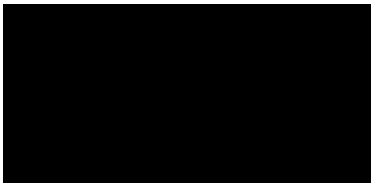


Land at Oakleigh Farm, Welwyn

Arboricultural Impact Assessment

To accompany a revised full application for 7 residential dwellings and shared access.

Client: Kingshall Estates
18th October 2024



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DOCUMENT HISTORY

Revision	Layout Assessed	Author	Reviewer	Date
O	proposed block plan 2019/942/03B and access road plan 2019/942/02C	AMB	TC	03/09/2019
A	proposed block plan 2019/942/12A and access road plan 2019/942/11A	TC	AMB	07/04/2021
B	Planning layout 19359-1002 Rev B and Access Road Proposal 2024-03-06	AMB	TC	18/10/2024

FILE REFERENCES:

This Report File Ref: 3794.Oakleigh.WH.AIA.Rev B

Arboricultural Impact Plan: 3794.Oakleigh.WH.AIP.Rev B

SUMMARY

Proposal:

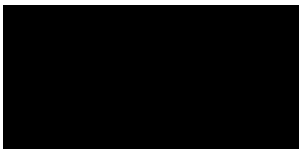
It is my opinion that the proposed development proposal is supportable from an arbicultural perspective and the effects of the retained trees on the livability in the dwellings is acceptable.

The specific impacts of the proposal are:

- The proposed development will require the removal of three trees, but these do not offer any value to the public at large.
- A conifer hedge is shown for removal.
- The proposed development encroaches on a lapsed hedge at the north of the site. This hedge will need to be pruned to facilitate development.
- The upgrading of the access road can be implemented without any significant effects on the adjacent trees.
- Some facilitation pruning will be required.
- Protection of the retained trees has been detailed in an Arbicultural Method Statement, which accompanies this application. A schedule of site monitoring and supervision will be required.
- In the process of redevelopment, there is an opportunity to plant additional trees that are appropriate to their surroundings and that can be retained in the long term. This will provide a net gain in tree cover at this location.

A Letter of Reliance for this Impact Assessment is available upon request, subject to applicable fees. Please contact me for further details

Signed:



A M Belson
RCArborA, DipArb RFS, Tech Cert (ArborA)

1 INTRODUCTION

1.1 The writer

Andrew Belson

RCArborA, DipArb RFS, Tech Cert (ArborA)

I am a Registered Consultant of the Arboricultural Association. (RC Licence No: RC202) and have worked as a consultant for over 20 years.

I hold the Arboricultural Association's Technician's Certificate and the Royal Forestry Society's Professional Diploma, which is a level 6 qualification equivalent to an Honours degree.

From a background in the Landscape and Treework industry, my experience encompasses roles as an Arboricultural Officer for a Borough Council and as a specialist contractor for a Unitary Authority, specifically handling insurance claims involving trees. I have also conducted a Tree Preservation Order Review for a Unitary Authority.

My clients include national and regional planners, architects, developers, and statutory undertakers, non-governmental organizations, local authorities, and individual householders.

I also undertake health & safety inspections; mortgage, insurance and homeowner assessments; Tree Preservation Order and Conservation Area-related work; and provide general legal and practical advice, including representation at Committee and for the purposes of Appeal.

1.2 Instructions

- 1.2.1 This assessment was commissioned by the Applicant because trees are a material consideration and this report is required to support a full planning application.
- 1.2.2 The first instruction was to survey the trees on or adjoining the site in line with the recommendations of BS5837: 2012 and to provide a plan of arboricultural constraints in the first instance to inform design.
- 1.2.3 The second instruction was to draw a plan showing the tree constraints overlaid to the submitted planning drawing so that the impact could be assessed, and to write an Arboricultural Impact Assessment report to accompany the application.

1.3 Project context

- 1.3.1 I surveyed the trees on or adjoining the site on 19th August 2019. The results of that survey are found at Appendix B.
- 1.3.2 An Arboricultural Method Statement and Tree Protection Plan has been produced and accompanies this assessment.

1.4 Source data

- 1.4.1 The data that have been used to inform this impact assessment comprises:

SOURCE	ANY ISSUES	CONCLUSION
TOPOGRAPHICAL SURVEY: 25786 Rev 1	None	The marked locations are adequate for the purpose of this assessment.
BS5837 TREE SURVEY	The survey took place three years before this assessment	I consider the results of the survey to still be appropriate for the purposes of this application.
PROPOSED SITE PLAN: Planning layout 19359-1002 Rev B and Access Road Proposal 2024-03-06	None	This drawing was adequate for the purposes of the AIA
ENGINEERING SPECIFICATIONS	n/a	At this stage of the application no engineering details are known

- 1.4.2 Note: This assessment is specific to the drawings listed above and cannot be generalised.

1.5 Compliance with BS5837:2012

- 1.5.1 This is an assessment of the elements recommended by BS5837: 2012 'Trees in relation to design, demolition and construction'.
- 1.5.2 Evidence of a tree survey conducted to BS5837:2012, including tree categorisation (BS5837 section 4.4 and 4.5) can be found in Appendix A (explanatory notes) and Appendix B (Survey Data Table).
- 1.5.3 An Arboricultural Impact Plan showing the trees and their RPAs overlaid to the proposed layout, indicating trees for retention and removal. (BS5837 section 4.5 and 4.6) can be found in Appendix C.
- 1.5.4 Consideration of any relevant policy, legislation or statutory protection affecting the site. (BS5837 section 5.2.3) (see section 3)
- 1.5.5 Throughout the report there is evidence of my assessment of the implication of the proposal and its acceptability based upon:
- The relationship between the trees and the proposed layout.
 - Indicated tree losses (BS5837 section 5.2.3 and 5.4.3)
 - The potential impact of RPA incursions (BS5837 section 5.3.1 and 5.3.2)
 - Factors which may affect the reasonable enjoyment of the proposed structures such as shading, screening and privacy (BS5837 section 5.3.4)
 - Future growth and/or pressures for removal or pruning (BS5837 section 5.3.4)
 - Factors that may affect foundation design (BS5837 Annex A)
 - Foreseeable issues with the planned demolition/construction of the proposed layout such as working space and access. (BS5837 section 5.4.2)

2 CONSTRAINTS

2.1 Site context

Location and Overview

- 2.1.1 The site is part of Oakleigh Farm and is occupied by several mixed-used buildings, open land and areas of hardstanding.
- 2.1.2 The immediate vicinity contains commercial sites to the west, residential dwellings in long narrow plots backing onto the access road to the west, and open aspects and woodland to the north, east and south.
- 2.1.3 The site is to the southeast of Codicote village, on the road to Welwyn and Welwyn Garden City to the southeast. Access is via a long single-track road leading around a residential development and on to Codicote Road.
- 2.1.4 The site is located on the boundary of Welwyn Hatfield Borough Council (WHBC) (to the east) and North Herts District Council (NHDC) (the west).



Fig. 1 Site Location Plan showing boundary between local authority areas marked in blue

Topography

- 2.1.5 The topography of the site is complex, with substantial areas graded level to accommodate the various buildings. As a result, the tracks and roadways around the site traverse changes in levels and the adjoining land has been cut back to the boundary at the northwest of the site.
- 2.1.6 Reference must be made to the full topographical survey for more details. Most of the topographical survey information is not shown on the drawings appended to this document for clarity of the information presented.

Soil and Geology

- 2.1.7 With reference to Figure 4.3, Volume 1 'Tree Root Damage to Buildings' (P G Biddle), some soils can have shrinkable characteristics (i.e., they are susceptible to volume changes in response to variations in moisture content).
- 2.1.8 Understanding the impact of trees on soil moisture content and considering the potential effects of changes in soil volume on foundations are critical for ensuring both the stability of the built environment and the preservation of retained trees. Chapter 4.2 of the National House Building Council Standards specifically addresses the requirements and considerations related to trees and shrinkable soils. It offers guidance to developers, engineers, and builders on how to assess the risks associated with trees and shrinkable soils in a development site and implement appropriate measures to mitigate these risks effectively.
- 2.1.9 The British Geological Survey of England and Wales identifies the bedrock geology at the location of the proposed residential development as Lewes Nodular Chalk Formation and Seaford Chalk Formation (- Chalk). With no superficial deposits noted.
- 2.1.10 Along the access road there are superficial deposits of Head (Clay, silt, sand and gravel) where it meets Codicote Road.
- 2.1.11 Fine-grained soils are fairly resistant to compaction and can have shrink/swell potential.
- 2.1.12 This data may not be accurate at a site level but it is considered adequate to inform the project at this stage and it provides a general context that has been used to inform an Arboricultural Method Statement which accompanies this application. An engineer may require more specific information to inform foundation design and engineer drainage, road construction and other built structures.

2.2 Statutory protection

- 2.2.1 This site does not lie within a Conservation Area.
- 2.2.2 None of the trees surveyed are included in a Tree Preservation Order.

2.3 Arboricultural survey

- 2.3.1 The trees were inspected in line with the recommendations of BS5837: 2012 on 19th August 2019. I consider the results of that survey to still be appropriate for the purposes of this application, although the observations and associated recommendations for remedial works are no longer current.
- 2.3.2 There are a group of Ash trees within a lapsed hedge at the front of the site that can easily be seen from Codicote Road, but all the other trees can only be seen from within the site or from private gardens.
- 2.3.3 The full table of survey data can be found in Appendix B.

2.4 Ecological considerations

- 2.4.1 Protected species such as nesting birds, bats, dormice, and reptiles play important roles in local ecosystems and are safeguarded by various laws and regulations.
- 2.4.2 The Applicant will need to ensure that appropriate advice regarding the protection of wildlife and other ecological matters is sought before any tree work proceeds on site.

3 CRITERIA

3.1 Protection of root system

3.1.1 Construction activities can cause damage to the root system of a tree in several ways:

- Physical damage Excavation for construction or the digging of trenches to install underground utilities can result in root damage such as the loss of bark, splits or complete severance.
- Changes in ground levels. Elevating soil levels can lead to root death through asphyxiation. Reducing soil levels can result in the loss of the beneficial humus layer and root loss.
- Soil compaction. Heavy machinery or vehicles operating near trees can lead to soil compaction. The degree to which this is significant will depend on the soil on the site but in principle, compaction reduces or removes pore spaces in the soil structure. This in turn can lead to root death through asphyxiation. During construction, ground can be protected from damage through the use of barriers or a suitable ground protection system.
- Soil contamination. construction materials, Materials such as fuel, chemicals, lime, cement, and waste water can cause root death, either through chemical action or asphyxiation. A site must be organized in such a way to prevent damage.
- Heat. Fires can not only damage the tree above ground but the heat can also cause root death. Fires should ideally be avoided on most sites but on larger sites, it may be practical to accommodate a fire, providing it is a suitable distance from retained trees.

3.1.2 In its simplest form, the Root Protection Area (RPA) is a circle which is drawn on plans to indicate an area that is adequate for a tree's normal needs such as anchorage, moisture and nutrient absorption. It is described in British Standard 5837 as a "layout design tool" and in most cases the radius of the circle is calculated by multiplying the diameter of the main stem of the tree by 12. The shape can be adjusted to account for the possible or absolute effect of sub-surface features on the rooting environment. The Arboricultural Impact Plan (see Appendix C) shows the Root Protection Area (RPA) as a magenta circle or polygon around each tree or group of trees.

3.1.3 Trees rely on their root systems to absorb water, nutrients, and provide stability. Severe root damage can lead to decline, poor growth, or even the eventual death of the tree. The degree of damage also depends on the health of the tree, its age, the species, and the overall site conditions. The results of damage can take several years to become evident.

- 3.1.4 BS5837 (paragraph 5.3.1) states that the RPA is the area where, if the trees are retained, ideally no excavation should take place; the soil level should not be raised or lowered; no materials should be stacked; there must be no contamination and no services should be routed. However, trees are remarkably resilient, and some root loss can typically be tolerated in a tree of normal health and vigour.
- 3.1.5 An incursion into a Root Protection Area can be superficial (as with a driveway constructed over the existing ground level for example) or may involve partial or complete root loss within the area. BS5837 contemplates the possibility that there may be justification for construction within the RPA and that technical solutions can be used to mitigate the effects of an incursion. The Project Arboriculturalist is charged with demonstrating that the tree can remain viable, that the area lost to encroachment can be compensated for elsewhere, and to propose mitigation methods.

3.2 Protection of tree above ground

- 3.2.1 The Arboricultural Impact Plan (see Appendix C) shows the tree canopy as an indented green circle or dashed polygon which takes account of any variations in crown spread at the four cardinal points.
- 3.2.2 During construction, the aerial parts of the tree are at risk from potential physical damage due to contact with plant or vehicles. This can be avoided through effective site management, pruning to create sufficient space for the vehicles to pass under, or using protective barriers to create a safe distance between construction activities and tree canopies. The height of the lower crown above ground is shown in the Tree Survey Table (Appendix B).

4 *IMPACT ANALYSIS*

4.1 Vehicular Access

- 4.1.1 Highway access is to be provided as an upgraded roadway aligned in a similar way to the extant roadway but widened where necessary and with various traffic calming measures.
- 4.1.2 A small section of Group A must be removed to achieve the width required.
- 4.1.3 As the new roadway can be accommodated within the depth of the existing farm track formation (the sub-base, base and any tarmac topcoat; or in-situ cast concrete) this is unlikely to have any detrimental effect on the trees adjacent to the access road.
- 4.1.4 The final road specification can be established at the detailed design stage and this element can safely be left to Condition.

4.2 Site layout

- 4.2.1 The layout directly implicates the loss of Field Maple NT8 for the construction of Plot 1 boundary wall and driveway. This is a low quality tree, whose values are restricted to site. There is ample room on site for replacement planting.
- 4.2.2 The layout directly implicates the loss of Hazel NT9 for the construction of Plot 1 driveway. The tree will be too big to retain in this location, even if coppiced. There is ample room on site for replacement planting.
- 4.2.3 Agreement to remove Leyland Cypress Group G has been reached. This hedge is shown for removal.
- 4.2.4 The layout directly implicates the loss of Leyland Cypress NT10 for the construction of Plot 2. This is an average quality tree, whose values are restricted to site. There is ample room on site for replacement planting.
- 4.2.5 At the northern boundary, where Plots 1 and 3 meet with the lapsed hedge remnants in Group J, the plants will need to be cut back to the boundary line (or thereabouts) to facilitate development. This would be an acceptable operation that is unlikely to have any detrimental effect on the trees, which have been cut as a hedge until recently.

4.2.6 At ground level, the root protection area for Group J has been drawn to follow the excavation line for the storage area that is situated next to the group. At this location, the ground has been cut back to the boundary with a difference of levels of around 500-600mm. Excavation to this depth will have removed any root within the site. On that basis, the proposed development will not remove any part of the root systems of the trees in Group J because if any part of the trees' root systems lay within the site before the excavation, it will have already been removed.

4.3 Engineering, drainage and services

4.3.1 There is insufficient information available at this time for me to form an opinion about any specific potential impacts associated with engineering works that may be required on this site.

4.3.2 General principles will apply as follows:

- Foundations will be designed in accordance with NHBC Chapter 4.2 or in accordance with the Project Engineer's calculations.
- Subject to engineering constraints, trenching for the installation of piped services, cables and conduits will be located beyond the Root Protection Areas drawn. Where trenching in Root Protection Areas is unavoidable, the trench will be excavated under arboricultural supervision using a method that minimises root loss.

4.3.3 There is room to site any new soakaways required without affecting any trees.

4.4 Livability

4.4.1 The shade footprint that may be cast by the trees has been shown as a grey hatch on the Arboricultural Impact Plan (see Appendix C). The shade area is based on a solar inclination of 45 degrees in line with the median suggested by BS5837: 2012 that covers the main daylight hours. This simplifies the actual shade area that may affect the site, but it is considered to be a good representation of the area in question.

4.4.2 Part of the amenity space for Plot 7 may receive some afternoon shade once the Field Maples NT6 and NT7 reach maturity. This is unlikely to lead to calls for tree removal or pruning other than that which would be considered 'sound arboricultural management' because significant parts of the garden will receive direct sunlight throughout the day and the trees will provide screening, which would be of significant value to occupants.

4.4.3 When considering the effects of shade in planning decisions, the potential drawbacks must be weighed against the advantages. Some shading may be welcomed in the summer when solar gain can make room temperatures uncomfortable. Shade from trees can reduce heat buildup in urban areas and promote energy efficiency by lowering cooling demands for buildings.

4.5 Future growth and pressure to prune

- 4.5.1 Future growth has been shown on the Arboricultural Impact Plan (see Appendix C) by way of a light green dashed line around retained trees with the potential to grow larger radially. This growth potential can lead to conflicts with structures; but generally, trees can tolerate the minor pruning required to maintain a satisfactory relationship between a tree and a building.
- 4.5.2 There is room for all the trees to grow to maturity without the need for any significant arboricultural intervention.

5 CONCLUSIONS

5.1 Tree works

- 5.1.1 The proposed development will result in the loss of three trees, whose value is restricted to site. These are indicated on the Arboricultural Impact Plan (see Appendix C) by way of a red dashed line.
- 5.1.2 Group g is shown for removal.
- 5.1.3 Some trees will require pruning to facilitate development:
- Group E must be trimmed to provide clearance over the road.
 - Group J must be pruned back to the boundary.

5.2 Design

- 5.2.1 The current layout has been achieved through an informed design process.
- 5.2.2 The layout indicated respects the best trees on the site which can be retained to maturity without the need for any arboricultural intervention.
- 5.2.3 It appears possible to provide the dwellings shown without any significant conflict.

5.3 Protection

- 5.3.1 The order in which the works are implemented will need to be carefully considered in order to provide the most successful tree protection scheme.
- 5.3.2 A high standard of site management will be essential to avoid damage to retained trees.
- 5.3.3 Full details of a tree protection methodology have been provided in an Arboricultural Method Statement and Tree Protection Plan accompanying this application.

5.4 Demolition

- 5.4.1 The demolition of the existing buildings involves work close to the retained trees. Therefore, the methods of demolition must be controlled through site management, and the plant, equipment and staff involved.

5.5 Construction methods

- 5.5.1 The driveway must be specified to be constructed within the depth of the existing track where it lies within the root protection areas of trees.
- 5.5.2 Services must be installed in a trench that lies beyond the radial extent of the retained trees.

5.6 Construction site management

- 5.6.1 There is ample room for the receipt, storage and handling of materials and for the movement of plant and machinery. However, in order to avoid accidental damage, a suitable tree protection scheme must be implemented before development begins.

5.7 Post construction

- 5.7.1 The detail of the landscape scheme and how it will be maintained can be secured by Condition of any Consent.

Appendices

Appendix A – Tree Survey Explanatory Notes

Identification

All significant trees within and adjoining the site were surveyed in accordance with British Standard 5837.

Most of the significant individual trees within the site were tagged with numbered aluminium tags, attached to the tree with two nails at around head height. Inaccessible or neighbouring trees have been designated the prefix 'NT' and numbered. Groups of trees were identified and designated a letter. Reference to the trees' locations can be made using the plans appended to this report.

Limitations

The tree survey was carried out for the purpose of informing the planning process. Relevant structural defects and aspects of tree condition are noted in the tree survey table in Appendix B; however, a full hazard assessment has not been carried out.

As trees and shrubs are living organisms whose health and condition can change rapidly, conclusions and recommendations are only valid for one year. The health, condition and safety of trees should be checked regularly, preferably annually.

It may have been necessary to estimate some measurements when assessing trees on neighbouring land. This will not generally affect the conclusions of this report.

No invasive investigations were carried out to assess the internal condition of the trees. Should this be required, it will be highlighted in the report.

The soil was not examined and no soil samples were taken. Should soil analysis be indicated, this will be recommended in the report.

Appendix B – Tree Survey Data

Key	
Age Class	Y = Young (Less than 1/3 of normal expected life) OM = Over-mature or in decline SM = Semi-mature (1/3 – 2/3 of normal expected life) V = Veteran M = Mature
Main Stem Diameter	Measured at 1.5 metres above ground or in accordance BS5837: 2012 Annex C and D
Height	Estimated or measured with clinometer where considered critical (m)
Crown spread	At cardinal points (m)
RPA (Radius)/(Area)	Distance in metres from centre of tree to achieve a circular Root Protection Area/ Root Protection Area in square metres.
Remaining Contribution	Estimated number of years the tree may contribute in a safe condition
Category	See table overleaf for definitions

Note: This survey is an assessment of the existing site and any recommendations are preliminary and do not reflect a particular layout or proposal

BS5837:2021 Cascade Chart for Tree Quality Assessment Trees to be considered for retention

Category and definition	Criteria (including subcategories where appropriate)			Identification on Plan
Trees unsuitable for retention				
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	• 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 are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve			
	1. Mainly arboricultural qualities	2. Mainly landscape qualities	3. Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	
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 remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for detention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural 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 150 mm	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	

ref.	Species	Age Class	Observations: Factors affecting the quality and value of the trees	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	Category	Remaining Contribution (yrs)	Preliminary management recommendations	RPA radius (m)	RPA (m ²)
Group A	Hawthorn, Ash, Plum	M	Lapsed hedge with Young Ash trees.	350	10	0	18	3.5	3.5	3.5	3.5	C2	40+	Could be retained as-is or the hedge cut and rejuvenated	4.2	55.42
NT1	Holly	Y	Tree on neighbouring property therefore not closely inspected. No visible defects seen.	150	3	0	12	1.5	1.5	1.5	1.5	C1	40+	No work required.	1.8	10.18
Group B	Quince	SM	Tree on neighbouring property. No visible defects seen.	100	1	0	1	0.4	0.4	0.4	0.4	C2	40+	Cut as a hedge.	1.2	4.52
Group C	Ash, Plum, Hornbeam, Blackthorn, Oak, Ivy, Hawthorn	M	Tree on neighbouring property therefore not closely inspected. Regularly maintained at present dimensions. Partially maintained hedge with Young Ash and Oak trees.	250	8	0	8	2	2	2	2	C2	40+	Cut as a hedge.	3	28.28
Group D	Leyland Cypress	SM	No visible defects seen. Possibly causing damage to wall	450	15	2.5	18	4	4	4	4	C2	40+	Could be retained in the short-term.	5.4	91.62
NT2	Field Maple	M	Tree on neighbouring property therefore not closely inspected. Low vigour.	306	10	2	10	5	5	4	3	C1/C2	20+	No work required.	3.67	42.32
NT3	Oak	Y	Tree on neighbouring property therefore not closely inspected.	150	5	1	18	2	3	3	3	C1	40+	Could be retained with space.	1.8	10.18
Group E	Hornbeam	SM	Tree on neighbouring property therefore not closely inspected. No visible defects seen.	500	15	3	18	6	6	6	6	B2	40+	No work required.	6	113.11
NT4	Field Maple	M	Tree on neighbouring property therefore not closely inspected. Low vigour.	500	9	3	9	3	4	4	3	C1	20+	No work required.	6	113.11

ref.	Species	Age Class	Observations: Factors affecting the quality and value of the trees	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	Category	Remaining Contribution (yrs)	Preliminary management recommendations	RPA radius (m)	RPA (m ²)
Group F	Dogwood, Hawthorn, Field Maple	SM	Tree on neighbouring property. No visible defects seen. Regularly maintained at present dimensions.	150	3.5	0	3.5	1.2	1.2	1.2	1.2	C2	40+	Cut as a hedge.	1.8	10.18
NT5	Cherry Laurel	SM	No visible defects seen.	300	5	0	8	3	3	3	3	B1	40+	Could be retained. No work required.	3.6	40.72
Group G	Leyland Cypress	SM	No visible defects seen.	350	13	2	18	4.5	4.5	4.5	4.5	C2	40+	Could be retained.	4.2	55.42
NT6	Field Maple	M	Tree on neighbouring property therefore not closely inspected.	640	12	3	12	6	5	5	6	B1/B2	40+	No work required.	7.68	185.32
Group H	Plum, Ivy, Hawthorn, Elder, Pear	M	Tree on neighbouring property therefore not closely inspected. Low vigour. Lapsed hedge at bottom of bank.	250	8	0	8	3.5	3.5	3.5	3.5	C2	20+	No work required.	3	28.28
NT7	Field Maple	M	Tree on neighbouring property therefore not closely inspected.	707	12	2	12	4	5	6	6	B1/B2	40+	No work required.	8.48	225.94
NT8	Field Maple	M	Moderate Ivy prevents inspection.	600	10	0	10	3	4	6	5	C1	40+	No work required.	7.2	162.88
NT9	Hazel	M	Multi-stemmed form. No visible defects seen.	750	8	0	8	5	5	5	5	B3	40+	No work required.	9	254.5
NT10	Leyland Cypress	SM	Multi-stemmed form. Unlikely to be considered suitable for retention.	500	11	2	18	4.5	4.5	4.5	4.5	C1	40+	Fell and replace.	6	113.11
NT11	Holly	SM	No visible defects seen.	300	10	1.5	12	3	3	3	3	B1/B2	40+	No work required.	3.6	40.72
Group J	Hawthorn, Hornbeam, Holly	M	Fragmented lapsed hedge remnants at top of bank with plantation beyond. Retention desirable	500	8	0	8	4	4	4	4	B2	40+	No work required.	6	113.11

ref.	Species	Age Class	Observations: Factors affecting the quality and value of the trees	Ø m/s (mm)	Height (m)	Lower crown height (m)	Ultimate height (m)	Crown Spread N (m)	Crown Spread S (m)	Crown Spread E (m)	Crown Spread W (m)	Category	Remaining Contribution (yrs)	Preliminary management recommendations	RPA radius (m)	RPA (m ²)
Group K	Hornbeam	OM	Remnants of former hedge. On boundary between paddocks with partially exposed root systems. Desirable for retention	600	15	2.5	15	6	6	6	7	B3	40+	No work required.	7.2	162.88
Group L	Hawthorn, Elder, Field Maple	OM	Low vigour. In decline. Now in last third of safe useful life expectancy.	350	7	1	7	3	3	3	3	C2	10+	Could be retained in the short-term.	4.2	55.42

Appendix C – Arboricultural Impact Plan

1:500 Plan follows. To be printed in colour on A1.

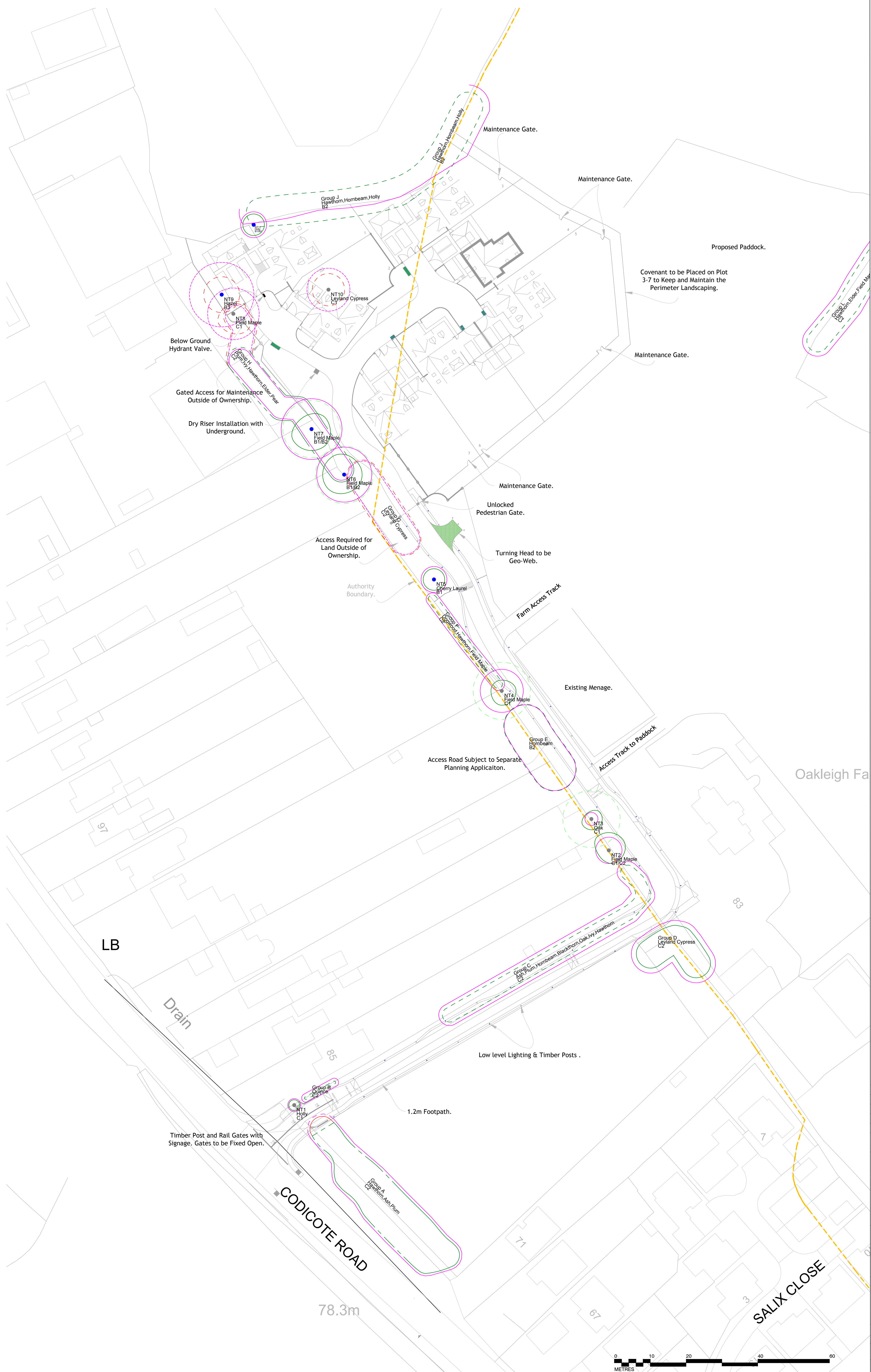
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NOTES Based on survey drawing 25786 Rev 1 and Planning layout 19359-1002 Rev B and Access Road Proposal 2024-03-06

The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

KEY

- GRADE A TREES
- GRADE B TREES
- GRADE C TREES
- GRADE U TREES
- ROOT PROTECTION AREA
- CANOPY OUTLINE - INDIVIDUAL TREE
- CANOPY OUTLINE - GROUPS
- CANOPY OUTLINE - FUTURE POTENTIAL
- TREES IMPLICATED FOR REMOVAL
- INDICATIVE SHADE AREA



B	Revised layout	18.10.2024
A	Updated plans	7.4.2021
O	Original issue	3.9.2019
Rev	Description	Date

Purpose of Issue

Planning



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Client

Kingshall Estates (UK) Ltd

Project

Land at Oakleigh Farm,
Codicote Road, Welwyn

Drawing Title
ARBORICULTURAL IMPACT PLAN

Drawn AMB	Checked --	Reviewed --	Date 18/10/2024
Job No. 3794	Scale 1:500	Sheet Size A1	Revision
Drawing Number 3794.Oakleigh.WH.AIP	--		