TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS 5837:2012** at:

Greenland Cottages,
High Hoyland,
Barnsley,
South Yorkshire
S75 4AZ

Date: *October 2023*

Reference: *AWA4472/5686*

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 have been instructed 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 October 2022.

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 Mr Adam Winson, Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, Principal and Director of AWA Tree Consultants Ltd.

1.2.6 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** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

2. The Site

2.1 Location and Description

2.1.1 The site is located near High Hoyland, a small village in the metropolitan borough of Barnsley, South Yorkshire.

2.1.2 The site is an area of land located to the north of a small strip of residential housing. The site is set back from the road and is in an elevated position.

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 Due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works a check should be made with the Local Planning Authority to see if the trees are covered by a Tree Preservation Order or if they are within a Conservation Area. If either applies, then statutory permission is required before any works can take place.

3.1.3 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.

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

3.1.5 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 24 items of woody vegetation, comprised of 22 individual trees and 2 tree groups or hedges.

3.2.2 Of the surveyed trees: 6 trees are retention category 'B' and 18 trees, tree groups and hedges 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 consists of trees along or beyond the eastern and northern boundary, with a small clump of trees to the western area.

3.2.5 Species diversity at the site is fair, with a mix of species including Sycamore and Oak, and shrubs including Hawthorn, Plum and Holly. Most of the trees are semi-mature or early-mature with only occasional mature trees.

3.2.6 A line of semi to early mature Sycamore and Oak trees are situated along the site's eastern boundary (T1 to T5). The Sycamore T1 and Oak T3 are in the most prominent positions and are of moderate amenity value. The Oak T2 is the least significant of the trees and has minor dieback in its crown. The land to the west of these trees drops down sharply which will limit the root growth into the site.

3.2.7 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.

3.2.8 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.

3.2.9 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.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new residential development with associated access, parking, landscaping and facilities. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

4.2.1 From assessing the new development proposals, 1 tree will require removal to facilitate the development as they are situated in the footprint of the development or their retention and protection throughout the development is not suitable.

4.2.2 The tree that requires removal to facilitate the development is Oak T2.

4.2.3 The tree to be removed is low value, retention category 'C'. Due to the low value of the trees to be removed the removals will have only a negligible negative arboricultural impact.

4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been 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.

4.3.2 Potentially damaging activities are proposed in the vicinity of retained trees. The new development encroaches close to and into the edge of the RPA of T1 and T3. Construction within the RPA can have negative impacts on tree roots. However, due to the sharp changes in land levels and land form, the detailed RPA for these trees is likely to be an exaggerated representation of the trees actual rooting area. Few significant roots will be within the developed area from trees T1 and T3. As such, the retained trees should remain largely unaffected by the works, provided care is taken during construction.

4.3.3 The design of the new development has considered the trees crown position in relation to the dwelling. Some shade from trees may be beneficial. In particular, deciduous trees give shade in summer but allow access to sunlight in winter. However, the design proposals avoid excessive shading, and give adequate provision for future tree growth.

4.3.4 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of

materials, including topsoil, in relation to the trees.

4.4 Suitable Mitigation

4.4.1 The development of the site provides an excellent opportunity to undertake new tree planting throughout the site as part of a soft landscaping scheme. As such, suitable new tree planting has the potential to mitigate for the required tree removals and, in the longer term, has the potential to improve the sites tree cover.

4.5 Protection of the Retained Trees

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

4.5.2 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.

5. Signature

I trust this report provides all the required information.

Signed

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

11th October 2023

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Appendices

Appendix 1: Authors Qualifications and Experience
Appendix 2: Survey Methodology and Limitations
Appendix 3: Explanation of Tree Descriptions
Appendix 4: Tree Data
Appendix 5: Tree Constraints Plan
Appendix 6: Tree Impacts Plan

Appendix 1: Authors Qualifications & Experience

Mr 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 multimillion pound housing developments and 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 undertakes locum Tree Officer work for several local authorities.

Mr James Brown, *BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered*
James 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 several 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.

Dr Felicity Stout, *PhD, MA, BA (Hons), Cert Ed Forestry, TechArborA, PTI (Lantra)*
Felicity has worked in the tree care profession for the last 10 years. She has a Certificate in Higher Education in Forestry, with a focus on Urban Forestry. She has practical arboricultural contractor experience and is a qualified and experienced social forestry practitioner. Felicity has a PhD in History, with a particular interest in the history of woodland and tree management and she has work published in The Arboricultural Journal on this subject. As well as working at AWA Felicity is the Tree Conservation Officer for the Peak District National Park Authority.

Mr James Godfrey, *BA (Hons), Dip Forestry and Arboriculture Level 4, Cert Arb L3, TechArborA, QTRA Registered*
James has extensive arboricultural experience working as a team leader within the public and private sector. By achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture, James was able to use his knowledge to inform and carry out appropriate maintenance that ensured the long term wellbeing of trees across the UK. During his time at Darlington Borough Council, James provided on site assessment and the management of the remedial works required to ensure safe and suitable retention of trees that provide a multitude of benefits to the urban environment. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

Mr Joe Thomas, *MSci Biology, Award L4 Arboriculture, TechArborA*
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 in 2022 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.

Mr James Boyle, *HND Level 5 Arboriculture and Urban Forestry, Dip Arboriculture Level 4, TechArborA*
Jim joined AWA in 2022, 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 several professional and practical NPTC qualifications in 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.

Miss Lucy Garbutt, *MSc Animal Behaviour, BSc (Hons) Biology, CIEEM membership*
Lucy recently 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 moved into arboriculture after previous experience of protected species' surveys with a large environmental consulting company. This included surveys of bats, reptiles, and dormice.

Appendix 2: Survey Methodology and Limitations

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 and includes information of the first significant branch and direction of growth.

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)					Condition				Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Average Height*	*N*	*E*	*S*	*W*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Sycamore	*Acer pseudoplatanus*	Early-mature	11	1	440	5	4	6	6	6	No major visible defects. Crown overhanging road. Land drops sharply to west, limiting root growth into site.	Good	Fair	>40	Moderate	B	No action required
T2	Oak	*Quercus robur*	Semi-mature	12	2	280, 250	5	2	2.5	2.5	2.5	No major visible defects. Land drops sharply to west, limiting root growth into site.	Fair	Fair	20 to 40	Low	C	Removal required to facilate new development
T3	Oak	*Quercus robur*	Early-mature	16	2	500, 350	5	9	7	7	4	No major visible defects. Adjacent tree. Land drops to south/west, limiting root growth into site.	Fair	Fair	>40	Moderate	B	No action required
T4	Sycamore	*Acer pseudoplatanus*	Semi-mature	12	6	160	5	4	5	5	5	No major visible defects	Fair	Fair	>40	Low	C	No action required
T5	Sycamore	*Acer pseudoplatanus*	Semi-mature	12	6	250	5	6	5	5	6	Multiple-stemmed form	Fair	Fair	>40	Low	C	No action required
G6	Blackthorn	*Prunus spinosa*	Semi-mature	3	1	100	5	2	2	2	2	Shrubby boundary group	Fair	Fair	>40	Low	C	No action required

	Tree Species			Measurements			Crown (m)					Condition				Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Average Height*	*N*	*E*	*S*	*W*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G7	Holly	*Ilex aquifolium*	Semi-mature	7	1	100	5	2	2	2	2	Shrubby boundary group	Fair	Fair	>40	Low	C	No action required
T8	Sycamore	*Acer pseudoplatanus*	Early-mature	17	2	350, 400	5	4	5	7	4	Twin-stemmed. Cavity with decay.	Fair	Fair	20 to 40	Low	C	No action required
T9	Sycamore	*Acer pseudoplatanus*	Semi-mature	16	1	300	5	3	1	7	4	Forming part of an adjacent woodland group.	Good	Good	>40	Low	C	No action required
T10	Oak	*Quercus robur*	Semi-mature	18	1	250	5	4	4	2	6	Forming part of an adjacent woodland group.	Fair	Fair	>40	Low	C	No action required
T11	Oak	*Quercus robur*	Semi-mature	18	1	300	5	2	3	7	3	Forming part of an adjacent woodland group.	Good	Good	>40	Moderate	B	No action required
T12	Beech	*Fagus sylvatica*	Early-mature	18	1	550	5	4	4	9	4	Forming part of an adjacent woodland group.	Good	Good	>40	Moderate	B	No action required

	Tree Species			Measurements			Crown (m)					Condition				Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Average Height*	*N*	*E*	*S*	*W*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T13	Sycamore	*Acer pseudoplatanus*	Semi-mature	15	1	250	5	1.5	4	5	0.5	Forming part of an adjacent woodland group.	Fair	Fair	20 to 40	Moderate	C	No action required
T14	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	500	5	2	4	6	7	Forming part of a woodland group.	Good	Good	>40	Moderate	B	No action required
T15	Sycamore	*Acer pseudoplatanus*	Early-mature	15	1	450	5	3	3	2	6	Forming part of an adjacent woodland group.	Good	Fair	>40	Moderate	C	No action required
T16	Oak	*Quercus robur*	Early-mature	20	1	550	5	5	3	7	6	Forming part of an adjacent woodland group.	Good	Good	>40	Moderate	B	No action required
T17	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	410	5	6	6	3	5	Minor ground compaction. Pruning wounds	Fair	Fair	20 to 40	Low	C	No action required
T18	Oak	*Quercus robur*	Semi-mature	11	2	210, 290	5	4	3	6	5	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required

	Tree Species			Measurements			Crown (m)					Condition				Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Average Height*	*N*	*E*	*S*	*W*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T19	Oak	*Quercus robur*	Semi-mature	7	1	150	5	1	1.5	3	0.5	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required
T20	Sycamore	*Acer pseudoplatanus*	Semi-mature	10	6	120	5	3	2.5	3.5	3	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required
T21	Plum	*Prunus sp*	Semi-mature	4	1	130	5	1	1	1	1	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required
T22	Oak	*Quercus robur*	Semi-mature	5	2	180	5	1	3	4	4	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required
T23	Oak	*Quercus robur*	Semi-mature	6	1	100	5	1	3	3	1	Forming part of a small clump of trees	Fair	Fair	20 to 40	Low	C	No action required
T24	Spruce	*Picea sp*	Semi-mature	11	1	300	5	3	3	2	3	Situated by access drive in adjacent garden area	Good	Good	>40	Moderate	C	No action required

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Appendix 5: Tree Constraints Plan

Greenland Cottages, S75 4AZ
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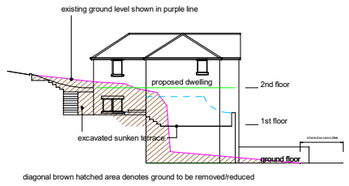
BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these categories can be found in Appendix 2 of the report.

SCALE: 1:500 PAPER: A3

	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



diagonal brown hatched area denotes ground to be removed/reduced

proposed section A - A

diagonal brown hatched area denotes ground to be removed/reduced in order to create the sunken terrace areas

Greenland Cottages

High Hoyland Lane

NORTH

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Appendix 6:
Tree Impacts Plan

Greenland Cottages, S75 4AZ
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BRITISH STANDARD 5837:2012

SCALE: 1:500 PAPER: A3

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	RPA: ROOT PROTECTION AREA
	TREE STEM