

**ARBORICULTURAL REPORT  
to BS 5837:2012  
at  
Land off Bankfield Drive  
Holmbridge  
Huddersfield  
West Yorkshire  
HD9 2PH**

**Client:**  
Orion Homes

**Client Address:**  
5 Benton Office Park  
Bennet Avenue  
Horbury  
Wakefield  
WF4 5RA

**JCA Ref:**  
18204/HI

**JCA** Limited

Arboricultural & Ecological Consultants

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## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 This report is required at the **Land off Bankfield Drive, HD9 2PH** to provide detailed, independent, arboricultural advice on the trees present, in the context of potential development.
- 1.1.2 The purpose of this report is to summarise the findings of an arboricultural assessment of the existing vegetation at the above site; conducted in accordance with the guidelines contained within BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'.
- 1.1.3 Where necessary, this report will outline any tree works which are required within the current context of the site. It will also grade the trees in accordance with the British Standard; which will guide the design in terms of which trees should be retained and which trees could be removed.

### 1.2 Terms of Reference

- 1.2.1 JCA Ltd has been instructed by **Orion Homes** to survey the site and prepare the findings in a report.
- 1.2.2 For this purpose a topographical survey has been supplied (**Drawing No. 2605/001**), which forms the basis for the Tree Constraints Plan at **Appendix 6**. The topographical survey, along with all other documents supplied to JCA, is assumed to be correct. No checking of such documents will be undertaken and JCA cannot be held responsible for incorrect data supplied by other parties. Tree positions should, however, be considered indicative on the Tree Constraints Plan.

### 1.3 Scope of the Report

- 1.3.1 This report is compiled in accordance with **BS 5837:2012** 'Trees in relation to design, demolition and construction – Recommendations' and is based on an independent and objective assessment of the existing vegetation.
- 1.3.2 All trees within the site boundary with a stem diameter above 75mm are included.
- 1.3.3 Where applicable trees outside the site boundary, but close enough to be affected by the proposed development, are included.
- 1.3.4 The specific designs of the proposed development are not generally taken into account at this stage or detailed within this report. This is to be detailed in an Arboricultural Impact Assessment.

## 1.4 Survey Details

- 1.4.1 The survey took place during March 2022 and was conducted by Hazel Irving *FdSc (Arboriculture and Urban Forestry)*.
- 1.4.2 During this survey, all trees were inspected from ground level. Further investigations, such as a climbed inspection or a decay detection survey, have not been undertaken.
- 1.4.3 Measurements were obtained using clinometers, specialist tapes or electronic distometers. Where this was not possible, measurements were estimated to the best ability of the surveyor. JCA endeavour to provide accurate information and will always take measurements unless inhibited by restricted access or other mitigating circumstances. Where measurements have been estimated, they are clearly highlighted at **Appendix 1**.

## 2. Site Description

### 2.1 Land Use

- 2.1.1 The site is currently agricultural land.

### 2.2 Topography

- 2.2.1 The site slopes gently from the south down towards the northern boundary.

### 2.3 Treescape

- 2.3.1 Surrounding the site is a residential area containing occasional semi-mature garden trees
- 2.3.2 The trees on this site have a moderate impact on the local treescape.

### 2.4 Visual Amenity Value

- 2.4.1 The trees surveyed collectively provide a reasonable visual amenity to the surrounding area.

### 2.5 Age Class Mix

- 2.5.1 The trees surveyed ranged in age from young to mature. However, the trees were predominantly early mature.

## 2.6 Species Diversity

2.6.1 Species surveyed include Common Oak, Holly, Hawthorn Cherry, Common Beech, Japanese Maple, Rowan, Lilac, Elder, Leyland Cypress, Amelanchier, Cotoneaster and European Fir. The predominant species were Holly and Hawthorn.

## 3. Status of the Trees

- 3.1 A check was made on the 16<sup>th</sup> of February 2022 with *Kirklees Metropolitan Council*.
- 3.2 We are informed that there is no Tree Preservation Order (TPO) in force and that the site is not within a Conservation Area.
- 3.3 Due to the large potential penalties for illegally carrying out work to protected trees, JCA recommend that a further check is carried out prior to any works being undertaken. This is especially relevant as the Local Authority is able to serve a TPO at any time.

## 4. Tree Descriptions and Recommendations

- 4.1 Full details of all individual trees surveyed are recorded in the tables at **Appendix 1**. A full explanation of the tables can be found at **Appendix 2**. Please refer also to the Tree Constraints Plan at **Appendix 6** for tree locations.

## 5. Discussion Relating to the Existing Treescape

### 5.1 Tree Condition & Recommended Works

5.1.1 The tree survey revealed a total of **11** items of vegetation (**4** individual trees, **5** groups of trees, **2** hedges. Of these **8** trees/groups were identified as retention category 'B', **3** trees/groups were identified as retention category 'C'. Please refer to **Appendix 2** for retention category and definition criteria.

### 5.2 Tree Removals for Arboricultural Purposes

5.2.1 On this occasion, no trees have been identified as category 'U' and as such no trees are recommended for removal in the current context of the site.

### 5.3 Remedial Tree Works

5.3.1 On this occasion, no remedial works were deemed necessary at this time. However, those trees which overhang public footpaths or public highways shall require future maintenance in order to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

### 5.4 Monitoring / Further Investigation

5.4.1 In this case, no specific monitoring (re-inspecting and re-assessing) or further investigation works are considered necessary. However, all trees to be retained within the proposed development should be inspected on a regular basis in the interests of risk management.

5.4.2 Access was restricted, preventing a full detailed inspection of **all** the trees surveyed within this report. These items of vegetation were situated within the boundaries of adjacent properties and surveyed from within the land of the development site.

5.4.3 A full detailed inspection of **G10** was inhibited due to dense Holly foliage and brambles.

5.4.4 A full detailed inspection of **T9** was inhibited by its position on the edge of the retaining wall which runs along Dobb Top Road, which prevented a detailed inspection of the Northern side of the stem.

## 5.5 Existing Site Constraints and General Design Advice

- 5.5.1 The following is an overview of the constraints on this site to development, along with general design considerations relating to the tree cover. The precise details of a proposed development are not known at present. The specific implications of a proposed design should be assessed within an Arboricultural Implications Assessment (AIA).
- 5.5.2 The retention categories of the trees surveyed are an indication of their overall values. The category of each item is listed at **Appendix 1** and an explanation of the retention categories is included at **Appendix 2**. As a general rule, those trees listed as retention category 'A' or 'B' are the most valuable items and as such the removal of these is likely to be met with resistance by the Local Planning Authority (LPA). Those items listed as retention category 'C' are of lesser value and the removal of these is less likely to be met with resistance by the LPA. The above information should guide the design in terms of which trees are to be removed and which are to be retained. However, it should be noted that the retention of trees is just one consideration in the design process and each development will be taken for its merits.
- 5.5.3 The location of each tree is plotted on the associated Tree Constraints Plan at **Appendix 6**. This plan identifies the retention category of each tree (Retention A: green canopy, Retention B: blue canopy, Retention C: grey canopy, Retention U: red canopy), the crown spread, and also the associated rooting zone (Root Protection Area or RPA shown in gold). In order to enable the survival of trees shown to be retained within any proposals, both the canopy of the tree and its RPA must be completely avoided wherever possible. This relates to not just the location of new buildings, but also to the location of new areas of hard standing, proposed utility routes and any ground level changes (both excavations and soil piling). Where this is not possible, specialist construction methods and materials will need to be used.
- 5.5.4 Where information is available, the water demand of each tree is provided at **Appendix 1**, in accordance with NHBC Standards 2014 chapter 4.2. 'Building near trees'. The water demand of trees can affect adjacent structures and this is therefore included to inform foundation design, depth and the proximity of proposed structures to trees.
- 5.5.5 The trees surveyed are situated close to the site boundary. This offers a potential window for development within the centre of the site.
- 5.5.6 There are a number of high amenity trees within this site. They will enhance any proposed development and care should be taken at the design stage to ensure that these trees are retained.
- 5.5.7 **T9** and **G10** on the northern boundary of the site could reduce noise from the adjacent Dobb Top Road, as well as serve as screening and help to reduce water run-off and soil erosion.

- 5.5.8 Retained trees will require adequate protective measures during development. Such measures typically entail temporary protective fencing, installed to the full extent of the RPA. Where this is not entirely possible, ground protection may also comprise part of the protective measures. This includes a compaction reducing construction detail which enables a degree of construction traffic over/within the RPA.
- 5.5.9 As the RPAs of the trees will require fencing off as a protection measure, this should be brought into consideration when planning such things as access routes and material storage during development. It is accepted that in some cases it is not entirely possible to completely avoid the RPA or canopy lines within a new development. The consulting arboriculturalist should therefore be made aware of any such incursions to make comment and, where possible, advise on mitigation actions. Such details should be contained within an Arboricultural Implications Assessment (AIA).
- 5.5.10 No material storage is permitted within the RPA of retained trees unless confirmed to be acceptable by the consulting arboriculturalist. The exact details and location of protective measures should be included within an Arboricultural Method Statement (AMS).
- 5.5.11 The position of the site compound is a major consideration. It is recommended that this, which typically includes the site office, facilities, toilets, storage of materials and parking, is located away from trees and outside the RPA.
- 5.5.12 If a landscape planting scheme is proposed, consideration must be made at the planning stage as to where this is to be implemented on site. Such locations should be protected in order to prevent soil compaction and/or contamination and should therefore form part of the Construction Exclusion Zone. JCA can provide Tree Planting Schemes where required.

## 6. Conclusions

- 6.1 The trees surveyed were generally found to be in good condition.
7. There is no Tree Preservation Order (TPO) in force and the site is not within a Conservation Area.
  - 7.1 No tree works are required in the current context of the site.
  - 7.2 Existing site constraints and general design advice has been provided in **Section 5.5**. Upon provision of specific proposals, site-specific advice can be given with regards to the impact on trees.
  - 7.3 The data gained during the survey provides an indication of the health of the trees. However, it does not enable a comprehensive assessment of their condition over time. Trees are living organisms which are affected by many factors including weather conditions, diseases/disorders, light levels and human activities. Due of this, this report is only valid for a period of 1 year from the date of issuing. Should an update or revision of this report be required outside of this time period, JCA may require a further site visit to ensure that the condition of the trees has not significantly changed. It is advised that the trees are inspected regularly, in the interests of risk management.

# Appendices

Tree Ref.	Age	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread			Observations	Recommendations  Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
	Common Name  Botanical Name					N	W	E								
G 1	Early Mature  Mixed	To 5#	0+	0+  n/a	To 10#	1  1	1  1	1	Mixed species comprising Leyland Cypress and Holly. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	LOW TO HIGH	40+	1 C 2
H 2	Early Mature  Common Beech  <i>Fagus sylvatica</i>	To 1.5	0+	0+  n/a	To 8#	0.5  0.5	0.5  0.5	0.5	Managed garden hedge. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	MOD	40+	B 1
T 3	Semi Mature  Japanese Maple  <i>Acer palmatum</i>	4#	0.5	0+  n/a	Avg. 10#	1.5  1.5	1.5  1.5	1.5	Multi-stemmed at ground level, with 4 stems. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	MOD	40+	B 1
T 4	Early Mature  Lilac  <i>Syringa vulgaris</i>	4#	0+	0+  n/a	Avg. 8#	1  1	2  1	1	Multi-stemmed at ground level, with 8 stems. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	NO DATA	40+	C 1
G 5	Semi Mature  Mixed	To 5#	0+	0+	25 to 30#	2  3	2  2	4	Mixed species comprising Common Beech, Amalanchier and Cherry. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	MOD	40+	1 B 2
G 6	Semi Mature  Mixed	To 5#	0+	0+  n/a	<10#	1  1	2  1	1	Mixed species comprising Cotoneaster and Elder. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	LOW	20+	1 C 2
T 7	Semi Mature  Rowan  <i>Sorbus aucuparia</i>	5#	0+	0  n/a	To 15#	2  2	2  2	2	Multi-stemmed at ground level, with 5 stems. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	MOD	40+	B 1
H 8	Early Mature  Mixed	2#	0+	0+  n/a	To 25#	0.5  0.5	0.5  0.5	0.5	Maintained boundary hedge comprised of Common Beech and Holly. Limited detailed inspection.	No action required at present.  n/a	GOOD	GOOD	MOD	LOW TO MOD	40+	1 B 2
T 9	Early Mature  Oak  <i>Quercus robur</i>	12#	0+	0+  n/a	47	4  5	5  5	5	Single-stemmed and Vertical with a fairly balanced crown. Growing on the top of a retaining wall adjacent to Dobb Top Road, with canopy overhanging the road. Good buttress roots. Limited detailed inspection.	No action required at present however, clearance should be maintained over Dobb Top Road.  n/a	GOOD	GOOD	HIGH	HIGH	40+	B 1
G 10	Semi Mature  Mixed	To 11#	0+	0+  n/a	Avg. 25#	See Plan			Mixed species comprising Holly, Common Oak, European Fir. Group provides screening and noise reduction from the adjacent Dobb Top Road, as well as reduces water runoff. Limited detailed inspection.	No action required at present however, clearance should be maintained over Dobb Top Road.  n/a	GOOD	GOOD	HIGH	LOW TO HIGH	40+	1 B 2

Tree Ref.	Age Common Name <i>Botanical Name</i>	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread			Observations	Recommendations  Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
						N	W	E								
G 11	Mature Elder <i>Sambucus nigra</i>	To 6#	1	0+  n/a	Avg. 10#	4 1.5	1.5	4	Two mature multi-stemmed trees overhanging boundary wall. Limited detailed inspection.	No action required at present.  n/a	FAIR	FAIR	MOD	LOW	20+	1 C 2

## Appendix 2: Explanation of Tree Descriptions

### A2.1 Measurements/ Reference Information

- A2.1.1 *REF NUMBER*. All items surveyed are allocated a reference number preceded with a letter, identifying the type of vegetation surveyed: T = an individual tree, G = a group of trees or an area of vegetation, W = woodland, H = a hedgerow.
- A2.1.2 *SPECIES: COMMON AND BOTANICAL NAME*. The common and botanical names of the species present are noted. If the species is not clear or identifiable, then a general common name and genus will be noted.
- A2.1.3 *AGE CLASS* of the tree is described as young, semi-mature, early-mature, mature, over-mature, veteran or dead.
- A2.1.4 *HEIGHT* of the tree is measured in metres from the stem base to the top of the crown.
- A2.1.5 *CROWN HEIGHT* is an indication of the height above ground level at which the crown begins.
- A2.1.6 *STEM DIAMETER* is measured at 1.5 metres above (higher) ground level. Where the tree is multi-stemmed at this point; diameter measurements are taken for each stem. If more than five stems are present, an average stem diameter is taken. If for whatever reason it is not practical to measure multiple-stemmed trees in this way, the diameter is measured close to ground level, just above the root buttress.
- A2.1.7 *CROWN SPREAD* is measured from the centre of the stem base to the tips of the branches to all four cardinal points.
- A2.1.8 *HEIGHT AND DIRECTION OF LOWEST BRANCH*. The height and direction of the lowest significant branch is noted because of potential issues relating to clearances and the need for tree pruning.
- A2.1.9 *NHBC WATER DEMAND*. The water demand of each tree, as listed in NHBC Standards 2010 Chapter 4.2 'Building near trees'. This is included to aid structural engineers, architects and other members of the design team as it determines foundation depth and other considerations with regard to trees.

## A2.2 Evaluations

- A2.2.1 *PHYSIOLOGICAL CONDITION* is classed as good, fair, poor, or dead. This is an indication of the health and vitality of the tree and takes into account vigour, presence of disease and dieback.
- A2.2.2 *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.
- A2.2.3 *LIFE EXPECTANCY* is classed as; Dead, less than 10 years, 10+ years, 20+ years, or 40+ years. This is an indication of the minimum number of years before removal of the tree is likely to be required.
- A2.2.4 *AMENITY VALUE*. A general indication is given in respect to the amenity/landscape value of the tree/group within the surrounding area.
- A2.2.5 *PRIORITIES*. A priority rating is given concerning the time periods in which the recommended works should be undertaken. LOW priority works should be undertaken within 12 months of the survey, MOD (moderate) priority works should be undertaken within 6 months and HIGH priority works should be completed as soon as practically possible. If no works are recommended, N/A (not applicable) will be used.

## A2.3 Retention Categories

- A2.3.2 *B (marked in blue on the Tree Constraints Plan) = Trees of moderate quality.*

These trees are of moderate quality and value with a reasonable life expectancy (usually with an estimated life expectancy of at least 20 years).

- A2.3.3 *C (marked in grey on the Tree Constraints Plan) = Trees of low quality.*

These trees are of low quality and value but which are in adequate condition to remain or are young trees with a stem diameter below 15cm (usually with an estimated life expectancy of at least 10 years).

- A2.3.4 Trees categorised as retention category 'A', 'B' or 'C' are then justified by being further divided into 3 subcategories:

- 1 = Mainly arboricultural qualities.
- 2 = Mainly landscape qualities.
- 3 = Mainly cultural values, including conservation value.

## **Appendix 3: General Guidelines**

- A3.1 All tree work should be undertaken to BS 3998: 2010 '*Recommendations for tree work*' or other recognised industry practice.
- A3.2 Staff carrying out the work must be qualified, experienced and ideally be Arboricultural Association approved contractors. They should be covered by adequate public liability insurance.
- A3.3 This report is based upon a visual inspection. The consultant 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 the guidelines and the terms listed therein.
- A3.4 Any defects seen by a contractor or the employer that were not apparent to the consultant must be brought to the consultant's attention immediately.
- A3.5 No liability can be accepted by JCA in respect of the trees unless the recommendations of this report are carried out under the supervision of JCA and within JCA's timescale.
- A3.6 It is advisable to have trees inspected by an arboricultural consultant on a regular basis.

## Appendix 4: Glossary of Terms & Abbreviations

<b>Arboriculture</b>	The cultivation of trees in order to produce individual specimens of the greatest ornament, for shelter or any primary purpose other than the production of timber or fruit.
<b>Canker</b>	Disease damaged area of a tree, usually caused by fungus or bacteria affecting the bark.
<b>Co-dominant stem</b>	A stem which has grown in direct competition to the main stem and which has formed a substantial size influencing the appearance of the tree.
<b>Crown lift</b>	The removal of the lowest branches, usually to a given height. It allows more residual light and greater clearance underneath for vehicles etc.
<b>Crown reduction</b>	The reduction of a tree's height and spread while preserving its natural shape.
<b>Crown thin</b>	The removal of some of the density of a tree's crown, usually 5-15% allowing more light through its canopy and reducing wind resistance.
<b>Deadwood</b>	Either dead branches, or a procedure involving the removal of dead, dying and diseased branches.
<b>Dieback</b>	Where branches are beginning to show signs of death usually at the tips in the crown.
<b>Epicormic shoots</b>	Small branches that grow in clusters around the base of the stem of a tree or within the crown. This is usually as a result of bad pruning or some other stress factor, although can be a natural growth pattern for some species of tree (eg Lime species).
<b>Formative pruning</b>	The pruning of a tree to remove weaknesses and irregularities which may lead to future problems. The formative pruning operation is aimed at reducing the potential for future weaknesses or problems within the tree's crown and to encourage an optimal canopy shape.
<b>Included bark</b>	Where the bark on two adjoining branches or stems is growing tight together, forming a joint with limited physical strength.
<b>Pollarding</b>	A method of tree management in which the main trunk and principle branches of the tree are cut to the same height, and the resulting branches are then cropped on a regular basis.
<b>Remedial pruning</b>	The removal of old stubs, deadwood, epicormic growth, rubbing or crossing branches and other unwanted items from the tree's crown. Sometimes referred to as crown cleaning.

- RPA** Root Protection Area – Theoretical rooting area of a tree as defined in BS 5837:2012 ‘*Trees in relation to design, demolition and construction – Recommendations*’.
- Topping** Topping is a form of pruning that removes terminal growth leaving a ‘stub’ cut end. Topping can cause serious health problems to a tree.

## Appendix 5: Author Qualifications

### Principal Consultant and Managing Director

**Jonathan Cocking** *F.R.E.S., Tech. Cert. (Arbor.A), PDipArb (RFS) FArbor.A CBiol MSB. MICFor.* Jonathan is a Registered Consultant and Fellow of the Arboricultural Association and sits on its Professional Committee. He has 31 years' experience in the Arboricultural profession and served for eight years as Senior Arboriculturist with a large local authority before establishing JCA in 1997. Jonathan has since developed JCA's portfolio of services and its extensive client base. He is a Chartered Biologist, a Chartered Arboriculturalist and an Expert Witness with much experience of litigation work.

### Technical Director

**Toby Thwaites** *BSc (Hons), HND (Arboriculture), MArbor.A.* Toby joined JCA in 1998 after graduating in Ecology at the University of Huddersfield and has since graduated in Arboriculture at the University of Central Lancashire. A former JCA team leader and Consulting Arboriculturist, Toby is now Technical Director and oversees all office and on-site activities at JCA and is on hand to offer technical support and advice.

### Operations Director

**Charles Cocking** *FdSc (Arboriculture), MArbor.A.* Charles joined JCA in January 2014 having previously worked for the company on a part time basis during 2013. Charles obtained his Foundation Degree in Arboriculture at Askham Bryan College, York, and is a Professional Member of the Arboricultural Association. Charles now oversees all internal operations for the company.

### Consulting Staff: Arboriculture

**Andrew Bussey.** Andrew started working in consultancy at JCA in 2006 having spent 12 years working as an arborist for various private companies before joining a Local Authority forestry team. He has various NPTC qualifications, is QTRA qualified and is a LANTRA Accredited Professional Tree Inspector.

**Emily Wilde** *FdSc (Arboriculture).* Emily joined JCA having previously worked for various private tree surgery and consultancy companies over the past 8 years. She initially obtained a ND in Forestry & Arboriculture, followed by a FdSc in Arboriculture at Askham Bryan College, York. Emily has various NPTC certificates and is QTRA qualified.

**Mick Eltringham** *ND (Forestry).* Mick joined JCA after spending 12 years working in the industry for various private companies in the north and south of England. He has also spent the last five years working as a consultant for two canopy research projects in the Amazon Rainforest, working with Oxford University and the University of Arizona. He has various NPTC Qualifications.

**Dan Kemp** *FdSc (Arboriculture).* Dan joined JCA with nearly 30 years' experience in arboriculture. He worked as a London Tree Officer for 12 years and in several arboricultural and horticultural management posts, specialising particularly in tree risk assessments and tree related subsidence.

**Ryan Bateman** *BSc (Hons), FdSc (Arboriculture), TechArbor.A.* Ryan joined JCA in 2020 after working as a Lecturer on the Foundation Degree in Arboriculture at Askham Bryan College in York. Ryan has both practical skills, NPTC qualifications and theoretical knowledge and owned his own contracting business prior to, and whilst working as a lecturer.

**Luke Wickham** *FdSc (Arboriculture and Urban Forestry).* Luke joined JCA in 2021 after obtaining his Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Having previously worked within the industry for the past 4 years, running his own small business and sub-contracting for local firms, Luke brings a sound knowledge and understanding of the practical and academic sides of the industry.

**Hazel Irving** *FdSc (Arboriculture and Urban Forestry).* Hazel joined JCA in 2022 after obtaining her Foundation Degree in Arboriculture and Urban Forestry at Askham Bryan College. Previously worked in the horticulture industry, volunteered with the National Trust and Yorkshire Arboretum and completed the 2021 student research internship at the RHS Wisley Plant Health Centre.

## Consulting Staff: Ecology

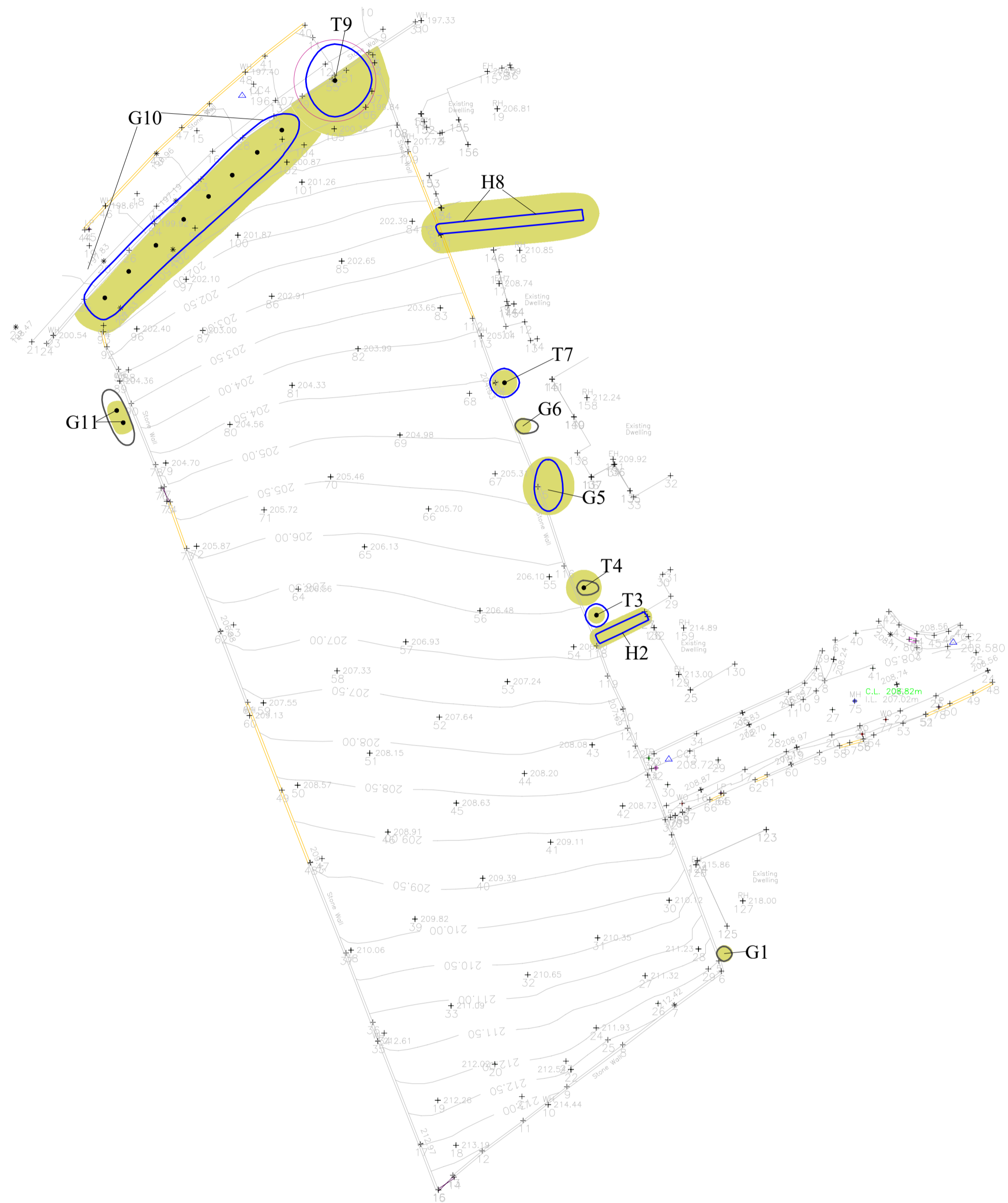
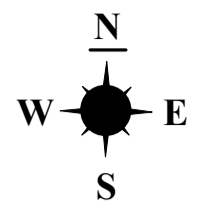
**Adam West, Principal Ecologist** *BSc (Hons) Animal and Wildlife Management*. Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Bachelor's degree, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence, a Natural England Level 2 bat survey class licence (and the Scottish and Welsh equivalents) and a CSCS card.

**Poppy McDermott, Seasonal Ecologist** *BSc (Hons) Ecology and Conservation*. Poppy joined JCA after completing her degree for three years at Nottingham Trent University in Ecology and Conservation. She has gained practical experience in protected species surveying and report writing whilst at university and is hoping to further develop these skills and consultancy experience whilst at JCA.

## Administrative Staff

**Catherine Cocking** Accounts Manager.  
**Kelly Saunders** Accounts Assistant.

**Lorraine Spink** Administrative Assistant.  
**Lisa Beedham** Marketing Manager.



NB: All tree locations should be treated as indicative as they were not marked on the topographical plan provided.

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 18204/HI)

**Root Protection Area: RPA**

THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.



Appendix 6: Tree Constraints Plan		BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES	
ADDRESS: Land off Bankfield Drive, Holmbridge, Huddersfield, HD9 2PH JCA REF: 18204/HI		Detailed definitions of these categories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.	
SCALE 1:500	PAPER SIZE A2		CATEGORY A: 'RETENTION MOST DESIRABLE'
SURVEYED BY: HI	ADAPTED BY: HI		CATEGORY B: 'RETENTION DESIRABLE'
APPROVED BY: CHC			CATEGORY C: 'TREE WHICH COULD BE RETAINED'
 <b>Arboricultural &amp; Ecological Consultants</b>			CATEGORY U: 'TREE FOR REMOVAL'
			STEM OF TREE TO BE RETAINED
			STEM OF TREE TO BE REMOVED
			ROOT PROTECTION AREA
			ROOT PROTECTION AREA (PRIOR TO OFF-SETTING)

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

*Hazel Irving*

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*Hazel Irving FdSc (Arboriculture and Urban Forestry).*

25<sup>th</sup> March 2022

For and on behalf of *JCA Ltd*

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## JCA Ltd. Arboricultural and Ecological Consultants Professional Tree and Ecology Advice nationwide

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### ARBORICULTURAL SERVICES

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#### Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

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#### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

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#### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

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#### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

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#### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

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#### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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### ECOLOGICAL SERVICES

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#### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

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#### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

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#### HEAD QUARTERS:

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