

WHARTON

Natural
Infrastructure
Consultants

Arboricultural Impact Assessment

SITE LOCATION

Land at the Junction of Harts
Lane and Winchester Road,
Burghclere
Hampshire

PREPARED FOR

8th Earl of Carnarvon

ISSUE DATE

9th September 2019







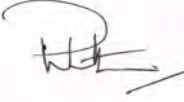
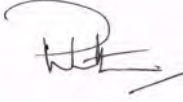

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Client number	0968	0968	0968

Arboricultural Impact Assessment

VERSION: V3 DATE: September 2019
REF NO: 190821 0968 AIA V3



Executive Summary

Project Location

This Arboricultural Impact Assessment (AIA) has been commissioned by the 8th Earl of Carnarvon ('the Client'). It is prepared in relation to the Proposed Development at Land at the Junction of Harts Lane and Winchester Road, Burghclere, Hampshire ('the Site').

Proposed Development

The Proposed Development is to build 18no. plots, ranging from 1 – 4 bedrooms houses. The proposal includes an access roads and separate driveway off Harts Lane.

Results of Survey

This survey and impact assessment include a total of 27no. individual trees, 13no. groups of trees and 3no. hedgerows have been surveyed. These include 2no. category A, 6no. category B, 33no. category C and 2no. category U. The application considers all trees located on or within influencing distance of the Proposed Development.

Conclusions

It has been considered desirable wherever possible that trees and groups of trees should be retained, although care has been exercised over misplaced tree preservation. In terms of the current site layout plan, due to the size and scale of building requirement there is conflict with the trees that cannot be avoided and therefore mitigation proposals are considered.

In order to implement the Proposed Development, there will be an overall loss of 1no. category B group of trees, 4no. category C individual trees and 2no. category C groups of trees. There will also be a requirement to partially remove 3no. category C groups of trees and 2no. hedgerows.

With the exception of G32, the proposed removals are all of low quality and as such, should have minimal impact on the amenity value and scene of the surrounding area. All of the trees are located along the Site boundaries, their removal is considered to have a minor impact at site level but is not considered to impact the wider area.

G32 is a pair of pedunculate oaks located on the northern boundary of the Site. The removal of G32 would have a significant impact on the visibility of the commercial units to the north from the Site, but their removal is unlikely to have a significant impact on the surrounding area. Due to this document being pursuant to the allocation of the Site, there is scope to retain G32 during the detailed application phase by revision of the proposed Site layout, offsetting plot 18 further from the northern boundary.

As part of the Proposed Development it is recommended that several tree plantings are included. Tree species should include both native and non-natives to help future proof the Site. The Proposed Developed is considered to be a short-term loss, with a mid to long-term gain, if the recommended tree planting is included.

Alternatively, due to the type of application, the proposed incursions could be addressed during the detailed application phase by revision of the proposed Site layout.

Recommendations

Due to the level of incursion into the RPAs there will be a requirement for the use of an above soil surface for new road and driveway incursions. There is scope within the scheme to offset the road to the south, thus avoiding this requirement. As shown as a Yellow Honeycomb hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.3 of this report.

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Due to the level of incursion into the RPA of retained trees, there will be a requirement to construct the plot 18 and 2no. separate garage blocks on the northern boundary using pile and beam foundations. As shown as a Cyan hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.4 of this report.

Due to the level of incursion into the RPA of T27 (pedunculate oak) there will also be a requirement for the use of Ground Guards. This will be to reduce the likelihood of ground compaction through development. Ground-Guards to be installed as illustrated with a dark orange hatch on the Tree Protection Plan at Appendix 4.

Any works carried out within the RPAs of retained trees must be undertaken using hand-tools only under the direct supervision/guidance of the Arboricultural Clerk of Works (ACoW). This will ensure that foreseeable damage does not occur to the tree during this phase of works. If any roots with a diameter greater than 25mm, the Tree Officer will be contacted as recommended within BS5837:2012 clause 7.4.2.7 Note 1.

The successful retention of those trees that will remain on the Site will be dependent upon the quality and maintenance of any protection system that is put in place. An Arboricultural Method Statement should be provided to detail how the necessary tree protection will be implemented.

An indicative draft tree protection plan (DWG 004 Rev A – Appendix 4) has been provided, however, this is subject to alteration following a final decision notice and a detailed method statement should be provided as part of a robust planning condition.

It is critical that all protective fencing is installed and erected and the CEZ enforced prior to the commencement of any works on-site. Following installation of tree protection, a site meeting will be undertaken with the Tree Officer to ensure satisfaction of all parties prior to any on-site works commencing.

It is recommended that a suitable competent arboriculturist, undertakes the site supervision and monitoring works.

In order for tree and root protection measures to work effectively all personnel associated with the construction process must be familiar with the Tree Protection Plan.



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1. Introduction

1.1 Terms of instruction

- 1.1.1 The Principal Author of this report is Jack Barnard *BSc (Hons). MArborA, MICFor (Chartered Arboriculturist)* Arboricultural Consultant at Wharton Natural Infrastructure Consultants Ltd (WNIC). The Principal Author is a Professional Member of the Arboricultural Association (AA) and the Institute of Chartered Foresters (ICF) and is therefore required to uphold the professional and ethical standards within the AA and ICF Code of Conduct. The Principal Author is LANTRA certified to undertake Professional Tree Inspections.
- 1.1.2 This Arboricultural Impact Assessment (AIA) has been commissioned by the 8th Earl of Carnarvon ('the Client'). It is prepared in relation to the Proposed Development at Land at the Junction of Harts Lane and Winchester Road, Burghclere ('the Site') (see aerial photography at appendix 1).
- 1.1.3 The instruction is to fulfil the initial requirements of Basingstoke and Deane Borough Council ('the Council'), who require an AIA to make an informed decision on our client's full planning application.
- 1.1.4 The document is also intended as a reference point for all site operatives and a copy will remain with the site manager for the duration of the development. This document may be used as a point of reference if there were to be a dispute over compliance with related planning decisions. However, should the Council be minded to grant planning permission, an Arboricultural Method statement should be conditioned to ensure sufficient protection of retained trees.

1.2 Scope of project

- 1.2.1 The scope of this project is threefold:
- i. Undertake a survey of trees on the Site and within influencing distance of the Site to fulfil the requirements of BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations*.
 - ii. Provide a Tree Constraints Plan for the Site including Root Protection Areas and canopy spreads.
 - iii. Provide an AIA in relation to the Proposed Development, giving assessment of the trees in relation to the proposal and the potential impacts the trees will have.

1.3 Reference documents

- 1.3.1 As background information, the following documentation has been referenced.

Table 1 Document and Plans Provided

Document Description	Reference No.	Prepared By	Date
Topographical Survey	190819 0968 TOPO V1	WNIC	August 2019
Proposed Site Layout	2178-SK01 A - Harts Lane - Sketch Site Plan - Option 1	Brownhill Hayward Brown	August 2019



2. Planning Policy and Legislation

2.1 National Planning Policy Framework (NPPF) (February 2019)

- 2.1.1 When determining planning applications, Local Planning Authority's (LPA) should apply the following principles:
- *If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternate site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.*
 - *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.*
 - *Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity (paragraph 175).*
- 2.1.2 The trees proposed for removal within this report is neither considered aged or veteran and therefore the principles for refusal within the NPPF would not be considered applicable.

2.2 Tree Preservation Orders and Conservation Areas

- 2.2.1 The LPA has been contacted to establish whether any trees contained within the survey are protected by either a Tree Preservation Order (TPO) or are within a Conservation Area.
- 2.2.2 It has been confirmed by the Council's Planning Department on the 21st August 2019 that there are no TPO's across the Site, nor does the Site fall within a local Conservation Area.

2.3 Relevant wildlife legislation

- 2.3.1 The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Species and Habitat Regulations 2017 provides statutory protection of birds, bats and other species that can inhabit trees. The Natural Environment and Rural Communities Act 2006 (Section 41 England and Wales) also places a duty on Local Planning Authorities to consider biodiversity when carrying out their duties.
- 2.3.2 Great care is required to avoid disturbance to those species and consideration should be given to the timing of tree works in order to avoid an offence under the above legislation. Where the presence of such species is suspected, the project ecologist or Natural England should be contacted for advice.

2.4 Felling Licence

- 2.4.1 Tree felling is also restricted under the Forestry Act 1967. Under this act, there is an exemption from the need for a felling licence for "*Felling trees immediately required for the purpose of carrying out development authorised by planning permission (granted under the Town and Country Planning Act 1990) ...*"
- 2.4.2 If full planning permission is granted, then any trees which require felling to implement the approved plans are exempt from this statutory protection. Outline planning permission does not provide an exemption to the regulations that control tree felling in the Forestry Act 1967.

2.5 Guidance documents

- 2.5.1 It is appreciated that the trees could provide a constraint and therefore a detailed tree survey and arboricultural report was commissioned to fulfil the requirements of BS5837:2012 *Trees in Relation*



to Design, Demolition and Construction: Recommendations. It considers trees directly on-site or within influencing distance of the Site.

- 2.5.2 This AIA makes a number of recommendations for the Site in order that those trees retained and protected through the course of development, continue to enhance the environment following its completion.
- 2.5.3 To achieve this a methodology for all proposed works that may affect trees, which are to be retained on and adjacent to the Site has been provided.

3. Site Assessment

3.1 Site visit

- 3.1.1 The tree assessment was undertaken on 21st August 2019 by the Principal Author and the trees inspected from ground level. The owners/managers of the Site were informed of our presence on-site and prior to undertaking the inspection of trees.

3.2 Site description

- 3.2.1 The Site is c.0.1ha in size and current comprises an area of unused grassland. The Site is approximately centred at grid reference: SU 46129 60711.
- 3.2.2 The Site is bordered immediately to the north by a small industrial park, with agricultural fields beyond. Harts Lane frames the eastern and south-eastern boundary of the Site, with Winchester Road from the western boundary of the Site.
- 3.2.3 The majority of the trees on-site and within close proximity to it are of a similar age and condition. In general, the trees are semi- and early-mature specimens, comprising primarily of common ash, common hawthorn, pedunculate oak and sycamore.

4. Proposed Development Description

- 4.1.1 The Proposed Development is to build 18no. plots, ranging from 1 – 4 bedrooms houses. The proposal includes an access roads and separate driveway, both off Harts Lane.

5. Arboricultural Assessment

5.1 Method of data collection

- 5.1.1 The trees on the Site were originally surveyed without reference to the site layout as detailed in Clause 4.4.1.1 of BS5837:2012. However, for the purposes of this arboricultural assessment, the design proposal for the Site has been considered.
- 5.1.2 The survey recorded trees either as individual specimens or as groups, where these trees were aerodynamically, culturally or visually important as groups. The tree numbers associated with each tree are cross-referenced within the schedule and plans at Appendix 3 and 4 respectively. The complete method of data collection for the tree survey is provided at Appendix 2.

5.2 Summary of data

- 5.2.1 A total of 27no. individual trees, 13no. groups of trees and 3no. hedgerows have been surveyed. These include 2no. category A, 6no. category B, 33no. category C and 2no. category U.
- 5.2.2 A detailed breakdown of trees surveyed with the BS5837:2012 retention category is given in *Table 2* below. The comments for each tree vary and are given in detail in the BS5837:2012 Tree Schedule at Appendix 3.

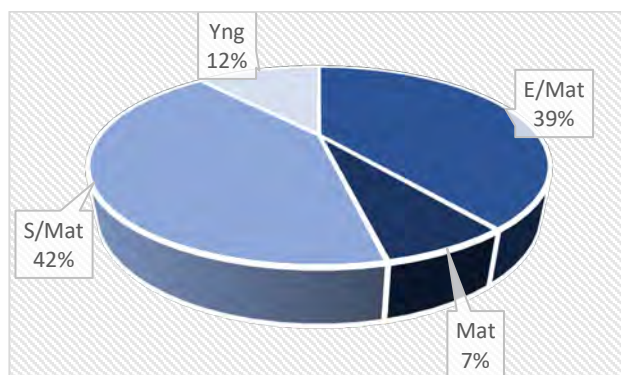


Figure 1, Distribution of tree age range

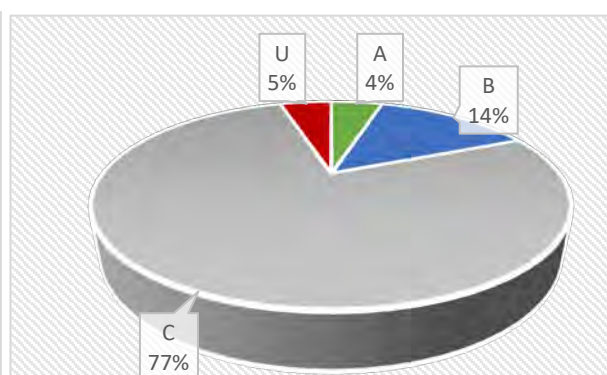


Figure 2, distribution of tree categories

- 5.2.3 It should be noted that *Table 1* of BS5837:2012 only gives recommendations in relation to remaining years. A tree may be considered to have a longer remaining life, however, still be considered to be of a lower category given its maturity, condition or overall impact to the application site.
- 5.2.4 In line with BS5837:2012, the category A and B trees should be considered as providing a substantial contribution to a site. Therefore, Category A and B trees should be retained and incorporated into the Proposed Development where possible and feasible.
- 5.2.5 Generally, category C and U trees are considered to be of low quality or are young specimens, which can be readily replaced, therefore, should not be considered a constraint to future development. However, it is considered desirable, wherever possible, that a tree should be retained as it ensures continuity of tree cover and provides a mature landscape to the Proposed Development.
- 5.2.6 The location of each tree and their associated constraints including canopy spread and root protection areas with and without the Proposed Development are illustrated on plan numbers DWG 001 Rev A and DWG 002 Rev A both at Appendix 4.

6. Impact Appraisal

6.1 Relationship between site layout and trees

- 6.1.1 In order to implement the Proposed Development, there will be an overall loss of 1no. category B group of trees, 4no. category C individual trees and 2no. category C groups of trees. There will also be a requirement to partially remove 3no. category C groups of trees and 2no. hedgerows.
- 6.1.2 Section 5.1.1 of BS5837:2012 recognises that the competing needs of development mean that trees are only one factor requiring consideration. It also states that misplaced tree retention can be detrimental on a site where it will cause excessive pressure on those trees being retained and could necessitate their removal in the future.
- 6.1.3 The removals include T1 (sycamore), Tg (pedunculate oak), G10 (mixed species), T11 (common ash), G12 (pedunculate oak), G32 (pedunculate oak) & T33 (silver birch). Partial removals include H2 (blackthorn), H14 (common hawthorn) & G13, G40 & G41 (mixed species).
- 6.1.4 With the exception of G32, the proposed removals are all of low quality and as such, should have minimal impact on the amenity value and scene of the surrounding area. All of the trees are located along the Site boundaries, their removal is considered to have a minor impact at site level but is not considered to impact the wider area.
- 6.1.5 G32 is a pair of pedunculate oaks located on the northern boundary of the Site. Due to the proposed location plot 18, it would not be possible to retain these two trees. The removal of G32



would have a significant impact on the visibility of the commercial units to the north, but their removal is unlikely to have a significant impact on the surrounding area. G32 are a pair of offsite trees and as such their removal would require third party consent. Due to this document being pursuant to the allocation of the Site, there is scope to retain G32 during the detailed application phase by revision of the proposed Site layout, offsetting plot 18 further from the northern boundary.

6.1.6 As part of the Proposed Development it is recommended that several tree plantings are included. Tree species should include both native and non-natives to help future proof the Site. The Proposed Developed is considered to result in a short-term loss, with a mid to long-term gain in amenity and canopy cover, if the recommended tree planting is included.

Table 2 Trees to be removed for proposed works.

Reason for removal	Proposed works	Tree retention category				Total
		A	B	C	U	
Proposed Development	Fell for development.	-	G32	T1, T9, G10, G12, T11 & T33	-	7
Proposed Development	Partial Removals	-	-	H2, G13, H14, G40 & G41	-	5
Total		0	1	6 + 5 partial removals	0	7 + 5 partial removals

6.1.7 Full specification of proposed tree removals is provided within the complete Tree Schedule. All trees, which are directly or indirectly impacted upon by the Proposed Development, are illustrated on plan DWG 002 Rev A, at Appendix 4.

7. Below Ground Constraints

7.1 Root Protection Area

7.1.1 The below ground constraints are generally summarised as the root protection areas (RPA). The RPA is an area equivalent to a circle with a radius 12 times the diameter of the trees measured at 1.5 metres for single stemmed trees. For trees with more than one stem, one of two calculation methods should be used. In all cases, the stem diameter(s) should be measured in accordance with Annex C, and the RPA should be guided from Annex D of BS5837:2012.

7.1.2 The RPA is an area in which no ground works should be undertaken without due care in relation to the retained tree(s) and this is to avoid soil compaction, changes in levels or soil contamination which could alter the trees condition and/or stability. The shape of the RPA and its exact location will depend upon arboricultural considerations and ground conditions.

7.1.3 The RPA for the trees has been calculated as prescribed by BS5837:2012 and are shown as circles for polygons on the Tree Constraints Plan at Appendix 4. These plans illustrate the relationship between the RPAs associated with the trees and the Proposed Development.

7.1.4 In addition to the illustration of RPAs on the plans at Appendix 4, the numerical RPA values are provided within the Tree Schedule at Appendix 3. Within the schedule both the RPA radius in metres from the main stem and the total area of the RPA as square metres are detailed.



7.2 New RPA incursion

- 7.2.1 Clause 5.3.1. of BS5837:2012 states: *'The default position should be that structures are located outside the RPAs of trees to be retained. However, where there is an overriding justification for construction within the RPA, technical solutions might be available to prevent damage to the tree(s).'*
- 7.2.2 In order to construct the Proposed Development, there will be new incursions within the RPA the trees as detailed below:
- G3 (common ash & pedunculate oak) - 5m² of the total 177m² RPA, therefore a 3% new incursion for the proposed garage of plot 1.
 - T27 (pedunculate oak) – 136m² of the total 572.5m² RPA, therefore a 24% new incursion for the proposed garage of plot 1.
 - T29 (pedunculate oak) – 16m² of the total 163m² RPA, therefore a 10% new incursion for the proposed garage of plot 1.
 - G34 (pedunculate oak) – 31m² of the total 82m² RPA, therefore a 37% new incursion for the proposed garages and access road of plot 12 & 13.
 - T35 (pedunculate oak) – 13.5m² of the total 72.5m² RPA, therefore a 18% new incursion for the proposed access road of plot 12 & 13.
 - T36 (pedunculate oak) – 1m² of the total 18m² RPA, therefore a 5.5% new incursion for the proposed access road of plot 12 & 13.
 - T42 (pedunculate oak) – 3m² of the total 48m² RPA, therefore a 6.5% new incursion for the proposed access off Hart Lane for the Community Hub.
- 7.2.3 Due to the level of incursion into the RPAs there will be a requirement for the use of an above soil surface for new road and driveway incursions. There is scope within the scheme to alter roads and driveways to reduce incursion into existing RPAs, thus avoiding this requirement. As shown as a Yellow Honeycomb hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.3 of this report.
- 7.2.4 Due to the level of incursion into the RPA of retained trees, there will be a requirement to construct the plot 18 and 2no. separate garage blocks on the northern boundary using pile and beam foundations. As shown as a Cyan hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.3 of this report.
- 7.2.5 Due to the level of incursion into the RPA of T27 (pedunculate oak) there will also be a requirement for the use of Ground Guards. This will be to reduce the likelihood of ground compaction through development. Ground-Guards to be installed as illustrated with a dark orange hatch on the Tree Protection Plan at Appendix 4.
- ## 7.3 Above Soil Surface - Wrekin ProtectaWeb 150mm installation methodology
- 7.3.1 Prior to any plant/vehicular movement or building works the 150mm Wrekin ProtectaWeb
- 7.3.2 System will be installed. The location of the ProtectaWeb System is illustrated on the Tree Protection Plans at Appendix 4.
- 7.3.3 To ensure that foreseeable damage does not occur, whilst installing the 150mm Wrekin ProtectaWeb system, the ACoW will be on-site throughout. The full installation methodology is detailed below.



Stage 1 – Ground Preparation

1. Remove the existing surfacing by hand under the supervision of the project Arboriculturist. The Project Arboriculturist will review the existing ground conditions and advise on any de-compaction required before moving on to next stage.
2. Fill any hollows that may be in the exposed ground with no fines 4/20mm clean angular stone.
3. Place Root-Tex 30 Geotextile over the area to be protected ensuring laps with a minimum of 300mm.
4. Mark out the area to be protected with edging detail. For Example: Timber boards

Stage 2 – Installation of ProtectaWeb

1. Roll out Root-Tex 30 Geotextile to cover the area to be protected.
2. Insert 4 equally spaced steel pins along the width of the panel.
3. Expand the panel over the Root-Tex 30 and the pins, extend to the required length, then pin across the opposite panel end.
4. Pin along the length of the panel each side.
5. If full panels are not being used, then ensure the cells have been expanded to their full dimension.
6. Staple or cable tie any adjacent panels together.

The ProtectaWeb panels can be cut to shape if required with a heavy-duty Stanley Knife.

Stage 3 – Filling the ProtectaWeb

1. Fill the cells of the ProtectaWeb with a 4/20mm or 40/20mm clean angular stone.
2. Allow 25mm overfill for any settlement of the stone into the cells.
3. If the area is to be trafficked immediately, slightly increase the amount of surcharge overfill to a maximum of 50mm over the ProtectaWeb with 4/20mm or 40/20mm clean angular stone.

Stage 4 – Finish Surfacing Details

1. Place Root-Tex 10 separation fabric over the filled ProtectaWeb.
2. Lay sand/gravel bedding material as per to manufacturers recommendations.
3. Lay final surface as per engineers' recommendations.

7.3.4 The installation, following the above process, should ensure that no damage is caused to the trees which are to be retained, as a result of the approved development.

7.3.5 The final surface should be constructed from a porous material to ensure good infiltration of water and air to the soil below.

7.3.6 The final levels will be increased by the depths of the ProtectaWeb system, plus the depth of any surface finish. The new levels will need to be graded to meet the existing levels outside the subject area.

7.4 Foundations

7.4.1 The 3no. proposed garage blocks on the northern boundary of the Site will be supported on piled foundations, to be bored, continuous-flight auger piles or similar, in the RPA of retained trees. Pile locations are assumed likely to be modified on site to avoid any identified roots. These piles must be installed from the existing ground level, with their locations confirmed following hand excavation to determine the presence of roots, under the supervision of an Arboricultural Clerk of



Works (ACoW). The Contractor's piling sequence and method must take this into account.

- 7.4.2 The piles will be inserted using small precision devices, with minimal requirement for ground excavation and without the use of heavy plant machinery. This is supported within NOTE 1 of clause 7.4.2 of BS5837:2012 in that: piles, pads or elevated beams can be used to support surfaces to bridge over the RPA or, following exploratory investigations to determine location, to provide support within the RPA while allowing the retention of roots greater than 25mm in diameter.
- 7.4.3 The foundation and substructure solution are comprised of individual piles supporting a flat concrete slab above ground level. No pile cap or ground beam construction is below ground level. The diameter and number of piles in this area will be minimised in accordance with structural requirements, further engineering advice must be sought.
- 7.4.4 The pile and beam foundation will span over the RPA, creating a void beneath. The levels will not be disturbed within this area and will allow for future root extension and good infiltration of ground water run-off to the underlying root system.
- 7.4.5 Holes will be dug using hand tools at the pile locations under the supervision of the ACoW. If these holes reveal the presence of roots larger than 25mm the Tree Officer will be contacted as recommended and consideration will be given to relocating the pile as required. All pile locations will be "cleared" and confirmed in this way before piles (bored or driven) are installed. Use of heavy machinery will be minimised as appropriate.

7.5 Below ground infrastructure/services

- 7.5.1 Due to the details provided for this application there is insufficient information relating to below ground infrastructure available at present to comment as to whether or not there would be adequate space for these to be installed outside of RPAs. However, if services do enter RPAs the use of hand digging as detailed in the National Joint Utilities Group publication '*Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*' (NJUG 10, Volume 4, 2007) will be undertaken to minimise the impact on the tree roots.

8. Above Ground Constraints

8.1 Canopy protection zone

- 8.1.1 The above ground constraints predominantly refer to the impact of the canopy of any retained tree on the Site either by size and form, shadowing and nuisance factors. As a result, it is sometimes required that a canopy protection zone is established to ensure it is not harmed during construction.
- 8.1.2 Where the current and/or ultimate height of a Category A, B or C tree will cause an obstruction to the Proposed Development, this must be considered as a constraint. This is usually considered in terms of issues relating to shade and light.
- 8.1.3 An Amenity Clearance Zone (ACZ) is used to consider the impact of the proximity of retained trees to structures. The ACZ is defined as an area surrounding the tree that enables a satisfactory relationship to exist between the property and the tree, and as such is equal to two-thirds of the tree's expected mature height. The ACZ is a combination of factors such as:
- Shading (of buildings and open space)
 - Direct damage to structures
 - Future pressure for removal
 - Seasonal nuisance (e.g. leaf fall blocking gutters, fruit fall creating slippery patches and honey dew dripping on vehicles and surfaces)



8.1.4 Consideration is also given to species characteristics such as:

- Deciduous or evergreen;
- Density of foliage;

8.1.5 Although not part of BS5837, the ACZ also reflects a more intangible factor of how comfortable the inhabitant of the property is likely to feel by the proximity of the tree to the house. It serves to protect retained trees from pressure to be felled or undergo surgery after occupation of the property.

8.1.6 The tree canopies are marked on the attached TCP as a continuous line around each individual tree.

8.2 Tree works

8.2.1 In order to implement the Proposed Development, there will be a requirement to carry out remedial pruning of several trees on-site, these include:

- G3 (mixed species) raise the lower canopy to 5m on the western side over the proposed access road.
- H14 (common hawthorn) cut back on the eastern end of the group by up to 2.5m to allow visibility at the Site junction.
- T27 (pedunculate oak) reduce the crown spread to the south by 3.5m, leaving an 8m spread to the south. There will also be a requirement to raise the canopy to 5m.
- T39 (pedunculate oak) reduce the crown spread to the south by 3m, leaving a 5.25m spread to the south. There will also be a requirement to raise the canopy to 4m.

8.2.2 Full specification of tree works can be found at Appendix 3.

8.2.3 All works must be carried out in accordance with BS3998:2010.

8.3 Impact on amenity

8.3.1 In order to implement the Proposed Development, there will be an overall loss of 1no. category B group of trees, 4no. category C individual trees and 2no. category C groups of trees. There will also be a requirement to partially remove 3no. category C groups of trees and 2no. hedgerows.

8.3.2 With the exception of G32, the proposed removals are all of low quality and as such, should have minimal impact on the amenity value and scene of the surrounding area. All of the trees are located along the Site boundaries, their removal is considered to have a minor impact at site level but is not considered to impact the wider area.

8.3.3 As stated within section 6.1, G32 is a pair of pedunculate oaks located on the northern boundary of the Site. The removal of G32 would have a significant impact on the visibility of the commercial units to the north, but their removal is unlikely to have a significant impact on the surrounding area. However, due to the type of application, there is scope to retain G32 during the detailed application phase by subsequent revision of the proposed Site layout, offsetting plot 18 further from the northern boundary.

8.3.4 As part of the Proposed Development it is recommended that several tree plantings are included. Tree species should include both native and non-natives to help future proof the Site. The Proposed Development is considered to be a short-term loss, with a mid to long-term gain in amenity and canopy cover, if the recommended tree planting is included.



8.4 Light and shading

8.4.1 The majority of plots are offset from the boundary and not considered to be impacted by tree shading. There are 3no. buildings on the northern boundary of the Site that are likely to be impacted by shading. The first of these is the garage of plot 1, is not considered to be a constraint due to the nature of its use. The dwelling of plot 1 is likely to receive moderate shading but is not significant enough to be considered a constraint. The dwelling of plot 18 is located close to the northern boundary and therefore likely to have some significant shade during some periods of the day.

8.5 Future growth

8.5.1 The future growth of retained trees is not considered to be a constraint to the Proposed Development. Additionally, the Proposed Development is not considered to have an impact on the future growth of retained trees.

8.5.2 The future growth of the trees will have an impact on the proposed site layout. Boundary trees will require minor future pruning. This can be addressed with minor pruning of the lateral branches, which encroach towards the proposed built structures and parking.

8.6 Leaves, fruit and honeydew

8.6.1 Given the proximity of so many trees on and off-site, leaf fall will be a problem across the whole of the Site in autumn. Where leaf fall will be a problem to the gutters, this can be managed through regular clearance and incorporating grates into the gutters so avoiding regular blockages.

8.6.2 Honeydew is not likely to be a significant problem within the Site given the location of any retained sycamore trees on and within influencing distance of the Site.



9. Conclusions

- 9.1.1 This survey and impact assessment include a total of 27no. individual trees, 13no. groups of trees and 3no. hedgerows have been surveyed. These include 2no. category A, 6no. category B, 33no. category C and 2no. category U. The application considers all trees located on or within influencing distance of the Proposed Development.
- 9.1.2 It has been considered desirable wherever possible that trees and groups of trees should be retained, although care has been exercised over misplaced tree preservation. In terms of the current site layout plan, due to the size and scale of building requirement there is conflict with the trees that cannot be avoided and therefore mitigation proposals are considered.
- 9.1.3 In order to implement the Proposed Development, there will be an overall loss of 1no. category B group of trees, 4no. category C individual trees and 2no. category C groups of trees. There will also be a requirement to partially remove 3no. category C groups of trees and 2no. hedgerows.
- 9.1.4 With the exception of G32, the proposed removals are all of low quality and as such, should have minimal impact on the amenity value and scene of the surrounding area. All of the trees are located along the Site boundaries, their removal is considered to have a minor impact at site level but is not considered to impact the wider area.
- 9.1.5 G32 is a pair of pedunculate oaks located on the northern boundary of the Site. The removal of G32 would have a significant impact on the visibility of the commercial units to the north from the Site, but their removal is unlikely to have a significant impact on the surrounding area. Due to this document being pursuant to the allocation of the Site, there is scope to retain G32 during the detailed application phase by revision of the proposed Site layout, offsetting plot 18 further from the northern boundary.
- 9.1.6 As part of the Proposed Development it is recommended that several tree plantings are included. Tree species should include both native and non-natives to help future proof the Site. The Proposed Developed is considered to be a short-term loss, with a mid to long-term gain, if the recommended tree planting is included.
- 9.1.7 Alternatively, due to the type of application, the proposed incursions could be addressed during the detailed application phase by revision of the proposed Site layout.

10. Recommendations

- 10.1.1 Due to the level of incursion into the RPAs there will be a requirement for the use of an above soil surface for new road and driveway incursions. There is scope within the scheme to offset the road to the south, thus avoiding this requirement. As shown as a Yellow Honeycomb hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.3 of this report.
- 10.1.2 Due to the level of incursion into the RPA of retained trees, there will be a requirement to construct the plot 18 and 2no. separate garage blocks on the northern boundary using pile and beam foundations. As shown as a Cyan hatch in the Draft Tree Protection Plan at Appendix 4 and installed as per section 7.4 of this report.
- 10.1.3 Due to the level of incursion into the RPA of T27 (pedunculate oak) there will also be a requirement for the use of Ground Guards. This will be to reduce the likelihood of ground compaction through development. Ground-Guards to be installed as illustrated with a dark orange hatch on the Tree Protection Plan at Appendix 4.
- 10.1.4 Any works carried out within the RPAs of retained trees must be undertaken using hand-tools only under the direct supervision/guidance of the Arboricultural Clerk of Works (ACoW). This will ensure that foreseeable damage does not occur to the tree during this phase of works. If any



roots with a diameter greater than 25mm, the Tree Officer will be contacted as recommended within BS5837:2012 clause 7.4.2.7 Note 1.

- 10.1.5 The successful retention of those trees that will remain on the Site will be dependent upon the quality and maintenance of any protection system that is put in place. An Arboricultural Method Statement should be provided to detail how the necessary tree protection will be implemented.
- 10.1.6 An indicative draft tree protection plan (DWG 004 Rev A – Appendix 4) has been provided, however, this is subject to alteration following a final decision notice and a detailed method statement should be provided as part of a robust planning condition.
- 10.1.7 It is critical that all protective fencing is installed and erected and the CEZ enforced prior to the commencement of any works on-site. Following installation of tree protection, a site meeting will be undertaken with the Tree Officer to ensure satisfaction of all parties prior to any on-site works commencing.
- 10.1.8 It is recommended that a suitable competent arboriculturist, undertakes the site supervision and monitoring works.
- 10.1.9 In order for tree and root protection measures to work effectively all personnel associated with the construction process must be familiar with the Tree Protection Plan.
- 10.1.10 It is recommended that planning conditions be adhered to any approval for a suitable tree planting scheme and for the production of an Arboricultural Method Statement for implementation of tree protection, pre-commencement meetings and on-going site supervision.

11. References

British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction - Recommendation'

British Standard 3998:2010 'Tree work – Recommendations'

BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations

National Planning Policy Framework (NPPF) 2019

The Forestry Act 1967

The Town and Country Planning Act 1990

The Town and Country Planning (Tree Preservation) (England) Regulations 2012

12. Caveats and Limitations

- 12.1.1 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.
- 12.1.2 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering or soil.
- 12.1.3 This is not an arboricultural health and safety survey, a more detailed survey of internal decay detection etc can be supplied but would be subject to a further fee.
- 12.1.4 This is a report which should be to accompany a planning application and provides no detail specifically in relation to the health and safety of the trees.
- 12.1.5 All tree inspections were undertaken from ground level and no climbing inspections were undertaken.
- 12.1.6 For the purposes of this survey all dimensions of trees and their associated parts are based on estimation unless otherwise stated.

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- 12.1.7 Trees are growing dynamic structures. Whilst reasonable effort has been made to identify defects within the trees inspected, no guarantee can be given as to the absolute safety or otherwise of any individual tree. No tree is ever absolutely safe due to the unpredictable laws and forces of nature. As a result of this, natural failure of intact trees will occur; extreme climatic conditions can cause damage to even apparently healthy trees.
- 12.1.8 Trees are living organisms whose health, condition and structure can change quickly and without warning. Therefore, the contents of this report are valid for a period of one year from the date of this survey.
- 12.1.9 On undertaking the recommended works, the arborist/tree surgeon must without delay report any defects that become apparent while climbing or working on the tree/s in question. Those defects must be reported immediately to the relevant project manager, landowner and/or the author of this report to enable the appropriate remedial action.
- 12.1.10 This is an arboricultural report and therefore does not rely on ecological or archaeological data. If either is commented upon within the report further professional advice should be sought.

Signed,

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Jack Barnard *BSc (Hons). MArborA. MICFor (Chartered Arboriculturist)*

Arboricultural Consultant

Wharton Natural Infrastructure Consultants Ltd.

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Appendix 1: Aerial Photograph

Land at the Junction of Harts Lane and Winchester Road, Burghclere, Hampshire

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Appendix 2: Survey Methodology

- i. The trees on the Site were originally surveyed without reference to site layout as detailed in paragraph 4.4.1.1 of BS5837:2012. However, for the purposes of the arboricultural impact assessment the design proposal for the Site has been considered.
- ii. The position of each tree was plotted with reference to the supplied ordinance survey plan. Small trees with a stem diameter less than 75mm were generally not surveyed as they would either be easily replaced or relocated.
- iii. Each individual tree has been given a tree identification number, the groups and hedges clearly defined for the purpose of this report. Metal tags have not been used for this survey as identification on-site does not require this. The tree numbers associated with each tree are cross referenced within the schedule and plans at Appendix 3 and 4 respectively.
- iv. The tree species have been recorded with both common and botanical names.
- v. All tree heights have been assessed using a clinometer and where indicated in groups the height of the tallest tree was measured unless otherwise stated. Tree heights are given in metres.
- vi. All stem diameters were measured at 1.5 metres above ground level and are given in millimetre units (unless otherwise stated where "gl" is an abbreviation for ground level where diameter was measured just above root flare, "est" is an estimate and "av" is an average).
- vii. The canopy spread is recorded in either the four cardinal points or is given as an average diameter for the crown, especially in groups or where the crown is evenly weighted. Canopy spreads are measured in metres.
- viii. The height of the ground clearance is given in metres and is an estimate of the height of the first branch above ground level.
- ix. In absence of detailed information on the age the following classification has been used:

Young	Young trees aged less than 1/3 life expectancy;
Semi-Mature	Established specimen approaching 1/3 life expectancy;
Early-Mature	Middle age trees 1/3 – 2/3 life expectancy;
Mature	Mature trees over 2/3 life expectancy;
Over-Mature	Over-mature – declining or moribund trees of low vigour; and
Veteran	Veteran trees – specimens exhibiting features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
- x. Age class is indicative and will vary between species.
- xi. The structural condition of the trees has been assessed and is summarised as:

Good	Few minor defects of little overall significance;
Fair	A significant defect or several small defects; and
Poor	Major defect present or many small defects.
- xii. The physiological condition has been recorded to provide an indication of the tree's general health and vitality. The trees have been described thus:

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Good Generally in good health typical of the species;

Fair Reasonable health with few defects;

Poor Trees that exhibit significant defects which are irreparable or moribund tree; and

Dead Tree has died

- xiii. Each tree was individually assessed and comments, where appropriate, were recorded for the condition of each tree's roots, main stem and crown.
- xiv. General comments have also been made where appropriate, with recommendations when relatively immediate works are given.
- xv. Estimated remaining contribution has been categorised as: less than 10 years, 10-20 years, 20-40 years or over 40 years, based upon an assessment of the tree's potential safe useful life expectancy. The remaining contribution in years has not always been directly followed in relation to the retention categories of the trees as trees may have a long remaining life however be of little significance in terms of development.

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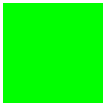


REF NO: 190821 0968 AIA V3



Appendix 3: Schedules

BS5837:2012 Cascade Chart

Complete Tree Schedule

Category and Definition	Criteria (including subcategories where appropriate)			ID Colour on Plan
Trees unsuitable for retention (see Note)				
<p>Category U</p> <p>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</p>	<ul style="list-style-type: none"> • 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; and/or • 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. <p><i>NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p>			<p>Dark Red (127-000-000)</p> 
Trees to be considered for retention (see Note)				
	1 - Mainly arboricultural qualities	2 - Mainly landscape qualities	3 - Mainly cultural values, including conservation	
<p>Category A</p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p>	<p>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).</p>	<p>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.</p>	<p>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).</p>	<p>Light Green (000-255-000)</p> 
<p>Category B</p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.</p>	<p>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.</p>	<p>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.</p>	<p>Trees with material conservation or other cultural value.</p>	<p>Mid Blue (000-000-255)</p> 
<p>Category C</p> <p>Trees of low quality currently in adequate condition with at least 10 years life expectancy, or young trees with a stem diameter below 150mm.</p>	<p>Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</p>	<p>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.</p>	<p>Trees with no material conservation or other cultural value.</p>	<p>Grey (091-091-091)</p> 

BS5837:2012 Tree Schedule

Client Name: Savills (UK) Ltd.
Site: Land at Junction of Harts Lane & Winchester Road.
Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
T1	No Tag.	Sycamore	<i>Acer pseudoplatanus</i>	9	290	3	4	4	4	1	S/Mat	Good	Fair	Semi-mature specimen located in the northeast corner of the Site. Growing from within the boundary hedgerow. Single stem. Dense ivy throughout the stem and scaffold. Adds height to the boundary screen. Visible from residential properties to the east and along Harts Lane.	Fell as part of the Proposed Development.	20 to 40 yrs.	C1/2	41	3.60
H2	No Tag.	Blackthorn	<i>Prunus spinosa</i>	2	100	1	1	1	1	0	S/Mat	Good	Fair	Semi-mature hedgerow located in the northeast corner of the Site. Provides low level screening. Visible from residential properties to the east and along Harts Lane.	Partial removal as part of the Proposed Development, as per the Tree Retention and Removals Plan.	10 to 20 yrs.	C2	5	1.20
G3	No Tag.	A Group	A Group	11	320	5	5	5	5	1	E/Mat	Good	Fair	Group of common ash and pedunculate oak located off-site in the northeast corner of the Site. Dense ivy throughout limiting a detailed assessment. DBH estimated due to limited access. Forms 3no. stems from near ground level. Common cohesive canopies. Adds height to the boundary screen. Visible from residential properties to the east and along Harts Lane.	Raise the lower canopy to 5m on the western side over the proposed access road.	20 to 40 yrs.	C1/2	48	3.90
T4	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	11	300	4	3	3	3	1	E/Mat	Good	Fair	Early-mature specimen located in the eastern boundary of the Site. Single stem, rapidly divides by c.0.5m and against c.1.5m where it has been pollarded in the past. Light ivy on the scaffolding. Small diameter deadwood associated with the canopy. Upright form. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	41	3.60
T5	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	11	370	4	5	4	6	0.5	E/Mat	Fair	Fair	Early-mature specimen located in the eastern boundary of the Site. Single stem, rapidly divides by c.0.5m where it has been pollarded in the past. Light ivy on the scaffolding. Small diameter deadwood associated with the canopy. Wide spread canopy and form. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	64	4.50

BS5837:2012 Tree Schedule

Client Name: Savills (UK) Ltd.
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Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
T6	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	10	340	6	6	6	7	1	S/Mat	Good	Good	Semi-mature specimen located in the eastern boundary of the Site. Single stem. Light ivy on the scaffolding. Structure and canopy typical of the species Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	>40 yrs.	C1/2	55	4.20
T7	No Tag.	Sycamore	<i>Acer pseudoplatanus</i>	10	320	3	4	1	2	2.25	S/Mat	Good	Fair	Semi-mature specimen located in the eastern boundary of the Site. Single stem. Light ivy on the scaffolding. Canopy biased to the east. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	48	3.90
T8	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	12	360	3	7	7	7	2	S/Mat	Good	Fair	Semi-mature specimen located in the eastern boundary of the Site. Single stem. Light ivy on the scaffolding. Small diameter deadwood associated with the canopy. Forms a common cohesive canopy with adjacent specimens. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	10 to 20 yrs.	C1/2	55	4.20
T9	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	9.5	325	3	6	5	6	2	S/Mat	Good	Fair	Semi-mature specimen located in the eastern boundary of the Site. Single stem. Small diameter deadwood associated with the canopy. Forms a common cohesive canopy with adjacent specimens. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	48	3.90
G10	No Tag.	A Group	A Group	10	427	6	0	0	0	1	E/Mat	Fair	Fair	Early-mature group located on the eastern boundary of the Site. The group comprises of a multi-stemmed common ash with a dense group of common hawthorn, blackthorn and Irish yew surrounding its base. Untidy group of limited arboricultural merit but does form a significant part of the boundary screen.	Fell as part of the Proposed Development.	20 to 40 yrs.	C1/2	82	5.10
T11	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	7.5	265	2	3	4	4	1	Yng	Fair	Fair	Young specimen located in the eastern boundary of the Site. Single stem. Canopy biased to the southwest. Adds to the wider group.	Fell as part of the Proposed Development.	10 to 20 yrs.	C1/2	34	3.30

BS5837:2012 Tree Schedule

Client Name: Savills (UK) Ltd.
Site: Land at Junction of Harts Lane & Winchester Road.
Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
G12	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	11	285	7	7	7	7	3	S/Mat	Good	Fair	Group of 3no. oaks located on the eastern boundary of the Site. All form single stems. Common cohesive canopy, mutually suppressed. Forms a significant component of the boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	34	3.30
G13	No Tag.	A Group	<i>A Group</i>	3	125	2	2	2	2	0	S/Mat	Fair	Poor	Low level group that forms the understorey boundary screen on the eastern boundary of the Site. Species include common hawthorn, blackthorn and common ash.	Partial removal as part of the Proposed Development, as per the Tree Retention and Removals Plan.	10 to 20 yrs.	C1/2	7	1.50
H14	No Tag.	Common Hawthorn	<i>Crataegus monogyna</i>	3	130	3	3	3	3	0	E/Mat	Good	Fair	Dense boundary hedgerow framing the southeast boundary of the Site. Predominantly common hawthorn however species also include sycamore, blackthorn and common ash. Appears to have been historically managed through flail cutting but has been allowed to grow out. Provides a site boundary screen.	Partial removal as part of the Proposed Development, as per the Tree Retention and Removals Plan. Additionally, cut back on the eastern side of the group by up to 2.5m to allow visibility at the Site junction.	10 to 20 yrs.	C1/2	7	1.50
T15	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	10	270	5	5	5	5	4	S/Mat	Good	Fair	Semi-mature specimen located in the southeast boundary of the Site. Single stem. Light ivy on the scaffolding. Forms a significant boundary screen. Visible from residential properties to the east and along Harts Lane.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	34	3.30
T16	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	6.5	150	3	3	3	3	2	Yng	Fair	Fair	Likely self-set specimen located on the southeast boundary of the Site. Multi-stemmed. Adds height to the boundary hedgerow.	No works required at the time of assessment.	10 to 20 yrs.	C1/2	10	1.80
T17	No Tag.	Norway Maple	<i>Acer platanoides</i>	8.5	195	3	3	3	3	2	S/Mat	Good	Good	Semi-mature specimen located on the southern boundary of the Site. Single stem. Good radial canopy. Adds height to the boundary hedgerow.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	18	2.40
G18	No Tag.	Field Maple	<i>Acer campestre</i>	12	300	7	7	7	7	1	E/Mat	Good	Fair	Dense group framing the western boundary of the Site. Single stems. Mutually suppressed with tall drawn up forms. Forms a significant boundary screen. Would benefit from thinning and management to ensure its future potential.	Thin the group by 20%, removing the lower quality individuals.	20 to 40 yrs.	B1/2	41	3.60
G19	No Tag.	Common Hawthorn	<i>Crataegus monogyna</i>	4.5	173	5	5	5	5	0	E/Mat	Good	Fair	Continuation of H14 that has been allowed to gain more significant size.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	14	2.10

BS5837:2012 Tree Schedule

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Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m²)	RPA Radius (m)
						N	E	S	W										
T20	No Tag.	Goat Willow	<i>Salix caprea</i>	10	595	6	6	6	6	1	E/Mat	Good	Fair	Early-mature specimen located in the western boundary of the Site. Multi-stemmed from ground level. Wide spread canopy. Component of the boundary screen, however of limited arboricultural merit and likely to be of limited visibility beyond the Site boundary due to the rest of the boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	163	7.20
G21	No Tag.	A Group	<i>A Group</i>	12	300	5	5	5	5	0	E/Mat	Good	Fair	Dense group framing the western boundary of the Site. Species include common hawthorn, common ash, pedunculate oak, field maple, blackthorn, and sycamore. Forms a significant boundary screen between the site and the road to the west.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	41	3.60
T22	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	5.5	195	2	4	5	3	1	Yng	Good	Fair	Young specimen located in the northwest corner of the Site. Single stem. Canopy biased to the southeast. Adds to the wider boundary group.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	18	2.40
H23	No Tag.	Common Hawthorn	<i>Crataegus monogyna</i>	4	100	2	2	2	2	0	S/Mat	Good	Fair	Short section of hedgerow framing the northwest corner of the Site.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	5	1.20
T24	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	12	400	5	1	5	5	4	E/Mat	Decline	Fair	Early-mature specimen located on the northern boundary of the Site. Located off-site beyond the boundary fence. Single stem. Dense vegetation at base limiting a detailed assessment, DBH estimated. Dense ivy throughout. Canopy heavily biased to the west. Significant dieback associated with the canopy. Of limited future potential.	No works required at the time of assessment.	<10 yrs.	U	72	4.80
G25	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	16	450	5	5	7	8	4	E/Mat	Good	Fair	Pair of common ash located on the northern boundary of the Site. Located off-site beyond the boundary fence. Both from single stems. Dense ivy in lower regions. Dense vegetation at base limiting a detailed assessment, DBH estimated. Common cohesive canopies. Significant component of the boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	B1/2	92	5.40
T26	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	13	380	6	4	6	4	2	E/Mat	Fair	Fair	Early-mature specimen located on the northern boundary of the Site. Located off-site beyond the boundary fence. Single stem. Dense vegetation at base limiting a detailed assessment. Dense ivy throughout. Heavily suppressed specimen. Deadwood associated with the canopy. Of limited future potential.	Remove deadwood overhanging the Site.	10 to 20 yrs.	C1/2	64	4.50

BS5837:2012 Tree Schedule

Client Name: Savills (UK) Ltd.
Site: Land at Junction of Harts Lane & Winchester Road.
Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
T27	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	21	1131	6	9	12	9	3	Mat	Good	Good	Mature specimen located on the northern boundary of the Site. Located off-site beyond the boundary fence, DBH estimated. Forms 2no stems from ground level. Light ivy throughout stem and scaffold. Medium diameter deadwood associated with the canopy. Wide spread canopy. Of high arboricultural value. One of the largest trees within the area.	Remove deadwood overhanging the Site. Reduce the eastern side of the road to allow for the proposed site access road by up to 2.5m and on the northern end of the group by 4m to allow for visibility at the junction.	>40 yrs.	A1/2	573	13.50
G28	No Tag.	Wild Cherry	<i>Prunus avium</i>	7	250	4	4	4	4	3	S/Mat	Fair	Fair	Group of likely planted specimens located on the northern boundary of the Site. Majority single stem. Dense untidy forms. Dense ivy throughout. Of limited arboricultural merit.	No works required at the time of assessment.	10 to 20 yrs.	C2	28	3.00
T29	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	18	600	7	7	7	7	6	E/Mat	Good	Good	Early-mature specimen located on the northern boundary of the Site. Located off-site, DBH estimated. Single stem. Dense ivy throughout stem and scaffold. Good radial canopy. Of high arboricultural value and good future potential.	No works required at the time of assessment.	>40 yrs.	A1/2	163	7.20
T30	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	8	300	1	6	7	7	7	Mat	Fair	Poor	Early-mature specimen located on the northern boundary of the Site. Located off-site, limiting access. DBH estimated. Single stem. Dense ivy throughout. The top has failed historically at c.8m, which is now leaning over into the site, resting on the ground but remains attached to the upper canopy. The buckled fibres at the point of failure are likely to be of bat roosting potential. Removing the failed limb would like destroy the potential bat roost and further ecological advice should be sought. Of limited arboricultural merit or future potential.	No works required at the time of assessment.	<10 yrs.	U	41	3.60
T31	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	14	300	4	2	6	5	6	S/Mat	Fair	Fair	Semi-mature specimen located on the northern boundary of the Site. Located off-site, DBH estimated. Single stem. Canopy biased to the south. Small diameter deadwood associated with the canopy. Adds to the wider boundary group.	No works required at the time of assessment.	10 to 20 yrs.	C1/2	41	3.60
G32	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	13	800	7	7	7	7	2	Mat	Good	Good	Pair of trees growing on the northern boundary of the Site. Single stems. Dense ivy throughout. Common cohesive canopies. Significant component of the boundary screen.	Fell as part of the Proposed Development.	>40 yrs.	B1/2	290	9.60

BS5837:2012 Tree Schedule

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Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
T33	No Tag.	Silver Birch	<i>Betula pendula</i>	8	160	3	4	4	3	1	Yng	Fair	Fair	Young specimen located on the northern boundary of the Site. Readily replaceable.	Fell as part of the Proposed Development.	10 to 20 yrs.	C1/2	10	1.80
G34	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	14	425	8	8	8	6	4	E/Mat	Fair	Fair	Pair of pedunculate oak located off-site on the northern boundary of the Site. DBH estimated. Dense vegetation at base limiting a detailed assessment. Both form single stems. Southern most specimen stem biased south over the Site. Common cohesive canopies. Significant component of the Site boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	B1/2	82	5.10
T35	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	14	400	6	6	6	6	3	E/Mat	Good	Good	Early-mature specimen located on the northern boundary of the Site. Single stem. Dense vegetation at base limiting a detailed assessment. DBH estimated. Dense ivy throughout. Good radial canopy, minor suppression east from adjacent semi-mature specimens. Of good future potential. Adds to the boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	B1/2	72	4.80
T36	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	10	200	3	3	3	3	1	S/Mat	Fair	Fair	Semi-mature specimen located on the northern boundary of the Site. Single stem. Mutually suppressed. Component of the boundary screen.	No works required at the time of assessment.	10 to 20 yrs.	C1/2	18	2.40
T37	No Tag.	Common Ash	<i>Fraxinus excelsior</i>	10	200	3	3	3	3	1	S/Mat	Fair	Fair	Semi-mature specimen located on the northern boundary of the Site. Single stem. Mutually suppressed. Component of the boundary screen.	No works required at the time of assessment.	10 to 20 yrs.	C2	18	2.40
T38	No Tag.	Common Hazel	<i>Corylus avellana</i>	5	158	3	3	3	3	0	S/Mat	Good	Good	Semi-mature specimen located on the northern boundary of the Site. Multi-stemmed. Adds to the boundary screen.	No works required at the time of assessment.	10 to 20 yrs.	C2	10	1.80
T39	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	10	400	6	8	8	6	2.5	E/Mat	Decline	Fair	Early-mature specimen located on the northern boundary of the Site. Located off-site. DBH estimated. Single stem. Single declining within the canopy. Sparse canopy throughout, exhibits low vigour. Adds to the boundary screen.	Reduce the crown spread to the south by 3m, leaving a 5.25m spread to the south. There will also be a requirement to raise the canopy to 4m.	10 to 20 yrs.	C1/2	72	4.80
G40	No Tag.	A Group	A Group	4	75	3	3	3	3	0	S/Mat	Fair	Fair	Understorey group framing the northern boundary of the Site. Species include common hawthorn, common ash and sycamore.	Partial removal as part of the Proposed Development, as per the Tree Retention and Removals Plan.	10 to 20 yrs.	C2	3	0.90
G41	No Tag.	A Group	A Group	12	180	5	5	5	5	2	E/Mat	Good	Good	Dense group framing the northern boundary of the Site. Species include common hawthorn, common ash, sycamore and pedunculate oak. Single stems. Mutually suppressed. Forms a significant boundary screen.	Partial removal as part of the Proposed Development, as per the Tree Retention and Removals Plan.	20 to 40 yrs.	C1/2	14	2.10

BS5837:2012 Tree Schedule

Client Name: Savills (UK) Ltd.
Site: Land at Junction of Harts Lane & Winchester Road.
Tags: N/A **Ref No:** 190819 0968 TS V3

Consultant: J. Barnard
Survey Date: August 2019



Tree No.	Tag No.	Species (Common Name)	Species (Botanical Name)	Height (m)	Stem Dia (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Age Class	Phys Con	Struc Con	Additional notes	Preliminary works recommendations	Estimated remaining contribution	Ret Cat	RPA (m ²)	RPA Radius (m)
						N	E	S	W										
T42	No Tag.	Pedunculate Oak	<i>Quercus robur</i>	9	315	6	6	6	6	2	S/Mat	Good	Good	Early-mature specimen located on the northern boundary of the Site. Located off-site, DBH estimated. Single stem. Good radial canopy. Adds to the boundary screen.	No works required at the time of assessment.	20 to 40 yrs.	B1/2	48	3.90
G43	No Tag.	Sycamore	<i>Acer pseudoplatanus</i>	3	75	2	2	2	2	1	Yng	Fair	Fair	Young specimens located on the northern boundary of the Site. Readily replaceable.	No works required at the time of assessment.	20 to 40 yrs.	C1/2	3	0.90

Arboricultural Impact Assessment

VERSION: V3 DATE: September 2019

REF NO: 190821 0968 AIA V3



Appendix 4: Plans

Tree Constraints Plan (DWG 001 Rev A)

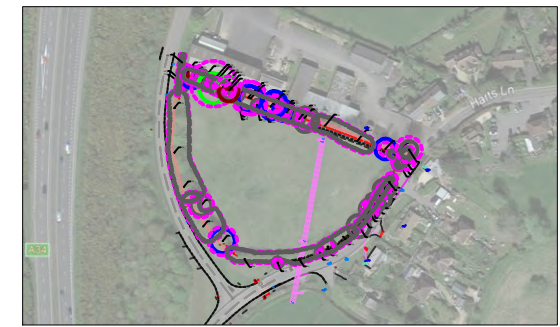
Arboricultural Impact Plan (DWG 002 Rev A)

Tree Retention and Removal Plan (DWG 003 Rev A)

Draft Tree Protection Plan (DWG 004 Rev A)



-  A Category Trees / High Retention Value
-  B Category Trees / Moderate Retention Value
-  C Category Trees / Low Retention Value
-  U Category Trees / Remove
-  Canopy Spread (m)
-  Tree Stem
-  Root Protection Area (RPA)



Date: August 2019

Client: Savilles (UK) Ltd.

Project: Junction of Harts Lane & Winchester Rd

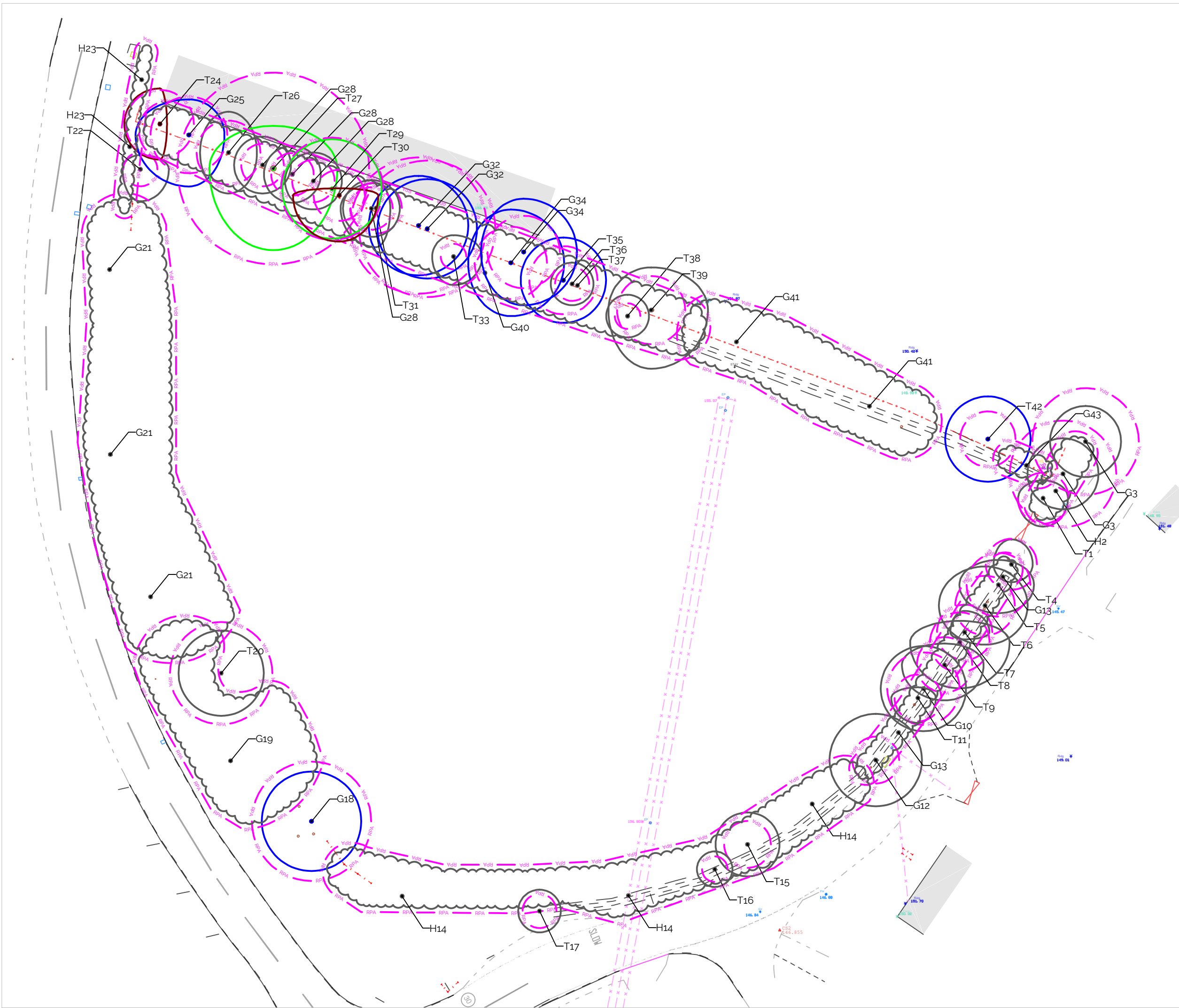
Title: Tree Constraints Plan

Map file reference	DWG No
190821 0968 TCP V1	001 Rev A



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
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Beacon House

Scale: 1/500 @ A3



-  A Category Trees / High Retention Value
-  B Category Trees / Moderate Retention Value
-  C Category Trees / Low Retention Value
-  U Category Trees / Remove
-  Canopy Spread (m)
-  Tree Stem
-  Root Protection Area (RPA)
-  New RPA Incursion

WINCHESTER ROAD

LEAP

Holmbush Cottage

Date: September 2019

Client: Savilles (UK) Ltd.

Project: Junction of Harts Lane & Winchester Rd

Title: Arboricultural Impact Plan

Map file reference	DWG No
190821 0968 AIP V2	002 Rev B

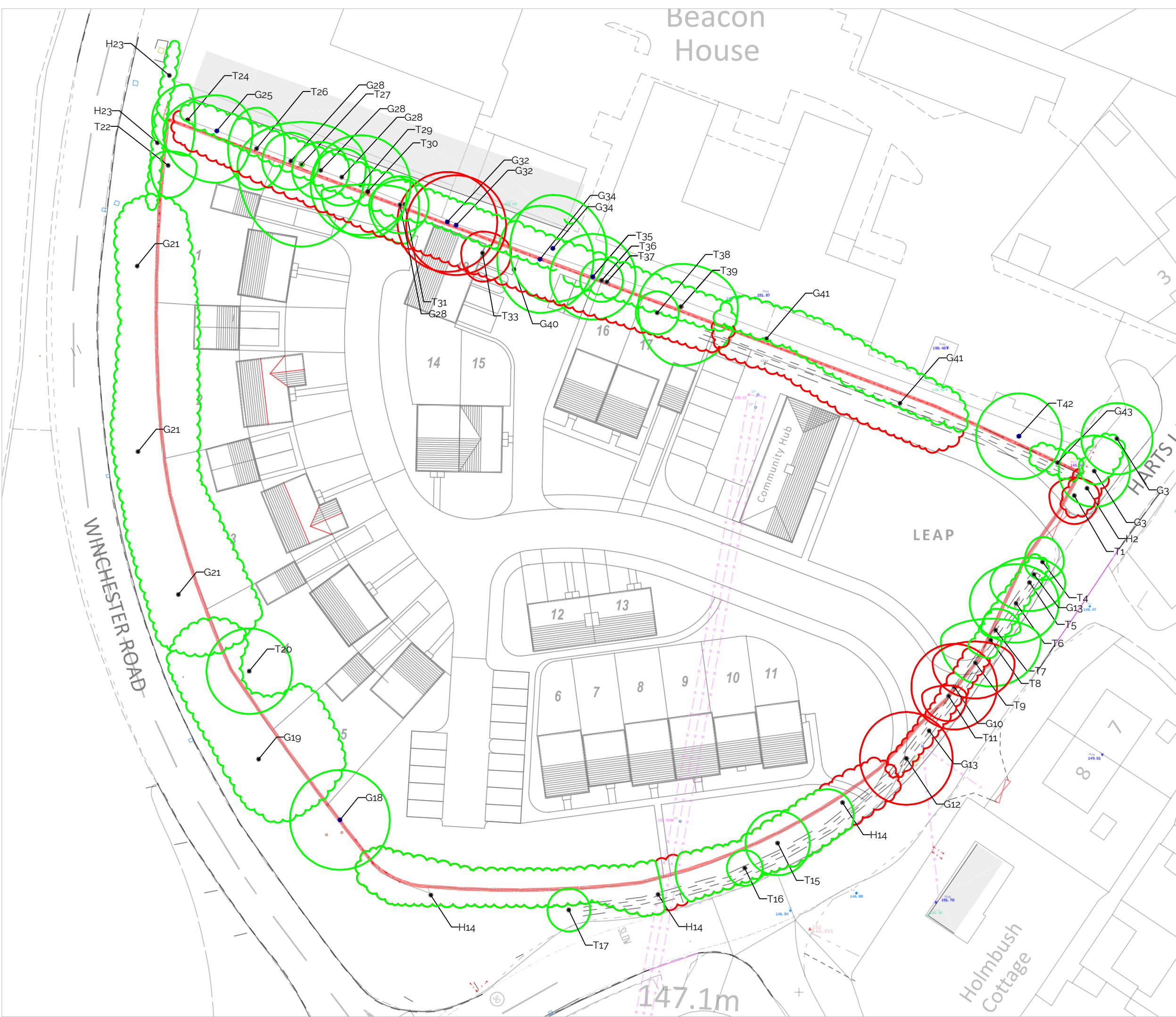


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Beacon House

Scale: 1/500 @ A3



-  Trees to be **retained** for development
-  Trees to be **removed** for development

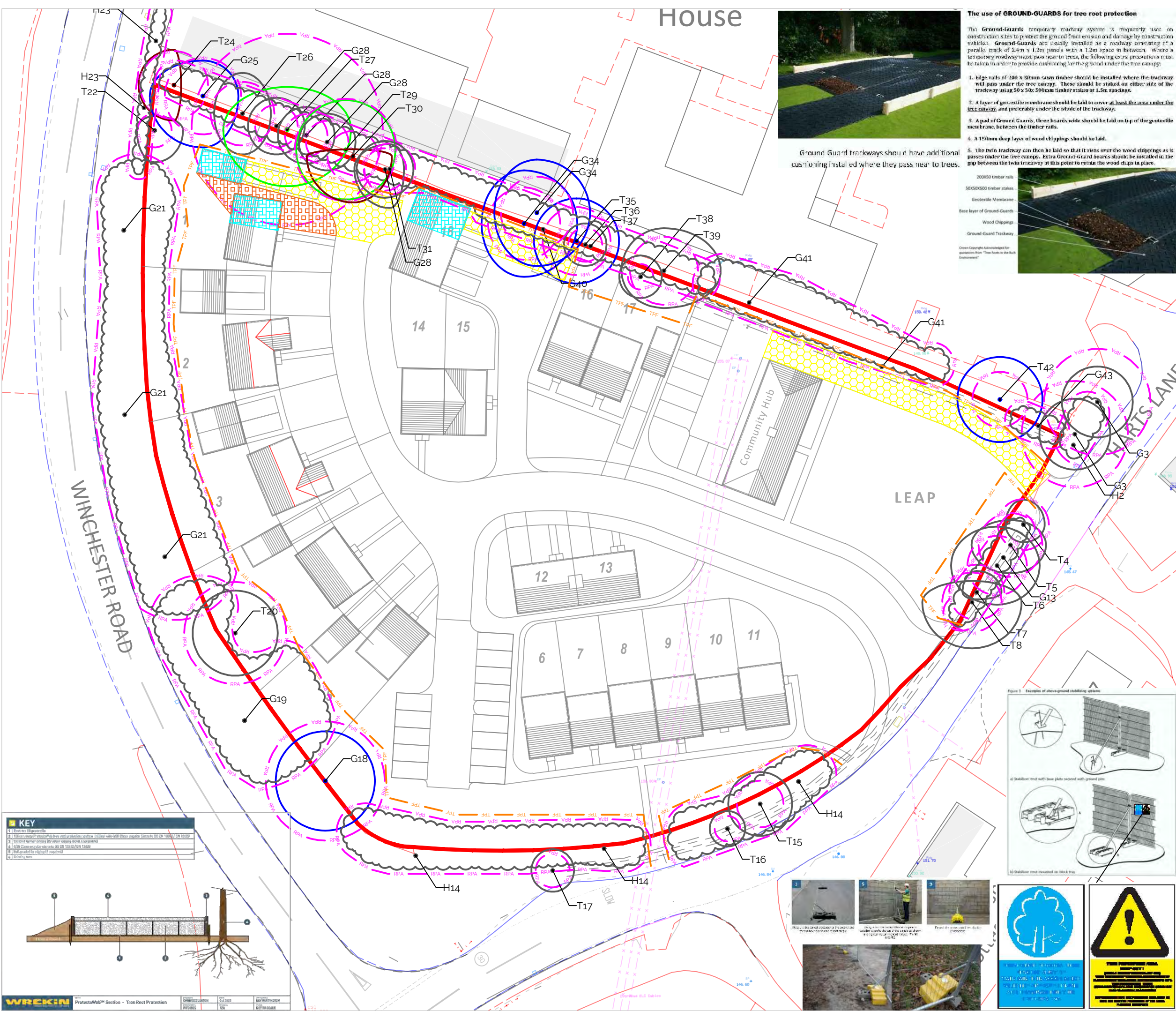
Date: September 2019
 Client: Savilles (UK) Ltd.
 Project: Junction of Harts Lane & Winchester Rd
 Title: Tree Retention and Removals Plan

Map file reference	DWG No
190821 0968 TRRP V3	003 Rev A

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House



Ground Guard trackways should have additional cushioning installed where they pass near to trees.

The use of GROUND-GUARDS for tree root protection

The Ground-Guards temporary roadway system is frequently used on construction sites to protect the ground from erosion and damage by construction vehicles. Ground-Guards are usually installed as a roadway consisting of a parallel track of 2.4m x 1.2m panels with a 1.2m space in between. Where a temporary roadway must pass near to trees, the following extra precautions must be taken in order to provide cushioning for the ground under the tree canopy:

1. Edge rails of 200 x 50mm sawn timber should be installed where the trackway will pass under the tree canopy. These should be staked on either side of the trackway using 50 x 50x 500mm timber stakes at 1.5m spacings.
2. A layer of geotextile membrane should be laid to cover at least the area under the tree canopy, and preferably under the whole of the trackway.
3. A pad of Ground-Guards, three boards wide should be laid on top of the geotextile membrane, between the timber rails.
4. A 150mm deep layer of wood chippings should be laid.
5. The twin trackway can then be laid so that it rises over the wood chippings as it passes under the tree canopy. Extra Ground-Guard boards should be installed in the gap between the twin trackway at this point to retain the wood chips in place.



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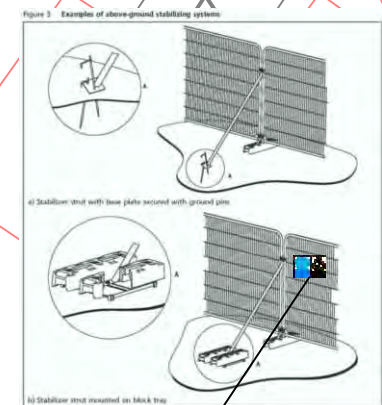
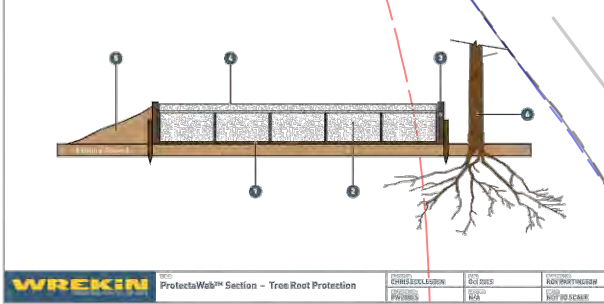
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- A Category Trees / High Retention Value
- B Category Trees / Moderate Retention Value
- C Category Trees / Low Retention Value
- U Category Trees / Remove
- Canopy Spread (m)
- Tree Stem
- Root Protection Area (RPA)
- Tree Protection Fencing
- Pile & Beam Foundation Type
- Above Soil Surface
- Ground Guards

KEY

1	Proposed tree protection
2	Existing tree protection
3	Proposed tree protection
4	Proposed tree protection
5	Proposed tree protection
6	Proposed tree protection
7	Proposed tree protection
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50	Proposed tree protection



Date: September 2019

Client: Savilles (UK) Ltd.

Project: Junction of Harts Lane & Winchester Rd

Title: Tree Protection Plan

Map file reference	DWG No
190821 0968 TPP V3	004 Rev A

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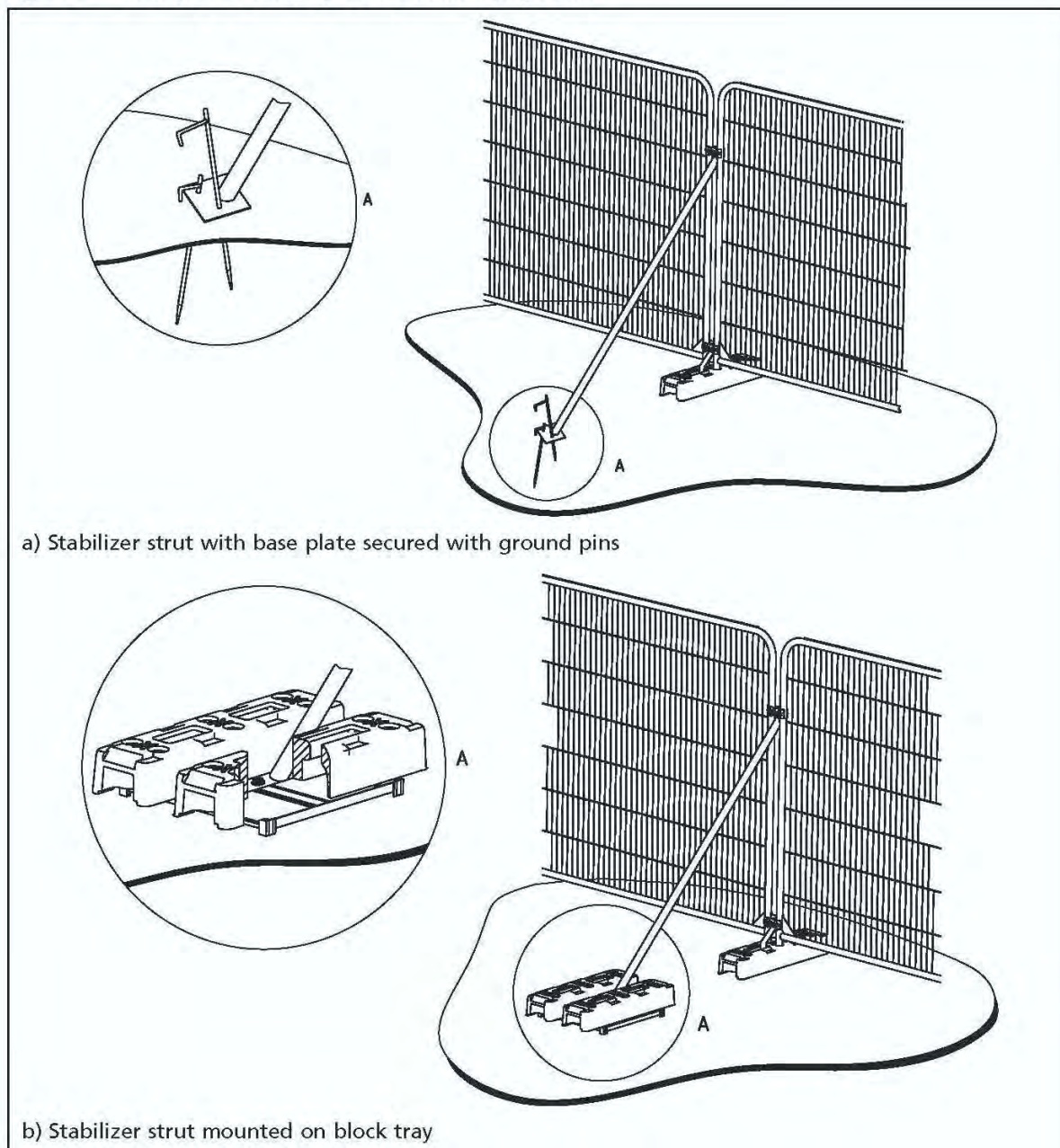
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Appendix 5: Tree Protection

Fencing Specification

Figure 3 Examples of above-ground stabilizing systems



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