



Miller Homes

Land at Station Road, Market Bosworth

Arboricultural Assessment

July 2024

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CONTENTS

1.0	INTRODUCTION	2
2.0	PLANNING POLICY	2
3.0	SURVEY METHODOLOGY	3
4.0	RESULTS	8
5.0	ARBORICULTURAL IMPACT ASSESSMENT	11
6.0	NEW TREE AND HEDGEROW PLANTING.....	13
7.0	TREE PROTECTION MEASURES	13
8.0	TREE MANAGEMENT.....	15

TABLES

Table 1: Summary of Trees by Retention Category

Table 2: Summary of Impact on Tree Stock

FIGURES

Figure 1: The chart of girth in relation to age and development classification of trees

PLANS

Tree Survey Plan (11637-T-03)

Tree Retention Plan (11637-T-04)

APPENDICES

Appendix A: Tree Schedule

Appendix B: Veteran Tree Schedule

Appendix C: Protective Fencing Specifications

1.0 INTRODUCTION

- 1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Miller Homes to present the findings of an Arboricultural Assessment and survey of trees located at Land at Station Road, Market Bosworth (hereafter referred to as the site), OS Grid Ref SK 394 029.

Site Description

- 1.2 The site comprises arable land along with two semi-detached properties and industrial units, situated to the west of the market town of Market Bosworth. The site abuts Station Road on its northern boundary which also abuts the rear gardens of residential dwellings on Heath Road. To the west of the site is an industrial estate beyond which is a railway line. To the east and south of the site is further arable land.

Planning History

- 1.3 The site is identified within the Market Bosworth Neighbourhood Development Plan adopted by Hinckley and Bosworth Borough Council in September 2015, for a mixed use allocation including a community facility, B1, B2 and B8 employment provision, open space, and a minimum of 100 dwellings (MKBOS02), and is afforded significant weight.

Scope of Assessment

- 1.4 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on 25th September 2023, in accordance with guidance contained within British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendations' (hereafter referred to as BS5837).
- 1.5 This report has been produced to accompany a hybrid planning application for 138 residential dwellings with a proposed new vehicular access off Station Road (Detailed) and employment zone (Outline).
- 1.6 The purpose of this report is therefore to firstly, present the results of this assessment of the existing trees' arboricultural value, based on their current condition and quality and to secondly, provide an assessment of impact arising from the proposed development of the site.

2.0 PLANNING POLICY

National Planning Policy Framework December 2023

- 2.1 National Planning Policy is defined by the National Planning Policy Framework (NPPF). This sets out the Government's most current and up to date planning policies for England and how these should be applied. The current NPPF is dated December 2023.
- 2.2 Paragraphs 10 and 11 of the NPPF state that there is a presumption in favour of sustainable development and states that for decision making, the LPA should be 'c) *approving development proposals that accord with an up-to-date development plan without delay*'.

2.3 In relation to arboriculture, the NPPF states that:

- 136 *'Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined (footnote 53), that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users'. (footnote 53: unless, in specific cases, there are clear, justifiable and compelling reasons why this would be inappropriate)*
- 186 (c) *'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons (footnote 67) and a suitable compensation strategy exists'.*

and provides specific guidance that:

- 186 (d) *'development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*

2.4 With reference to paragraph 186 (c), examples of what is deemed to be 'wholly exceptional' are included within Footnote 67 and provides the examples of 'infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat'.

3.0 SURVEY METHODOLOGY

3.1 The survey of trees has been carried out in accordance with the criteria set out in Chapter 4 of BS5837. The survey has been undertaken by a suitably qualified and experienced arboriculturist and has recorded information relating to all those trees within the site and those adjacent to the site which may be of influence to any proposals. Trees were assessed for their arboricultural quality and benefits within the context of the proposed development in a transparent, understandable, and systematic way.

3.2 Trees have been assessed as groups and hedgerows where it has been determined appropriate.

- The term group has been applied where trees form cohesive arboricultural features either aerodynamically, visually or culturally including biodiversity or habitat potential for example parkland or wood pasture.
- For the purposes of this assessment, a hedgerow is described as any boundary line of trees or shrubs less than 5m wide at the base and are managed under a regular pruning regime.

- 3.3 An assessment of individual trees within groups and hedgerows has been made where a clear need to differentiate between them, for example, to highlight significant variation between attributes including physiological or structural condition or where a potential conflict may arise.

BS5837 Categories

- 3.4 Trees, groups and hedgerows have been divided into one of four categories based on Table 1 of BS5837, '*Cascade chart for tree quality assessment*'. For a tree to qualify under any given category it should fall within the scope of that category's definition (see below).
- 3.5 Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition. They are, for this reason not considered in the planning process on arboricultural grounds.
- 3.6 Categories A, B and C are applied to trees that should be of material considerations in the development process. Each category also having one of three further sub-categories (i, ii, iii) which are intended to reflect arboricultural, landscape and cultural or conservation values accordingly.
- 3.7 **Category (U) – (Red):** Trees which are unsuitable for retention and are in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Trees within this category are:
- Trees that have a serious irremediable structural defect such that their early loss is expected due to collapse and includes trees that will become unviable after removal of other category U trees.
 - Trees that are dead or are showing signs of significant, immediate or irreversible overall decline.
 - Trees that are infected with pathogens of significance to the health and/ or safety of other nearby trees or are very low quality trees suppressing adjacent trees of better quality.
 - Certain category U trees can have existing or potential conservation value which may make it desirable to preserve.
- 3.8 **Category (A) – (Green):** Trees that are considered for retention and are of high quality with an estimated remaining life expectancy of at least 40 years with potential to make a lasting contribution. Such trees may comprise:
- Sub category (i) trees that are particularly good examples of their species, especially if rare or unusual, or are essential components of groups such as formal or semi-formal arboricultural features for example the dominant and/or principal trees within an avenue.
 - Sub category (ii) trees, groups or woodlands of particular visual importance as arboricultural and / or landscape features.
 - Sub category (iii) trees, groups or woodlands of significant conservation, historical, commemorative or other value for example veteran or wood pasture.
- 3.9 **Category (B) – (Blue):** Trees that are considered for retention and are of moderate quality with an estimated remaining life expectancy of at least 20 years with potential to make a significant contribution. Such trees may comprise:

- Sub category (i) trees that might be included in category A but are downgraded because of impaired condition for example the presence of significant though remediable defects, including unsympathetic past management and storm damage.
- Sub category (ii) trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.
- Sub category (iii) trees with material conservation or other cultural value.

3.10 **Category (C) – (Grey):** Trees that are considered for retention and are of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150mm. Such trees may comprise:

- Sub category (i) unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- Sub category (ii) trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value or trees offering low or only temporary / transient screening benefits.
- Sub category (iii) trees with no material conservation or other cultural value.

Ancient and Veteran Trees

3.11 Various published methodologies are currently available for the identification of Ancient and Veteran trees which, due to the complexity and subjectivity of the process of defining and assessing these trees, often have conflicting definitions.

3.12 This assessment and the criterion for defining a veteran tree is based upon the definition within BS:5837.

“Tree that, by recognized criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned”.

NOTE These characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem

3.13 Stem girth is the most reliable guide when determining the age of trees and in normal growing conditions, ancient and veteran trees are those which have a large girth by comparison with other trees of the same species. To inform the assessment of chronological age reference has been made to the chart provided within Lonsdale (2013) (shown below in Figure 1).

3.14 BS:5837 does not provide a definition for ancient trees and therefore the assessment and the criterion being used for identifying ancient tree is based upon government guidance on, *Ancient woodland, ancient trees and veteran trees: advice for making planning decisions*¹ which states.

“All ancient trees are veteran trees, but not all veteran trees are ancient. The age at which a tree becomes ancient, or veteran will vary by species because each species ages at a different rate.”

1 Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK (www.gov.uk)

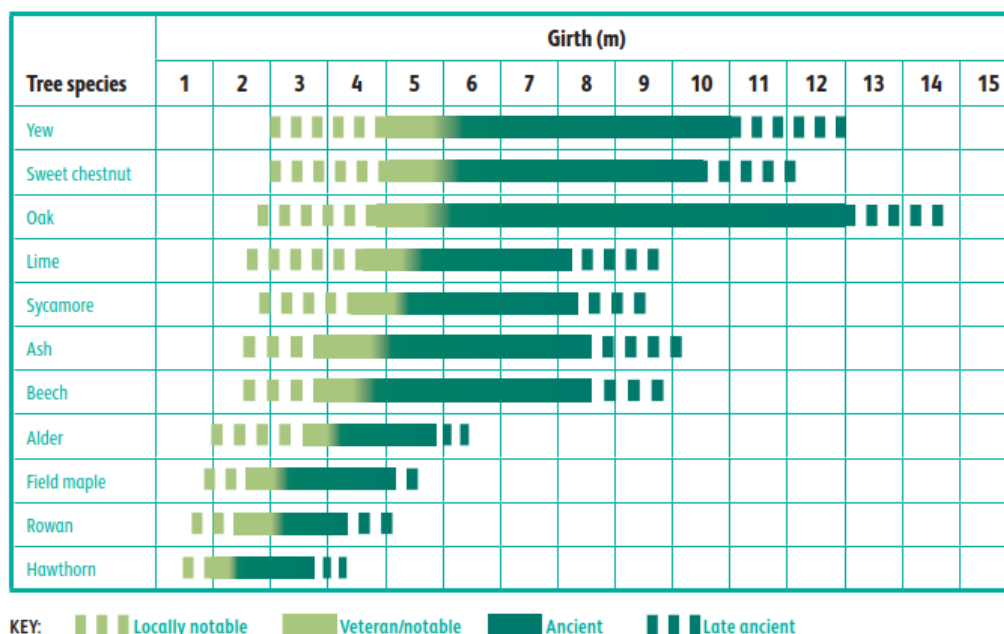


Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)².

- 3.15 Ancient and veteran trees are also material considerations within the planning process and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2023, which includes its own definition of ancient and veteran trees:

‘A tree which, because of its age, size, and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.’³

- 3.16 When assessing veteran trees reference has been made to Owen & Alderman (2008) and Reed, H. (2000). Veteran Trees: A Guide to Good Management. English Nature and more recently Lonsdale, D (ed.) (2013) Ancient and other Veteran Trees: Further Guidance on Management, The Tree Council & Ancient Tree Forum for guidance on the recognition of both ancient and veteran trees. Level 3 of the Specialist Survey Method (SSM) of de Berker & Fay (2004) has also been utilised for gathering survey information as this provides a standardised framework for recording characteristic ancient/veteran features.
- 3.17 While the definition of a veteran tree with BS:5837 states that veteran trees are “*not exclusive to, individuals surviving beyond the typical age range for the species concerned*”, to be considered a veteran tree in accordance with the definition within NPPF, veteran trees must be ‘*trees which, because of their age, size, and condition are of exceptional biodiversity, cultural or heritage value*’. Therefore, to be considered a veteran tree, the tree must be of sufficient age and size with a stem girth which is considered large for its species (within the veteran range set out in Figure 1).

² Lonsdale, D. (Ed.). 2013). Ancient and other veteran trees: further guidance on management. London: The Tree Council.

³ Ministry of Housing, Communities and Local Government. (2019). *National Planning Policy Framework*. London: Ministry of Housing, Communities and Local Government.

- 3.18 However, stem girth alone does not constitute a veteran tree and veteran trees should display characteristics of ancient trees, showing strong signs of at least one primary characteristic or usually display four or more secondary characteristics, although individual trees will be assessed on their own merits.
- 3.19 Primary characteristics include.
- Major stem cavities and hollowing
 - Signs of crown reorganisation
- 3.20 Secondary characteristics include.
- Physical damage to trunk, often the result of storm damage, resulting in exposed heart wood or sap wood.
 - Decay holes, this can include branch socket cavities on limbs, basal cavities, and cavities within the main stem.
 - Bark missing from main stem in large quantities or large patches of flaking bark with crevices underneath.
 - Sap runs either from cracks in the bark or from cavities.
 - Crevices in the bark, under branches or on the root plate sheltered from direct rainfall which provide potential invertebrate habitat.
 - Fungi fruiting bodies on or around tree this can include heart-rotting species and saprophytic fungi on dead wood.
 - Epiphytes or Hemiparasites this can include lichen, liverworts and mistletoe but does not include ivy.
- 3.21 It is considered that the greater the number and extent of these features present within a given tree, the greater its ecological habitat value.
- 3.22 Where this assessment has identified veteran trees, further survey work of those trees and their communities will be required to inform future management.

Considerations and Limitations of the Tree Survey

- 3.23 The survey was completed from ground level only and from within the boundary of the site. Aerial tree inspections or an assessment of the internal condition of the stem/s or branches were not undertaken at this stage as this level of survey is beyond the scope of the initial assessment.
- 3.24 The statements made in this report regarding the assessed applies to the date of survey and cannot be assumed to remain unchanged. It will be necessary to review all comments and observations made within this report, in accordance with sound arboricultural practice, within two years of the date of survey (unless explicitly stated elsewhere within this report). Further review may also be necessary where site conditions change or works to trees are carried out which have not been specified in detail within this report.

- 3.25 Hedgerows are identified as a Habitat of Principal Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The tree survey conducted, in accordance with BS5837, does not assess hedgerows against the Hedgerow Regulations 1997 or specifically from an ecological perspective, and is outside the scope of this assessment.
- 3.26 It may be necessary during detailed design to undertake further assessment and accurate positioning of woody species within tree groups and hedgerows to assist structural calculations for foundation design of structures in accordance with NHBC Chapter 4.2 Building near Trees.

4.0 RESULTS

- 4.1 A total of 25 individual trees, 8 groups of trees and 3 hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups, and hedgerows as per the survey methodology.
- 4.2 Since the date of the assessment one tree T24, a mature horse chestnut *Aesculus hippocastanum* situated within the verge to the south of Station Road, has been removed by Hinckley and Bosworth Borough Council. T24 was in extensive decline at the time of the assessment, with little live growth being evident. A *Cerioporos squamosus* bracket was noted on the trunk close to ground level and T24 was considered in a state of terminal decline.
- 4.3 Appendix A presents details of all individual trees, groups and hedgerows recorded during the assessment including heights, diameters at 1.5m from ground level, crown spread (given as a radial measurement from the stem), age class, comments as to the overall condition at the time of inspection, BS5837 category of quality and suitability for retention and the root protection area (RPA), calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012
- 4.4 General observations particularly of structural and physiological condition for example the presence of any decay and physical defect and preliminary management recommendations have also been recorded where appropriate.
- 4.5 The individual positions of trees, groups and hedgerows have been shown on the Tree Survey Plan. The positions of trees are based on a topographical / land survey, as far as possible, supplied by the client. Where topographical information has not identified the position of trees these have been plotted using a global positioning system and aerial photography to provide approximate locations. The crown spread, root protection area and shade pattern (where appropriate) are also indicated on this plan.

Results Summary

- 4.6 Tree cover on the site was typical of an arable setting with maintained and unmaintained hedgerows forming field boundaries and mature tree stock largely being restricted to the site boundaries and present within field boundary hedgerows. English oak *Quercus robur* and ash *Fraxinus excelsior* were the principal tree species, although ornamental species were also recorded within the industrial estate to the north and within the verge along Station Road. Hedgerows were comprised of a variety of species but with hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa* being the most abundant.

- 4.7 The table below summarises the trees assessed and several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	T7, T15	2		0
Category A (High Quality / Value)	T1, T17	2		0
Category B (Moderate Quality / Value)	T2, T3, T4, T5, T6, T8, T12, T20, T23, T25	10	G2, G3, G6	3
Category C (Low Quality / Value)	T9, T10, T11, T13, T14, T16, T18, T19, T21, T22	10	G1, G4, G5, G7, G8, H1, H2, H3	8

- 4.8 T1, a mature English oak, was situated in the centre of the site area in what is currently a ploughed field. Cultivation of the ground within 3m of the base of T1 is likely to have influenced root development and the tree had also been subject to past pruning to raise the crown above the field to allow for access for farm machinery. There was an approximately 3m strip of land around T1 not subject to any management where the tree had developed a low crown to 1m above ground level. T1 is a prominent feature of the site and by virtue of the species had a life expectancy in excess of 40 years.
- 4.9 T17, an English oak situated on the southern bank of a drainage channel forming a field boundary, was assessed as being veteran in accordance with our veteran tree survey methodology. The trunk of T17 was hollow from ground level up to 3.5m where it bifurcates. The northernmost stem had partially failed leaving a large tear out wound which extended down the trunk to ground level. There was evidence of crown reorganisation with a lower crown having developed to compensate for the loss of this stem. *Ganoderma applanatum* brackets were present within the hollow trunk along with aerial roots and internal bark. The number and extent of the veteran features present identified with the Veteran Tree Schedule (Appendix B) means the tree potentially has significant ecological habitat value.
- 4.10 To afford T17 greater protection a buffer zone calculated in accordance with the guidelines detailed within *Ancient and other Veteran Trees: Further Guidance on Management* (Lonsdale, D (ed.) (2013). *The Tree Council & Ancient Tree Forum* has been provided. This buffer zone is defined as a distance equal to 15 times the trees stem diameter (Read, 2000).
- 4.11 T8, a mature English oak was also situated in the site area, although closer to the site boundary. Cultivation of the ground had occurred within 3m of the base of T8 and again is likely to have influenced root development. T8 had been subject to past pruning to raise the crown above the field to allow for access for farm machinery but the tree had also suffered storm damage with a large torn branch stub being evident within the lower crown to the north. The remaining crown of T8 did appear sparse at the time of the assessment with small diameter dead branches being present throughout the crown. Due to this decline, the cause of which was not evident at the time of the assessment but could be attributed to fungal infection or the severance of roots from ploughing, T8 was assessed as being retention Category B despite being a prominent feature of

the site as its life expectancy was considered less than the 40 years required to merit higher classification.

- 4.12 Two of the individual trees T7 and T15 were assessed as being unsuitable for retention and Category U. Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition and they are, for this reason not considered in the planning process on arboricultural grounds.
- 4.13 T7, a mature hybrid black poplar *Populus x canadensis* situated on the site's western boundary, had developed twin stems from ground level. The northernmost stem had failed at 4m leaving a large torn branch stub. The remaining stem had attained 17m in height, displayed die back with dead branches throughout and a greatly reduced leaf area. The cause of the decline was not evident at the time of the assessment but could be attributed to the trees age with poplar trees having a relatively short life expectancy. T7 was considered in a state of terminal decline and due to the proximity of industrial buildings situated to the west of the site, is recommended for removal irrespective of any development proposals.
- 4.14 T15, a mature ash situated within a hedgerow forming the site's eastern boundary was completely dead at the time of the assessment. Dead trees can have existing or potential conservation value which may be desirable to preserve. Safety however must be the overriding factor when determining the suitability of retaining trees for conservation value, taking into account the size of the tree, its location and proximity to obvious targets.

Site Access

- 4.15 A total of three individual trees (T22, T23 and T25) and two groups (G7 & G8) were recorded within a strip of land connecting the main allocated site area with Station Road to the north. This area currently contains small industrial units and two semi-detached residential properties (273 & 275 Station Road). Much of the tree cover in this area stood outside of the application boundary within the verge along Station Road, within adjoining gardens and alongside units within the Station Road Industrial Estate.

Statutory Considerations

- 4.16 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location.
- 4.17 No direct consultation with the Local Planning Authority has taken place, however, it is understood having used the online search facility on the website for, Hinckley and Bosworth Borough Council that there are no Tree Preservation Orders on, or near the assessment site and therefore no statutory constraints would apply to the development in respect of trees.
- 4.18 Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

5.0 ARBORICULTURAL IMPACT ASSESSMENT

- 5.1 The following paragraphs present a summary of the tree survey and discussion of particular trees and groups recorded in the context of any proposed development in the form of an Arboricultural Impact Assessment in accordance with section 5.4 of BS5837. Any final tree retentions will need to be reconciled with the advice contained within this report.
- 5.2 The AIA has been based upon the Planning Layout and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for a mixed use development of 138 residential dwellings with a proposed new vehicular access off Station Road and employment zone (Outline).
- 5.3 An overlay of the layout has been incorporated in the Tree Retention Plan to assist in identifying the relationship and any potential conflicts between the proposals and the existing trees and hedgerows. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.
- 5.4 The table below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 2: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable		0	T7, T15	2
Category A (High Quality / Value)	T1, T17	2		0
Category B (Moderate Quality / Value)	T2, T3, T8, T12, T20, T23, T25	7	T4, T5, T6	3
	G2, G3, G6	3		0
Category C (Low Quality / Value)	T10, T11, T16, T18, T19, T21, T22	7	T9, T13, T14	3
	G1, G4, G5, G7, G8, H2, H3	7	H1 (part)	1

- 5.5 The proposed development has been informed by the tree constraints and looked to retained trees where feasible.
- 5.6 Internal tree cover including T1 and T8 would be retained within incidental areas of open space within the development to provide maturity to the landscaping. While the layout has looked to respect the calculated RPA of these trees, to achieve a feasible layout there is a minor intrusion of less than 1m within the RPA of T1 for single dwelling (Plot 126) and the footpath alongside an adoptable road.
- 5.7 This minor incursion within the RPA of T1 is highly unlikely to be of significant detriment to T1 which is currently subject to regular ploughing within 3m of its stem. The development provides an opportunity to improve the growing conditions of this tree seeing it retained within an area of open space that can support its mature size.

- 5.8 Individual trees T9 a semi mature English oak, which had self-seeded next to an industrial building to be demolished, T13, a goat willow *Salix caprea* and T14, an ash situated within an internal hedgerow along wet ditch would all be directly impacted by the proposed development. Considered to be of low quality from an arboricultural perspective the removal of this tree cover would not be considered a significant arboricultural impact and could be mitigated for through new tree planting.
- 5.9 As part of the site allocation there is a requirement to provide B1, B2 and B8 employment provision. The only feasible position for this employment area is within the west of the site forming an extension to the existing industrial estate to the west. However, to provide an employment zone in this location it is necessary that a noise attenuating earthwork bund be created along the length of the site's western boundary.
- 5.10 The creation of this bund will directly impact the RPA of T4, T5 and T6, three immature English oak which had established, likely through self-seeding within a mixed species boundary group. The bund would significantly increase the soil level within the RPA of these trees which has the potential to be of detriment burying roots at a depth where there is limited available oxygen essential for root growth and survival.
- 5.11 It is proposed that T4, T5 and T6 would be removed prior to the creation of the bund to avoid potentially damaging trees which are within falling distance of an existing industrial unit to the west of the site. The loss of these trees would be mitigated for through new tree planting along the bund and the edge of the proposed employment zone which will serve to screen this area for the residential properties.
- 5.12 Individual trees T7 and T15 were both recorded as being unsuitable for retention due to a safe life expectancy of less than 10 years. Situated on the western boundary and within falling distance of an existing industrial unit to the west of the site T7, should be removed irrespective of the proposed development in the interest of safety.
- 5.13 The creation of a footpath link and trim trail in the south of the site will require the removal of a section hedgerow H1 which contains T15. Hedgerows are identified as a Habitat of Principal Importance (HPI) as listed within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Consequently, it is important that the proposed scheme delivers a net gain in terms of linear hedgerows through new planting to compensate for any losses. Category U trees are those which would be lost in the short term for reasons connected with their physiology or structural condition and they are, for this reason not considered in the planning process on arboricultural grounds.
- 5.14 T17, the single veteran tree recorded on the site's southern boundary would be retained and the proposed have respected the RPA and buffer zone of this tree with no development shown within 27m and the footpath and trim trail being diverted to be well outside the extended buffer zone. Similarly, the development of the site does provide an opportunity to improve the growing conditions of T17 which is currently subject to regular ploughing within its RPA and buffer zone.

Discussion

- 5.15 In conclusion for arboriculture, the proposals have through careful consideration of the design allowed for the retention of a high proportion of the existing tree cover. The retention of all high-quality trees coupled with targeted future management and enhancement will ensure these trees are integrated into the proposed development providing maturity to the landscape. Proposed new tree planting will also increase tree cover on the site and more than adequately mitigate for the small number of trees shown to be removed to facilitate the development.

6.0 NEW TREE AND HEDGEROW PLANTING

- 6.1 As part of the development proposals an adequate quantity of structured tree planting has been identified within the submitted Landscaping Plan to mitigate for the proposed tree removal. This new tree planting has been identified alongside the primary access roads, within the roadside verges, around the proposed employment zone and within proposed areas of open space.
- 6.2 The success of any landscaping scheme relies on an adequate provision of a high-quality rooting environment within which trees can thrive and reach their full potential. Planting trees with due care and consideration can, in the long term, provide a greater return on a schemes green investment and ensure trees remain healthy and grow to mature proportions.
- 6.3 Wherever possible, following discussions with the developer and utility companies, common service trenches should be specified to minimise land take associated with underground service provision and facilitation access for future maintenance.
- 6.4 Tree planting should be avoided where they may obstruct overhead power lines or cables. Any underground apparatus should be ducted or otherwise protected at the time of construction to enable trees to be planted without resulting in future conflicts.

7.0 TREE PROTECTION MEASURES

- 7.1 Retained trees should be adequately protected during works through the erection of the requisite tree protection measures. These protection measures should be details as part of a site-specific Arboricultural Method Statement, which could be imposed as a condition of planning approval.
- 7.2 Measures to protect trees should follow the guidance in BS5837 and be applied where necessary for the purpose of protecting trees within the site whilst allowing sufficient access for the implementation of the proposed layout. These have been broadly summarised below.

General Information and Recommendations

- 7.3 All trees retained on site should be protected by suitable barriers or ground protection measures around the calculated RPA, crown spread of the tree or other defined constraints of this assessment as detailed by section 6 and 7 of BS5837.
- 7.4 Barriers should be erected prior to commencement of any construction work and once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone.

- 7.5 Any trees that are not to be retained as part of the proposals should be felled prior to the erection of protective barriers. Particular attention needs to be given by site contractors to minimise damage or disturbance to retained specimens.
- 7.6 Construction access may take place within the root protection area if suitable ground protection measures are in place. This may comprise single scaffold boards over a compressible layer laid onto a geo-textile membrane for pedestrian movements. Vehicular movements over the root protection area will require the calculation of expected loading and the use of proprietary protection systems.

Tree Protection Barriers

- 7.7 Tree protection fencing should be fit for the purpose of excluding any type of construction activity and suitable for the degree and proximity of works to retained trees. Barriers must be maintained to ensure that they remain rigid and complete for the duration of construction activities on site.
- 7.8 In most situations, fencing should comprise typical construction fencing panels attached to scaffold poles driven vertically into the ground. As illustrated in Appendix C.
- 7.9 Where site circumstances and the risk to retained trees do not necessitate the default level of protection an alternative will be specified appropriate to the level / nature of anticipated construction activity.

Protection outside the exclusion zone

- 7.10 Once the areas around trees have been protected by the barriers, any works on the remaining site area may be commenced providing activities do not impinge on protected areas.
- 7.11 All weather notices should be attached to the protective fencing to indicate that construction activities are not permitted within the fenced area. The area within the protective barriers will then remain a construction exclusion zone throughout the duration of the construction phase of the proposed development.
- 7.12 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are near retained trees.
- 7.13 Oil, bitumen, cement or other material that is potentially injurious to trees should not be stacked or discharged within 10m of a tree stem. No concrete should be mixed within 10m of a tree. Allowance should be made for the slope of ground to prevent materials running towards the tree.
- 7.14 Notice boards, telephone cables or other services should not be attached to any part of a retained tree.
- 7.15 Any trees which need to be felled adjacent to or are present within a continuous canopy of retained trees, must be removed with due care (it may be necessary to remove such trees in sections).

8.0 TREE MANAGEMENT

- 8.1 All retained trees should be subjected to sound arboricultural management as recommended within section 8.8.3 of BS5837 *Post Development Management of Existing Trees*, where there is a potential for public access to satisfy the landowner's duty of care.
- 8.2 Landowners responsible for trees; especially those within the public domain, have a legal 'duty of care' to ensure that visitors and neighbours of their land are reasonably safe and that nobody comes to harm or injury, by his or her negligence, through taking measures to ensure that risks are reduced as far as is 'reasonably practicable' (The Health and Safety at Work Act 1974).
- 8.3 To ensure that risks are reduced as far as is 'reasonably practicable' it will be necessary that, a review of the relationship between retained trees and the new development should be undertaken by a qualified arboriculturist to assess the retained tree cover and prepare a schedule of tree works.
- 8.4 The Occupiers Liability Act (1957 and 1984) also places a 'duty of care' to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk⁴.
- 8.5 It is currently expected that a suitably qualified Arboriculturalist or tree surveyor should inspect trees with an appropriate level of regularity. The purpose of the inspections is to determine whether a tree could foreseeably cause harm by virtue of its size and physical condition.

⁴ The Health and Safety at Work Act 1974



KEY

Category U - Trees / Groups Unsuitable for Retention (BS 5837:2012)

Category A - Trees / Groups of High Quality (BS 5837:2012)

Category B - Trees / Groups of Moderate Quality (BS 5837:2012)

Category C - Trees / Groups of Low Quality (BS 5837:2012)

Hedgerow (Colour indicates BS5837:2012 Category)

Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)

Veteran Tree Buffer Zone (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)

Individual / Group Number and BS5837:2012 Category

Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1250 @ A3

0

25

50

75m

NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.

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-	28.09.23	First Issue	EC
A	14.05.24	Red Line Added	EC
B	16.05.24	T24 Removed	EC

rev	date	description	by

masterplanning

environmental assessment

landscape design

urban design

ecology

architecture

arboriculture

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client
Miller Homes

project
Land at Station Road
Market Bosworth

drawing title
TREE SURVEY PLAN

scale
1:1250 @ A3

drawn/checked
EC

date
May 2024

drawing number
11637-T-03

rev
B

CAD file: L:\11600\11637\ARB\AA\Plans\Tree Survey Plan - Rev A.dwg



KEY

Tree/Group to be Retained

Tree/Group proposed to be removed subject to relevant permissions

Category U - Unsuitable for retention on arboricultural grounds

Hedgerow Proposed to be Retained

Hedgerow proposed to be removed subject to relevant permissions

Root Protection Area
(Shown for retained trees only)

Veteran Tree Buffer Zone
(in accordance with Ancient and Other Veteran Trees:
Further Guidance on Management)

T1 (A)
G1 (A)

Individual / Group Number and BS5837:2012 Category

T1 (A)
G1 (A)

Individual / Group Number to be Removed and
BS 5837:2012 Category

Indicative Shade Pattern (in accordance with
BS5837:2012 where appropriate)

Scale 1:1250 @ A3

NOTES

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with project Arboriculturalist. Drawing to be read in conjunction with Arboricultural Assessment and Appendix A - Tree Schedule.

Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

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-	14.05.24	First Issue	EC
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client
Miller Homes

project
**Land at Station Road
Market Bosworth**

drawing title
TREE RETENTION PLAN

scale
1:1250 @ A3

drawn/checked
EC

date
July 2024

drawing number
11637-T-04

rev
A

CAD file: L:\116001\11637\ARB\AA\Plans\Tree Retention Plan.dwg

Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	YNG: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	SM: Semi-mature trees less than 1/3 life expectancy	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	EM: Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	M: Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	The BS category particular consideration has been given to the following: • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

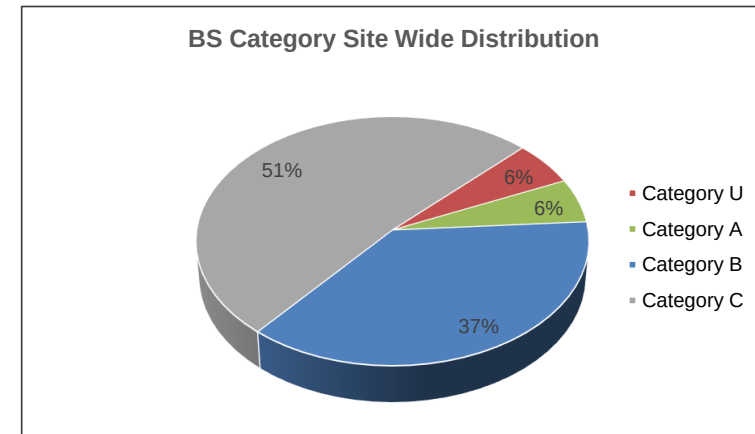
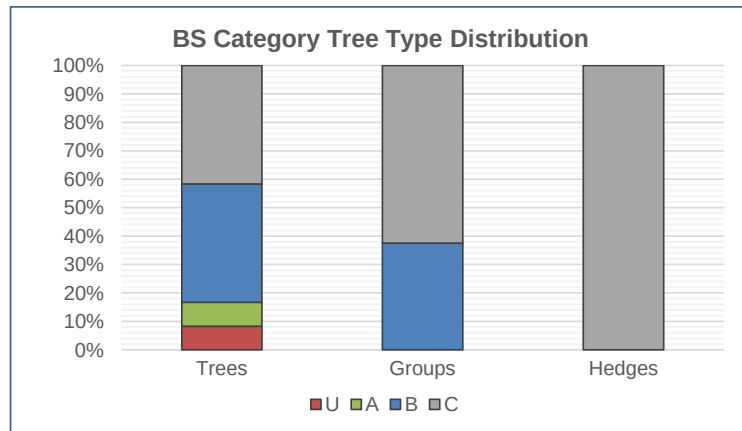
Structural Condition	Physiological Condition	Root Protection Area (RPA)
Good - No significant structural defects	Good - No significant health problems	• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.
Fair - Structural defects that can be remediated	Fair - Symptoms of ill-health that can be remediated	
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	Poor - Significant ill-health. Unlikely the tree will recover in the long term	
Dead - Dead tree with structural integrity of tree severely compromised	Advanced Decline / Dead - Advanced state of decline and unlikely to recover or Dead	

Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U	T7, T15	2		0
Category A	T1, T17	2		0
Category B	T2, T3, T4, T5, T6, T8, T12, T20, T23, T25	10	G2, G3, G6	3
Category C	T9, T10, T11, T13, T14, T16, T18, T19, T21, T22	10	G1, G4, G5, G7, G8, H1, H2, H3	8
	Total	24	Total	11

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

BS Category Site Wide Distribution shows the proportion of trees assessed in each category across the whole site which allows an interpretation of the site's overall quality.



Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	English Oak Quercus robur	16	1000	8	M	G	Situated within center of ploughed field close cultivation of soil within 3m of base past pruning to raise crown with epicormic growth noted on pruning wounds low branches to 1m above ground level within 3m of base	452	12.0	A (i)
T2	English Oak Quercus robur	15	est 750	N - 7 S - 7 E - 3 W - 7	M	G	Situated beyond site boundary within dense tree group unable to access base past pruning to provide clearance to overhead lines which run along site boundary low crown to near ground level	254	9.0	B (i)
T3	English Oak Quercus robur	13	est 750	7	M	G	Situated beyond site boundary within dense tree group unable to access base ivy cover obscures stem overhead lines run adjacent to crown along site boundary low crown to near ground level	254	9.0	B (i)
T4	English Oak Quercus robur	6	220	3	SM	G	Situated within G2 likely self seeded lower crown maintained along field edge	22	2.6	B (i)
T5	English Oak Quercus robur	9	est 300 300 200 200	5	EM	G	Situated within G2 multi stemmed from 1m possible pollard stems in contact with boundary fence unable to fully assess base crown maintained along field edge	118	6.1	B (i)
T6	English Oak Quercus robur	11	300	N - 2 S - 4 E - 4 W - 4	EM	F	Situated within G2 likely self seeded crown suppressed to North by neighbouring tree crown maintained along field edge	41	3.6	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T7	Hybrid Black Poplar Populus x canadensis	17	800 800	N - 2 S - 6 E - 4 W - 4	M	P	Situated within G2 twin stemmed from base northernmost stem has failed at 4m southernmost stem displays dieback with dead branches throughout crown ivy cover obscures base and stems and restricts access recommend removal in interest of safety	N/A	N/A	U
T8	English Oak Quercus robur	15	820	8	M	F	Situated within ploughed field close to site boundary close cultivation of soil within 3m of base past pruning to raise crown broken branches noted in lower crown crown appears sparse with dieback and small diameter dead branches noted throughout	304	9.8	B (i)
T9	English Oak Quercus robur	7	180	2.5	SM	F	Established within 1m of building likely self seeded past pruning to raise crown and provide clearance unsuitable for long term retention	15	2.2	C (i)
T10	Norway Maple Drummondii Acer platanoides 'Drummondii'	4	est 150	1	EM	P	Situated beyond site boundary within adjoining property crown has been heavily reduced	10	1.8	C (i)
T11	Field Maple Acer campestre	2.5	est 150	1	EM	P	Situated beyond site boundary within adjoining property crown has been heavily reduced	10	1.8	C (i)
T12	English Oak Quercus robur	11	est 500 400	6	M	F	Situated on eastern bank of drainage channel twin stemmed from base low crown maintained along field edge	185	7.7	B (i)
T13	Goat Willow Salix caprea	5	9x 150	3	M	F	Situated on western bank of drainage channel multi stemmed from base low crown maintained along field edge	92	5.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T14	Ash Fraxinus excelsior	11	250	4	M	F	Situated on eastern bank of drainage channel regrowth from base of mature dead stem unable to fully access crown maintained along field edge	28	3.0	C (i)
T15	Ash Fraxinus excelsior	3.5	est 400	1	M	D	Standing dead stem within hedgerow	N/A	N/A	U
T16	Crack Willow Salix fragilis	17	est 800 800	N - 1 S - 3 E - 7 W - 3	M	P	Situated on southern bank of drainage channel twin stemmed from base northernmost stem has partially failed at 2m with large tearout wounds and single remaining stem southernmost stem is weighted to east	579	13.6	C (i)
T17	English Oak Quercus robur	16	1340	N - 8 S - 8 E - 3 W - 8	V	F	Situated on southern bank of drainage channel two stems develop at 3.5m northernmost stem has partially failed with large tearout wound wound extends down main stem to ground level with main stem completely hollow internal bark developing ganoderma brackets noted within stem ivy cover obscures main stem uneven crown weighted to southwest	1269	20.1	A (iii)
T18	Crack Willow Salix fragilis	13	est 600	5	M	P	Situated on southern bank of drainage channel dense undergrowth restricts access to base lower crown maintained along field edge	163	7.2	C (i)
T19	Ash Fraxinus excelsior	14	7x 300	7	M	F	Situated on southern bank of drainage channel on site boundary multi stemmed from base outgrown hedgerow tree dense undergrowth and ivy cover obscures stems and restricts access die back of crown evident with small diameter dead branches throughout	285	9.5	C (i)
T20	Wild Cherry Prunus avium	9	est 300	3	EM	F	Situated beyond site boundary within adjoining property unable to access tree has been reduced	41	3.6	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T21	Ash Fraxinus excelsior	6	300	N - 4 S - 2 E - 4 W - 2	EM	P	Situated within field access uneven crown with leaning stem to northeast vandalism noted on main stem past pruning to remove large branch from above field access	41	3.6	C (i)
T22	Horse Chestnut Aesculus hippocastanum	11	est 600	4.5	M	P	Situated beyond site boundary within front garden of neighbouring property overhead lines run through crown crown displays die back with small diameter dead branches throughout	163	7.2	C (i)
T23	Horse Chestnut Aesculus hippocastanum	13	est 400	4	M	F	Situated beyond site boundary within front garden of neighbouring property overhead lines run adjacent to crown ivy cover obscures main stem	72	4.8	B (i)
T24	Tree No Longer Present									
T25	Silver Birch Betula pendula	13	est 300	4	M	F	Situated beyond site boundary within garden of neighbouring property past pruning to raise crown	41	3.6	B (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Crack Willow Salix fragilis Elder Sambucus nigra Hawthorn Crataegus monogyna Wild Cherry Prunus avium Dogwood Cornus sanguinea	5	upto 200	N - 2 S - 2 E - 1 W - 2	M	F	Outgrown hedgerow along site boundary flailed along field edge with large diameter branch stubs occasional mature willow heavily reduced sparse in sections with dense undergrowth overhead lines above group	18	2.4	C (ii)
G2	Ash Fraxinus excelsior Blackthorn Prunus spinosa English Oak Quercus robur Field Maple Acer campestre Hawthorn Crataegus monogyna Silver Birch Betula pendula	6	upto 150	2	EM	F	Planted group along site boundary flailed along field edge specimen trees planted within group sparse in sections moderate screening value	10	1.8	B (ii)
G3	Blackthorn Prunus spinosa Field Maple Acer campestre Hawthorn Crataegus monogyna	5	upto 100	1.5	SM	F	Planted group along site boundary flailed along field edge moderate screening value larger trees setback within adjoining industrial estate	5	1.2	B (ii)
G4	Hawthorn Crataegus monogyna Sycamore Acer pseudoplatanus	4	avg 100	2	EM	P	Outgrown section of hedgerow along site boundary low crowns to near ground level ownership uncertain	5	1.2	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G5	Blackthorn Prunus spinosa Hawthorn Crataegus monogyna Crab Apple Malus sylvestris	5	upto 250	2	M	P	Outgrown section of hedgerow along drainage channel maintained along field edge dense ivy cover obscures stems informal footpath through group	28	3.0	C (ii)
G6	Elder Sambucus nigra Hawthorn Crataegus monogyna Crab Apple Malus sylvestris	5	upto 200	N - 1 S - 2 E - 2 W - 2	M	F	Outgrown hedgerow along site boundary flailed along field edge sparse in sections with dense undergrowth moderate screening value	18	2.4	B (ii)
G7	Goat Willow Salix caprea Leyland Cypress Cupressocyparis leylandii Norway Spruce Picea abies	10	est 300	5	M	F	Situated beyond site boundary within adjoining property unable to access surveyed from nearest vantage point crowns overhang site	41	3.6	C (ii)
G8	Goat Willow Salix caprea Leyland Cypress Cupressocyparis leylandii	10	est 250	2	M	F	Situated beyond site boundary within adjoining property unable to access surveyed from nearest vantage point maintained along boundary	28	3.0	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Blackthorn Prunus spinosa	1.5	est 70	1	M	F	Maintained hedgerow along drainage channel several large gaps	2	0.8	C (ii)
H2	Ash Fraxinus excelsior Blackthorn Prunus spinosa English Oak Quercus robur Field Maple Acer campestre	1.5	est 70	1	M	F	Maintained hedgerow along drainage channel sparse in sections with dense undergrowth	2	0.8	C (ii)
H3	Beech Fagus sylvatica Hawthorn Crataegus monogyna Wild Cherry Prunus avium Crab Apple Malus sylvestris Hazel Corylus avellana Holly Ilex aquifolium Laural Prunus Laurocerasus Privet Ligustrum ovalifolium Purple Plum Prunus cerasifera Pissardii cotoneaster Leyland Cypress Cupressocyparis leylandii Yew Taxus baccata	2	avg 70	1	M	F	Sections of maintained hedgerow along boundary with adjoining properties occasional planted tree of semi mature proportions gaps within hedgerow	2	0.8	C (ii)

Appendix B - Veteran Tree Schedule

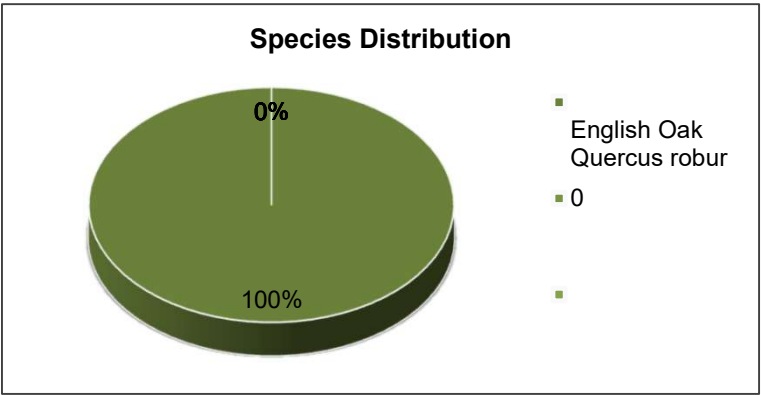
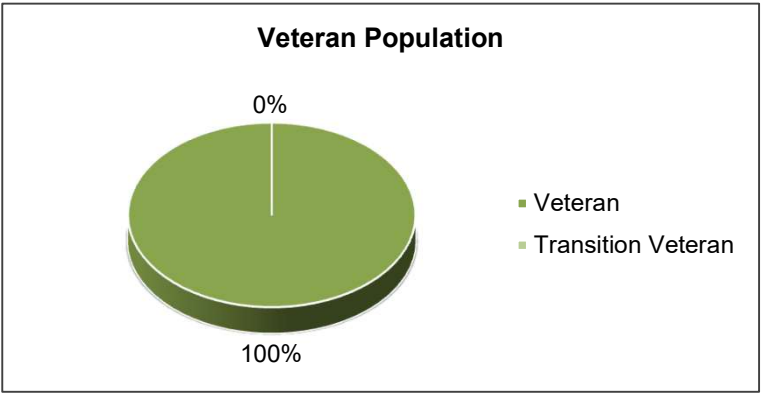
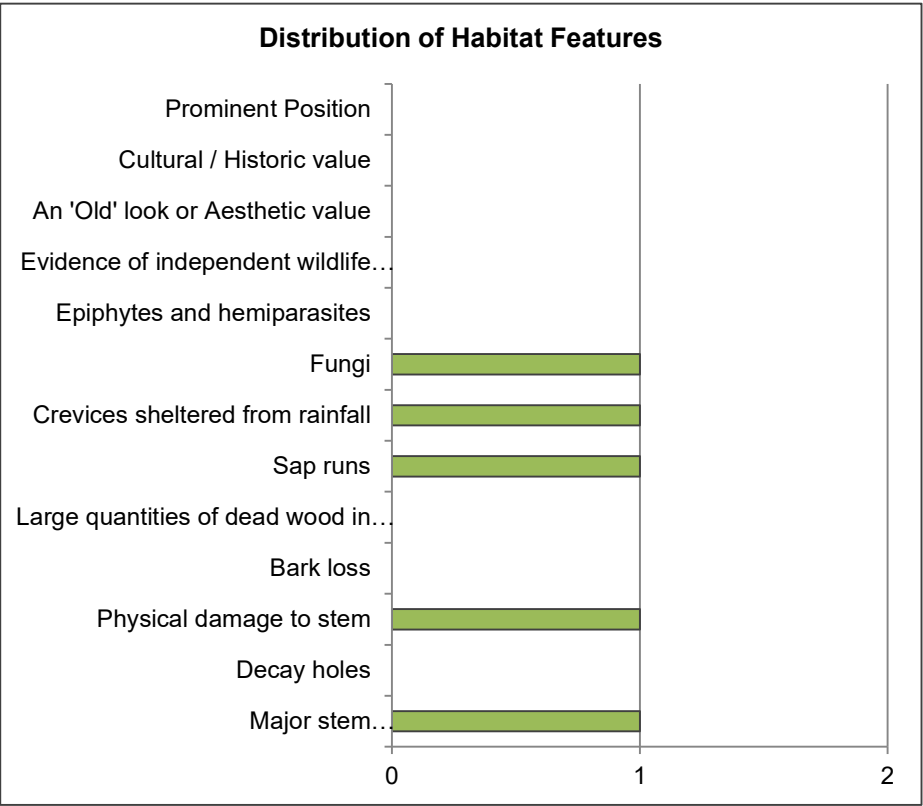
Key	Dimensions and Habitat Features		Associated Wildlife	Aesthetics
Tree considered Veteran	DBH (mm) - Stem diameter measured at 1.5m above ground level in mm	Major trunk cavities - Cavity to exceed 30% of stem diameter or to be progressively developing	Crevices sheltered from rainfall - Dry, potential invertebrate habitat	An old look or Aesthetic value - Striking form or particularly gnarled
Tree considered Future Veteran	Large girth for species - as described by the Veteran Tree Initiative	Large quantities of dead wood in canopy - More than 50% of crown dead or dying back	Evidence of independent wildlife species - Droppings, nests, pellets	Cultural/historic value - Parkland tree, field or road marker
	M - Maiden	Physical damage to trunk - Often as a result of storm damage	Fungi - Polypores or Basidiomycetes on or around tree	Prominent Position - Visually prominent in its landscape
		Decay Holes - Branch socket cavities on limbs or main stem	Epiphytes or Hemiparasites - lichen, liverworts, ivy, mistletoe	
		Epicormic Growth - Strong vigorous epicormic growth present about the tree		
		Bark Loss - Bark missing from main stem in large quantities		
		Sap Runs - Either from cracks in bark or cavities		

This document should be read in conjunction with the Arboricultural Assessment. The National Planning Policy Framework, a key government policy document, stresses the importance of Ancient and Veteran trees. From an ecological perspective veteran trees provide a rare and very specialist niche habitat and therefore preservation of this habitat is considered highly important. It would therefore be recommended that a detailed assesment be undertaken of the veteran habitat and this schedule should only be used as a guide to the presence of veteran trees on the site.

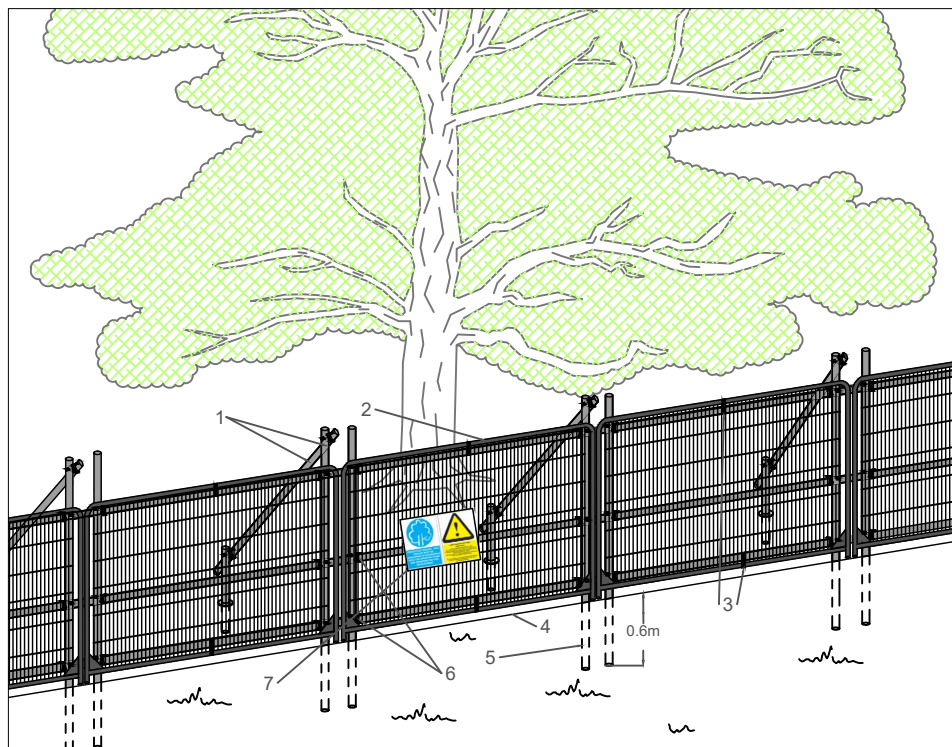
Distribution of Habitat Features - Displays the total of each habitat feature present in the surveyed tree cover. The proportion of trees with these features can be used to determine the condition and risks to the veteran tree stock.

Veteran Population - Provides the mix of Veteran/Future Veteran and non-veteran specimens across the surveyed tree stock.

Species Distribution - Shows the proportion of Veteran and Future Veterans for each species found during the assessment.

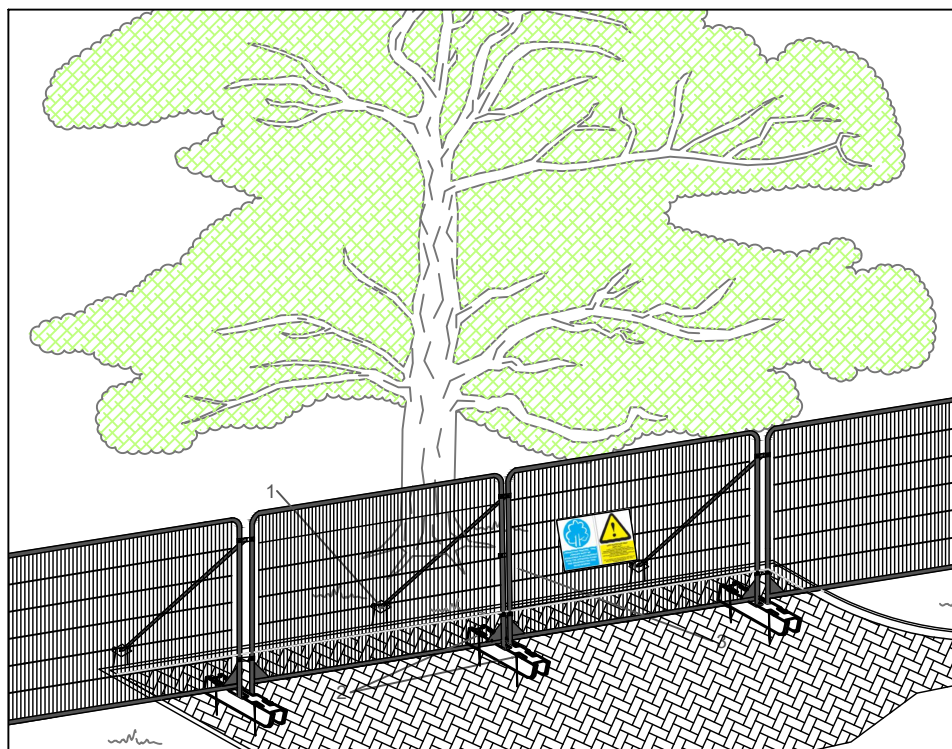


Identification		Dimensions				Habitat Features							Associated Wildlife				Aesthetics		
Tree No	Species	Large girth for species	Girth (cm)	Measurement height (m)	Form	Major stem cavities / hollowing	Decay holes	Physical damage to stem	Bark loss	Epicormic Growth	Large quantities of dead wood in canopy	Sap runs	Crevices sheltered from rainfall	Fungi	Epiphytes and hemiparasites	Evidence of independent wildlife species	An 'Old' look or Aesthetic value	Cultural / Historic value	Prominent Position
T17	English Oak Quercus robur	Yes	421	1.5m	M	✓		✓		✓		✓	✓	✓					



Standard specification for protective barrier

1. Standard scaffold poles
2. Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3. Panels secured to scaffold frame with wire ties
4. Ground level
5. Uprights driven into the ground until secure (min depth of 0.6m)
6. Standard scaffold clamps
7. Construction Exclusion Zone signs



Above ground stabilising systems

1. Stabiliser strut with base plate secured with ground pins
2. Feet blocks secured with ground pins
3. Construction Exclusion Zone signs

NOTES

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APPENDIX C PROTECTIVE FENCING SPECIFICATIONS

CAD file: S:\Arb resources\Basic Templates\Tree Protection\Appendix A - Protective Fencing A4.dwg