TREE CONSULTANTS

ARBORICULTURAL REPORT

To BS 5837:2012 at:

Land at

Lee Lane,
Royston,
Barnsley
S71 4RT

Prepared for:
Johnson Mowat Planning Ltd
Coronet House,
Queen St,
Leeds
LS1 2TW

Date: *April 2020*

Reference: *AWA3155*

Institute of Chartered Foresters
Registered Consultant

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1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by Patrick Townsend of Johnson Mowat Planning Ltd 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 April 2020.

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 The tree positions were plotted on Ordnance Survey map base-layer 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 The tree survey data collection was carried out by Mr Patrick Rowntree, PTI (Lantra), Cert Arb L3, TechArborA, 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 refer to the Tree Constraints Plan at **Appendix 5**.

2. The Site

2.1 Location & Description

2.1.1 The site is located west of Royston, a suburban village within the Metropolitan Borough of Barnsley.

2.1.2 The site comprises several fields in use as horse pasture. Additional agricultural fields are located to the south and west, whilst residential dwellings are situated to the north and east.

2.1.3 The approximate area of the survey is highlighted in the (2019 Google Earth) image below:



3. The Trees

3.1 Legal

3.1.1 An online check made with Barnsley Metropolitan Borough Council on 24/04/2020 indicates that no trees within the surveyed area are protected by virtue of a Tree Preservation Order, nor are the trees situated within a Conservation Area. However, due to the large potential penalties for illegally carrying out work to protected trees, before authorising any tree works an additional check should be made with the Local Planning to see if either applies. If so, then statutory permission is required before any works can take place.

3.1.2 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 44 items of woody vegetation, comprised of 26 individual trees and 18 groups of trees or hedges.

3.2.2 Of the surveyed trees: 1 tree is retention category `U', 7 trees are retention category `B', and the remaining 36 trees and groups 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 mainly of low value, unmanaged boundary hedge groups. There are also occasional, well established trees situated along the internal and external field boundaries.

3.2.4 Species diversity at the site is relatively poor. The dominant species are Hawthorn and Willow with several Ash, Oak, Sycamore, and occasional Birch and Elm. The site's trees had a good age diversity with a mix of semi-mature, early-mature and mature trees.

3.2.5 The site's most significant trees are the large, semi-mature to early mature Oak trees situated along the northern site boundary. Due to their roadside position, they are visually prominent from across the site and the surrounding area and provide a good level of amenity. No major defects were noted and they have good long-term prospects.

3.2.6 Several moderate value trees are located to the south of the surveyed areas (T18, T35, T42 and T43). These trees are larger, and better established than many others across the site. However, due their more remote location, they provide only limited amenity value.

3.2.7 Located in the centre of the site is a large Ash T34. This tree is in poor overall condition. Numerous *Ganoderma* fungus brackets were noted at the base of the tree, and evidence of *Inonotus hispidus* was visible higher in the crown. Several large branches have historically failed, and the crown is in a general state of decline. Due to its size, it continues to provide some amenity value, but should the proposed developments increase the tree's target value, it would be unsuitable for retention.

3.2.8 Along the western site boundary are several Willow groups (G24 to G27). The trees within these groups are of low individual value, but collectively they provide moderate amenity. Due to species characteristics, and poor form of some trees within the groups, they would be unsuitable for retention should the proposals significantly increase their target value.

3.2.9 The Elm T32 is situated towards the centre of the site. Much of the trees canopy is dead, with very limited live growth remaining. Several of the stems have large bark wounds with advanced decay. The tree has no long term value and due to its poor structural condition, the tree should be removed regardless of future development.

3.2.10 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.

3.2.11 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.

3.2.12 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.

3.2.13 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.

3.3 Arboricultural Development Advice

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

3.3.2 Where suitable, those category 'C' trees and groups with reasonable future prospects (as detailed in Appendix 4) 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.

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

3.3.4 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.

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

3.3.6 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 methods with a porous final surface.

3.3.7 The design of the new development should consider the trees crown position 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 Protection of the Retained Trees

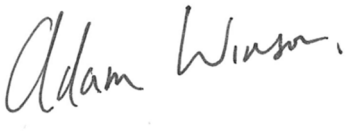
3.4.1 The retained trees may require protection by fencing in accordance with BS 5837:2012, during the development phase.

3.4.2 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.

4. Signature

I trust this report provides all the required information.

Signed



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

27th April 2020

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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 previously worked 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.

Mr Dave Farmer *FdSc (Arb), MArborA, PTI (Lantra).*

Dave has a Foundation Degree in Arboriculture (with Distinction) and is qualified in Professional Tree Inspection. He is a Professional Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters. Dave has many years of experience within the tree care profession, including lecturing in arboriculture. His work focuses on diagnosing potential tree risk problems, and recommending appropriate treatments and work programmes.

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 Patrick Rowntree *Cert Arb L3, TechArborA. PTI (Lantra).*

Patrick is a trained arborist with 5 years of experience in both the private and commercial sectors and is a technician member of the Arboricultural Association. Having travelled the world, both working as an arborist and playing professional rugby, Patrick was awarded a Distinction in the Extended Diploma in Forestry & Arboriculture and is qualified in Professional Tree Inspection. Patrick now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans to BS 5837:2012.

Mr Drew Leeper *Cert Arb L3.*

Drew has over 10 years experience within the arboricultural sector and was awarded Distinction in the Extended Diploma in Forestry & Arboriculture. From working abroad in Canada as a climbing arborist and returning home to running his own tree care firm. Drew has also been fortunate enough to gain valuable experience working at the Royal Botanical Gardens of Kew. He now uses his work and education experience at AWA, focusing on accurate tree data collection for tree surveys for development projects and assisting the team in the preparation of tree reports and tree plans 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 Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Oak	*Quercus robur*	Semi-mature	9.5	1	510	No	3	5	3	5.5	4.5	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths	Normal, Minor deadwood	Previously crown raised over adjacent highway.	Fair	Fair	>40 yrs	Moderate	**B**	No works required in current site context.
T2	Willow	*Salix fragilis*	Semi-mature	11	1	500	Yes	4	6.5	4	4	4.5	Waterlogged	Multiple stemmed at base, Stubs, Old pruning wounds, Ivy covered, Moderate cavities, Epicormic growths, Moderate decay , Previously removed northern co-dominant stem has moderate cavity with advanced decay	Low vigour, Minor dieback, Minor deadwood, High proportion of minor dieback/deadwood in northern aspect.	Previously multi-stemmed tree - one stem historically failed at base, now resting on ground to east leaving large bark wound with some historic decay. Limited access around base due to dense epicormic growth and dog rose. Limited long-term value.	Poor	Poor	10 to 20 yrs	Low	**C**	No works required in current site context.
T3	Willow	*Salix fragilis*	Semi-mature	10	3	440 350 320	No	2	3	8.5	5	4	Waterlogged	Multiple stemmed at base, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Moderate decay	Minor dieback, Moderate deadwood	Northern and southern co-dominant stems historically removed leaving large stubs with dense epicormic growth and moderate decay. Eastern stem partially failed, now resting on ground. Limited long-term value.	Fair	Fair	>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*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G4	Hawthorn	*Crataegus monogyna*	Semi-mature	4.5	10+	100 avg	No	1	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark	Old pruning wounds, Minor deadwood	Previously managed boundary hedge, now overgrown. Occasional Elder, Birch and Hazel saplings.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T5	Oak	*Quercus robur*	Early-mature	13	1	600	No	3	5	4	4.5	5	No visual defects	Single stemmed, Vertical, Stubs, Epicormic growths, Old pruning wounds, Bark damage	Well developed crown, Minor deadwood	Previously crown raised over adjacent highway leaving multiple large stubs - no visible decay. Minor bark damage caused by occlusion of barbed wire fencing.	Good	Good	>40 yrs	High	**B**	No works required in current site context.
T6	Birch	*Betula pendula*	Semi-mature	10	1	210	No	4.5	3	1.5	1.5	2	No visual defects	Single stemmed, Slight lean, Stubs, Epicormic growths	Minor deadwood	Slightly suppressed form.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T7	Sycamore	*Acer pseudoplatanus*	Semi-mature	10	1	180	No	4	0.5	1	2	2	No visual defects	Single stemmed, Vertical, Stubs, Epicormic growths	Small / sparse, Minor deadwood	Suppressed form.	Poor	Fair	>40 yrs	Low	**C**	No works required in current site context.
T8	Birch	*Betula pendula*	Semi-mature	9	3	170 140 200	No	4	1	2.5	3	1	No visual defects	Multiple stemmed at base, Vertical, Ivy covered, Stubs, Epicormic growths	Minor deadwood	Situated between two boundary fences, limiting access.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T9	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	2	240 250	No	2	4.5	3	1.5	3.5	No visual defects	Twin stemmed at 0.5m, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Minor deadwood, Slightly unbalanced		Fair	Fair	>40 yrs	Moderate	**C**	No works required in current site context.
T10	Oak	*Quercus robur*	Semi-mature	7.5	2	250 170	No	2	2.5	0.5	4.5	4	No visual defects	Twin stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Minor decay	Small / sparse, Minor deadwood	Suppressed by larger adjacent Oak. Previously failed second order limb - 1m, western aspect with minor decay. Limited long-term value.	Poor	Fair	20 to 40 yrs	Low	**C**	No works required in current site context.
T11	Oak	*Quercus robur*	Early-mature	13	2	640 590	No	3.5	6.5	6.5	6	6	No visual defects	Twin stemmed at 0.5m, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark	Well developed crown, Old pruning wounds, Minor deadwood	Previously crown raised over adjacent highway leaving multiple large stubs. Minor bark damage from occlusion of barbed wire fencing.	Good	Fair	>40 yrs	High	**B**	No works required in current site context.
T12	Birch	*Betula pendula*	Semi-mature	9.5	1	230	No	1	2.5	2	2	2.5	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union	Normal, Minor deadwood		Good	Good	>40 yrs	Moderate	**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*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G13	Hawthorn	*Crataegus monogyna*	Semi-mature	4.5	10+	100 avg	No	1	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark	Old pruning wounds, Minor deadwood	Previously managed boundary hedge, now overgrown.	Fair	Fair	>40 yrs	Low	C	No works required in current site context.
G14	Hawthorn	*Crataegus monogyna*	Semi-mature	5	10+	120 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Old pruning wounds, Minor deadwood	Previously managed hedgerow, now overgrown. Limited visibility of stems due to dense crown and ivy.	Fair	Fair	>40 yrs	Low	C	No works required in current site context.
T15	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	7	190 avg	Yes	2	4.5	3	4.5	3.5	Damage to buttress roots, Exposed roots	Multiple stemmed at 0.5m, Stubs, Old pruning wounds, Epicormic growths, Bark damage, Tight union, Partially included bark, Minor decay		Tight unions preventing accurate DBH measurement. Major bark wounds to multiple stems, but only limited decay.	Fair	Poor	20 to 40 yrs	Moderate	C	No works required in current site context.
G16	Hawthorn	*Crataegus monogyna*	Semi-mature	5	10+	120 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered, Bark damage, Minor decay	Old pruning wounds, Minor deadwood	Previously managed hedgerow, now overgrown. Limited visibility of stems due to dense crown and ivy.	Fair	Fair	>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*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T17	Ash	*Fraxinus excelsior*	Mature	14	1	920	No	3.5	5.5	5	4.5	5.5	No visual defects	Multiple stemmed at 3m, Vertical, Stubs, Epicormic growths, Bark damage, Tight union, Major cavity, Major decay	Well developed crown, Snapped /hanging branches, Long thin section of decayed timber from central leader resting in northern aspect	Central leader has historically failed, leaving major cavity with advanced decay at 2.5m - too high for detailed inspection from ground level. Subsequent epicormic growth has established into healthy, well developed crown. Good amenity, but limited long-term prospects and unsuitable for retention close to future development.	Good	Poor	20 to 40 yrs	Moderate	**C**	No works required in current site context.
T18	Ash	*Fraxinus excelsior*	Early-mature	13	5	250 400 380 240 200	No	3	6	6	5	5	No visual defects	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Bark damage, Cup-like union collecting dirt/water, Minor cavities, Minor decay	Normal, Minor deadwood	Minor bark damage incurred by occlusion of barbed wire fencing.	Fair	Fair	>40 yrs	Moderate	**B**	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*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G19	Hawthorn	*Crataegus monogyna*	Semi-mature	3	10+	90 avg	Yes	0.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union	Old pruning wounds, Minor deadwood	Previously managed boundary hedge, becoming overgrown.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
G20	Hawthorn	*Crataegus monogyna*	Semi-mature	3	10+	90 avg	Yes	0.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union	Old pruning wounds, Minor deadwood	Previously managed boundary hedge, becoming overgrown.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T21	Hawthorn	*Crataegus monogyna*	Semi-mature	4.5	1	200	Yes	1.5	2.5	2	2	2	No visual defects, Limited access around base	Single stemmed, Vertical, Stubs, Epicormic growths	Normal	Situated in adjacent land. Limited access due to boundary fence and dense bramble.	Good	Fair	>40 yrs	Low	**C**	No works required in current site context.
T22	Birch	*Betula pendula*	Semi-mature	8	2	150 110	Yes	2	2.5	2	2	2	No visual defects, Limited access around base	Twin stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Normal	Dense bramble and boundary fence preventing detailed inspection.	Fair	Fair	>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*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G23	Willow	*Salix fragilis*	Semi-mature	8	4	240 250 190 200	No	1	2.5	4	3.5	3	No visual defects	Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Bark damage, Minor decay	Minor dieback, Minor deadwood	Two trees forming single canopy. Central crown encroaching on powerlines - live growth burning back. Major bark wound with moderate decay to eastern co-dominant stem. Smaller, partially failed saplings to north.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required in current site context.
G24	Willow	*Salix sp.*	Semi-mature	7	10+	90 avg	Yes	1	See plan				No visual defects, Limited access around base	Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Minor cavities, Minor decay	Old pruning wounds, Minor deadwood	Linear group of individual Crack and Goat Willows forming single canopy. Situated beyond boundary fence. Previously managed at 1.5m, now overgrown and encroaching on powerline.	Fair	Fair	20 to 40 yrs	Low	**C**	No works required in current site context.
G25	Willow	*Salix fragilis*	Semi-mature	10	10+	150 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark	Old pruning wounds, Minor deadwood	Linear group of trees forming single canopy. Situated beyond boundary fence with limited access. Previously topped at 2m. Western aspect encroaching on powerline.	Good	Fair	>40 yrs	Moderate	**C**	No works required in current site context.

AWA TREE CONSULTANTS

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G26	Willow	*Salix fragilis*	Semi-mature	11	10+	200 avg	No	1.5	See plan				No visual defects, Limited access around base, Soil heave	Single & Multiple stemmed, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark, Bark damage, Moderate decay	Old pruning wounds, Minor deadwood	Linear group of trees forming single canopy. Situated beyond boundary fence with limited access. Occasional leaning & partially failed stems throughout. Southwestern aspect encroaching on powerline. Limited long-term value.	Good	Fair	20 to 40 yrs	Moderate	**C**	No works required in current site context.
G27	Willow	*Salix fragilis*	Semi-mature	13	10+	200 avg	No	1.5	See plan				No visual defects, Limited access around base, Soil heave	Single & Multiple stemmed, Stubs, Old pruning wounds, Epicormic growths, Tight union, Partially included bark, Bark damage	Old pruning wounds, Minor deadwood	Linear group of trees forming single canopy. Situated beyond boundary fence with limited access. Occasional leaning & partially failed stems throughout. Limited long-term value.	Good	Fair	>40 yrs	Moderate	**C**	No works required in current site context.
T28	Sycamore	*Acer pseudoplatanus*	Semi-mature	9.5	2	220 150	Yes	5	3	1.5	2	3.5	Soil erosion, Limited access around base	Twin stemmed at base, Vertical, Stubs, Epicormic growths	Small / sparse, Minor deadwood	Situated beyond boundary fence with limited access. Slightly suppressed form.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.

AWA TREE CONSULTANTS

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G29	Hawthorn	*Crataegus monogyna*	Semi-mature	6	10+	80 avg	Yes	1.5	3	1.5	1.5	2	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark	Normal, Minor deadwood	Situated beyond boundary fence with limited access. Two trees forming single canopy.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
G30	Sycamore	*Acer pseudoplatanus*	Semi-mature	8	6	170 avg	No	2.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Bark damage	Small / sparse, Moderate dieback, Minor deadwood	Linear group of individual trees forming single canopy. Situated beyond boundary fence with limited access. Barbed wire fencing causing bark damage to eastern stems. Limited long-term value.	Poor	Fair	10 to 20 yrs	Low	**C**	No works required in current site context.
G31	Hawthorn	*Crataegus monogyna*	Semi-mature	5	10+	110 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Old pruning wounds, Minor deadwood	Previously managed hedgerow, now overgrown. Limited visibility of stems due to dense crown and ivy. Occasional Elm sapling.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T32	Elm	*Ulmus procera*	Semi-mature	6.5	4	140 150 220 200	No	3	3	2.5	2	5	No visual defects	Multiple stemmed at base, Vertical, Stubs, Old pruning wounds, Bark damage, Moderate decay , Tight union, Partially included bark	Discolouration, Low vigour, Small / sparse, Major dieback, Moderate deadwood	Major bark wounds to several stems from base to 2m with decay. 2 southern most stems are dead. Very limited live crown remaining.	Poor	Poor	<10 yrs	Low	**U**	Remove regardless of future development.

AWA TREE CONSULTANTS

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G33	Hawthorn	*Crataegus monogyna*	Semi-mature	5	10+	100 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Old pruning wounds, Minor deadwood	Previously managed hedgerow, now overgrown. Limited visibility of stems due to dense crown and ivy.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T34	Ash	*Fraxinus excelsior*	Early-mature	15	1	940	No	6	5.5	5	4.5	5	Fungus	Single stemmed, Vertical, Stubs, Bark damage, Moderate decay , Decay fungi	Snapped /hanging branches, Moderate dieback, Minor deadwood	Multiple large Ganoderma brackets at base of stem, to north. Several large branch failures, and poor physiological condition. Black staining to limbs suggest possible presence of Inonotus hispidus. Very limited long-term value. Unsuitable for retention close to future development.	Poor	Fair	10 to 20 yrs	Moderate	**C**	No works required in current site context.

AWA TREE CONSULTANTS

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T35	Oak	*Quercus robur*	Mature	13	1	780	No	2	8	9	7.5	7.5	Exposed roots, Soil compaction	Single stemmed, Vertical, Stubs, Epicormic growths, Bark damage, Minor decay	Well developed crown, Minor deadwood, Snapped /hanging branches	Historic damage to exposed roots - no visible decay. Major bark damage with moderate decay to second order limb in lower northwestern crown, 1m. Partially failed 3rd order limb to western aspect at 3m, now resting on ground. Removal of lower limbs may be required if target value increases.	Good	Good	>40 yrs	Moderate	**B**	No works required in current site context.
G36	Hawthorn	*Crataegus monogyna*	Semi-mature	6	10+	120 avg	Yes	0.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Stubs, Epicormic growths, Vertical, Old pruning wounds, Tight union	Old pruning wounds, Minor deadwood	Dense boundary hedgerow, now overgrown. Occasional Blackthorn.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T37	Hawthorn	*Crataegus monogyna*	Semi-mature	3.5	6	80 avg	Yes	1	2	1	2	2	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growths, Tight union	Normal	Dense crown preventing detailed inspection.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G38	Hawthorn	*Crataegus monogyna*	Semi-mature	4	10+	90 avg	Yes	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Old pruning wounds, Epicormic growths, Tight union, Ivy covered	Old pruning wounds, Minor deadwood	Previously managed hedgerow, now overgrown. Limited visibility of stems due to dense crown. Increasingly sparse to north, along eastern boundary.	Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
G39	Ash	*Fraxinus excelsior*	Semi-mature	11	10+	230 avg	No	1.5	See plan				No visual defects, Limited access around base	Single & Multiple stemmed, Vertical, Stubs, Epicormic growths, Tight union, Partially included bark, Bark damage, Minor decay	Normal, Minor deadwood	Linear group of three individual trees forming single canopy. Barbed wire fencing causing bark damage to multiple stems.	Good	Fair	>40 yrs	Moderate	**C**	No works required in current site context.
T40	Hawthorn	*Crataegus monogyna*	Semi-mature	2.5	6	80 avg	Yes	0.5	2	2	2	2	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growth, Tight unions	Normal		Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.
T41	Hawthorn	*Crataegus monogyna*	Semi-mature	2	6	80 avg	Yes	0.5	1.5	1.5	1.5	1.5	No visual defects, Limited access around base	Multiple stemmed at base, Vertical, Stubs, Epicormic growth, Tight unions	Normal		Fair	Fair	>40 yrs	Low	**C**	No works required in current site context.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Ave Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T42	Oak	*Quercus robur*	Early-mature	15	1	600	No	2.5	6.5	7	5	5	Damage to buttress roots	Single stemmed, Vertical, Stubs, Epicormic growths, Bark damage	Well developed crown, Minor deadwood	Occasional snapped branch charactersitic of age class. Minor bark damage incurred by occlusion of barbed wire fencing.	Good	Good	>40 yrs	Moderate	**B**	No works required in current site context.
T43	Oak	*Quercus robur*	Semi-mature	12	1	480	No	3.5	5	5.5	3.5	5	No visual defects	Single stemmed, Vertical, Stubs, Epicormic growths, Bark damage	Normal, Minor deadwood	Minor bark damage incurred by occlusion of barbed wire fencing. Situated beyond boundary fence.	Good	Good	>40 yrs	Moderate	**B**	No works required in current site context.
T44	Ash	*Fraxinus excelsior*	Semi-mature	13	1	340	No	5.5	2	2	1	2.5	No visual defects	Single stemmed, Vertical, Stubs, Bark damage	Small / sparse, Minor deadwood	Situated beyond boundary fencing. Historic bark damage to main stem at 1.5m. Suppressed by adjacent Oak.	Fair	Fair	>40 yrs	Moderate	**C**	No works required in current site context.

T1
T2
T3
Standing dead Willow
G4
T5
T6
T7
T8
T9
T10
T11
T12
G4
G13
G14
G31
G31
T32
Standing dead tree
G33
T15
T34
G33
G16
G16
T17
T18
Hawthorn scrub
G19
G20
T21
Dense bramble/Hawthorn saplings
T22
Hawthorn scrub
G23
G24
G25
G26
G27
G29
T28
G30
T35
Dense Blackthorn Scrub
G38
T37
G38
G38
G38
G38
G38
G39
T40
T41
T43
Holly sapling
T44
T42

NORTH

AWA TREE CONSULTANTS

Appendix 5: Overview Tree Constraints Plan

Land at Lee Lane, Royston, Barnsley S71 4RT
Ref: AWA3155

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: FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM