Newett Homes

Shepley Road, Stocksmoor

Arboricultural Assessment

April 2024

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1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Newett Homes to present the findings of an Arboricultural Assessment and survey of trees located at land north of Shepley Road, Stocksmoor (hereafter referred to as the site), OS Grid Ref SE184107.

Site Description

1.2 The site is a former agricultural field parcel located between Shepley Road and the Penistone Line railway, with the existing site access coming from Shepley Road, in the southern border of site. Shepley Road forms the southern boundary, to the north the Penistone Line railway, east a large woodland block (Stones Wood) and to the west are a mixture of private residential properties.

Scope of Assessment

1.3 A tree survey and assessment of existing trees was carried out by FPCR Environment and Design on 29th November 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).

1.4 This report has been produced to accompany a planning application for a residential development including 50 dwellings, areas of open space and a Local Area of Play .

1.5 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 or woodland 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 woodland is described as a habitat where 'trees are the dominant plant form. The individual tree canopies generally overlap and interlink, often forming a more or less continuous canopy'[1]. Woodlands however, are not just formed of trees and generally include a great variety of other plants. These will include 'mosses, ferns and lichens, as well as small flowering herbs, grasses and shrubs'[2].

3.3 An assessment of individual trees within groups and woodland 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.

[1] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm
[2] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm

BS5837 Categories

3.4 Trees, groups and woodland 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 consideration 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.

Considerations and Limitations of the Tree Survey

3.11 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.

3.12 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.

3.13 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.

3.14 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 41 individual trees, 2 groups of trees and 1 woodland were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees, groups and woodland as per the survey methodology.

4.2 Appendix A presents details of all individual trees, groups and woodlands 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.

4.3 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.

4.4 The individual positions of trees, groups and woodlands 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

4.5 Tree cover on the site is considered typical of open countryside with pastoral context, with the field boundaries supporting a good number of standard individual trees. The tree cover recorded was mostly of mature proportions and considered of low, moderate and high quality, from an arboricultural perspective.

4.6 Table 1 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				
Category A (High Quality / Value)		0	W1	1
Category B (Moderate Quality / Value	T7, T8, T11, T12, T18, T19, T20, T21, T22, T23, T24, T25, T26, T28, T29, T30, T31, T32, T33, T37, T38, T41	22	G2	1
Category C (Low Quality / Value)	T1, T2, T3, T4, T5, T6, T9, T10, T13, T14, T15, T16, T17, T27, T34, T35, T36, T39, T40	19	G1	1

4.7 The dominant tree species associated with the site were English oak *Quercus robur*, which made up sixteen of the fourty one individual trees and sycamore *Acer pseudoplatanus*, with a total of seven individual trees. The majority were of semi - mature age and varying size proportions. The remainder of trees were a mix of silver birch Betula pendula, common lime *Tilia x europea*, Leyland cypress *Cupressocyparis leylandii* and laburnum *Laburnum anagyroides*. Tree groups were also dominated by English oak, goat willow *Salix caprea* and sycamore, along with an abundance of hawthorn *Crataegus monogyna*, wild cherry *Prunus avium* and holly *Ilex aquifolium*.

4.8 The oak were mostly of good condition and were good arboricultural features of the local landscape being recorded as category B (moderate quality and value) or in cases where trees were relatively young of age and small size, retention category C (low quality and value).

4.9 The sycamore were of varied condition, with some showing signs of previous failure either from the branches / crown parts or due to flailing. For their maturity and condition, nearly all the sycamore specimens were recorded as being retention category B (moderate quality and value) or in cases where structural condition has been compromised, retention category C (low quality and value).

4.10 A total of two tree groups were recorded being of varying size and condition, these groups were limited to the external field boundaries. The most notable of the groups was G2 which displayed semi-mature age and proportions and provided visual amenity. Tree group G1 was considered of low quality from an arboricultural perspective and graded retention category C.

4.11 An ancient woodland was found beyond the eastern boundaries of site and was a mix of native species with English oak, sycamore and ash *Fraxinus excelsior* being the dominant composition along with occasional silver birch, elder *Sambucus nigra*, holly and hazel *Corylus avellana*. Arboriculturally, the woodland was considered a good example of native species and by virtue of the long-lived nature of oak and sycamore trees, would all have a life expectancy greater than 40 years. were graded retention category A (high quality and value).

Ancient and Veteran Trees

4.12 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.

4.13 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

4.14 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).

4.15 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*[3] 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."

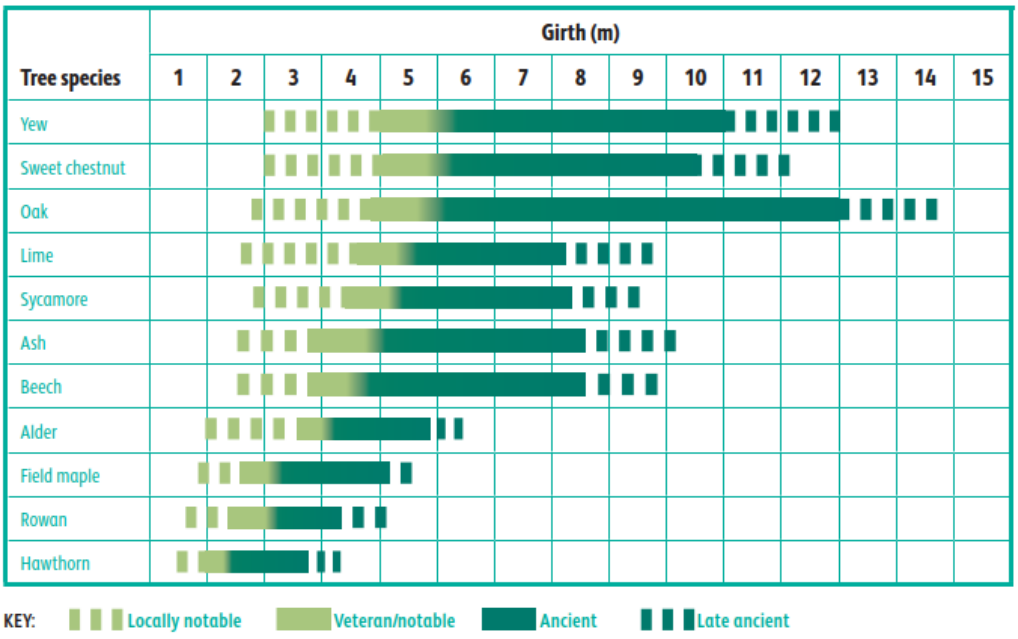


Figure 1: The chart of girth in relation to age and development classification of trees, as shown in Lonsdale (2013)[4].

4.16 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.'[5]

4.17 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.

4.18 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,*

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

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

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

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).

4.19 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.

4.20 Primary characteristics include.

- Major stem cavities and hollowing
- Signs of crown reorganisation

4.21 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.

4.22 It is considered that the greater the number and extent of these features present within a given tree, the greater its ecological habitat value.

Ancient Woodland

4.23 To compile existing baseline information on relevant arboricultural considerations, information was requested from both statutory and non-statutory nature conservation organisations. The Multi Agency Geographic Information for the Countryside (MAGIC) website highlighted tree cover within the site as Ancient Woodland.

4.24 Ancient woodland in England is defined as an area that has been continuously wooded since at least 1600 AD. 'Continuously wooded' does not require there to have been a continuous cover of trees and shrubs across the entire area. Habitats such as glades, deer lawns, rides, ponds and streams, as well as gaps created by natural occurrences, and forestry may all occur within woodland.

4.25 Ancient woodland includes both ancient semi-natural woodland and plantations on ancient woodland sites:

- Ancient semi-natural woodland (ASNW) is where the stands are composed predominantly of trees and shrubs native to the site that do not obviously originate from planting. However, woodlands with small planting of trees native to the site would still be included in this category. The stands may have been managed by coppicing or pollarding or the tree and shrub layer may have grown up by natural regeneration.
- Plantations on ancient woodland sites (PAWS) these are areas of ancient woodland where the former native tree cover has been felled and replaced by planted trees, predominantly of species not native to the site. These sites often retain some of the ancient woodland features such as soils, ground flora, fungi and woodland archaeology.

4.26 Ancient woodland is a resource of great importance for its wildlife, soils, recreation, cultural value, history and the contribution to diverse landscapes and their importance is specifically recognised within the National Planning Policy Framework (NPPF) 2021.

Statutory Considerations

4.27 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.

4.28 Under a TPO it is a criminal offence to cut down, top, lop, uproot or wilfully destroy a tree protected by that Order, or to cause or permit such actions, if carried out without the prior written consent of the acting LPA.

4.29 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 the Local Planning Authority, Kirklees Council that there are Tree Preservation Orders that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

4.30 Information provided on Tree Preservation Orders and Conservation Areas is accurate to the date of this assessment and cannot be assumed to remain unchanged. The last check was carried out on the 08th April 2024.

4.31 Table 2 below details which trees are included in the Kirklees Council Tree Preservation Order designation, TPO 29/89/T2.

Table 2: Tree Preservation Order / Conservation Area details

Tree No. taken from FPCR	TPO/Conservation Area reference no.
T41	TPO 29/89/T2

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 Drawing Z159.002H- Draft Layout - Stocksmoor 27.03.24 and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for a residential development including 50 dwellings, areas of open space and a Local Area of Play

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 Table 3 below summarises the impact on tree stock and these impacts have been discussed in more detail following the table.

Table 3: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part	Total
Category U - Unsuitable				
Category A (High Quality / Value)	W1	1		
Category B (Moderate Quality / Value	T7, T8, T11, T12, T18, T19, T20, T21, T22, T23, T24, T25, T26, T28, T29, T30, T31, T32, T33, T37, T38, T41, G2	23		
Category C (Low Quality / Value)	T4, T5, T6, T9, T10, T13, T14, T15, T16, T17, T27, T34, T35, T36, T39, T40,	16	T1, T2, T3, G1	4

5.5 To provide vehicular access to the site off Shepley Road, will require the removal of a T1, T2 and T3. The removal of these three low-quality tree would be unavoidable to provide any safe access from this boundary. The removal of these three trees should not constrain the development of the site and could be mitigated for through new tree planting.

5.6 To achieve a feasible internal layout within the northwestern part of site, will require the trimming back of T6 and the removal of G1. Currently T6 and G1 have an asymmetrical crowns extending into site and in the future could conflict with the dwelling proposed on plot 4. It is proposed that proper formative pruning would equalise the crown of T6 and prevent the need for greater pruning in the future.

Discussion

5.7 In conclusion for arboriculture, the proposals are considered to meet the aims and objectives of local and national policy through careful consideration of the design and retention of a high proportion of the existing tree cover. The retention of, coupled with targeted future management and enhancement of the existing and future tree cover will meet many of the individual aspirations set out in the various policies.

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 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.

6.2 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.

6.3 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.

6.4 The landscaping scheme should consider the use of both native tree species (for their low maintenance requirements and nature conservation value) and ornamental species (for their contribution to urban design and amenity value). Species choices should be selected on the basis of their suitability for the final site use. Furthermore, during the design process consultation should be made with the Local Planning Authority to obtain information on their tree strategy and incorporate the planting proposals with any local policies and initiatives and/or Biodiversity Action Plans (BAP).

6.5 When deciding upon suitable tree species, careful consideration would need to be given to the following: ultimate height and canopy spread, form, habit, density of crown, potential shading effect, colour, water demand, soil type and maintenance requirements in relation to both the built form of the new development and existing properties.

6.6 Through careful species selection, the landscape scheme shall reduce the risk of trees being removed in the future on the grounds of nuisance. Nuisance can be perceived in a number of ways and vary from person to person however most commonly, within the context of trees, low overhanging branches, excessive shading, seasonal leaf fall and the misinformed perception that trees close to buildings cause damage.

6.7 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. Species should be native, and characteristic of the locality.

Rooting Environment and Soil Volumes

6.8 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. Healthy mature trees integrate well into the built environment; increase the maturity of the landscape; help provide a natural green and leafy urban environment in which people would want to reside whilst also benefiting local wildlife.

6.9 The planting of trees within confined urban environments should consider the use of appropriately designed planting pits specifically engineered to promote tree health and longevity. Crucially the aim will be to provide an adequate volume of quality soil for roots to suitably develop by calculating the amount of available soil volumes needed and selecting species whose mature size is compatible with the site. This is an integral component of the planning stage (Lindsey & Bassuk, 1991).

General Planting Recommendations

6.10 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.

6.11 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 detailed 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 B.

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 (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.

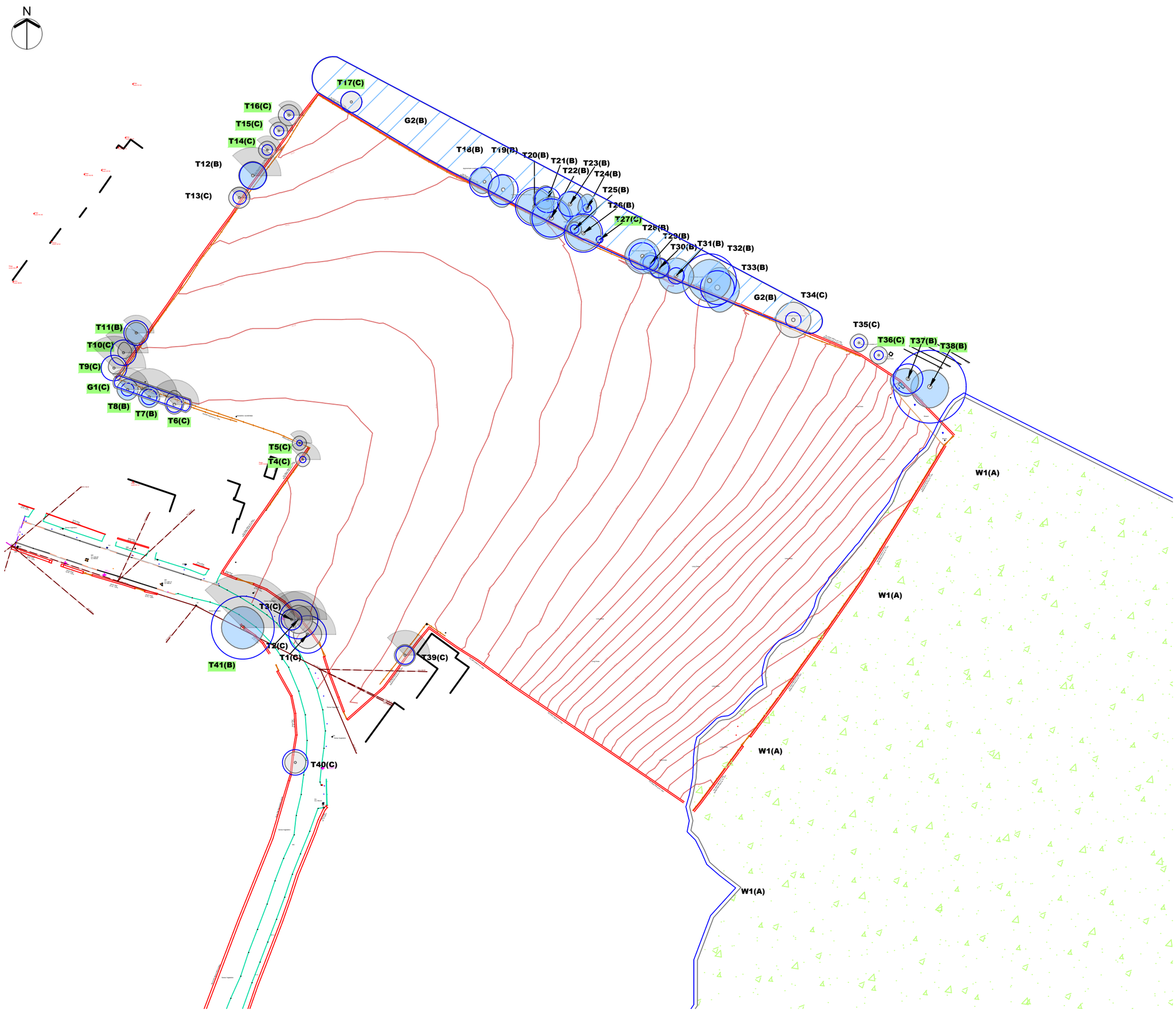
8.4 The Occupiers Liability Act (1957 and 1984) also places a 'duty of care' to ensure that no reasonably foreseeable harm takes place due to tree defects. That duty of care should be reasonable, proportionate, and reasonably practicable when managing the risk[6].

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.

8.6 All tree works undertaken should comply with British Standard 3998:2010 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.

8.7 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - August inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

[6] The Health and Safety at Work Act 1974



KEY

- Woodland (Colour Indicates BS5837:2012 Category)
- 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)
- Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
- T1/G1 — Tree / Group Positioned by Topographical Survey
  T1/G1 — Tree / Group Positioned by Aerial Imagery
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1000 @ A3

0 25 50m

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.

rev	date	description	by
-	05.12.2023	First Issue	JW

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client
Newett Homes

project
Shepley Road
Stocksmoor

drawing title
TREE SURVEY PLAN

scale	drawn/checked	date
1:1000 @ A3	JW	Dec 2023

drawing number
11329-T-01

rev
-

CAD file: L:\11300\11329\ARB\AA\Plans\Tree Survey Plan.dwg

KEY

- Woodland (Colour Indicates BS5837:2012 Category)
- Tree/Group to be Retained
- Tree/Group proposed to be removed subject to relevant permissions
- Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
- T1/G1 / T1/G1 — Tree / Group Positioned by Topographical Survey / Tree / Group Positioned by Aerial Imagery
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:1000 @ A3

0 25 50m

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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rev	date	description	by
-	08.04.2024	First Issue	JW
A	23.04.2024	Revision	JW

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project
Shepley Road
Stocksmoor

drawing title
TREE RETENTION PLAN

scale	drawn/checked	date
1:1000 @ A3	JW	April 2024

drawing number
11329-T-02

rev
A

CAD file: L:\11300\11329\ARB\AA\Plans\Tree Retention Plan.dwg

Appendix A - Tree Schedule

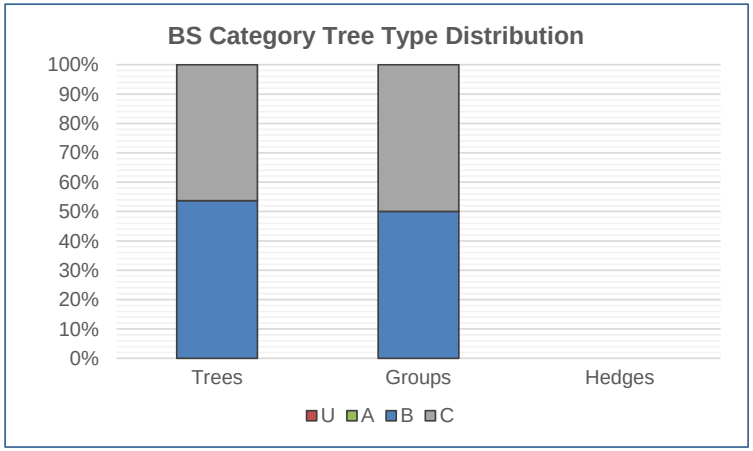
Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	**YNG**: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	**Category U -** Trees in 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	

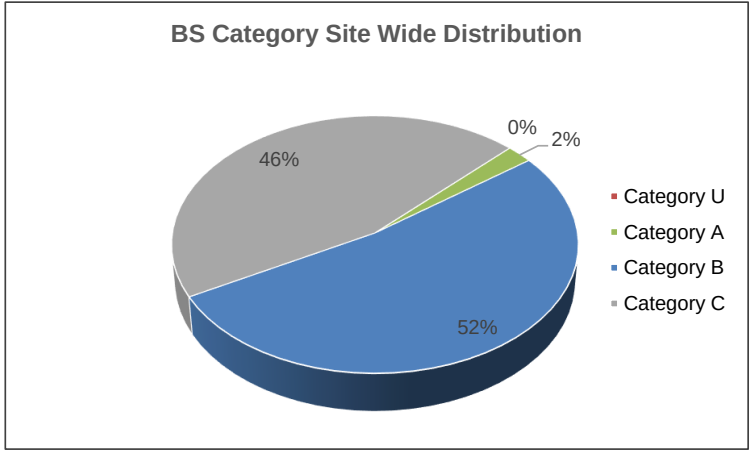
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U		0		0
Category A		0	W1	1
Category B	T7, T8, T11, T12, T18, T19, T20, T21, T22, T23, T24, T25, T26, T28, T29, T30, T31, T32, T33, T37, T38, T41	22	G2	1
Category C	T1, T2, T3, T4, T5, T6, T9, T10, T13, T14, T15, T16, T17, T27, T34, T35, T36, T39, T40	19	G1	1
	Total	41	**Total**	3

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	Sycamore Acer pseudoplatanus	8	upto 280 340	4	SM	F	Characteristic for species Even crown form Included bark union Interlocking crowns Low crown form Multi leadered form	88	5.3	C (i)
T2	Sycamore Acer pseudoplatanus	8	upto 280 300 210	4	SM	F	Characteristic for species Even crown form Included bark union Interlocking crowns Low crown form Multi leadered form	96	5.5	C (i)
T3	Sycamore Acer pseudoplatanus	8	upto 245	3	SM	F	Characteristic for species Even crown form Interlocking crowns Low crown form Multi leadered form	27	2.9	C (i)
T4	Purple Plum Prunus cerasifera Pissardii	5	est 10x 25	2	SM	F	Characteristic for species Dense undergrowth at the base Included bark union Multi stemmed from base	3	0.9	C (i)
T5	Holly Ilex aquifolium	3.5	est 50 50	2	SM	F	Characteristic for species Dense undergrowth at the base Included bark union Multi stemmed from base	2	0.8	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T6	Common Lime Tilia x europaea	7	upto 120 100 100	N - 4 S - 2 E - 2 W - 2	SM	F	Characteristic for species Crossing and rubbing branches Dense undergrowth at the base Interlocking crowns Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	16	2.2	C (i)
T7	Silver Birch Betula pendula	8	est 180	3	EM	F	Base obscured Characteristic for species Dense undergrowth at the base Interlocking crowns Situated offsite Unable to gain access	15	2.2	B (ii)
T8	Silver Birch Betula pendula	6	est 150	3	EM	F	Base obscured Characteristic for species Dense undergrowth at the base Interlocking crowns Situated offsite Unable to gain access	10	1.8	B (ii)
T9	Leyland Cypress Cupressocyparis leylandii	9	est 300	N - 3 S - 1 E - 3 W - 1	EM	F	Bark wounds noted Base obscured Crown had been topped Dense undergrowth at the base Multi leadered form Pruning wounds noted	41	3.6	C (i),C (ii)
T10	Grand Fir Abies grandis	7	est 300	N - 3 S - 1 E - 2 W - 1	EM	F	Bark wounds noted Base obscured Crown had been topped Dense undergrowth at the base Multi leadered form Pruning wounds noted	41	3.6	C (i),C (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T11	Norway Maple Acer platanoides	5	est 250 100 90 80	3	SM	F	Base obscured Included bark union Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite	39	3.5	B (ii)
T12	Norway Spruce Picea abies	8	est 320	4	SM	F	Characteristic for species Even crown form Included bark union Situated offsite Unable to gain access	46	3.8	B (i)
T13	Leyland Cypress Cupressocyparis leylandii	3	est 7x 60	3	SM	F	Base obscured Crown had been topped Low crown form Multi leadered form Situated offsite	11	1.9	C (i)
T14	Laburnum Laburnum anagyroides	4	est 80 80 50	2.5	SM	F	Characteristic for species Even crown form Low crown form Multi leadered form Situated offsite	7	1.5	C (i)
T15	Laburnum Laburnum anagyroides	4	est 120	2.5	SM	F	Characteristic for species Even crown form Low crown form Multi leadered form Situated offsite	7	1.4	C (i)
T16	Common Lime Tilia x europaea	4	est 120	3	SM	F	Characteristic for species Even crown form Low crown form Multi leadered form Situated offsite	7	1.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T17	Holly Ilex aquifolium	7	est 250	3	SM	F	Base obscured Characteristic for species Dense undergrowth at the base Even crown form Interlocking crowns Low crown form Multi leadered form Situated offsite Typical crown form	28	3.0	C (i),C (ii)
T18	English Oak Quercus robur	7	est 300	N - 4 S - 3 E - 1 W - 4	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	41	3.6	B (ii)
T19	English Oak Quercus robur	8	est 350	N - 4 S - 5 E - 1 W - 4	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	55	4.2	B (ii)
T20	English Oak Quercus robur	8	est 450	5	SM	F	Characteristic for species Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Storm damage present Suppressed crown form Typical crown form Unable to gain access	92	5.4	B (i),B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T21	English Oak Quercus robur	8	est 300	N - 4 S - 2 E - 1 W - 4	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	41	3.6	B (ii)
T22	English Oak Quercus robur	8	est 450	6	SM	F	Characteristic for species Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Storm damage present Suppressed crown form Typical crown form Unable to gain access	92	5.4	B (i),B (ii)
T23	English Oak Quercus robur	8	est 180 180 150	N - 3 S - 5 E - 5 W - 2	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	39	3.5	B (ii)
T24	English Oak Quercus robur	7	est 100	N - 4 S - 2 E - 2 W - 2	SM	F	Characteristic for species Etiolated form Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	5	1.2	B (ii)
T25	English Oak Quercus robur	7	est 100	2	SM	F	Characteristic for species Etiolated form Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	5	1.2	B (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T26	English Oak Quercus robur	8	est 280 350	5	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	91	5.4	B (i)
T27	English Oak Quercus robur	3	est 75	1	SM	F	Bark wounds noted Characteristic for species Etiolated form Interlocking crowns Low crown form Situated offsite	3	0.9	C (i)
T28	English Oak Quercus robur	7	est 200 250	5	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	46	3.8	B (i)
T29	Silver Birch Betula pendula	7	est 100 90 80 70 70	3	SM	F	Characteristic for species Interlocking crowns Multi leadered form Multi stemmed from base Situated offsite	16	2.2	B (ii)
T30	English Oak Quercus robur	7	est 150 120 120	3	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	23	2.7	B (ii)

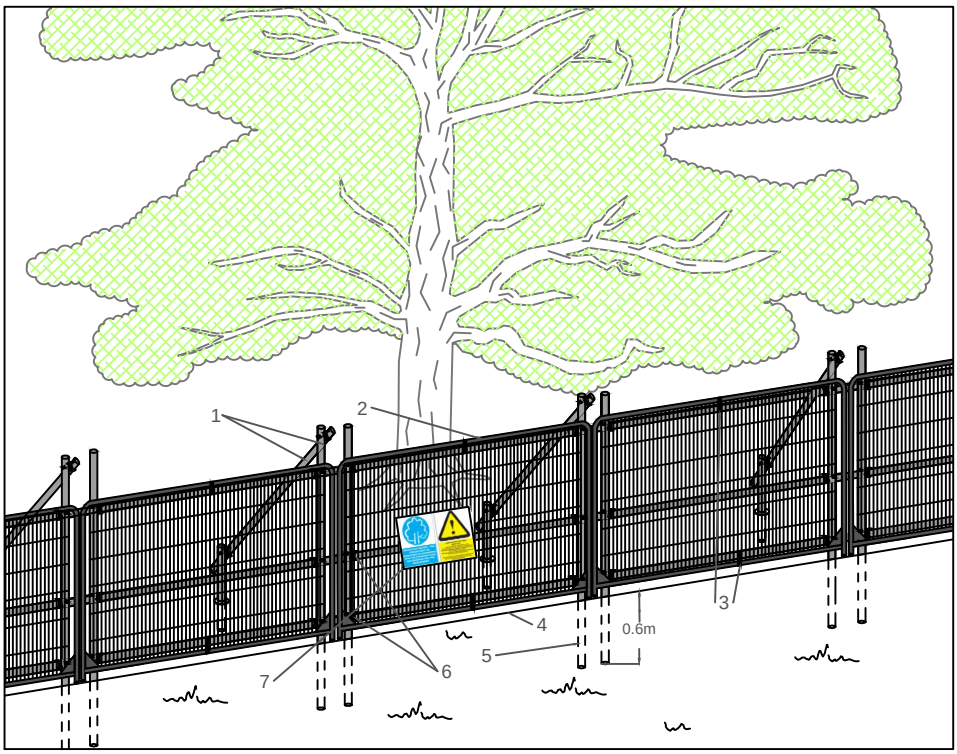
Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T31	English Oak Quercus robur	6	est 150 120	5	SM	F	Characteristic for species Interlocking crowns Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	17	2.3	B (ii)
T32	English Oak Quercus robur	9	est 420 470	6	SM	F	Characteristic for species Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	180	7.6	B (i),B (ii)
T33	English Oak Quercus robur	8	est 400	N - 5 S - 7 E - 6 W - 2	SM	F	Characteristic for species Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Suppressed crown form	72	4.8	B (i),B (ii)
T34	Goat Willow Salix caprea	5	est 7x 70	5	SM	F	Characteristic for species Included bark union Interlocking crowns Multi leadered form Situated offsite	16	2.2	C (i),C (ii)
T35	Hawthorn Crataegus monogyna	6	est 8x 40	2.5	SM	F	Characteristic for species Included bark union Low crown form Multi leadered form Multi stemmed from base Situated offsite	6	1.4	C (i),C (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T36	Hawthorn Crataegus monogyna	6	est 100 50	2.5	SM	F	Characteristic for species Included bark union Low crown form Multi leadered form Multi stemmed from base Situated offsite	6	1.3	C (i),C (ii)
T37	English Oak Quercus robur	7	est 350	N - 2 S - 5 E - 2 W - 5	SM	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form Multi leadered form Situated offsite Suppressed crown form	55	4.2	B (ii)
T38	Sycamore Acer pseudoplatanus	15	est 500 450 400 350	N - 4 S - 6 E - 5 W - 5	SM	F	Characteristic for species Dense undergrowth at the base Interlocking crowns Low crown form Multi leadered form Multi stemmed from base Situated offsite Suppressed crown form	333	10.3	B (i),B (ii)
T39	Sycamore Acer pseudoplatanus	7	est 220	3	SM	G	Base obscured Characteristic for species Dense undergrowth at the base Light ivy cover Low crown form Multi leadered form	22	2.6	C (i)
T40	Sycamore Acer pseudoplatanus	8	est 170 150 150 120	3	SM	G	Broken branches evident Characteristic for species Low crown form Multi leadered form Situated offsite	40	3.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T41	Sycamore Acer pseudoplatanus	15	est 500 400 370	6	SM	F	Characteristic for species Included bark union Minor dead wood evident in the crown (<75mm) Multi leadered form	247	8.9	B (i),B (ii)

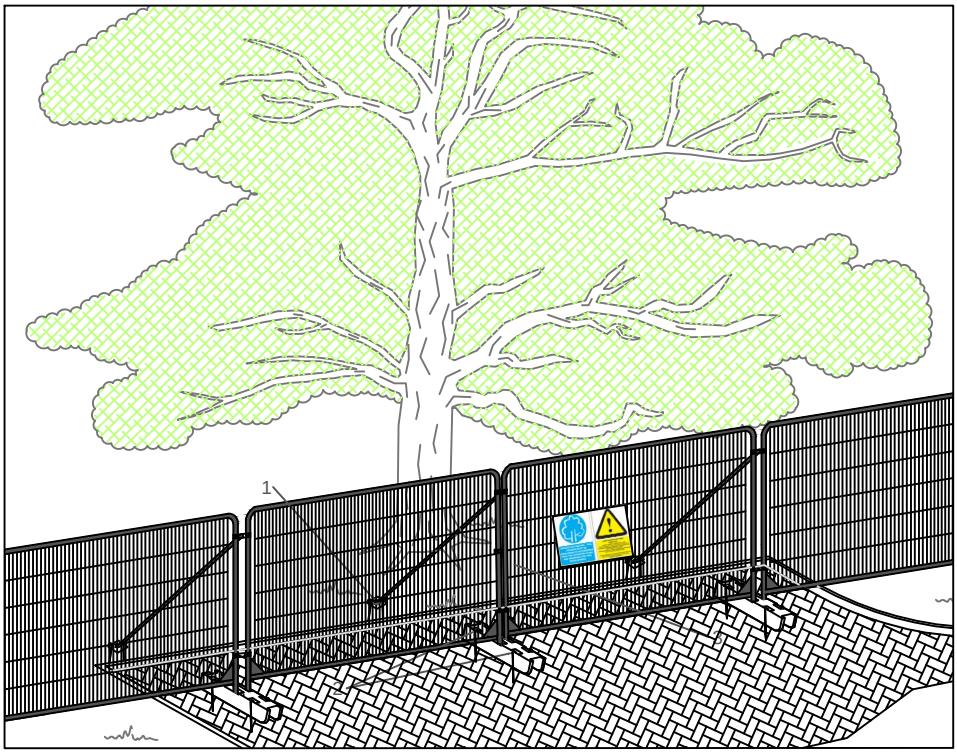
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Holly Ilex aquifolium Cotoneaster Cotoneaster spp. Laurel Prunus laurocerasus	5	est 6x 40	2	Yng / SM	F	Outgrown hedgerow	4	1.2	C (i),C (ii)
G2	English Oak Quercus robur Goat Willow Salix caprea Hawthorn Crataegus monogyna Silver Birch Betula pendula Sycamore Acer pseudoplatanus Wild Cherry Prunus avium Holly Ilex aquifolium	15	avg 250	3	Yng / SM / EM	F	Base obscured Characteristic for species Dense undergrowth at the base Etiolated form Interlocking crowns Low crown form Minor dead wood evident in the crown (<75mm) Multi leadered form Situated offsite Located on railway embankment	28	3.0	B (ii)

Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Ash Fraxinus excelsior English Oak Quercus robur Silver Birch Betula pendula Sycamore Acer pseudoplatanus Holly Ilex aquifolium	18	est 500	5	Yng / SM / EM / M	F	Characteristic for species Dense undergrowth at the base Etiolated form Interlocking crowns Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Situated offsite Unable to gain access	113	6.0	A (i),A (ii)



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

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NOTES

drawing title

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

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