TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS5837:2012** at:

Park Lea,
Barton Road,
Wrawby,
Brigg,
Lincolnshire
DN20 8SH

Prepared for:
Century Architects Ltd
Melrose,
6 High Street West,
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Gainsborough,
Lincolnshire
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Institute of Chartered Foresters
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Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We are instructed by Jessica McCague of Century Architects 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 October 2017.

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 on Barton Road in Wrawby, a village in North Lincolnshire.

2.1.2 The site is a detached residential property with gardens to the front and rear. A road runs along the site's western boundary with neighbouring residential properties surrounding the site to the north, east, south and west.

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 43 items of woody vegetation, comprised of 33 individual trees and 10 groups of trees or hedges. 11 trees are retention category 'B', and the remaining 32 trees, groups or hedges are retention category 'C' (explanatory details regarding the retention categories are included within Appendix 3).

3.2.2 Species diversity at the site is relatively good, with a distribution of species including Beech, Maple, Cypress, Birch, Yew Apple, Cherry, Plum, Hawthorn, Privet, Elder, and Magnolia. Most of the trees are semi-mature or early-mature with only occasional mature trees.

3.2.3 The most significant trees within the site are the early mature to mature Beech situated along the site's southern boundary (T1, T35, T37 and T39). The trees are all in relatively good condition with good future prospects and provide moderate amenity value to the site. Tree T1 is situated in a particularly prominent roadside position at the end of the site's access drive. Tree T39 has a large included bark union at the junction of two main stems at around 1m from ground level which should be monitored closely in future.

3.2.4 The Birch T12 is a good example of its species in good overall condition and is situated in a relatively prominent position on the boundary between two residential properties and visible from the road to the west.

3.2.5 A row of early mature Sycamores are situated in neighbouring gardens beyond the site's northern boundary (T18 to T22). The trees appeared in good overall condition and provide considerable amenity value to the site and surrounding area but were only given cursory inspections due to their adjacent inaccessible locations.

3.2.6 The Plum T14 and Apple T15 are large, mature specimens situated in prominent positions to the centre of the property's front garden, but both trees are in relatively poor condition. T14 is in long term decline with considerable dieback and deadwood in its crown and numerous defects to its main stems including poor pruning wounds, bark damage, tight unions and cavities with decay. T15 is in slightly better condition but also has considerable deadwood in its crown, with numerous poor pruning wounds and cavities to its main stems which may limit its long term value.

3.2.7 Hedges comprised of Beech (G2), Privet (G3), Cypress (G16 and G17) and Hawthorn (G28) border the site's northern, southern and western

boundaries. The hedges have been well managed and are in good overall condition, with few gaps and little dieback. They are only of low arboricultural value but provide good screening of the site from the surrounding residential properties.

3.2.8 At the south eastern end of the of the property's rear garden are groups of Apple, Pear, Cherry and Plum trees (G30, G31 and T32). The trees are only of low arboricultural value but would make suitable garden trees if retained as part of any development at the site.

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) is detailed on the Tree Constraints Plan at Appendix 5. 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.

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to replace the existing residential property with a new detached residential property with garage. 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, 3 trees and 1 tree group 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 The trees that require removal are G10, T11, T15 and T42.

4.2.3 The Cypress group G10 and Hazel T11 are of very low value and their removal is of little significance. Whilst the Apple T15 is of arboricultural interest, it is in fairly poor condition and may have required major pruning works or removal in the near future regardless of development at the site. The Magnolia T42 can be easily replaced with new landscape plantings at the site.

4.2.4 In addition to the tree removals, a retained tree will require pruning works to facilitate the proposed new development. T14 will require its western crown reducing by around 3m and its southern crown reducing by around 1m to facilitate the proposed new garage. It is likely the tree will readily tolerate this pruning work and the amenity value it provides will not be significantly affected. The pruning works to T14 should be undertaken between April and July.

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. The proposed new house encroaches into the RPA of G17, T22 and T23, and the proposed new garage encroaches into the RPA of T12, T14 and T18.

Construction within the RPA, can have negative impacts on tree roots. However, if required, the potential negative impacts can be overcome in this instance using special foundation design, such as mini/micro pile and suspended beam, or cantilevered foundations.

4.3.3 New access drives are proposed that encroach into the RPA of G7, T8, T35, T36, T37, T38, T39, T40, T41 and T43. The 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.

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

4.3.5 The buildability of the proposed development has been assessed in terms of access, adequate working space and provision for the storage of materials, including topsoil, in relation to the trees.

4.4 Suitable Mitigation

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

4.5 Protection of the Retained Trees

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

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

5. Signature

I trust this report provides all the required information.

Signed

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

26th October 2017

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Appendices

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson *Chartered Arboriculturist, MSc, BSc (Hons), ND, 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 and the ICF top student award. 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 Dave Farmer *FdSc (Arb). TechArborA.*

Dave joined AWA Tree Consultants early in 2016, after many years of experience within the tree care profession, including managing teams of Arborists and lecturing in arboriculture at one of the leading land-based colleges in the UK. He has a Foundation Degree in Arboriculture (with Distinction). He is an Associate 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. TechArborA.*

James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Forester's Student award. James joined AWA after working in Europe's largest tree nursery and Local Authority tree officer work, for Tameside Metropolitan Borough Council. 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 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 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.

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	Beech	*Fagus sylvatica*	Mature	13	1	650	No	3	5	5	5	5	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds	Minor deadwood	Previously crown lifted over both driveways	Fair	Good	>40 yrs	High	**B**	No works required
G2	Beech	*Fagus sylvatica*	Semi-mature	2	10+	100	No	0	See plan				Occasional Hawthorn and Cypress. Well managed boundary hedge. previously managed at 1.5m.				Fair	Good	>40 yrs	Moderate	**C**	No works required
G3	Privet	*Ligustrum ovalifolium*	Early-mature	2	10+	50	No	0	See plan				Well managed boundary hedge. Good screening value.				Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T4	Cherry	*Prunus sp.*	Mature	10	1	320	No	2.5	4	5.5	3	4.5	No visual defects, Exposed roots, Soil compaction	Single stemmed, Vertical, Stubs, Old pruning wounds, Bark damage	Minor deadwood	Previously crown lifted over the driveway	Fair	Fair	>40 yrs	Moderate	**C**	No works required
T5	Hawthorn	*Crataegus monogyna*	Semi-mature	4.5	1	170	No	1.5	1.5	2	2	2.5	No visual defects	Single stemmed, Twin stemmed, at 1.5m, Vertical, Old pruning wounds	Normal	Growing next to a stump with fungal fruiting bodies	Good	Good	>40 yrs	Moderate	**C**	No works required
T6	Birch	*Betula pendula*	Early-mature	8.5	1	250	Yes	2	2.5	2.5	2.5	3.5	No visual defects	Single stemmed, Vertical, Ivy covered, Old pruning wounds, Stubs	Minor deadwood	Situated in adjacent land. No access.	Fair	Good	20 to 40 yrs	Moderate	**C**	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***
G7	Laurel, Lilac	*Prunus sp. Syringa sp.*	Early-mature	4	10+	80	No	0	See plan				Group with shrubby form. One snapped Lilac branch at 1m, lying along the flower bed underneath the group.				Fair	Fair	20 to 40 yrs	Low	**C**	No works required
T8	Yew	*Taxus baccata*	Mature	7	2	220, 120	No	0	1.5	3.5	3	3	No visual defects, Soil compaction	Twin stemmed at 1m, Stubs, Old pruning wounds	Minor deadwood, Slightly unbalanced	Managed as a hedge up to 2m, further crown lifted over the driveway. Poor previous pruning has left many stubs in the crown.	Fair	Good	>40 yrs	Moderate	**C**	No works required
T9	Cherry	*Prunus sp.*	Mature	7.5	1	310	No	3	3	2	1	2.5	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Bark damage	75% dead/ absent	Previously topped at 7m. Large flush cut pruning wound with minor decay at 2m on main stem.	Poor	Good	10 to 20 yrs	Low	**C**	No works required
G10	Cypress	*Cupressus sp.*	Mature	7	10+	280	No	1	See plan				No visual defects	Multiple stemmed at base, Stubs, Old pruning wounds, Bark damage, Tight union, Ivy covered	25% dead/ absent, Minor dieback, Moderate deadwood, Unbalanced	Previously heavily pruned back on northern side of group	Poor	Fair	10 to 20 yrs	Moderate	**C**	Removal required to facilitate development
T11	Hazel	*Corylus avellana*	Semi-mature	7	10+	40	No	0	2.5	2.5	1	1.5	No visual defects	Multiple stemmed at base, Vertical, Stubs, Epicormic growths	Moderate deadwood	Hazel coppice	Fair	Fair	>40 yrs	Low	**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*
T12	Birch	*Betula pendula*	Mature	19	1	640	No	2.5	4.5	6.5	4.5	5	No visual defects, Exposed roots	Single stemmed, Slight lean, Epicormic growths, Stubs, Old pruning wounds	Minor deadwood		Good	Good	10 to 20 yrs	High	**B**	No works required
T13	Hawthorn	*Crataegus monogyna*	Early-mature	10	1	260	No	3	3	3.5	1.5	2.5	No visual defects	Single stemmed, Slight lean, Stubs, Old pruning wounds, Tight union	25% dead/ absent, Minor deadwood	Crown raised over gardens and excessively pruned back on north side to clear phone lines	Fair	Good	>40 yrs	Moderate	**C**	No works required
T14	Plum	*Prunus domestica*	Mature	10	4	540, 410, 430, 320	No	3	5	4.5	4.5	7.5	No visual defects	Multiple stemmed at base, Slight lean, Stubs, Old pruning wounds, Bark damage, Tight union, Partially included bark, Minor cavities, Minor decay	25% dead/ absent, Moderate dieback, Major deadwood	Over mature tree in long term decline. Limited long term value.	Fair	Poor	10 to 20 yrs	Moderate	**B**	Reduce southern crown by 1m and western crown by 3m to facilitate development. Prune between April and July.
T15	Apple	*Malus domestica*	Mature	10	2	460, 280	No	2	6	5.5	7	7.5	No visual defects	Twin stemmed at 1m, Slight lean, Stubs, Old pruning wounds, Minor cavities, Minor decay	Minor dieback, Major deadwood, Slightly unbalanced	Minor decay from numerous pruning wounds on main stem. Several large sections of deadwood in upper crown, particularly to south.	Fair	Fair	20 to 40 yrs	Moderate	**B**	Removal required to facilitate development

	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*
G16	Leyland Cypress, Elder	*x Cuprocyparis sp, Sambucus sp.*	Semi-mature	4	10+	90	No	0	See plan				Short section of semi mature Leyland Cypress with a line of skinny young Elder to east				Fair	Good	20 to 40 yrs	Low	**C**	No works required
G17	Leyland Cypress	*x Cuprocyparis leylandii*	Semi-mature	2.5	10+	140	No	0	See plan				Well managed boundary hedge. Good screening value.				Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T18	Sycamore	*Acer pseudoplatanus*	Mature	18	2	700, 600	Yes	4	6	6	6.5	6.5	No visual defects	Twin stemmed, at base, Vertical, Stubs, Old pruning wounds, Ivy covered	Normal, Minor deadwood	Situated in adjacent land. No access. Western stem is suppressed by Ivy so slightly sparse.	Fair	Fair	>40 yrs	High	**B**	No works required
T19	Sycamore	*Acer pseudoplatanus*	Semi-mature	11	1	200	Yes	3	2	2	2	2	No visual defects	Single stemmed, Vertical, Old pruning wounds	Normal, Minor deadwood	Situated in adjacent land. No access. Suppressed by surrounding trees.	Fair	Good	>40 yrs	Moderate	**C**	No works required
T20	Sycamore	*Acer pseudoplatanus*	Mature	17	1	300	Yes	4	4.5	4.5	4	4.5	No visual defects	Single stemmed, Vertical, Old pruning wounds	Normal, Minor deadwood	Situated in adjacent land. No access.	Good	Good	>40 yrs	High	**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*
T21	Sycamore	*Acer pseudoplatanus*	Mature	16	1	400	Yes	3	6	6	6	6	No visual defects	Single stemmed, Twin stemmed at 3m, Vertical, Stubs, Old pruning wounds	Normal, Minor deadwood	Situated in adjacent land. No access.	Fair	Good	>40 yrs	High	**B**	No works required
T22	Sycamore	*Acer pseudoplatanus*	Mature	16	1	500	Yes	4	6	5.5	6	6.5	No visual defects	Single stemmed, Twin stemmed at 3m, Vertical, Tight union, Stubs, Old pruning wounds	Normal, Minor deadwood	Situated in adjacent land. No access.	Fair	Good	>40 yrs	High	**B**	No works required
T23	Hawthorn	*Crataegus monogyna*	Mature	10	1	350	No	2	3	4	5	3	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds, Ivy covered, Tight union	Normal, Moderate deadwood	Ivy prevented detailed inspection and accurate DBH measurement	Fair	Fair	>40 yrs	Moderate	**C**	No works required
T24	Hawthorn	*Crataegus monogyna*	Mature	9.5	1	360	No	2	2.5	3	4	3	No visual defects	Single stemmed, Multiple stemmed at 2m, Slight lean, Old pruning wounds, Ivy covered	Small/ sparse, Moderate deadwood	Sparse crown due to extensive Ivy.	Fair	Fair	>40 yrs	Moderate	**C**	No works required
T25	Cherry	*Prunus sp.*	Semi-mature	7.5	1	130	No	2	3	2	3.5	3	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Moderate	**C**	No works required
T26	Hornbeam	*Carpinus betulus*	Semi-mature	7.5	1	150	No	2	2	2	2	2	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Moderate	**C**	No works required

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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*
T27	Maple	*Acer platanoides*	Semi-mature	7.5	1	190	No	2	3	3.5	3	3	No visual defects	Single stemmed, Vertical	Normal		Good	Good	>40 yrs	Moderate	**C**	No works required
G28	Hawthorn	*Crataegus monogyna*	Semi-mature	2.5	10+	140	No	0	See plan				Well managed boundary hedge.				Fair	Good	20 to 40 yrs	Moderate	**C**	No works required
T29	Yew	*Taxus baccata*	Early-mature	6	1	270	Yes	1	3	2.5	3	4.5	No visual defects	Single stemmed, Multiple stemmed at 1.5m, Epicormic growths, Old pruning wounds	Normal, Minor deadwood	Situated in adjacent land. No access.	Fair	Good	>40 yrs	Moderate	**C**	No works required
G30	Apple, Pear	*Malus sp. Pyrus sp.*	Early-mature	5	4	160	No	1	See plan				Group of fruit trees. 1 Apple, 3 Pear. Old pruning wounds. Minor cavities. Minor deadwood. Apple has previously failed at the base.				Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
G31	Apple, Plum	*Malus sp. Prunus sp.*	Early-mature	5	4	160	No	1	See plan				Group of 5 fruit trees. 1 Apple, 4 Plum. Old pruning wounds. Minor cavities. Minor deadwood.				Fair	Fair	20 to 40 yrs	Moderate	**C**	No works required
T32	Cherry	*Prunus sp.*	Mature	8.5	1	340	No	2	4.5	4	4.5	5	No visual defects	Single stemmed, Twin stemmed at 2m, Vertical, Stubs, Old pruning wounds	Normal, Moderate deadwood		Fair	Good	>40 yrs	Moderate	**C**	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*
G33	Ash, Beech, Cypress, Elder, Hawthorn, Maple, Yew	*Fraxinus sp. Fagus sp. Cupressus sp. Sambucus sp. Crataegus sp. Acer sp. Taxus sp.*	Semi-mature	5	10+	70	No	0	See plan				Mixed species boundary group. Well managed. Some screening value.				Fair	Good	>40 yrs	Moderate	**C**	No works required
T34	Lawson Cypress	*Chamaecyparis lawsoniana*	Mature	11	1	240	No	0	2	2	2	1	No visual defects	Single stemmed, Vertical, Ivy covered	Normal, Minor deadwood		Good	Good	20 to 40 yrs	Moderate	**C**	No works required
T35	Beech	*Fagus sylvatica*	Early-mature	12	1	480	No	2	6	4.5	5	4.5	No visual defects	Single stemmed, Vertical, Old pruning wounds, Ivy covered, Tight union	Normal, Minor deadwood	Large sapling at base	Good	Fair	>40 yrs	Moderate	**B**	No works required
T36	Cherry	*Prunus sp.*	Semi-mature	4	1	150	No	2	1	1	1	0.5	No visual defects	Single stemmed, Twin stemmed at 2m, Stubs, Old pruning wounds, Minor decay	50% dead/ absent, Small/ sparse	Previously topped at 3m	Poor	Fair	10 to 20 yrs	Low	**C**	No works required
T37	Beech	*Fagus sylvatica*	Mature	17	1	430	No	3	5	5	6	4.5	No visual defects	Single stemmed, Vertical, Stubs, Old pruning wounds	Normal, Minor deadwood	Slightly sparse due to recently removed neighbouring tree	Fair	Good	>40 yrs	High	**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*
T38	Cherry	*Prunus sp.*	Early-mature	6	1	280	No	2	1.5	2.5	1.5	2	No visual defects	Single stemmed, Multiple stemmed at 2m, Epicormic growths, Stubs, Old pruning wounds, Bark damage	75% dead/ absent, Small/ sparse, Moderate deadwood	Previously topped at 3m. Large northern limb removed at 2m. Limited live growth remaining.	Poor	Fair	<10 yrs	Low	**C**	No works required
T39	Beech	*Fagus sylvatica*	Mature	11	1	690	No	3	5	4	7	5	No visual defects	Twin stemmed at 1m, Vertical, Old pruning wounds, Ivy covered, Tight union, Partially included bark	Normal, Minor deadwood	Large bark inclusion from 1m to 2.5m	Good	Fair	>40 yrs	High	**B**	Monitor included bark union
T40	Leyland Cypress	*x Cuprocyparis leylandii*	Early-mature	11	2	200, 100	No	1	2	1.5	2	2.5	No visual defects	Twin stemmed at base, Old pruning wounds, Ivy covered	Normal, Minor deadwood		Good	Fair	20 to 40 yrs	Moderate	**C**	No works required
T41	Cherry	*Prunus sp.*	Mature	7.5	1	370	No	2.5	2.5	4	3	4	No visual defects	Single stemmed, Multiple stemmed at 1.5m, Stubs, Old pruning wounds, Bark damage, Minor cavities, Minor decay	Small/ sparse, Minor deadwood	Previously topped at 4m	Fair	Good	20 to 40 yrs	Low	**C**	No works required
T42	Magnolia	*Magnolia sp.*	Early-mature	5	5	120, 120, 90, 90, 80	No	1.5	4	5	2.5	3.5	No visual defects	Multiple stemmed at 1m, Stubs, Old pruning wounds	Normal, Minor deadwood		Good	Fair	>40 yrs	Moderate	**C**	Removal required to facilitate development

AWA TREE CONSULTANTS

	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	Rowan	*Sorbus aucuparia*	Early-mature	5.5	3	90, 70, 60	No	2	1.5	2	2	1	No visual defects	Multiple stemmed at 1m, Slight lean, Stubs, Old pruning wounds, Ivy covered	Small/ sparse, Minor deadwood		Fair	Fair	20 to 40 yrs	Low	**C**	No works required

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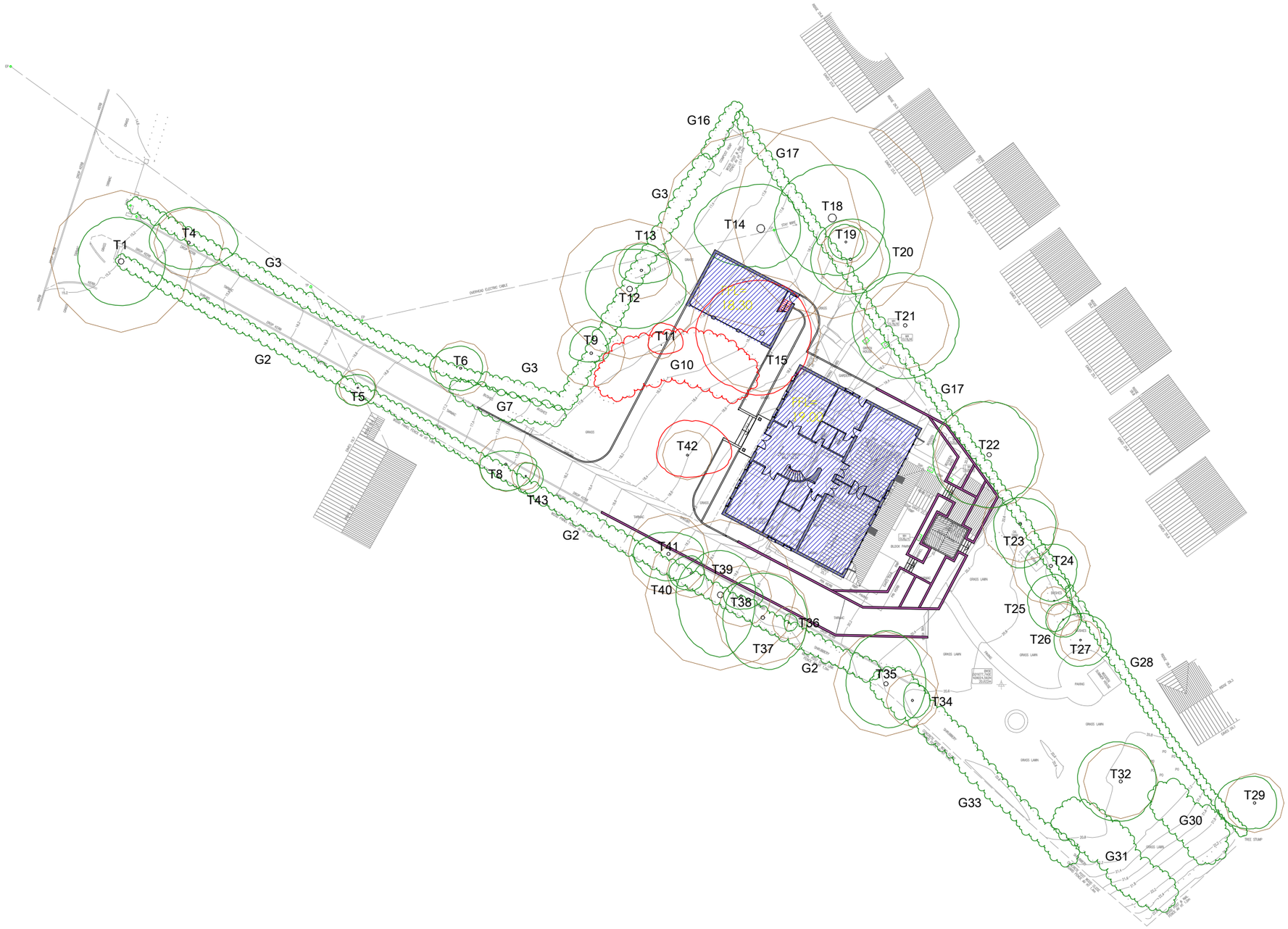
Appendix 5: Tree Constraints Plan

Park Lea, Barton Road, Wrawby, Brigg
Ref: AWA1970

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

SCALE: 1:500 PAPER: A3

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



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Appendix 6: Tree Impacts Plan

Park Lea, Barton Road, Wrawby, Brigg
Ref: AWA1970

BRITISH STANDARD 5837:2012

SCALE: 1:500 PAPER: A3

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