HAYES LANE, SLINFOLD

Arboricultural Impact Assessment

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Arboricultural Impact Assessment
P01
15 April 2025

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Quality Management

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Contents

Appendices

1 INTRODUCTION

1.1 This Arboricultural Impact Assessment (AIA) has been prepared by RPS on behalf of TILCo in respect of the proposed development at Hayes Lane, Slinfold.

1.2 A tree survey of the application area was carried out by RPS in April 2025 in accordance with the requirements of BS5837:2012. The details recorded during the survey can be seen in the Tree Schedule at Appendix B and displayed spatially on the Tree Constraints Plan at Appendix C.

1.3 This report has also been prepared in accordance with the requirements set out in BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations'(BS5837:2012).[1]

1.4 The purpose of this report is to:

- Provide an assessment of the quality of the surveyed trees with reference to the categories and sub-categories listed within Table 1 - BS5837:2012.
- Assess and quantify the arboricultural impact of the proposed development within the survey area, based on the proposed development layout.
- Provide additional arboricultural information and advice in relation to the protection of trees throughout the development of the site.
- Provide a Tree Removal and Protection Plan to detail the proposed protective measures to be taken in respect of the trees during development of the site.

1.5 The Tree Removal and Protection Plan included in Appendix D identifies the following:

- Trees to be retained
- Trees to be removed
- Alignment and design of protective fencing
- Root Protection Area (RPA) of trees

1.6 The Tree Removal and Protection Plan shall be made available to all relevant site operatives prior to and throughout the construction process, so they understand the scope and importance of the tree protection measures.

1.7 To minimise the potential for harm to occur to retained trees, all works shall be carried out in accordance with the Tree Protection measures and construction techniques detailed within this report. In particular, the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing, will minimise the potential for harm to occur to retained trees.

[1] British Standards Institute. British Standard (BS5837) Trees in Relation to Design, Demolition and Construction - Recommendations. 2012.

2 SITE LOCATION

2.1 The survey site is located off Hayes Ln, Slinfold, Horsham RH13 0SQ.

2.2 The land is roughly centred on OS grid reference TQ11803068. The Local Planning Authority (LPA) governing this site is Horsham District Council.

2.3 The Soilscape of the area in which the survey site is situated typically consists of "slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils"[2].

2.4 The site comprised of an open field with trees around its peripheries. The site is bordered to the west by Hayes Lane, with Downs Link Public Footpath to the north, and further open fields to the east and west.

Tree Preservation Orders & Conservation Areas

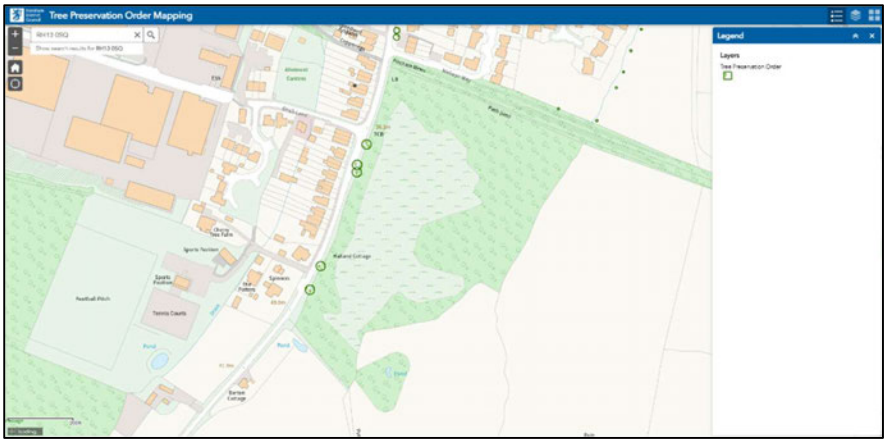
2.5 Trees covered by a Tree Preservation Order are protected under the Town and Country Planning Act 1990 (Trees Regulation 2012). The local authority must be consulted, and permission sought for any works that may affect them.

2.6 A Tree Preservation Order (TPO) is an order made by a LPA to protect specific trees, groups of trees or woodlands in the interests of amenity. An Order prohibits the:

- cutting down
- topping
- lopping
- uprooting
- wilful damage
- wilful destruction

of trees without the LPA's written consent. If consent is given, it can be subject to conditions which have to be followed. Cutting roots is also a prohibited activity and requires the authority's consent.

2.7 A desktop investigation using Horsham District Council's[3] interactive online map confirmed that there are several Tree Preservation Orders associated with the site, as shown in the screenshot below. These have been shown and cross referenced with the tree survey data on the Tree Constraints Plan at Appendix C, denoted with a cyan hatch. The site is not situated within a Conservation Area.

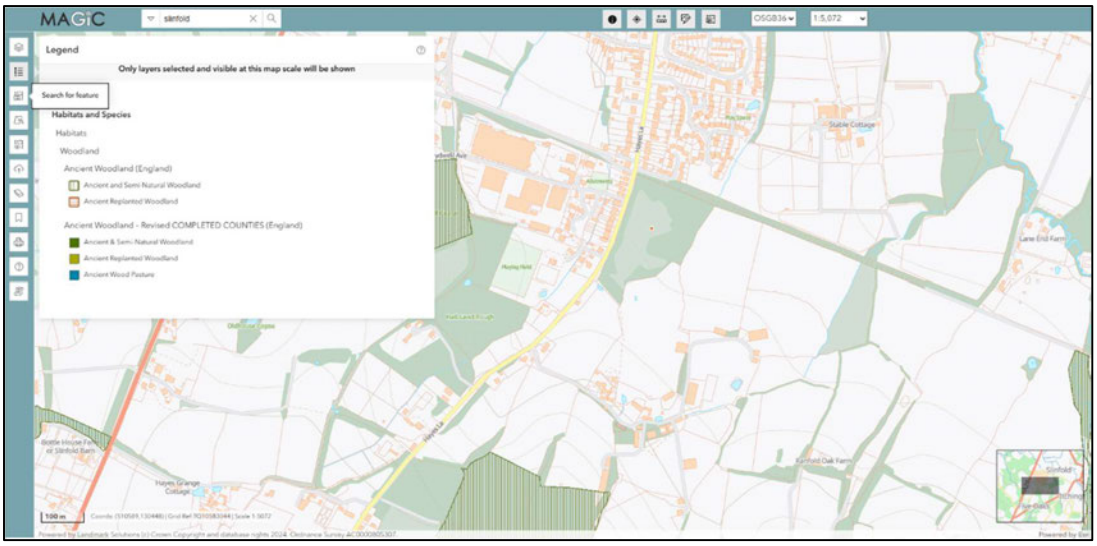


[2] https://magic.defra.gov.uk/MagicMap.aspx

[3] https://horsham.maps.arcgis.com/apps/webappviewer/index.html?id=adef72243c0f4cd2bd839174098ccdb6

Ancient Woodland and Veteran Trees

2.8 A desktop investigation using the Magic Map Application[4] confirmed that there are no Ancient Woodland designations on or adjacent to the site, as shown in the screenshot below.



[4] https://magic.defra.gov.uk/MagicMap.aspx

3 NATIONAL AND LOCAL PLANNING POLICY

National Planning Policy Framework (NPPF) December 2024[5]

3.1 In relation to this report, there are three paragraphs of the NPPF which should be considered. Paragraph 136 states: "*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*."

3.2 Paragraph 180 (B & D) states: *"Planning policies and decisions should contribute to and enhance the natural and local environment by:*

b) 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;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."

3.3 And most importantly, paragraph 186 (A, C & D) states: *"When determining planning applications, local planning authorities should apply the following principles:*

a) if significant harm to 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;

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 and a suitable compensation strategy exists; and

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."

[5] https://assets.publishing.service.gov.uk/media/675abd214cbda57cacd3476e/NPPF-December-2024.pdf

4 SURVEY METHODOLOGY

4.1 The tree survey and report were completed by Ross Carthew (FdSc Arb, M.Arbor.A) of RPS and authorised by David Cox, a professional member of the Arboricultural Association and Chartered Landscape Architect of RPS Group.

4.2 The tree survey was carried out in accordance with the requirements set out in BS 5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations". The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay, and any other physical and pathogenic defects.

4.3 During the survey, all information was digitally captured on site, using a tablet running Axciscape 4.07 software. This is a program specifically designed for arboricultural surveying, which allows trees to be located directly onto a digital copy of a sites topographical survey.

4.4 The tree survey involved a visual inspection from the ground of individual specimens and where deemed appropriate, trees have been assessed as groups of trees, woodland and hedgerows. Characteristics such as their amenity value, condition and dimensions have been recorded. A full breakdown of tree characteristics recorded during the survey can be seen in Appendix A.

4.5 Each arboricultural feature is marked on the Tree Constraints Plan at Appendix C with an identification number (T1, G1, H1, W1 etc), which can be seen at and cross referenced with the Tree Schedule at Appendix B. The Tree Schedule shows a breakdown of the raw data collected during the site visit.

4.6 The locations of the trees are based upon a topographic survey 20109 produced by MK Surveys in September 2014.

4.7 Measurements for tree height, minimum crown clearance and crown spread were rounded to the nearest 0.5m. Stem diameter measurements were recorded to the nearest 10 mm using a diameter tape where access to the stem was possible.

4.8 Trees retention categories were assigned by the following criteria and have been differentiated on the Tree Plans using the following colours:

Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

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 150 mm.

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. However, it may be possible to retain some trees assigned to retention Category U, where public access to them is limited, as they may exhibit conservation value providing unique wildlife habitat.

4.9 Categories A, B and C have further sub-categories with regards to the reasons for tree retention:

1) Mainly arboricultural qualities.

2) Mainly landscape qualities.

3) Mainly cultural values, including conservation.

ROOT PROTECTION AREA

4.10 The protection of the roots and soil structure within the RPA should be treated as a priority. To avoid damage to the roots or rooting environment of retained trees, the RPA has been calculated in accordance with section 4.6 of BS5837:2012. They have been displayed on the Tree Plans with a magenta circle and may be modified in shape where deemed necessary by obvious root barriers observed on site (although the total area remains the same).

4.11 This methodology is recommended as the minimum area around a tree that contains sufficient roots and rooting volume to maintain viable tree vigour and structure. Where groups of trees, woodlands and hedgerows have been assessed, the RPA has been shown based on the average sized tree stem in each arboricultural feature, and so may fall short/exceed the RPA required for some of the individual specimens within the feature.

Limitations

4.12 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events.

4.13 Trees are dynamic structures which are constantly growing and changing. Whilst reasonable effort has been made to identify defects which may compromise the trees longevity, no guarantee can be given as to the safety or otherwise of any individual tree or arboricultural feature. Due to the unpredictable laws and forces of nature, no tree can ever be deemed as safe. Natural failure of intact trees does occur, and changing climatic conditions can cause damage to even apparently healthy trees.

4.14 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics. If trees have been recorded beyond the extent of the site, all dimensions have been estimated (unless stated otherwise) and the assessment of these trees has occurred from land within the Client's ownership and publicly accessible land only (unless formal access has been arranged to these additional areas).

4.15 Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (re: NHBC chapter 4.2)'[6]. Whilst this report may assist in assessing likely future impacts, it should not be classed as a comprehensive vegetation survey in relation to impact upon future designs.

4.16 The desktop study confirming statutory and non-statutory constraints uses publicly accessible third-party information, meaning the results of this exercise are only as accurate as the information available at the time of the assessment.

4.17 Provisional Tree Preservation Orders (TPOs) may be made whenever a LPA deems it appropriate, with only those persons interested in the land served with a copy of the Order. A further search for the presence of TPOs should be carried out prior to commencement of any tree works or removals specified within this report.

4.18 Where possible, the location of the arboricultural features identified at the site have been plotted using a topographical survey, which has been supplied by the client. If no topographical survey data has been provided, arboricultural feature locations have been plotted using aerial photography or OS maps, which have a reduced accuracy.

[6] NHBC. 'Chapter 4.2- Building Near Trees'. NHBC Standards 2016. 2016.

5 APPRAISAL AND RECOMMENDATIONS

Summary of Tree Survey

5.1 During the survey 64 trees were surveyed as individuals. The survey also recorded 16 Groups, 02 Hedges and 07 areas of Scrub.

5.2 These trees were mostly located around the peripheries of the site, with only lower quality trees located within the field. For details on all of the information recorded during the site visit, please refer to the Tree Schedule in Appendix B.

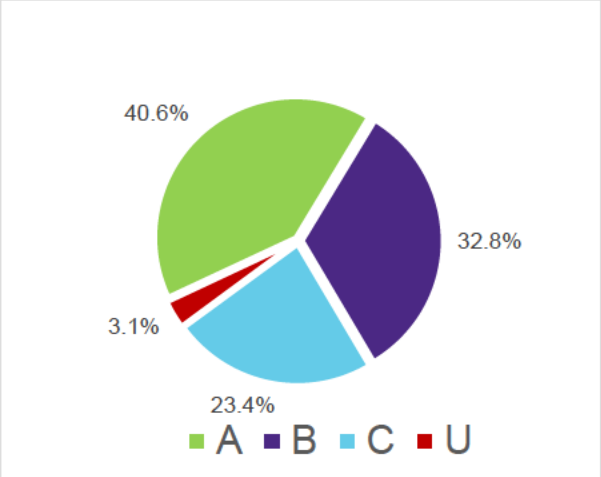
5.3 The species distribution of the individually surveyed trees across the site has been shown in Table 1 below.

Table 1: Species distribution of individually surveyed trees across site

Species Breakdown of Individually Surveyed Trees						
Species	A	B	C	U	Total	Species Distribution
Quercus robur (Common Oak)	26	17	6	0	49	76.6%
Fraxinus excelsior (Common Ash)	0	1	1	1	3	4.7%
Crataegus monogyna (Hawthorn)	0	0	2	0	2	3.1%
Acer campestre (Field Maple)	0	1	1	0	2	3.1%
Fraxinus excelsior (Ash)	0	0	1	1	2	3.1%
Prunus spinosa (Blackthorn)	0	0	1	0	1	1.6%
Malus (Apple)	0	0	1	0	1	1.6%
Salix fragilis (Crack Willow)	0	0	1	0	1	1.6%
Alnus glutinosa (Common Alder)	0	0	1	0	1	1.6%
Taxodium distichum (Swamp Cypress)	0	1	0	0	1	1.6%
Aesculus hippocastanum (Horse Chestnut)	0	1	0	0	1	1.6%
Total	26	21	15	2	64	100.0%
Category Distribution Percentage	40.6%	32.8%	23.4%	3.1%	1	

5.4 The BS5837:2012 quality of these individually surveyed trees is broken down in Figure 1 below:

Figure 1: BS5837:2012 quality of individual trees across the site



5.5 The BS5837:2012 quality of the Trees, Groups, Woodlands & Hedges recorded during the survey is broken down in Table 2 below.

Table 2: BS5837:2012 quality of Trees, Groups, Woodlands, Hedges and Scrub across the site

BS5837:2012 Category Breakdown of Surveyed Items					
Type	**A**	**B**	**C**	**U**	**Total**
Trees	26	21	15	2	**64**
Groups	2	4	10	0	**16**
Woodlands	0	0	0	0	**0**
Hedges	0	0	2	0	**2**
Grand Total	**28**	**25**	27	**2**	**82**
Distribution Percentage	**34.1%**	**30.5%**	32.9%	**2.4%**	**100%**

5.6 During the survey, surveyed features were plotted in one of three ways:

- One by one: All individual trees and some smaller groups are plotted by marking the locations of each tree one by one giving an accurate account of tree locations and numbers.
- By area: Larger groups and woodlands are generally plotted by area (m2). For features plotted this way, the approximate number of trees in each feature has been estimated using the average 'centres' or spacing of trees.
- By Length: Linear groups and hedges are generally plotted by length (m). For features plotted this way, the approximate number of trees in each feature has been estimated using the average 'centres' or spacing of trees.

5.7 The BS5837:2012 quality of the arboricultural features plotted by their total quantity is broken down in Table 3 below.

Table 3 BS5837:2012 Category Breakdown of Total Quantity of Arboricultural Features

BS5837:2012 Category Breakdown of Total Quantity of Arboricultural Features					
Plotted	**A**	**B**	**C**	**U**	**Total**
One by one (Trees)	37	24	91	2	**154 Trees**
By Area (m^2)	0	0	459	0	**459 m^2**
By Length (m)	86	242	71	0	**399 m**

5.8 Calculated using the estimated spacing between each tree stem in a feature, the total number of trees in each feature has been estimated and split by BS5837:2012 category in Table 4 below.

Table 4 BS5837:2012 Category Breakdown of Estimated Total Number of Trees

BS5837:2012 Category Breakdown of Estimated Total Number of Trees						
Type	**A**	**B**	**C**	**U**	**Total**	**Distribution Percentage**
Trees	26	21	15	2	**64**	**13.2%**
Groups	24	120	276	0	**420**	**86.8%**
Woodlands	0	0	0	0	**0**	**0.0%**
Grand Total	**50**	**141**	**291**	**2**	**484**	**100%**
Distribution Percentage	**10.3%**	**29.1%**	**60.1%**	**0.4%**	**100%**	

5.9 As the tables above show, the majority of the trees on site are located within the 10 Category C groups surveyed, with the total estimated number of Category C trees coming to 291 trees, which is 60.1% of all the trees surveyed on site.

5.10 The majority of the individually surveyed trees on site were surveyed as Category A trees. These were all prominent Oak trees growing on the boarders of the surveyed area.

5.11 The most notable of these was T62, which is a "Locally Notable" tree of considerable size and a potential future veteran tree.

Planning considerations

5.12 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, adding maturity to new developments and by making places more comfortable in tangible ways e.g. contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.

5.13 New tree planting opportunities should be considered as part of any potential redevelopment; this will help to broaden the age diversity of the tree cover within the area. Sufficient space should be provided for species with significant stature to grow out into maturity.

5.14 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is still a material consideration that is considered when dealing with planning applications.

Design and Site Layout Considerations

5.15 During any future site planning exercises, the current and future growth potential of the trees should be considered.

5.16 The Root Protection Area (RPA) should become an exclusion zone during construction works and for any development. It should be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.

5.17 No activities that result in excavations, changes in level or soil compaction should take place within the RPA of any retained trees, especially older mature trees. This would include the storage of materials, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.

5.18 If some form of construction must take place within the RPA, then certain measures need to be adopted to avoid disturbance or damage to the roots and to maintain moisture infiltration and gaseous diffusion into the soil. It is recommended that these are detailed by a separate document called an Arboricultural Method Statement (AMS).

Services

5.19 Services likewise should be routed outside the existing or potential RPAs of trees. Where it is unavoidable, then certain measures should be employed to avoid damage to the tree's larger roots.

5.20 The location and siting of new facilities near trees should consider the potential impact on and conflict with both tree roots and canopy. This should consider the ultimate size of existing young and middle-aged trees at maturity. Conversely the impact of the tree on the activities should also be considered regarding obstruction, shading, leaf fall and root action. These are problems that can be managed provided sufficient space is allowed for.

5.21 Any new services should avoid the RPAs of any retained tree. Where it is unavoidable, then the route of the services must be designed by an Engineer in consultation with an Arboriculturist. Further advice can be found in NJUG Volume 4- "Guidance for the planning, installation and maintenance of utility services in proximity of trees, 2007".

Tree Risk Management

5.22 It is recommended that a programme of periodic arboricultural assessments be undertaken to regularly assess the full health and safety of all trees both in full leaf and bare stemmed. The assessments should prioritise areas with high footfall and/or presence of a constant target and accord with arboricultural advice, taking account of relevant factors (where known) that affect safety such as the age class, condition, size and species of the trees.

6 ARBORICULTURAL IMPACT ASSESSMENT

Introduction

6.1 Trees have finite energy reserves, developed each year throughout the growing season, which are utilised for biological processes such as growth and defence against pests or diseases throughout the following year.

6.2 Any development in proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon; as such it is essential to consider the relationship between the proposed development and the retained trees to identify what precautions are necessary, proportionate and appropriate.

6.3 Development has the potential to impact upon the above ground and below ground parts of trees. Whilst some damage that can occur, such as physical damage to the trees stems and branches from machinery movements, is clearly visible, the impact from other aspects of work common on development sites, which can have a significant effect upon the continued health of trees, are not always immediately evident.

6.4 Damage that is not immediately evident, but which can cause long term harm to retained trees, includes things such as damage to the soil structure by compaction causing root damage and levels changes altering the water table and affecting moisture availability.

6.5 In general by adopting appropriate methods of working, precautionary and protective measures, significant harm to retained trees can be avoided. The establishment of a CEZ by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.

6.6 The retention and protection of significant trees and vegetation will assist in assimilating the proposed development into the wider landscape and offer long term tree cover.

6.7 Furthermore, redevelopment of the site may offer an excellent opportunity to actively manage any retained vegetation and accordingly we recommend restorative tree works be undertaken as appropriate. This will further improve the amenity value and landscape setting of the site and increase the useful life of any retained trees.

Brief Description of Proposed Development

6.8 This document supports the proposed development, consisting of:

- The construction of a number of new residential properties;
- New car-parking spaces;
- New associated access & utilities;
- Associated works and landscaping.

Reference Documents

6.9 To assess the impacts of the proposed development on the arboricultural features at the site, the proposed site plan was overlaid onto the TCP to create a Tree Removal and Protection Plan (TRPP). As well as identifying trees required to be retained and removed to facilitate the proposed development, the TRPP assessed potential conflicts between the arboricultural constraints (such as the RPA and tree crowns) and the proposed site plan. Mitigation measures to negate these conflicts (such as ground protection, tree protection fencing and pruning

requirements) and to protect the trees during the construction process have been included on the TRPP, which can be found at Appendix D of this report.

6.10 The following documents have been referenced to create these plans:

- Topographical survey – 20109, MK Surveys 2014.
- Proposed site plan – CSA/5675/107, CSA Envirmental, 2022

Proposed Tree Removal

6.11 To facilitate the proposed development, the removal of 4 Trees and 1 Group is required. There is also a requirement to remove 1 area of scrub (S7) and partially remove 3 Groups. The removals are shown on the Tree Removal and Protection Plan at Appendix D by a red transparent hatch. This is summarised in Table 5 and Table 6 below.

Table 5: Removal of Tree, Group, Woodland, Hedges and Scrub features required to facilitate the proposed development

Removals						Reference Numbers			
REMOVALS	A	B	C	U	Total	"A"	"B"	"C"	"U"
Trees		1	1	2	4		T64	T12	T48, T52
Groups			1		1			G15	
Woodlands					0				
Hedges					0				
Total	0	1	2	2	5				
% of Total Removals	0.0%	20.0%	40.0%	40.0%	100.0%				

Table 6: Partial Removals of arboricultural features required to facilitate the proposed development

Partial Removals						Reference Numbers			
REMOVALS	A	B	C	U	Total	"A"	"B"	"C"	"U"
Groups			3		3			G6, G9, G16	
Woodlands					0				
Hedges					0				
Total	0	0	3	0	3				
% of Total Removals	0.0%	0.0%	100.0%	0.0%	100.0%				

6.12 Using the same methodology as in section 5, the following table shows the total number of trees estimated for removal:

Table 7 Estimated total number of trees to be removed displayed by BS5837:2012 Category

Category Breakdown of Proposed Estimated Tree Loss / Estimated Trees Surveyed							
Type	A	B	C	U	Total	% Lost	% Retained
Trees	0 / 26	1 / 21	1 / 15	2 / 2	**4 / 64**	**6.3%**	**93.8%**
Groups	0 / 24	0 / 120	26 / 276	0 / 0	**26 / 420**	**6.2%**	**93.8%**
Grand Total	**0 / 50**	**1 / 141**	**27 / 291**	**2 / 2**	**30 / 484**	**6.2%**	**93.8%**
% Lost	**0.0%**	**0.7%**	**9.3%**	**100.0%**	**6.2%**		
% Retained	**100.0%**	**99.3%**	**90.7%**	**0.0%**	**93.8%**		

6.13 As the tables above show, the majority of the individual trees on site are to be retained, with 93.8% of the individual trees surveyed on site being retained.

6.14 The proposed development has sympathetically incorporated all of the site's high quality tree cover, owing to the constraint-led design process of developing the scheme.

6.15 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those trees being retained and could necessitate their removal in the future.

Tree Pruning Works

6.16 No tree pruning works are required to facilitate the proposed development.

6.17 It may be necessary, however, to lift the crowns of any trees that overhang the Tree Protection Fencing into the development site to lift them clear of works. This should be assessed on site as and when necessary and any pruning carried out to the specification laid out in Section 7 of this report.

6.18 This pruning work, if carried out in accordance with Section 7 of this report, should be minimally invasive and have little impact on the overall health of the tree.

Proposed Works Within Root Protection Areas

6.19 As the protection of soil and roots within the RPA must be treated as a priority, the primary position for any construction activities should be situated outside of these protected areas.

6.20 However, in instances where justification can be given to work within an RPA, technical solutions may be available to minimise the potential damage to tree roots and soil volume. If work is proposed within any RPAs of trees to be retained, a compensatory RPA offset must be demonstrated which boarders the existing RPA and mitigation measure can be implemented to prevent damage to roots and improve the soil environment available to the tree.

6.21 Due to the construction of footpaths and access roads, the proposed development is going to result in new incursions within the RPAs of several arboricultural features to be retained.

6.22 To assess the potential impact these works will have on any retained trees, the percentage of incursion into the RPA has been calculated and compared to the total RPA to give an incursion percentage. These incursion percentages for individual trees are shown in Table 8 below.

Table 8: Percentage of new incursion within the RPAs of arboricultural features to be retained

Tree Number	Incursion Type	Incursion Area (m2)	RPA Area (m^2)	Total Incursion % of RPA
T11	New hard surfacing	5.6	185.32	3.02%
T13	New hard surfacing	5.81	122.34	4.75%
T14	Excavation	8.35	235.09	3.55%
T38	New hard surfacing	14.46	706.95	2.05%
T40	New hard surfacing	12.29	147	8.36%
T41	New hard surfacing	9.36	40.72	22.99%
T42	New hard surfacing	22.11	191.16	11.57%
T43	New hard surfacing	17.48	185.32	9.43%
T44	New hard surfacing	23.92	197.09	12.14%
T45	New hard surfacing	54.37	326.89	16.63%
T53	New hard surfacing	1.17	91.62	1.28%
T54	New hard surfacing	0.53	136.87	0.39%
T60	Excavation	10.1	651.53	1.55%

6.23 Given the small percentage of the incursions listed in the above table, a large proportion of the rooting environment will remain unaltered. Therefore, the impact arising from the proposed works is considered minimal given that significant, structural roots are unlikely to be adversely impacted. Works within the RPA should be detailed within an AMS to outline a sympathetic methodology of work within the RPAs.

6.24 Section 7.4.2.3 of the BS5837:2012 states "New permanent hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA". The proposed RPA incursions fall within this tolerance limit, other than for T41, this incurtion, however consists of a lower impact landscaping footpath and the retention of this tree has been deemed possible if proper mitigating construction methodologies are used.

Mitigation for works within the RPA

6.25 In order to further reduce the conflict between the RPAs and the proposed development, mitigating construction methodologies will be used.

6.26 Table 9 below summarises the impact of the mitigation measures required for proposed works within the RPA of retained trees:

Table 9: Impacts of the mitigation measures for proposed works within the RPA of retained trees

Tree Number	Total Incursion % of RPA	Incursion Type	Potential Impact	Proposed Mitigation	Overall Impact
T14	3.55%	Excavation	Low	Excavation under arboricultural watching brief	Negligable
T60	1.55%		Low		Negligable
T11	3.02%	New hard surfacing	Low	To be constructed using "No-Dig" construction methodology	Negligable
T13	4.75%		Low		Negligable
T38	2.05%		Low		Negligable
T40	8.36%		Medium		Low
T41	22.99%		Medium		Low
T42	11.57%		Medium		Low
T43	9.43%		Medium		Low
T44	12.14%		Medium		Low
T45	16.63%		Medium		Low
T53	1.28%		Low		Negligable
T54	0.39%		Low		Negligable

6.27 As the table above shows, the proposed mitigation measures for work within the RPAs will reduce the impact on the retained trees and increase the quantity of trees that can be retained within the context of the proposed development. These mitigation measures have been indicated on the Tree Removal & Protection Plan Appendix D.

7 TREE WORKS

Standard of Work

7.1 The tree work required to facilitate this development will adhere to the following standards.

7.2 All tree works shall be carried out in accordance with BS3998:2010 and latest arboricultural best practice.

7.3 All tree work shall be carried out by suitably qualified, competent and insured arboricultural contractors in accordance with Arboricultural Association Standard Conditions of Contract and Specifications for Tree Works (2008) Edition and BS 3998:2010 Tree Work.

7.4 All green and woody waste generated by the tree works shall be removed from site and disposed of in an environmentally sustainable manner.

7.5 When a branch is removed at its point of attachment, injury of the wood and bark of the parent stem or branch above the cut shall be avoided. If a branch collar is visible, the final cut shall be just outside it and care shall be taken to avoid tearing retained wood and bark when the cut is made. Preliminary cuts shall be made, if necessary, so as to remove weight, before a final cut is made. Care shall be taken to prevent falling branches from harming other parts of the tree (including its roots), its surroundings, people or property. Heavy branches shall be removed in sections and, where necessary, shall be lowered with ropes.

7.6 Prior to the commencement of any tree works an appropriate risk assessment shall be produced to describe the measures required to fulfil the statutory safety obligations. It shall aim to identify and prioritise the necessary control measures and precautions.

7.7 Following the works, it is recommended that the trees are monitored on a regular basis to ensure their ongoing vitality and health. These inspections shall be completed by a suitably qualified and experienced person.

Timing of Works

7.8 Any tree works required shall be completed prior to any construction and enabling works on the site.

7.9 All works shall be timed to have regard to the phenological cycles of protected species that are associated with trees; notably birds and bats.

7.10 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). Should any vegetation be outlined for removal during this period, then an ecological inspection would be required to check that no nesting birds are present. Should checks reveal nesting birds the vegetation must remain until September or until an ecologist has certified that the fledglings have left the nest. A visual inspection for bats shall also be carried on mature / ivy clad trees prior to commencing operations.

8 OUTLINE TREE PROTECTION MEASURES

Construction Exclusion Zone

8.1 The protective fence line defines the Construction Exclusion Zone (CEZ), and the fencing shall not be moved or taken down at any time. Within the CEZ there must be no mechanical digging or scraping; no alteration to existing ground levels including soil stripping; no earthworks; and no handling or discharge of any chemical substance, concrete washings or of any fuels.

8.2 Furthermore, vehicular or pedestrian access and the storage of any materials is prohibited within the CEZ.

8.3 Additionally, no materials that may contaminate the soil such as concrete mixings, diesel oil and vehicle washings shall be discharged within 10m of the stem of any tree and no fires shall be lit within 10m of the maximum extent of a trees crown.

Tree Protection Fencing

8.4 Unless otherwise agreed in writing with the Arboricultural Consultant and/or LPA Tree Officer, the fencing system to be utilised shall be in accordance with Appendix E and compliant with BS5837:2012.

8.5 The tree protection fence shall be erected as shown on the Tree Removal and Protection Plan (Appendix D) included with is report.

8.6 The fence line shown is the minimum required, and the length of the fence shall be extended or adjusted on site as agreed with the Arboricultural Consultant to ensure satisfactory protection of all retained trees and RPAs.

8.7 Where proposed (permanent) construction site-hoarding provides the same level of protection to the retained trees and RPAs as the proposed tree protection fence, subject to agreement with the Arboricultural Consultant, the hoarding may serve as the tree protection fence. Notwithstanding, depending on the form and alignment of the construction site- hoarding it may be necessary to provide additional tree protection fence to ensure adequate protection of retained trees and RPAs as shown on the Tree Removal and Protection Plan.

8.8 Once the protective barrier is in place it must remain in situ throughout the course of the development until the completion of development, other than to facilitate agreed tree removal; see below.

8.9 Where necessary, tree protection fencing may be temporarily re-aligned in order to facilitate tree removal. Fencing is to be re-instated immediately following removal in a manner that encompasses the remaining trees and their respective RPAs.

8.10 During tree removal, no wheeled or tracked machinery is to enter the area previously encompassed by tree protective fencing as shown in the Tree Removal and Protection Plan.

8.11 Copies of the Tree Removal and Protection Plan shall be placed in the site office for reference by all site staff.

8.12 Signs detailing the purpose of the protective barrier shall be attached to the barriers at 10m intervals. Such signs should be weatherproof and shall be substantially in the form of the examples provided in . Signs must Appendix F be replaced as necessary should they be removed or become illegible.

8.13 Following erection of the protective barriers and prior to commencement of the development it is recommended that an inspection of the site, by either the Council's Tree Officer or the Arboricultural Consultant, is arranged to confirm fencing has been installed in accordance with the Tree Removal and Protection Plan and that any relevant arboreal conditions attached to the planning consent have been met.

Reporting

8.14 Should any arboricultural issues become apparent during the works the site manager should immediately contact the Arboricultural Consultant or the Council's Tree Officer for advice upon how to proceed.

9 SUMMARY

9.1 This Arboricultural Impact Assessment (AIA) has been prepared by RPS on behalf of TILCo in respect of the proposed development at Hayes Lane, Slinfold.

Site location

9.1 The survey site is located off Hayes Ln, Slinfold, Horsham RH13 0SQ.

9.2 The land is roughly centred on OS grid reference TQ11803068. The Local Planning Authority (LPA) governing this site is Horsham District Council.

10 A desktop investigation using Horsham District Council's[7] interactive online map confirmed that there are several Tree Preservation Orders associated with the site. These have been shown and cross referenced with the tree survey data on the Tree Constraints Plan in Appendix C, denoted with a cyan hatch. The site is not situated within a Conservation Area.

Summary of Tree Survey

10.1 During the survey 64 trees were surveyed as individuals. The survey also recorded 16 Groups, 02 Hedges and 07 areas of Scrub.

10.2 The most notable of these was T62, which is a "Locally Notable" tree of considerable size and a potential future veteran tree.

Proposed Tree Removal

10.3 To facilitate the proposed development, the removal of 4 Trees and 1 Group is required. There is also a requirement to remove 1 area of scrub (S7) and partially remove 3 Groups. The removals are shown on the Tree Removal and Protection Plan in Appendix D by a red transparent hatch.

10.4 The majority of the individual trees on site are to be retained, with 93.8% of the individual trees surveyed on site being retained.

10.5 The proposed development has sympathetically incorporated all of the site's high quality tree cover, owing to the constraint-led design process of developing the scheme.

10.6 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those trees being retained and could necessitate their removal in the future.

Tree Pruning Works

10.7 No tree pruning works are required to facilitate the proposed development.

10.8 It may be necessary, however, to lift the crowns of any trees that overhang the Tree Protection Fencing into the development site to lift them clear of works. This should be assessed on site as and when necessary and any pruning carried out to the specification laid out in Section 7 of this report.

[7] https://horsham.maps.arcgis.com/apps/webappviewer/index.html?id=adef72243c0f4cd2bd839174098ccdb6

10.9 This pruning work, if carried out in accordance with Section 7 of this report, should be minimally invasive and have little impact on the overall health of the tree.

Mitigation for works within the RPA

10.10 In order to further reduce the conflict between the RPAs and the proposed development, mitigating construction methodologies will be used.

10.11 Table 9 summarises the impact of the mitigation measures required for proposed works within the RPA of retained trees.

Tree Protection Fencing

10.12 Unless otherwise agreed in writing with the Arboricultural Consultant and/or LPA Tree Officer, the fencing system to be utilised shall be in accordance with Appendix E and compliant with BS5837:2012.

10.13 The tree protection fence shall be erected as shown on the Tree Removal and Protection Plan (Appendix D) included with is report.

10.14 The fence line shown is the minimum required, and the length of the fence shall be extended or adjusted on site as agreed with the Arboricultural Consultant to ensure satisfactory protection of all retained trees and RPAs.

Reporting

10.15 Should any arboricultural issues become apparent during the works the site manager should immediately contact the Arboricultural Consultant or the Council's Tree Officer for advice upon how to proceed.

APPENDICES

Appendix A

Tree Characteristics Recorded During Survey

Tree Ref No:	Sequential reference number of trees or groups of trees. Avenues, woodlands and hedgerows were also recorded on the tree constraints plan. # - denotes inaccessible trees (best estimates are made about the location, physical dimensions and characteristics.)				
Species	Species listed by common name, with scientific names (italic lettering).				
Height (m)	Estimated height of canopy to nearest metre.				
Branch Spread	branch spread, taken as a minimum at the four cardinal points, to derive an accurate representation of the crown				
Stem diameter @ 1.5 m (m)	Estimated diameter of trunk at 1.5 m above ground level in metres unless otherwise indicated, multi-stemmed trees being measured in accordance with Annex C: BS5837:2012				
Existing height above ground level	To inform on ground clearance, crown/stem ratio and shading the estimated height of the first significant branch and direction of growth and canopy above ground level.				
Stem No.	Number of stems (if necessary) of individual tree.				
Life Stage	Expressed as:-	Y SM EM M	(Young) (Semi-mature) (Early mature) (Mature)	OM V D	(Over-mature) (Veteran) (Dead)
Physical Condition	Apparent condition expressed as the following categories, based upon a brief visual inspection from the ground only:-				Good Fair Poor Dead
Comments / Management Recommendations	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations and potential for wildlife habitats (not exhaustive).				
Estimated remaining contribution (years)	Estimated remaining contribution, in years (<10, 10+,20+,40+)				
Tree Quality Assessment Value: Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**A** (Trees/Vegetation of high quality and value) **B** (Vegetation of moderate quality and value) **C** (Trees/Vegetation of low quality and value) **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)			
	* Category U trees can have existing or potential conservation value which might be desirable to preserve.				
Tree Quality Assessment Value: Sub - Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	**1** (Trees with mainly *arboricultural* value) **2** (Trees with mainly *landscape* value) **3** (Trees with mainly *cultural / conservation* value)			

Appendix B

Tree Survey Schedule

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T1	Quercus robur (Common Oak)	15	9	6	8	9	200	710	1	2	(N)	M	Fair	Tree bounding the downs way footpath, ivy on main stem, minor deadwood,	40+	A2	8.5
T2	Quercus robur (Common Oak)	15	7	3	3	3	47	270	1	5	3 (S)	EM	Poor	Tree bounding the downs way footpath, small crown, minor deadwood,	10+	C2	3.2
T3	Quercus robur (Common Oak)	12.5	3	3	7	3	47	250 180	2	2	(S)	EM	Poor	Suppressed by adjacent trees, minor deadwood, bias to south,	10+	C2	3.7
T4	Quercus robur (Common Oak)	15	9	5	8	4	132	550 600	2	1.5	1.5 (S)	M	Fair	Tree bounding the downs way footpath, moderate deadwood in lower crown, multiple stems from 0.5m,	20+	B2	9.8
T5	Quercus robur (Common Oak)	15	7	7	8	5	143	500	1	2	(S)	M	Fair	Tree bounding the downs way footpath., stem bifurcates at 3m, minor deadwood,	40+	A2	6.0
T6	Quercus robur (Common Oak)	15	6	5	8	7	130	710	1	2	(S)	M	Fair	Tree bounding the downs way footpath, minor deadwood, slight crown bias to south,	40+	A2	8.5
T7	Quercus robur (Common Oak)	15	7	7	7	7	154	400 350 350	3	1.5	3 (SE)	M	Fair	Tree bounding the downs way footpath, multi-stemmed habit, minor deadwood, one stem is ivy clad to upper crown,	20+	B2	7.6
T8	Quercus robur (Common Oak)	17.5	8	8 5	9	8	220	350 250 200 200 250 300 350 400	8	1.5	0.5 (S)	M	Fair	Tree bounding the downs way footpath, multi-stemmed habit with included unions and some crossing stems, ivy on most stems, minor deadwood throughout crown,	20+	B2	10.0
T9	Crataegus monogyna (Hawthorn)	7 5	2 5	2.5	2.5	2 5	20	150	2	0.5	-	SM	Good	Unremarkable tree,	10+	C2	2.5
T10	Prunus spinosa (Blackthorn)	5	2	2	2	2	13	100	1	0	-	M	Good	Larger tree within area of scrub,	10+	C2	1.2
T11	Quercus robur (Common Oak)	15	8	6 5	8.5	8 5	194	500 400	2	1	1 (SW)	M	Fair	Tree bounding the downs way footpath,	40+	A2	7.7

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T12	Quercus robur (Common Oak)	15	7	2	7	5	85	350	1	2.5	2 (S)	M	Fair	Tree bounding the downs way footpath, crown bias to west, suppressed by adjacent tree, minor deadwood,	10+	C2	4.2
T13	Quercus robur (Common Oak)	15	7	7	8	3	121	300 300 300	3	1.5	2 (S)	M	Fair	Tree bounding the downs way footpath, multi-stemmed habit, minor deadwood throughout crown,	20+	B2	6.2
T14	Quercus robur (Common Oak)	15	7	5	8	5	123	600 400	2	3.5	2 (SE)	M	Fair	Tree bounding the downs way footpath,	20+	B2	8.7
T15	Malus (Apple)	12.5	7	5	7	2	85	250 250 200	3	0	1.5 (SE)	M	Fair	Multi-stemmed habit, minor deadwood, suppressed by adjacent tree,	10+	C2	4.9
T16	Quercus robur (Common Oak)	15	7	2	5	8	92	250 200	2	4	4 (W)	EM	Fair	Twin-stemmed at 0 2m with included union, minor deadwood in crown,	20+	B2	3.8
T17	Quercus robur (Common Oak)	15	7	6	3	6	92	200 200 200 200 150 300	6	3	-	M	Fair	Multi-trunked tree, moderate deadwood,	20+	B2	6.3
T18	Quercus robur (Common Oak)	14	5	5	5	3	63	250 250	2	0.1	(E)	EM	Fair/Poor	Twin stems, minor deadwood, poor habit,	10+	C2	4.3
T19	Quercus robur (Common Oak)	15	4	2	6	5	52	350	1	3	3 (S)	M	Fair	On edge of path, co-dominant leaders from 4m,	20+	B2	4.2
T20	Quercus robur (Common Oak)	15	4	3	10	7	93	510	1	2	2.5 (S)	M	Fair	Crown bias to south, deadwood snags throughout crown, stem bifurcated at 3m with poor included union,	10+	C2	6.1
T21	Quercus robur (Common Oak)	15	3	9	10	3	123	550	1	2	3 (S)	M	Fair	On footpath side, dead wood,	20+	B2	6.6
T22	Quercus robur (Common Oak)	15	8	7	8	7	177	600	1	2	3 (S)	M	Fair	Minor deadwood, dogleg in main stem at 3m, prominent tree within group,	40+	A2	7.2
T23	Quercus robur (Common Oak)	17	6	6	9	9	170	700	1	5	(E)	M	Fair	Larger tree within linear group, some minor dead wood,	40+	A2	8.4

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T24	Quercus robur (Common Oak)	17.5	3 5	5	8	7	100	400	1	2	3 (S)	M	Fair	Abutting fenceline, crown bias to south, minor deadwood,	20+	B2	4.8
#T25	Quercus robur (Common Oak)	20	11	11	11	11	380	900	1	3	4 (W)	M	Good	Estimated values due to access, large, wide-spreading tree, well formed canopy, minor deadwood, tree has established alongside boundary ditch,	40+	A2	10.8
T26	Quercus robur (Common Oak)	17.5	5	7	9	7	151	500	1	4	4 (W)	M	Fair	Part of linear boundray group, partly suppressed by adjacent tree, crown bias to south,	40+	A2	6.0
#T27	Quercus robur (Common Oak)	20	11	11	11	11	380	1200	1	5	(E)	M	Fair	Estimated values due to access, large, wide-spreading, well formed canopy, minor deadwood, tree has established alongside ditch boundary, ivy throughout inner crown,	40+	A2	14.4
T28	Salix fragilis (Crack Willow)	12.5	5	5	5	5	79	600	1	2	-	M	Fair	Large stem formed from multiple touching stems with included unions, squirrel damage in crown, minor deadwood,	10+	C2	7.2
#T29	Quercus robur (Common Oak)	22	10	12	12	12	415	1200	1	4	(E)	M	Fair	Estimated values due to access, large, wide-spreading, well formed canopy, some small deadwood snags, tree has established alongside ditch boundary,	40+	A2	14.4
#T30	Quercus robur (Common Oak)	15	11	11	11	11	380	1200	1	5	(E)	M	Fair	Estimated values due to access, not plotted on original survey, large, wide-spreading, well formed canopy, minor deadwood, tree has established alongside ditch boundary, ivy throughout inner crown,	40+	A2	14.4
T31	Acer campestre (Field Maple)	10	1	4	6	7	51	200 200 150	3	3	-	M	Fair	Smaller tree within linear field boundary group, stem and crown bias to west,	10+	C2	3.8
#T32	Quercus robur (Common Oak)	15	9	9	9	9	254	900	1	5	(E)	M	Fair	Estimated values due to access, not plotted on original survey, large, wide-spreading, well formed canopy, minor deadwood, tree has established alongside ditch boundary, ivy throughout inner crown,	40+	A2	10.8
T33	Quercus robur (Common Oak)	17.5	9	8	6	8	187	900	1	4	4 (N)	M	Good	Well formed tree on edge of ditch, ivy on main stem into mid crown, minor deadwood,	40+	A2	10.8

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site: Hayes Lane, Slinfold

Project Schedule Ref: 5397-RPS-XX-XX-SH-AR-91750

Drawing Reference: 5397-RPS-XX-XX-DR-AR-91700

Survey date: 11/04/2025

Surveyor: R. Carthew

Status: For Information

Revision: P01

Notes: -

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T34	Quercus robur (Common Oak)	23	10	10	10	10	314	1250	1	4	(E)	M	Good	Prominent well formed tree on edge of ditch, good example of species, minor deadwood, earth hollows between buttresses,	40+	A2	15.0
T35	Fraxinus excelsior (Common Ash)	15	6	6	6	6	113	250 250 200 200	4	3	3 (W)	M	Fair	Multi-stemmed from ground level, minor deadwood, ivy on central leader into mid crown,	20+	B2	5.4
T36	Crataegus monogyna (Hawthorn)	7 5	3	3	3	3	28	150	3	0.5	-	EM	Fair	Multi-stemmed from ground level, climbing plants within crown,	10+	C2	3.1
T37	Quercus robur (Common Oak)	18	7	7	7	7	154	920	1	1.5	2 (N)	M	Fair	Epicormic growth on main stem, minor deadwood throughout crown, wind damage deadwood snag in upper crown,	40+	A2	11.0
T38	Quercus robur (Common Oak)	20	10	8	10	12	311	1300	1	5	7 (W)	M	Good	Large, well formed tree of good proportion,	40+	A2	15.0
T39	Quercus robur (Common Oak)	15	9	3	0.5	8	80	510	1	2	(NW)	M	Fair	Crown bias to the north west, minor deadwood,	40+	A2	6.1
T40	Quercus robur (Common Oak)	14	6	3	6	9	106	570	1	6	5 (W)	M	Fair	Crown bias to the west, moderated deadwood in lower crown,	40+	A2	6.8
T41	Quercus robur (Common Oak)	12.5	4	6	5	5	79	300	1	3	3 (E)	M	Fair	Minor dead wood in crown, leader off-kilter,	20+	B2	3.6
T42	Quercus robur (Common Oak)	15	3	6	7	5	85	650	1	4	3 (S)	M	Fair	Broken out limb and scar on main stem, crown bias to southeast,	20+	B2	7.8
T43	Quercus robur (Common Oak)	15	8	4	7	8	141	640	1	3	4 (N)	M	Good	Minor deadwood in crown slight clown bias to west,	40+	A2	7.7
T44	Quercus robur (Common Oak)	12.5	9	9	9	9	254	660	1	2	2.5 (S)	M	Good	Wide-spreading oak, squirrel damage in upper crown; associated deadwood, ivy on main stem,	40+	A2	7.9
T45	Quercus robur (Common Oak)	17.5	7	10	9	7	214	850	1	2	2 (S)	M	Good	Ivy on main stem, minor deadwood, various other small defects,	40+	A2	10.2

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T46	Quercus robur (Common Oak)	7 5	4 5	4.5	4.5	4 5	64	200	1	0	-	SM	Good	Good potential,	20+	B2	2.4
T47	Quercus robur (Common Oak)	7 5	3 5	3.5	3.5	3 5	38	150 150	2	0	-	SM	Good	Squirrel damage on main stems,	10+	C2	2.5
T48	Fraxinus excelsior (Common Ash)	15	6	6	6	6	113	350 200 200	3	2	(S)	M	Poor	Tree on edge of pond, sparce upper crown, likely ash die back, tree has previously been marked for removal,	<10	U	5.4
T49	Alnus glutinosa (Common Alder)	15	4 5	4.5	4.5	4 5	64	250 200	2	3	-	M	Fair	Twin-trunked, beside water,	10+	C2	3.8
T50	Taxodium distichum (Swamp Cypress)	20	6	6	6	6	113	450	1	5	5 (W)	M	Fair	Growing within pond, minor deadwood,	20+	B2	5.4
T51	Fraxinus excelsior (Ash)	17.5	3.5	3.5	3	3	33	150	1	3	-	SM	Fair	Unremarkable tree, stem abuts fence,	10+	C2	1.8
T52	Fraxinus excelsior (Ash)	17.5	2.5	2.5	2	2	16	150	3	3	-	SM	Poor	Multi-stemmed from ground level, sparce crown with major deadwood, possible ash die back,	<10	U	3.1
T53	Acer campestre (Field Maple)	18	2	2	7	6	41	450	1	0.5	-	M	Fair	Crown bias to southwest, two other stems have previously been removed leaving unbalanced shape,	20+	B2	5.4
T54	Fraxinus excelsior (Common Ash)	20	0.5	1	9	9	21	550	1	8	-	M	Fair	Sparce upper crown appears to have low vigour, two other stems have previously been removed leaving heavy crown bias to the southwest, minor dead wood.,	10+	C2	6.6
T55	Quercus robur (Common Oak)	20	7	4	10	8	156	500 400	2	4	4 (NE)	M	Fair	Suppressed by adjacent ash, crown bias to west,	20+	B2	7.7
T56	Quercus robur (Common Oak)	17.5	10	10	10	10	314	1200	1	2	(E)	M	Good	Large, well-formed tree, heavily ivy clad, enlarge at butt with cavity noted on the foot of the eastern bole,	40+	A2	14.4
T57	Quercus robur (Common Oak)	20	10	10	10	8	283	1200	1	4	4 (E)	M	Fair	Wide-spreading crown, tree of vast proportions, ivy clad, atop bankside,	40+	A2	14.4

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
T58	Quercus robur (Common Oak)	12	5	6	4	6	86	250 250 200	3	2	(E)	EM	Fair	On boundary,	20+	B2	4.9
T59	Quercus robur (Common Oak)	10	4.5	4.5	4 5	4.5	64	300	1	3	-	EM	Good	Larger tree within boundary group, good potential,	20+	B2	3.6
T60	Quercus robur (Common Oak)	21	9	12	12	12	396	1200	1	2	5 (E)	M	Good	Large, well formed tree, ivy on main stem, minor dead wood and epicormic growth throughout crown,	40+	A2	14.4
T61	Quercus robur (Common Oak)	17.5	9	12	7	9	264	800	1	3	4 (N)	M	Fair	Minor dead wood, upper crown has previously been reduced,	40+	A2	9.6
T62	Quercus robur (Common Oak)	22	14	12 5	13	12	520	1350	1	1.5	(S)	M	Fair	Ivy clad stem, fungal body in buttress at base previously noted, minor deadwood throughout crown, deadwood snags, some small cavities, good example of species, locally notable,	40+	A3	15.0
T63	Aesculus hippocastanum (Horse Chestnut)	7	3.5	3.5	3 5	3.5	38	300	1	1.5	-	M	Fair	Ivy clad stem, within hedgeline,	20+	B2	3.6
T64	Quercus robur (Common Oak)	7	3.5	3.5	3 5	3.5	38	200	1	1.5	-	M	Fair	Ivy clad stem to inner crown, within hedgeline,	20+	B2	2.4
G1	Quercus robur (Common Oak),Crataegus monogyna (Hawthorn),Salix caprea (Goat Willow),Fraxinus excelsior (Ash),Prunus spinosa (Blackthorn)	15	See	plans	for	extents	-	450 (avg.)	-	3	-	M	Fair	Vegetation on the north side of the downs way, mostly oak overstory with mostly hawthorn understory, collective value,	40+	A2	5.4
G2	Crataegus monogyna (Common Hawthorn)	4 5	See	plans	for	extents	-	200 (avg.)	-	1	-	EM	Fair	Multi-stemmed trees on side of footpath,	10+	C2	2.4
G3	Quercus robur (Common Oak)	15	See	plans	for	extents	-	500 (avg.)	-	4	-	M	Fair	Linear group of trees along the south side of the downs way, some multi-stemmed, all have ivy on main stems, collective value,	40+	A2	6.0
G4	Quercus robur (Common Oak)	17.5	See	plans	for	extents	-	250 350 550 (avg.)	-	0.5	3 (SE)	EM	Fair	Three trees growing as one shared crown, minor deadwood i, all,	20+	B2	8.4

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
G5	Fraxinus excelsior (Common Ash), Crataegus monogyna (Common Hawthorn), Acer campestre (Field Maple), Prunus spinosa (Blackthorn), lex aquifolium (Common Holly)	7	5	See	plans	for	extents	-	200 (avg.)	-	0	-	OM	Fair	Remnant hedge bank vegetation, relict,	10+	C2	2.4
G6	Quercus robur (Common Oak)	7	5	See	plans	for	extents	-	250 (avg.)	-	0.5	-	SM	Fair/Poor	Small trees dotted around the northeastern corner of the site, some are multi-stemmed, most have squirrel damage and minor deadwood,	10+	C2	3.0
G7	Corylus avellana (Hazel),Crataegus monogyna (Hawthorn),Prunus spinosa (Blackthorn),Acer campestre (Field Maple),Sambucus nigra (Elder)	10	See	plans	for	extents	-	300 (avg.)	-	0	-	M	Fair	Field boundary group that follows line of drainage ditch,	20+	B2	3.6
G8	Quercus robur (Common Oak)	7	5	See	plans	for	extents	-	125 (avg.)	-	1.5	-	Y	Fair	Line of three young trees, all have moderate squirrel damage on main leaders; limited potential,	10+	C2	1.5
G9	Fraxinus excelsior (Ash),Quercus robur (Common Oak)	7	5	See	plans	for	extents	-	150 (avg.)	-	0.5	-	SM	Poor	Group of mostly oak, all trees have extensive squirrel damage on main stems,	10+	C2	1.8
G10	Acer campestre (Field Maple),Salix caprea (Goat Willow),Crataegus monogyna (Hawthorn),Quercus robur (Common Oak)	12.5	See	plans	for	extents	-	200 (avg.)	-	1	-	EM	Fair	Linear roadside group consisting of lower quality trees with collective value,	20+	B2	2.4
G11	Quercus robur (Common Oak)	7	5	See	plans	for	extents	-	250 (avg.)	-	1.5	-	Y	Fair	Group of three trees, with good potential,	10+	C2	3.0
G12	Acer campestre (Field Maple),Salix caprea (Goat Willow),Crataegus monogyna (Hawthorn),Quercus robur (Common Oak)	12.5	See	plans	for	extents	-	200 (avg.)	-	1	-	EM	Fair	Linear roadside group,	10+	C2	2.4

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
G13	Crataegus monogyna (Hawthorn),Carpinus betulus (Hornbeam),Corylus avellana (Hazel),Quercus robur (Common Oak)	12.5	See	plans	for	extents	-	250 (avg.)	-	1	-	EM	Fair	Linear roadside group consisting of lower quality trees with collective value,	20+	B2	3.0
G14	Prunus spinosa (Blackthorn),Quercus robur (Common Oak),Carpinus betulus (Hornbeam),Crataegus monogyna (Hawthorn)	10	See	plans	for	extents	-	150 (avg.)	-	0	-	SM	Fair	Dense roadside group, most trees within group are smaller than 7.5, oaks in group are between 100-150mm dbh, most have squirrel damage,	10+	C2	1.8
G15	Quercus robur (Common Oak)	7 5	See	plans	for	extents	-	150 (avg.)	-	1.5	-	Y	Fair	Two young trees, both have moderate squirrel damage on main leaders; limited potential,	10+	C2	1.8
G16	Quercus robur (Common Oak),Acer campestre (Field Maple),Crataegus monogyna (Hawthorn)	10	See	plans	for	extents	-	250 (avg.)	-	0	-	M	Fair	Patchy roadside group,	10+	C2	3.0
H1	Crataegus monogyna (Common Hawthorn)	3	See	plans	for	extents	-	100 (avg.)	-	0.5	-	M	Fair	Unmaintained field boundary hedge,	10+	C2	1.2
H2	Carpinus betulus (Hornbeam), Crataegus monogyna (Hawthorn), Acer campestre (Field Maple), Corylus avellana (Common Hazel)	3 5	See	plans	for	extents	-	100 (avg.)	-	0	-	M	Fair	Immature unmaintained field boundary hedge,	10+	C2	1.2
S1	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-
S2	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-
S3	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-
S4	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

TREE SURVEY SCHEDULE

Site:	Hayes Lane, Slinfold	Surveyor:	R. Carthew
Project Schedule Ref:	5397-RPS-XX-XX-SH-AR-91750	Status:	For Information
Drawing Reference:	5397-RPS-XX-XX-DR-AR-91700	Revision:	P01
Survey date:	11/04/2025	Notes:	-

Ref. no	Species	Height (m)	Canopy Spread (m) N	E	S	W	Crown Area (m^2)	Stem dia. (mm)	Stem no. at 1.5m	Height of crown clearance (m)	FSB Height (Direction)	Age class	Condition	General Observations Management Recommendations	Estimated remaining contribution (yrs)	Tree Quality Category (BS5837)	RPA Radius (m)
S5	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-
S6	Prunus spinosa (Blackthorn)	5	See	plans	for	extents	-	75 (avg.)	-	0	-	SM	Good	Unremarkable area of scrub,	-	-	-
S7	Prunus spinosa (Blackthorn),Crataegus monogyna (Hawthorn)	7 5	See	plans	for	extents	-	100 (avg.)	-	0	-	M	Good	Unremarkable, unmaintained field boundary growth,	-	-	-

Note: This survey is based on a brief visual inspection from the ground.
It is not intended as a full arboricultural inspection.
- indicates estimated values. * - indicates off site tree.

Appendix C

Tree Constraints Plan

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Where applicable Ordnance Survey (c) Crown Copyright 2025 All rights reserved. Licence number AC0000808122

Drawing Scale Bar (ensure drawing is printed to the correct sheet size)

1:750-0 10m 20m 30m 40m 50m 60m 70m

Key

- Site/ Survey boundary.
- T1 — Tree with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown below. # = Tree details estimate (inaccessible tree) * = Tree in off site location
- G1 — Tree group plotted with individual stem locations and numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below.
- G1 — Tree or Vegetation group with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
- H1 — Hedge with numbered reference. Canopy extents and coloured BS5837:2012 tree quality category as shown below and dashed line to show hedge centerline.
- W1 — Woodland with numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative tree line.
- S1 — Area of Scrub with numbered reference. Dashed line to show indicative stem line.

BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

- Direction of first significant branch
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012
- (G1) — Tree protected by Tree Preservation Order No.TPO/1482/2015. Bracketed number reference relates to the TPO Schedule.

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period, generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by MKSurveys in September 2014.

N

Rev	Description	By	Ckd	Date
P01	First Issue	RC	DC	15/04/2025

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Project: Hayes Lane, Slinfold

Title: Tree Constraints Plan

Status	Scale	Date Created
Drawing Status	1:750 @A1	14/04/2025

Task Team Manager	Information Author	Task Information Manager
RC	RC	DC

Document Number: 5397-RPS-XX-XX-DR-AR-91700
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

RPS Project Number	Suitability	Revision
794-PLN-LAN-5397	S03	P01

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Appendix D

Tree Removal & Protection Plan

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. This drawing should be read in conjunction with all other relevant drawings and specifications.
4. Where applicable Ordnance Survey (c) Crown Copyright 2025 All rights reserved. Licence number AC0000808122

Drawing Scale Bar (ensure drawing is printed to the correct sheet size)

1:750-0 10m 20m 30m 40m 50m 60m 70m

Key

- Site/ Survey boundary.
- T1 — Tree with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown below. # = Tree details estimate (inaccessible tree) * = Tree in off site location
- G1 — Tree group plotted with individual stem locations and numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below.
- G1 — Tree or Vegetation group with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
- H1 — Hedge with numbered reference. Canopy extents and coloured BS5837:2012 tree quality category as shown below and dashed line to show hedge centerline.
- W1 — Woodland with numbered reference. Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative tree line.
- S1 — Area of Scrub with numbered reference. Dashed line to show indicative stem line.

BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

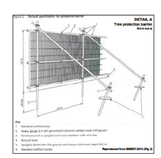
- Direction of first significant branch
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012
- (G1) — Tree protected by Tree Preservation Order No.TPO/1482/2015. Bracketed number reference relates to the TPO Schedule.

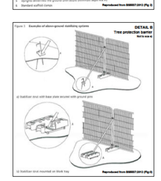
NOTES:

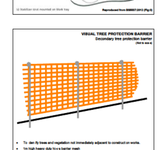
- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by MKSurveys in September 2014.
- Pedestrian/ vehicular emergency access routes to be maintained at all times.
- All protective fencing to be completed and approved by LPA / CA prior to commencement of any site works.
- All works to conform with requirements of:
  BS 3998:2010 - Tree Works
  BS 5837:2012 - Trees in relation to design, demolition and construction

N

Rev	Description	By	Ckd	Date
P01	First Issue	RC	DC	15/04/2025







- Tree to be removed with numbered reference. Canopy spread and coloured BS5837:2012 tree quality category as shown below. # = Tree details estimate (inaccessible tree) * = Tree in off site location
- Tree or Vegetation group to be removed with numbered reference.Canopy extents coloured to match BS5837:2012 tree quality category as shown below and dashed line to show indicative stem line.
- Temporary protective fencing in accordance with Section 6.2 - BS5837:2012. See inset details for example details.
- Temporary protective visual barrier, hi-vis mesh fence. See inset detail for example detail.
- Excavation to be completed by hand, any required root pruning to be in accordance with BS 3998. Pruning of roots over 25mmØ to be monitored by arboriculturist, with ongoing monitoring of trees condition by an arboriculturist being recommended.
- Above ground construction requiring "No-dig" design principles in accordance with AA Guidance Note 12 Cellular Confinement Systems Near Trees.
- Above ground construction requiring "No-dig" design principles in accordance with AA Guidance Note 12 Cellular Confinement Systems Near Trees. Works to be completed as part of landscape works after main construction works have been completed, using light/ hand tools only.

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Project: Hayes Lane, Slinfold

Title: Tree Removal & Protection Plan

Status	Scale	Date Created
Drawing Status	1:750 @A1	14/04/2025

Task Team Manager	Information Author	Task Information Manager
RC	RC	DC

Document Number: 5397-RPS-XX-XX-DR-AR-91710
Project Code - Originator - Zone - Level - Type - Role - Drawing Number

RPS Project Number	Suitability	Revision
794-PLN-LAN-5397	S03	P01

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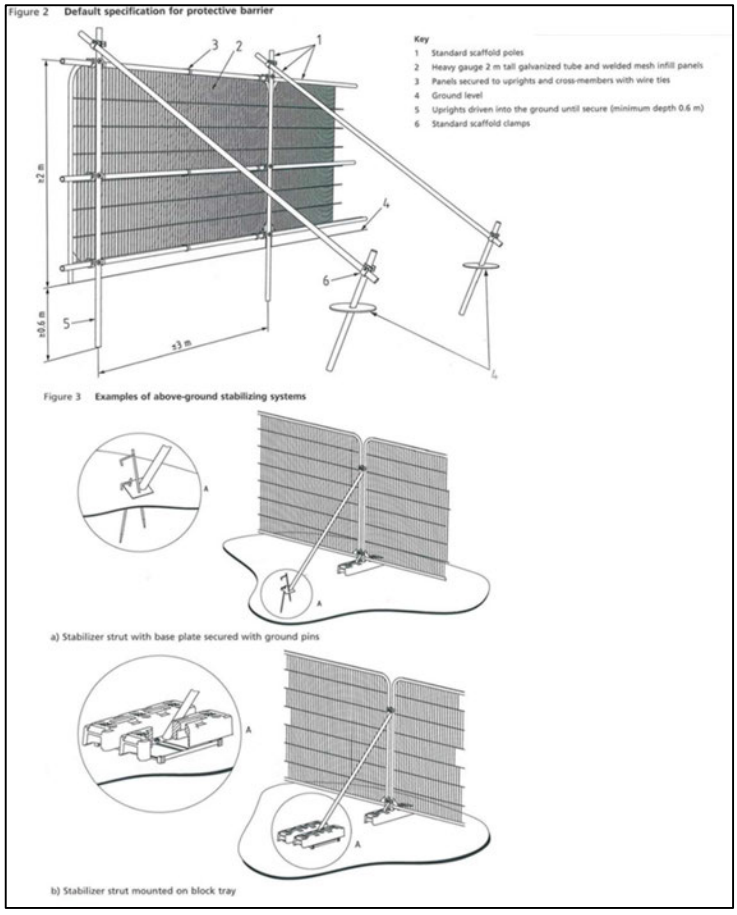
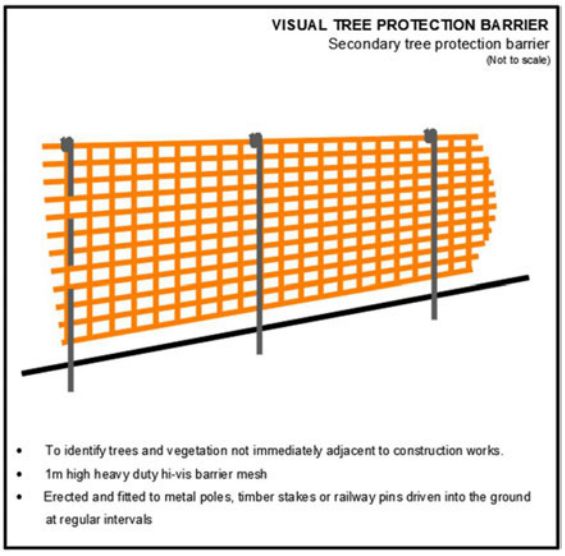
Appendix E

Example Tree Protection Barriers (BS5837:2012 Fig 2 & 3)





Appendix F

Construction Exclusion Zone (CEZ) Sign

Appendix G

Arboricultural Glossary

Age-class - A general classification of the tree into either - young, semi-mature, early mature, mature, over-mature, or veteran.

Apical Bud/Shoot – The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.

Apical Dominance – A singular, leading shoot remains dominant.

Arboreal - In connection with, or in relation to, trees.

Arboriculturist – Person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the field of trees in relation to construction.

Arboricultural Implications Assessment (AIA) – Study, undertaken by an arboriculturist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Arboricultural Method Statement (AMS) – Methodology for the implementation of any aspect of development that has the potential to result in the loss of or damage to a tree. Note The AMS is likely to include details of an on-site tree protection monitoring regime.

Asymmetric crown- Crowns that have a morphological bias in a particular direction. This can give the tree an aesthetically unfavourable appearance but can also subject the tree to uneven wind- loading forces and potentially result in failure.

Basal – Referring to the bottom part of a tree's stem.

Basifugal mortality – A natural process seen in trees in an advanced life stage whereby the trees extremities die back, and the inner crown expresses new growth, in order to conserve energy reserves.

Bifurcated - A growth characteristic, where two stems of similar size grow from the same point. Can create an inherent weakness.

Branch union/junction - The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.

Brown Rot- Decay caused by certain species of fungus which results in the affected wood becoming brittle and liable to suddenly 'break out', especially if in key structural areas.

Buttress flares – Extensions of the basal stem of a tree that provide additional structural support. See reaction wood.

Bifurcated- A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Cable braces – Cable braces used to support the crown of a tree, reduce impacts caused by wind- throw oscillation.

Canker – A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.

Central leader- See apical dominance.

Chalara ash dieback- A disease affecting ash trees caused by the fungus *Hymenoscyphus fraxineus*. Usually fatal, the disease causes leaf loss and crown dieback in infected trees. It was first confirmed in Britain in 2012.

Chlorosis- yellowing of leaves which can be caused by a range of factors, often an indicator of nutrient deficiency.

Compaction - The compressing & hardening of soil around tree root systems, due to vehicular/pedestrian use etc. Loss of pore space between soil granules limits water movement and gaseous exchange and inhibits root growth.

Companion shelter- Shelter provided by neighbouring trees in groups to one another, factors such as wind throw are reduced due to supporting branches and interlocking root systems. Removing individual trees on the peripheries of such groups can expose neighbouring trees to environmental factors they have not previously been subjected to and can lead to individual failure.

Competent person – Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached

Note 1 A competent person understands the hazards and the methods to be implemented to eliminate or reduce the risks that can arise. For example, when on site, a competent person is able to recognise at all times whether it is safe to proceed.

Note 2 A competent person is able to advise on the best means by which the recommendations of this British Standard may be implemented.

Condition – Assessment based on a visual and professional view giving consideration to many factors such as tree health, structural integrity and suitability of its position.

Conservation dead- wooding- Removal of deadwood using ‘coronet cuts’ that mimic the way a branch would naturally break off, maximising deadwood habitat availability for invertebrates.

Coppice - The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.

Crown spread - Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.

Crown Reduction – The removal of branch ends to reduce the extreme limits of a tree's branch spread and height.

Crown Thin – The removal of selected branches within the crown to thin the internal branch structure.

D.B.H. - 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.

Dieback - The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.

Epicormic growth - New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.

Form - A general assessment of the shape and position of the tree within its environment.

Hanger – Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.

Hazard Beam – After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure.

Included bark – Growth characteristic usually caused when two or more stems/branches growing in close proximity 'fuse' together entrapping the bark from when the parts were separate in the middle, creating a structural weakness.

Invertebrate tower – Pollarding of a (usually dead) tree to a safe height that leaves part of the main stem as a deadwood habitat for invertebrate species.

Occlusion/Occluded – Normally used to describe the overgrowth of a wound. Also, immoveable foreign objects in contact with a tree part can become encased or 'occluded' by the tree as it grows incrementally.

Pathogen - An agent that causes disease, especially a living microorganism such as a bacterium or fungus.

Phototropic growth – Growth responding to a light stimulus i.e. the sun. This can influence the form of a tree, particularly where other factors e.g. buildings or other trees, affect the amount/ direction light is received.

Pollard – The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.

Reaction wood - Essentially additional wood laid down by the tree to compensate for structural defects such as cavities.

Rhizosphere - The rhizosphere is the narrow region of soil that is directly influenced by root secretions and associated soil microorganisms. In particular, mycorrhizal fungi form a symbiotic relationship with trees and assist in the assimilation of phosphates essential to the tree's health.

Ring barking/Girdling – the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.

Root Protection Area (RPA) – Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².

Scaffold limbs - The main structural branches within the crown.

Tree Removal & Protection Plan – scale drawing prepared by an arboriculturist showing the finalised layout proposals, tree retention and tree and landscape protection measures detailed within the AMS, which can be shown graphically.

U.L.E – 'Useful Life Expectancy' is an estimate based on currently known factors of the possible remaining life of the tree as an asset. AKA 'Estimated remaining contribution'.

Veteran tree – 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.

Vigour - A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.

White Rot - A type of decay caused by certain species of fungi which results in the affected wood becoming flexible with little compressive strength.