

LEGAL AND GENERAL (STRATEGIC LAND NORTH HORSHAM) LIMITED

2A STRATEGIC LANDSCAPE BUFFER RESERVED MATTERS APPLICATION

**BS:5837 SURVEY, ARBORICULTURAL IMPACT ASSESSMENT
& METHOD STATEMENT**

ISSUE: Wednesday, 27 May 2026

CLIENT Legal and General (Strategic Land North Horsham) Limited

PROJECT Mowbray (Formerly Land North of Horsham) – 2A Strategic Landscape Buffer
Reserved Matters Application

REPORT TITLE BS:5837 Arboricultural Survey / AIA / AMS

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1. INTRODUCTION

Background

- 1.1 This report has been prepared on behalf of Legal and General (Strategic Land North Horsham) Limited (The Applicant).
- 1.2 David Jarvis Associates have been commissioned to provide an Arboricultural Impact Assessment & Arboricultural Method Statement in accordance with the guidelines and recommendations in the British Standard (BS) 5837:2012 *Trees in Relation to Design, Demolition and Construction* in relation to the outline planning application for the development of Mowbray (Formerly land north of Horsham).
- 1.3 The Arboricultural Impact Assessment will consider the short or longer-term impact that the proposed landscaping works within the 2A Strategic Landscape Buffer will have on the surrounding trees and make recommendations for amendments or mitigation where appropriate.
- 1.4 The Arboricultural Method Statement details the steps which will be taken to ensure retained trees are adequately protected and preserved during the landscaping works once planning consent is granted.

Scope

- 1.5 The scope and level of detail included in this report, complies with the requirements of British Standard (BS) 5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations* (BS:5837 Table B.1) and includes reference to the following:
 - Arboricultural Impact Assessment
 - Arboricultural Method Statement
 - Tree Protection Plan
- 1.6 The British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' is designed to assist those concerned with trees in relation to construction to form balanced judgments. This report does not therefore seek to put arguments for or against development but provides a means of protecting trees which may be affected during development.
- 1.7 The report is for the sole use of the client and their appointed agents. Its reproduction or use by anyone else is forbidden unless written consent is given by the author.

2. CONTACTS

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3. PLANNING BACKGROUND

- 3.1 An application for outline Planning Permission (LPA ref. DC/16/1677: 'the OPP') for the following development was submitted to Horsham District Council on 4th August 2016.
- 3.2 'Outline planning application with all matters reserved except access for a mixed-use strategic development to include housing (up to 2,750 dwellings), business park (up to 46,450m²), retail community, leisure facilities, education facilities, public open space, landscaping and related infrastructure.'
- 3.3 Permission was granted subject to conditions on the 1st of March 2018
- 3.4 Condition 16 of outline planning permission ref DC/16/1677 relates to the preservation of trees and reads as follows:

No development shall commence within any Reserved Matters Area or on works to construct the accesses hereby approved, including demolition pursuant to the permission granted, ground clearance, or bringing equipment, machinery or materials onto the relevant part of the site, until the following preliminaries have been completed in the sequence set out below:

a) A plan shall be submitted to show all trees on the relevant part of the site to be retained as well as those off-site whose root protection areas ingress into the relevant part of the site, such trees shall be fully protected by tree protective fencing affixed to the ground in full accordance with section 6 of BS 5837 'Trees in Relation to Design, Demolition and Construction - Recommendations' (2012).

b) Once installed, the fencing shall be maintained during the course of the development works for that phase or sub-phase and until all machinery and surplus materials have been removed from the site.

c) Areas so fenced off shall be treated as zones of prohibited access, and shall not be used for the storage of materials, equipment or machinery in any circumstances. No mixing of cement, concrete, or use of other materials or substances shall take place within any tree protective zone, or close enough to such a zone that seepage or displacement of those materials and substances could cause them to enter a zone.

Reason: As this matter is fundamental to ensure the successful and satisfactory retention of important trees and hedgerows on the site in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 3.5 The proposal that is subject to this Reserved Matters planning application is for the approval of matters pursuant to Condition 16 of outline planning permission ref DC/16/ 1677 for the soft landscaping enhancement of the 2A Strategic Landscape Buffer within the wider Mowbray development area.

4. LEGAL PROTECTION (TREES)

Tree Preservation Orders

- 4.1 I have confirmed on the Horsham District Council TPO Map that at the time of this report (26/05/2026), that there are no Tree Preservation Orders within the build area.

Conservation Areas

- 4.2 I have confirmed on the Horsham District Council online mapping portal that the 2A Strategic Landscape Buffer Zone is not within a Conservation Area.

Ancient Woodland

- 4.3 Castle Copse beyond the eastern boundary of the site is designated Ancient Woodland.

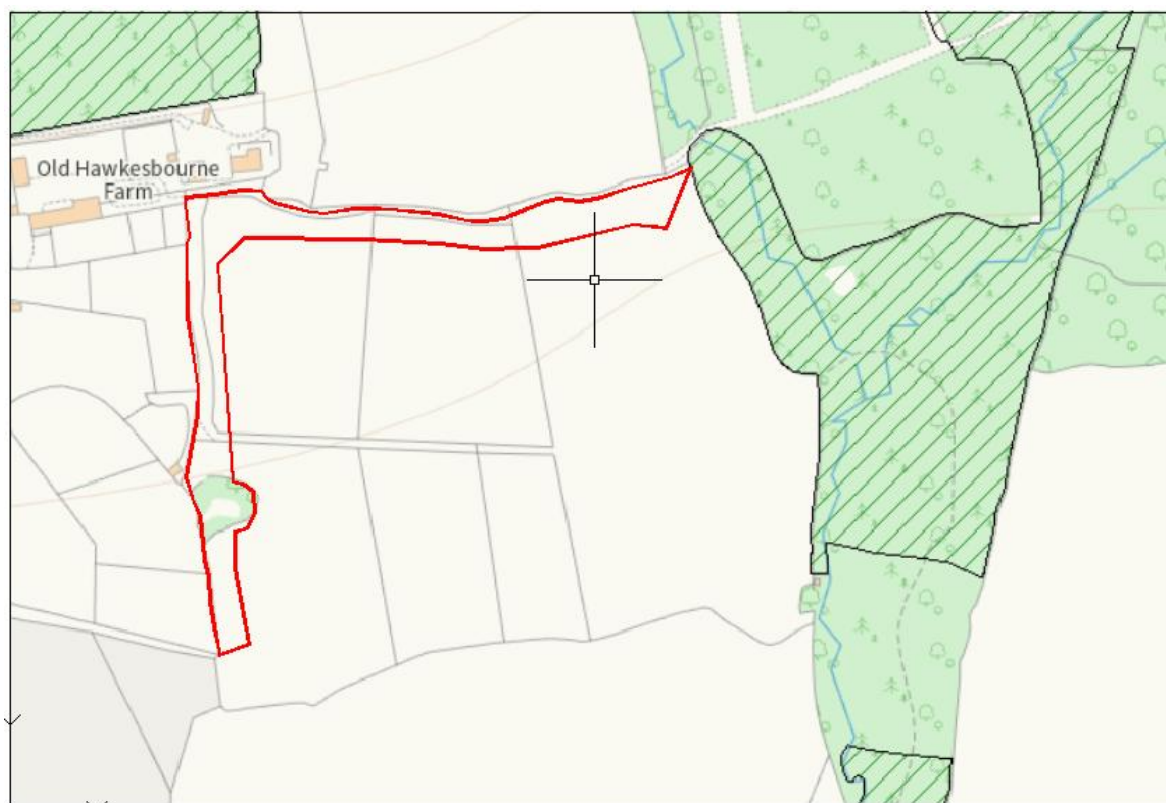


Figure 1 – Horsham Borough Council showing Ancient Woodland (green hatch) in relation to the 2A Strategic Landscape Buffer

- 4.4 For ancient woodlands, Government guidelines recommend a buffer zone of at least 15 metres from the boundary of the woodland. Where assessment shows other impacts are likely to extend beyond this distance, the proposal is likely to need a larger buffer zone.
- 4.5 In accordance with the National Planning Policy Framework, the 2A Strategic Landscape Buffer Zone maintains a minimum 15m boundary from the edge of the designated Ancient Woodland area to ensure all footpaths and tree planting in relation to the landscaping works sits outside of the Ancient Woodland Buffer Zone.

5. ARBORICULTURAL IMPACT ASSESSMENT

Introduction

- 5.1 The purpose of this Arboricultural Impact Assessment is to evaluate the direct and indirect effects of the proposed 2A Strategic Landscape Buffer landscaping works on trees growing within and adjacent to the site boundary.
- 5.2 This assessment will identify any potentially damaging activities proposed near the trees growing on and adjacent to the site. Where conflict is identified, this report will recommend design solutions or mitigation as appropriate.

Site Description

- 5.3 The site 'Land North of Horsham' is a strategic allocation covered by Policy SD1 to SD9 of the HDPF. The masterplan for development which includes the residential development and associated landscaping works of Mowbray has been agreed in principle under outline planning permission ref DC/16/ 1677.



Figure 2 – 2A Strategic Landscape Buffer Plan

- 5.4 The 2A Strategic Landscape Buffer Zone runs along the northern and western boundary of the RM13 residential development area.
- 5.5 The area allocated for development has no pre-existing development and consists of agricultural land currently split into a series of paddocks for equine use. The site is bordered by mature hedgerows in which are growing a number of individual mature Oak trees.
- 5.6 Along the western boundary there is a small pond area surrounded by suckering Goat willow and other small trees.
- 5.7 Dense woodland beyond the northeast corner of the site is named Castle Copse and is designated as Ancient Woodland.

Soil

- 5.8 The British Geological Survey 1:50 000 scale bedrock geology description for this area is Weald Clay Formation. Weald Clay Formation can become very soft when wet and vulnerable to compaction.
- 5.9 Most Weald Clay Formation soils fall within the low-to-medium Volume Change Potential (VCP) range. However, variations can exist and where high plasticity clay is present the potential for volumetric change will be greater.
- 5.10 Due care must be taken to construct foundations to a depth sufficient to resist soil shrinkage through desiccation, taking into account the presence and future growth of existing trees and future tree planting.

Site specific Assessment

- 5.11 The suitability of planning development in relation to trees is assessed by the Local Authority in accordance with the British Standard 5837: 2012 'Trees in Relation to Design, Demolition and Construction'.
- 5.12 This document requires that the conception and design of the final development layout must take into account the constraints posed by the trees on site. These constraints include not only the existing canopy and likely root spread but also:
- The ultimate height and spread of the trees.
 - Potential impact of species characteristics for future residents – evergreen / deciduous, density of foliage, seasonal leaf drop / berries etc.
 - Current and future shade patterns.
- 5.13 The default position in the British Standard is that every effort should be made to retain and protect the category A and B trees on site and that new structures should be located outside of the identified RPA's of trees to be retained.
- 5.14 This application relates to landscaping works only and with no construction works. It therefore represents a very low risk to trees.
- 5.15 However, three key aspects of the works have been identified where the 2A Strategic Landscape Buffer Zone may potentially impact on existing trees / hedgerows.

These are listed as follows:

- 1) Vehicle traffic during the ground works within the RPA of trees
 - 2) New planting within the RPA of trees
 - 3) Storage of plant and materials
- 5.16 The landscaping scheme is a sympathetic design in which all existing trees can be retained and fully protected, ensuring that their long-term contributions to local amenity and the character of the developed site is maintained. No trees are to be removed or cut back to facilitate the proposed landscaping works.
- 5.17 Root barriers for newly planted trees are located outside of the root protection area of all retained trees.

- 5.18 The 2A Landscape Buffer Zone is around the edge of an agricultural field which has been regularly ploughed and farmed historically using large agricultural vehicles. Trees around the site boundary are therefore already subject to a degree of compaction and will have rooted below the plough line. It will therefore be acceptable for the final ground preparation and seeding of meadow grass in this area to be carried out to the edge of the current plough line using agricultural vehicles.
- 5.19 The existing uncultivated verge around the periphery of the field will be preserved and not ploughed.
- 5.20 New hedging plants to thicken up the existing boundary line and shrubs will be planted within the existing uncultivated verge as bare root and notch planted, locally adjusting holes to avoid tree roots. If significant roots are encountered, these will be left undamaged and dug around.
- 5.21 New specimen trees have been positioned outside of the root protection areas of all trees to avoid the need for excavating larger planting holes within the root protection areas of trees. New trees are to be planted where they can grow to their full potential without impacting on the future growth of category 'A' and 'B' trees on site or on the proposed new residential development within the RM13 residential area.
- 5.22 Storage of plant and materials during the landscaping works will be within the adjacent agricultural field / within the RM13 Residential Development Area and outside of the root protection areas of all trees at all times.
- 5.23 Once the landscaping is completed, Tree Protection Fencing will be erected around the eastern edge of the 2A Landscape Buffer Zone prior to the development of the RM13 Residential Area.

Conclusions

- 5.24 This Reserved Matters application for the landscaping of the 2A Strategic Landscape Buffer Zone has been fully considered in accordance with the guidelines and recommendations from BS:5837 'Trees in Relation to Design, Demolition and Construction'.
- 5.25 Trees on site have been surveyed and categorised in terms of quality and amenity value in accordance with the British Standard 5837 (2012).
- 5.26 This is a low-intensity project to carry out landscape enhancement and additional tree / shrub planting within the Landscape Buffer. The landscape layout has been designed around the mature tree stock which is to be retained. The proposed new specimen tree planting operations are outside of the rooting areas of all trees.
- 5.27 Provided the methodology specified within the Arboricultural Method Statement is followed during the landscaping works I am satisfied that the proposed landscaping of the 2A Strategic Landscape Buffer Zone can be undertaken without unacceptable harm to the trees and in accordance with the guidelines and recommendations in BS:5837 2012 – Trees in Relation to Design, Demolition and Construction. The application is therefore acceptable as it relates to trees.

6. ARBORICULTURAL METHOD STATEMENT (AMS)

Introduction

- 6.1 This Arboricultural Method Statement specifies the detailed methodology that will be employed to prevent damage to trees during landscaping works associated with the Phase 2A Strategic Landscape Buffer within the North Horsham (Mowbray) Strategic Development Site.
- 6.2 The proposal is for a scheme of low-intensity tree and landscape planting. Planting activities around the edge of the field will be in arboriculturally sensitive areas.
- 6.3 The schedule proposed here for Arboricultural monitoring is considered proportionate to the arboricultural issues and low intensity of development within the site.

Compliance

- 6.4 This method statement will be read, approved, and agreed to by all key personnel prior to the commencement of works within the site.
- 6.5 To ensure a commitment from all parties to the healthy retention of the trees, Tree Protection details – to include the Arboricultural Method Statement and Tree Protection Plan, will be passed to all contractors working on site, so that the practical aspects of the required tree protection is included in their method statements, and financial provision made for these.
- 6.6 A copy of the Arboricultural Method Statement and Tree Protection Plan will be available on site for reference.

ADVISORY: FAILURE TO COMPLY WITH THE ARBORICULTURAL METHOD STATEMENT ONCE APPROVED CAN CAUSE HARM TO TREES AND MAY INVALIDATE YOUR PLANNING CONSENT.

On-site Supervisor

- 6.7 There will be a designated on-site Supervisor who will be responsible for ensuring no works are undertaken on site except in complete accordance with the approved Arboricultural Method Statement.
- 6.8 The on-site Supervisor will:
- Be present on site most of the time.
 - Be aware of the arboricultural responsibilities relating to the trees on site.
 - Have the authority to stop any work that will, or have the potential to, cause harm to any tree.
 - Be responsible for ensuring that all site personnel are aware of their responsibilities towards trees on site and the consequences of the failure to observe those responsibilities.
 - Make immediate contact with Horsham District Council and/or the retained arboriculturalist in the event of any related tree problems occurring whether actual or potential.

Tree Works

- 6.9 No tree works are proposed or required to facilitate the proposed landscaping works.

Site preparation

- 6.10 In accordance with the past agricultural management, the field area will be ploughed and tilled up to the existing uncultivated verge with the usual agricultural vehicles before being seeded with meadow grass.
- 6.11 Within the existing peripheral uncultivated verge the area will not be ploughed, existing ground levels will be maintained and soil will not be stripped.

Site Storage

- 6.12 Roots can be killed by pollution of the rooting area by chemicals and leaching. Loose, granular, or liquid materials, including cement mix and fuel will be stored within the field area and outside of the Ancient Woodland Buffer Zone and all Tree Root Protection Areas.
- 6.13 Heavy vehicles and lifting equipment will not be stored, parked or manoeuvred within the identified root protection areas of any trees.

Whip Planting

- 6.14 New hedge and shrub planting within RPA of existing trees shall be undertaken by hand using hand tools and notch planted to minimize tree root damage. Scrub and woodland will be planted as bare root whips.
- 6.15 Positions of slots for individual plants will be locally adjusted if required to avoid larger or woody tree roots.

Standard Tree Planting

- 6.16 New trees will be planted as per the attached landscaping scheme and outside of the identified rooting areas of boundary trees. Specimen trees will be a mix of native trees to enhance the biodiversity of the site and resilience of the tree cover in the face of future climate change.
- 6.17 New tree planting includes potentially large-canopied trees, which will be planted away from existing trees, where they have room to grow to their full potential without coming into conflict with the existing boundary tree stock.
- 6.18 Planting will be undertaken when soils are moist and free from frost within the current or next planting season (November to March - whichever is soonest) on completion of the ground works.
- 6.19 The following guidelines will be followed to ensure successful tree establishment:
- Standard trees will be nursery-grown, rootballed specimen trees.
 - Planting trees too deep is a major cause for premature decline. Tree planting pits will be dug to the same depth as the container to prevent settlement and sinking post planting.
 - The width of the planting pit will be a minimum of one and a half times as large as the root-ball/container and up to a maximum of two times as wide, if the soil is very compacted. This means that a root-ball of 40cm wide will be planted in a hole at least 60cm wide. The soil backfilled into the planting pit will consist of 1/3 organic matter (well-rotted manure or other compost) with 2/3 existing soil.

TREE PLANTING PIT DESIGN

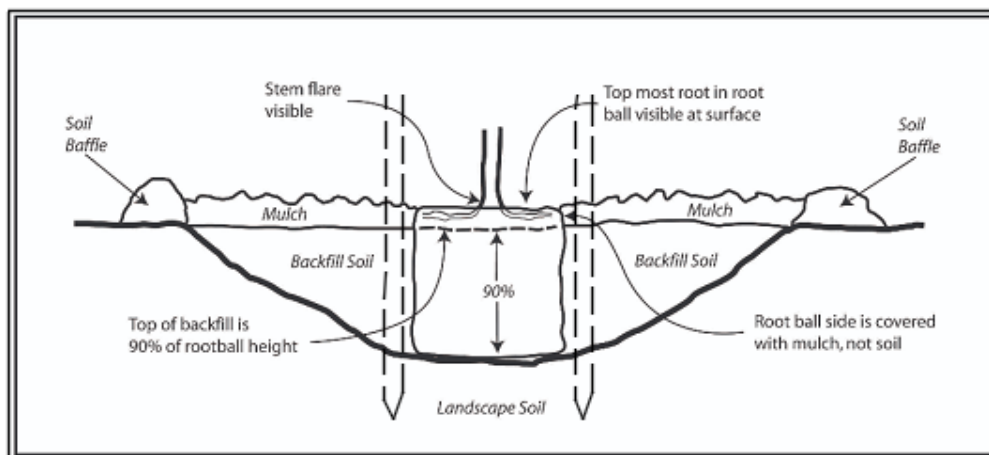


Figure 3. Tree Planting Pit specification

- The standard trees (with a clear stem to 2m) will be staked with two stakes and a cross bar set as low down the tree as possible to allow for canopy and stem movement whilst supporting the structural function of the root system.
- Tree stakes will be driven into the ground to a sufficient depth to provide full support before the tree is planted. Supporting straps around the stem will allow for the radial expansion of the stem. A rubber bung will prevent the tree from coming into direct contact with the tree stake.
- Deer and rabbit guards consisting of stakes and netting will be installed around the bases of new trees where necessary.
- The health and development of young trees should be assessed annually and on an adhoc basis as required during the year to inform maintenance operations and any required actions. Assessment to include - foliage appearance, leaf size, leaf canopy density, extension growth and girth development.
- Tree stakes and ties should be inspected at least annually for stability and firmness, ensuring that ties are performing effectively and not causing damage to the tree through chafing or rubbing of the tree against the stake. Ties must be fitted correctly so that they provide the necessary support to the tree but not be so tight that they constrict and inhibit the natural growth of the tree.
- Within the first three years, any trees found to be leaning are to be re-straightened. At the end of the second and third season assess tree establishment and remove old stakes and ties where trees have established well enough to no longer require supporting or protecting.
- Side shoots and epicormic growth will be pruned out to maintain a clear stem during June and again in October each year. At the same time any crossing or damaged wood will be removed along with any dead or diseased branches.
- Areas around the base of trees are to be kept free from weeds maintaining a 1 metre diameter mulch ring surround to trees free from grass, weeds and rubbish at all times.
- Strimmers can cause irreparable damage to the stems of young trees and plants and should not be used anywhere near trees.

General Considerations

- 6.20 Tree roots can be damaged by severance, compaction, pollution, and desiccation. There should be no excavation or changes in ground levels within the identified rooting areas of boundary trees.
- 6.21 Any new trees which, within a period of five years following planting; die, are removed, fail to thrive or become seriously damaged or diseased; should be replaced with another of a similar size and species.
- 6.22 There will be no open fires on site during the course of the landscaping works.
- 6.23 Particular care will be taken in the planning of deliveries if they require wide or tall loads and plants with booms, rigs or counterweights which can cause serious and permanent damage to trees making their safe retention impossible.
- 6.24 Where new fencing is proposed within the Root Protection Areas of boundary trees, post holes will be dug using a post hole digger to keep hole size to a minimum. Where substantial roots over 30mm are encountered, the location of the hole will be moved in order to avoid them.
- 6.25 Post holes will be fully lined in order to prevent concrete coming into direct contact with tree roots.

THERE WILL BE NO STORAGE, PARKING, VEHICLE MOVEMENT, TEMPORARY OR OTHERWISE, WITHIN THE IDENTIFIED ROOT PROTECTION AREAS OF BOUNDARY TREES AT ANY TIME DURING THE COURSE OF THE LANDSCAPING WORKS.

Unforeseen Circumstances

- 6.26 In the event of unforeseen circumstances whereby it is not possible to work in accordance with the Arboricultural Method Statement then advice should be sought immediately from a qualified Arboriculturist.

THERE SHALL BE NO DEVIATION FROM THIS METHOD STATEMENT WITHOUT CONSULTATION WITH A QUALIFIED ARBORICULTURIST AND / OR THE WRITTEN CONSENT OF THE LOCAL PLANNING AUTHORITY.

APPENDIX 1

Survey Key

Ref:	T001 = Tree 1 A001 = Area 1	G001 = Group 1 W001 = Woodland 1
Species:	Common name (Botanical name)	
Height:	Measured with a clinometer (m) where possible or estimated when part of a group	
Stem:	Stem diameter taken at 1.5m with girth tape or rule and recorded in millimetres	
Branch spread:	Paced measurements at compass points or with a laser measure.	
	Crown clearance: Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g. 2.4 (N) where relevant.	
Epics:	Lower canopy created by epicormic growth.	
Age Class:	Newly planted - 3 years following planting Young - Tree well established but with juvenile crown form Young Mature - Tree in first third of usual life expectancy for species Mature - Tree in second third of usual life expectancy for species Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence Veteran - Older than usual for species or with historical/ cultural / ecological value	
General Observations:	Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.	
Estimated Remaining Contribution:	Estimated in years - less than 10, 10-20, 20-40, 40+	
BS: 5837:2012 category rating:	In accordance with the guidelines of the British Standard.	
	 Category 'A' tree (Green)  Category 'C' tree (Grey)  Category 'B' tree (Blue)  Category 'U' tree – Fell (Red)	
RPA Area:	BS:5837 (2012) Root Protection Area calculation in square metres	
RPA Radius	BS:5837 (2012) Root Protection Area calculation circle radius in metres. ¹	

¹ The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that 'the RPA for each tree should initially be plotted as a circle centred on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred 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 distributions.'

APPENDIX 2**BS:5837 (2012): Cascade chart for tree quality assessment**

CATEGORY & DEFINITION	CRITERIA (INCLUDING SUB-CATEGORIES WHERE APPROPRIATE)		
Trees unsuitable for retention			
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 (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning. - Trees that are dead or 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		
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation
Trees considered suitable for retention			
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)
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 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 contribution to the wider locality.	Trees with material conservation or other cultural value.
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 only temporary / transient landscape benefits.	Trees with no material conservation or other cultural value.

APPENDIX 3

Survey Appraisal

The trees were surveyed as part of a wider survey of trees within the Phase 2 North Horsham Development Area in July 2023. This report includes an extract of the tree survey data which is relevant to this application. For other trees within the Phase 2 North Horsham Development Area, please refer to the Tree Survey Report

Trees were viewed from ground level only. Heights were estimated where part of a group. Girth and canopy spread was measured with a laser measure or estimated where trees were not accessible. Soil samples were not taken.

The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS:5837:2012.

Obvious defects have been noted on the trees, however, this survey is for planning use only and does not constitute a detailed health and safety survey of the trees. Its use as such is invalid.

Trees are dynamic living organisms subject to change, whose health and condition can be subject to significant change influenced by internal and external factors. The assessment of trees in this report are based on the condition assessed at the time of inspection and are valid for 18 months.

If the condition of the trees evidently changes or the trees are subject to extreme weather conditions before this date; further inspection may be required. No tree is ever absolutely safe due to the unpredictable laws and forces of nature.

APPENDIX 4**Tree Survey Data**

Ref:	Species	Type	Data	Canopy Radius	Description	BS:5837 Category	Root Protection Area	Condition Summary
G156	Hornbeam x3 (<i>Carpinus betulus</i>) Field Maple x2 (<i>Acer campestre</i>)	Group 5 trees	Height (m): 6.5 5 stems, avg.(mm): 260 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Old hedgerow trees. Decay pockets on trunks.	C3	Area: 2 sq m, plus a 1m buffer.	Physiological Cond: Fair Structural Cond: Fair
T157	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 5 Stem Diam (mm): 300 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Small hedgerow tree, managed as pollard	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Cond: Fair Structural Cond: Fair
T158	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 6 Stem Diam (mm): 300 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3 E:3 S:3 W:3	Small hedgerow tree, managed as pollard. Early symptoms of Ash Dieback in canopy.	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Cond: Poor Structural Cond: Fair
T159	Not identified (<i>Not identified</i>)	Tree	Height (m): 6.5 Stem Diam (mm): 400 Life Stage: Mature Rem. Contrib.: 40+ Years	N:5.5 E:5.5 S:5.5 W:5.5	No access to base. Twin stem from ground level. Reasonable vitality	C2	Radius: 4.8m. Area: 72 sq m.	Physiological Cond: Fair Structural Cond: Fair
T160	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 6 Stem Diam (mm): 400 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3 E:3 S:3 W:3	Low branching lapsed pollard in dense hedgerow.	C2	Radius: 4.8m. Area: 72 sq m.	Physiological Cond: Fair Structural Cond: Fair
T161	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 6 Stem Diam (mm): 320 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.4 S:3.4 W:3.4	Small hedgerow tree.	C2	Radius: 3.8m. Area: 45 sq m.	Physiological Cond: Fair Structural Cond: Fair
T162	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 6 Stem Diam (mm): 320 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:4.2 E:4.2 S:4.2 W:4.2	Small hedgerow tree.	C2	Radius: 3.8m. Area: 45 sq m.	Physiological Cond: Fair Structural Cond: Fair
T163	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 6 Stem Diam (mm): 150 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Small hedgerow tree.	C2	Radius: 1.8m. Area: 10 sq m.	Physiological Cond: Fair Structural Cond: Fair

Ref:	Species	Type	Data	Canopy Radius	Description	BS:5837 Category	Root Protection Area	Condition Summary
T164	Field Maple (<i>Acer campestre</i>)	Tree	Height (m): 6 Stem Diam (mm): 420 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Old, gnarled hedgerow tree.	C2	Radius: 5.0m. Area: 79 sq m.	Physiological Cond: Fair Structural Cond: Fair
T165	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 6 Stem Diam (mm): 200 Crown Clearance (m): 1.5 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:3.5 W:3.5	Small hedgerow tree.	C2	Radius: 2.4m. Area: 18 sq m.	Physiological Cond: Fair Structural Cond: Fair
T166	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 17 Stem Diam (mm): 1200 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:9 E:9.5 S:10 W:9	Well-formed bankside mature tree. Beyond fence, no access to base due to dense vegetation. Superficial bark damage to buttress roots from grazing livestock.	A1	Radius: 14.4m. Area: 651 sq m.	Physiological Cond: Good Structural Cond: Good
T167	Field Maple (<i>Acer campestre</i>)	Tree	Height (m): 7 Stem Diam (mm): 250 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3 E:2 S:1 W:3	Small, old hedgerow tree. Cavities at base.	C2	Radius: 3.0m. Area: 28 sq m.	Physiological Cond: Fair Structural Cond: Fair
T168	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 13 Stem Diam (mm): 710 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:7.5 E:7.5 S:7.5 W:7.5	Barbed wire occluded into lower trunk. Remains of fungal bracket at base on west side - too decayed to identify. Canopy slightly sparse.	B1	Radius: 8.5m. Area: 227 sq m.	Physiological Cond: Fair Structural Cond: Physical Defect
T169	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 12 Stem Diam (mm): 600 Crown Clearance (m): 4 Life Stage: Mature Rem. Contrib.: 40+ Years	N:4 E:6 S:4 W:4	No access to base. Dense vegetation around base. High canopy with numerous pruning cuts. Bark necrosis indicative of possible basal decay.	C3	Radius: 7.2m. Area: 163 sq m.	Physiological Cond: Poor Structural Cond: Physical Defect
G170	Mixed Broadleaves (<i>Mixed Broadleaves</i>)	Group	Height (m): 4 Stem Diam (mm): 120 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3 E:3 S:3 W:3	Mature field hedgerow consisting mostly of blackthorn and hawthorn.	C2	Area: 1607 sq m, plus a 1m buffer.	Physiological Cond: Good Structural Cond: Fair
G171	Mixed Broadleaves (<i>Mixed Broadleaves</i>)	Group	Height (m): 4 Stem Diam (mm): 120 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 40+ Years	N:1 E:1 S:1 W:1	Mixed hawthorn/blackthorn hedge with bramble throughout.	C2	Area: 155 sq m, plus a 1m buffer.	Physiological Cond: Fair Structural Cond: Fair
T172	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 5 Stem Diam (mm): 180 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:1.5 E:1.5 S:1.5 W:1.5	Small, pollarded hedgerow tree.	C2	Radius: 2.2m. Area: 15 sq m.	Physiological Cond: Fair Structural Cond: Fair

Ref:	Species	Type	Data	Canopy Radius	Description	BS:5837 Category	Root Protection Area	Condition Summary
T173	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 15 Stem Diam (mm): 800 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:6.5 E:6.5 S:6.5 W:6.5	Off site, no access to base. Pronounced buttress skirt with superficial bark wounds to roots. Fungal bracket – <i>Ganoderma</i> spp.(?) at base on east side – too far away to identify with certainty. Canopy dense and even. Good vitality.	B1	Radius: 9.6m. Area: 290 sq m.	Physiological Cond: Fair Structural Cond: Physical Defect
G174	Mixed Broadleaves (<i>Mixed Broadleaves</i>)	Group	Height (m): 2 Stem Diam (mm): 200 Crown Clearance (m): 0 Life Stage: Over Mature Rem. Contrib.: 20+ Years	N:1.5 E:1.5 S:1.5 W:1.5	Gappy and sparse hawthorn and Blackthorn hedge.	C1,2	Area: 358 sq m, plus a 1m buffer.	Physiological Cond: Poor Structural Cond: Poor
T175	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 9 Stem Diam (mm): 320 Crown Clearance (m): 3 Life Stage: Early Mature Rem. Contrib.: 10+ Years	N:3 E:2 S:2 W:3	Early Ash Dieback in canopy.	C1	Radius: 3.8m. Area: 45 sq m.	Physiological Cond: Poor Structural Cond: Fair
T176	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 8 Stem Diam (mm): 320 Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 10+ Years	N:4 E:4 S:4 W:1	Early Ash Dieback in canopy. Significant bark damage and cavities on lower trunk	C1	Radius: 3.8m. Area: 45 sq m.	Physiological Cond: Fair Structural Cond: Poor
T177	Common Ash (<i>Fraxinus excelsior</i>)	Tree 2 stems	Height (m): 8 2 stems, diam(mm): 260, 100 Crown Clearance (m): 3 Life Stage: Early Mature Rem. Contrib.: 10+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Early Ash Dieback in canopy. Significant bark damage around lower trunks.	C1	Radius: 3.3m. Area: 34 sq m.	Physiological Cond: Poor Structural Cond: Poor
T178	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 15 Stem Diam (mm): 800 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:6 E:6 S:6 W:6	Off-site tree, no access to base. Previously reduced. A number of wounded branches throughout canopy.	B1	Radius: 9.6m. Area: 290 sq m.	Physiological Cond: Fair Structural Cond: Physical Defect
T179	Pedunculate Oak (<i>Quercus robur</i>)	Tree	Height (m): 15 Stem Diam (mm): 500 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years	N:6 E:6 S:6 W:6	Off-site tree, no access to base. Prolific ivy throughout canopy. Foliage dense and even. Good vitality.	B1	Radius: 6.0m. Area: 113 sq m.	Physiological Cond: Good Structural Cond: Unknown.
G180	Mixed Broadleaves	Group	Height (m): 5 Stem Diam (mm): 120 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 40+ Years	N:2 E:2 S:2 W:2	Mixed hawthorn / blackthorn hedge.	C2	Area: 298 sq m, plus a 1m buffer.	Physiological Cond: Fair Structural Cond: Fair
G181	Goat Willow x5 (<i>Salix caprea</i>)	Group 5 trees	Height (m): 5 5 stems, avg.(mm): 420 Crown Clearance (m): 0 Life Stage: Over Mature Rem. Contrib.: 40+ Years	N:5 E:12 S:6 W:2	Collapsed broken trees layered on ground	C1	Area: 48 sq m, plus a 1m buffer.	Physiological Cond: Fair Structural Cond: Collapsing

Ref:	Species	Type	Data	Canopy Radius	Description	BS:5837 Category	Root Protection Area	Condition Summary
T182	Field Maple (<i>Acer campestre</i>)	Tree	Height (m): 8 Stem Diam (mm): 350 Crown Clearance (m): 2 Life Stage: Mature	N:2 E:3 S:3.5 W:3.5	Livestock damage to bark	C2	Radius: 4.2m. Area: 55 sq m.	Physiological Cond: Fair Structural Cond: Poor
G183	Mixed Broadleaves	Group	Height (m): 6 Stem Diam (mm): 350 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 20+ Years	N:4 E:4 S:4 W:4	Mixed broad leaf shrubbery around dried pond area. Hazel, hawthorn, blackthorn, goat willow, elder etc. Many dead / low grade trees.	C2	Area: 781 sq m, plus a 1m buffer.	Physiological Cond: Poor Structural Cond: Poor
T184	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 7 Stem Diam (mm): 320 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Lapsed pollard tree in hedgerow	C2	Radius: 3.8m. Area: 45 sq m.	Physiological Cond: Fair Structural Cond: Fair
T185	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 6.5 Stem Diam (mm): 180 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Lapsed pollard tree in hedgerow	C2	Radius: 2.2m. Area: 15 sq m.	Physiological Cond: Fair Structural Cond: Fair
T186	Common Ash (<i>Fraxinus excelsior</i>)	Tree	Height (m): 6.5 Stem Diam (mm): 200 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2 E:2 S:2 W:2	Lapsed pollard tree in hedgerow	C2	Radius: 2.4m. Area: 18 sq m.	Physiological Cond: Fair Structural Cond: Fair
T187	Field Maple (<i>Acer campestre</i>)	Tree	Height (m): 6 Stem Diam (mm): 220 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: <10 years	N:3 E:3 S:3 W:3	Lapsed pollard tree in hedgerow. Split base.	U	None - due to Retention Category of U.	Physiological Cond: Fair Structural Cond: Collapsing
G188	Mixed Broadleaves	Group	Height (m): 5 Stem Diam (mm): 100 Crown Clearance (m): 0 Life Stage: Mature Rem. Contrib.: 40+ Years	N:1.5 E:1.5 S:1.5 W:1.5	Boundary hedge	C2	Area: 397 sq m, plus a 1m buffer.	Physiological Cond: Fair Structural Cond: Fair

APPENDIX 5

Qualifications

This Arboricultural report has been prepared by Sarah Duckworth, Independent Arboricultural Consultant, trading as Duckworth's Arboriculture Limited.

I have over 20 years' experience working in the field of Arboriculture and for the past 18 years I have worked as a Local Authority Tree Officer both directly and independently providing contracted support. Since 2010 I have worked as a private consultant carrying out a range of Arboricultural Reports and Assessments for private clients.

I hold the Royal Forestry Society's Professional Diploma (Level 6) for which I received the Lockhart Garrett Award. I also hold the Arboricultural Association's Technicians Certificate (with Distinction).

I am a LANTRA qualified Professional Tree Inspector and a Professional Member of the Arboricultural Association.