat.	Retention Category as described in the **Cascade Chart for Tree Quality Assessment at Appendix 1:** A, B, C, U (subcategories 1, 2, 3)

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1	Scots Pine, Turkey Oak, Sycamore, Oak, Black Pine,	<22	482 avg.	9	9	9	9	6				M	See individuals below.	See individuals below.	TPO group. Highly visible aspect from highway. Dominant position. High aesthetic value. Understory of Elder, Hawthorn, Sycamore, Oak, Beech & Hazel - dense on N edge of group. Crown clearance over site is a minimum of 6m unless indicated otherwise – below.	40+	A2
G1.1	Turkey Oak	<22	810	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.2	Beech	<22	630	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.3	Beech	<22	450	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.4	Oak	<22	410	9	9	9	9					EM	Good	Fair	Slender stem.	40+	B1
G1.5	Sycamore	<22	560	9	9	9	9	4				EM	Good	Fair	Weight bias to N	40+	B1
G1.6	Turkey Oak	<22	720	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.7	Black Pine	<22	270	9	9	9	9					SM	Good	Fair	Slender stem. Small crown.	20+	B1
G1.8	Beech	<22	370	9	9	9	9					SM	Good	Fair	Slender stem.	20+	B1
G1.9	Beech	<22	660	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.10	Scots Pine	<22	560	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.11	Beech	<22	460	9	9	9	9					EM	Good	Fair	Slender phototrophic form.	40+	B1
G1.12	Scots Pine	<22	420	9	9	9	9					EM	Good	Fair	Weight bias to N.	40+	B1
G1.13	Beech	<22	520	9	9	9	9					EM	Good	Fair	Weight bias to S.	40+	B1
G1.14	Scots Pine	<22	430	9	9	9	9					M	Good	Fair	Slender stem. High crown.	40+	B1
G1.15	Beech	<22	480	9	9	9	9					SM	Good	Fair	Suppressed by adjacent trees.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.16	Beech	<22	600	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.17	Scots Pine	<22	360	9	9	9	9					SM	Good	Good	Weight bias to N	40+	B1
G1.18	Beech	<22	410	9	9	9	9					SM	Good	Fair	Slightly suppressed with weight bias to N.	20+	B1
G1.19	Beech	<22	460	9	9	9	9					SM	Good	Fair	Suppressed by adjacent trees. Weight bias to N.	20+	C1
G1.20	Scots Pine	<22	520	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted. High Crown.	40+	A1
G1.21	Turkey Oak	<22	470	9	9	9	9	2				EM	Good	Fair	Suppressed by adjacent trees. Asymmetric imbalanced crown, with lean and significant weight bias to N.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.22	Turkey Oak	<22	480	9	9	9	9					SM	Good	Fair	Slightly suppressed by adjacent trees. Weight bias to N.	40+	B1
G1.23	Beech	<22	480	9	9	9	9					SM	Good	Fair	Acute included primary union at 5-6m with - fusing stems. Weight bias to S.	40+	B1
G1.24	Beech	<22	270	9	9	9	9					SM	Good	Fair	Heavily suppressed by adjacent trees. Very slender phototrophic form.	10+	C1
G1.25	Beech	<22	560	9	9	9	9					EM	Good	Good	Weight bias to S.	40+	B1
G1.26	Beech	<22	540	9	9	9	9					EM	Good	Fair	Slender stem. Weight bias to S.	40+	B1
G1.27	Sycamore	<22	650	9	9	9	9	2				M	Good	Fair	Phototrophic form with asymmetric crown - weight bias to N.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.28	Sycamore	<22	690	9	9	9	9					M	Good	Good	Codominant bifurcation at 3m - slender stems distally.	20+	B1
G1.29	Turkey Oak	<22	690	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.30	Sycamore	<22	290	9	9	9	9	1				SM	Good	Good	Suppressed by adjacent larger trees. Weight bias to N.	20+	C1
G1.31	Sycamore	<22	420 420	9	9	9	9	1				SM	Good	Good	Suppressed by adjacent larger trees. Weight bias to N. Codominant bifurcation at 1m.	20+	B1
G1.32	Beech	<22	500	9	9	9	9	2				EM	Good	Fair	Suppressed by adjacent larger trees. Asymmetric imbalanced crown with significant weight bias to N.	10+	C1
G1.33	Turkey Oak	<22	520	9	9	9	9					EM	Good	Good	High crown. Weight bias to N.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.34	Beech	<22	660	9	9	9	9					M	Good	Fair	High crown. Acute included fusing codominant bifurcation at 4-5m.	40+	B1
G1.35	Turkey Oak	<22	500	9	9	9	9					M	Good	Fair	Asymmetric imbalanced crown. Significant weight bias to N.	40+	B1
G1.36	Turkey Oak	<22	380	9	9	9	9					SM	Good	Good	Suppressed by adjacent larger trees.	10+	C1
G1.37	Neech	<22	670	9	9	9	9	1				EM	Good	Good	Weight bias to N.	40+	B1
G1.38	Beech	<22	280	9	9	9	9					SM	Fair	Fair	Heavily suppressed by adjacent larger trees.	10+	C1
G1.39	Beech	<22	400	9	9	9	9	3				EM	Good	Fair	Slender stem. Weight bias to N	20+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.40	Scots Pine	<22	290	9	9	9	9					SM	Good	Fair	Suppressed by adjacent larger trees with arching stem	10+	C1
G1.41	Turkey Oak	<22	670	9	9	9	9					M	Good	Good	Large high open balanced crown.	40+	A1
G1.42	Beech	<22	300	9	9	9	9					SM	Fair	Fair	Suppressed by adjacent larger trees. Slender phototrophic form. Small open cavity at 1m on N side.	10+	C1
G1.43	Scots Pine	<22	520	9	9	9	9					M	Good	Fair	High crown.	40+	A1
G1.44	Scots Pine	<22	490	9	9	9	9					EM	Good	Fair	High crown. Slender stem. Weight bias to N.	40+	B1
G1.45	Scots Pine	<22	450	9	9	9	9	2				EM	Good	Fair	Suppressed by adjacent larger trees. Phototrophic form with very significant weight bias to N.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.46	Beech	<22	650	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	40+	B1
G1.47	Beech	<22	240	9	9	9	9					Y	Good	Fair	Heavily suppressed by adjacent larger trees. Slender phototrophic form. Small crown.	10+	C1
G1.48	Beech	<22	470	9	9	9	9					SM	Good	Good	Suppressed by adjacent trees. Significant weight bias to N.	20+	B1
G1.49	Beech	<22	390	9	9	9	9					SM	Good	Fair	Slender stem.	20+	C1
G1.50	Beech	<22	230	9	9	9	9					SM	Fair	Fair	Suppressed by adjacent larger trees. Tip dieback.	<10	U
G1.51	Turkey Oak	<22	510	9	9	9	9					EM	Good	Good	Codominant bifurcation at 6m.	40+	A1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.52	Turkey Oak	<22	400	9	9	9	9					SM	Good	Fair	Suppressed asymmetric crown with arching stem.	20+	B1
G1.53	Beech	<22	490	9	9	9	9	0				EM	Good	Fair	Suppressed asymmetric crown with weight bias to N.	20+	B1
G1.54	Turkey Oak	<22	360	9	9	9	9					SM	Good	Fair	Asymmetric imbalanced crown with arching stem and significant weight bias to N.	20+	B1
G1.55	Neech	<22	430	9	9	9	9					SM	Good	Fair	Small crown	10+	C1
G1.56	Beech	<22	420	9	9	9	9					SM	Good	Fair	Slender stem. Small crown.	20+	C1
G1.57	Scots Pine	<22	470	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	40+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.58	Sycamore	<22	790	9	9	9	9					M	Good	Hazardous	History of multiple stem and limb failures/snapouts. No SULE. Hazardous tree.	<10	U
G1.59	Scots Pine	<22	290	9	9	9	9					SM	Good	Fair	Slender phototrophic form. Weight bias to N.	20+	C1
G1.60	Beech	<22	610	9	9	9	9					EM	Good	Good	Weight bias to N.	20+	B1
G1.61	Turkey Oak	<22	370	9	9	9	9					SM	Good	Fair	Suppressed by adjacent tree. Small crown. Weight bias to S.	20+	C1
G1.62	Scots Pine	<22	640	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.63	Beech	<22	490	9	9	9	9					M	Good	Good	Weight bias to S.	40+	B2

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.64	Sycamore	<22	420	9	9	9	9	3				EM	Fair	Fair	Suppressed with reduced vitality.	10+	C1
G1.65	Sycamore	<22	460	9	9	9	9					EM	Good	Fair	Multiple pruning wounds from previous crown lifts - including flush cuts.	20+	B1
G1.66	Beech	<22	360	9	9	9	9	3				SM	Good	Fair	Heavily suppressed with significant weight bias to N.	20+	B1
G1.67	Scots Pine	<22	500	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.68	Beech	<22	670	9	9	9	9					EM	Good	Good	Acute bifurcation at 3m.	40+	B1
G1.69	Beech	<22	490	9	9	9	9					SM	Good	Fair	Slender stem. Shallow lattice ribs forming on S side.	20+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.70	Sycamore	<22	420	9	9	9	9	3				SM	Good	Fair	Heavily suppressed asymmetric crown with weight bias to N. Reduced vitality.	10+	C1
G1.71	Beech	<22	380	9	9	9	9					SM	Good	Fair	Suppressed by adjacent larger trees. Slender stem. Significant weight bias to N	10+	C1
G1.72	Ash	<22	670	9	9	9	9					M	Good	Poor	ADB present. Reduced crown density. More than 50% crown dieback. multiple woodpecker holes in stems. Codominant bifurcation at 2m.	<10	U
G1.73	Beech	<22	520	9	9	9	9	1				EM	Good	Fair	Significant weight bias to N.	20+	B1
G1.74	Sycamore	<22	380	9	9	9	9					SM	Fair	Fair	Suppressed asymmetric imbalanced crown with significant weight balanced to N. Low aesthetic value.	10+	C1
G1.75	Beech	<22	450	9	9	9	9					EM	Good	Fair	Slender stem. Weight bias to S.	20+	B1

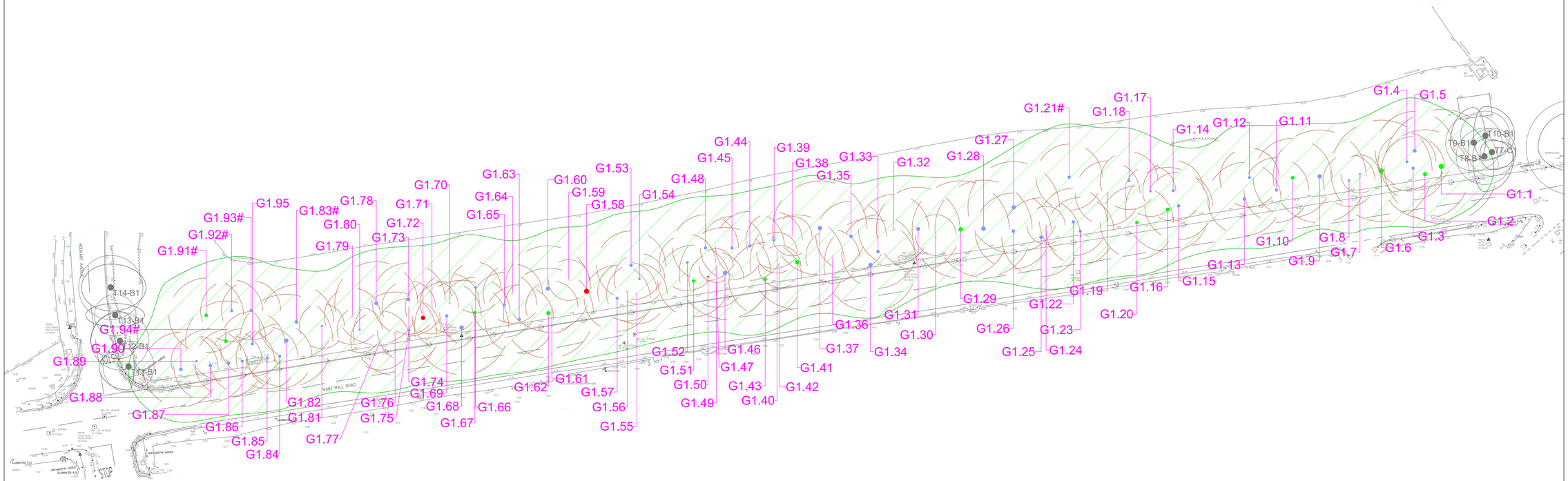
Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.76	Beech	<22	590	9	9	9	9					EM	Fair	Fair	Reduced vitality. Retrenching of upper crown. Some large deadwood within crown overhanging road - diameter approx. 130	10+	C1
G1.77	Scots Pine	<22	420	9	9	9	9					SM	Fair	Fair	Central leader previously failed at 6m. Lateral forming asymmetric imbalanced crown with significant weight bias to S.	10+	C1
G1.78	Beech	<22	590	9	9	9	9	2				EM	Good	Fair	Very dense ivy covering stem and primary branch framework. Significant weight bias to N.	20+	B1
G1.79	Sycamore	<22	400	9	9	9	9	2				SM	Fair	Fair	Localised dieback in upper crown. Reduced crown density.	10+	C1
G1.80	Turkey Oak	<22	320	9	9	9	9					SM	Good	Good	Good form and vitality. No defects noted.	20+	B1
G1.81	320	<22	320	9	9	9	9					SM	Good	Good	Minor asymmetry with weight bias to N.	20+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.82	Beech	<22	660	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	B1
G1.83	Beech	<22	530	9	9	9	9	3				EM	Good	Fair	Slender stem. Acute included primary union at 7m. Weight bias to N.	20+	B1
G1.84	Scots Pine	<22	460	9	9	9	9					EM	Good	Fair	Slender stem. Weight bias to S.	20+	B1
G1.85	Scots Pine	<22	440	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	20+	B1
G1.86	Scots Pine	<22	460	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	20+	B1
G1.87	Scots Pine	<22	480	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	20+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.88	Scots Pine	<22	520	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	20+	B1
G1.89	Scots Pine	<22	360	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	20+	B1
G1.90	Beech	<22	530	9	9	9	9					EM	Good	Good	Slender stem. Weight bias to S.	20+	B1
G1.91	Scots Pine	<22	530	9	9	9	9					M	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.92	Beech	<22	440	9	9	9	9					SM	Good	Fair	Slightly suppressed by adjacent larger tree. Weight bias to N.	20+	B1
G1.93	Beech	<22	420	9	9	9	9					SM	Good	Fair	Slightly suppressed by adjacent larger tree. Weight bias to N.	20+	B1

Tree No.	Species	Ht. (m)	Trunk Diam. (mm)	Crown Spread (m)				Crown Clear. (m)				Age Class	Phys. Cond.	Struct. Cond	Comments	Est. Rem. Cont. (years)	Cat.
				N	E	S	W	N	E	S	W						
G1.94	Turkey Oak	<22	570	9	9	9	9					EM	Good	Good	Good form and vitality. No defects noted.	40+	A1
G1.95	Scots Pine	<22	460	9	9	9	9					EM	Good	Good	Partially occluded stem wound at 1m. Slender stem.	20+	B1

Appendix 3: Tree Constraints Plan



Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 years.
Category 'A' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.
Category 'B' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.
Category 'C' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m^2 which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations.

The calculated RPA is capped to 707m^2, which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Indicative only

Note: Existing dwelling(s), retaining wall(s), road(s) and structures are likely to be partial or complete root barriers. We currently do not have enough information with regards to the existing and surrounding properties and structures, foundations, soil types etc. to definitively determine the root barriers.

Rev:	Date:	Notes:
-	-	-

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Tree Constraints Plan

Based on:
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Drawing No:	Rev:
Arbtech TCP 01	00

Date:	Scale:	Drawn:
01/12/2024	1:250 @ A0	RDP

Key:

Tree Nos.:	?	Tree Canopies:		Trunks:	
RPAs:		Category 'U' trees:		Category 'U' groups:	
Category 'A' trees:		Category 'A' groups:		Category 'B' trees:	
Category 'B' groups:		Category 'C' trees:		Category 'C' groups:	

All dimensions should be checked on site. No dimensions are to be scaled from this drawing. Please notify us of any discrepancies found. Arbtech Consulting Ltd. cannot be held responsible for inaccuracies in the information supplied by third parties.
This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of retained trees.
This drawing should not to be read as a definitive part of the engineering or construction designs or method statements. An architect or structural engineer should be contacted over any matters of construction, detailing or specification and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground services.
This drawing was produced in colour - a monochrome copy should not be relied upon.

8. Document Production Record

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