TREE CONSULTANTS

ARBORICULTURAL REPORT

& Impact Assessment

to **BS 5837:2012** at:

The Gables Business Park,
Tottermire Lane,
Epworth,
DN9 1JL

Prepared for:
H E Brinkley Ltd

Date: *September 2022*

Reference: *AWA4475*

Institute of Chartered Foresters
Registered Consultant

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Contents

1. Introduction

1.1 Instructions and Brief

1.1.1 We have been instructed by H E Brinkley 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 August 2022.

1.2.2 The trees were surveyed visually from the ground using "Visual Tree Assessment" techniques and in accordance with the guiding principles of British Standard 5837:2012.

1.2.3 Any additional off-site trees that could impact a new development design have been included in the tree survey parameters.

1.2.4 The tree positions were plotted on an 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, Principal and Director of AWA Tree Consultants Ltd.

1.2.6 The tree survey data collection was carried out by Mr James Godfrey, BA (Hons), Dip Forestry and Arboriculture Level 4, 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 please refer to the Tree Constraints Plan at **Appendix 5** and for detail of the impacts of the new development refer to the Tree Impacts Plan at **Appendix 6**.

2. The Site

2.1 Location and Description

2.1.1 The site is located within The Gables Business Park in Epworth, a town and civil parish in the Isle of Axholme, North Lincolnshire.

2.1.2 The survey area is the land to the rear of several business units within The Gables Business Park. The northern and eastern boundaries border several residential properties. The business units border the site at the southern and western boundaries, with car parking facilities and yard space beyond.

2.1.3 The approximate area of the survey is highlighted in the (2008 Google Earth) image below:

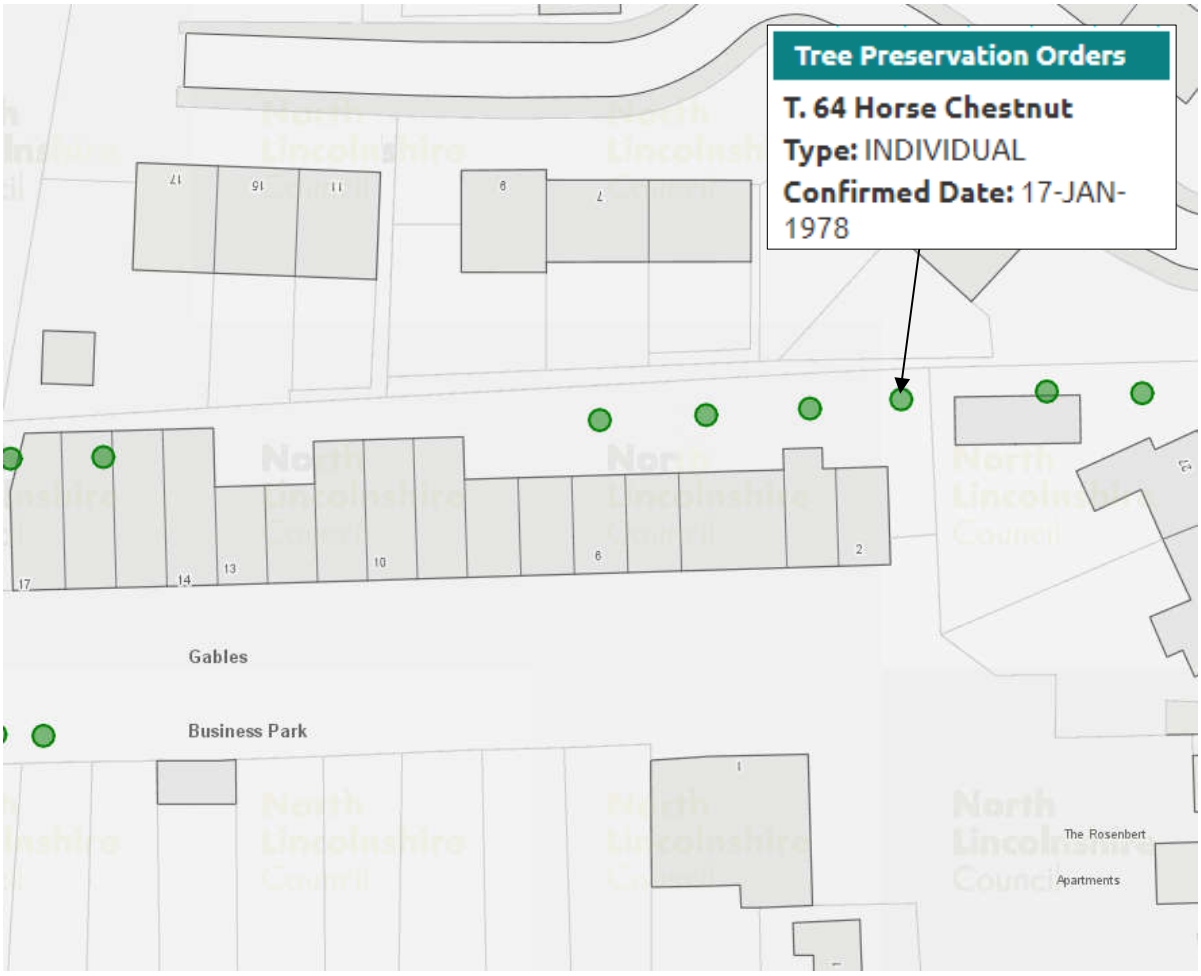
3. The Trees

3.1 Legal

3.1.1 The following advice is for guidance purposes only. Some trees are protected by legislation, and it is essential that the legal status of trees is established prior to carrying out works to them. Unauthorised work to protected trees could lead to prosecution, resulting in enforcement action such as fines or a criminal record. Tree Preservation Orders, Conservation Areas, Planning Conditions, Felling Licences or Restrictive Covenants legally protect many trees in the UK.

3.1.2 An online search was undertaken with North Lincolnshire Council on 20th September 2022 to check whether any trees at the site are protected by a Tree Preservation Order or are located within a Conservation Area. Trees at the site are protected by a Tree Preservation Order, and as such all trees within the site are legally protected. The site is not situated within a Conservation Area.

3.1.3 The accessed map image from North Lincolnshire Council is detailed below:



3.1.4 From assessment of the online information available from North Lincolnshire Council, it is likely that trees referred to as T1, T2 and T3 within this report are legally protected by Tree Preservation Orders. There was no existing evidence of identified tree (Ref: T. 64 Horse Chestnut) on site at the time of the survey.

3.1.5 Before carrying out any works to protected trees the permission of the local planning authority is required. There are large potential penalties for illegally carrying out work to protected trees. Statutory permission is not required for the removal of deadwood.

3.1.6 Trees provide a wide range of habitats for many species, some of which are legally protected such as bats, nesting birds, badgers and dormice. It is essential that appropriate care is taken to ensure that this legislation is not contravened.

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

3.1.8 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 3 individual trees: 1 tree is retention category 'U', 1 tree is retention category 'B' 1 tree is retention category 'C' (explanatory details regarding the retention categories are included at Appendix 3).

3.2.2 Full details of the surveyed trees are provided in the attached tree data schedule at Appendix 4. General comments are provided below:

3.2.3 T1, T2 and T3 are all situated within a rear yard area of the business units. Mature Copper Beech T1 slightly overhangs the buildings on site as well as an adjacent garden area to the north. Despite minor defects T1 has good long-term prospects, high amenity within the site and local landscape and is of moderate value overall.

3.2.4 Multi-stemmed Ash T2 has moderate amenity but is in poor condition and has a low safe and useful life expectancy. *Ganoderma sp.* fruiting bodies were identified at the base of both stems, has signs of dieback within the crown and contains moderate deadwood overhanging the site and adjacent properties. In addition, many of the Ash trees in the local area show symptoms consistent with the fungal pathogen Ash dieback disease. Once a tree is infected the disease is usually fatal, directly or indirectly.

3.2.5 Beech T3 provides moderate amenity but appears to be in an early stage

of decline. Leaves within the crown are sparse and low vigour and contains moderate deadwood. T3 is low value.

3.2.6 T2 is recommended for removal regardless of any new development at the site (as detailed in Appendix 4). If T2 is not within direct site ownership, this recommendation should be referred to the appropriate landowner.

3.2.7 Some trees were covered in dense Ivy or were inaccessible (as detailed in Appendix 4). In such cases measurements were estimated and the condition values are indicative only.

3.2.8 The tree Root Protection Area (RPA) for each tree has been plotted as a polygon centred on the base of the stem. Due to the presence of roads, structures, topography (and past tree management) the RPA is likely to be a simplified representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.

3.3 Photographs

Photo 1: T1, T2 and T3 at the rear of business units, looking north

Photo 2: The upper crown of T1 slightly overhangs the existing Unit 2, looking north

Photo 3: The stem and lower crown of T1, looking east

Photo 4: T2 and T3 also within the rear yard area, looking west

Photo 5: *Ganoderma sp.* fruiting body at the base of T2

Photo 6: T3 has a low vigour crown and appears to be in an early stage of decline, looking west

4. Arboricultural Impact Assessment

4.1 Proposed New Development

4.1.1 It is proposed to build a single storey extension to the eastern aspect of existing Unit 2. The development proposals have been provided by my client and inform this arboricultural impact assessment and the Tree Impacts Plan at Appendix 6.

4.2 Direct Impacts

4.2.1 From assessing the new development proposals, no trees will require removal to facilitate the development.

4.2.2 T2 is in poor overall condition and is recommended for removal regardless of development at the site (see Appendix 4 for further details).

4.3 Indirect Impacts

4.3.1 The tree Root Protection Area (RPA) detailed on the Tree Plans at Appendices 5 and 6, has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority.

4.3.2 Potentially damaging activities are proposed in the vicinity of retained tree T1. The footprint of the proposed extension encroaches into the RPA of T1. While construction within the RPA can have negative impacts on tree roots, it should be possible to employ special foundation design such as a cantilevered foundation in order to overcome or minimise any negative impact on the tree roots.

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

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

4.4 Protection of the Retained Trees

4.4.1 The retained trees will require protection by fencing in accordance with BS 5837: 2012, during the development phase. An associated Arboricultural Method Statement, detailing protective fencing specifications and construction methods close to the retained trees has been 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*

20th September 2022

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Appendices

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

Appendix 1: Authors Qualifications & Experience

Mr Adam Winson, *Chartered Arboriculturist, MSc, BSc (Hons), MICFor, MArborA, ACIEEM, QTRA Registered*
Adam is the company Director and Principal Consultant. He has a mix of the highest-level academic qualifications and relevant work experience. He has worked within the tree care profession for over 20 years and was awarded an MSc in Arboriculture and Urban Forestry, with distinction. Adam is a Chartered Arboriculturist and a Registered Consultant with the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association and he has original research published by the UK Forestry Commission. His work ranges from individual expert tree inspections to managing trees on major multimillion pound housing developments and infrastructure projects. His work often involves trees with preservation orders or litigation, and he has appeared as a tree expert, at planning appeal hearings up to the crown court. Adam has also undertook locum Tree Officer work for several local authorities.

Mr James Brown, *BSc (Hons) Arboriculture, MArborA, PTI (Lantra), QTRA Registered*
James has a BSc (Hons) in Arboriculture, attaining first class honours, as well as being awarded the Institute of Chartered Foresters student award. He is a Professional Member of the Arboricultural Association, an Associate of the Institute of Chartered Foresters, and he is working towards becoming a Chartered Arboriculturist. James joined AWA in 2016, he has several years' experience as an Arboricultural Consultant, he previously worked in Europe's largest container tree nursery and he has experience of local authority Tree Officer work.

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

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

Mr Joe Thomas, *MSci Biology, Award L4 Arboriculture, TechArborA*
Joe achieved a first class degree in biology with an integrated Masters (MSci) from the University of Sheffield. Additionally, he has a Level 4 Award in Arboriculture. Joe joined AWA after an Urban Forestry role with the Sheffield and Rotherham Wildlife Trust and Sheffield City Council, where he gained a variety of experience in different aspects of the arboriculture sector.

Mr James Boyle, *HND Level 5 Arboriculture and Urban Forestry, Dip Arboriculture Level 4, TechArborA*
Jim joined AWA after having worked within the tree care profession for several years, alongside studying at college and university. During this time, he gained a wealth of experience and several professional and practical NPTC qualifications in the tree care industry. Jim has studied Arboriculture and Urban Forestry at Merrist Wood College in Surrey, Plumpton College in Sussex and University of Highlands and Islands in the Scottish Highlands, where he achieved a distinction in the Higher National Diploma Level 5.

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 BS 5837:2012 tree survey and should not be accepted as a detailed tree safety inspection report; however, tree related hazards are recorded and commented upon where observed, yet no guarantee can be given as to the absolute safety or otherwise of any individual tree. All recommended tree work must be to BS 3998:2010 - '*Tree Work: Recommendations*'.

The findings and recommendations contained within this report are valid for a period of twelve months from the date of survey. The author shall not be responsible for events which happen after this time due to factors which were not apparent at the time, and the acceptance of this report constitutes an agreement with these guidelines and terms.

Appendix 3: Explanation of Tree Descriptions

HEIGHT of the tree is measured from the stem base in metres. Where the ground has a significant slope the higher ground is selected.

CROWN HEIGHT is an indication of the average height at which the crown begins and includes information of the first significant branch and direction of growth.

STEM DIAMETER is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; the diameter is measured close to ground level or else a combined stem diameter is calculated.

CROWN SPREAD is measured from the centre of the stem base to the tips of the branches in all four cardinal points.

AGE CLASS of the tree is described as young, semi-mature, early-mature, mature, or over-mature.

PHYSIOLOGICAL CONDITION is classed as good, fair, poor, or dead. This is an indication of the health of the tree and takes into account vigour, presence of disease and dieback.

STRUCTURAL CONDITION is classed as good, fair or poor. This is an indication of the structural integrity of the tree and takes into account significant wounds, decay and quality of branch junctions.

LIFE EXPECTANCY is classed as; less than 10 years, 10-20 years, 20-40 years, or more than 40 years. This is an indication of the number of years before removal of the tree is likely to be required.

Retention Categories

A (marked in green on Appendix 5) = retention most desirable. These trees are of very high quality and value with a good life expectancy.

B (marked in blue on Appendix 5) = retention desirable. These trees are of good quality and value with a significant life expectancy.

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

U (marked in red on Appendix 5) = trees unsuitable for retention. These trees are in such a condition that any existing value would be lost within 10 years.

	Tree Species			Measurements				Crown (m)					Tree Condition							Value		Management
Tree ID	*Common Name*	*Latin Name*	*Maturity*	*Height (m)*	*Stems*	*Stem Diameter (mm)*	*Estimated*	*Average Height*	*N*	*E*	*S*	*W*	*Roots*	*Stem*	*Crown*	*Comments*	*Physiological*	*Structural*	*Life Expectancy*	*Amenity*	*Category*	*Works*
T1	Beech	*Fagus sylvatica* 'Purpurea'	Mature	17	1	750	No	4	6	6	5.5	5.5	Ivy covered. No visual defects	Single stemmed. Vertical. Old pruning wounds. Stubs. Ivy covered. Minor cavities. Minor decay	Old pruning wounds. Cavities. Minor deadwood. Snapped /hanging branches. Overhanging adjacent land	Ivy prevented detailed inspection of roots. Construction material stored under crown. Overhangs buildings on site and adjacent garden area to north	Good	Fair	>40 yrs	High	B	No works required
T2	Ash	*Fraxinus excelsior*	Mature	19	2	600 500	Yes	6	8	9	6	5	Ivy covered	Twin stemmed at base. Vertical. Stubs. Ivy covered. Decay fungi	Old pruning wounds. Cavities. Minor dieback. Moderate deadwood. Snapped /hanging branches. Overhanging adjacent land	*Ganoderma sp.* fruiting bodies on both stems. Dense Ivy prevented detailed inspection and accurate stem measurements. Overhanging adjacent garden areas to north and buildings to south	Poor	Poor	<10 yrs	Moderate	U	Removal recommended regardless of development
T3	Beech	*Fagus sylvatica*	Mature	19	1	900	No	6	6	6	6	7.5	Exposed roots. Minor root girdling. Ivy covered	Single stemmed. Vertical. Old pruning wounds. Stubs. Bark damage. Minor cavities. Minor decay	Discolouration. Low vigour. Old pruning wounds. Minor dieback. Moderate deadwood. Snapped /hanging branches. Overhanging adjacent land	Sunken bark on stem buttress. Yellowing, sparse leaf cover. Overhangs adjacent garden area to north	Poor	Fair	20 to 40 yrs	Moderate	C	No works required

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T3

T2

T1

NORTH

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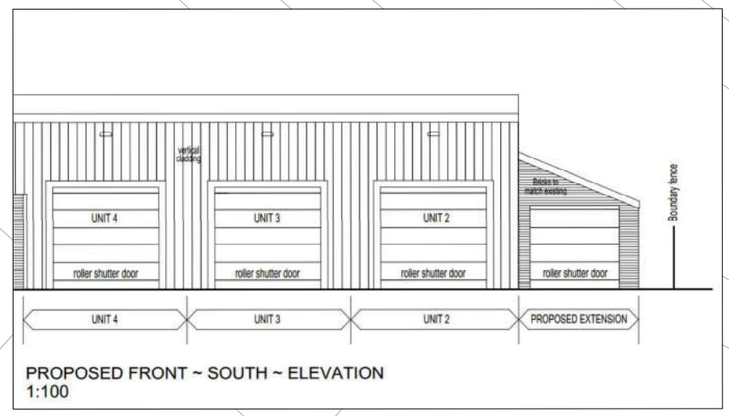
Appendix 5:
Tree Constraints Plan

The Gables Business Park, Epworth
Ref: AWA4475

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

SCALE: 1:200 PAPER: A3

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



PROPOSED FRONT ~ SOUTH ~ ELEVATION
1:100

T3

T2

T1

Proposed Extension

6580 mm

3400 mm

NORTH

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Appendix 6:
Tree Impacts Plan

The Gables Business Park, Epworth
Ref: AWA4475

BRITISH STANDARD 5837:2012

SCALE: 1:200 PAPER: A3

	TREE TO BE RETAINED
	TREE RECOMMENDED FOR REMOVAL
	RPA: ROOT PROTECTION AREA
	TREE STEM