CD1.10

Gladman Developments Ltd

Land off Scamps Hill, Lindfield

Arboricultural Assessment

February 2024

FPCR Environment and Design Ltd
Registered Office: Lockington Hall, Lockington, Derby DE74 2RH
Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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1.0 INTRODUCTION

1.1 This report has been prepared by FPCR Environment and Design Limited on behalf of Gladman Developments Ltd to present the findings of an Arboricultural Assessment and survey of trees located at Land off Scamps Hill, Lindfield (hereafter referred to as the site), OS Grid Ref TQ352248.

1.2 The survey was carried out on 3rd December 2020 and a follow up survey on 16th October 2023.

Scope of Assessment

1.3 The tree survey and assessment of existing trees has been carried out in accordance with guidance contained within British Standard 5837:2012 *'Trees in Relation to Design, Demolition and Construction - Recommendations'* (hereafter referred to as BS5837). The guidelines set out a structured assessment methodology to assist in determining which trees would be deemed either as being suitable or unsuitable for retention.

1.4 The guidance also provides recommendations for considering the relationship between existing trees and how those trees may integrate into designs for development; demolition operations and future construction processes so that a harmonious and sustainable relationship between any retained trees and built structures can be achieved.

1.5 The purpose of the report is therefore to firstly, present the results of an 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.

1.6 This report has been produced to accompany a planning application for a residential development of up to 90 dwellings and has included an assessment of any impact to the tree cover. The survey has therefore focused on any trees present within or bordering the site that may potentially be affected by the future proposals or will pose a constraint to any proposed development.

Site description

1.7 The site is located to the south east of the village of Lindfield and north of Walstead. The overall surveyed area consists of agricultural field parcels, a residential house and associated garden. To the south, west and north west of the site are established residential developments and a small industrial estate. To the north and east were further agricultural field parcels and woodland.

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*'.

Statutory Considerations

2.5 Local authorities have a Duty under the Town and Country Planning Act to create Tree Preservation Orders (TPO) in order to protect and preserve specific trees and woodlands that bring significant amenity benefit to a particular site or location. 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. Anyone found guilty of such an offence is liable and in serious cases, may result in prosecution and incur an unlimited fine.

2.6 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, Mid Sussex District Council that there are no Tree Preservation Orders and Conservation Areas 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.

2.7 It should be noted that the online search facility for Mid Sussex District Council showed a Tree Preservation Order (CU/04/TPO/71) located offsite which protected a line of *'12 oak´* in the

location the FPCR survey identified a wider tree group G9. However, no oaks were identified in this area and so an assumption has been made that this TPO is no longer valid.

2.8 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 12.10.2023.

Non-Statutory Considerations

2.9 In order 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)[1] website highlighted tree cover within the site, namely woodland W1, as or included within the following:

- The Priority Habitat Inventory, Deciduous Woodland

2.10 The Priority Habitat Inventory is a spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.[2]

2.11 Priority habitat designation does not provide any statutory protection.

3.0 SURVEY METHODOLOGY

BS5837 Categories

3.1 Trees 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).

3.2 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. 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.

3.3 **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.

[1] http://magic.defra.gov.uk/
[2] Contains public sector information licensed under the Open Government Licence v3.0.

- 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.

3.4 **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.

3.5 **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.

3.6 **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.

Site Plans

3.7 The individual positions of trees and groups 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.

3.8 As part of this assessment, a Tree Retention Plan has been prepared to show the proposed layout in relation to the existing tree cover allowing an assessment of any potential conflicts. The plan also identifies which trees would be required to be removed or retained as part of the proposed development.

3.9 A Detailed Access Arrangement Plan has been provided to demonstrate the location of the primary access position in relation to the surrounding tree cover allowing the identification of any potential conflicts through implementation of the site access.

Tree Constraints and Root Protection Areas

3.10 Below ground constraints to future development are represented by tree roots and the soil environment in which they grow which needs to be protected if the tree is to be retained. Tree rooting systems are essential for the uptake of water and nutrients, serving the storage of carbohydrates for the future growth and function of the tree, and form structural anchorage and support for the stem and crown. The perceived rooting area of the tree; referred to as the root protection area (RPA) needs to be protected if the tree is to be retained.

3.11 The RPA is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. The RPA has been calculated in accordance with Annex C, D and Section 4.6 of BS5837:2012 and requires suitable protection in order for the tree to be successfully incorporated into any future scheme. As such, the RPA of existing trees is an important material consideration when considering site constraints and planning development activities.

3.12 Where applicable the shape of the Root Protection Area has been modified to consider the presence of any nearby obstacles (existing or past) which may have restricted root growth and the likely root distribution i.e. the presence of hard standing, structures and underground apparatus. Where groups of trees have been assessed, the Root Protection Area has been shown based on the maximum sized tree in any one group and so may exceed the Root Protection Area required for some of the individual specimens within the group. Further detailed inspection of the individual trees forming a group may be required where development impacts upon the group.

3.13 Whilst it is generally accepted that a tree's roots may extend far greater distances than the notional RPA, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients), with roots predominantly located in the upper 1,000 mm of the soil horizon; the RPA offers an accepted protective buffer from development.

3.14 Above ground constraints such as the current crown spread of the trees and an illustration of the shade pattern (where appropriate) have been considered and identified within the Tree Survey Plan and Tree Retention Plan indicates their potential area of shading influence.

Considerations and Limitations of the Tree Survey

3.15 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.

3.16 The statements made in this report regarding the assessed trees does not take into account the effects of extreme / adverse weather conditions, changes in land use prior to the site's development, unforeseen accidents or anti-social behaviours, such as vandalism, which occur since the date of the survey. As such, the assessment of tree condition given within applies to the date of survey and cannot be assumed to remain unchanged.

3.17 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.

3.18 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.

3.19 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 current building regulations. The exact position of individual trees or species included as part of a tree group 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 in accordance with NHBC Chapter 4.2 Building near Trees.

3.20 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.

3.21 Trees have been assessed as groups, hedgerows 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, 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.

- 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'[3]. 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'[4].

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

Ancient Woodland

3.23 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.

3.24 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.

3.25 Ancient woodland is a resource of great importance for its wildlife, soils, recreation, cultural value, history and the contribution to diverse landscapes.

4.0 RESULTS

4.1 A total of twenty-nine individual trees, sixteen groups of trees, one woodland and seven hedgerows were surveyed as part of the Arboricultural Assessment. Trees were surveyed as individual trees and groups of trees where examples are clearly present as per the description. Refer to the Tree Survey Plan and Appendix A – Tree Schedule for full details of the trees included in this assessment. The table below summarises the trees assessed.

[3] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm
[4] http://www.countrysideinfo.co.uk/woodland_manage/whatis.htm

Tree Schedule

4.2 Appendix A presents details of any individual trees, groups, hedgerows and woodlands found 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.

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 Several of the trees have been discussed in more detail following the table, owing to their physical condition or arboricultural significance.

Results Summary

4.5 The site consisted of a range of tree cover from category A to category C, with a single category U identified. Overall, the arboricultural features on site were of a good standard with largely category A English oak *Quercus robur* dominating the canopied areas.

Photograph 1: showing the typical makeup of the trees across the site. Photograph taken from H2 looking towards T1.

Table 1: Summary of Trees by Retention Category

	Individual Trees	Total	Groups of Trees	Total
Category U - Unsuitable	T9	1		0
Category A (High Quality / Value)	T1, T4, T5, T7, T13, T14, T16, T17, T20, T21, T23, T24, T28	13	G10, G13, W1	3
Category B (Moderate Quality / Value	T2, T3, T6, T10, T12, T19, T25, T27	8	G1, G2, G3, G4, G6, G7, G11, G12, G14, G16, H1	11
Category C (Low Quality / Value)	T8, T15, T18, T22, T29, T30, T31	7	G5, G8, G9, G15, H2, H3, H4, H5, H6, H7	10

Woodland – W1

4.6 This woodland stood offsite, to the north east of the application area. Ash *Fraxinus excelsior*, English oak and silver birch *Betula pendula* were the most abundant species noted with the English oak being the large proportion of the canopy layer having attained heights of up to 21m.

The woodland structure was typical of an agricultural setting with field parcels located up to the woodland edge and little taper or scalloping between the two. Many of the edge trees had been laterally flailed in order to keep new growth vertical or above machinery.

4.7 Internally the woodland appeared to contain a diverse age structure with a range of species visible. Younger ash were identified from the field edge which were etiolated in form and suffering from ash dieback *Hymenosyphus fraxineus*.

4.8 W1 is classed as Ancient and Semi-Natural Woodland – '*Ancient woodland is land that has had a continuous woodland cover since at least 1600 AD. It includes Ancient Semi-Natural Woodland (ASNW), which retains a native tree and shrub cover, Plantation on Ancient Woodland Sites (PAWS) where the original tree cover has been felled and replaced by planting, often with conifers, or Ancient Wood Pasture (AWP) where the trees are managed in tandem with a long established tradition of grazing, characteristically with at least some veteran trees or shrubs*.'

Magic Map Application (defra.gov.uk)

Individual trees

4.9 Within the red line boundary there were several category A English oak trees, T1, T4, T5, T7, T14, T15, T16 and T17. These specimens were all similar in condition and age with heights of up to 21m and stem diameters measuring up to 1450mm. These trees were important landscape features with high quality arboricultural value and their retention should be prioritised throughout the design process of any forthcoming planning application and opportunities to plant successors should be identified to provide ongoing cover. Veteran classification was considered for individual T5 in particular but not enough qualifying features were observed at the time of the survey. Given sufficient green space and protection from any potential development this tree is a future veteran candidate as it matures.

Photograph 2: showing stem and primary scaffold of T5, a veteran candidate. Photograph taken looking at the eastern aspect.

4.10 Further English oak individuals were identified within the redline boundary; T2, T3, T6 and T19. These trees were similar in size to their category A counterparts but were subject to impaired condition, such as a high number of pruning wounds or exposed heartwood with suspected mammalian activity causing a cavity, which had marginally influenced their categorisation to B specimens.

Tree Groups

4.11 Extending north west from the afore mentioned woodland W1 stood tree group G10. This linear group consisted of mature English oak trees which overhung the field parcel by up to 7m. The trees were close enough to have coalescing crowns and had been crown lifted of the site to approximately 7m above ground level. G10 was awarded category A status in accordance with BS5837:2012.

Photograph 3: showing the overhang of tree group G10. Photograph taken looking west.

4.12 Tree group G1 bordered the western corner of the site and flanked Scamps Hill. The group consisted of ash, English oak, silver birch and hazel which stood at up to 16m in height and had stem measurements of up to 300mm diameter at breast height. The trees within the group were single stem, etiolated form with the more robust specimens, largely English oak, being located towards the south of the tree group. G1 was afforded category B status.

4.13 Along the north western boundary stood tree group G9. This group was a sporadic riparian group growing along a stream embankment. The trees were unremarkable individually but had value as habitat. G9 was categorised as C.

4.14 G3 and G4 were both planted tree groups, G3 consisting of horse chestnut *Aesculus hippocastanum* and G4 common lime *Tilia x europaea*. The trees had crown spreads of up to 5m and heights of up to 13m and some pruning wounds and sheep damage was observed. These tree groups were awarded category B status.

Hedgerows

4.15 The hedgerows forming the field and garden boundaries throughout the site were seemingly regularly maintained and comprised of a number of species including ash, holly *Ilex aquifolium*, blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna*. All of the hedgerows recorded were of low arboricultural quality/value, category C, due to their condition other than H1 which was noted to be of moderate quality/value, category B.

Category U

4.16 A single category U specimen was recorded. At the initial survey T9 was a large English oak stem which overhung Scamps Hill however at during the 2023 survey it was noted that T9 had been reduced to a standing monolith at approximately four metres in height. This stem should be considered an important habitat feature as it is an established monolith and its retention is recommended.

Ancient and Veteran Trees

4.17 None of the assessed trees were considered as ancient or veteran trees in accordance with accepted methodologies and guidance.

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 Illustrative Framework Plan (drwg no. 9432-L-02 revT) and seeks to outline the relationship between the proposals and the existing trees and hedgerows. The drawing shows the proposals for a residential development of up to 90 dwellings. 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.

Table 2: Summary of Impact on Tree Stock

	Trees to be Retained	Total	Trees to be Removed in full or part (P)	Total
Category U - Unsuitable	T9	1		0
Category A (High Quality / Value)	T1, T4, T5, T7, T13, T14, T16, T17, T20, T21, T23, T24, T28, G10, G13, W1	16		0
Category B (Moderate Quality / Value	T2, T3, T6, T10, T12, T19, T25, T27, G2, G3, G4, G6, G7, G11, G12, G14, G16, H1	17	G1(P), H1(P)	2
Category C (Low Quality / Value)	T8, T15, T22, T29, T30, T31, G5, G8, G9, G15, H4, H5, H6, H7	15	T18, H2(P), H3(P)	3

5.3 The outline proposals have been constraint led and as such have sought to incorporate the majority of the existing tree stock within the layout.

5.4 The ancient woodland to the north east of the site is to remain untouched. An area of open greenspace has been proposed within the field parcel to the south of the woodland and an opportunity to plant edge species and recreate the tapered edge has been shown. This buffer planting will allow important habitat niches and a more natural scalloping to the woodland edge to develop from the hard, stark edge to the woodland which currently exists due to agricultural pressures.

5.5 All of the category A trees shall be retained and in doing so their important landscape presence with high quality arboricultural value shall continue. Several of these trees, namely T1, T4, T5 and T17, along with some category B individuals, T2 and T3, will be within close proximity to the development parcels. Greenspace has been shown within their RPA's but the protection of these individuals and their growing mediums will need to be prioritised at the detailed design stage and during construction. Management options for these specimens within a proposed future

residential development will be an important aspect and soil amelioration and continued condition monitoring will need to be considered.

5.6 To facilitate the main access into the site from Scamps Hill to the south a section of hedgerow H2 will require removing to provide adequate width and visibility. On site planting, as shown within the proposals, will seek to mitigate for the loss of this tree stock and provide future cover along this edge.

5.7 Internally the proposals show how the main access road and internal footpaths can be successfully located to avoid existing trees and RPA's. The existing gateway break in H1 will require widening to accommodate the road.

5.8 Individual T18 is the only individual which required removal. This tree was a category C hawthorn which stood at three metres in height and had a crown radius of one and a half metres. The removal of T18 will be mitigated for through onsite planting.

5.9 The removals listed above will have a small impact on the arboricultural value of the site and will be more than offset through mitigation planting throughout the site. The majority of the tree cover will be retained and will provide important screening both on and off the proposed development whilst also retaining the current quality and feel of the site from an arboricultural perspective. Sufficient space has been proposed to accommodate supplementary planting to this tree cover and a large area of greenspace provides the opportunity to plant parkland trees. This will allow the opportunity to improve the tree stock, which was identified largely as category A and B, through a more species diverse and long-term approach which will seek to provide important successors to the high quality specimens on site.

Tree Management

5.10 The layout of the development is currently reserved for subsequent approval. In the course of a reserved matters application pursuant to layout, a review of the relationship between the layout and the retained trees should be undertaken by a qualified arboriculturist to assess the existing tree cover and prepare a schedule of tree works.

5.11 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 in order to satisfy the landowner's duty of care. Additionally, regular inspections and following major storms should be carried out by an experienced arboriculturist or arborist to identify any potential public safety risks and to agree remedial works as required.

5.12 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.

5.13 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September 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.

General Design Principles in Relation to Retained Trees

5.14 In a subsequent Reserved Matters application following the final layout of the scheme, assessment of the distance of proposed development in relation to the calculated root protection area of retained trees should be made which will inform the final layout.

5.15 Consideration may also need to be given to the potential for tree roots of newly planted trees and hedgerows to affect or compromise the future services. As far as feasible, it would be preferable that proposed services near both the existing and any new planting should be ducted for ease of access and maintenance and grouped together to minimise any future disturbance.

6.0 NEW TREE AND HEDGEROW PLANTING

6.1 As part of the subsequent reserve matters application, should the application be approved, an adequate quantity of structured tree planting should be provided to mitigate for any tree removal necessary to implement the development. The purpose and function of this new tree planting should be understood from the start of any design stages so that key objectives from a landscape perspective can also be achieved.

6.2 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).

6.3 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.

6.4 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.

6.5 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

6.6 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.

6.7 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

6.8 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.

6.9 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 will be adequately protected during works ensuring that the calculated root protection area for all retained trees can be appropriately protected through the erection of the requisite tree protection barriers. Measures to protect trees should follow the guidance in BS5837 and will 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

7.2 All trees retained on site will 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.

7.3 Barriers will be erected prior to commencement of any construction work and before demolition including erection of any temporary structures. Once installed, the area protected by fencing or other barriers will be regarded as a construction exclusion zone. Fencing and barriers will not be removed or altered without prior consultation with the Project Arboriculturist.

7.4 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.

7.5 Where it has been agreed, 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.

7.6 Confirmation that tree protective fencing or other barriers have been set out correctly should be gained prior to the commencement of site activity.

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. For particular areas where construction activity is anticipated to be of a more intense nature, supporting struts, acting as a brace should be added and fixed into position through the application of metal pins driven into the ground to offer additional resistance against impacts.

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. The recommended methods of fencing specifications for this site have been illustrated in Appendix B.

7.10 It may be appropriate on some sites to use temporary site offices, hoardings and lower level barrier protection as components of the tree protection barriers. Details of the specific protection barriers for the site can be provided should the application be approved, as part of a site specific Arboricultural Method Statement for a Reserved Matters application and in accordance with the guidance contained within BS5837.

Protection outside the exclusion zone

7.11 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.

7.12 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. Protection fencing signs can be provided upon request.

7.13 Wide or tall loads etc should not come into contact with retained trees. Banksman should supervise transit of vehicles where they are in close proximity to retained trees.

7.14 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.

7.15 Fires on sites should be avoided if possible. Where they are unavoidable, they should not be lit in a position where heat could affect foliage or branches. The potential size of a fire and the wind

direction should be taken into account when determining its location, and it should be attended at all times until safe enough to leave.

7.16 Notice boards, telephone cables or other services should not be attached to any part of a retained tree.

7.17 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).

Protection of Trees Close to the Site

7.18 A number of trees were located on the boundaries of the site and therefore the root protection area and crown spread of these trees will need to be protected in the same way as all the retained trees within the site. All trees located outside the boundaries of the assessment site yet within close proximity to works should be adequately protected during the course of the development by barriers or ground protection around the calculated root protection area.

7.19 Any trees which are to be retained and whose Root Protection Areas may be affected by the development should be monitored, during and after construction, to identify any alterations in quality with time and to assess and undertake any remedial works required as a result.

Protection for Aerial Parts of Retained Trees

7.20 Where it is deemed necessary to operate wide or tall plant within close proximity to trees it is best advised that appropriate, but limited tree surgery, be carried out beforehand to remove any obstructive branches as any such equipment would have potential to cause damage to parts of the crown material, i.e. low branches and limbs, of retained trees within the protective barriers. This is termed as 'access facilitation pruning' within BS5837. Any such pruning should be undertaken in accordance with a specification prepared by an arboriculturist.

7.21 A pre-commencement site meeting with contractors who are responsible for operating machinery is advised to firstly highlight the potential for damage occurring to tree crowns and to ensure that extra care is applied when manoeuvring machinery during such operations within close proximity to retained trees to avoid any contact.

7.22 In the event of having caused any branch or limb damage to retained trees it is strongly recommended that suitable tree surgery be carried out, in accordance with British Standard 3998:2010 and in agreement with the Local Planning Authority prior to correcting the damage, upon completion of development.

CD1.10

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)
- T1 (A) G1 (A) — Individual / Group Number and BS5837:2012 Category
- Indicative Shade Pattern (in accordance with BS5837:2012 where appropriate)

Scale 1:2000 @ A3

0 50 100m

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
-	18.12.20	First Issue	RWM
A	17.10.23	Update following resurvey	RWM

masterplanning
environmental assessment
landscape design
urban design
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architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

client
Gladman Developments Ltd

project
Walstead Grange
Lindfield

drawing title
TREE SURVEY PLAN

scale	drawn/checked	date
1:2000 @ A3	RWM	December 2020

drawing number
9432-T-01

rev
A

CAD file: K:\9400\9432\ARB\Plans\9432 Tree Survey Plan.dwg

N

Noahs Ark Lane

Clock Tower House

Lindfield Enterprise Park

Gravelye Lane

Scamps Hill

35m

Mast

G8(C)
T15(C)
T14(A)
G10(A)
G9(C)
T13(A)
T1(A)
T18(C)
T19(B)
LEAP
W1(A)
T17(A)
H1(B)
T16(A)
H1(B)
G1(B)
T2(B)
G2(B)
T5(A)
New trees to parkland locations
T30(C)
T29(C)
G15(C)
T3(B)
T4(A)
T6(B)
T31(C)
G11(B)
T23(A)
H5
H2(C)
H3(C)
T28(A)
T20(A)
T21(A)
G14(B)
T25(B)
T22(C)
H2(C)
G3(B)
T27(B)
G16(C)
G12(B)
G4(B)
T7(A)
H6(C)
T8(C)
For details see: 9432-T-03
Residential Development off Gravelye Lane
G13(A)
G4(B)
G3(B)
T24(A)
retained
dwelling
G7(B)
G5(C)
G6(B)
T9(U)
G3(B)
H2(C)
H4(C)
T12(B)
T10(B)

KEY

- Tree/Group to be Retained
- Tree/Group to be removed to facilitate the proposals
- Category U - Unsuitable for retention on arboricultural grounds
- Hedgerow Proposed to be Retained and Incorporated into the New Development
- Hedgerow Proposed to be Removed to Facilitate the Development upon Approval of the Application
- Root Protection Area (Shown for retained trees only)
- T1 (A) G1 (A) — Individual / Group Number and BS Category
- T1 (A) G1 (A) — Individual / Group Number to be Removed and BS 5837:2012 Category
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Scale 1:2000 @ A3

0 50 100m

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rev	date	description	by
-	02.11.23	First Issue	RWM
A	24.01.24	Update	RWM
B	09.02.24	Update	RWM

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landscape design
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FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

client
Gladman Developments Ltd

project
Land off Scamps Hill
Lindfield

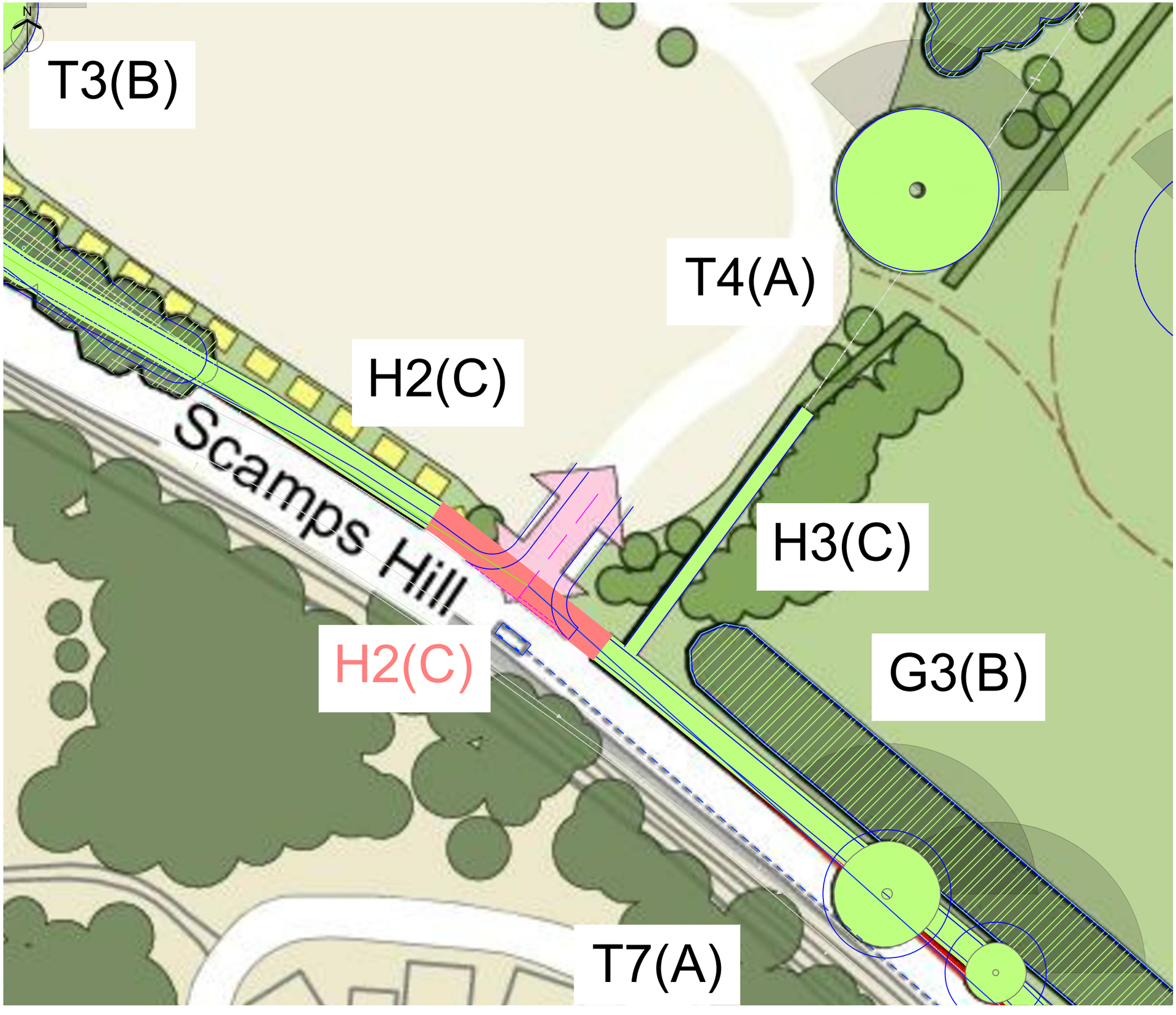
drawing title
TREE RETENTION PLAN

scale	drawn/checked	date
1:2000 @ A3	RWM	November 2023

drawing number
9432-T-02

rev
B

CAD file: K:\9400\9432\ARB\Plans\9432 Tree Retention Plan.dwg



CD1.10

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- 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 1:2000 @ A3

0 50 100m

NOTES

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w: www.fpcr.co.uk

client
Gladman Developments Ltd

project
Land off Scamps Hill
Lindfield

drawing title
TREE RETENTION PLAN ACCESS

scale	drawn/checked	date
1:2000 @ A3	RWM / JRM	November 2023

drawing number
9432-T-03

rev
B

CAD file: K:\9400\9432\ARB\Plans\9432 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	

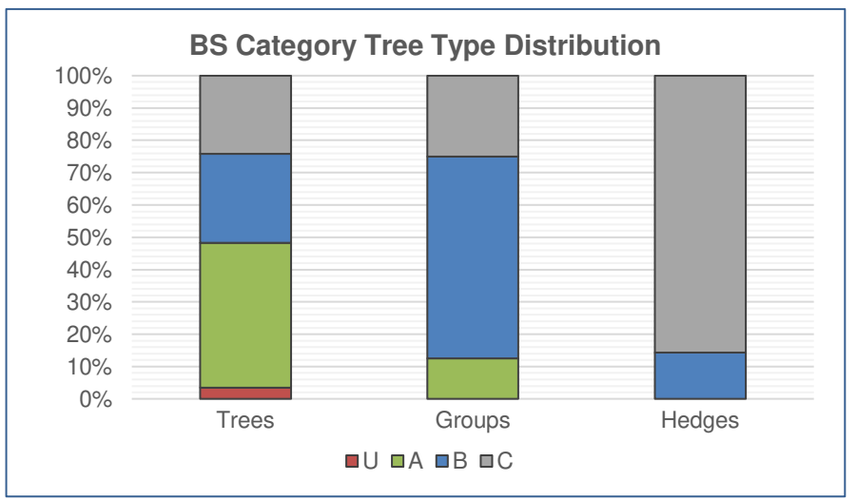
Structural Condition	Physiological Condition
Good - No significant structural defects	**Good -** No significant health problems
Fair - Structural defects that can be remediated	**Fair -** Symptoms of ill-health that can be remediated
Poor - Significant defects beyond remediation, present a risk of failure 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

Root Protection Area (RPA)
• 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.

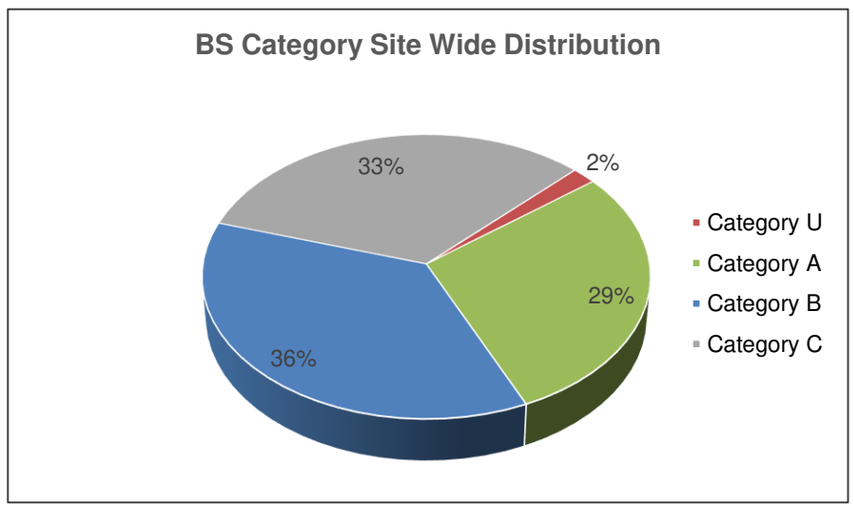
Appendix Summary

	Individual Trees	Totals	Tree Groups and Hedgerows	Totals
Category U	T9	1		0
Category A	T1, T4, T5, T7, T13, T14, T16, T17, T20, T21, T23, T24, T28	13	G10, G13, W1	3
Category B	T2, T3, T6, T10, T12, T19, T25, T27	8	G1, G2, G3, G4, G6, G7, G11, G12, G14, G16, H1	11
Category C	T8, T15, T18, T22, T29, T30, T31	7	G5, G8, G9, G15, H2, H3, H4, H5, H6, H7	10
	Total	29	**Total**	24

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	20	est 1100	12	M	G	Dense ivy cover on main stem Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted Single stem to c. 4m bifuricates into multiple leader form Crown lifted over fields Outstanding individual	547	13.2	A (i)
T2	English Oak Quercus robur	18	est 1020	8	M	F	Dense ivy cover on main stem Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Single stemmed form to c.5m at which point it bifuricates into horizontal branches with single leader to c.8m where a multi leadered form develops Crown lifted over fields Exposed heartwood at ground level on northern face with associated hollowing which radiates u into stem as far as caliper will reach. Apparent mammalian activity in hollow Fistulina hepatica noted on main stem at c.3m agl of southern face	471	12.2	B (ii)
T3	English Oak Quercus robur	16	est 800	8	M	F	Dense ivy cover on main stem Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted Single stem to c.4m from which point it bifuricates into multiple leader form Crown lifted over fields Recommend severing ivy which is extensive throughout the crown Epicormics on stem	290	9.6	B (ii)
T4	English Oak Quercus robur	20	est 900	11	M	G	Relatively untouched inner field oak One large pruning wound on southern side at c.2m agl Branches have been afforded the room to swoop to ground level with sheep browsing apparently the only thing stopping them Delaminated limb to north west recommend - pruning back in light of public access	366	10.8	A (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T5	English Oak Quercus robur	21	est 1400	12	M	F	Consideration was given as to whether this is a veteran however it was not yet deemed to have enough qualifying features although it is certainly a prime candidate for a future veteran Very important feature on the landscape Very large branch tear out wound on southern face at c.3m agl apparently caused by decay associated with large pruning wound weakening branch at base Exposed central stem on eastern face at ground level. But bark has been laid down to occlude Historic heavy pruning throught crown with associated large wounds some of which have occluded	707	Capped at 15m	A (i)
T6	English Oak Quercus robur	19	est 1080	6	M	F	Single large stem which has historically been pruned back to the stem in a high Pollard fashion. Large wounds throughout stem which are occluding Category B due to large numbers of large wounds but with the correct management this could go on to be another central veteran	528	13.0	B (i)
T7	English Oak Quercus robur	20	est 710	7	M	G	Roadside individual in hedge Crown lifted to c.4m agl Light ivy on main stem Single stemmed form Minor and major deadwood No major defects Unable to view western face Fistulina hepatica at c. 3m agl on northern face	228	8.5	A (ii)
T8	Ash Fraxinus excelsior	20	est 160 110 280 310 320	4	M	P	Coppiced ash which has been allowed to regrow from stump to form multi stemmed specimen Multi stemmed from base Extensive ivy cover on main stem Flail damage evident of stem	142	6.7	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T9	English Oak Quercus robur	4	est 2000	1	OM	D	Large specimen, monolithed to c.4m agl	N/A	N/A	U
T10	English Oak Quercus robur	16	est 700	7	M	F	Base obscured Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Overhead cables Pruning wounds noted Roadside individual with overhead cables running through crown Unable to view base due to dense undergrowth and roadside location Stem estimated from a distance Fungi on dead stub in crown Laetiporus sulphureus Chicken of the wood/Sulphur Polypore	222	8.4	B (i)
T11	English Oak Quercus robur						Remove specimen - previously Category U			
T12	Horse Chestnut Aesculus hippocastanum	20	est 1000	N - 6 S - 9 E - 5 W - 9	M	F	Established ivy cover Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Overhead cables Large specimen on corner of site Twin stemmed from c. 2m agl Unable to clearly view base due to ivy and fence	452	12.0	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T13	English Oak Quercus robur	17	est 850	N - 3 S - 9 E - 91 W - 3	M	F	Base obscured Established ivy cover Unable to gain access Large mature specimen. One sided growth due to proximity to neighbouring tree. Fair condition. Canopy is well budded	327	10.2	A (ii)
T14	English Oak Quercus robur	18	est 900	11	M	F	Base obscured Unable to gain access - measurements estimated Large mature specimen. One sided growth due to proximity to neighbouring tree. Fair condition. Canopy is well budded. Highlighted as an individual from G10 due to size	366	10.8	A (ii)
T15	English Oak Quercus robur	16	est 800	5	OM	D / P	Base obscured Unable to gain access Tree in extensive decline. Canopy is sparse and >80% dead. 2 Large dead limbs c.300mm at attachment extend SW over site. No obvious reason for decline is visible from site. Base is heavily obscured. Retain but manage aerial deadwood in light of future public access.	290	9.6	C (iii)
T16	English Oak Quercus robur	16	est 700	7	M	F	Large mature specimen in prominent location at roadside. Canopy is even but relatively open. Lack of density possibly due to lack of root area on road side. Numerous pruning wounds on stem to c.5m to raise height. Aerial deadwood noted but nothing significant or dangerous above road.	222	8.4	A (i)
T17	English Oak Quercus robur	19	est 1450	12	M	G	Mature specimenwith large spreading crown typical of tree that has matured in open space. Pruning has occurred throughout crown possibly to lift and alow tractor access. Large c.400mm pruning wound on west aspect of stem. Wound is close to a secondary fork and retained branch of the same proportions sat attachment. No sign of decay .at wound. Similar wounds on southern and eastern trending branchs. Burring and epicormics throughout structural branches. Prominent specimen good overall form despite pruning. Category A	707	Capped at 15m	A (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T18	Hawthorn Crataegus monogyna	3	est 75 75 75	1.5	M	F	Unremarkable small tree growing centrally in field.	8	1.6	C (iii)
T19	English Oak Quercus robur	15	est 930	N - 3 S - 8 E - 7 W - 6	M	F	Crown had been topped Tree trends southward away from line of trees to its north. Large lower stem bifuricates at c.2m. Lower crown has been lifted with some large pruning wounds remaining. Branch tear out wound also present on southern trending leader. Category B for habitat value. Not a due to historic management and relatpoor form.	391	11.2	B (iii)
T20	English Oak Quercus robur	22	est 1000	N - 10 S - 10 E - 3 W - 10	M	F	Large tear out wound on NE trending limb. Tree located on stream bank. Large impressive specimen. Category A despite tear out wound.	452	12.0	A (ii)
T21	English Oak Quercus robur	20	est 800	N - 6 S - 6 E - 6 W - 3	M	F	Smaller tree than its neighbour. But no significant defects and large prominent specimen.	290	9.6	A (ii)
T22	English Oak Quercus robur	6	est 260	3	SM	G	No major defects were noted	31	3.1	C (i)
T23	English Oak Quercus robur	18	est 1000	8	M	F	Large southern trending branch has recently failed at hazard beam. Branch is suspended at attachment and should be removed to ground level. No work recommendation for remaining stub. Historic pruning wounds noted adjacent to failure possibly caused weakness contributing to failure. Tree is large prominent specimen in boundary. Category A for this reason primarily but also habitat value.	452	12.0	A (ii)
T24	English Oak Quercus robur	18	est 1240	N - 7 S - 7 E - 8 W - 6	M	F	Large impressive specimen growing centrally within field compartment. Ganoderma australe (adspersum) Southern bracket Ganoderma resinaceum Lacquered bracket	696	14.9	A (ii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T25	Alder Alnus glutinosa	10	est 600	4	M	F	Planted in raised lawn in driveway/turning circle. SE canopy has been pruned to accommodate utilities. Vertical wound and some internal decay noted on east face of stem. Wound from ground level to c.2m agl.	163	7.2	B (ii)
T26	Sycamore Acer pseudoplatanus						removed - previously category U			
T27	Prunus sp.	10	260 140 130 160 120	7	M	F	Mature ornamental specimen. Main union point appears sound.	65	4.6	B (i)
T28	False Acacia Robinia pseudoacacia	19	est 1020	11	M	G	Good form. No obvious defects. Historic pruning wounds but not to the detriment of the tree. Prominent and visible from field compartments.	471	12.2	A (i)
T29	Goat Willow Salix caprea	10	est 440 290	7	M	F	Located at edge of garden. Unremarkable	126	6.3	C (ii)
T30	Silver Birch Betula pendula	12	est 430 320	6	M	P	Pruning wound and rot hole on western stem face below primary fork.	130	6.4	C (ii)
T31	Leyland Cypress Cupressocyparis leylandii	6	est 10x 90	3	M	F	Ornamental garden tree	37	3.4	C (iii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Ash Fraxinus excelsior English Oak Quercus robur Silver Birch Betula pendula Hazel Corylus avellana	16	upto 300	N - 6 S - 6 E - 6 W - 8	M	G	Minor dead wood evident in the crown (<75mm) Pruning wounds noted Single stem forms Etiolated roadside group which have been crowb lifted over site by have been able to spread west over road due to c.2m level drop from field to road. Over hangs site by up to 5m Ash dieback noted - c.50% defoliated on 4 small stems	41	3.6	B (iii)
G2	Common Lime Tilia x europaea English Oak Quercus robur Red Oak Quercus rubra	12	est 440	6	M	F / G	Minor dead wood evident in the crown (<75mm) Multi leadered form Apparently planted group which have lacked targeted management Exposed girdling rots on lime trees Category b valuecas a group	88	5.3	B (iii)
G3	Horse Chestnut Aesculus hippocastanum	13	upto 400	5	EM	G	Line of planted individuals parallel with road Predominantly good form and free from defects Valued collectively as a group	72	4.8	B (iii)
G4	Common Lime Tilia x europaea	10	upto 380	5	M	F	Planted as an Avenue Been subject to sheep damage and wrapped in chicken wire Minor prujnjng thrujjghout Individually unremarkable but valued as a group	65	4.6	B (iii)
G5	Ash Fraxinus excelsior Alder Alnus glutinosa	8	est 250	3	EM	P / F	Planted group following stream Alder has taken on good form but other specimens have not Value as a group	28	3.0	C (iii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G6	Common Lime Tilia x europaea	18	est 680	4	M	F	Lime trees along boundary Pollardd form with reactive regrowth evident Unable to view bases due to thick hdergriowt	209	8.2	B (iii)
G7	Common Lime Tilia x europaea English Oak Quercus robur Silver Birch Betula pendula Holly Ilex aquifolium Laural Prunus Laurocerasus Irish Yew Taxus baccata 'Fastigiata' Lawson Cypress Chamaecyparis lawsoniana	18	avg 480	6	M	F	Etiolated boundary group Managed as a hedge to 4m Unmanaged above that point	104	5.8	B (ii)
G8	Ash Fraxinus excelsior	16	est 370 370	6	M	P / F	3 trees each unremarkable but with amenity value as a collective. Typical open crown forms all coalescing. Southern most tree bifuricates from c.1m. Pronounced ridge below fork. Fork is tight and obscured by thick ivy stems.	124	6.3	C (ii)
G9	Ash Fraxinus excelsior Crack Willow Salix fragilis Elder Sambucus nigra Goat Willow Salix caprea Alder Alnus glutinosa Hazel Corylus avellana	12	est 340 300 310	4	EM / M	P	Sporadic riparian group growing on stream embankment. Unremarkable individually but value as habitat. Some larger trees had been felled and regrowth was shooting. Coppice forms were also present.	136	6.6	C (iii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G10	English Oak Quercus robur	19	est 550 440	7	M	F	Canopy extends over site by c.7m to south. Crowns coalesce. Prominent boundary group. Providing good screening value to offsite. Trees largely unremarkable individually. A basal decay was noted on one individual. A number of specimens show evidence of historic laying. Probably an outgrown hedgerow. Crowns have been lifted on site side to c.7m on average. Category A for prominence and landscape contribution.	224	8.5	A (ii)
G11	English Oak Quercus robur	18	est 800	7	M	F	6 trees. Failed hazard beam noted on third tree from East. Canopies extend south by c.7m over site. Individually unremarkable rather leggy trees but with value as a prominent boundary feature. Category B for this reason.	290	9.6	B (ii)
G12	English Oak Quercus robur Silver Birch Betula pendula	20	est 1000	7	M	D / P / F	Mixed group situated along site boundary. Group contains several large oaks which overhang site by up to 5m. Aerial deadwood noted throughout. 3 large dead trees were present in the SW of the line. Retention of these is recommended but monitoring and management of aerial deadwood must be done.	452	12.0	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G13	Ash Fraxinus excelsior Beech Fagus sylvatica Common Lime Tilia x europaea English Oak Quercus robur Silver Birch Betula pendula Sycamore Acer pseudoplatanus Apple Malus domestica Crab Apple Malus sylvestris Hazel Corylus avellana Holly Ilex aquifolium Laural Prunus Laurocerasus Sweet Gum Liquidambar styraciflua Weeping Willow Salix x sepulcralis 'Chrycosoma' White Willow Salix alba Atlas Cedar Cedrus atlantica Lawson Cypress	20	est 350 680	11	EM / M	F	Mature belt of ornamental and native trees. Includes large specimens. Provides visual screen to existing house from road.	265	9.2	A (ii)

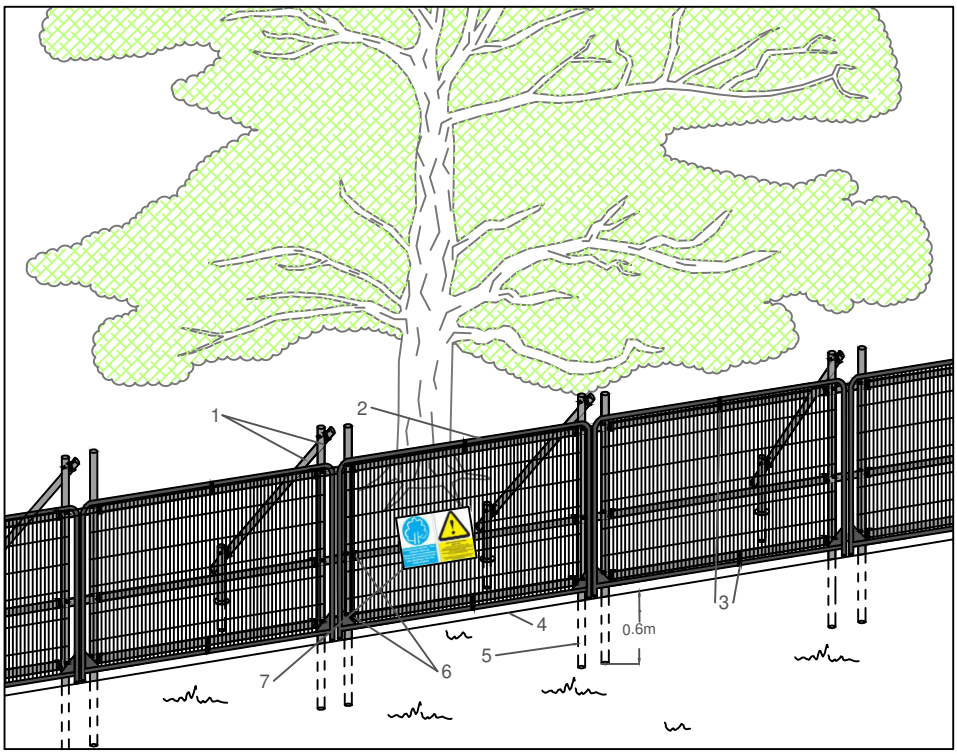
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G14	Common Lime Tilia x europaea English Oak Quercus robur Wild Cherry Prunus avium Hornbeam Carpinus betulus London Plane Platanus x hispanica Prunus sp. Sweet Gum Liquidambar styraciflua Lawson Cypress Chamaecyparis lawsoniana Tulip Tree Liriodendron tulipifera	17	est 510	6	EM	G	Internal garden group growing in lawn. Ornamental value primarily	118	6.1	B (ii)
G15	Ash Fraxinus excelsior English Oak Quercus robur Sycamore Acer pseudoplatanus Apple Malus domestica	3	est 160 80	1.5	SM	F	Group of young orchard and self seeded native trees. Unremarkable	14	2.1	C (ii)
G16	Apple Malus domestica Prunus spp.	4	est 200	4	M	F	Garden specimens	18	2.4	B (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Ash Fraxinus excelsior Blackthorn Prunus spinosa Hazel Corylus avellana	2	est 6x 50	1.5	M	F	Densely spaced coppiced forms which have more recently been maintained to height of 1.5m but this year appear unmanaged Bramble dominant under t1	7	1.5	B (iii)
H2	Ash Fraxinus excelsior Hawthorn Crataegus monogyna Hazel Corylus avellana Holly Ilex aquifolium	2	est 6x 50	2	M	P	Bramble and bracken dominant boundary hedge Maintained with flail to height of 2m Supressed by g1 Gaps throughout	7	1.5	C (iii)
H3	Blackthorn Prunus spinosa English Oak Quercus robur Hawthorn Crataegus monogyna English Elm Ulmus procera	2	est 20 40 60 40	1	EM	P	Self set following fence line Bramble dominant Scrappy and Insignificant arboriculturally Patchy along fence	3	1.0	C (iii)
H4	Lawson Cypress Chamaecyparis lawsoniana	6	est 150	1.5	M	F	Maintained hedgerow Tightly clipped	10	1.8	C (iii)
H5	Blackthorn Prunus spinosa English Oak Quercus robur Hawthorn Crataegus monogyna Wild Cherry Prunus avium Hazel Corylus avellana Holly Ilex aquifolium Yew Taxus baccata	5	est 9x 80	1.5	M	F	Laterally flailed on site side Leggy outgrown hedgerow. Not stock proof. Category C for habitat value.	26	2.9	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
H6	English Oak Quercus robur Silver Birch Betula pendula Holly Ilex aquifolium Yew Taxus baccata	4	est 80	2	M	F	Tall, laterally flailed hedgerow at base of tree group. Following field boundary.	3	1.0	C (ii)
H7	Ash Fraxinus excelsior English Oak Quercus robur Holly Ilex aquifolium Yew Taxus baccata	1.5	est 75	0.5	M	F	Unremarkable square form ornamental hedge	3	0.9	C (ii)

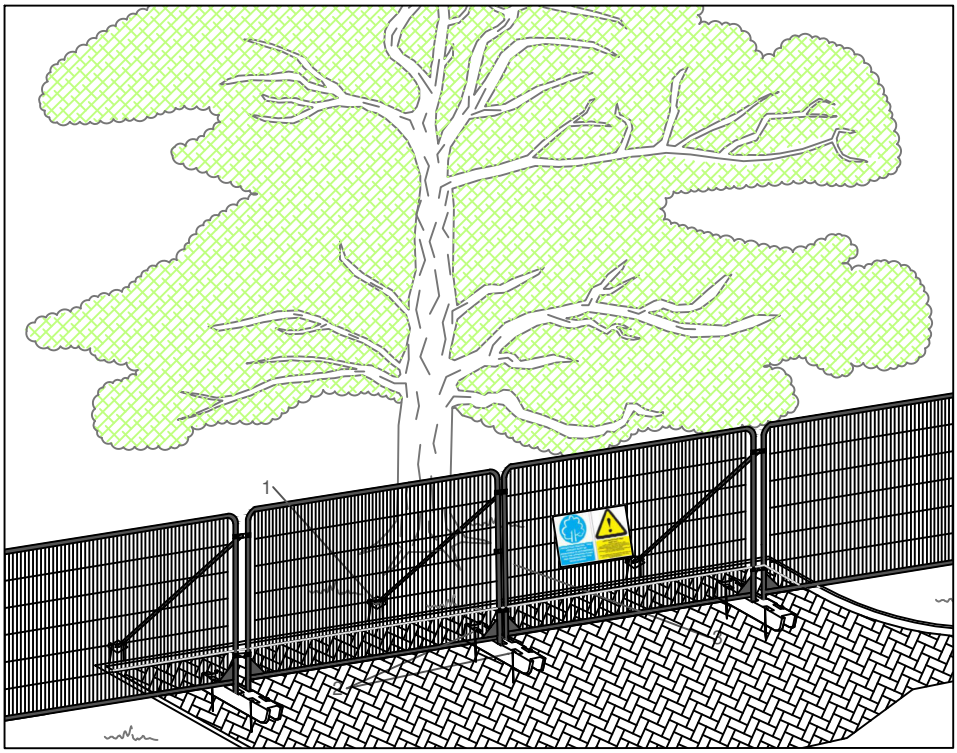
Wood No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
WOODLANDS										
W1	Ash Fraxinus excelsior Blackthorn Prunus spinosa English Oak Quercus robur Goat Willow Salix caprea Silver Birch Betula pendula Holly Ilex aquifolium Yew Taxus baccata	21	est 800	9	EM / M	F	Offsite woodland. Native and mixed species composition. Oak and birch are dominant canopy species. A number of large mature oaks were present on the site boundary/fence line overhanging site by up to 6m. Value both as habitat and a significant visual screen. Tightly clipped hedge at base Opportunity to create tapered edge ash dieback noted on etiolated younger stems with up to c.50% dieback Mature oaks Mixed age structure	290	9.6	A (ii)

CD1.10



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

masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture

FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

drawing title

APPENDIX B
PROTECTIVE FENCING SPECIFICATIONS

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