



Project: 21_5837_12_04
Site: Holly Grove, Hugmore Lane, Llan-y-pwll, Holt, Wrexham, LL13 9YE
Client: Siobhan Lawson-Hughes



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Document Title:	Tree Survey and Arboricultural Impact Assessment
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Project Title:	Holly Grove, Hugmore Lane, Llan-y-pwll, Holt, Wrexham, LL13 9YE.

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Distribution.

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Siobhan Lawson-Hughes	SLH	17/12/2021	1.0

Re-Survey Date.

Survey Type:	Lifecycle:	Re-survey Date:
BS5837: 2012	Planning Only	n/a

Report no: 21_5837_12_04

Date: 17/12/2021

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Summary:

This is a BS5837 compliant arboricultural assessment report providing detailed and sufficient information for the Local Planning Authority to be able to consider the effect of the proposed development on local character and amenity from a tree perspective.

Our brief has been to obtain details of the tree population on site with a view to assessing any arboricultural constraints.

This report was commissioned in relation to the proposed development at Holly Grove, Hugmore Lane, Llan-y-pwll, Holt, Wrexham, LL13 9YE.

The report details all trees over 75mm at 1.5m above ground level that are relevant to the siting of the proposed development. The position of the trees on the site is illustrated on the tree constraints plan and information about the tree stock and its current condition is given within the arboricultural data tables.

It will assist the planning process by discussing the impact that the proposals will have on the existing tree stock.

An Arboricultural Impact Assessment is included at Section 8 which details the constraints placed on the proposed development from the rooting area of the trees below ground and above ground by virtue of their size and position.

It is proposed to construct an extension to the south of the existing built footprint.

One low quality Apple tree will need to be removed to facilitate the proposals. One new tree of a similar species should be planted to mitigate its loss.

Retained trees will require protective barriers and ground protection measures to ensure they are not damaged during construction.

Report Author.

ROAVR Environmental (ROAVR Group) was formed in 2010 and since then has carried out arboricultural consultancy Nationwide with directly employed consultants. Our consultants are all individual members of the Arboricultural Association and the report author is listed in the document control sheet.



Validation Statement for the Local Planning Authority.

This report includes the following for LPA validation purposes:

- A **tree survey and tree constraints plan** showing the existing trees, their category rating and above and below ground constraints shown on an OS extract OR a topographical survey
- An **arboricultural impact assessment** which describes how the development will affect local character from a tree perspective
- An **appendices** highlighting tree related information including the **arboricultural data tables**

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Tree Survey & Arboricultural Impact Assessment to BS 5837 2012 of trees at: Holly Grove, Hugmore Lane, Llan-y-pwll, Holt, Wrexham, LL13 9YE.

1 Scope

- 1.1 We have recently been instructed to undertake an appraisal of mature tree cover at Holly Grove, Hugmore Lane, Llan-y-pwll, Holt, Wrexham, LL13 9YE.
- 1.2 The data was collected to the British Standard BS5837 'Trees in Relation to Design, Demolition and Construction - Recommendations' 2012.
- 1.3 The survey has been commissioned to offer guidance on the arboricultural constraints with a view to the future development of the site.
- 1.4 The trees were inspected on the 08/12/2021 following the guidance in the British Standard by ROAVR. The crowns and stems were inspected from the ground using the 'Visual Tree Assessment (VTA)' method; non invasive techniques were used at this stage. Although a sounding hammer was used to determine the presence of any decay.
- 1.5 The site was assessed and data was collected on all woody vegetation falling within the scope of the British Standard. Trees were grouped or designated woodlands as per the allowance in the British Standard when the area in question was uniform in terms of species, age or geography.



Photographic Plates.



Photographic plate showing rear of existing dwelling, and T3 to the right.



Photographic plate showing T3, a low quality apple tree.



Photographic plate showing trees T6-T8, unaffected by proposals.



2. Site Conditions & Site Surroundings

- 2.1 The site is situated in Holt in the Wrexham Council control area. The site is located on the southwest side of the town and has a rural feel.
- 2.2 The site is home to a detached dwelling with associated hard and soft landscape.
- 2.3 The wider locality is predominantly rural. The site is accessed via a private driveway.
- 2.4 A desktop assessment has failed to establish whether the site is in a Conservation Area or whether there are any TPO protected trees on or adjacent to the plot.
- 2.5 Works to protected trees require consent from the local planning authority. In the case of TPO's an application must be made. In the case of conservation areas a notification must be made. TPO applications take up to eight weeks, conservation area notifications take six weeks.
- 2.6 Certain exemptions apply; for example the removal of deadwood. In the case of dangerous trees 5-days written notice should be given to the local authority (in the cases of immediate danger the work should proceed, but the local authority contacted as soon as possible afterwards) with the works evidenced by photographs and video where possible. You should also check to ensure the works are exempt from the requirements of a felling licence.
- 2.7 It should be noted that planning consent overrides protected trees, where the works or removal are necessary for development to proceed and have been highlighted in the tree survey documents.
- 2.8 Bats. Under current legislation it is an offence to 'intentionally or recklessly disturb a bat' or 'damage, destroy or block access to the resting place of any bat'. For further details consultation must be made with the Statutory Nature Conservancy Organisation. Where relevant any current ecological surveys for the site will take precedence in this matter.
- 2.9 Birds. It is an offence to kill, injure or take any wild bird; or take, damage or destroy the nest of any wild bird while it is in use or being built. Therefore work likely to disturb nesting birds must be avoided from late March to August.



3. Drawings

- 3.1 Appended to this report is a tree constraints plan and a tree assessment plan.
- 3.2 The tree constraints plan has been produced using an OS supplied .dwg (AutoCAD) base plan as no topographical survey was available. Tree positions and data have been applied using our survey handset as an onsite exercise with the constraints plan being produced as a PDF through Auto CAD.
- 3.3 An autoCAD .dwg file of the tree constraints is available on request for project stakeholders to utilise.
- 3.4 The *Tree Constraints Plan* shows the existing layout. For each tree the stem location is indicated and scaled according to its diameter, the canopy is indicated according to measurements taken along the four cardinal points of the compass. Root protection areas (RPAs) are indicated which are calculated according to the guidelines within BS 5837 (2012).
- 3.5 Where appropriate, the shapes of the RPAs have been amended to reflect actual site conditions or where trees have been heavily pruned. The 'original' RPAs are indicated as a dashed line whereas the amended RPAs are indicated as a solid line. Any variation to this approach will be highlighted on the appropriate plans.
- 3.6 The *Tree Assessment Plan / Arboricultural Impact Assessment* indicates the tree constraints with the proposals overlaid. Where applicable, this plan shows where works are proposed in Root Protection Areas and which trees are to be pruned or removed. This plan accompanies the Impact Assessment which is to be found in Section 4.



4. Arboricultural Impact Assessment - Site Specific

Tree Quality Statement.

The tree cover at Holly Grove consists mostly of garden ornamentals of little merit. Three mature weeping willow trees stand at the north east corner of the site, these trees are visible from the street and offer some amenity value.

4.1 Description of The Proposed Development

4.1.1. It is proposed to construct an extension to the south of the existing built footprint.

4.1.2. The table below summarises the potential impact on trees due to various activities.

Trees Potentially Affected:

Tree or Tree Group	Impacts
Tree T1 & T2	No direct impacts. Trees will require protective fencing during the construction phase.
Tree T3	Requires removal as is in direct conflict with proposed built footprint.
Trees T4 & T5	No direct impacts. Trees will require protective fencing and ground protection measures during the construction phase.
Trees T6, T7, & T8	No direct impacts. Trees will require protective fencing during the construction phase.

4.2. Tree Removal.

4.2.1. All trees to be removed are indicated on the Tree Removal Plan and are listed below:

Tree	Cause For Removal
T3	Is in direct conflict with the proposed extension and is in poor condition.

4.2.2. Details specific to each tree can also be found in the Tree Data Schedule.



4.3. Mitigation Planting.

4.3.1. The tree to be removed should be replaced with a similar species, ideally on a dwarfing rootstock to ensure it can be retained long term within a garden setting.

4.4. Impact on Tree Canopies.

4.4.1. No pruning works are required to facilitate the proposed development.

4.4.2. Retained trees will require protective barriers during the construction works to ensure their canopies are not damaged.

4.5. Impact on Tree Roots.

4.5.1. Construction access will be required within the Root Protection Areas of T4 and T5. Ground protection measures will be required to ensure that the roots of these trees are not damaged, and that ground compaction does not occur.

4.6. New Surfaces.

4.6.1. No new hard surfaces are proposed within the Root Protection Areas of any trees.

4.7. Underground Services.

4.7.1. No underground services are to be installed through any Root Protection Areas.

4.8 Changes in Ground Levels.

4.8.1 No changes in ground levels are proposed within the Root Protection Areas of retained trees.

4.9 Soil Compaction.

4.9.1 The majority of tree roots lie within the upper soil horizons. This is because the availability of oxygen decreases with depth and roots need to breathe to stay alive. In addition, nutrients are more readily available in the form of organic matter close to the soil surface.

4.9.2. Healthy soils contain about 25% air space between solid particles. Increased loading of the soils caused by construction activity causes air to be squeezed out as the soil becomes compacted preventing roots from breathing. Even an increase in pedestrian activity may cause some soil compaction.



4.9.3 It is important therefore that ground compaction and soil disturbance over Root Protection Areas should be avoided during the construction phase. This may be done by installing protective fencing and ground protection measures as recommended within the tree protection plan.

4.10 Demolition Activities.

4.10.1 The tree protection measures specified within the TPP should be installed prior to the commencement of all demolition activities (including soil stripping) to prevent any detrimental impact on tree health. Where this is not practicable, demolition of structures within Construction Exclusion Zones shall be undertaken very early on in the demolition phase and the protective barriers installed immediately thereafter.

4.11. Hazardous Materials.

4.11.1 All hazardous materials (including cement and petrochemical products) will need to be controlled according to COSHH regulations in order to ensure there is no detrimental impact on tree health. Provision shall need to be made to ensure that cement and cement run-off are contained outside of all Root Protection Areas.

4.12. Cabins and Site Facilities.

4.12.1. Consideration should be given to the location of any site welfare facilities in terms of potential impact on trees. Where it is proposed to install cabins or site facilities in Root Protection Areas, the appointed arborist should be consulted and approval obtained from the local authority.

4.13. Boundary Treatments.

4.13.1. No changes are proposed to the existing boundary features that might impact on trees.

4.14. Impact of Retained Trees on the Development.

8414.1. Adequate space has been allowed between all retained trees and the proposed development works. Consequently the proposal shall not result in increased pressure to remove or prune any of the retained trees.



4.15. Summary.

4.15.1. One low quality Apple tree will need to be removed to facilitate the proposals. One new tree of a similar species should be planted to mitigate its loss.

Retained trees will require protective barriers and ground protection measures to ensure they are not damaged during construction.

Appendix: BS 5837: 2012 – Guidance Notes

This Standard prescribes the principles to be applied to achieve a satisfactory juxtaposition of trees and structures. It sets out to assist those concerned with trees in relation to design, demolition and construction to form balanced judgements.

It acknowledges the positive contribution trees may offer to a site, as well as the negative aspects of retaining inappropriate trees. It addresses the negative impacts that construction activity may have upon trees and offers mitigation strategies to minimise these impacts.

The Standard suggests a three stage approach to ensure best practice is followed when developing close to trees:

Stage 1: Survey Details and Notes

A ground level visual survey was undertaken. No climbing inspections or specialist decay detection were undertaken. Only trees with a stem diameter over 75mm, which lie within the site boundary or relatively close to it, were included.

Where applicable, trees with significant defects have been highlighted and appropriate remedial works have been recommended. However, this report should not be seen as a substitute for a full Safety Survey or Management Plan which are specifically designed to minimise risk and liability associated with responsibility for trees.

Wherever practicable dimensions were obtained using diameter tapes, logger's tapes, distometers and clinometers. Where obstacles prevent accurate measurement, dimensions are estimated. Trees of privately owned third parties are surveyed from the best available vantage point and observations relating to the condition of these trees should be treated accordingly. All height measurements should be regarded as approximate.



Appendix: Survey Methodology

Ground level visual surveys are carried out using the Visual Tree Assessment technique described by Mattheck and Broeler (1994) and endorsed by the Arboricultural Association (LANTRA Professional Tree Inspection course, 2007).

Structural condition is assessed by inspecting the stem and scaffold branches from all angles looking for weak branch junctions or symptoms of decay. Particular attention is paid to the stem- base. Cavities are explored using a metal probe in order to assess the extent of any decay. If this is not possible further inspection is recommended in the form of a climbing inspection or using specialist decay detection equipment.

The physiological condition is assessed by inspecting the stem, branches and foliage for symptoms of disease. The overall vigour of the tree is also taken into account.

Where significant defects are observed, recommendations are made according to a scale of priority in order to reduce the likelihood of structural failure. The position of the tree and its potential targets are taken into account.

Measurements are obtained using a diameter tape, clinometer, distometer and loggers tape.

Where this is not practical measurements are estimated.

Some trees are surveyed as groups, though this is usually avoided close to areas likely to be developed.



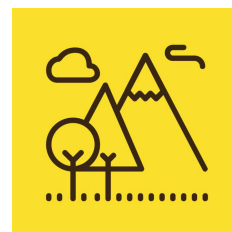
5. Limitations

- 5.1 ROAVR Environmental has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
- 5.2 This Report may not be relied upon by any other party without the prior and express written agreement of ROAVR Environmental. The assessments made assume that the land use will continue for their current purpose without significant change. ROAVR Environmental has not independently verified information obtained from third parties.
- 5.3 This report, video walkthrough, data tables and raw data remain the copyright of ROAVR until such time as any monies owed are settled in full and the report may be withdrawn at any time.

Should you require any further information, please do not hesitate to contact us at any time.

Mr. Peter Haine FDS Arb, MArborA
Consultant Arborist

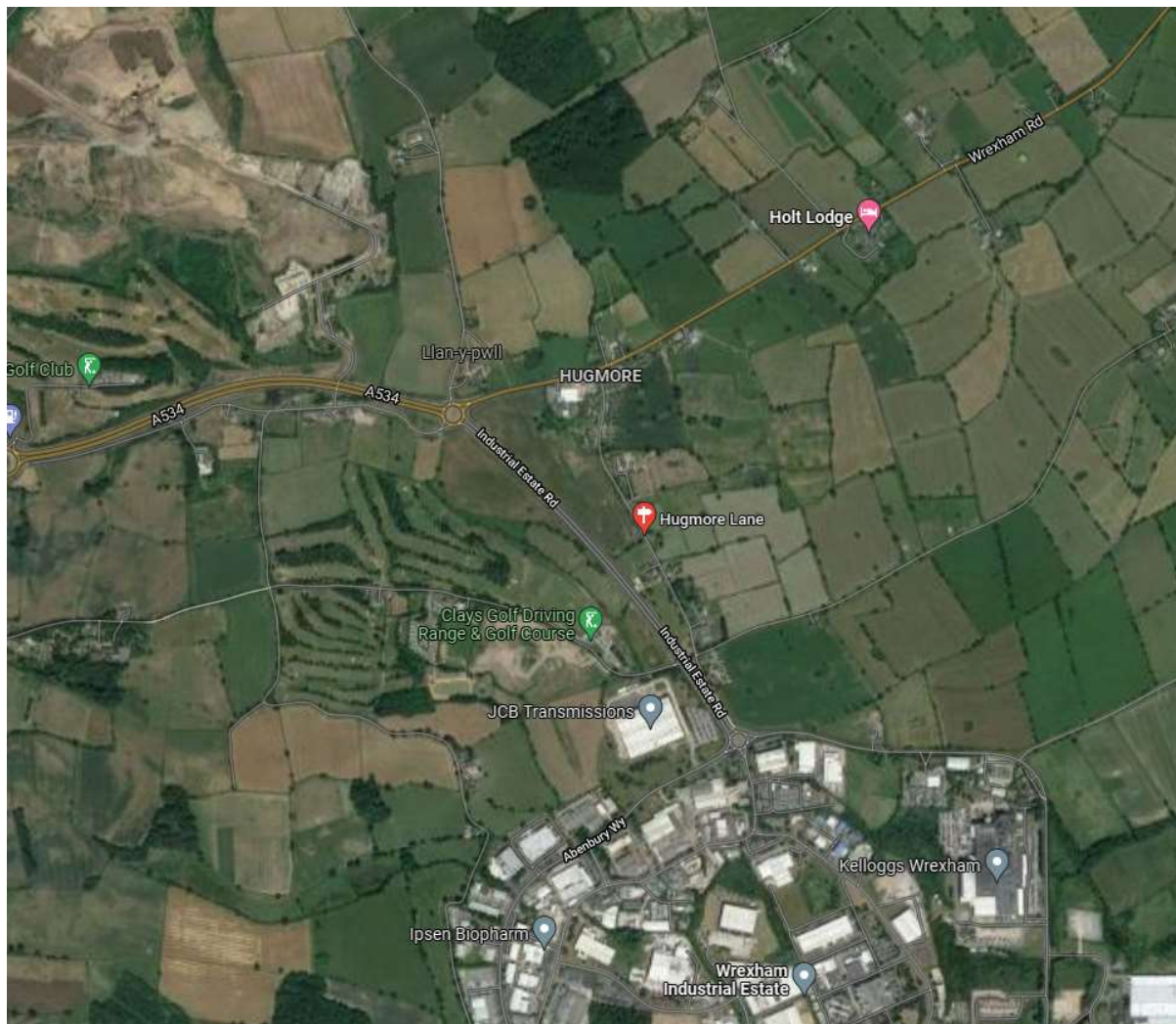
Peter Haine



Prepared by: Peter Haine
Checked by: Matt Harmsworth - 17/12/2021 15:30



Appendix 1 – Site Location



Appendix 2 – Arboricultural Data Tables

Appendix 3 – Arboricultural Plans

Tree ID	Tree Type	Common Name	Latin Name	Maturity	Measurements Estimated	Height (m)	Height and direction of significant branch (m)	Number of Stems	Diameter at Breast Height	Stem 2 (mm)	Spread - N (m)	Spread - E (m)	Spread - S (m)	Spread - W (m)	Canopy Height (m)	Crown Condition	Stem Condition	Basal Condition	Category	Life Expectancy	Subcategories	Phys Condition	Comment
T1	Horse Chestnut	Common Horse Chestnut	<i>Aesculus hippocastanum</i>	Mature	No	3.5	W-1.8	1	555		3	3	3	3	2	Good	Fair	Fair	C	10 to 20 yrs	1 Arboreal Values	Fair	Major bark wounding on stem, mechanical damage, exposed rotting.
T2	Prunus	Cherry	<i>Prunus</i> spp.	Young	No	3	S-1	3	75	120	3	3	3	3	0.5	Good	Fair	Good	B	20 to 40 yrs	2 Landscape Values	Good	Mechanical damage, over grown shrub, Portuguese laurel.
T3	Apple	Culinary Apple	<i>Malus domestica</i>	Mature	No	2.5	S-1	1	240		1	1	2	2	1.5	Fair	Fair	Fair	C	10 to 20 yrs	2 Landscape Values	Fair	Mechanical damage, leaning east, poor shape form, 5.3 metres off house.
T4	Apple	Culinary Apple	<i>Malus domestica</i>	Mature	No	2.5	S-1	1	310		1	3	3	3	1.5	Good	Fair	Fair	C	10 to 20 yrs	2 Landscape Values	Fair	Mechanical damage, leaning south, poor shape form.
T5	Apple	Culinary Apple	<i>Malus domestica</i>	Mature	No	2.5	S-1	2	285	310	1	3	3	3	1.5	Good	Fair	Fair	C	10 to 20 yrs	2 Landscape Values	Fair	Mechanical damage, leaning east, poor shape form.
T6	Willow	Weeping Willow	<i>Salix chrysocoma</i>	Mature	Yes	7	S-2	1	700		5	5	5	2	0.5	Good	Ivy	Good	B	20 to 40 yrs	1 Arboreal Values; 2 Landscape Values	Good	Storm damage, outside 15 metres.
T7	Willow	Weeping Willow	<i>Salix chrysocoma</i>	Mature	No	7	N-2	1	580		6	5	6	2	0.5	Good	Good	Good	B	20 to 40 yrs	1 Arboreal Values; 2 Landscape Values	Good	Storm damage, outside 15 metres.
T8	Willow	Weeping Willow	<i>Salix chrysocoma</i>	Mature	No	9	W-3	1	840		6	4	6	6	0.5	Good	Ivy	Good	B	20 to 40 yrs	1 Arboreal Values; 2 Landscape Values	Good	Storm damage, outside 15 metres, mechanical damage.

Arboricultural Data Tables Terms.

Tree Id	Reference no. T1, T2 etc. for trees; H for hedgerows; G for Groups and W for woodlands.
Tag Number	If the tree has been tagged with an 'arbo' tag then the physical tag number is listed in this column.
TPO Number	If the tree is subject to a TPO and it is known to us this will be recorded here.
In Conservation Area	Y/N - If the tree is located within a Conservation Area we may confirm that here.
Tree Type	Beech, Oak etc.
Common Name	Common Beech, Evergreen Oak etc.
Latin Name	Fagus sylvatica; Quercus robur - latin names.
Maturity	The estimated age class of the tree (relative to species) o Y - Young o SM - Semi-mature o EM - Early-mature o M - Mature o OM - Over-mature or V - Veteran
Potential for Bat Habitat	Y/N - if the tree has cracks, cavities or suitable bat habitat it may require further ecological surveys and form a constraint on development.
Measurements Estimated (Y/N)	Y/N - if the tree is off site, covered with ivy, or some other restriction the british Standard allows for measurements to be estimated.
Height	Height of the tree in meters.
Height & Direction of 1st Significant Branch	Recorded to consider access.
Number of Stems	Number of clear stems.
Diameter at Breast Height	Diameter of stem (mm) at breast height (1.5 metres above ground).
Crown Spread	The maximum spread of the trees canopy measured from the stem in four directions (North, East, South, West).
Canopy Height	The height between ground level and the lowest part of the canopy when considering access.
Crown / stem / Basal Condition	Goof, Fair, Poor condition comments.
Category	Tree categorisation based on section 4.5 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations. Four categories are used (A, B, C, U) with categories A, B & C being assigned one of three separate sub categories (1, 2 or 3): A – Trees of high quality with an estimated remaining life expectancy of at least 40 years. B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. C – Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
Life Expectancy	Estimated safe, usable life expectancy.

Sub-Category	Subcategories: 1: Mainly arboricultural & aesthetic qualities 2: Mainly landscape qualities 3: Mainly cultural values, including conservation U – Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
Physical Condition	Goof, Fair, Poor condition considering the tree structure, form and vitality.
Management Recommendations	Recommendations (regardless of the development proposals if available) for removal, retention and/or remedial arboricultural works.
Comments	A brief description of the tree which refers to tree form, condition, health and significant defects. Comments regarding environmental conditions affecting the tree (e.g. ground conditions) will also be included where relevant.

Arboricultural data tables are essentially an asset register of the trees and tree cover on and adjacent to a development site. The information included within the tables is used to produce a tree constraints plan (TCP) which shows in 2D the constraints and opportunities on a particular site.

Tree Constraints Plan

**Siobhan
Lawson-Hughes**

Holly Grove, Hugmore Lane,
Llan-y-pwll, Holt, Wrexham,
LL13 9YE

SCALE :
1 : 250 @ A4

DATE :
10/12/2021

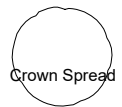


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Version:
v1

Checked by:
MH

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Tel: 01463 667302



Crown Spread



Root Protection Area



Category 'A'



Category 'B'



Category 'C'



Category 'U'

0 15m

Holly Grove

T1

T2

T3

T4

T5

T8

T7

T6

Tree Assessment Plan

**Siobhan
Lawson-Hughes**

Holly Grove, Hugmore Lane,
Llan-y-pwll, Holt, Wrexham,
LL13 9YE

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1 : 250 @ A4

DATE :
17/12/2021

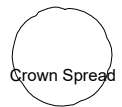


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Tel: 01463 667302



Crown Spread



Root Protection Area



Category 'A'



Category 'B'



Category 'C'



Category 'U'

0 15m

Holly Grove

T1

T2

T3

T4

T5

T8

T7

T6

 Proposed Build Footprint