TREE CONSULTANTS

ARBORICULTURAL REPORT

to BS 5837:2012 at:

Main Street,
Great Houghton,
Barnsley
S72 0AZ

Prepared for:
Avant Homes Yorkshire

Date: *October 2023*

Reference: *AWA5651*

Institute of Chartered Foresters
Registered Consultant

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Union Forge, 27 Mowbray Street, Sheffield, S3 8EN. AWA Tree Consultants Limited. Company No. 8520123. Registered in England & Wales.

Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We were instructed by Avant Homes Yorkshire to visit the site and prepare our findings in a report.

1.1.2 The report is required in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations,* to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.

1.2 Survey Details

1.2.1 The survey took place during September 2023.

1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.

1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.

1.2.4 We have been provided with a topographical survey with tree positions plotted. Where surveyed trees were not included on the topographical survey the tree positions were plotted using enhanced GPS technology (1-2m accuracy) and laser distance measurer.

1.2.5 This report has been prepared by Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principal and Director of AWA Tree Consultants Ltd.

1.2.6 The tree survey data collection was carried out Sophie Beckerman, BA (Hons), Level 4 Diploma in Arboriculture, Arboriculturist at AWA Tree Consultants Ltd.

1.2.7 Full qualifications and experience are included within **Appendix 1**. Explanatory details regarding the survey methodology are included within **Appendix 2**. A full explanation of the tree data can be found at **Appendix 3**. Full details of all the trees surveyed are found in **Appendix 4**. For tree locations please refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location and Description

2.1.1 The site is located on Main Street, Great Houghton.

2.1.2 The site is on agricultural land and comprises an old farmyard with associated farm buildings and 2 large fields. The west is bordered by a residential road, the north and east by farmland and the south by a farmyard and farm buildings.

2.1.3 The approximate area of the survey is highlighted in the (2022 Google Earth) image below:

3. The Trees

3.1 Legal

3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.

3.1.2 An online search was undertaken with Barnsley Metropolitan Council on 04/10/23 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. As of this date no trees at the site are protected by a Tree Preservation Order or are within a Conservation Area.

3.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a further check should be made with the Local Planning Authority to confirm if any trees are covered by a Tree Preservation Order or are within a Conservation Area. If either applies, then statutory permission is required before any works can take place (unless such work is approved as part of full planning permission).

3.1.4 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for areas of ancient woodlands listed on the Ancient Woodland (DEFRA 2021), and a check for catalogued Ancient and Veteran trees using the woodland trust ancient tree inventory (ATI) (Woodland Trust 2021). It was confirmed that there are no designated ancient woodlands or veteran or ancient trees within the survey area.

3.1.5 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.

3.1.6 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance.

3.1.7 All tree work should be carried out according to British Standard 3998:2010 Tree Work - Recommendations.

3.2 Tree Survey Results

3.2.1 The tree survey revealed 15 items of woody vegetation, comprised of 6 individual trees and 9 tree groups or hedges.

3.2.2 Of the surveyed trees: 1 tree is retention category 'B', and 14 trees are retention category 'C', (explanatory details regarding the retention categories are included at Appendix 3).

3.2.3 Full details of the surveyed trees, tree groups and hedges are provided in the attached tree data schedule at Appendix 4. General comments are provided below:

3.2.4 The significant tree cover within the site is concentrated on the southwestern boundary, where there is a mixed species group of semi-mature trees.

3.2.5 Much of the site contains little of arboricultural significance, having been under agricultural use in the recent past.

3.2.6 Species diversity at the site is relatively good. There is a range of species making up the tree group along the southwestern boundary, including Sycamore, Beech and Cherry and a managed group of Cypress. Field boundaries are predominantly Hawthorn hedges.

3.2.7 Most of the trees are semi-mature with only a single mature tree, a Sycamore, T2.

3.2.8 G3 collectively provides good screening between the road and the site and is therefore of moderate amenity value.

3.2.9 Within G3 are two individual trees, T2, a Sycamore, and T15, a Beech. These are the largest two trees on site with good long-term prospects and provide moderate amenity value.

3.2.10 Most trees and tree groups are of low value and should not pose any significant constraint on the development potential of the site.

3.2.11 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.

3.2.12 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would

largely be based on conjecture and so have been avoided.

3.2.13 Some lower value tree, hedge and shrub groups do not have RPAs detailed on tree plans. The detailed extent and spread of these low value groups, in conjunction with the tree schedule, is sufficient to assess the associated potential constraints.

3.3 Photographs

Photo 1: T2 from south east

Photo 2: G3 from southeast

Photo 3: T15 on edge of group (G3) from east

Photo 4: T4, T6 and T7 and G5 from south

Photo 5: T14 from west

Photo 6: G3 from west

3.4 Arboricultural Development Advice

3.4.1 The higher value retention category 'A' and 'B' trees and tree groups should be retained, where possible, and incorporated into any new development design.

3.4.2 Where suitable, those category 'C' trees, tree groups and hedges with reasonable future prospects should be retained as part of any new development. However, care should be taken to avoid misplaced tree retention. Attempts to retain too many or unsuitable trees on a site can result in excessive pressure on the trees during demolition or construction work, or post-completion demands for their removal.

3.4.3 If required by the development proposals, occasional lower value, retention category 'C' trees, tree groups and hedges could be removed, and replacement planting would largely mitigate their losses.

3.4.4 The tree Root Protection Area (RPA), detailed on the Tree Constraints Plan at Appendix 5, should be used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

3.4.5 If construction of new buildings is required within the RPA of retained trees it may be possible to employ special foundation design such as mini/ micro pile and suspended beam foundations or cantilevered foundations.

3.4.6 Construction of hard surfaces, for drives and paths, within the RPA can have negative impacts on tree roots. However, the potential negative impacts can often be overcome or minimised by employing a 'no-dig' type construction method with a porous final surface.

3.4.7 The design of the new development should consider tree crown positions in relation to any new dwellings. The dappled shade of a tree is more pleasant than the deep shadow of a building, and some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. Whilst either shade or sunlight might be desirable, depending on the potential use of the area affected, the design should avoid unreasonable obstruction of light and should give adequate provision for future tree growth.

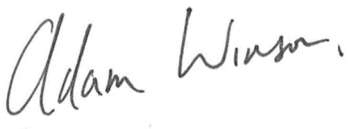
3.4.8 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.

3.4.9 If required by the Local Planning Authority, an associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees can be provided.

4. Signature

I trust this report provides all the required information.

Signed



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Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, ACIEEM*

4th October 2023

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Appendices

Appendix 1: Authors Qualifications & Experience

Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered*
Adam is the company Director and Principal Consultant. He has a mix of the highest-level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and he has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the crown court. Adam also regularly undertakes locum Tree Officer work for several Local Planning Authorities.

James Brown, *BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered*
James is a highly experienced and qualified Arboricultural Consultant. He has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has many years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

James Godfrey, *BA (Hons), FdSc Arboriculture and Tree Management, TechArborA, PTI (Lantra), QTRA Registered*
James has had extensive arboricultural experience working as an arborist within the public and private sector. While working at AWA, James completed his FdSc in Arboriculture and Tree Management, graduating with a distinction and was also awarded for achieving the highest overall mark in his year. James has used his arboricultural knowledge to inform and carry out accurate tree surveys and produce detailed reports that aim to balance appropriate tree retention with the requirements of landowners.

Joe Thomas, *MSci Biology, Award L4 Arboriculture, TechArborA, QTRA Registered*
Joe achieved a first class degree in Biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

James Boyle, *HND Level 5 Arboriculture and Urban Forestry, QTRA Registered*
Jim joined AWA after having worked within the tree care profession for several years, alongside studying at college and university. During this time he gained a wealth of experience and achieved a variety of practical qualifications within the tree care industry. Jim has studied Arboriculture and Urban Forestry at Merrist Wood College in Surrey, Plumpton College in Sussex and University of Highlands and Islands in the Scottish Highlands, where he achieved a distinction in the Higher National Diploma Level 5.

Lucy Garbutt, *MSc Animal Behaviour, BSc (Hons) Biology, CIEEM membership*
Lucy graduated with a masters degree in Animal Behaviour from the UK's highest rated university, St Andrews of Scotland, immediately following the completion of her BSc degree in Biology from Lancaster University. Lucy has experience in botany and plant science and moved into arboriculture after previous experience of protected species and botanical surveys with a large environmental consulting company.

Sophie Beckerman, *BA (Hons), Dip Arboriculture Level 4, TechArborA*
Sophie has more than 10 years' experience as an arborist, working for a variety of private companies as well as undertaking tree management with Sheffield City Council Ranger Service and The Wildlife Trust. Her expertise in arboriculture is demonstrated in the practical NPTC qualifications gained, and her excellent knowledge is reflected in the L4 diploma in Arboriculture, which she completed while working. Her roles as a climbing arborist and team leader included estimating for jobs and project management, supervising tree contracting teams - ensuring that work is carried out safely and efficiently and that health and safety standards are adhered to, and risk assessments are carried out.

Appendix 2: Survey Methodology and Limitations of Report

The survey was undertaken in accordance with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations.* The trees were assessed objectively and without reference to any proposed site layout. The trees were surveyed from the ground using 'Visual Tree Assessment' (VTA) methodology. VTA is appropriate and is endorsed by industry guidance. It is used by arboriculturists to evaluate the structural integrity of a tree, relying on observation of trees biomechanical and physiological features. Measurements are obtained using a diameter tape, clinometer, laser distometer and loggers tape. Where this is not practical measurements are estimated. Tree groups have been identified in instances as defined in BS 5837:2012. Shrubs and insignificant trees may have been omitted from the survey.

This report represents a BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations'*.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked in green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees unsuitable for retention. These trees are in such a condition that any existing value would be lost within 10 years.

	Tree Species			Measurements				Crown (m)					Tree Condition				Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Crown height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G1	Leyland Cypress	*Cupressus x leylandii*	Semi-mature	7	10	100	Yes	0.5	See plans				Boundary group of leylandii approx 5 m wide, trimmed on road side, extending 1 m beyond fence. Dense undergrowth prevented detailed inspection				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
T2	Sycamore	*Acer pseudoplatanus*	Mature	15	6	350	Yes	1	7.5	6.5	6.5	7	Exposed roots. Girdled roots	Multiple stemmed. at base. Old pruning wounds. Stubs. Tight union. Partially included bark. Cup-like union collecting dirt/water. Minor cavities	Minor deadwood	Overhanging road and pavement to northwest. Large union with included bark at base holding water.	Good	Fair	>40 yrs	Moderate	B	No works required in current site context
G3	Cherry	*Prunus avium*	Semi-mature	14	10	200	Yes	1	See plans				Boundary group of mostly Cherry and Beech, with occasional Sycamore and Willlow and some smaller Hawthorn. Good screening between site and road/ houses. Overhanging adjacent footpath. Dense undergrowth prevented detailed inspection				Fair	Fair	20 to 40 yrs	Moderate	C	No works required in current site context
T4	Willow	*Salix sp.*	Semi-mature	10	1	250	No	0.5	5	4	3	4	Limited access around base	Single stemmed. Vertical. Stubs. Minor cavities	Minor deadwood. Minor dieback	Undergrowth prevented detailed inspection of base and stem. Overhangs pavement to northwest	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G5	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	3.5	10	80	Yes	0	See plans				Managed boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn. Road to west.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context

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	Tree Species			Measurements				Crown (m)					Tree Condition					Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Crown height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T6	Cypress	*Cupressus sp.*	Young	7	1	100	Yes	1	1.5	1.5	1.5	1.5	Limited access around base	Single stemmed. Vertical	Normal	Single Cypress growing within hedge. Visibility largely obscured by hedge and undergrowth. Plotted approximately	Good	Fair	20 to 40 yrs	Low	C	No works required in current site context
T7	Willow	*Salix sp.*	Semi-mature	7	1	300	No	1	4	4	4	4	Limited access around base	Single stemmed. Vertical	Minor deadwood. Minor dieback	Undergrowth prevented detailed inspection of base and stem. Overhangs pavement to northwest	Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G8	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	3.5	10	80	Yes	0	See plans				Managed boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G9	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	3.5	10	80	Yes	0	See plans				Managed boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G10	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	7	10	100	Yes	0	See plans				Unmanaged boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn. On raised banking				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G11	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	1.8	10	80	Yes	0	See plans				Managed boundary hedge between two fields. Mostly Hawthorn, occasional Elder and Blackthorn. Recently trimmed.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context

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	Tree Species			Measurements				Crown (m)					Tree Condition					Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Crown height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G12	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	2.5	10	80	Yes	0	See plans				Managed boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn. Recently trimmed.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
G13	Hawthorn, Elder, Blackthorn	*Crataegus monogyna, Sambucus nigra, Prunus spinosa*	Semi-mature	2	10	80	Yes	0	See plans				Managed boundary hedge. Mostly Hawthorn, occasional Elder and Blackthorn. Recently trimmed.				Fair	Fair	20 to 40 yrs	Low	C	No works required in current site context
T14	Cherry	*Prunus avium*	Semi-mature	14	1	240	No	1.5	3.5	3.5	3	2.5	Ground level changes. Root damage/ loss. Trenching/ excavations. Soil compaction	Single stemmed. Vertical. Bark damage. Minor decay	Normal	Soil and bricks piled around base. Recent ground level changes. Elder growing immediate to south and stone wall immediately beyond that. Western crown in contact with farm building.	Good	Good	20 to 40 yrs	Moderate	C	No works required in current site context
T15	Beech	*Fagus sylvatica*	Semi-mature	16	1	300	No	1	5	3.5	2.5	3	Limited access around base	Single stemmed. Vertical	Minor deadwood	Larger Beech within group. Overhanging gateway and road/pavement. Growing into lampost to northwest	Good	Good	>40 yrs	Moderate	C	No works required in current site context

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Appendix 5:
Tree Constraints Plan

Main Street, Great Houghton, Barnsley S72 0AZ
Ref AWA5651

BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A1

	CATEGORY A: HIGH VALUE RETENTION MOST DESIRABLE
	CATEGORY B: MODERATE VALUE RETENTION DESIRABLE
	CATEGORY C: LOWER VALUE COULD BE RETAINED
	CATEGORY U: UNSUITABLE FOR RETENTION
	RPA: ROOT PROTECTION AREA
	TREE STEM