

Land South of Barnham Station

Arboricultural Impact Assessment

November 2020
10716_AIA.001 Rev A

Project Details	
Client:	Gleeson Strategic Land
Project:	Land South of Barnham Station
Report Title:	Arboricultural Impact Assessment
Project Number:	10716
File Reference:	10716_AIA.001 Rev A
Date:	19/11/2020

Copyright
The copyright of this document remains with Aspect Arboriculture Ltd. All rights reserved. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Aspect Arboriculture Ltd.

Limitations
This assessment has been prepared in respect of the proposed development and should not be interpreted as a report on tree health and safety. Reasonable effort has been made to identify visible defects whilst undertaking the tree survey; trees are however, prone to natural failure without warning therefore no guarantee can be made as to the absolute safety of any of the trees surveyed. Aspect's opinion of tree condition and structural potential is therefore valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees' existing context. Reliance should not be given to comments made in respect of other disciplines i.e. landscape, ecology or civil engineering without first consulting an appropriate expert.

Liability
This report has been prepared for the exclusive use of the commissioning client and unless otherwise agreed in writing by Aspect Arboriculture Ltd. no other party may use, or rely on the contents of the report. No liability is accepted by Aspect Arboriculture Ltd. for any use of this report, other than for the purposes for which it was originally prepared and provided. No warranty, express or implied, is made as to the advice in this report. The content of this report is partly based on information provided by third parties. Unless otherwise stated, information obtained from any third party has not been independently verified by Aspect Arboriculture Ltd.

Contact Details
Aspect Arboriculture Ltd. Hardwick Business Park Noral Way Banbury Oxfordshire OX16 2AF t 01295 276066 f 01295 265072 e info@aspect-arbor.com w www.aspect-arbor.com

Contents

Text:

Executive Summary 1

1 Introduction 2

2 Statutory Designations 3

3 Policy Review 3

4 Arboricultural Impact..... 5

5 Conclusions 10

Figures:

Figure 1.	T16: Supervised Excavation Work.
Figure 2.	T22: Supervised Excavation Work.

Appendices:

Appendix A	Tree Constraints Plan	10716 TCP 01 Rev B
Appendix B	Tree Survey Schedule	10716 TS 01
Appendix C	Tree Protection Plan	10716 TPP 01 Rev A
Appendix D	Tree Survey Methodology	10716 TSM 01

Executive Summary

- i) **Introduction:** Aspect Arboriculture are commissioned by Gleeson Strategic Land to establish and report on the arboricultural impact of the proposed development of Land South of Barnham Station.
- ii) **Proposals:** This work has been prepared to inform an 'outline planning application for the development of up to 200 dwellings, access to Marshall Close and associated infrastructure'.
- iii) **Surveys:** The site was surveyed by Aspect Arboriculture during August 2020 following the guidance contained within BS5837:2012.
- iv) **Statutory Designations:** Background checks have revealed that the site does not occur within a Conservation Area, however there are multiple trees situated around the site's periphery which are subject to a Tree Preservation Order.
- v) **Arboricultural Impact:** Based on the illustrative layout, the arboricultural impact is expected to be minor. No high quality trees are expected to be harmed to accommodate the development. A preliminary tree protection drawing is provided to demonstrate the deliverability of safeguarding measures for retained trees. Conclusions drawn against Arun District Council's development control policies and the NPPF, conclude that in the absence of harm to any high quality or veteran trees, the arboricultural impact of the development will be acceptable.

1 Introduction

1.1 Background & Proposals

1.1.1 Aspect Arboriculture are instructed by Gleeson Strategic Land to establish and report on the arboricultural impact of the proposed development of Land South of Barnham Station.

1.1.2 This work has been prepared to inform 'outline planning application for the development of up to 200 dwellings, access to Marshall Close and associated infrastructure'.

1.2 Site Overview

1.2.1 The site is located immediately to the south of Barnham Railway Station; land to the northeast and east is occupied by existing residential development associated with Marshall Close and Church Lane. To the south and southwest, separated by dense hedgerows, is agricultural land. The northwest perimeter is bound by a railway line, beyond which are further agricultural fields under arable use.

1.2.2 The application area falls within the administrative control of Arun District Council, comprising of a number of fenced pastoral fields and adjoining paddocks with multiple agricultural buildings, stables and parking provision. Located on the southwest fringe of Barnham Village, it has a combined area of approximately 14 hectares. The field boundaries are defined by a mixture of post and wire fences, intermittent sections of native hedgerow with standards and outlying parcels of hedge-thrown scrub.

1.3 Existing Trees

1.3.1 For the purpose of establishing the arboricultural factors that might have a bearing on the layout, all trees within influence of the site have been objectively appraised using the guidance provided within BS5837:2012: 'Trees in relation to design, demolition and construction – Recommendations'. This information is available at appendices A and B, and comprises a scaled Tree Constraints Plan and Tree Schedule which collectively identify the trees' above and below ground constraints.

1.3.2 The tree assemblage within influence of the proposals is diverse with a large number worthy of individual distinction in terms of both their arboricultural merit and amenity contribution. English Oak, Copper Beech, Corsican Pine, Horse Chestnut and Lime represent the larger principal tree coverage within the main body of site, the majority of which are situated within the application area's north eastern and eastern boundaries. Species outside of the developable area, but within influence, comprise Holm Oak, Corsican Pine, Silver Birch, Whitebeam and Beech. They feature as roadside plantings or set within neighbouring residential gardens and small pockets of existing public space. These have been recorded individually to ensure they are not compromised by the proposals.

1.3.3 The remaining assemblage generally occur as groups, where they have elevated collective merit. Group numbers, G1, G8, G10 and G13 provide cohesive canopy

coverage across onsite boundaries, whilst G16 and G20 are situated outside of the developable area. They are however of comparable crown size, life stage and physiological condition to the individual trees identified, therefore contributing to the sylvan backdrop which occasionally screens the site from external views. The remaining trees largely feature as unmanaged parcels of native scrub and hedgerows; they are considered less important in terms of their amenity value due to comparatively smaller crown sizes or their diminishing health and structural conditions.

2 Statutory Designations

2.1 Conservation Area

- 2.1.1 Background checks have confirmed that the application area does not occur within a Conservation Area (Arun District Council, cited November 2020). Accordingly, the amenity value of the trees is not elevated to preserving or enhancing any unique or distinctive interest linked to the setting.

2.2 Tree Preservation Orders

- 2.2.1 Background checks have confirmed that T5, T9, T10 English Oak and a Field Maple component of G8, all situated on the east boundary, along with G1 Common Alder located within the southwest corner of site, are scheduled within a Tree preservation Order (TPO/BN/6/20). These trees are retained as part of the proposals.
- 2.2.2 T22 Corsican Pine adjacent to the northeast perimeter within an existing residential garden is listed under a second TPO (TPO/BN/3/20:T1). T22 is retained as part of the proposals.
- 2.2.3 T24 English Oak is located on the farm access road to the northeast and is scheduled within a third TPO (TPO/BN/1/18:T1). T24 is retained as part of the proposals.

3 Policy Review

3.1 The National Planning Policy Framework 2019

- 3.1.1 The NPPF (2019) provides planning policy guidance at a National level. With respect to arboriculture, it considers that *'decisions should contribute to and enhance the natural and local environment by: 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'* (para 170b), and; *'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'* (para. 175c).
- 3.1.2 For clarity, there are no ancient or veteran trees, or areas of designated ancient woodland within influence of the application area against which the tests contained with para 175c can be applied.

3.2 Arun District Council

At a local level, Arun District Council has a statutory obligation to ensure adequate provision is made for the preservation of trees through Section 197 of the Town and Country Planning Act (1990). Within the Arun Local Plan 2011-2031 (adopted July 2018) Policy ENV DM4 and Barnham and Eastergate Neighbourhood Plan 2014-2029 Policy ES9 are relevant to trees in the context of development (relevant parts reproduced below).

3.2.1 **POLICY ENV DM4:** Protection of Trees

'Development will be permitted where it can be demonstrated that trees protected by a Tree Preservation Order(s) (TPO), identified as Ancient Woodland, in a Conservation Area or contributing to local amenity, will not be damaged or destroyed now and as they reach maturity, unless development:

- a. Would result in the removal of one or more trees in the interests of good arboricultural practice. This shall be demonstrated by the developer following the advice of a suitably qualified person which shall be guided by BS 5837 (2012). Details of any advice received having regard to BS 5837 (2012) shall be submitted, in writing, as part of a planning application; or*
- b. Would enhance the survival and growth prospects of other protected trees;*
- c. The benefits of the proposed development in a particular location outweigh the loss of trees or woodland, especially ancient woodland.*

Where planning permission is granted in any of the above instances, conditions shall be used to ensure that, for any trees which are removed as part of a development, at least an equivalent number of a similar species and age (where practical) are planted on the proposed development site. Sufficient space for replacement trees to mature without causing future nuisance or damage shall be provided. The planting of new trees shall form an integral part of the design of any development scheme.

Proper provision must be made for the protection and management of trees or areas of woodland on-site when undertaking development. A management plan shall be provided as part of a planning application in accordance with BS 5837 (2012) in order to ensure that trees are adequately protected during development and appropriately maintained in the future. Conditions for the continued protection of trees on sites shall be included in any planning permission given.

Where there are existing trees on or adjacent to a development site, developers shall be required to provide:

- d. Land and tree surveys*
- e. A tree constraints plan*

f. An arboricultural impact assessment to include a tree protection plan and arboricultural method statement

These will ensure that development is planned to take a comprehensive view of tree issues at an early stage in the design process and that development works do not have a negative impact on existing trees.'

3.2.2 **POLICY ES9:** Trees and hedgerows will be protected

- *'Development that damages or results in the loss of ancient trees or trees or hedgerows of arboricultural and amenity value will not be supported. Development proposals must be designed to retain ancient trees or trees or hedgerows of good arboricultural and amenity value. A minimum buffer of at least 15 metres in width should be maintained between ancient woodland and any development boundary.*
- *Proposals should be accompanied by a survey that establishes the health and longevity of any affected trees or hedgerows and a management plan to demonstrate how they will be so maintained.*
- *Plans for tree planting on new developments of more than 3 dwellings or commercial developments over 300 square metres must anticipate the effects of climate change.*

2.12 Trees and hedgerows are a major feature of Eastergate and Barnham and contribute to the open and pleasant feel of the villages, the parks, play areas and residential properties. The hedgerows are home to a wide range of species and contribute to the GI Corridors throughout the villages. There are two areas of ancient woodland in the Neighbourhood Plan area, all located within the village of Barnham and six veteran trees (source - The Woodland Trust) as well as many trees the subject of Tree Preservation Orders.'

4 Arboricultural Impact

4.1 Tree Removals¹

4.1.1 Trees are recommended for removal where: a) it is necessary and unavoidable to site development within proximity to existing trees, such that they cannot be confidently retained in the long-term as living features, and/or b), where the amenity value of the tree will be significantly reduced as a result of the proposals, particularly if the tree/s are already of a low retention priority.

4.1.2 To introduce the proposed development, it is recommended that the trees detailed within Table 1 below are removed. Based on the submitted layout (drawing ref. 1311-_Tars Farm Application drawings_181120). Removals are expected to be limited to the clearance of a low quality ornamental standard, a low-quality tree group and hedgerow, and the partial removal of a further tree group and two hedgerows. Trees

¹ All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

to be removed are all of low quality and can be mitigated for with replacement planting of a comparable scale and assemblage. It will not be necessary to remove any high or moderate quality trees to facilitate the development.

4.1.3 Table 1: Net Tree Removals by BS5837 Category.

Category A	Category B	Category C	Category U
None	None	T39 Cherry G14+Δ G15 Apple H3+Δ H5 Beech H6+Δ	None

+ Denotes mixed species assemblage of three or more species – refer to Appendix B

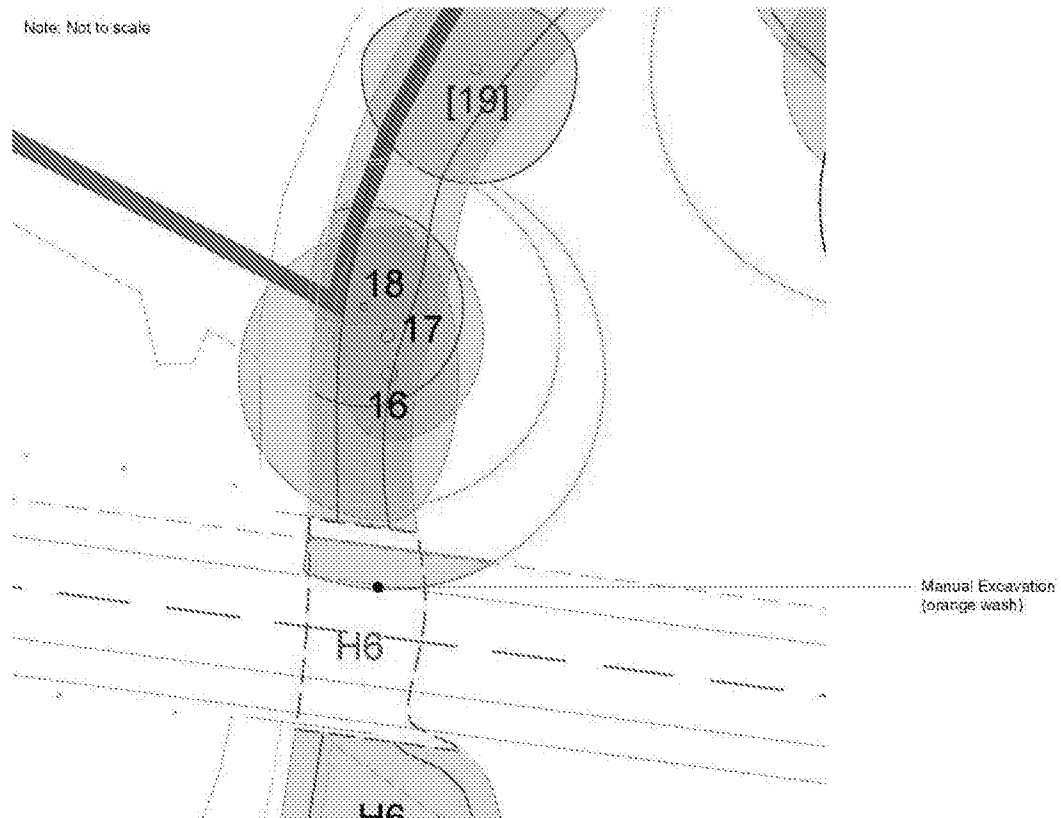
Δ Denoted partial clearance

4.2 Vulnerable Trees

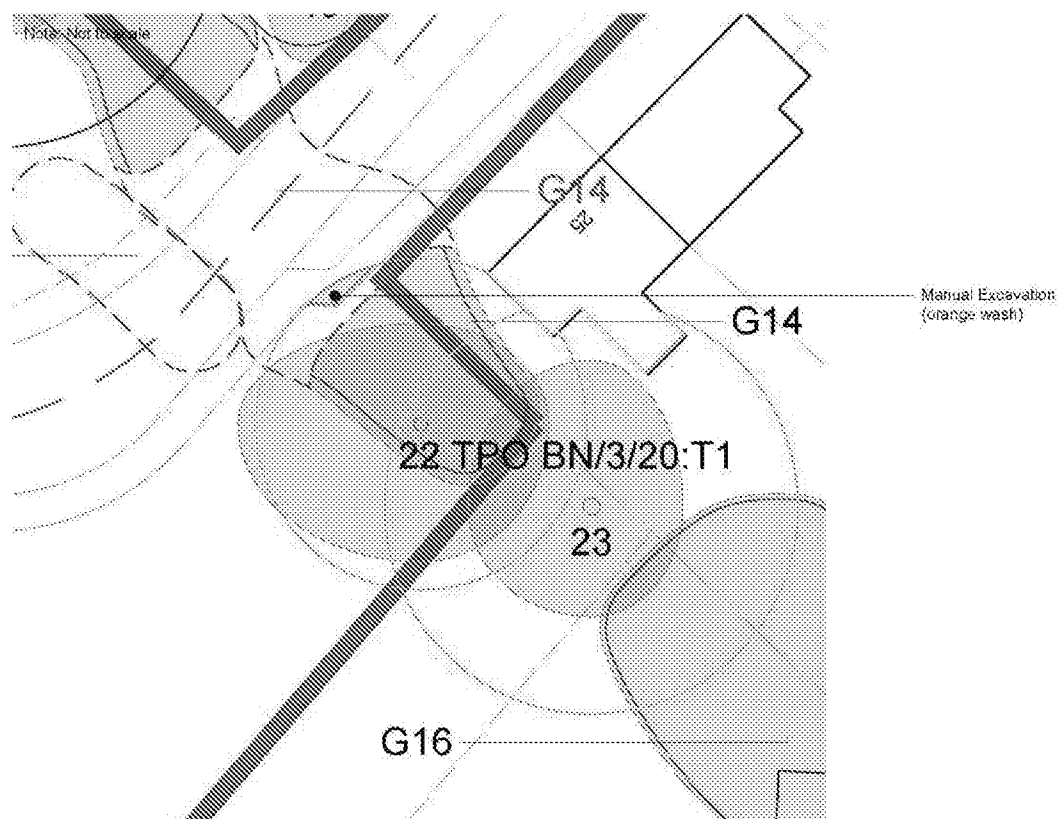
4.2.1 The constraints posed by the site's existing trees have been identified in accordance with BS5837:2012, and there is sufficient information available to inform detailed design and to provide a high level of confidence with regards to the scheme's capacity to retain trees of value. Accordingly, and as shown on the current layout, the arboricultural impact arising through encroachment within root protection areas is projected to be low.

4.2.2 The illustrative proposal will presently necessitate excavation work within the root protection area of T16 (Horse Chestnut) and T22 (Corsican Pine) to accommodate part of an access road and associated footpath. The extent of encroachment within the trees RPAs amount to c. 6% for T16 and c. 0.9% for T22; moreover the effect occurs on the periphery of the area where roots are predicted to be low in diameter and in a dynamic state. Subsequently, it is considered unlikely that the affected area will contain any significant roots and by adopting the principles of BS5837 concerning manual excavation techniques and root pruning (with the added precaution of arboricultural auditing), it will be acceptable to permit the excavation work to occur without undue concerns for the trees future health or vitality. The extent of excavation work within T16's and T22's RPA is illustrated within the appended Tree Protection Plan (Appendix C) and Figure 1 and 2 overleaf.

4.2.3 **Figure 1. T16: Supervised Excavation Work.**



4.2.4 **Figure 2. T22: Supervised Excavation Work.**



- 4.2.5 When detailed design is undertaken, arboricultural advice in accordance with Clause 5 of BS5837:2012 should be provided to minimise any potential arboricultural impact of the final scheme of development. Regard will be given to this assessment and there will be a further opportunity for any adverse impact to be assessed, with any additional impacts addressed as part of a future reserved matters application. Ongoing arboricultural input could be secured by condition via a request for an Arboricultural Method Statement or an additional Arboricultural Impact Assessment.

4.3 Pruning Works²

- 4.3.1 Based on the submitted Illustrative Masterplan (drawing ref. 1311_Tars Farm Application drawings_181120), the need to prune trees to accommodate the proposal is low and limited to crown lifting work where the partial removal occurs within H6 and G14 to accommodate an access road and associated footpath. To limit the need for pruning work, it is recommended that particular consideration is given during detailed design to ensure sufficient spatial separation is provided between trees of value and the built form. Should pruning work be required, it should be restricted to the shortening of secondary lower branches only, to avoid the potential for having a negative effect on health, vitality or amenity value.

- 4.3.2 Although not required to accommodate the development, it is recommended that throughout the entire site, dead branches are removed from the canopies of retained trees to help relieve occupier's apprehension and mitigate the risk of future tree related hazards emerging. The removal of deadwood should be carried out in accordance with section 7.3 of BS3998:2010, by a competent tree contractor, to ensure that cuts are performed correctly and positioned so as to avoid future structural defects or physiological issues, facilitate growth and maintain aesthetic value.

4.4 Protective Barriers

- 4.4.1 It is imperative that retained trees' above-ground structures and underlying RPAs are protected from damage during construction works. To achieve this, tree protection barriers should be erected prior to the commencement of construction works and consist of the default barrier specification provided in BS5837:2012. The location for tree protection fencing is illustrated within the Tree Protection Plan (appendix C) with a bold blue line.
- 4.4.2 Where development is not in close proximity to retained trees it is considered appropriate for a lighter secondary specification barrier to be utilised. The lighter barrier specification omits the diagonal bracing and includes heras panels pinned on rubber feet with a driven 100mm x 100mm timber post every second panel. Locations

² All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

where the secondary specification barrier can be utilised are illustrated within the Tree Protection Plan (appendix C) with a dashed light blue line.

4.4.3 It is expected that tree protection barriers will need to be relocated to a secondary position to facilitate the introduction of an access road on the periphery of the RPAs of T16 and T22. Where this will be necessary secondary positions are illustrated within the Tree Protection Plan (appendix C) with a dotted pink line.

4.4.4 It would be prudent for the Project Arboriculturist to oversee the initial setting out of tree protection barriers and provide written confirmation to the Council's arboricultural officer on completion.

4.5 Mitigation Replanting

4.5.1 The arboricultural impact of the proposed development generates a low requirement for replacement planting. However, the principle of introducing new development presents a significant opportunity to secure new tree planting, leading to a net gain in canopy area and associated amenity benefits.

4.5.2 Under separate instruction a Landscape Strategy has been prepared which outlines the preferred approach for incorporating new planting within the application area (drawing ref. 7249.ASP3.LSP.B). The Strategy includes the introduction of a significant number of new trees within areas of public open space and throughout the residential area of the site. There are opportunities to incorporate species of varying sized canopies such as English Oak, Horse Chestnut, Lime, Beech, Silver Lime, Elm 'New Horizon', Field Maple, Cherry 'Spire', Small-leaved Lime, Whitebeam and Wild Cherry, which will enhance the quality and distribution of canopy cover across the site.

4.5.3 It is recommended that planting proposals which build on the principles of the submitted Landscape Strategy are prepared at detailed design. This work could be secured by condition and agreed as part of a future reserved matters application.

5 Conclusions

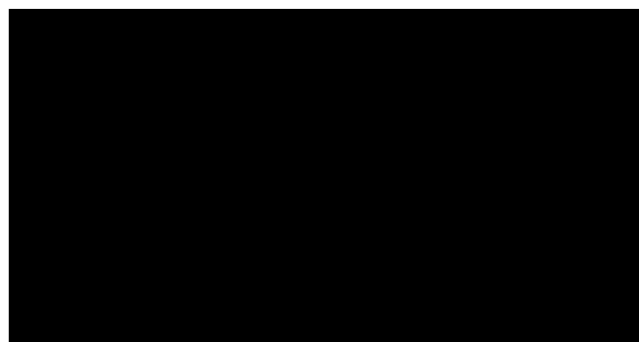
- 5.1.1 Pursuant to Arun District Council's policy requirement, the submitted layout has been informed by a survey of the existing tree stock using the guidance provided by BS5837:2012.
- 5.1.2 The proposal will not result in any protected tree loss or threaten the well-being of any important trees. It has been confirmed that no ancient or veteran trees are at risk from the proposals. Tree removals required to accommodate the proposed development are limited to a single street tree which has a poor future outlook due to its diminished structural condition, and small groups of low quality trees and hedgerow. It will be possible to mitigate for the required tree loss with replacement planting. The layout demonstrates the risk of residual harm to trees arising from post-occupation pressure is also low.
- 5.1.3 The proposed development presents significant opportunities for incorporating new planting within the site interior, including reinforced boundaries, providing a net gain potential in terms of canopy coverage and associated amenity benefits.
- 5.1.4 A preliminary scheme for safeguarding retained trees during construction has been prepared which relies on the use of recognised construction methodologies and static tree protection barriers. An Arboricultural Method Statement has been prepared and is submitted separately, however this work should be reviewed following detailed design. The Arboricultural Method Statement addresses matters including: specification for tree protection barriers, including revisions to barrier locations; a BS3998:2010 schedule of tree works; works within RPAs; a scheme for auditing tree protection and subsequent reporting to the Council.
- 5.1.5 The principle of introducing development to the site is considered to be acceptable from an arboricultural perspective, subject to ongoing arboricultural input during detailed design and the adoption of safeguards for protecting retained trees during construction. It is our subsequent judgement that introducing development in accordance with the submitted details would not conflict with Arun District Council's Policy ENV DM4 or the NPPF.

Prepared By:

Justin Hodges
Arboricultural Consultant

Checked By:

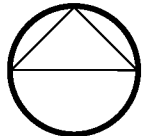
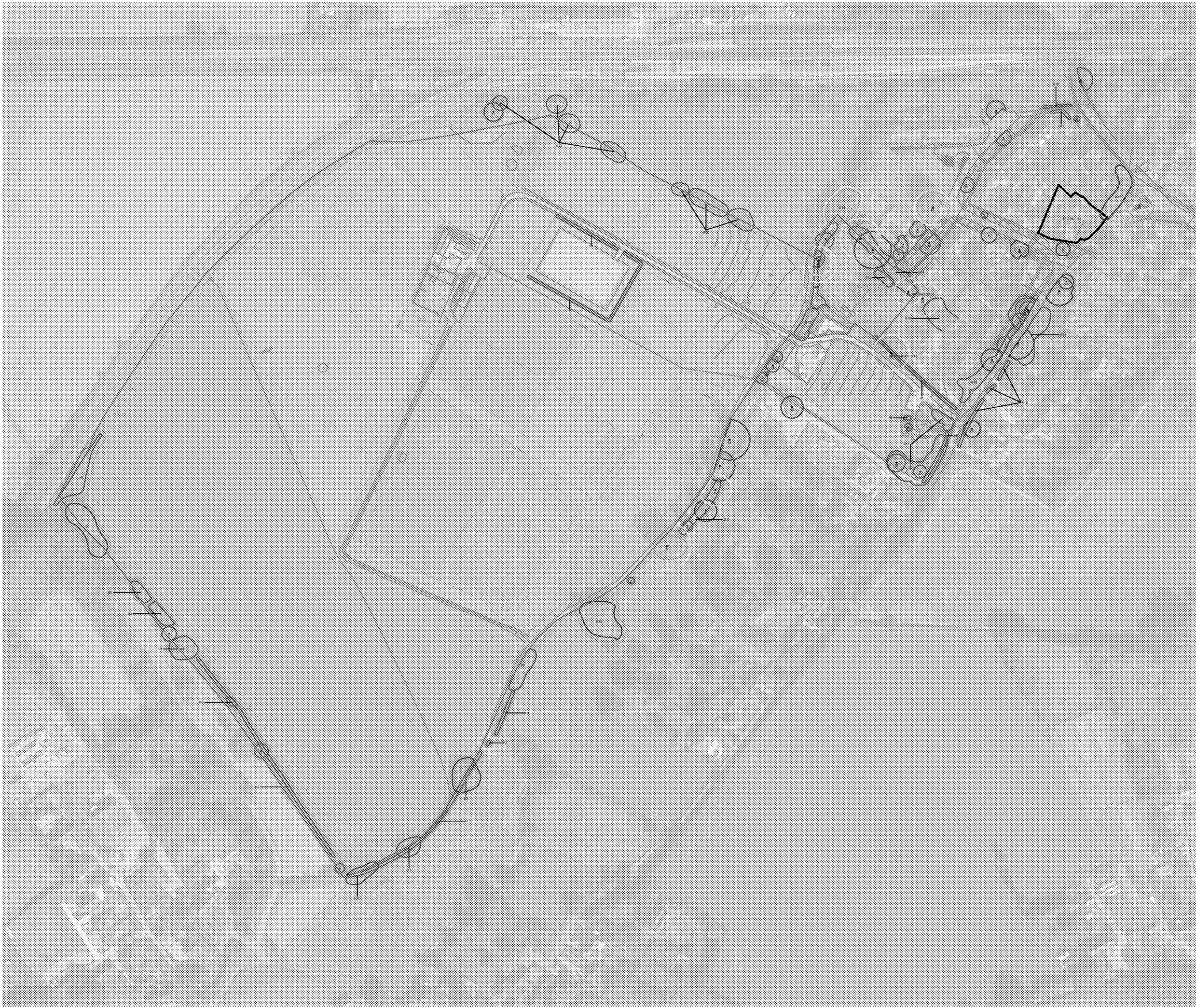
Richard Curtis BSc (Hons) PgDip PhD MArborA
Director



APPENDICES

APPENDIX A

TREE CONSTRAINTS PLAN (10716 TCP 01 Rev B)

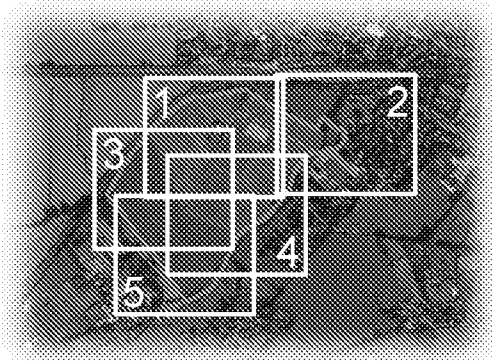


KEY:

-  Site Boundary
-  Tree Numbers
-  Tree Canopies
-  Category 'U' Trees
-  Category 'A' RPA
-  Category 'B' RPA
-  Category 'C' RPA

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53; Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 6 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-36, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

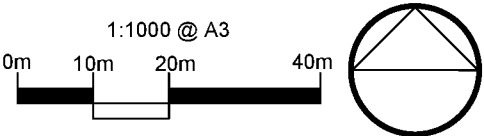


TITLE
Land South of Barnham Station
Tree Constraints Plan

CLIENT
Gleeson Strategic

SCALE Not to scale	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TCP 01 Rev B (Overview)	REVISION B	

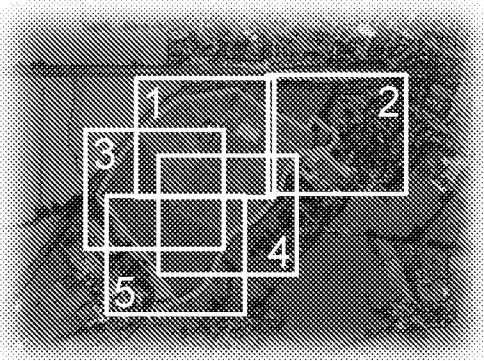
Based on: SOR017713-2d.dwg and SOR018155.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53; Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 6 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-36, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd

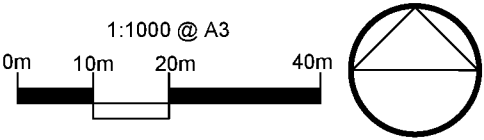
aspect arboriculture

TITLE
Land South of Barnham Station
Tree Constraints Plan

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TCP 01 Rev B (2/5)	REVISION B	

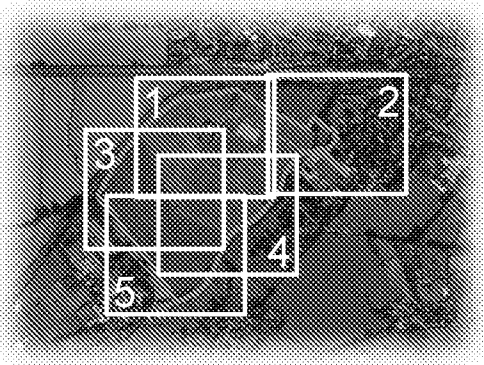
Based on: SOR017713-2d.dwg and SOR018155.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53; Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 6 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-36, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd

aspect arboriculture

TITLE

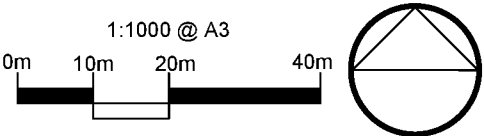
Land South of Barnham Station
Tree Constraints Plan

CLIENT

Gleeson Strategic

SCALE	DATE	DRAWN
1:1000 @ A3	NOV 2020	GW
DRAWING NUMBER	REVISION	
10716 TCP 01 Rev B (3/5)	B	

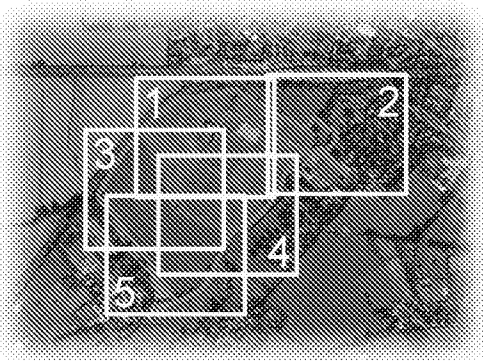
Based on: SOR017713-2d.dwg and SOR018155.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53; Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 6 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-36, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

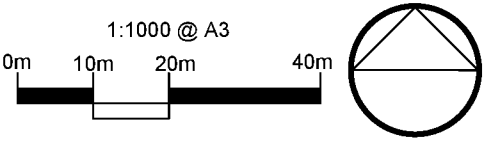


TITLE
Land South of Barnham Station
Tree Constraints Plan

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TCP 01 Rev B (4/5)	REVISION B	

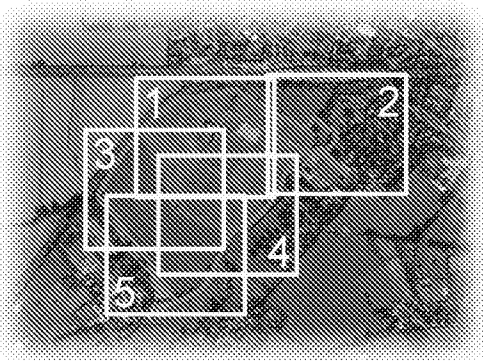
Based on: SOR017713-2d.dwg and SOR018155.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53; Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 6 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-36, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				



TITLE
Land South of Barnham Station
Tree Constraints Plan

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TCP 01 Rev B (5/5)	REVISION B	

Based on: SOR017713-2d.dwg and SOR018155.dwg

APPENDIX B

TREE SURVEY SCHEDULE (10716 TS 01)

BS 5837:2012 Tree Schedule: Land South of Barnham Station

BS5837:2012 Tree Survey: Explanation of Survey Criteria

Sequential reference number cited on all aspect drawing.

Height and Crown spread measured to the nearest half meter; # denotes where this is estimated.

e.g.: young, semi-mature, early-mature, mature or over-mature

Area around tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is a priority. *The RPA has been manipulated to allow for various site features, i.e. roads, structures or changes in levels. Please refer to the Tree Constraints Plan for these changes.

Category prefix A-C denotes arboricultural quality, decreasing from A (high) to C (low); Subcategories 1, 2 and 3 highlight associated arboricultural (1), landscape (2) and ecological (3) qualities.

Category U trees are those in such a condition that they cannot be realistically retained as living trees in the current context for the long term.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	radial							
		Measured to the nearest 10mm; # denotes estimated diameter where access is not possible.							Height of first significant branch and/or canopy	e.g.: above-average, average, below average or dead			General observations, i.e. defects, preliminary management recommendation, presence of pests/disease, perceived significance.		
													e.g.: good, indifferent, poor, or hazardous		

Colour band key:

Category A

Category B

Category C

Category U

The following survey should not be interpreted as a report on tree health and safety. Aspect's opinion of tree condition and structural potential is valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees existing setting.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
1	Goat Willow	3" 200 2" 150 #	7.5m					5 #	1 #	2 #	Early Mature	Below Average	Indifferent	Situated within field boundary Inaccessible due to dense understorey Appears offsite within neighbouring third party land Sparse canopy at time of survey Low arboricultural quality	C12	4.8
2	Goat Willow	2" 200 2" 170 #	7.5m					6	0.5 #	0.5 #	Early Mature	Average	Poor	Situated within field boundary Inaccessible due to dense understorey Appears offsite within neighbouring third party land Forks into three co dominant stems from c.0.25m, unions appear tight and included Low arboricultural quality	C12	4.5
3	Ash	250 #	6m					4 #	1 #	2 #	Semi Mature	Average	Indifferent	Situated within field boundary Inaccessible due to dense understorey Appears offsite within neighbouring third party land Low arboricultural value, readily replaceable at current size	C12	3
4	Norway Spruce	170 #	5.5m					3 #	1.5 #	1 #	Semi Mature	Average	Indifferent	Inaccessible, offsite within neighbouring third party land Low arboricultural value, readily replaceable at current size	C12	2.1
5	English Oak	1100 # of	20m	6.5	13	9 #	9		5 #	1.5	Mature	Average	Indifferent	Principal field boundary component Inaccessible, offsite within neighbouring third party land to south of water course Partially clad and obscured by Ivy, unable to thoroughly inspect Large scaffold tear out wound - exposing heartwood to north at c.6.5m Above average epicormic growth Average internal deadwood of frequent large diameter Visually prominent individual	A2	13.2
6	False Acacia	280 #	12.5m					4	1 #	0.5 #	Semi Mature	Below Average	Indifferent	Inaccessible, offsite within neighbouring third party land to south of water course Sparse canopy at time of survey Above average minor epicormic growth and internal deadwood Unremarkable example of species	C1	3.3

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
7	Copper Beech	600 #	14.5m					7 #	2.5 #	2 #	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring third party land to south of water course Structure appears typical for species within current context Average internal deadwood Moderate example of species whilst maturing	B12	7.2
8	Corsican Pine	800 #	25m					5 #	15	13.5	Mature	Average	Indifferent	Dominant field boundary component Inaccessible, offsite within neighbouring third party land to south of water course Structure appears typical for species within current context Average internal deadwood Prominent within moderate distance views from all directions	A2	9.6*
9	English Oak	680	16.5m	7.5	9	7.5 #	8		4.5	1.5	Early Mature	Average	Indifferent	Established within field boundary on embankment of adjacent water course Kinks to north at c.1.75, then corrects at c. 3m Average internal deadwood Minor epicormic growth Moderate example of species whilst maturing	B12	8.1*
10	English Oak	900 #	15.5m	5	7.5	10.5 #	6.75		1.75	1	Mature	Below Average	Indifferent	Established within field boundary on embankment of adjacent water course Clad in dead ivy Unbalanced scaffold structure, biased to south Unsympathetic scaffold limb removals to south Above average minor epicormic growth Slightly sparse canopy at time of survey Prominent boundary feature	B2	10.8*
11	Hawthorn	3" 100 6" 95	4.5m	4.5	4.75	3.5	4.25		0.5	0.5	Early Mature	Average	Indifferent	Established scrub Low arboricultural quality	C12	3.6*
12	Lawson Cypress	110	4m					1.75	0.25	0.25	Semi Mature	Average	Indifferent	Establishing ornamental planting Low arboricultural value, readily replaceable at current size	C12	1.5
13	Elder	2" 180 5" 100 3" 70	4m					2.75	0.25	0.25	Early Mature	Average	Indifferent	Established scrub Low arboricultural quality	C12	4.2*

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
14	Hawthorn	250 2" 90	3.5m					2.75	1	0.5	Early Mature	Average	Indifferent	Established scrub Low arboricultural quality	C12	3.3"
15	English Oak	600 #	13.5m					5	3 #	3 #	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land Structure appears typical for species within current context Average internal deadwood Prominent within moderate distance views	B2	7.2
16	Horse Chestnut	830 # oi	18m	8	3.75	8	8.25		5	1.5	Mature	Average	Indifferent	Established within field boundary Inaccessible due to dense understory Clad and obscured by Ivy, unable to thoroughly inspect Average internal deadwood Minor epicormic growth High value as prominent cohesive pair with T17	A2	9.9"
17	Horse Chestnut	680 # oi	16.5m	6	5.25	5.75	3		5.5	1.5	Early Mature	Average	Indifferent	Established within field boundary Inaccessible due to dense understory Clad and obscured by Ivy, unable to thoroughly inspect Average internal deadwood Minor epicormic growth High value as prominent cohesive pair with T16	A2	8.1"
18	Horse Chestnut	390 # oi	9.5m	6	3.5	1	3		1 #	1	Early Mature	Below Average	Indifferent	Established within field boundary Inaccessible due to dense understory Heavily suppressed by T16 and T17 Sparse canopy and dieback to tips at time of survey Reduced future potential	C12	4.8"
19	Horse Chestnut	550 #	13m	4 #	5.5	6.25	6.25		4.75	2.25	Early Mature	Below Average	Hazardous	Considered to be in a state of terminal decline	U	N/A
20	Lime	1100 #	18.5m	6	6	6.75	6		1.75	1	Mature	Average	Indifferent	Dominant field boundary component Inaccessible due to prolific basal epicormic growth Slightly sparse upper canopy at time of survey Average internal deadwood Visually prominent individual	A2	13.2"

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
21	Lime	1000 #	11.5m	6	5.5	6	4.5		0.5	0.5	Mature	Below Average	Indifferent	Established within field boundary Inaccessible due to prolific basal epicormic growth Unsympathetic reduction in height to c.11m Dieback to upper crown Above average epicormic growth Individually of low quality, conferred moderate value as component of wider collective	B2	12*
22	Corsican Pine	740	16m	5.5	7 #	7.5	10		7	2.75	Mature	Average	Indifferent	Component of G16 Structure typical for species within current context Unsympathetic lower limb removals Prominent within views from surrounding dwellings High value as component of wider collective Subject to Tree Preservation Order ref: TPO BN/3/20:T1	A2	9
23	Lime	930	20m	8	5	6	6.75		5.5	3	Mature	Average	Indifferent	Component of G16 Structure typical for species within current context Average internal deadwood and epicormic growth Prominent within views from surrounding dwellings High value as component of wider collective	A2	11.1*
24	English Oak	970	20m	10.5	10 #	11.25	9.5 #		3.75	0.5	Mature	Average	Indifferent	Established within H7 Structure typical for species within current context Above average minor internal deadwood Visually prominent individual Good example of species at maturity Subject to Tree Preservation Order ref: TPO BN/1/18:T1	A12	11.7
25	Magnolia	150 2" 100	5.5m	3.75	3	3 #	4		0.75	0.5	Early Mature	Average	Indifferent	Established ornamental planting Low arboricultural value, readily replaceable at current size	C12	2.4*
26	Apple	190 2" 170 7" 140	7.5m	4.5	2	4	3		0.5	0.5	Early Mature	Average	Poor	Dominant component of G17 Multi stemmed from ground level, unions tight and included Unremarkable example of the species	C12	5.7
27	Cherry	340	7.5m	7.5	5.75	3.5	5		2.75	2	Early Mature	Below Average	Poor	Dominant component of G17 Unbalanced scaffold structure, biased to north Sparse canopy at time of survey Unremarkable example of species	C12	4.2

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
28	Holm Oak	450 #	13.5m					6.5	5 #	4.5 #	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land Structure appears typical for species within current context Unsympathetic lower limb removals Prominent within views from adjacent road and surrounding dwellings	B2	5.4
29	Corsican Pine	550 #	15.5m					5.75	4.5 #	4 #	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land Structure appears typical for species within current context Average internal deadwood Prominent within views from adjacent road and surrounding dwellings	B2	6.6*
30	Sycamore	370	16.5m	5 #	5.5	3.75	5.25		5.25	6	Early Mature	Average	Indifferent	Dominant component of G17 Average internal deadwood Unremarkable example of species	C1	4.5*
31	Plum	370 160	9.5m	3	4.75	5.75	7.5		0.5	0.5	Early Mature	Below Average	Indifferent	Dominant component of G17 Sparse canopy at time of survey Unremarkable example of species	C1	4.8*
32	Sycamore	440 380 320 180	14.5m	5 #	5.25	8.25	6.25		5	4	Early Mature	Average	Poor	Dominant component of G17 Multi stemmed from c.0.25m, unions tight and included Unsympathetic lower limb removals Unremarkable example of the species	C1	8.4*
33	Sycamore	430 280	14	6 #	8.5	3.75	3.5 #		6	4.75	Early Mature	Average	Poor	Dominant component of G17 Bifurcates from c.0.25m, union over included with lobed reaction growth Unremarkable example of species	C1	6.3*
34	Sycamore	380	14m	2 #	6	7.5	4		6.5	5	Early Mature	Average	Indifferent	Dominant component of G17 Basal epicormic growth Unremarkable example of species	C1	4.5*
35	Silver Birch	380	15m	6.25	4.75	6.75	5		6.5	4	Early Mature	Average	Indifferent	Establishing urban planting Unsympathetic crown reduction Prominent within views from adjacent road and surrounding dwellings	B2	4.5*

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
36	Whitebeam	470	10m	5.5	5.75	5	4.5		3	3	Early Mature	Below Average	Indifferent	Established urban planting Unsympathetic large diameter pruning to lower crown <i>hannotus hispidus</i> fruiting body to south at c.4.5m Prominent within views from surrounding dwellings	B2	5.7*
37	Goat Willow	2" 250 #	12m					5	3.5	2.5	Early Mature	Below Average	Poor	Inaccessible, offsite within residential garden Standing deadwood	U	N/A
38	Hawthorn	140 120 #	4.5m					2.75	0.5	0.5	Semi Mature	Average	Indifferent	Situated within roadside grass verge Low arboricultural value, readily replaceable at current size	C12	2.1
39	Cherry	430 270	9.5h	7	7.25	4.5	7.25		3.25	1.5	Mature	Average	Poor	Established urban planting Co-dominant tear out wound at c.1.5m with signs of active decay Split forming within co-dominant union Unremarkable example of species	C1	5.4*
40	Silver Birch	300	9.5m	1.5	4.25	4.5	2.25		2	1.5	Early Mature	Below Average	Indifferent	Established urban planting Prominent within views from surrounding dwellings Unsympathetic crown reduction Dieback throughout entire crown Unremarkable example of species	C1	3.6
41	Silver Birch	410	12m	5.25	3.75	5.25	4		3.75	0.25	Early Mature	Average	Indifferent	Established urban planting Prominent within views from surrounding dwellings Unsympathetic crown reduction Unremarkable example of species	C1	4.8*
42	Hawthorn	430	5m	3.75	3.25	4	4		1.5	1.5	Mature	Below Average	Indifferent	Established urban planting Prominent within views from surrounding dwellings Dieback throughout entire crown Unremarkable example of species	C1	5.1*

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
43	Beech	880	16m	10m	11m	10m	10m		4m	1.5	Mature	Average	Poor	Established urban planting Sub dominant stem at c.2m, union over included with lobed reaction growth Average internal deadwood Minor epicormic growth Visually prominent individual	A2	10.5*
44	Cherry	380	6m	3.75	3.75	4.75	4		2	2	Early Mature	Below Average	Poor	Established urban planting Prominent within views from surrounding dwellings Unsympathetic crown reduction Sparse canopy at time of survey Unremarkable example of species	C1	4.5*
45	Cherry	385	6m	3.5	2.75	3.5	3		2	3.5	Early Mature	Below Average	Poor	Established urban planting Prominent within views from surrounding dwellings Unsympathetic crown reduction Sparse canopy at time of survey Unremarkable example of species	C1	4.5*
46	Whitebeam	460	9.5m	5.5	5 #	4.5	5		3	2.5	Early Mature	Average	Poor	Established urban planting Prominent within views from surrounding dwellings Bifurcates from c.1.5m, union over included with lobed reaction growth Squat canopy form Unremarkable example of species	C1	5.4*
47	Apple	140	4.5m					2.5	1.5	1	Semi Mature	Average	Indifferent	Establishing urban planting Low arboricultural value, readily replaceable at current size	C12	1.8
48	Monterey Cypress	310 2" 160 4" 140 2" 100	13.5	4	1 #	5.5	5.75		1	3	Early Mature	Average	Poor	Situated within roadside grass verge Multi stemmed from c.0.5m, unions tight and included Prominent within views from adjacent road Unremarkable example of species	C1	5.7*

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
49	Beech	800	18.5m	8.5	9.5	7.75	8		2.5	1.5	Mature	Average	Indifferent	Situated within roadside grass verge Multiple fused and crossing scaffold limbs Average internal deadwood Minor epicormic growth Prominent within views from all directions	A2	9.6*
50	Corsican Pine	400 #	15m					6	6 #	2.5	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land Unsympathetic pruning to lower crown Structure appears typical for species within current context Prominent within views from adjacent roads and surrounding dwellings	B2	4.8*
51	Corsican Pine	700 # oi	20m	7.5	10	9#	9.5		6	5	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring residential land Partially clad and obscured by Ivy, unable to thoroughly inspect Unsympathetic pruning to lower crown Structure appears typical for species within current context Prominent within views from adjacent roads and surrounding dwellings	B12	8.4*
52	English Oak	625	16m	9	6.5	9 #	10.25		4.75	5.5	Early Mature	Average	Indifferent	Established within roadside grass verge Slightly sparse canopy at time of survey Average internal deadwood Minor epicormic growth Structure typical for species within current context Prominent within views from adjacent road and surrounding dwellings Moderate example of species whilst maturing	B12	7.5*
53	English Oak	500 oi	10.5m					6.75	2.25	0.5	Early Mature	Average	Indifferent	Inaccessible, offsite within neighbouring railway embankment Clad and obscured by Ivy, unable to thoroughly inspect Structure appears typical for species within current context Squat canopy form Unremarkable example of species	C1	6
G1	Alder Elder Hawthorn	390 max	17m max					6.75 max	0.5 to 2.5	0.5 to 2.5	Semi Mature to Early Mature	Below Average to Average	Poor to Indifferent	Cohesive field boundary majoring on Alder with self-set Elder and recently planted Hawthorn whips as understory Frequent multi-stemmed Alder occurring throughout Individually of limited merit, moderate value as prominent collection	B2	4.8

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G2	Field Maple	290 max #	9.5m max					6 max	1 to 3 #	0.5 to 2.5	Semi Mature	Average	Indifferent	Collection of 3no Field Maple Inaccessible due to dense Bramble understory Appears offsite within neighbouring third party land Low arboricultural quality	C1	3.6
G3	Dogwood	75 # max	4m max					2 # av	0.25 av	0.25 av	Young to Semi Mature	Average	Indifferent	Field boundary parcel Inaccessible due to dense Bramble understory Low arboricultural value, readily replaceable at current size,	C12	0.9
G4	Field Maple Hazel Blackthorn Elder	300 # max	10m max					3.75 av	0.5 to 2.5	0.5 to 2	Young to Semi Mature	Average	Indifferent	Field boundary collection Inaccessible due to dense Bramble understory Low arboricultural quality	C12	3.6
G5	Field Maple	250 # av	8m max					4 max	0.5 to 3	0.5 to 2.5	Semi Mature	Average	Indifferent	Field boundary collection of 2no Field Maple Low arboricultural quality	C12	3
G6	Hawthorn	220 170 150 max	5m max					5 max	0.5 av	0.5 av	Early Mature	Dead to Below Average	Poor	Cohesive pair of Hawthorn, one is standing deadwood and the other is in a state of terminal decline Unsuitable for retention	U	N/A
G7	Ash English Oak Hawthorn	500 # max	10m max					5.75 max	0.5 to 2.5	0.5 to 1.5	Early Mature	below Average	Indifferent	Cohesive field boundary collection Inaccessible, offsite within neighbouring third party land Ash component has dieback throughout crown and above average epicormic growth English Oak has a squat canopy form Unremarkable collection	C1	6
G8	Ash Field Maple Hawthorn Blackthorn	900 # max	13.5m max					9.5 max	1 to 4	0.5 to 5.5	Semi Mature to Mature	Below Average to Average	Poor to Indifferent	Inaccessible, offsite within neighbouring third party land Large cavity to Ash from ground level to c.1m with signs of active decay Prominent within moderate distance views	B2	10.8
G9	Field Maple	380 # max	8.5m max					4.25 max	0.5 av	0.5 av	Semi Mature to Early Mature	Below Average	Indifferent	Boundary collection of 4no Field Maple Situated on north and south embankments of watercourse All components have dieback to upper crown Unremarkable collection	C1	4.5*

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G10	Horse Chestnut Crack Willow Hawthorn Elm Elder Silver Birch	400 max	13.5m					7.5 max	0.5 to 2.5 #	0.5 to 1.5	Young to Early Mature	Average	Poor to Indifferent	Cohesive parcel mapping on Crack Willow Inaccessible, offsite within neighbouring third party land Situated to south of water course Individually of limited merit, conferred moderate value as collection only	B2	4.8
G11	Hawthorn Ash Elm	200 max	6m max					3.75 max	0.5 av	0.5 av	Semi Mature	Average	Indifferent	Intermittent understory scrub group for T5 to T8 Low arboricultural quality	C12	2.4
G12	Apple	360 max	5.5m max					4.75 max	0.5 to 2	0.5 to 1	Semi Mature to Early Mature	Average	Indifferent	Cohesive collection of 4no orchard plantings Low arboricultural value, predominantly readily replaceable at current size	C12	4.2*
G13	Horse Chestnut Ash Elder Leyland Cypress	880 # max	19.5m max					9.5 max	0.5 to 5.5	0.5 to 3.5	Semi Mature to Mature	Below Average to Average	Poor to Indifferent	Cohesive field boundary collection Appears outside of sites boundary Structures typical for species within current context High collective value	A2	10.5
G14	Elm Hawthorn Lime Elder Privet Purple Plum Holly Buddleia	295 max oi	11.5 max					4.25 max	0.5 av	0.5 av	Semi Mature	Average	Indifferent	Unmanaged boundary collection of establishing scrub and ornamental plantings Provides screen of adjacent residential land Low arboricultural quality	C12	3.6
G15	Apple	130 2" 100 max	5.5m max					2.7 av	0.5 av	0.5 av	Young to Semi Mature	Average	Indifferent	Cohesive collection of ornamental plantings Low arboricultural value, readily replaceable at current size	C12	
G16	Walnut Larch Beech Lime	640 av	22m max					8.75 max	0.5 to 10	0.5 to 9	Semi Mature to Mature	Average	Indifferent	Mutually suppressed, cohesive collection of established ornamental plantings Appears outside of sites boundary Structures typical for the species within current context Individually of moderate quality, high value as collective only	A2	7.8

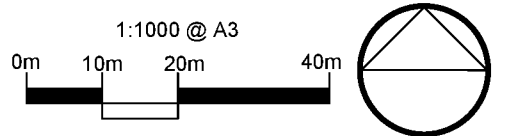
Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G17	Cherry Norway Maple Viburnum Rhododendron Dogwood Spotted Laurel Norway Spruce Damson Holly Bay Laurel Leyland Cypress Hawthorn Magnolia Purple Plum	2" 160 2" 150 max	7m max					3 av	0.5 av	0.5 av	Young to Semi Mature	Average	Indifferent	Two cohesive parcels of previously maintained ornamental plantings Situated within domestic garden of Tars Farm House Low arboricultural value, readily replaceable at current size	C12	3.6*
G18	Cherry Plum Holly Sycamore Elm Hazel Snowberry Bay Laurel Cherry Laurel Lonicera	180 av	9m max					5 max	0.5 av	0.5 av	Semi Mature	Average	Indifferent	Intermittently cohesive collection of ornamental plantings and establishing self-set specimens Partially offsite within multiple residential gardens and roadside verge Low arboricultural value, readily replaceable at current size	C12	2.1
G19	Field Maple Silver Birch Dogwood Buddleia Sycamore English Oak Ash	150 max	8.5m max					2.75 max	0.5 av	0.5 av	Young to Semi Mature	Average	Indifferent	Cohesive collection of urban plantings and self-set specimens Situated within grass verge of adjacent public footpath Low arboricultural value, readily replaceable at current size	C12	1.8
G20	Sycamore Walnut	280 # av	14.5m max					6.5 max	0.5 to 5 #	0.5 to 4 #	Semi Mature	Average	Indifferent	Intermittently cohesive collection of established ornamental plantings Inaccessible, offsite within neighbouring residential land Structures appear typical for species within current context Prominent within views from adjacent road Individually of low significance, moderate value as collective only	B2	3.3

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
G21	Bay Laurel Sycamore Beech Snowberry Elaeagnus Holly Lonicera	390 oi max	16.5m max					5 av	0.5 to 3.5	0.5 to 4.5	Young to Early Mature	Average	Indifferent	Mixed cohesive collection of ornamental plantings and establishing self-set specimens Situated within roadside verge and multiple residential gardens Unremarkable collection	C1	4.8*
G22	Hawthorn Field Maple Blackthorn	210 2" 140 max	5.5m max					2.5 av	0.5 av	0.5 av	Semi Mature	Below Average to Average	Poor to Indifferent	Intermittent field boundary collection majoring on Field Maple Low arboricultural quality	C1	3.6
H1	Blackthorn Elder Hawthorn Dogwood	75 av	5m max					4 max	0.25 av	0.25av	Semi Mature	Average	Indifferent	Unmanaged field boundary hedgerow	C12	0.9
H2	Blackthorn Hawthorn Dogwood Elder	75 av	3m to 7m					2.75 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Unmanaged field boundary hedgerow	C12	0.9
H3	Blackthorn Hawthorn Elder	75 av	3.5m max					2 max	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Unmanaged field boundary hedgerow, becomes intermittent towards eastern extent	C12	0.9
H4	Ash Hawthorn Blackthorn	75 # av	4m max					2 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Short length of unmanaged field boundary hedgerow Clad and obscured by Bramble, unable to thoroughly inspect	C12	0.9
H5	Beech	25 max	1.5m av					0.25 av	0.25 av	0.25 av	Young	Average	Indifferent	Recently planted whips	C12	0.3
H6	Damson Beech Sycamore Hawthorn Privet Blackthorn	250 max	3m to 7m					4.5 max	0.25 av	0.25 av	Young to Early Mature	Average	Indifferent	Partially managed field boundary hedgerow, maintained on sides only	C12	3

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
H7	Leyland Cypress Beech Apple Cherry Laurel Elm Hazel Privet	75 av	5.5m max					1.5 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Maintained domestic hedgerow, majoring on Leyland Cypress	C12	0.9
H8	Spotted Laurel Holly	75 av	2.5m max					1 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Maintained domestic hedgerow	C12	0.9
H9	Privet	75 max	1.5m av					1 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Maintained domestic hedgerow	C12	0.9
H10	Privet Holly Yew Sycamore	75 av	3m max					1 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Intermittently maintained domestic hedgerow	C12	0.9
H11	Yew	75 max	2m max					1 av	0.25 av	0.25 av	Semi Mature	Average	Indifferent	Maintained domestic hedgerow	C12	0.9

APPENDIX C

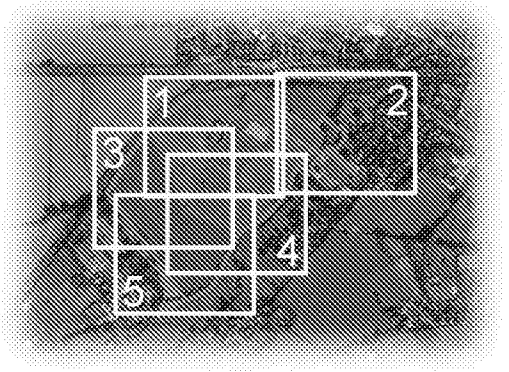
TREE PROTECTION PLAN (10716 TPP 01 Rev A)



- KEY:**
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Trees to be Removed
 - Tree Protection Barrier
 - Tree Protection Barrier (Secondary Specification)
 - Tree Protection Barrier (2nd Position)
 - Manual Excavation

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53. Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 5 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-35, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd

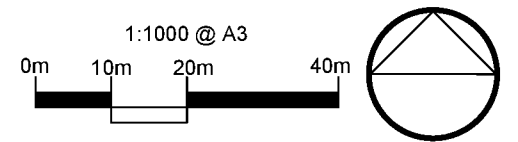
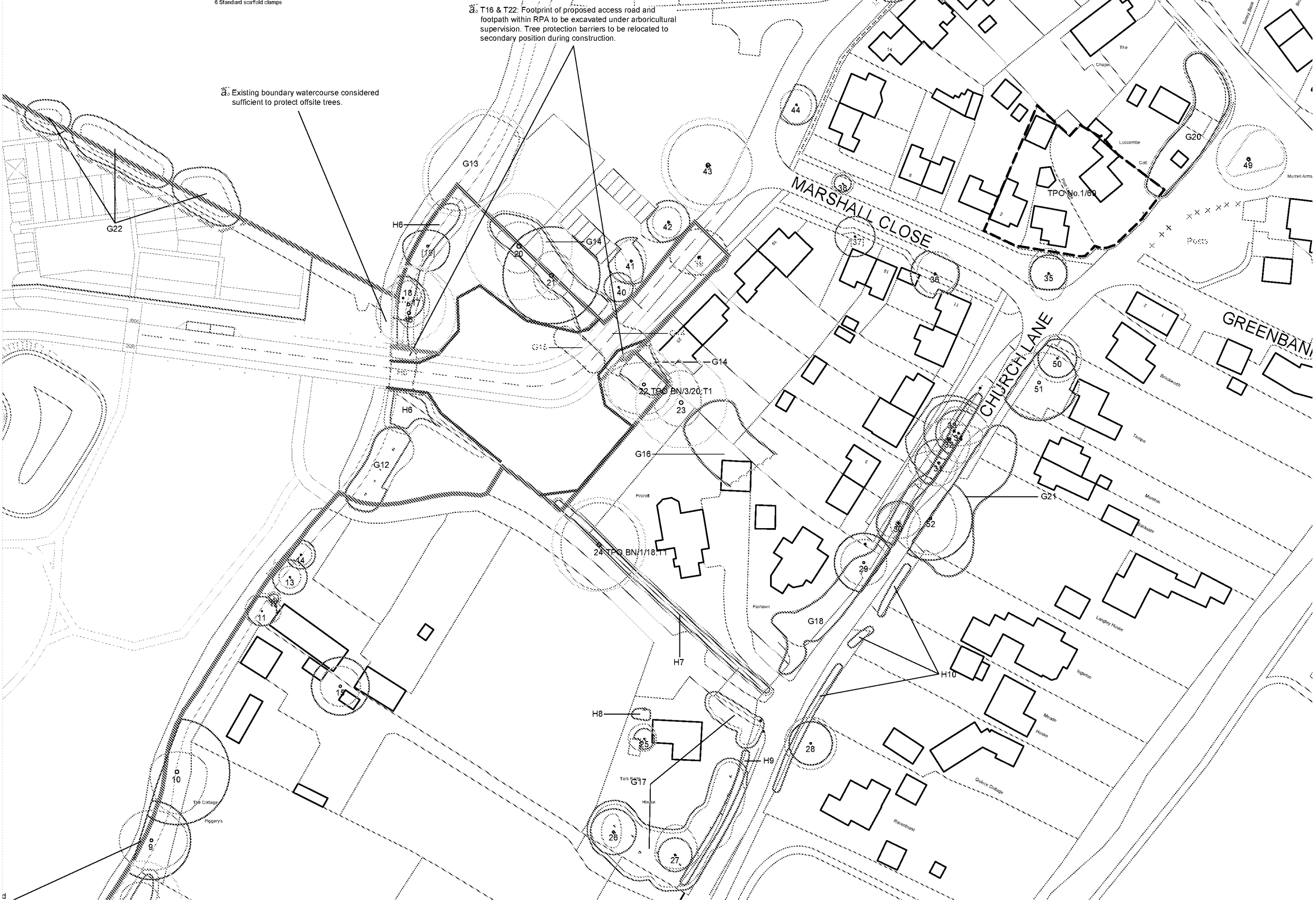
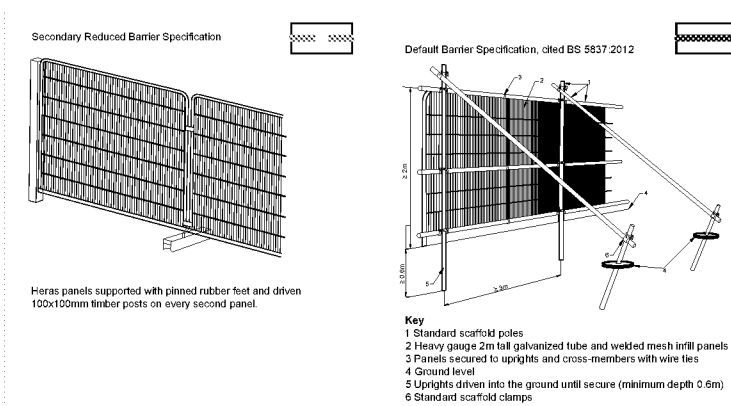
aspect arboriculture

TITLE
**Land South of Barnham Station
Tree Protection Plan**

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TPP 01 Rev A (1/5)	REVISION	

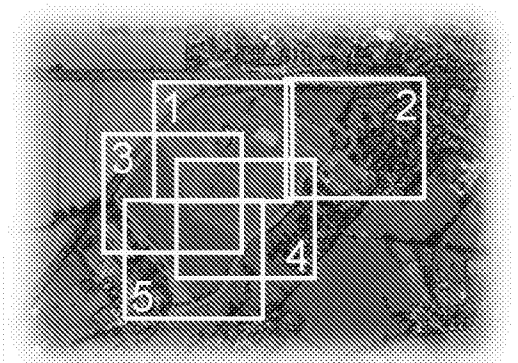
Based on: 1311_Tars Farm_Application drawings_181120.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Trees to be Removed
 - Tree Protection Barrier
 - Tree Protection Barrier (Secondary Specification)
 - Tree Protection Barrier (2nd Position)
 - Manual Excavation

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53: Groups 1-11, 13, 14, 16, and 21-22: and Hedgerows 1-4, 5 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-35, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

TITLE

Land South of Barnham Station
Tree Protection Plan

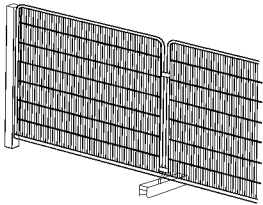
CLIENT

Gleeson Strategic

SCALE	DATE	DRAWN
1:1000 @ A3	NOV 2020	GW
DRAWING NUMBER		REVISION
10716 TPP 01 Rev A (2/5)		

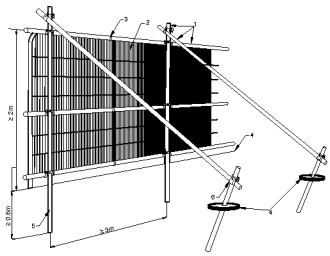
Based on: 1311_Tars Farm_Application drawings_181120.dwg

Secondary Reduced Barrier Specification



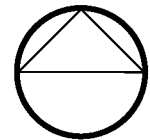
Heras panels supported with pinned rubber feet and driven 100x100mm timber posts on every second panel.

Default Barrier Specification, cited BS 5837:2012



Key
1 Standard scaffold poles
2 Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6m)
6 Standard scaffold clamps

1:1000 @ A3

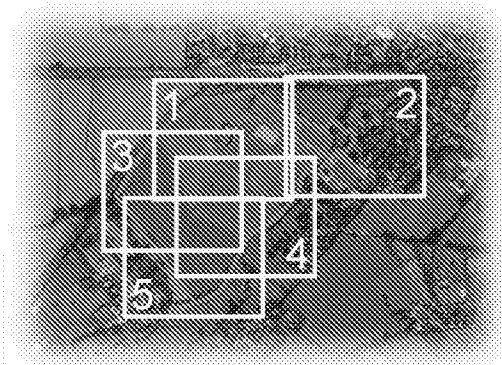


KEY:

- Site Boundary
- Tree Numbers
- Tree Canopies
- Category 'U' Trees
- Category 'A' RPA
- Category 'B' RPA
- Category 'C' RPA
- Trees to be Removed
- Tree Protection Barrier
- Tree Protection Barrier (Secondary Specification)
- Tree Protection Barrier (2nd Position)
- Manual Excavation

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53. Groups 1-11, 13, 14, 16, and 21-22; and Hedgerows 1-4, 5 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-35, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

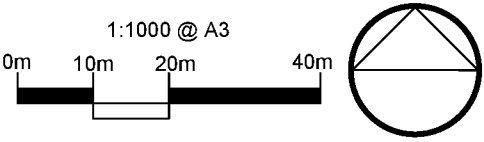
TITLE
Land South of Barnham Station
Tree Protection Plan

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TPP 01 Rev A (3/5)	REVISION	

Based on: 1311_Tars Farm_Application drawings_181120.dwg

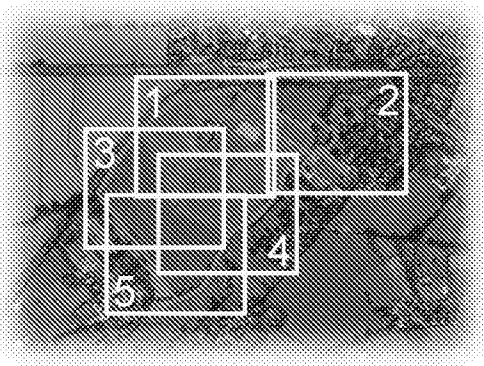
Existing boundary watercourse considered sufficient to protect offsite trees.



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Trees to be Removed
 - Tree Protection Barrier
 - Tree Protection Barrier (Secondary Specification)
 - Tree Protection Barrier (2nd Position)
 - Manual Excavation

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53, Groups 1-11, 13, 14, 16, and 21-22, and Hedgerows 1-4, 5 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref: SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-35, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



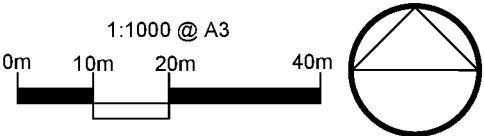
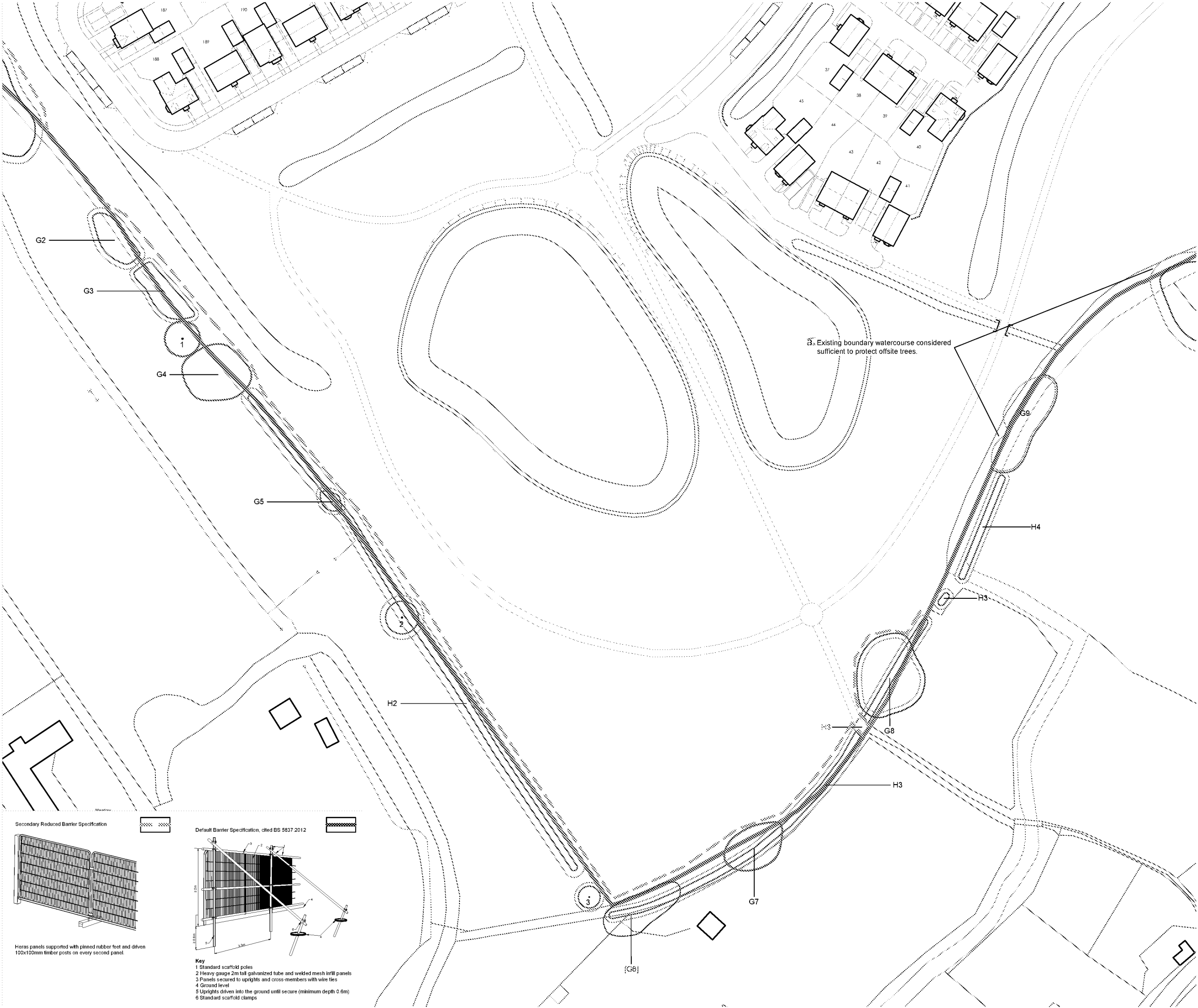
Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

TITLE		
Land South of Barnham Station Tree Protection Plan		
CLIENT		
Gleeson Strategic		
SCALE	DATE	DRAWN
1:1000 @ A3	NOV 2020	GW
DRAWING NUMBER	REVISION	
10716 TPP 01 Rev A (4/5)		

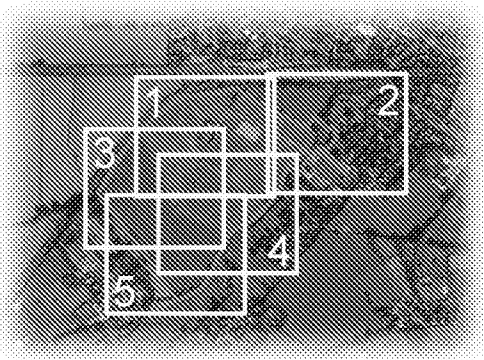
Based on: 1311_Tars Farm_Application drawings_181120.dwg



- KEY:
- Site Boundary
 - Tree Numbers
 - Tree Canopies
 - Category 'U' Trees
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Trees to be Removed
 - Tree Protection Barrier
 - Tree Protection Barrier (Secondary Specification)
 - Tree Protection Barrier (2nd Position)
 - Manual Excavation

Note: Trees 1-11, 15, 22, 23, 28-29 and 50-53, Groups 1-11, 13, 14, 16, and 21-22, and Hedgerows 1-4, 5 and 10 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site. Groups 18-20 and Hedgerows 7, 9 and 11 were partly recorded on the survey and have been plotted using this along with measurements onsite and aerial imagery (drawing ref. SOR017713-2d.dwg).

Note: The RPA footprint for Trees 5, 8-11, 13, 14, 16-18, 20, 21, 23, 25, 29-35, 39, 41-46 and 48-52 and Groups 9, 12, 17 and 21 have been displaced to allow for the effect of the adopted highway, existing building foundations and existing watercourse. The surface area of the RPA has not been reduced with the exception of Tree 49, due to its location.



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				

aspect arboriculture

TITLE
Land South of Barnham Station
Tree Protection Plan

CLIENT
Gleeson Strategic

SCALE 1:1000 @ A3	DATE NOV 2020	DRAWN GW
DRAWING NUMBER 10716 TPP 01 Rev A (5/5)	REVISION	

Based on: 1311_Tars Farm_Application drawings_181120.dwg

Secondary Reduced Barrier Specification

Horas panels supported with pinned rubber feet and driven 100x100mm timber posts on every second panel.

Default Barrier Specification, cited BS 5837:2012

Key
1 Standard scaffold poles
2 Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6m)
6 Standard scaffold clamps

APPENDIX D

TREE SURVEY METHODOLOGY (10716 TSM 01)

Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during August 2020. Tree locations are identified via a topographical survey; locations of any trees excluded from the topographical survey were plotted on site. The purpose of the survey is to record information about trees on or adjacent to the site to inform design options. In keeping with clause 4.4 of BS5837: 2012 'Trees in Relation to Design, Construction and Demolition', the survey provides a record of the following parameters:

Tree Numbers: all individual trees are sequentially numbered. Groups of trees, woodlands and hedgerow are also sequentially numbered with a corresponding prefix relevant to their type e.g. G, W or H respectively; the identification of trees as woodland, groups of trees or within hedgerows is undertaken where appropriate. The identification of trees as individuals within collections has been made where it is considered sensible to make such a differentiation.

Species: listed by common name

Stem Diameter: given in millimetres and obtained by measuring single/multiple stems at 1.5m using a diameter tape in accordance with Annex C within BS5837:2012. Diameters of inaccessible trunks are estimated and provided with the suffix '#'.

Tree Heights: determined using a clinometer and measured to the nearest 500mm. Heights are estimated where specific triangulation is not achievable and by reference to measured trees nearby (provided with the suffix '#').

Crown Spreads: measured at cardinal points using a Leica Disto™ laser distance measurer. Measurements were recorded to the nearest 250mm. Inaccessible crown spreads are estimated based on measured canopies nearby and provided with the suffix '#'

Crown Clearance: The height of the first significant living branch and/or canopy (as appropriate) is recorded using a Leica Disto™ laser distance measurer to inform vertical ground clearance. Crown clearance may be higher or lower than the first significant branch. Estimated clearances are provided with the suffix '#'. Height of first significant branch will be provided where considered advantageous to make the distinction.

Life Stage – The age of trees, groups of trees, hedges and woodlands are defined as follows:

- Young (within the first 1/4th of life expectancy)
- Semi-mature (within the second 1/4th of life expectancy)
- Early Mature (within the third 1/4th of life expectancy)
- Mature (within the fourth 1/4th of life expectancy)
- Over Mature and Veteran (exceeding normal life expectancy)
- Veteran (significantly exceeding normal life expectancy)

Physiological and structural condition: physiological condition defined as follows; good, above average, average, below average, poor or dead. Structural condition is defined as: good, moderate, indifferent, poor or hazardous

Comments: further observations were recorded where necessary i.e. details regarding defects, preliminary management recommendations, presence of pest/disease and perceived significance.

BS5837 Category: pursuant to BS5837:2012 section 4.5 and cascade chart for tree quality assessment (refer to reproduced Table 1 overleaf). Trees qualifying under a given category (A-C and U) and any appropriate subheading (1-3) are considered to fall within the scope of that category's definition.

Estimated Remaining Contribution. Described` as a guideline only and in terms of years: <10, 10+, 20+ and 40+ relevant to category U, C, B and A respectively. This information is not provided on the tree schedule to avoid conclusions based upon 'life expectancy'.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
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 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 <i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered 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 remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural 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

landscape planning • ecology • arboriculture

aspect

Aspect Arboriculture
West Court
Hardwick Business Park
Noral Way
Banbury
Oxfordshire OX16 2AF