TREE CONSULTANTS

ARBORICULTURAL REPORT

With

IMPACT ASSESSMENT

To BS 5837:2012 at:

Woodbine Cottage,
Billingley,
Barnsley
S72 0JE

Prepared for: *Stephen Selway*

Date: *November 2021*

Reference: *AWA4026*

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 Stephen Selway C/O James Roberts of JR Planning Consultancy Services 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 March 2019.

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, Principle 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.** For detail on the impact of the new development refer to section 4 and **Appendix 6.**

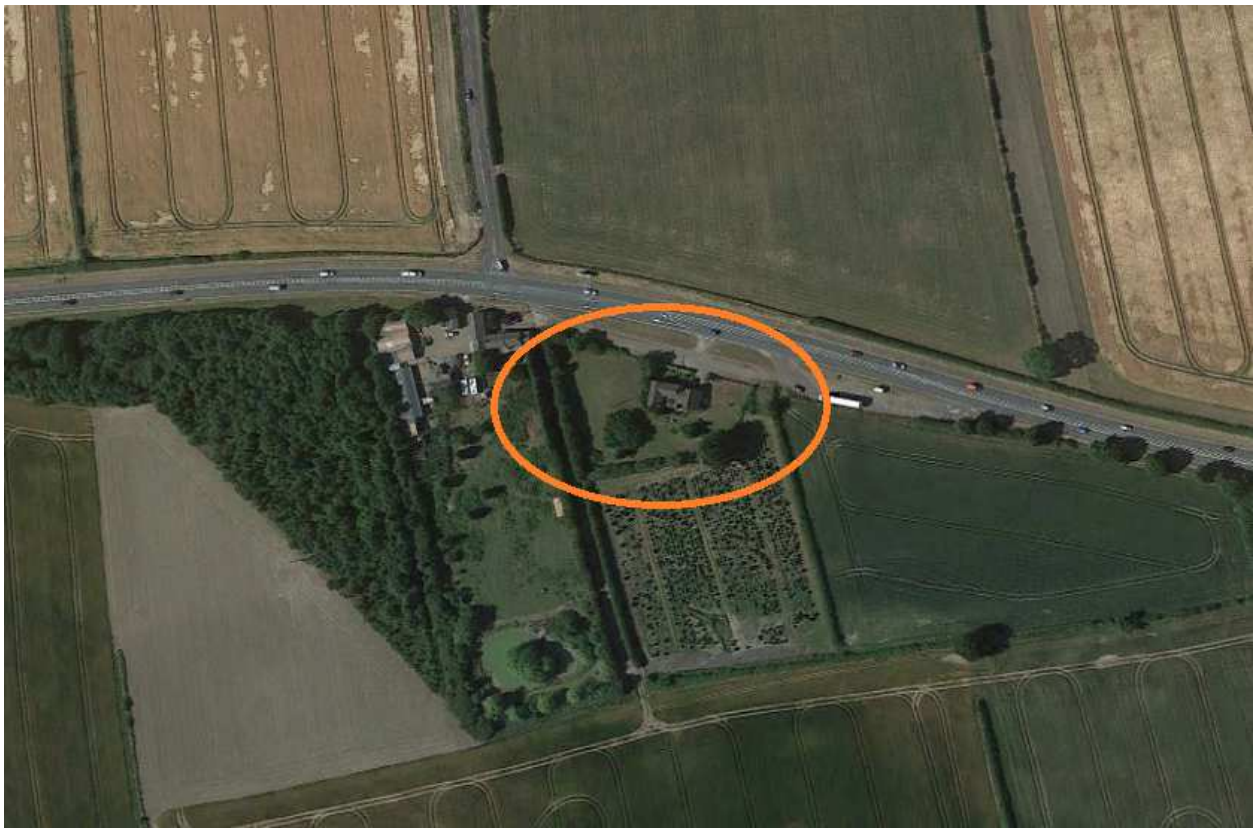
2. The Site

2.1 Location & Description

2.1.1 The site is located in the village and civil parish of Billingley, approximately 7 miles east of Barnsley Town Centre.

2.1.2 The site currently consists of a detached residential dwelling with associated access and gardens.

2.1.3 The approximate survey area has been highlighted in the (2018 Google Earth) image below:



3. The Trees

3.1 Legal

3.1.1 An online check was made on 27th March 2019. This showed that the site does not have any trees covered by a Tree Preservation Order.

3.1.2 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 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 When appointing a tree surgeon, only properly qualified and experienced companies should be used, who have adequate Public Liability and Employer's Liability Insurance. 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 13 items of woody vegetation, comprised of 8 individual trees and 5 groups of trees or shrub/hedge groups.

3.2.2 Of the surveyed trees: 2 trees are retention category 'B'; and the remaining 11 trees are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 The significant tree cover within the site consists of two closely planted Sycamores in the south eastern corner (T1 and T2) and occasional old fruit trees (T5, T8 and T14) mainly Apple and Plum varieties.

3.2.4 The Sycamores T1 and T2 provide reasonable visual amenity and landscape value, and they would add value to a new development if retained with enough space at the site. The trees do not appear to have been previously pruned and the lower branches could be crown lifted if required.

3.2.5 The mature fruit trees provide some arboricultural interest to the site and those with fair prospects would make suitable garden trees within a new development. However, they should not form a significant constraint to a

new development. Most have historic pruning wounds and cavities that may reduce their long-term value.

3.2.6 The central garden area has a mass of dense saplings – likely grown from the parent tree of T8. These are all low value and should not constrain a new development.

3.2.7 To the north of the site are a group of dense Birch stems that form one crown. These provide some limited amenity value yet are generally insignificant.

3.2.8 The western third of the site has a well-established boundary hedge G6 and G7. This has been unmanaged in recent time and as a result has become slightly degraded in parts. However, it has good potential as a boundary feature if brought back under regular cutting management.

3.2.9 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.

3.2.10 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5, 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.

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

3.2.12 The 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.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a new residential dwelling with associated access, landscaping and facilities.

4.1.2 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, no trees will require removal to facilitate the new development.

4.2.2 All the trees can be protected throughout the development and incorporated into the new development layout.

4.2.3 The trees selected for retention will provide an important element of green infrastructure, provide visual amenity and complement the new development.

4.2.1 The detailed trees T1 and T2 will benefit from minor crown lifting works to avoid future nuisance issues and sit in harmony with the proposed development.

4.2.2 The smaller third order branches will require pruning back to suitable points to achieve clearance of around 3m from ground level and to give adequate provision for future tree growth.

4.2.3 The pruning work must be limited to secondary branches not exceeding 8cm in diameter. The overall loss of live branches must not exceed 15% of the overall live crown mass.

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

4.2.5 The trees will readily tolerate these works and the amenity value they provide will not be significantly impacted.

4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendix 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. As such, no significant negative indirect impacts have been identified.

4.3.2 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, in conjunction with the detailed pruning works, will avoid excessive shading, and give adequate provision for future tree growth.

4.3.3 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 Protection of the Retained Trees

4.4.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase. The protective fencing for this site should be located to protect the RPAs of the retained trees as detailed on the attached Tree Impacts Plan at Appendix 6.

4.4.2 The final fencing position should be agreed on by the LPA before the commencement of any site works. The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, it is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.

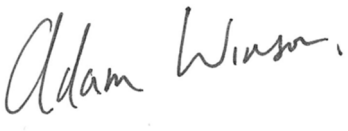
4.4.3 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed with the CEZ. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.

4.4.4 If required by the Local Planning Authority, an associated Arboricultural Method Statement with Tree Protection Plan, 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, AIEEM.*

5th November 2021

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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 1: Authors Qualifications & Experience

Mr Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered*
Adam is the company Director and Principle 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 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.

Mr James Brown *BSc (Hons) Arboriculture, MArborA, PTI (Lantra)*
James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. James joined AWA in 2016, after previously working in Europe's largest tree nursery and has experience of Local Authority tree officer work. His main work consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

Dr Felicity Stout *Ph.D, 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 has published in The Arboricultural Journal on this subject.

Mr Tom Readman *FdSc Arboriculture, Cert Arb L3, TechArborA, Valid Tree Risk-Benefit Validator*
Tom joined AWA from his previous role as a tree risk surveyor with Harrogate Borough Council, where he undertook tree risk surveys at a range of sites and prescribed suitable works. Tom also has extensive previous experience as a climbing arborist. Tom achieved a Distinction in the Foundation Degree in Arboriculture, while working at AWA, and has previously achieved Distinction Star, and was recognised as the student of the year, in the Extended Diploma in Forestry and Arboriculture. Tom's work focuses on tree risk surveys and accurate tree data collection for development projects to BS 5837:2012

Mr James Godfrey *BA (Hons), Cert Arb L3, Level 4 Forestry and Arboriculture, TechArborA*
James has extensive arboricultural experience working as a team leader in both the public and private sector. Achieving a Distinction Star in the Extended Diploma in Forestry and Arboriculture allowed James to utilise this knowledge in order to inform the maintenance and wellbeing of trees across the UK over the course of his career. During his time at Darlington Borough Council, James was responsible for on-site assessment and advising of remedial works for council owned trees. Currently, James is completing a Foundation Degree in Arboriculture and Tree Management, while working at AWA.

Mr David Miller *BA (Hons), PGCE education, Dip Arboriculture Level 4*
David joined AWA after having managed his own tree care team for 8 years and gained a wealth of experience in the tree care industry. Prior to this David spent 10 years working in secondary mainstream and special education. David has also travelled worldwide, mainly trekking and running. His main work at AWA consists of tree surveys for development projects and preparing Tree Protection Schemes to BS 5837:2012.

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 BS5837 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 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.

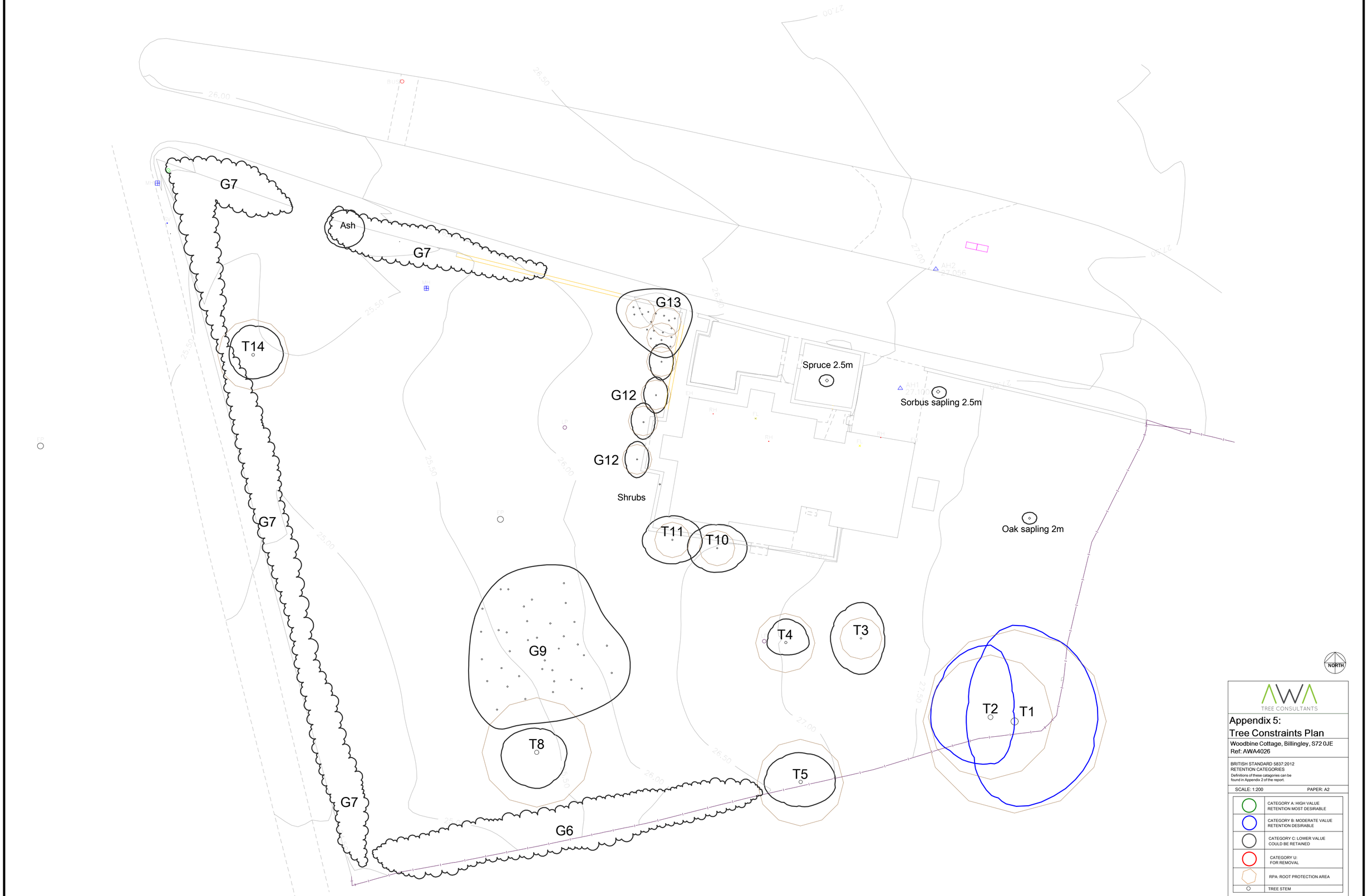
C (marked in grey on Appendix 5) = trees which could be retained. These trees are of low or average quality and value, and are in adequate condition to remain until new planting could be established.

U (marked in red on Appendix 5) = trees for removal. 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 Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Sycamore	*Acer pseudoplatanus*	Early-mature	15	1	620	No	2.5	8	7	7	4	No visual defects	Single stemmed, Vertical, Minor cavities	Normal, Slightly unbalanced, Overhanging adjacent land	Forming single crown with T2	Good	Good	>40 yrs	Moderate	**B**	Crown lift to suitable points achieve clearance of around 3m from ground level
T2	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	420	No	2	6	2	4	5	No visual defects	Single stemmed	Normal, Slightly unbalanced	Forming single crown with T2. Could be crown lifted.	Good	Good	>40 yrs	Moderate	**B**	Crown lift to suitable points achieve clearance of around 3m from ground level
T3	Plum	*Prunus domestica*	Mature	5	2	100 100	Yes	3	3	2	3	2.5	No visual defects, Limited access around base	Twin stemmed, Vertical	Normal, Old pruning wounds, Low vigour	Situated within Lilac shrub.	Fair	Fair	10 to 20 yrs	Low	**C**	No works required
T4	Plum	*Prunus domestica*	Mature	4	1	200	No	2	2	2	1	1.5	No visual defects, Decay	Single stemmed, Vertical, Old pruning wounds, Bark damage	25% dead / absent, Small / sparse, Low vigour	Limited long-term value.	Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T5	Apple	*Malus pumila*	Mature	5	2	250 150	No	2	2.5	3	2	3	No visual defects, Decay	Twin stemmed at 1m, Major cavities, Major decay	Normal, Overhanging adjacent land	Boundary tree. Good value and character. Decay in stem limiting long-term value.	Good	Poor	10 to 20 yrs	Moderate	**C**	No works required
G6	Hawthorn	*Crataegus monogyna*	Early-mature	5	10+	120 avg	Yes	0	1.5	5	1.5	5	No visual defects	Multiple stemmed at 1m, Old pruning wounds	Normal	Occasional Elder and Holly. Previously managed but has become overgrown. Good screening value.	Good	Fair	20 to 40 yrs	Moderate	**C**	No works required

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G7	Hawthorn	*Crataegus monogyna*	Early-mature	6	10+	120 avg	Yes	0	1.5	5	1.5	5	No visual defects	Multiple stemmed at 1m, Old pruning wounds	Normal	Occasional Elder, Ash and Holly. Previously managed but has become overgrown. Good screening value.	Good	Fair	21 to 40 yrs	Moderate	**C**	No works required
T8	Plum	*Prunus domestica*	Mature	6.5	1	370	No	1	2	2.5	3	3	No visual defects	Single stemmed, Vertical, Minor cavities, Minor decay, Bark damage, Old pruning wounds	Normal, Small / sparse	Twisted stem. Tree has character yet may have limited long term prospects	Good	Fair	20 to 40 yrs	Moderate	**C**	No works required
G9	Plum	*Prunus domestica*	Semi-mature	5	1	100	Yes	1	5	6	5	6	No visual defects, Soil erosion	Single stemmed, Vertical	Normal	Dense regeneration around two older decaying stems.	Good	Good	>40 yrs	Low	**C**	No works required
T10	Plum	*Prunus domestica*	Semi-mature	5	1	120	No	2	2	2.5	2	2.5	No visual defects	Single stemmed, Vertical	Normal	Situated close to house.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required
T11	Plum	*Prunus domestica*	Semi-mature	5	1	120	No	2	2	2.5	2	2.5	No visual defects	Single stemmed, Vertical	Normal	Situated 2m from house.	Fair	Fair	21 to 40 yrs	Low	**C**	No works required
G12	Plum	*Prunus domestica*	Semi-mature	4.5	1	100	Yes	2	1.5	1	1.5	1	No visual defects	Single stemmed	Normal, Small / sparse	Row of small trees adjacent to the house.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required

	Tree Species		Measurements					Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Dia (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G13	Birch	*Betula pendula*	Semi-mature	6	1	100	No	3	3	3	3	3	No visual defects	Single stemmed, Vertical	Normal, Small / sparse	Dense group of around 15 stems forming one feature. No major visible defects.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required
T14	Apple	*Malus pumila*	Mature	6	1	240	No	3	2.5	2.5	2	2	No visual defects	Single stemmed, Vertical, Major cavity, Major decay	Normal, 25% dead / absent, Small / sparse	Cavity at 0.5m will limit long-term value.	Fair	Poor	10 to 20 yrs	Low	**C**	No works required



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Appendix 5: Tree Constraints Plan

Woodbine Cottage, Billingley, S72 0JE
Ref: AWA4026

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

SCALE: 1:200 PAPER: A2

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

Doncaster Road

access road

G7

Ash

G7

G13

T14

G12

G12

Woodbine Cottage
(existing dwelling)

Shrubs

new drive

Spruce 2.5m

underground gas tank

drive

garden

G7

T11

T10

Proposed Cottage

north

T4

T3

G9

garden

T2

T1

T8

T5

G7

G6

0 1 2 3 4 5m 6 7 8 9 10 m

NORTH

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Appendix 6:
Tree Impacts Plan

Woodbine Cottage, Billingley, S72 0JE
Ref: AWA4026

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A2

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

PROPOSED SITE PLAN

1:200 WHEN PRINTED AT A3