TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

To **BS5837:2012** at:

Lee Lane,
Royston,
Barnsley,
South Yorkshire,
S71 4ER

Prepared for:
Johnson Mowat,
Coronet House,
Queen Street,
Leeds,
West Yorkshire
LS1 2TW

Date: *November 2016*

Reference: *AWA1741*

Institute of Chartered Foresters
Registered Consultant

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Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by Luke Herring of Johnson Mowat Planning and Development Consultants, 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 November 2016.

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 author's 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** 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 off Lee Lane in Royston, a suburban village within the metropolitan borough of Barnsley, South Yorkshire.

2.1.2 The site currently consists of grassland, previously used for grazing livestock. A road runs along the site's southern boundary with a residential housing estate to the east of the site. There is a strip of woodland along the site's north-western boundary, with to the west of the site.

3. The Trees

3.1 Legal

3.1.1 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 (unless such works are approved by planning permission). If either applies, 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 54 items of woody vegetation, comprised of 46 individual trees and 8 groups of trees or shrub/hedge groups.

3.2.2 Of the surveyed trees: 15 trees are retention category 'B'; and the remaining 39 trees are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.3 The tree cover at the site consists mainly of individual trees and hedge groups situated along the site's boundaries. The central areas of the site contain little of arboricultural significance, generally consisting of grassland with occasional small, shrubby Hawthorn and Elder trees, of very low value.

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

3.2.5 The most significant trees are the group of Oaks situated at the site's north eastern corner (T36, T42, T43, T44 and T45). These are large, mature trees of good form and in relatively good condition. Individually the trees are of moderate value; however, collectively they provide a high level of arboricultural value and provide a distinct landscape feature.

3.2.6 The north western corner of the site is bordered by a band of woodland, consisting mainly of Birch and Oak trees. The wider woodland forms a significant landscape feature, and the trees bordering the site (T20 to T31) collectively provide reasonable arboricultural value.

3.2.7 The road which runs along the site's southern boundary is flanked by Hawthorn hedgerows with occasional Willow, Birch, Ash and Oak trees situated within them (T1 to T18). The individual trees within the hedgerow are in relatively poor condition due to the numerous poor pruning wounds caused by the flailing of the hedge.

3.2.8 Trees G46 to T54 are of little significance as they are situated in the adjacent gardens on the site's eastern boundary; however, some of the trees' crowns overhang slightly into the site.

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

3.2.10 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 housing development with associated access 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, 13 trees or groups will require removal as they are situated in the footprint of the structure or their retention and protection throughout the development is not suitable.

4.2.2 Most of the trees that require removal are lower value, retention category 'C', and the removals will have only negligible negative arboricultural impact.

4.2.3 The removal of the large, mature Oak situated at the site's north eastern corner (T45) will have a more significant negative arboricultural impact on the site and will create a loss of visual amenity in the short to medium term.

4.2.4 The removal of the small, shrubby Hawthorn and Elder trees situated throughout the central area of the site (G19) are of very little consequence as they are all low value trees which are easily replaceable with new plantings at the site.

4.2.5 The removal of the trees and hedges adjacent to the road at the site's southern boundary (T2, T5, T9, T11, G12, T15, G16, T17 and T18) will have some minor negative visual impact and a loss of visual amenity in the short term, but the screening the trees currently provide can be replaced with new plantings in this area.

4.2.6 In addition, the shrubs and hedges to the north of the site (T32, T33, G35, T38, T39, T40 and G41), may need cutting back so as to facilitate the new boundary fencing for the new development. This work is unlikely to impact of the visual amenity or future prospects of the trees.

4.3 Indirect Impacts

4.3.1 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.

4.3.2 Potentially damaging activities are proposed in the vicinity of retained trees. New hard-surfaces are proposed that encroach into the RPA of T21, T22, T42 to T44. Construction of hard surfaces 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.

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.

4.4 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.*

30th November 2016

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Appendices

Appendix 1: Authors Qualifications & Experience

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

Adam is the company Director and Principle Consultant. He has a mix of the highest level academic qualifications and relevant work experience. Having worked within the tree care profession for over 20 years, and being awarded an MSc in Arboriculture and Urban Forestry, with distinction and the ICF top student award. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, 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, from planning appeal hearings up to Crown Court.

Mr Guy Baxter *FdSc (Arb). ND Arb. TechArborA. Associate (ICF)*

Guy joined AWA Tree Consultants at the start of 2015, after seven years work experience within the tree care profession. He has a Foundation Degree in Arboriculture and is in the final stages of a BSc (Hons) Degree in Arboriculture and Urban Forestry. He is a Technician Member of the Arboricultural Association and an Associate of the Institute of Chartered Foresters, working towards becoming a Chartered Arboriculturist. His work focuses on tree risk assessments and undertaking BS5837:2012 tree surveys for development projects; this involves tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and Tree Protection Schemes to BS 5837:2012.

Mr James Brown *BSc (Hons) Arboriculture, Associate (ICF)*

James recently joined AWA after seven years work experience, including working in Europe's largest tree nursery and Local Authority tree officer work, while a Horticultural Apprentice for Tameside Metropolitan Borough Council. James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. His main work consists of tree surveys for development projects, involving tree inspections, the preparation of Tree Reports, Arboricultural Impact Assessments and 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 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.

Appendix 4: Tree Data

	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Elder	*Sambucus nigra*	Early-mature	5	10	80	No	1	2	2	2	2	No visual defects	Multiple stemmed at base. Vertical.	Normal		Good	Good	20 to 40 yrs	Low	**C**	No works required
T2	Elder	*Sambucus nigra*	Semi-mature	3	10	60	No	0	1	1	1	1	No visual defects	Multiple stemmed at base. Vertical.	Normal		Good	Good	20 to 40 yrs	Low	**C**	Removal required to facilitate development
G3	Hawthorn. Blackthorn.	*Crataegus monogyna. Prunus spinosa.*	Early-mature	2.5	1	60	No	0	See plan				Roadside hedge. Occasional gaps. Waterlogged at base.				Fair	Good	>40 yrs	Mod	**C**	No works required
T4	Ash	*Fraxinus excelsior*	Semi-mature	7	2	220, 160	No	3	4	4	3	4	No visual defects	Twin stemmed at 0.5m. Slight lean. Ivy covered. Old pruning wounds. Stubs.	Normal. Overhanging adjacent land. Slightly unbalanced. Minor deadwood.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required
T5	Willow	*Salix alba*	Semi-mature	6	1	110	No	2	1	2	1	0	No visual defects	Single stemmed. Significant lean. Old pruning wounds. Stubs.	Normal. Small/ sparse. Minor deadwood.		Fair	Fair	20 to 40 yrs	Low	**C**	Removal required to facilitate development
T6	Willow	*Salix alba*	Early-mature	12	7	300	No	3	5	8	5	6	No visual defects	Multiple stemmed at base. Vertical. Old pruning wounds. Stubs. Bark damage.	Normal. Minor deadwood. Overhanging adjacent land.		Fair	Good	>40 yrs	Mod	**C**	Removal required to facilitate development

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	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T7	Willow	*Salix alba*	Mature	12	9	300	No	2	6	3	8	7	Waterlogged	Multiple stemmed at base. Vertical. Tight union. Old pruning wounds. Stubs.	Normal. Minor deadwood. Overhanging adjacent land.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required
T8	Willow	*Salix alba*	Mature	13	5	390, 310, 290, 280, 160	No	2	10	5	8	9	Waterlogged	Multiple stemmed at base. Barbed wire embedded in stem	Normal. Overhanging adjacent land.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required
T9	Willow	Salix alba	Semi-mature	10	1	270	No	1	3	5	3	3	No visual defects	Single stemmed. Twin stemmed at 1m. Vertical. Stubs. Old pruning wounds.	Normal		Fair	Good	>40 yrs	Low	**C**	Removal required to facilitate development
T10	Willow	*Salix alba*	Mature	13	6	350	No	2	6	8	6	8	Waterlogged	Multiple stemmed at base. Vertical. Old pruning wounds. Stubs. Tight union.	Normal. Overhanging adjacent land.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required
T11	Willow	*Salix alba*	Semi-mature	8	1	120	No	2	2	2	2	2	No visual defects	Single stemmed. Vertical.	Normal		Good	Good	>40 yrs	Low	**C**	Removal required to facilitate development
G12	Hawthorn. Hazel Dog Rose.	*Crataegus sp. Corylus sp. Rosa sp.*	Early-mature	5	10	80	No	0	See plan				Roadside hedge. Occasional gaps. Unmanaged for some time.				Fair	Good	>40 yrs	Mod	**C**	Removal required to facilitate development

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	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T13	Birch	*Betula pendula*	Early-mature	13	2	200, 200	No	3	3	3	3	3	Waterlogged	Twin stemmed at base. Vertical.	Normal. Overhanging adjacent land.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required
T14	Ash	*Fraxinus excelsior*	Early-mature	14	10	220	No	1	5	6	8	6	Waterlogged	Multiple stemmed at base. Stubs. Old pruning wounds. Vertical.	Normal. Minor deadwood. Overhanging adjacent land.	Two adjacent trees forming one crown	Fair	Good	>40 yrs	Mod	**C**	No works required
T15	Birch	*Betula pendula*	Mature	14	1	280	No	3	4	4	3	4	No visual defects	Single stemmed. Multiple stemmed at 2m. Vertical. Old pruning wounds. Stubs.	Normal		Good	Good	>40 yrs	Mod	**C**	Removal required to facilitate development
G16	Hawthorn. Blackthorn. Dog Rose.	*Crataegus sp. Prunus sp. Rosa sp.*	Early-mature	4	1	70	No	0	See plan				Roadside hedge. Occasional gaps.				Good	Good	>40 yrs	Mod	**C**	Removal required to facilitate development
T17	Oak	*Quercus robur*	Early-mature	9.5	10	150	No	2	4	5	3	5	No visual defects	Multiple stemmed at base. Vertical. Old pruning wounds. Stubs.	Normal. Minor deadwood.		Fair	Good	>40 yrs	Mod	**C**	Removal required to facilitate development
T18	Oak	*Quercus robur*	Early-mature	8	1	360	No	3	4	6	4	6	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs.	Normal. Small/ sparse. Minor deadwood.		Fair	Good	>40 yrs	Mod	**C**	Removal required to facilitate development

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	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G19	Hawthorn. Elder. Birch. Apple.	*Crataegus sp. Sambucus sp. Betula sp. Malus sp.*	Young	3	1	60	No	0	1	1	1	1	Group of small, low value, shrubby trees scattered across the central area of the site.				Fair	Good	>40 yrs	Low	**C**	Removal required to facilitate development
T20	Hawthorn	*Crataegus monogyna*	Mature	7	10	80	Yes	1	3	2	3	2	No visual defects	Multiple stemmed at base. Tight union.	Normal	Adjacent tree	Good	Good	>40 yrs	Low	**C**	No works required
T21	Birch	*Betula pendula*	Mature	15	3	300, 250, 150	Yes	2	4	3	5	4	No visual defects	Multiple stemmed at 0.5m. Vertical. Stubs.	Normal	Adjacent tree	Fair	Good	>40 yrs	Mod	**B**	No works required
T22	Birch	*Betula pendula*	Mature	15	3	300, 310, 300	Yes	3	4	4	6	4	No visual defects	Multiple stemmed at 1m. Vertical.	Normal	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T23	Birch	*Betula pendula*	Mature	15	5	150, 140, 140, 220, 200	Yes	3	4	4	5	4	No visual defects	Multiple stemmed at 0.5m. Vertical.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T24	Birch	*Betula pendula*	Mature	15	4	200, 200, 120, 90	Yes	3	4	4	4	4	No visual defects	Multiple stemmed at base. Slight lean.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T25	Oak	*Quercus robur*	Early-mature	15	1	420	Yes	2	4	6	7	6	No visual defects	Single stemmed. Vertical. Stubs.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T26	Oak	*Quercus robur*	Early-mature	12	1	300	Yes	2	3	6	6	3	No visual defects	Single stemmed. Vertical.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T27	Oak	*Quercus robur*	Early-mature	5	1	250	Yes	2	2	7	4	2	No visual defects	Single stemmed. Significant lean. Stubs. Old pruning wounds.	Normal. Overhanging into the site.	Adjacent tree	Fair	Fair	>40 yrs	Mod	**C**	No works required
T28	Birch	*Betula pendula*	Semi-mature	9	1	140	Yes	2	2	2	2	2	No visual defects	Single stemmed. Vertical.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**C**	No works required
T29	Oak	*Quercus robur*	Early-mature	15	1	350	Yes	3	3	5	7	5	No visual defects	Single stemmed. Vertical. Minor cavity.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T30	Oak	*Quercus robur*	Early-mature	16	2	360, 250	Yes	3	4	4	6	6	No visual defects	Twin stemmed at base. Vertical.	Normal. Overhanging into the site.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T31	Oak	*Quercus robur*	Mature	16	1	450	Yes	2	3	3	6	3	No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs.	Normal.	Adjacent tree	Fair	Good	>40 yrs	Mod	**B**	No works required
T32	Hawthorn	*Crataegus monogyna*	Early-mature	4	10	60	No	0	1	1	1	1	No visual defects	Multiple stemmed at base. Vertical.	Normal		Good	Good	>40 yrs	Low	**C**	Cut back as required to install new boundary fencing
T33	Hawthorn	*Crataegus monogyna*	Semi-mature	3	3	80	No	0	1	1	1	1	No visual defects	Multiple stemmed at base. Vertical. Tight union.	Small/ sparse		Fair	Good	>40 yrs	Low	**C**	Cut back as required to install new boundary fencing
T34	Hawthorn	*Crataegus monogyna*	Mature	3	5	100, 80, 60, 60, 60	No	1	1	1	1	1	No visual defects	Multiple stemmed at base. Stubs. Old pruning wounds. Bark damage.	Normal		Fair	Good	>40 yrs	Low	**C**	No works required
G35	Hawthorn	*Crataegus monogyna*	Semi-mature	0.5	10	5	No	0	See plan				Low hedge group, situated in between two fence lines. Limited value.				Good	Fair	20 to 40 yrs	Low	**C**	Cut back as required to install new boundary fencing
T36	Oak	*Quercus robur*	Mature	12	1	570	No	2	8	6	5	7	No visual defects	Single stemmed. Vertical. Stubs. Old pruning wounds. Bark damage.	Normal. Minor deadwood. Overhanging adjacent land.	Wire fence embedded in trunk	Good	Good	>40 yrs	Mod	**B**	No works required

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	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T37	Oak	*Quercus robur*	Young	4	1	160	No	1	2	2	2	2	No visual defects	Single stemmed. Vertical. Bark damage. Minor decay. Minor cavities.	Normal. Small/ sparse. Minor dieback. Minor deadwood.	Major bark damage	Poor	Fair	<10 yrs	Low	**C**	Removal required to facilitate development
T38	Hawthorn	*Crataegus monogyna*	Early-mature	3	6	80	No	0	1	1	1	2	No visual defects	Multiple stemmed at base. Slight lean. Tight union.	Normal		Good	Good	>40 yrs	Low	**C**	Cut back as required to install new boundary fencing
T39	Oak	*Quercus robur*	Semi-mature	3	1	100	No	1	1	1	2	1	No visual defects	Single stemmed. Slight lean. Stubs. Old pruning wounds.	Normal. Slightly unbalanced. Minor deadwood.		Fair	Good	>40 yrs	Low	**C**	Cut back as required to install new boundary fencing
T40	Hawthorn	*Crataegus monogyna*	Early-mature	3	10	60	No	0	1	1	1	1	No visual defects	Multiple stemmed at base. Vertical. Tight union.	Normal		Good	Good	>40 yrs	Low	**C**	Cut back as required to install new boundary fencing
G41	Elder	*Sambucus nigra*	Early-mature	3	10	70	No	0	See plan				Low growing Elder shrubs forming a boundary hedge. Suppressed by adjacent Oak trees. Limited prospects.				Fair	Fair	10 to 20 yrs	Low	**C**	Cut back as required to install new boundary fencing
T42	Oak	*Quercus robur*	Mature	14	1	650	No	2	6	6	7	7	No visual defects	Single stemmed. Vertical. Epicormic growths.	Normal. Minor deadwood.		Good	Good	>40 yrs	Mod	**B**	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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T43	Oak	*Quercus robur*	Semi-mature	10	1	440	No	2	4	5	6	3	No visual defects	Single stemmed. Twin stemmed at 2m. Vertical.	Normal. Minor deadwood. Slightly unbalanced. Overhanging adjacent land.		Good	Good	>40 yrs	Mod	**B**	No works required
T44	Oak	*Quercus robur*	Mature	16	1	920	No	3	8	8	10	10	No visual defects	Single stemmed. Vertical. Bark damage. Old pruning wounds. Stubs. Cavity. Minor decay.	Normal. Minor deadwood. Overhanging adjacent land.	Damaged bark/ thin cavity from 0.5m to 5m on north side of main stem.	Good	Fair	>40 yrs	Mod	**B**	No works required
T45	Oak	*Quercus robur*	Mature	15	1	800	No	2	7	8	8	8	No visual defects	Single stemmed. Vertical. Bark damage. Epicormic growths. Old pruning wounds. Stubs.	Normal. Minor deadwood. Overhanging adjacent land.	Fence wire embedded in main stem	Good	Good	>40 yrs	Mod	**B**	Removal required to facilitate development
G46	Leylandii	*x Cupressocyparis leylandii*	Semi-mature	4	10	6	Yes	2	See plan				Adjacent garden hedge				Fair	Good	10 to 20 yrs	Mod	**C**	No works required
T47	Apple	*Malus sp.*	Early-mature	5	10	60	Yes	1	1	2	3	2	No visual defects	Multiple stemmed at base. Vertical. Stubs. Old pruning wounds. Bark damage.	Normal. Minor deadwood. Overhanging adjacent land.	Adjacent tree	Fair	Good	20 to 40 yrs	Low	**C**	No works required
T48	Spruce	*Picea abies*	Early-mature	7	1	180	Yes	2	2	2	2	2	No visual defects	Single stemmed. Vertical. Old pruning wounds.	Normal. Overhanging adjacent land.	Adjacent garden tree. Previously topped. No access.	Fair	Good	>40 yrs	Mod	**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*	*Physiology*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
G49	Leylandii	*x Cupressocyparis leylandii*	Semi-mature	3	10	50	Yes	0	See plan				Adjacent garden hedge				Fair	Good	>40 yrs	Mod	**C**	No works required
T50	Apple	*Malus sp.*	Semi-mature	7	1	200	Yes	2	3	3	3	3	No visual defects	Multiple stemmed at 1m. Vertical. Bark damage. Old pruning wounds. Stubs. Tight union.	Normal. Minor deadwood. Overhanging adjacent land.	Adjacent garden tree. No access.	Fair	Good	>40 yrs	Mod	**C**	No works required
T51	Rowan	*Sorbus aucuparia*	Early-mature	7	5	120	Yes	2	2	2	2	2	No visual defects	Multiple stemmed at 1m. Vertical. Old pruning wounds.	Normal. Overhanging adjacent land.	Adjacent garden tree. No access.	Fair	Good	20 to 40 yrs	Mod	**C**	No works required
T52	Sycamore	*Acer pseudoplatanus*	Early-mature	14	1	460	No	3	4	6	3	5	No visual defects	Single stemmed. Vertical.	Normal. Minor deadwood.	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T53	Sycamore	*Acer pseudoplatanus*	Early-mature	13	1	400	No	3	2	5	6	5	No visual defects	Single stemmed. Vertical. Bark damage.	Normal. Minor deadwood	Adjacent tree	Good	Good	>40 yrs	Mod	**B**	No works required
T54	Lime	*Tilia x europaea*	Semi-mature	9.5	1	290	No	3	3	3	3	3	No visual defects	Single stemmed. Epicormic growths. Old pruning wounds. Stubs. Bark damage.	Normal. Minor deadwood.	Adjacent tree	Fair	Good	>40 yrs	Mod	**C**	No works required

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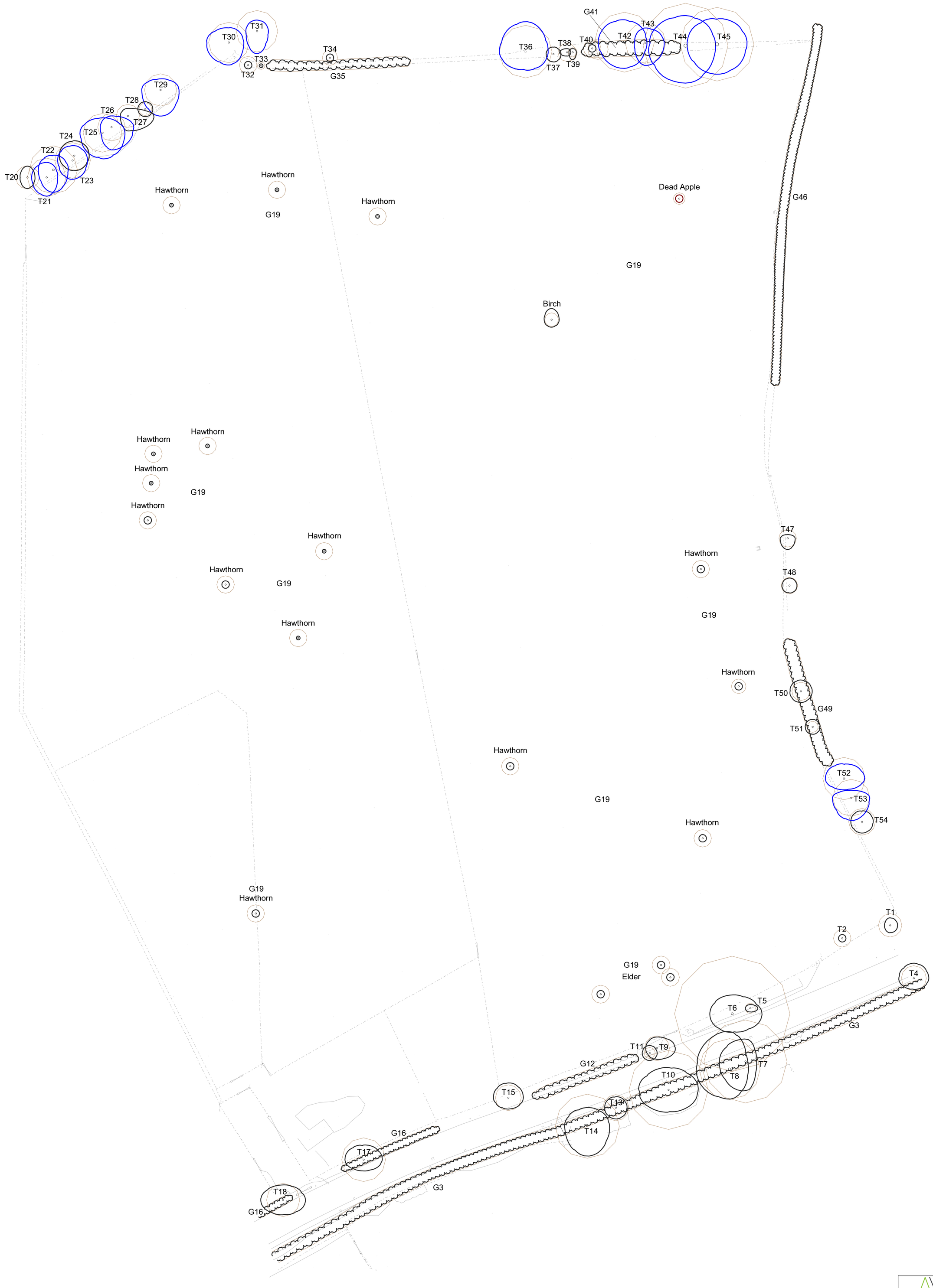

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Appendix 5: Tree Constraints Plan

Lee Lane, Royston
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BRITISH STANDARD 5837:2012
RETENTION CATEGORIES
Definitions of these catagories 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

Appendix 6: Tree Impacts Plan

Lee Lane, Royston
Ref: AWA1741

BRITISH STANDARD 5837:2012

SCALE 1:500 PAPER: A1

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

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