

PARC BUSNES PORTH CYMRU

MODEL FARM, RHOOSE, BARRY

Tree Survey & Impact Assessment Report



JSL 3282 - 770
Tree Survey Report

10 June 2019

REPORT

Quality Management

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EXECUTIVE SUMMARY

- The Tree Survey was commissioned by Legal & General (Strategic Land) Ltd and undertaken by RPS on the 3rd April 2019.
- The survey site consists of a series of agricultural fields with dividing hedgerows, shelterbelts of trees to the north, grazed grassland and woodland belts.
- An assessment of the quality of the trees has been made, with reference to the categories and sub-categories listed within Table 1 – BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- An Arboriculture Impact Assessment has been carried out on the delivery of the road corridor and Indicative Concept Masterplan (ref RPS JCD0064-003) to assess the impact on the existing trees and hedgerows.
- The surveyed trees and tree groups consist mainly of Lombardy Poplar, Common Ash, English Oak and mixed native species hedgerow.
- Woodland 8 and 9 are recorded as Ancient Semi-Natural Woodland on the Natural Resources Wales website.
- Woodland 6, 8 and 9 are collectively significant arboreal features in the wider landscape.
- Woodland 5 and 6 are important woodland belts that continue down through the valley toward the Porthkerry Viaduct. Some veteran trees were noted within this woodland.

1 INTRODUCTION

- 1.1 The Tree Survey was commissioned by Legal & General (Strategic Land) Ltd and undertaken by RPS on the 3rd April 2019. The weather was sunny, cloudy, windy with some rain.
- 1.2 This Tree Survey Report is a qualitative survey of the existing trees within land located south of Model Farm, Port Rd, Barry, CF62 3BB Wales.
- 1.3 The purpose of the tree survey is to assess the landscape and visual amenity value of the existing trees and to identify the constraints associated with the trees prior to any potential redevelopment of the site. An assessment of the quality of the trees has been made, with reference to the categories and sub-categories listed within Table 1 – BS5837:2012 Trees in relation to design, demolition and construction - Recommendations.
- 1.4 The findings of the tree survey are included at Appendix B (Tree Survey drawings) and Appendix C (Tree Survey Schedules) at the back of this report.
- 1.5 An assessment has been made of the impact of the road corridor and Indicative Concept Masterplan on the existing trees and hedgerows, the findings of which are shown on the Tree Protection Plans at Appendix D.
- 1.6 To minimise the potential for harm to occur to retained trees all works shall be carried out with regard to the Tree Protection Measures detailed within this report. In particular the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees and hedgerows.

2 SITE LOCATION

- 2.1 The survey covered an area of land located south of Model Farm, Port Rd, Barry, Wales and immediately east of Cardiff Airport. The site is accessed through Model Farm off Port Road that serves the A4226. The site is approximately centred on OS grid reference ST 07698 67465
- 2.2 The survey site comprises of a series of large agricultural fields with typical field boundary hedgerows and three woodland belts.
- 2.3 The wider landscape is semi-rural with mainly agricultural fields. A small village, Portkerry to the south, Rhoose to the southwest and, a small village called Barry to the east.
- 2.4 To the south of the site is a valley with wooded sides that stretches down towards Portkerry Viaduct.
- 2.5 No detailed analysis of the soil structure, composition or pH was undertaken. The British Geological Survey application version 5.0.4 does not have a record of superficial geology but does state the bedrock geology as limestone and mudstone, interbedded.

3 SURVEY METHODOLOGY

- 3.1 The tree survey was undertaken by Stefan Kowalczyk, Senior Consultant Arborist at RPS.
- 3.2 The report and survey were carried out in general accordance with the requirements set out in BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations”.
- 3.3 The tree survey involved a visual inspection from the ground of individual specimens and groups of trees to record their amenity value, management recommendation and dimensions. Where observed, the general condition of all the trees has been noted. The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay, and any other physical and pathogenic defects. However, a full post development tree inspection is recommended to establish that the trees retained during construction pose acceptable levels of risk once the development has been completed.
- 3.4 The trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location (if not marked on the supplied topo), physical dimension and characteristics.
- 3.5 The location of the trees was based on a topographic survey completed by RPS in December 2018.
- 3.6 The survey assesses individual trees and groups of trees for quality and benefits within the contents of proposed development. The quality of each tree or, group of trees has been recorded by allocating it to one of four categories as described in paragraph 3.8. These categories have been differentiated on the tree survey plan JSL3282_701-709 by colours.
- 3.7 The survey information was recorded on the attached schedule (Appendix C) in general accordance with the guidance contained within Section 4 of BS 5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations”.
- 3.8 The information recorded is detailed in Table 3.1.

Table 3.1: Tree characteristics recorded during survey

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

Limitations

- 3.9 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events.
- 3.10 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics.
- 3.11 The locations of some trees were estimated on site as they were not highlighted by the topographical survey have been highlighted on the Tree Survey Plan with a star *.

4 APPRAISAL AND RECOMMENDATIONS

Generally

- 4.1 There were variations in the structural condition of the trees and hedges surveyed however in the main, individual condition is largely consistent with expectation for the age, management and species.
- 4.2 The surveyed trees and tree groups consists of mainly of Lombardy Poplar, Common Ash, English Oak and mixed native species hedgerow. These provided interest, amenity, important habitat and partial screening.

Tree Summary

- 4.3 The survey site consists of a series of agricultural fields with dividing hedgerows, shelterbelts of trees to the north, grazed grassland and woodland belts.
- 4.4 Woodland groups 9, 8 and 6 are collectively significant in the wider landscape.
- 4.5 T1 – T12 and associated scrub beneath forms and important natural screening feature between the site and Port Road. The trees were planted in two rows and may now benefit from selective removal of the suppressed specimens.
- 4.6 T13 – 41 were mostly off-site Lombardy Poplars in varying condition. The trees had suffered from the removal of lower branches up approximately 5/6m leaving some trees in poor condition with short useful life expectancies.
- 4.7 Woodland groups 5 and 6 are important woodland belts that continue down through the valley toward the Porthkerry Viaduct. Some veteran trees were noted within this woodland, good species diversification with enough gaps in high and low canopy to allow good woodland ground flora to develop.
- 4.8 Woodland groups 8 and 9 are recorded as Ancient Semi-Natural Woodland on the Natural Resources Wales website.
- 4.9 Woodland group 9 is predominantly Ivy clad Ash woodland to the north, changing as it stretches south into more diverse species of Oak, Alder, Willow and good quality ground flora because of less Ivy clad trees.
- 4.10 Group 14 is most likely to be a historic boundary hedge that had coppiced Ash trees within. The hedge no longer exists but, the Ash trees have been let to grow out and form large mature canopies. Some evidence of Inonotus Hispidus – a white rot decay fungus that weakens live timber of Ash trees that can result in branches and or stems failing due to a loss of structural integrity - was found at the base of one of the trees. The current, low target – agricultural fields – will allow these trees to be retained without any intervention, however if/when the target changes, a safety assessment should to be carried out regarding the tree's suitability for retention. Ideally any potential development will be kept a good distance away from the fall zone of these trees.

Planning Considerations

- 4.11 The Vale of Glamorgan Council website document map “Conservation Areas in the Vale of Glamorgan” confirmed that there are no conservation areas on or within the immediate vicinity of Model Farm. The closest Conservation area being south of the site in Porthkerry.
- 4.12 The Vale of Glamorgan interactive mapping website confirmed on 12/04/19 that there are no Tree Preservation Orders relevant to the site and that the site is not within a conservation area. Screenshot attached at Appendix A.
- 4.13 The Natural Resources Wales interactive mapping website records the woodland group 8 and 9 as Ancient Semi-Natural Woodland. Screenshot attached at Appendix A.
- 4.14 The Hedgerows Regulations 1997 were made under Section 97 of the Environmental Act 1995 and came into operation in England and Wales on 1 June 1997. The regulations provide important protection by prohibiting the removal of most countryside hedgerows (or parts of them) without first notifying the local planning authority (LPA). Removal included acts which could result in the destruction of a hedgerow.
- 4.15 Care is needed regarding the retention of large, mature trees which become enclosed within the new development. Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance.
- 4.16 Existing trees on development sites, if included into plans, can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity and value to new developments.
- 4.17 New tree planting opportunities should be considered as part of any potential redevelopment, this will help to broaden the age diversity of the tree cover within the area. Enough space should be provided for species with significant stature to grow out into maturity.
- 4.18 Trees and Ivy may have the potential to provide valuable habitat for significant and/or/ protected species. It is therefore recommended that this report is read in conjunction with the RPS Preliminary Ecological Appraisal (ECO_00138) and any subsequent ecology surveys for the site.

Design and Site Layout Considerations

- 4.19 A tree survey plan defines the Root Protection Area (RPA) for each tree shown as a circle, this area can be adjusted where physical constraints or topographical features limit root activity in an area, however, the total area should remain the same. Prior to any adjustment of a tree's RPA zones the changes should be assessed by an Arboricultural Consultant. During any site planning exercises the current and future growth potential of the trees should be considered.
- 4.20 The RPA for single-stem trees broadly equates to a radius of 12 time the stem diameter measured at 1.5 m above ground level. For multi-stemmed, low branching trees or those with trunks with an irregular girth, the point at which the stem diameter is measured is adjusted to consider these factors in accordance with illustrations in BS5837:2012 (Annex C).

Root Protection Areas

- 4.21 Where there are no significant constraints to root development, the RPA's have been plotted onto the Tree Survey Plan as circles, with the tree located centrally, extending to encompass the area of ground, and thus the rootable soil volume, required for protection.
- 4.22 In accordance with BS5837:2012, where the tree root spread is considered to have been significantly influenced by site condition, the tree's RPA can be plotted as a polygon. The plotted polygon should be of the same area as it would be as a circle and its shape reflects as arboricultural assessment of likely root distribution.
- 4.23 The RPA must become an exclusion zone during construction works and for any development. It must be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.
- 4.24 No activities that result in excavations, changes in level or soil compaction should take place within the RPA of any retained trees, especially older mature trees. This would include the storage of material, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.

Services

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

Trees and Management of Health and Safety

- 4.26 It is recommended that a programme of periodic arboricultural assessments be undertaken to regularly assess the full health and safety of all trees both in full leaf (summer) and out of leaf (winter). These assessments should be undertaken by completing a zoning exercise to first identify the highest target areas and prioritise based on the level of access and/or the presence of a target i.e. the presence of people, stationary cars, moving traffic of stationary targets like dwellings.
- 4.27 Ash dieback, *Hymenoscyphus fraxineus*, is the most significant tree disease in the UK since Dutch elm disease. It will likely lead the decline and death of the majority of ash trees in Britain. A large proportionate of trees on site were identified as Ash, none of which were showing signs of Ash Dieback however it is possible that it will become an issue if it is not already. National recommendations are to retain these trees but annually monitor the development of the Disease and encourage large landowners with big populations of Ash to develop Ash Dieback management plans. Advice can be found [here](#) and or - <https://www.treecouncil.org.uk/Portals/0/Chalara%20docs/The%20Tree%20Council%20Ash%20Dieback%20Action%20Plan%20Toolkit%20FINAL.pdf>
- 4.28 The scope of this report does not cover a detailed tree condition and / or hazard inspection however, some defects were identified in the production of this survey that accompanies this report. Mainly the damage caused by Horses' stripping the bark of the Lombardy Poplars to the south and west of this site. In their current situation with only horse paddocks in close vicinity

the defects may not pose a significant risk of harm from total stem failure. If, however, the land was to change use, any associated increased risk from trees should be taken into consideration.

Japanese Knotweed

- 4.29 Japanese Knotweed was noted in scrub area 2 – S2. It is recommended that expert advice is sought to deal with and dispose of the Knotweed appropriately.



5 ARBORICULTURAL IMPACT ASSESSMENT

Generally

- 5.1 Trees have finite energy reserves, developed each year throughout the growing season, which are utilised for biological processes such as growth and defence against pests or diseases throughout the following year.
- 5.2 Any development or construction activities in close proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon. As such it is essential to consider the relationship between the proposed development and the retained trees to identify what precautions are necessary, proportionate and appropriate.
- 5.3 Development has the potential to impact upon the above ground and below ground parts of trees. Whilst some damage that can occur, such as physical damage to the trees stems and branches from machinery movements, is clearly visible the impact from other aspects of work common on development sites which can have a significant effect upon the continued health of trees are not always immediately evident.
- 5.4 Damage that is not immediately evident, but which can cause long term harm to retained trees, includes things such as damage to the soil structure by compaction causing root damage and levels changes altering the water table and affecting moisture availability.
- 5.5 To minimise the potential for harm to occur to retained trees all works must be carried out with regard to the Tree Protection measures detailed within this report.
- 5.6 In particular the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.
- 5.7 The following impact assessment is based on the proposed road corridor and Indicative Concept Masterplan.

Impact of the Proposed Development on Existing Trees & Hedgerows

Road Corridor

- 5.8 Whilst the alignment of the proposed road corridor avoids most of the trees on site, the new roundabout at the junction of Port Road and the A4226 will require the removal of the western section of the offsite tree group **G2** and **T52** and **T53** to accommodate the proposed roundabout and visibility splays. Refer to Tree Protection Plan/s at Appendix D.
- 5.9 A number of field hedgerows will be impacted by the alignment of the proposed road corridor. These include **H1 (part)**, **H3 (part)**, **H6 (part)**, **H7 (part)**, **H18 (part)**, **H19 (part)** and **H20 (part)** where sections of hedgerow will need to be removed. Refer to Tree Protection Plan/s at Appendix D.
- 5.10 The extent of the tree and hedgerow removal shall be agreed on site and clearly identified in advance of any clearance works commencing.

- 5.11 Refer to ecology considerations below.
- 5.12 Following the hedge removal, a tree protection fence shall be erected as shown on the Tree Protection Plan contained in this report at Appendix D.

Indicative Concept Masterplan

- 5.13 The Indicative Concept Masterplan (ref RPS JCD0064-003), included at Appendix E, has sought to retain and integrate much of the existing trees and hedgerows present on the site.
- 5.14 In addition to the impact associated with the road corridor noted above, the following trees / tree groups will be impacted and require removal to deliver the Indicative Concept Masterplan : **G1** (cat C) , **G12** (cat C), **G13** (cat U), **G14** (cat B) and 4nr ash trees **T69** (cat B), **T70** (cat B), **T71** (cat C) and **T72** (cat B).
- 5.15 Sections of the following hedgerows will potentially be impacted by the proposals and require removal to deliver the Indicative Concept Masterplan: **H1**, **H5**, **H10**, **H15**, **H17**, **H18**, **H19** and **H20**.
- 5.16 The extent of the tree and hedgerow removal shall be agreed on site and clearly identified in advance of any clearance works commencing.
- 5.17 Refer to ecology considerations below.

Tree & Hedgerow Removal – Ecology Considerations

- 5.18 Refer to RPS Preliminary Ecological Appraisal (ECO_00138) for recommendations regarding any works to the existing trees and hedgerows.
- 5.19 Particular care should be taken with regards to protected species and any licence requirements.
- 5.20 Removal of any trees and hedgerows should not be undertaken without prior notification to the consultant ecologist who shall advise on the requirement for any further surveys, timing of works and licence requirements before any clearance works commence.

Timing of Works

- 5.21 Tree, hedgerow and vegetation removal shall be carried out with regards to the phenological cycle of any wildlife that may be associated with it, notably birds and bats, and the phenological cycle of the species composition; late winter is the optimal time to undertake pruning with regards to availability of energy reserves.
- 5.22 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). Should any vegetation be outlined for removal during this period, then an ecological inspection would be required to check that no nesting birds are present. Should checks reveal nesting birds the vegetation must remain until September or until an ecologist has certified that the fledglings have left the nest.
- 5.23 A visual inspection for bats shall also be carried on mature / ivy clad trees prior to commencing operations.

Tree Retention

- 5.24 All retained trees and hedgerows shall be fully protected to the satisfaction of the LPA Tree Officer and/or Arboriculture Consultant in broad accordance with BS5837:2012.

Tree Protection Fencing

- 5.25 Prior to the commencement of any development works, Tree Protection Fencing is to be erected as shown in the Tree Protection Plans, Appendix D.
- 5.26 Unless otherwise agreed in writing with the LPA Tree Officer and/or Arboriculture Consultant, it is recommended that the BS5837:2012 Figure 2 and Figure 3 should be the default protective barrier used throughout the development. The system uses scaffold poles driven into the ground (min. depth 0.6m) to support galvanised tube and welded mesh, with a final above ground height of at least 2m. Vertical scaffold poles are to be secured to one another using at least two heraslock anti-tamper couplers, installed so that they can only be removed from inside the fence. Diagonal bracing should be achieved with scaffold poles, secured with standard scaffold clamps to the top of the fencing and to another scaffold pole driven into the ground. Care should be taken in the installation to ensure no contact of scaffold poles is made with major roots over 25mm diameter.
- 5.27 Refer to Appendix F for details of Tree Protection Fence.

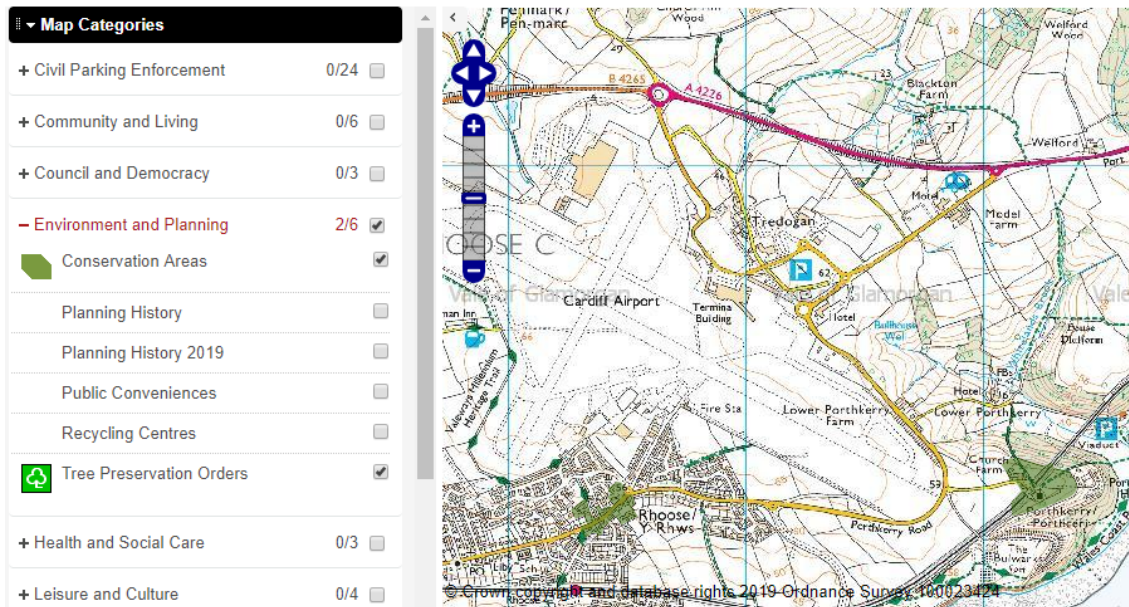
Installation of Utilities

- 5.28 New utility installations are to be routed outside of the RPA of existing trees.
- 5.29 For further guidance on the installation of utilities in proximity to trees, refer to NJUG Volume 4 “Guidance for the planning, installation and maintenance of utility services in proximity of trees”.

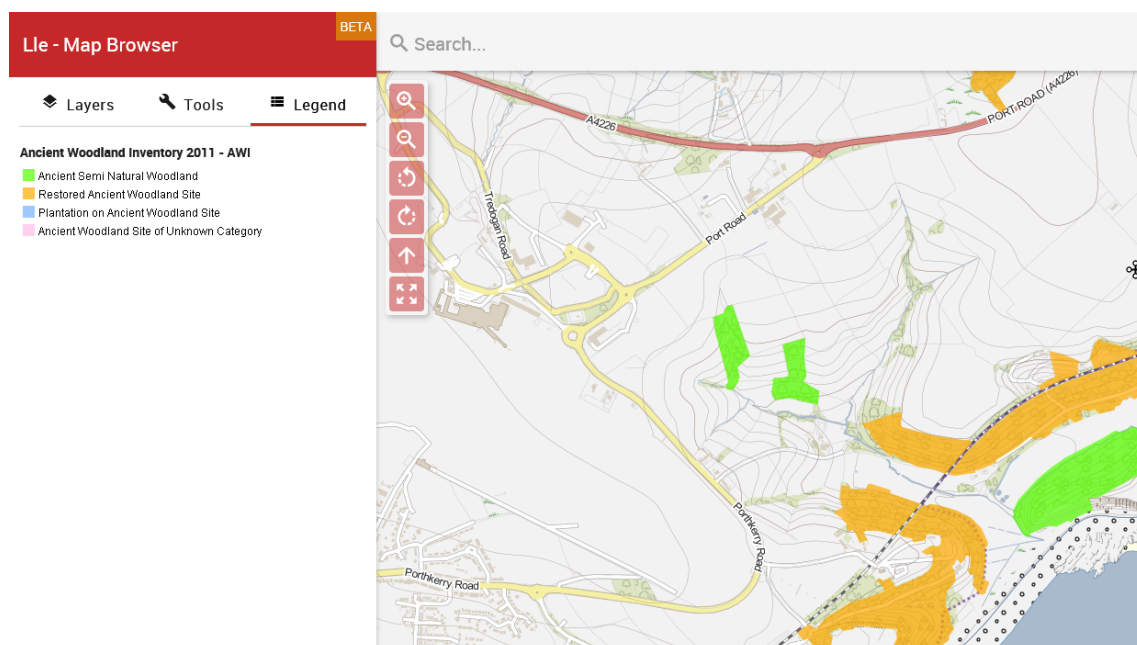
APPENDICES

Appendix A

Tree Preservation Order and Conservation Area Reference (The Vale of Glamorgan Council website)



Ancient Woodland Inventory (Natural Resources Wales)



Appendix B

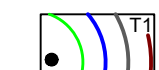
Tree Survey Drawings JSL3292_701-709

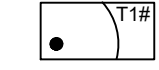


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Key

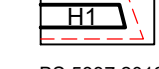
Survey boundary.

Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.

Tree (location estimated) with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Tree off-site with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.

Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

BS 5837:2012 Tree Quality Categories - Table 1

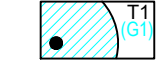
Category A - High quality

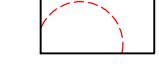
Category B - Moderate quality

Category C - Low quality

Category U - Unsuitable for retention

Scrub

Tree protected by Tree Preservation Order No.xxx.xx xxxx. Bracketed number reference relates to the TPO Schedule.

Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by XXX in XXXX, 201X.

A	Minor amendments	JMB	CT	05/2019
Rev	Description	By	CB	Date



MAKING COMPLEX EASY

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Project **Model Farm, Rhoose**

Title **Tree Survey**
1 of 9

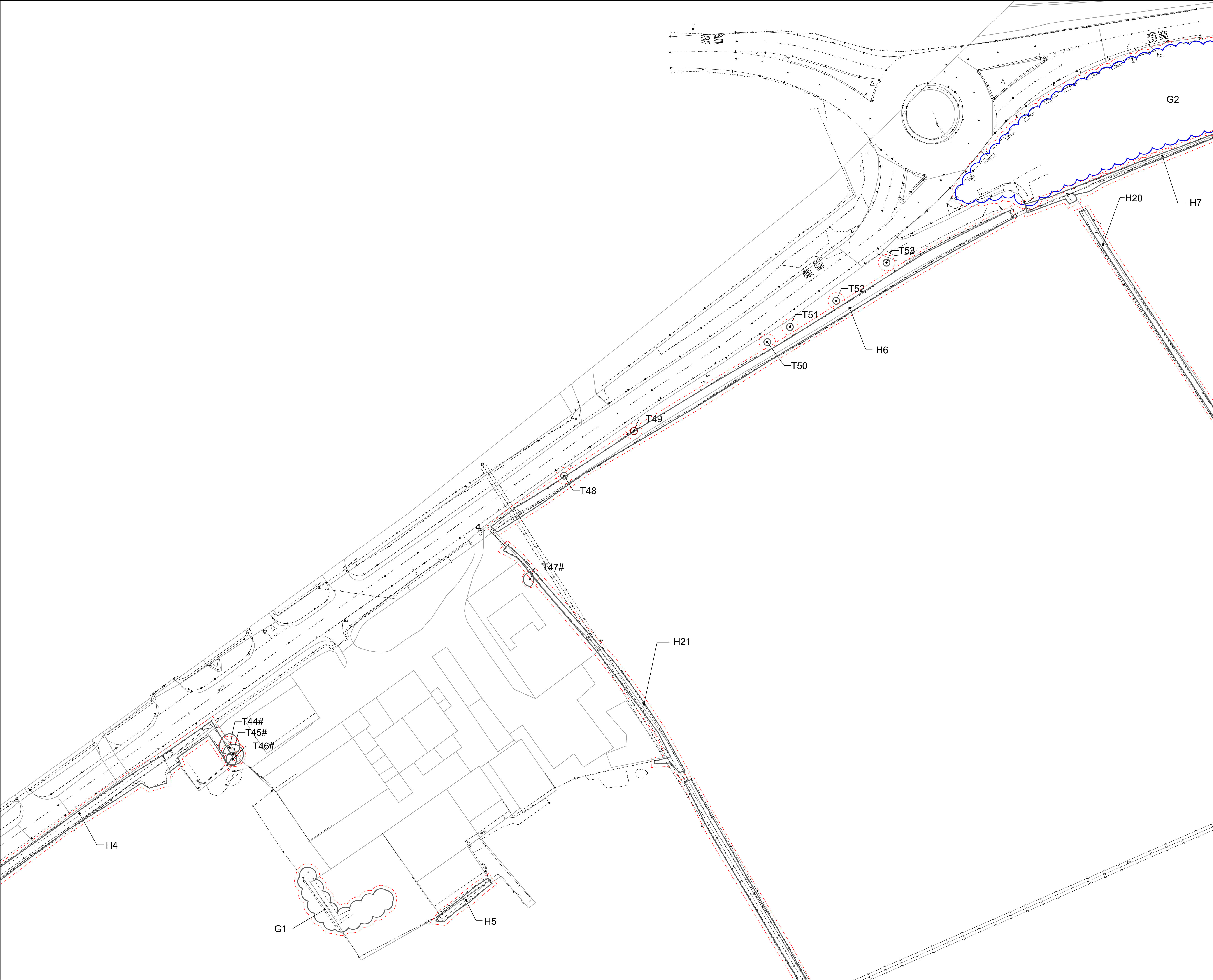
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Key

Survey boundary.

Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.

Tree (location estimated) with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Tree off-site with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.

Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

BS 5837:2012 Tree Quality Categories - Table 1

Category A - High quality

Category B - Moderate quality

Category C - Low quality

Category U - Unsuitable for retention

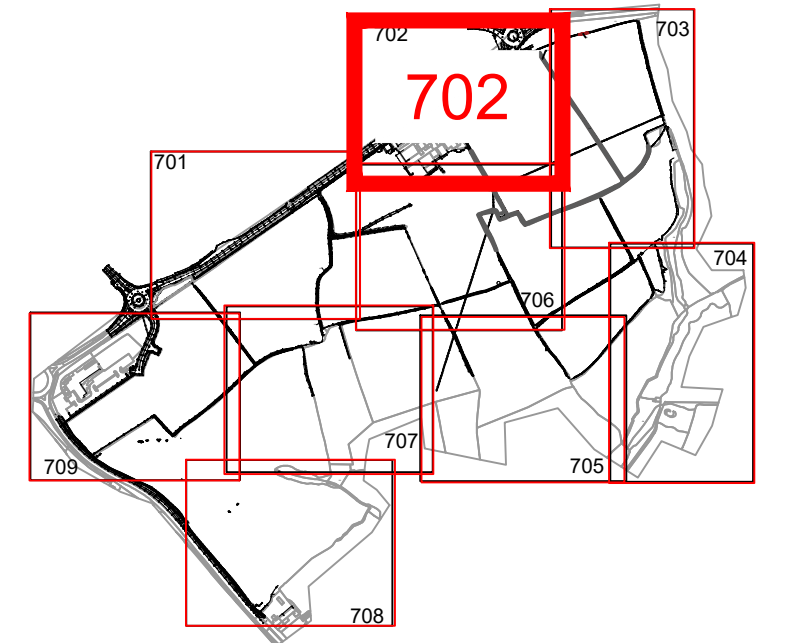
Scrub

Tree protected by Tree Preservation Order No.xxx, xx xxxx. Bracketed number reference relates to the TPO Schedule.

Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - "Trees in Relation to design, demolition and construction".
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by XXX in XXXX, 201X.



A	Minor amendments	JMB	CT	05/ 2019
Rev	Description	By	CB	Date

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Client **Legal & General (Strategic Land) Ltd**

Project **Model Farm, Rhoose**

Title **Tree Survey**
2 of 9

Status

For information

Job Ref

JSL3282

RPS Drawing / Figure Number

702

Drawn By

JMB

Scale @ A1

1:500

PM/Checked by

SK

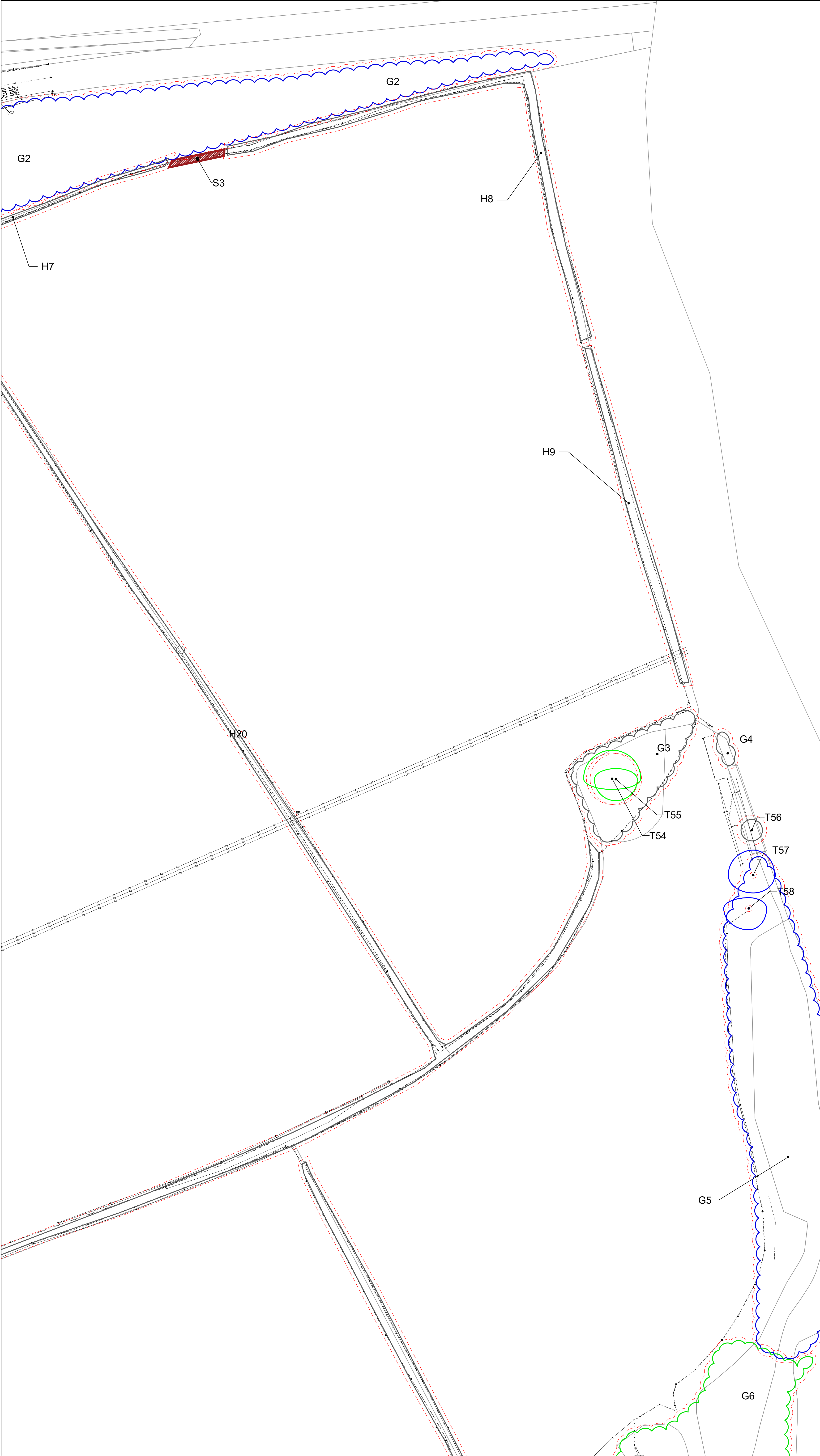
Date Created

11/04/2019

Rev

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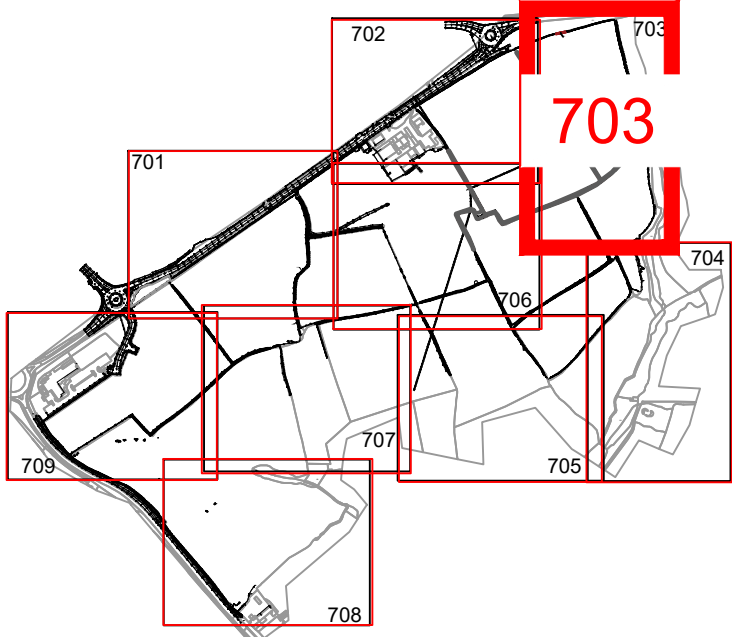
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Key

- Survey boundary.
- Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.
- Tree (location estimated) with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Tree off-site with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.
- Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.
- BS 5837:2012 Tree Quality Categories - Table 1
 - Category A - High quality
 - Category B - Moderate quality
 - Category C - Low quality
 - Category U - Unsuitable for retention
- Scrub
- Tree protected by Tree Preservation Order No.xxx, xx,xxxx. Bracketed number reference relates to the TPO Schedule.
- Root protection area (RPA) Calculated in accordance with Section 4.8 - BS5837:2012

NOTES:
• Refer to RPS Tree Survey Report & Schedule for further details.
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A	Minor amends	JMB	CT	05/ 2019
Rev	Description	By	CB	Date



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Project Model Farm, Rhoose

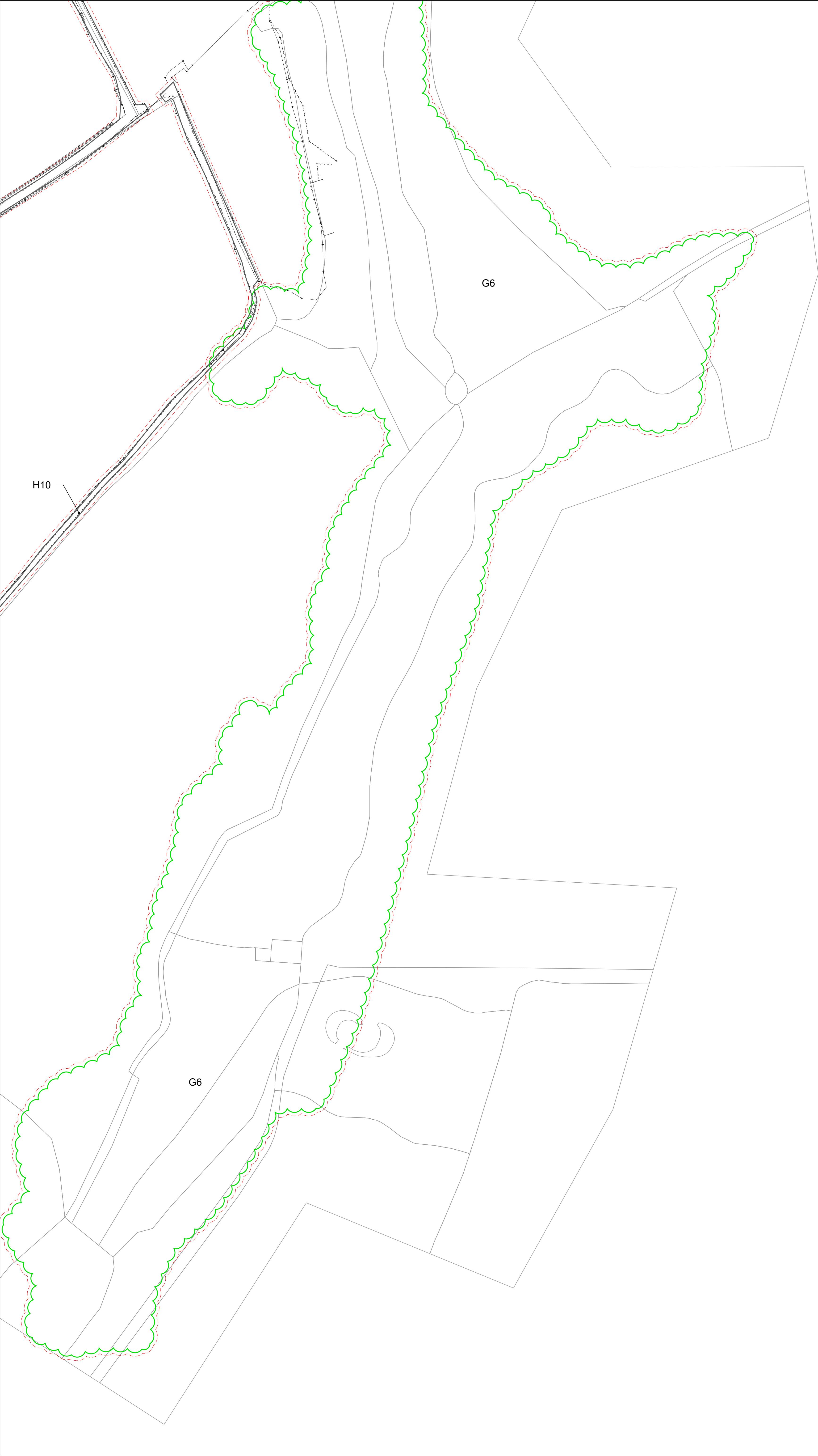
Title Tree Survey
3 of 9

Status For information
Drawn By JMB
PM/Checked by SK

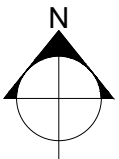
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Scale @ A1 1:500
Date Created 11/04/2019

RPS Drawing / Figure Number 703
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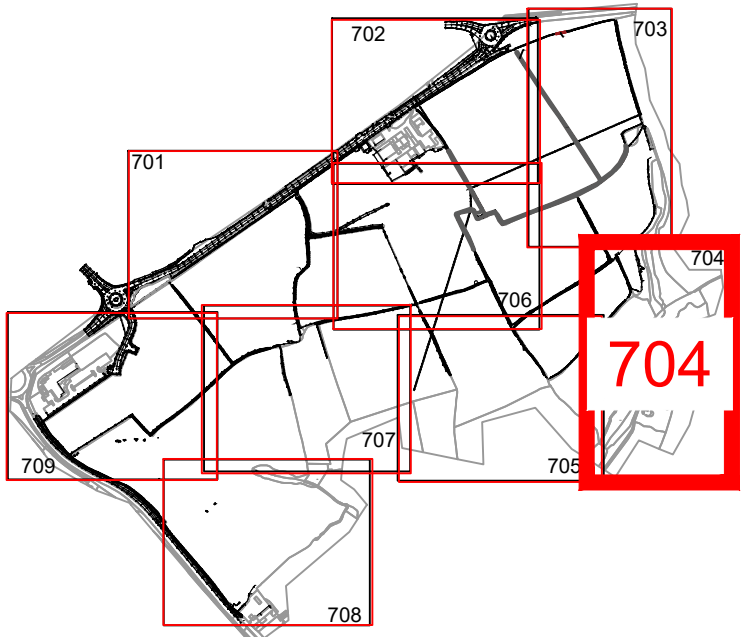
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Key

- Survey boundary.
- Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.
- Tree (location estimated) with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Tree off-site with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.
- Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.
- BS 5837:2012 Tree Quality Categories - Table 1
 - Category A - High quality
 - Category B - Moderate quality
 - Category C - Low quality
 - Category U - Unsuitable for retention
- Scrub
- Tree protected by Tree Preservation Order No.xxx.xx.xxxx. Bracketed number reference relates to the TPO Schedule.
- Root protection area (RPA) Calculated in accordance with Section 4.8 - BS5837:2012

- NOTES:
- Refer to RPS Tree Survey Report & Schedule for further details.
 - Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
 - Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
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 - Survey based upon topographic survey produced by XXX in XXXX 20XX.



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Project Model Farm, Rhoose

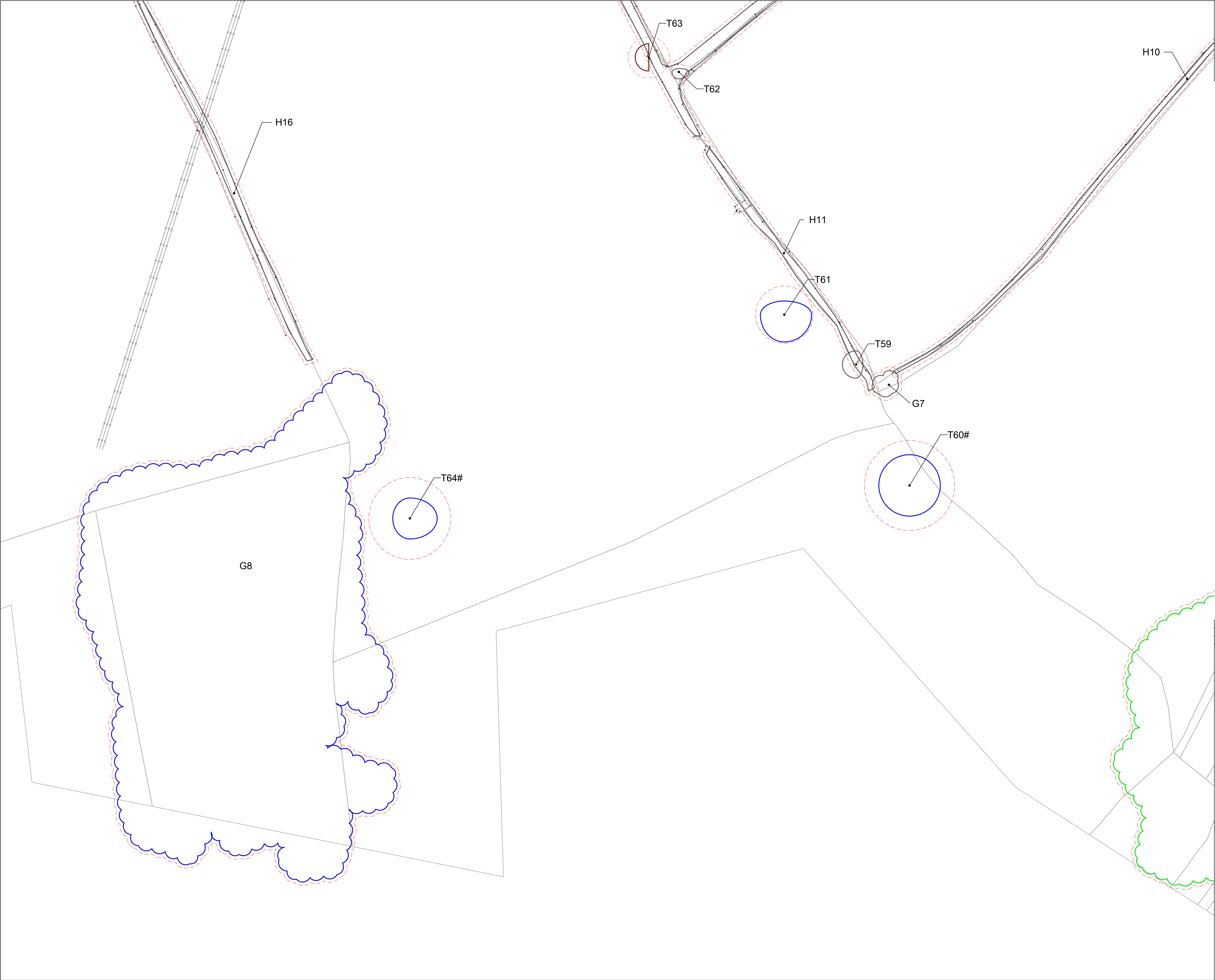
Title Tree Survey
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Status Drawn By PM/Checked by
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Job Ref Scale @ A1 Date Created
JSL3282 1:500 11/04/2019

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Key

Survey boundary.

Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.

Tree (location estimated) with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Tree off-site with numbered reference. Canopy spread and BS5837:2012 tree quality category.

Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.

Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

BS 5837:2012 Tree Quality Categories - Table 1

Category A - High quality

Category B - Moderate quality

Category C - Low quality

Category U - Unsuitable for retention

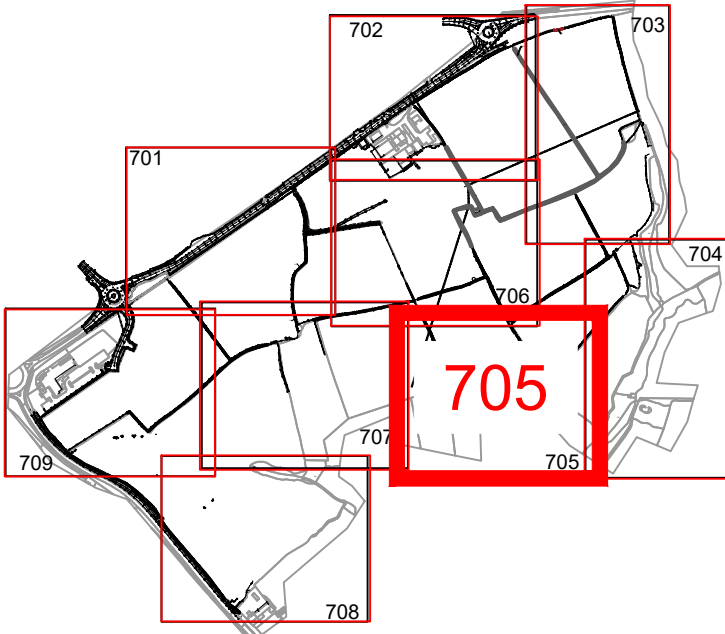
Scrub

Tree protected by Tree Preservation Order No.xxx.xx xxxx. Bracketed number reference relates to the TPO Schedule.

Root protection area (RPA) Calculated in accordance with Section 4.8 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
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