Preliminary Arboricultural Impact Assessment

Hill Lane, Markfield

29th October 2025

TG Report No. 13587_R02b_JP_BV

Tyler Grange

Report No:	Date	Revision	Author	Reviewer
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Summary

S.1. This report details the findings of a tree survey and potential impacts towards existing trees to accommodate the proposed new development at land off Hill Lane, Markfield. The survey and assessment work has been completed by a suitably qualified arboricultural consultant of Tyler Grange Group Limited on behalf of Glenalmond Developments Ltd.

S.2. Existing mature trees of high arboricultural value form a boundary component of the site's overall network of green infrastructure, interspersed with outgrown hedgerows and areas of self-seeded young trees.

S.3. There are no Tree Preservation Orders administered to trees at the site.

S.4. The baseline survey and preliminary assessment of impacts have been completed in accordance with the British Standard 5837 (2012) to accord with industry best practice.

S.5. The illustrative site layout has been designed to retain all trees of high arboricultural value within suitable boundary landscape buffers. Two moderate value trees (category B) require removal to facilitate a drainage outfall connection. Removal of internal low value self-seeded trees and hedgerows within the site is required to accommodate the development layout, however the masterplan has identified areas for new tree and woodland planting to be incorporated into the landscape scheme.

S.6. In-line with the National Forest Planting Guidelines and Local Core Policy 21, the development includes the creation and provision of sufficient forest-related green infrastructure, including accessible and non-accessible semi-natural green spaces, new woodland planting, sustainable urban drainage (SuDS), and scattered individual tree planting to far exceed the 20% threshold.

S.7. With the incorporation of a well-designed landscape scheme to compliment the illustrative site layout, in-line with the objectives of local planning policy as set out in this report, it is anticipated that the long-term amenity function of trees will be retained at the boundaries of the site once the new planting has established. The development is therefore considered supportable in the context of the NPPF and local planning policy as it relates to trees on balance.

Section 1: Introduction

Context

1.1 A planning application is to be submitted for the proposed development for the erection of 67no. dwellings and associated infrastructure and landscaping (Outline- Access only). The indicative layout of the proposed development is shown on the Site Layout included to the rear of this report (see Appendix 1).

Purpose

1.2 This report:

- Provides the findings of a field-based tree survey, setting out the baseline survey results and the associated tree constraints towards new development; and
- Addresses the potential arboricultural impacts of the proposed outline development and in the context of local and national planning policy by way of a Preliminary Arboricultural Impact Assessment.

1.3 Local planning policy and national planning policy pertinent to trees and the new development is set out at Appendix 2. Policy DM6 requires that development should retained, buffer, and favourably manage onsite features of biodiversity value.

1.4 Core Policy 21 requires that development proposals should contribute to the delivery of the National Forest Strategy, by increasing woodland cover and enhancing biodiversity (see Appendix 3). This requirement equates to 20% of the total site area needing to be forest-related green infrastructure.

1.5 The tree survey and assessment has been guided by the recommendations set out within the British Standard 5837 (2012) 'Trees in relation to design, demolition and construction – recommendations' (hereafter 'BS5837') to accord with industry best practice.

Section 2: Tree Survey Findings

Site Description

2.1 The site application area measures 2.99ha and is centred on OS Grid Reference: SK48710. The site is located between Hill Lane, Ashby Road, and Upland Drive in Markfield, Hinckley and Bosworth, Leicestershire, and is bounded by residential development to the north and east, and commercial development to the west.

Figure 2.1: Site Location with Indicative Red Line Application Boundary.

Tree Survey Summary

2.2 A tree survey was completed in accordance with BS5837 and the methodology as detailed at Appendix 4 to the rear of this report. The survey was completed by Tyler Grange in December 2020. A measured topographical survey (supplied by others) was used to inform the location of trees and their surrounding context.

2.3 The distribution of the trees surveyed is illustrated on the Tree Constraints Plan (TCP). This includes plotted details of their constraints to new development in accordance with BS5837, including:

- Tree quality gradings[1];
- Root Protection Areas (RPAs)[2];
- Tree canopy spreads[3]; and
- Tree shading[4].

[1] The value of arboricultural features surveyed in accordance with the methodology set-out Appendix 3.
[2] a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority. See further explanation at Appendix 3.
[3] Dimensions of the trees crown spread and clearance from ground level. See further explanation at Appendix 3.
[4] Shade cast by existing trees which may affect the availability of sunlight and daylight within a new development. See further explanation at Appendix 3.

2.4 Findings for each of the trees surveyed are detailed in the Tree Survey Schedule (See Appendix 6). This provides a tabulated record of the trees surveyed, including; reference numbers, species composition, tree dimensions, life stage, physiological and structural condition, and the arboricultural value of each survey entry.

2.5 The trees surveyed have been categorised using the 'cascade chart for tree quality assessment' (See Appendix 5) recommended by the BS5837. The grading system allows informed decisions to made concerning the design and impact of the development in relation to the arboricultural value of the trees surveyed.

2.6 A breakdown of category gradings across the tree groups surveyed is provided in Table 1 below.

Table 1. Category Grading of Arboriculture Features by Number.

	Category U	Category A	Category B	Category C
Trees	1 no.	4 no.	15 no.	15 no.
Groups	-	-	1 no.	17 no.
Hedgerows	-	-	-	4 no.
Woodlands	-	-	-	-

2.7 A line of mature oak trees of high arboricultural value (Category A: T14 – T17) was identified at the southern boundary of the site. These specimens are to be retained as part of the development within the landscape scheme, due to their long-term arboricultural potential and contribution to the amenity value of the site.

2.8 Trees of moderate arboricultural value (Category B) are denoted by a Blue tree canopy outline, as illustrated on the TCP. They signify those that provide a moderate (generally unremarkable) arboricultural feature. Category B trees are considered as desirable to retain as part of the development, where possible, as they include mature trees with good future potential.

2.9 Trees of low arboricultural value trees are denoted by a Grey tree canopy outline as illustrated on the TCP. This primarily consists of self-seeded trees and outgrown hedgerows established within the site. The remaining tree cover is considered to provide limited or transient benefits which may be readily replaced in the existing context. Such trees subsequently presented a minimal constraint to proposed development from an arboricultural perspective.

2.10 One tree has been identified in such a condition that it cannot realistically be retained as a living tree in the existing context (Category U).

Tree-related Designations

2.11 Following a background check of available online mapping for Hinckley and Bosworth Borough Council, no Tree Preservation Orders[5], Conservation Areas[6], or Ancient Woodland[7] were identified at the site.

2.12 The nearest Tree Preservation Order listed lies approximately 30m south of the site boundary, at a residential property off Upland Drive (TPO No. 90/00007/TPORD).

5 A Tree Preservation Order is an order made by a local planning authority in England to protect specific trees, groups of trees or woodlands in the interests of amenity. An Order prohibits the any works and damage to trees (with some exceptions) without the local planning authority's written consent. More information can be found online https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas#tree-preservation-orders--general.

6 Trees in a conservation area that are not protected by an Order are protected by the provisions in section 211 of the Town and Country Planning Act 1990. These provisions require people to notify the local planning authority, using a 'section 211 notice', 6 weeks before carrying out certain work on such trees, unless an exception applies. More information can be found online https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas#tree-preservation-orders--general.

7 Ancient woods are areas of woodland that have persisted since 1600 in England and Wales, and 1750 in Scotland. The Magic Maps website https://magic.defra.gov.uk/MagicMap.aspx has been used to search for ancient woodland on or adjacent to a site.

Section 3: Preliminary Arboricultural Impact Assessment

3.1. This assessment of expected arboricultural impacts has been based on the Site Layout (Ref: GDA05 – PL002D), included as Appendix 1, and is informed by a composite overlay of the tree survey information and proposed site layout, which is shown on the Preliminary Tree Retention and Removal Plan (TG Ref. 13587/P06a) located to the rear of this report.

3.2. The proposed development is presented in outline ahead of preparing fully detailed designs. This assessment therefore should be considered as an initial appraisal of expected arboricultural impacts given the indicative nature of the proposed scheme layout. It is reasonable to expect that changes to the general layout of the development would form part of subsequent detailed designs. Further assessment work will therefore be required to provide a definitive assessment of arboricultural impacts based on proposals presented in detail.

Tree Retention and Removal

3.3. Trees anticipated to be retained or removed for the development is shown on the Tree Retention and Removal Plan and are further detailed in Table 2 below.

Table 2. Summary of potential removal of arboricultural features

Category Grading	Tree Numbers	Description of Loss
Category U	T26	Collapsed oak tree requires removed to facilitate the proposed residential development area.
Category A	None	
Category B	T20, T21	Removal of one mature field maple (T20) and one mature English oak (T21) to facilitate and drainage outfall connection in the southeastern corner of the site.
Category C	T1, T2, T10, T11, T22, T27, T28, T30, T31, T32, T33, T34, T35, G5, G7, G11, G14, G16, G17 Partial removals of groups and hedgerows: G1, G2, G6, G10, G12, G13, G15, G18, H1	These trees are primarily comprised of self-seeded saplings and outgrown hedgerow species considered to be of low arboricultural value both individually and collectively given their age, condition, and context as naturalised tracts of vegetation within the internal portions of the site. Tree T22 requires removal to facilitate a proposed drainage outfall which connects to the offsite drainage network in the southeastern corner of the site.

3.4. No Category A trees require removal to facilitate the proposed scheme, and these will be retained at the site boundaries. Most of the Category B trees will be retained, including those at the boundaries and within the internal hedgerow network.

3.5. The Site Layout has been designed to retain the main network of tree groups/hedgerows within the site. These will be retained within the semi-natural greenspaces as shown on the Site Layout.

3.6. A proposed drainage outfall requires the removal of two Category B trees and one Category C tree. The location of the outfall has been optimised to reduce impacts to trees whilst working within the constraints of land ownership and third-party land. The loss of the two trees is considered unavoidable to make the drainage connect offsite. The remaining outfall route has been aligned to avoid impacts towards other Category B trees (trees T18 and T19) Category A trees (trees T17 and T16), including their RPAs. Two early mature Swedish Whitebeam trees (G8) will be retained to keep a degree of screening at this part of the boundary between the site and third party land.

Tree Pruning Works

3.7. The Preliminary Tree Retention and Removal Plan identifies where pruning of retained trees is likely to be required to facilitate the development. This includes the below trees:

- T9 (English oak, Category B) – the southern side canopy will require a reduction and crown lift to provide clearance from a residential plot located to the south of the tree.
- T12 (English oak, Category B) – the southern side canopy may require a slight crown lift to provide adequate clearance of the garden space of a residential plot. The current clearance from ground level is measured at 4m.
- T13 (Wild cherry, Category B) – the southern side canopy will require a modest crown lift to provide adequate clearance of the proposed footpath.
- G10 / G15 (mixed species, Category C)– the edges of these two groups will be trimmed back to provide clearance from the proposed link towards the play area.

3.8. None of the potential pruning works as described above are considered detrimental to the condition and appearance of the trees.

Development Parameters and Retained Trees

3.9. Proposed built form (such as roads, buildings, footpaths) has been located outside the RPAs of retained trees. None of the retained trees will be located within private gardens.

3.10. There are instances where plot boundaries and gardens incur within RPAs. In these cases, existing levels within the RPA must be retained which will require careful design coordination as a matter of detail.

3.11. Any plot boundary fence posts can be hand dug and realigned if required to avoid principal tree roots, and post holes would be sheathed with an impenetrable membrane to avoid contamination of concrete in relation to tree roots.

3.12. Any paving slabs which are to be laid within the RPAs can be dry-jointed on a sharp sand, or coarse aggregate no-fines, foundation to allow air and moisture to penetrate to the rooting area.

3.13. Requirements for excavation in close proximity to RPAs would also be overseen by a suitably qualified arborist to ensure that any identified tree roots are appropriately managed and protected. Site monitoring and full details of construction phase mitigation would be stipulated as part of a later Arboricultural Method Statement (AMS) report.

New Green Infrastructure and National Forest Planting

3.14. In line with National Forest Planting guidelines (Appendix 3), and local Core Policy 21, at least 20% of the site should be designated to create and enhance forest-related green infrastructure, as an integral part of the design process of the development layout.

3.15. The Landscape Strategy Plan (produced separately by Align Landscape Planning) has incorporated new green infrastructure across the proposed development, including areas of accessible green spaces, a SuDS Pond area, and new tree planting, both as replacement planting for the expected tree removals identified above, and with the aim of providing an overall net gain in high quality tree canopy cover at the site in-line with local planning policy DM6. Collectively it is demonstrated that the proposals could deliver 13,440m^2 of green space (equating to 44.5% of the total site), which would far exceed the 20% threshold (equating to 6,031m^2) to satisfy this requirement. This is shown at Appendix 7 on the National Forest Related GI plan.

3.16. Specifically, the Landscape Strategy includes a total of 162nr. new trees and 382 linear metres of mixed native hedgerow alongside other areas of native and ornamental shrub mixes.

Construction Mitigation

3.17. A detailed methodology for tree protection will be required as part of future detailed design. It is recommended that an Arboricultural Method Statement (AMS) is prepared as part of a reserved matters application or to discharge applicable and suitably worded planning conditions should consent be granted.

3.18. An AMS will set out a practical methodology for the protection of retained trees based on detailed designs, including groundworks, services and new landscaping. The AMS will typically include the following key items:

- A schedule and specification of tree removal and pruning works;
- Specifications for tree protection barriers and ground protection;

- Procedures for any specialist construction techniques / any supervised excavations within RPAs (if required)
- Phasing of work;
- Site monitoring (where required); and
- A Tree Protection Plan.

Section 4: Conclusion

4.1. All high value individual trees are to be retained as part of the proposed development in its outline form. Most of the tree removal relates to low value self-seeded trees located internally. The removal of two Category B trees is required to facilitate drainage connection offsite.

4.2. New planting will be provided on the site which serves to compensate for the proposed tree losses.

4.3. At this outline stage, the Site Layout and separate Landscape Strategy Plan have been designed to incorporate new planting and forest-related green infrastructure, in accordance with the National Forest Planting Guidelines and Local Core Policy 21.

4.4. The proposed outline scheme is therefore considered to demonstrate accordance with national and local planning policy as it relates to trees, subject to the establishment and appropriate long-term maintenance of a well-designed landscaping scheme that aims to achieve the goals of local planning policy DM6 and Core Policy 21.

4.5. Further work is recommended to include an Arboricultural Method Statement to accompany a subsequent reserved matters application and / or discharge of suitably worded planning conditions should consent be granted.

Appendix 1: Site Layout

Christopher Court

ASHBY ROAD

ASHBY ROAD

TCB

Def

Bdy

The Elms

Car Park

NORTH

SCALE BAR 1:500

0 10 20 30 40 50

○ Preliminary ○ Design ○ Information ○ Comment ● Planning ○ Construction

Client:	Glenalmond Developments Ltd		
Project:	Markfield	Scale: 1:500	Sheet Size:@ A1
Title:	Site Layout Coloured	Date: Sept 2025	Rev: D
Job No:	GDA05 Drawing No: PL002	Drawn: DM	Checked: -

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Appendix 2: Planning Policy Context

National Planning Policy

National Planning Policy Framework (NPPF- Dec 2024):

Section 12, paragraph 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, 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".

Section 15, paragraph 187: This paragraph provides a series of prerequisites to inform how planning policies and decisions should contribute to and enhance the natural and local environment. This includes "recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland".

Section 15, paragraph 188: This paragraph addresses the need to take a "strategic approach to maintaining and enhancing networks of habitats and green infrastructure and adding that plans should be made for the enhancement of natural capital at the catchment or landscape scale across local authority boundaries".

Section 15, paragraph 193: This paragraph highlights a series of principles that local planning authorities should apply when determining planning applications, stating that "if significant harm biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused".

Section 15, paragraph 193(c): This paragraph also adds that "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 and a suitable compensatory strategy exists".

Local Planning Policy

The site falls within the local authority of Hinckley and Bosworth Borough Council – the local planning policy pertinent to ecology is included in the Local Development Framework Core Strategy 2006 – 2026, and the Local Plan 2006 – 2026 Site Allocations and Development Management Policies DPD.

Site Allocations and DM Policy DM6 – Enhancement of Biodiversity and Geological Interest

"Development proposals must demonstrate how they conserve and enhance features of nature conservation and geological value including proposals for their long-term management.

Major developments in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services.

Onsite features should be retained, buffered and managed favourably to maintain their ecological value, connectivity and functionality in the long-term. The removal or damage of such features shall only be acceptable where it can be demonstrated the proposal will result in no net loss of biodiversity and where the integrity of local ecological networks can be secured. If the harm cannot be prevented, adequately mitigated against or appropriate compensation measures provided, planning permission will be refused.

Spatial Objective 10: Natural Environment and Cultural Assets

"To deliver a linked network of green infrastructure, enhancing and protecting the borough's distinctive landscapes, woodlands, geology, archaeological heritage and biodiversity and encourage its understanding, appreciation, maintenance and development."

Spatial Objective 12: Climate Change and Resource Efficiency

"To minimise the impacts of climate change by promoting the prudent use of resources through sustainable patterns of development, investment in green infrastructure..."

Core Policy 21: National Forest

"To support the implementation of the National Forest to the north east of the borough, proposals that contribute to the delivery of the National Forest Strategy (increasing woodland cover; enhancing biodiversity; developing a new woodland economy for timber products and wood fuel energy; outdoor recreational and sports provision; and tourism developments, especially overnight quality accommodation linked to tourism in the Forest) will be supported provided that:

•The siting and scale of the proposed development is appropriately related to its setting within the Forest

•The development respects the character and appearance of the wider countryside and

•The development does not adversely affect the existing facilities and working landscape of either the Forest or the wider countryside

Within the National Forest new developments will be required to reflect the Forest context in their accompanying landscape proposals. Developments shall provide on-site or nearby landscaping that meets the National Forest development planting guidelines. Landscaping will generally involve woodland planting but can also include creation and management of other appropriate habitats, open space provision and the provision of new recreational facilities. The appropriate mix of landscaping features will depend upon the setting and the opportunities that the site presents.

In exceptional circumstances, where planting and landscaping cannot be accommodated on or nearby the development site due to lack of land, a commuted sum will be negotiated. This will be towards the cost of purchasing land for planting, creating a new woodland, providing public access to it and maintaining the site for at least 5 years. Commuted sums will normally be paid to the local authority, who in partnership with the National Forest Company will decide how they should be utilised."

Appendix 3: National Forest Planting Guidelines

National Forest Guide for Developers & Planners:
Summary

THE NATIONAL FOREST

Introduction

The National Forest is one of the country's boldest environmental projects, creating a new Forest, for the nation, across 200 square miles of central England.

Development and planning continue to have a key role in its creation. Since 1995, around 1,400 hectares of new green infrastructure have been secured through the planning system by way of on-site tree planting, mineral site restoration and derelict land reclamation schemes or through financial contributions. This represents around 22% of the 6,580 hectares so far planted in the Forest (as at March 2012).

The National Forest is well-established in planning policy, with the need to have regard to The National Forest specified in paragraph 33 of PPS7. Planning policies for The National Forest, including guidelines for creating attractive, wooded settings for new development, have been adopted into Structure Plans, Local Plans and Core Strategies.

This document is a summary of the Guide for Developers and Planners. The full guide is available from *www.nationalforest.org/woodlandcreation/development*.

Planting Guidelines

The National Forest Strategy (2004-14) promotes planting guidelines relating to all forms of development in The National Forest. These were updated in 2009 as follows:

Development type	Thresholds	Proportion of site to be Forest green infrastructure
Residential	between 0.5ha and 10ha	20%
Employment	between 1ha and 10ha	20%
All development	Over 10ha	30%

In exceptional circumstances, where planting cannot be accommodated to this scale within the development, the shortfall should be addressed by a contribution towards off-site planting of £20,000 per hectare secured through a Section 106 agreement.

The guide provides further details on the expected green infrastructure provision in new development in Section Two.

THE NATIONAL FOREST

Planting Options

Forest-related green infrastructure will consist of some or all of the following elements, depending on the character of the site and its surroundings:-

- New woodland planting (ideally a minimum size of 0.25ha)
- Creation of woodland belts (minimum of 15m wide)
- Planting to form parkland-style landscapes
- Ecologically designed sustainable drainage systems
- Creation of new habitats (wetlands, reedbeds, meadows, heathlands)
- Incorporation and management of existing woodland, hedgerows and other habitats
- Greenways - landscaped footpath and cycle routes
- Roadside trees
- Development landscaping with a strong tree emphasis
- Incorporation of heritage features

Green infrastructure should be an integral part of the development masterplan. An initial assessment of the site's environmental assets should be used as a basis for developing a network of green infrastructure through the site. The network should be a combination of existing features, new planting and other habitat creation that seeks to connect to both adjoining ecological networks and footpath/cycleway routes. Further details are provided in Section 3 of the Guide.

Well-designed and sustainable development.

Developers are encouraged to create sustainable, design-led schemes that reflect local character and the site's location within The National Forest. Assessments against the Code for Sustainable Homes, BREEAM and Building for Life are encouraged.

Buildings should incorporate sustainably-sourced timber prominently within their design, while wood-fuel heating systems should be considered where appropriate. These will help tie the built form to the natural environment and emphasise the development's setting within The National Forest.

Further details on sustainable development and high quality urban design are provided in Section 4 of the Guide and the National Forest Design Charter.

Other Information.

The Guide also includes case studies that provide examples of how previous schemes have incorporated green infrastructure. Housing, industrial, leisure and road schemes all feature in Section 5.

The long-term ownership and management of new green infrastructure should be considered at the initial design stage. Sections 7 and 8 provide details of organisations that offer management solutions or may take ownership of planting and open space.

For more information, contact:

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Appendix 4: Tree Survey Methodology, Constraints Mapping and Report Limitations

Field Work

A4.1. In accordance BS5837, the tree survey included all trees within / in influence of the site and the site boundaries that were over 75mm diameter at breast height (1.5m).

A4.2. Measured topographical survey data (supplied by others) was used to inform tree locations their surrounding context. Any trees not identified on the topographical survey are prefixed with (*) and their locations have been approximated using measurements during the tree survey and further informed by aerial photography where required.

A4.3. The trees surveyed were visually inspected from ground level only. No invasive investigations or climbing inspections were necessary to confirm visual or audible signs of defect or debility and no tissue or soil samples were undertaken. For further clarification please refer to the tree survey explanatory notes in below.

Tree Numbers

'T' prefixes have been used to identify individual trees and commence with 'T1'.

'G' prefixes have been used to identify groups of trees.

'H' prefixes have been used to identify hedgerows.

'W' prefixes have been used to identify woodlands.

Species

A4.4. Species are listed by their common name, both in the schedule and in the report text.

Height and Stem Diameter

A4.5. The stem diameter is measured at 1.5m above ground level and given in millimetres (mm). Tree heights are measured in metres (m) using a clinometer where access and land typography allowed. In instances where access to tree's stem and height measurements were not possible, the dimensions have been estimated by eye.

Crown Spread and Height of Crown Clearance

A4.6. Radial crown spread is measured in metres and is listed for each of the four cardinal points where access has been possible to obtain a measurement. Where access was not possible to measure the spread of the canopy, such distances have been estimated by eye or informed by aerial photography.

A4.7. The measured canopy shapes have been plotted on the Tree Constraints Plan at the four cardinal points. For groups of trees, the extent of the canopy has been measured as an

average across the group and plotted using the topographical survey mapping. In some instances, Tyler Grange will use aerial photography to inform the canopy spread of larger tree groups and woodlands where topographical data is limited for such features.

A4.8. The distance between the ground level and the first significant branch or radial tree crown, whichever is the lower, has been measured in metres.

Age Class

The age of each tree is defined as follows:

Young - within the first third of reaching full maturity;

Semi-Mature - within the second third of reaching full maturity;

Early-Mature - within the last third of reaching full maturity;

Mature - specimen at full maturity; and

Veteran – tree that, by recognised 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.

Physiological and Structural Condition

A4.9. The physiological or structural condition of each tree is defined as either; good, fair, poor or dead. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

A4.10. An assessment of a tree's physiological condition is defined as:

Good – fully functioning biological system showing expectant vitality for the species i.e. normal bud growth, leaf size, crown density and wound closure.

Fair – fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure.

Poor – a biological system with limited functionality showing clear physiological decline, disease or significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure.

Dead – tree observed to fully dead with no living parts.

A4.11. An assessment of a tree's structural condition is defined as:

Good – no significant structural defects.

Fair – structural defects which could be alleviated through remedial tree surgery or arboricultural management practices

Poor – structural defects which cannot be alleviated through tree surgery or arboricultural management practices.

Tree Quality Gradings

A4.12. The value of trees has been assessed in accordance with the BS5837 Cascade Chart for Tree Quality Assessment (See Appendix 4). Grading subcategories (1, 2 and 3) reflect arboricultural, landscape and cultural values, respectively.

Root Protection Areas

A4.13. The Tree Constraints Plan shows the approximate extent of Root Protection Areas (RPAs). The RPAs have been plotted and calculated in accordance with the methodology set out in Appendices C and D of BS5837, using the tree stem diameter dimensions obtained during the site visit.

A4.14. Plotted RPAs serve as a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

A4.15. Where pre-existing site conditions or other factors indicate that rooting may occur asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution observed on-site. Any deviation in the RPA from the original circular plot should take account of the following factors whilst still providing adequate protection for the root system:

a) the morphology and disposition of the roots, when influenced by past or existing site conditions (e.g. the presence of roads, structures and underground apparatus);

b) topography and drainage;

c) the soil type and structure;

d) the likely tolerance of the tree to root disturbance or damage, based on factors such as species, age, condition and past management.

A4.16. The plotted RPAs have therefore informed the design of the proposed development where possible. While developing within RPAs should be avoided, special working methods can be adopted to alleviate the RPA disturbance for cases where the development is considered necessary and unavoidable.

Limitations

A4.17. The comments made are based on observable factors present at the time of inspection. Although the health and stability of trees in their current context is an integral part of their suitability for retention, it must be understood that this report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a

realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.

A4.18. No tree can be considered entirely safe, given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site. An assessment of the potential influence of trees upon existing buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effects of incremental root or branch growth, are specifically excluded from this report.

Un-assessable Risks

A4.19. Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made.

A4.20. The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Bats are also a European protected species and are additionally protected under the Conservation (Habitats & c) Regulations 1994 and 2010 (as amended). The survey findings, constraints, opportunities and design or mitigation recommendations included within that report must be read alongside this document.

A4.21. A lack of recommended work does not imply that a tree does not pose an unacceptable level of risk and likewise, it should not be implied that a tree will present an acceptable level of risk following the completion of any recommended work

Appendix 5: Cascade Chart for Tree Quality Assessment

TREES FOR REMOVAL				
Category and Definition	Criteria			Identification on Plan
Category U Those 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 that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low-quality trees suppressing adjacent trees of better quality. (NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve)			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	Criteria - Subcategories			Identification on Plan
	1.Mainly Arboricultural Values	2. Mainly Landscape Values	3. Mainly Cultural Values, including Conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	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	Trees with material conservation or other cultural benefits.	MID BLUE
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	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or temporary/transient landscape benefit.	Trees with no material conservation or other cultural value.	GREY

Appendix 6: Tree Survey Schedule

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T1	Elder	Sambucus nigra	4m	245	3.00	3.00	3.00	3.00	1.00	Mature	Fair	Fair	C1, 2	Mature specimen established in roadside area of land towards the western boundary of the site. Access to tree is limited, measurements have been estimated. Minor dead wood in canopy. Sprawling multi-stemmed form typical of species. Visible along Hill Lane to the west.	3.0	28.3
T2	Elder	Sambucus nigra	4m	269	3.00	4.00	4.00	3.00	0.00	Mature	Fair	Poor	C1, 2	Mature specimen established in roadside area of land towards the western boundary of the site. Access to tree is limited, measurements have been estimated. Minor dead wood in canopy. Sprawling multi-stemmed form typical of species. Visible along Hill Lane to the west.	3.3	34.2
T3	Norway spruce	Picea abies	12m	460	4.00	4.00	4.00	4.00	5.00	Early-mature	Good	Good	B1, 2	Established in offsite residential garden. Structure typical for species. Stem measurements estimated due to access restrictions.	5.4	91.6
T4	Common ash	Fraxinus excelsior	11m	894	8.00	8.00	7.50	8.00	1.50	Mature	Good	Fair	B1, 2	Mature specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. Twin stem, widespread canopy, canopy growing low over the site. Dense ivy associated with the scaffold. Visible along Hill Lane to the west.	10.8	366.4
T5	Pedunculate oak	Quercus robur	10m	800	5.50	5.50	7.00	6.00	2.00	Mature	Poor	Good	B1, 2	Mature specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. Moderate die back associated with the canopy, with medium diameter deadwood present throughout. Visible along Hill Lane to the west.	9.6	289.5

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T6	Pedunculate oak	Quercus robur	11m	650	7.00	7.00	7.00	7.00	1.50	Mature	Good	Fair	B1, 2	Mature specimen located within the site towards the western boundary, situated within G1. Access to tree is limited, measurements have been estimated. Radial canopy with dense growth throughout, contributes to the wider boundary screen. Visible along Hill Lane to the west.	7.8	191.1
T7	Pedunculate oak	Quercus robur	12m	750	6.50	6.50	6.50	6.50	1.00	Mature	Good	Good	B1, 2	Mature specimen located on the southern boundary of the site. Growing amongst dense undergrowth. Single stem, forms structural canopy at c.2.5m. Epicormic growth associated with the scaffold Radial canopy. Visible along Hill Lane to the west.	9.0	254.5
T8	Pedunculate oak	Quercus robur	12m	890	5.00	5.00	8.00	8.00	0.50	Mature	Good	Fair	B1, 2	Mature specimen located on the southern boundary of the site. Single stem, trifurcates at c.1.5m. Epicormic growth associated with the scaffold, medium diameter deadwood and several snapped branches associated with the canopy. Northeast canopy is suppressed by the neighbouring specimens, canopy is biased to the southwest. Visible along Hillside to the south.	10.8	366.4
T9	Pedunculate oak	Quercus robur	12m	714	8.25	8.25	8.25	8.25	1.00	Mature	Good	Fair	B1, 2	Multi-stem mature oak established within remnants of field boundary hedgerow. Co-dominant stem bifurcates at ground level into sprawling crown structure. Drainage ditch directly to north of bifurcated stem.	8.7	237.8
T10	Pedunculate oak	Quercus robur	4m	110	2.00	2.00	2.00	2.00	1.50	Semi-mature	Fair	Fair	C1	Semi mature specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. small specimen with radial canopy. Structure typical for species.	1.5	7.1

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T11	Pedunculate oak	Quercus robur	6m	140	4.00	4.00	4.00	4.00	1.50	Semi-mature	Fair	Fair	C1	Semi mature specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. small specimen with radial canopy. Structure typical for species.	1.8	10.2
T12	Pedunculate oak	Quercus robur	13m	800	8.00	8.00	8.00	8.00	4.00	Mature	Good	Fair	B1, 2	Mature tree established within neighbouring residential garden. Wooden shed structure built around main stem of tree. Access unavailable for stem measurements, diameter estimated.	9.6	289.5
T13	Wild cherry	Prunus avium	8m	200	3.00	4.50	4.50	4.50	1.50	Semi-mature	Good	Fair	B1, 2	Semi mature specimen located within the site, situated beside G10. Access to tree is limited, measurements have been estimated. Single stem, trifurcates at c.4m. Canopy to the north is suppressed by G10. Visible within the site from the south.	2.4	18.1
T14	Pedunculate oak	Quercus robur	20m	900	5.50	6.00	7.00	8.00	5.00	Mature	Good	Fair	A1, 2	Offsite mature tree established within residential garden. Multiple historic branch tear-outs from storm damage and deadwood in canopy. High value due to maturity.	10.8	366.4
T15	Pedunculate oak	Quercus robur	15m	850	8.50	8.50	8.50	8.50	3.00	Mature	Good	Good	A1, 2	Mature tree established in field boundary hedgerow directly to south of drainage ditch. Structure typical for species.	10.2	326.9
T16	Pedunculate oak	Quercus robur	15m	800	8.50	8.50	8.50	8.50	4.00	Mature	Good	Good	A1, 2	Mature tree established in field boundary hedgerow directly to south of drainage ditch. Structure typical for species.	9.6	289.5

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T17	Pedunculate oak	Quercus robur	15m	800	9.00	9.00	9.00	9.00	4.00	Mature	Good	Good	A1, 2	Mature tree established in field boundary hedgerow directly to south of drainage ditch. Access to tree is limited, measurements have been estimated. Structure typical for species. Prominent specimen along the southern boundary, visible externally from the site, from the adjacent residential properties to the south.	9.6	289.5
T18	Pedunculate oak	Quercus robur	15m	710	7.00	5.00	4.00	6.00	4.00	Mature	Good	Good	B1, 2	Mature specimen located off site along the southern boundary. Situated within the adjacent residential properties to the south on Upland Drive. Growing between the residential property and site boundary fence. Epicormic growth associated with the scaffold, medium diameter deadwood associated with the canopy. Canopy is overextending to the north into the site.	8.4	221.7
T19	Pedunculate oak	Quercus robur	15m	615	8.00	7.00	4.00	5.00	5.00	Mature	Good	Good	B1, 2	Mature specimen located off site along the southern boundary. Situated within the adjacent residential properties to the south on Upland Drive. Growing between the residential property and site boundary fence. Epicormic growth associated with the scaffold, medium diameter deadwood associated with the canopy. Canopy is overextending to the north into the site.	7.5	176.7
T20	Field maple	Acer campestre	11m	410	7.00	4.50	3.50	4.50	1.00	Semi-mature	Fair	Fair	B2	Semi mature specimen located on the southern boundary of the site. Single stem, with a minor lean to the north, bifurcates at c.3m. Canopy overextends to the north, beginning to encroach onto the floor. Specimen contributes to the wider boundary screen.	4.8	72.4

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T21	Pedunculate oak	Quercus robur	12m	875	7.00	6.00	8.00	6.00	7.00	Mature	Fair	Fair	B1, 2	Mature tree established in south-east corner of the site, adjacent to Upland Drive road. Provides amenity and visual function due to prominence in the street scene. Culverted concrete drains directly to west of main stem outflows into open drainage channel, considered to represent a significant incursion within the rooting environment, resulting in impaired arboricultural condition of the tree such that it is unlikely for long-term retention. Canopy southeast is encroaching onto telephone lines, orientated northeast, and southwest.	10.5	346.4
T22	Horse chestnut	Aesculus hippocastanum	4m	210	2.00	2.00	2.00	2.00	1.50	Semi-mature	Fair	Fair	C1, 2	Semi mature specimen located on the southern boundary. Top of tree has been removed, regenerative growth has since began to establish a new upper canopy. Specimen is suppressed by the larger surrounding specimens.	2.4	18.1
T23	Weeping birch	Betula pendula 'Youngii	5m	185	3.50	3.50	3.50	3.50	2.00	Early-mature	Fair	Good	B2	Offsite tree established in residential garden. Structure typical for species.	2.1	13.9
T24	Pedunculate oak	Quercus robur	8m	350	2.00	2.00	2.00	2.00	4.00	Mature	Fair	Poor	C1, 2	Offsite tree established in residential garden. Deadwood in canopy, almost pruned back to stem.	4.2	55.4
T25	Pedunculate oak	Quercus robur	12m	515	5.00	5.00	5.00	5.00	3.00	Mature	Fair	Fair	B1, 2	Offsite tree established in residential garden. Structure typical for species. Previously topped and pruned.	6.3	124.7

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T26	Pedunculate oak	Quercus robur	10m	400	5.00	5.00	5.00	5.00	2.50	Mature	Fair	Poor	U	Mature specimen located within the site towards the northeast boundary of the Site, access to tree is limited, measurements have been estimated. Tree appears to have failed and is now laying amongst G7.	4.8	72.4
T27	Pedunculate oak	Quercus robur	5m	120	4.00	4.00	4.00	4.00	1.00	Semi-mature	Fair	Fair	C1	Established in area of dense scrub. Structure typical for species. Access to tree is limited, measurements have been estimated.	1.5	7.1
T28	Wild cherry	Prunus avium	6m	120	5.00	5.00	5.00	5.00	1.50	Semi-mature	Good	Fair	C1	Established in area of dense scrub. Structure typical for species. Access to tree is limited, measurements have been estimated.	1.5	7.1
T29	Common hawthorn	Crataegus monogyna	4m	115	3.00	1.00	1.00	3.00	1.00	Semi-mature	Fair	Fair	C1, 2	Semi mature specimen located on the southwestern boundary of the site, adjacent to the Hill Hole Quarry Nature Reserve car park. Single stem with a moderate lean towards the west. Dense ivy throughout the canopy, limiting a detailed assessment, measurements have been estimated.	1.5	7.1
T30	Pedunculate oak	Quercus robur	4m	205	2.00	2.00	2.00	2.00	1.75	Semi-mature	Good	Good	C1, 2	Semi mature specimen located within the site. Access to tree is limited, and measurements have been estimated. Small single stem specimen, with a radial canopy.	2.4	18.1
T31	Common hawthorn	Crataegus monogyna	4m	180	2.00	2.00	2.00	2.00	1.00	Semi-mature	Good	Good	C1, 2	Semi mature specimen located within the site. Access to tree is limited, and measurements have been estimated. Small single-stem specimen, with a radial canopy.	2.1	13.9

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
T32	Pedunculate oak	Quercus robur	6m	250	4.50	4.50	4.50	4.50	1.75	Semi-mature	Good	Good	C1, 2	Semi mature specimen located within the site. Access to tree is limited, and measurements have been estimated. Small single stem specimen, with a radial canopy.	3.0	28.3
T33	Leyland cypress	Cupressus x leylandii	5m	200	2.00	2.00	2.00	2.00	1.00	Semi-mature	Good	Good	C1, 2	Semi mature specimen located within the site. Access to tree is limited, measurements have been estimated. Single stem with small radial canopy.	2.4	18.1
T34	Pedunculate oak	Quercus robur	3m	100	1.50	1.50	1.50	1.50	1.00	Young	Good	Good	C1, 2	Young specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. Small specimen of limited arboricultural merit.	1.5	7.1
T35	Pedunculate oak	Quercus robur	3m	105	1.50	1.50	1.50	1.50	1.00	Young	Good	Good	C1, 2	Young specimen located within the site towards the northern boundary. Access to tree is limited, measurements have been estimated. Small specimen of limited arboricultural merit.	1.5	7.1
G1	Common hawthorn, Common ash, Pedunculate oak, Elder	Crataegus monogyna, Fraxinus excelsior, Quercus robur, Sambucus nigra	3-8	200-600	4.50	4.50	4.50	4.50	0.00	Early-mature	Fair	Fair	C1, 2	Early mature group located within the site towards the western boundary. Access to group is limited, measurements have been estimated. Group is orientated north and south, forming a common cohesive canopy, and providing a significant screen within the site. Visible along Hill Lane to the west.	7.2	162.9
G2	Common hawthorn, Elder	Crataegus monogyna, Sambucus nigra	5	80-145	3.00	3.00	3.00	3.00	0.00	Early-mature	Fair	Fair	C1	Early mature group located within the site towards the southwestern boundary. Access to group is limited measurements have been estimated. Small diameter deadwood associated with the canopy. Visible along Hill Lane to the west, and Hillside to the south.	1.8	10.2

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
G3	Common ash	Fraxinus excelsior	6-6.5	150-200	3.50	3.50	3.50	3.50	1.75	Semi-mature	Fair	Good	C1, 2	Semi mature group located on the southern boundary of the site. Access to group is limited, measurements have been estimated. One standing dead specimen present within the group. Visible along Hillside to the south.	2.4	18.1
G4	Silver birch, Common hawthorn, Common ash, Common holly, Bay laurel, Wild cherry	Betula pendula, Crataegus monogyna, Fraxinus excelsior, Ilex aquifolium, Laurus nobilis, Prunus avium	4-7	95-165	2.50	2.50	2.50	2.50	0.00	Semi-mature	Fair	Fair	C1, 2	Semi mature group located on the northern boundary of the site. Access to group, and visibility of group from the northwestern boundary is limited, measurements have been estimated. Forms a common cohesive canopy and provides a significant boundary screen from the adjacent residential gardens to the north.	2.1	13.9
G5	Pedunculate oak	Quercus robur	4-6.5	100-200	2.50	2.50	2.50	2.50	1.00	Semi-mature	Good	Good	C1	Semi mature group located within the site towards the northern boundary. Access to group is limited, measurements have been estimated. Comprises small specimens growing in close proximity to each other.	2.4	18.1
G6	Common hazel, Common hawthorn, Common holly, Wild cherry, Elder, Common yew	Corylus avellana, Crataegus monogyna, Ilex aquifolium, Prunus avium, Sambucus nigra, Taxus baccata	2-5	75-135	2.00	2.00	2.00	2.00	0.00	Semi-mature	Fair	Fair	C1, 2	Semi mature groups located on the southeast boundary of the site. Low value specimens forming a dense understory. Provides screening value from Upland Drive to the southeast.	1.5	7.1
G7	Silver birch, Common hawthorn, Common ash, Norway spruce, Scots pine, Pedunculate oak, Elder	Betula pendula, Crataegus monogyna, Fraxinus excelsior, Picea abies, Pinus sylvestris, Quercus robur, Sambucus nigra	6-12	100-320	2.00	2.00	2.00	2.00	0.50	Early-mature	Fair	Fair	C1, 2	Early mature group located on the northeast boundary of the site, surrounding an allotment. Access to group is limited, measurements have been estimated. Group forms a common cohesive canopy, comprising primarily early mature trees with some younger specimens scattered throughout. Some standing dead specimens present with the group. Group forms a dense boundary screen in the northeast corner of the site.	3.9	47.8

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
G8	Swedish whitebeam	Sorbus intermedia	4	255-260	2.00	2.00	2.00	2.00	2.00	Early-mature	Fair	Fair	B1, 2	Early mature group located off site, beyond the southern boundary. Comprises 2no. trees situated in residential garden on Upland Drive. Trees have been reduced in the past. Groups provides amenity value within the area.	3.0	28.3
G9	Elder	Sambucus nigra	3	75-100	1.00	1.00	1.00	1.00	0.50	Young	Fair	Fair	C2	Young group located on the southern boundary of the site. Adjacent to the Hill Hole Quarry Nature Reserve car park. Minor deadwood associated with the canopy. Visible along Hillside to the south.	1.5	7.1
G10	Common hawthorn, Common ash, Common holly, Pedunculate oak, Elder	Crataegus monogyna, Fraxinus excelsior, Ilex aquifolium, Quercus robur, Sambucus nigra	5-8	110-200	3.00	3.00	3.00	3.00	0.00	Semi-mature	Fair	Fair	C1, 2	Semi mature hedgerow located within the site towards the northern boundary. Access to group is limited, measurements have been estimated. Forms a common cohesive canopy, and provides a significant screen within the site.	2.4	18.1
G11	Blackthorn	Prunus spinosa	1.5-4.5	75-110	2.00	2.00	2.00	2.00	0.00	Semi-mature	Good	Good	C2	Semi mature, wide spreading group, forming a common cohesive canopy within the site. Of limited arboricultural merit.	1.5	7.1
G12	Common hazel, Common hawthorn, Common holly, Blackthorn, Pedunculate oak, Elder	Corylus avellana, Crataegus monogyna, Ilex aquifolium, Prunus spinosa, Quercus robur, Sambucus nigra	4-6	100-150	3.00	3.00	3.00	3.00	0.00	Semi-mature	Good	Fair	C1, 2	Semi mature group located on the southern boundary of the site. Access to group is limited, measurements have been estimated. Forms a common cohesive canopy, and provides a significant boundary screen from the adjacent field to the south.	1.8	10.2

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
G13	Common hazel, Common hawthorn, Common holly, Blackthorn, Pedunculate oak, Elder	Corylus avellana, Crataegus monogyna, Ilex aquifolium, Prunus spinosa, Quercus robur, Sambucus nigra	3-5	95-150	3.00	3.00	3.00	3.00	0.00	Semi-mature	Fair	Fair	C2	Semi mature group located on the southern boundary of the site. Access to group is limited, measurements have been estimated. Forms a common cohesive canopy, and provides a significant boundary screen within the site.	1.8	10.2
G14	Wild cherry, Pedunculate oak, Elder, Rowan	Prunus avium, Quercus robur, Sambucus nigra, Sorbus aucuparia	2.5-7	75-215	2.50	2.50	2.50	2.50	1.50	Semi-mature	Good	Fair	C1, 2	Group of self set specimens scattered within the site towards the southeast boundary. Have since established into small semi mature trees.	2.7	22.9
G15	Common hazel, Common hawthorn, Common holly, Blackthorn, Pedunculate oak, Goat willow, Elder	Corylus avellana, Crataegus monogyna, Ilex aquifolium, Prunus spinosa, Quercus robur, Salix caprea, Sambucus nigra	4-6.5	125-210	4.00	4.00	4.00	4.00	0.00	Early-mature	Fair	Fair	C1, 2	Early mature group located within the Site. Forms a linear group of trees from the eastern boundary heading west towards the centre of the site. Access to the group is limited; measurements have been estimated. Comprises early mature trees with a dense understory of shrubbery scattered throughout. Some declining specimens are present within the group.	2.4	18.1
G16	Elder	Sambucus nigra	3-4.5	125-200	2.00	2.00	2.00	2.00	2.00	Semi-mature	Poor	Fair	C1, 2	Semi mature group located beside built form within the site towards the northeast boundary. Sprawling multi-stemmed form typical of the species.	2.4	18.1
G17	Pedunculate oak, Goat willow	Quercus robur, Salix caprea	3-4	95-140	2.00	2.00	2.00	2.00	0.00	Semi-mature	Good	Good	C2	Semi mature group located within the site towards the Northern boundary. access to group is limited, measurements have been estimated. Comprises small specimens. of limited arboricultural merit.	1.8	10.2

Tree Number	Common Species Name	Scientific Name	Height (m)	Stem Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
					N	E	S	W								
G18	Common hawthorn, Common holly, Wild cherry, Pedunculate oak, Elder	Crataegus monogyna, Ilex aquifolium, Prunus avium, Quercus robur, Sambucus nigra	3-6	155-315	2.00	2.00	2.00	2.00	2.00	Early-mature	Fair	Good	C1, 2	Semi mature group located on the northern boundary of the site. Access to group is limited, measurements have been estimated. Some standing dead specimens present within the group. Group provides a boundary screen from the adjacent residential properties to the north.	3.9	47.8
H1	Wild privet	Ligustrum vulgare	3.5-4.5	75-90	2.00	2.00	2.00	2.00	0.00	Early-mature	Good	Good	C2	Early mature hedgerow located on the northern boundary of the site. Provides a moderate screen from the residential gardens beyond. Visible along Hill Lane to the northwest.	1.5	7.1
H2	Leyland cypress	Cupressus x leylandii	4.5	100-150	2.50	2.50	2.50	2.50	0.00	Semi-mature	Good	Fair	C2	Semi mature hedgerow located offsite within the adjacent residential garden. Provides screening.	1.8	10.2
H3	Common hawthorn, Common holly, Elder	Crataegus monogyna, Ilex aquifolium, Sambucus nigra	2	75-100	1.00	1.00	1.00	1.00	0.00	Early-mature	Good	Good	C2	Early mature hedgerow framing the northern boundary of the site. Access to the hedgerow is limited, measurements have been estimated. Hedgerow is at the rear of the adjacent residential gardens to the north. Hedgerow appears to be well maintained, and provides a low level boundary screen.	1.5	7.1
H4	Common hawthorn, Bay laurel	Crataegus monogyna, Laurus nobilis	2-4	75-110	3.00	3.00	3.00	3.00	0.00	Early-mature	Fair	Good	C2	Early mature hedgerow framing the northern boundary of the site. Access to the hedgerow is limited, measurements have been estimated. Hedgerow is at the rear of the adjacent residential gardens to the north. Hedgerow appears to be well maintained, and provides a low level boundary screen.	1.5	7.1

Appendix 7: National Forest Related GI Plan

NORTH

SCALE BAR 1:500

0 10 20 30 40 50

KEY

Green Hatch denoting
National Forest Related
Green Infrastructure.

National Forest Related Green Infrastructure.
Total = **13,440 sqm.**
44.5% of total site

○ Preliminary ○ Design ○ Information ○ Comment ● Planning ○ Construction

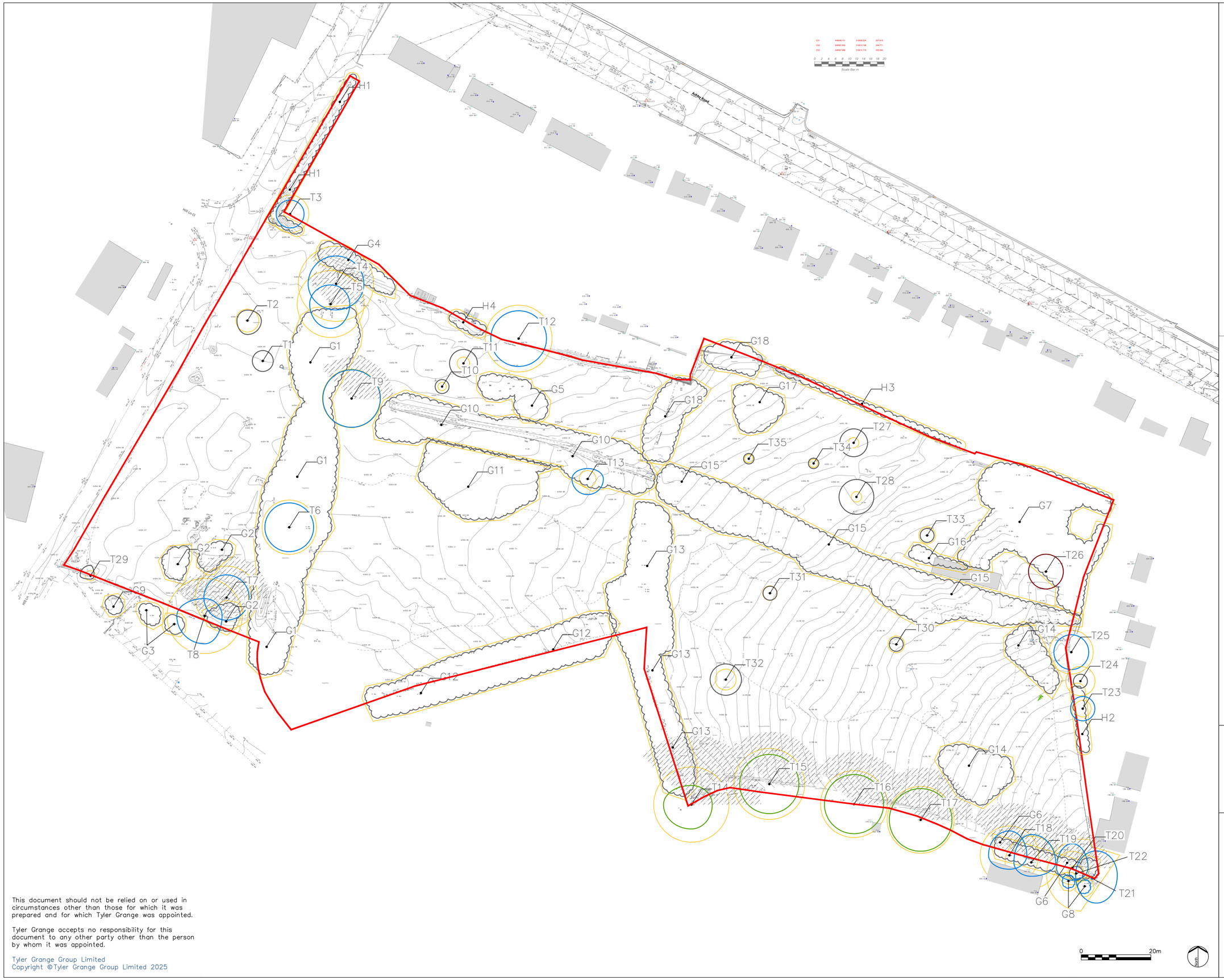
Client:	Glenalmond Developments Ltd		
Project:	Markfield	Scale: 1:500	Sheet Size:@ A1
Title:	National Forest Related Green Infrastructure	Date: Sept 2025	Rev: J
Job No:	GDA05 Drawing No: PL600	Drawn: ARK	Checked: DM

T: 0121 439 1151
E: admin@ophirarchitecture.com
A: 1 Legge Lane, Birmingham, B1 3LD

Plans:

13587/P01e: Tree Constraints Plan

13587/P06a: Preliminary Tree Retention and Removal Plan



Application Boundary

Category A – Trees of High Quality and Value

Category B – Trees of Moderate Quality and Value

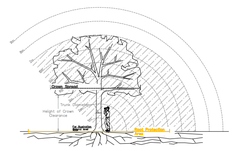
Category C – Trees of Low Quality and Value

Category U – Trees in Poor Condition

Root Protection Areas

Tree Shading Constraints

*Denotes trees and groups not identified on topographical survey. Locations approximated using measurements taken on site.



Rev	Description	Date
E	Updated tree locations	22.10.2025
D	Updated T21 RPA	25.09.2025
C	Updated survey data	19.08.2025
B	Updated redline boundary	09.02.2021
A	Update survey data	02.02.2021

Tyler Grange

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W: www.tylergrange.co.uk

Project title
Hill Lane, Markfield

Drawing title
Tree Constraints Plan

Scale 1:500 @ A1
Date 23.10.2025
Drawn HWH
Checked BV

Drawing number
13587_P01

Revision
E

Application Boundary

Category A – Trees of High Quality and Value

Category B – Trees of Moderate Quality and Value

Category C – Trees of Low Quality and Value

Category U – Trees in Poor Condition

Root Protection Areas

Tree Shading Constraints

Tree Removals to Facilitate the Proposed Development

Tree Pruning Works to Facilitate the Proposed Development

*Denotes trees and groups not identified on topographical survey. Locations approximated using measurements taken on site.

Rev	Description	Date
A	Final Layout Plan	20/10/2025

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Project title

Hill Lane, Markfield

Drawing title

Preliminary Tree Retention & Removal Plan

Scale	1:500 @ A1	Drawn	BV
Date	20.10.2025	Checked	JP

Drawing number

13587_P06

Revision

A

Tyler Grange

Landscape | Ecology | Arboriculture