

R I C H A R D S

M O O R E H E A D  L A I N G L T D

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P L A N N I N G | L A N D S C A P E | E N V I R O N M E N T

**TY NOS HOMELESS SHELTER**

**Preliminary Ecological Appraisal and Preliminary Roost Assessment**

for

**ClwydAlyn**

January 2021

3154/11

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**QUALITY ASSURANCE PROCEDURES: QP4**

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## SUMMARY

Richards, Moorehead & Laing Ltd (RML) were commissioned by ClwydAlyn to undertake a Preliminary Ecological Appraisal and Preliminary Roost Assessment for bats, on an area of land which is proposed for residential accommodation.

The site currently comprises one main building, owned by ClwydAlyn and currently unoccupied, and four containers/cabins. The area consists predominantly of hardstanding, with small areas of landscape shrub planting and a few trees which occur along the site boundaries.

The main potential ecological constraint to development is a large stand of the invasive non-native species Japanese knotweed *Fallopia japonica* (Listed on Schedule 9 of the Wildlife and Countryside Act). Measures will be required during site clearance and construction to ensure that this species is eradicated to prevent damage to new structures, and not caused to spread into the wild.

The buildings had negligible potential for roosting bats.

No Section 7 habitats as listed under the Environment (Wales) Act 2016 are present within the site boundary. The site has very little in the way of biodiversity value.

No evidence of protected or notable species was recorded on site. However, the site does have limited potential to support nesting birds, mainly within the ornamental shrub planting located to the west, outside the planning application red line boundary.

No further surveys are required.

Reasonable Avoidance Measures have been advised to ensure compliance with nature conservation legislation.

Mitigation and enhancement measures have been advised which include the improvement of existing habitat and provisions for nesting birds and bats.



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## 1 INTRODUCTION

### 1.1 Scope of commission

1.1.1 Richards, Moorehead & Laing Ltd (RML) were commissioned by ClwydAllyn to undertake a Preliminary Ecological Appraisal and Preliminary Roost Assessment for bats, on an area of land which is proposed for residential accommodation.

1.1.2 This report presents the findings of the site surveys, along with an assessment of the key ecological constraints and opportunities associated with the proposed development, possible mitigation requirements and any detailed further surveys required.

### 1.2 Site description

1.2.1 The site is located off the A543, Holt Road, Wrexham (Grid Ref SJ 3410 5079). The site currently comprises one main building, owned by ClwydAllyn and currently unoccupied, and four containers/cabins.

1.2.2 The area consists predominantly of hardstanding, with small areas of landscape shrub planting and a few trees.

1.2.3 The site is located within a residential and commercial area of Wrexham. Asda superstore is located to the west with residential properties to the north, south and east.

1.2.4 A site location plan is provided in **Appendix A**.

### 1.3 Aims of the survey

1.3.1 The aims of the survey and report are to:

- 1 Identify the likely ecological constraints associated with the scheme proposals.
- 2 Identify any mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects.
- 3 Identify any additional surveys that may be required.



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#### 4 Identify appropriate enhancement measures.

##### 1.4 Scheme proposal

- 1.4.1 At the time of writing it was understood that the site would be used for residential accommodation (homeless shelter).
- 1.4.2 The scheme involves the demolition of an existing building as well as the removal of scrub vegetation and self-set trees.
- 1.4.3 A proposed site plan is provided in **Appendix B**.

##### 1.5 Personnel and quality assurance

- 1.5.1 RML is a registered Practice with the Chartered Institute of Ecology and Environmental Management (CIEEM).
- 1.5.2 Principal Ecologist Donna Hall undertook the survey and report writing. Donna is a full member of CIEEM with over 17 years of experience working within multi-disciplinary consultancies. Donna holds European Protected Species survey licenses for bats and great crested newts, which cover all counties in England and Wales. Donna is also an accredited license holder for dormice in Wales. She has written numerous Preliminary Ecological Appraisals and Ecological Impact Assessments for large and small schemes.



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## 2 LEGISLATION

### 2.1 Habitats and species

2.1.1 Certain habitats and species are subject to protection as laid out in the Wildlife & Countryside Act 1981 (as amended) and/or the Conservation of Habitat and Species Regulations 2017 (the 2017 Regulations) as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019<sup>1</sup> (the 2019 Regulations).

2.1.2 For a summary of the offences under this legislation refer to **Appendix C**.

#### *Environment (Wales) Act 2016*

2.1.3 The Environment (Wales) Act introduces a new, enhanced Biodiversity and Resilience of Ecosystem Duty on public bodies to ensure that biodiversity is an integral part of decision-making. Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

2.1.4 Section 6 of the Act places a duty on public authorities to seek to maintain and enhance biological diversity (referred to as biodiversity). All public bodies, statutory undertakers, Ministers of the Crown and other public office holders are required to apply the duty when they are carrying on any functions in Wales, or in relation to Wales.

2.1.5 Section 7 of the Act is similar to the duty in section 42 of the NERC Act 2006 which it replaces. It places a duty on the Welsh Ministers to publish, review and revise lists of

<sup>1</sup> The UK left the EU on 31 January 2020 and entered a transition period until the 31 December 2020. After this date, the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 came into force. The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (as amended) so that they operate effectively. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

living organisms and types of habitat in Wales which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

## 2.2 Planning policy

### *Planning Policy Wales (Edition 10, 2018)<sup>2</sup>*

2.2.1 Edition 10 of PPW was published on the 5th December 2018. Chapter 6 of PPW 10: Distinctive and Natural Places details objectives in relation to nature conservation, as well as a number of other environmental topics. These include but are not limited to:

- Integrating Green Infrastructure and Development;
- Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty);
- Protection and Management of Designated Sites;
- Protection for Non-statutory Designations;
- Maintaining and Enhancing Biodiversity;
- Protection of Species;
- Protection of Trees, Woodlands and Hedgerows; and
- Protection of undeveloped coastlines.

### *Technical Advice Note 5*

2.2.2 Technical Advice Note (TAN) 5 (Welsh Assembly Government 2009)<sup>3</sup> relates to nature conservation and planning and provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on:

- The key principles of positive planning for nature conservation;

<sup>2</sup> Planning Policy Wales (PPW) Edition 10 December 2018 (<http://www.mobileuk.org/planning-policy-wales-edition-10.pdf>)

<sup>3</sup> Technical Advice Note 5: Nature Conservation and Planning (<https://gov.wales/docs/desh/policy/100730tan5en.pdf>)

- Nature conservation and Local Development Plans;
- Nature conservation in development management procedures;
- Development affecting protected internationally and nationally designated sites and habitats; and
- Development affecting protected and priority habitats and species.

### **Local Planning Policy**

2.2.3 The site lies within the administrative area of Wrexham County Borough Council (WCBC). Wrexham County Borough Council is preparing the Local Development Plan (LDP) which will replace the current adopted Unitary Development Plan<sup>4</sup>.

2.2.4 Local Planning Guidance Note No.32 - Biodiversity & Development is one of a series of local planning guidance notes amplifying local development plan policies and reflecting national legislation. This guidance note is intended to raise the quality and profile of nature conservation, protected species and biodiversity issues when submitting and considering planning applications.

2.2.5 This document will be treated as a material consideration in the determination of planning applications and relates to the following relevant policies of the adopted Wrexham Unitary Development Plan:

- Policy PS2 - Development must not materially detrimentally affect countryside, landscape/townscape character, open space, or the quality of the natural environment.
- Policy PS11 - Encouragement will be given to proposals which improve the biodiversity value of sites and to the establishment of local nature reserves where the nature conservation and landscape interest of the land will be protected and enhanced.

<sup>4</sup> <https://www.wrexham.gov.uk/sites/default/files/2020-05/udp-statement.pdf>

- Policy EC4 - Development proposals should provide for the conservation and management of hedgerows, trees, orchards, woodland, wildlife and other natural landscape and water features, and include new planting in order to enhance the character of the landscape and townscape.
- Policy EC6 - Development either within or close to sites of biodiversity interest will only be permitted where it can be clearly demonstrated that the need for the development outweighs the need to safeguard the intrinsic nature conservation value of the site.

### ***Biodiversity Policy***

- 2.2.6 Wales Biodiversity Partnership (WDP) has produced biodiversity checklists for local authority and public authority staff in Wales. The checklists will assist public and local authorities to take account of biodiversity in their operational activities and will help organisations to meet the Environment (Wales) Act (2016) Biodiversity Duty, Habitats Regulations and other biodiversity related legislation. In addition, the implementation of the checklists and guidance will help build towards the biodiversity outcomes contained in the Environment Strategy for Wales.
- 2.2.7 WCBC have produced a Biodiversity Action Plan<sup>5</sup> for species and habitats.

<sup>5</sup> Wrexham Local Biodiversity Action Plan  
[https://webarchive.nationalarchives.gov.uk/20110915220116/https://ukbars.defra.gov.uk/plans/map\\_county.asp?X={233A4FD7-A909-4243-8387-16066CB658D8}&CTRY=%7B9CA4F477%2D9A4C%2D4B79%2DAB03%2D8A7D796C07C5%7D&WES=1](https://webarchive.nationalarchives.gov.uk/20110915220116/https://ukbars.defra.gov.uk/plans/map_county.asp?X={233A4FD7-A909-4243-8387-16066CB658D8}&CTRY=%7B9CA4F477%2D9A4C%2D4B79%2DAB03%2D8A7D796C07C5%7D&WES=1)

### 3 SURVEY METHOD

#### 3.1 Desk study

- 3.1.1 The North Wales Environmental Information Service (Cofnod) was contacted in January 2021. The desk study was conducted to obtain records of any priority species, within 1 km of the site.
- 3.1.2 In addition, statutory and non-designated sites within 2 km were also searched for from freely-available websites.

#### 3.2 Field survey

##### *Phase 1 habitat survey*

- 3.2.1 An extended Phase 1 habitat survey was undertaken by Donna Hall on 20/01/2021. The survey included all land within the red line boundary as shown in **Appendix A** and immediate adjacent land. The weather conditions during the survey were cold, heavy rain, 100 % cloud cover, with an ambient temperature of 9°C.
- 3.2.2 A Phase 1 habitat survey is a standardised method of recording habitat types and characteristic vegetation, as set out in the Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit. The Phase 1 survey method is ‘extended’ through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance (also referred to as ‘notable’ species).
- 3.2.3 The presence of invasive non-native species (INNS) was also surveyed and mapped on the Phase 1 habitat plan.

#### 3.3 Preliminary Roost Assessment – bats

- 3.3.1 An external assessment of the structures was undertaken on 20/01/2021 in conjunction with the extended Phase 1 habitat survey, to determine the current status of the site for roosting bats. This involved checking for evidence of bats (e.g. droppings, staining, etc.) as well as identifying any potential access points into the

structures which could be used by bats and the identification of roof voids which could be used by roosting bats.

- 3.3.2 All surveys were conducted from ground level. The surveyor was equipped with a high-powered torch, close-focus binoculars, camera and endoscope.
- 3.3.3 The Bat Survey Good Practise Guidelines (BCT, 2016) were used as a basis to evaluate the building and surrounding habitat for its potential to support bats, as summarised in **Table 1**.



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**Table 1. Bat Conservation Trust (BCT) Assessment of Potential Roost Features (PRF)**

| Suitability | Description of roosting habitats                                                                                                                                                                                                                                                                                     | Commuting and foraging habitats                                                                                                                                                                                                                                                                                                                                                    |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible  | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                                                                                                              | Lack of vegetation and foraging habitat within vicinity of the site and no connections to semi-natural habitats. Site located in a highly urbanised environment.                                                                                                                                                                                                                   |
| Low         | <p>A structure with one or more potential roost sites that could be used by individual bats opportunistically.</p> <p>No visible features within tree structure such as crevices, holes in trunk, hazard beam splits. However, it may have ivy cladding and hidden features due to the size and age of the tree.</p> | Small amount of isolated habitat on site providing a potential foraging resource i.e. a single tree or a patch of introduced shrub. Maybe linked to small amount of adjacent semi-natural habitat surrounding site, however there are no distinct links to habitat further away.                                                                                                   |
| Moderate    | A structure or tree with one or more potential roost features that could be used by a larger number of bats but unlikely to support a roost of high conservation concern.                                                                                                                                            | Suitable continuous habitat with good connectivity to the wider landscape such as trees, scrub, hedgerow, grassland.                                                                                                                                                                                                                                                               |
| High        | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and offers more long-term security and likely to support a roost of high conservation concern.                                                                      | Site is close and connected to known roosts. The site habitat is of high quality for foraging bats and includes features such as woodland, tree lined water courses, field margins and hedgerows. The site is well connected within the landscape to surrounding habitats and strong linear features such as hedgerows and tree lines extend from the site to the wider landscape. |
| Confirmed   | Presence of field signs indicative of a bat roost including staining and scratch marks around a potential roost entry point combined with the following; urine staining, droppings clustered beneath a potential roosting feature and the presence of live or dead bats.                                             | N/A                                                                                                                                                                                                                                                                                                                                                                                |

### 3.4 Survey constraints and limitations

- 3.4.1 Species records obtained from COFNOD are based on surveyor effort and availability, and so a lack of records may be due to lack of survey work in that particular area rather than the absence of the species.
- 3.4.2 No internal access to the structure/s was possible. However, a thorough external examination was made, and it is considered that this is appropriate for the type of construction of the structures.
- 3.4.3 The Phase 1 habitat survey was undertaken outside of the recommended survey time of April – September. However, due to the fact that the site is predominantly hard standing with ornamental shrub planting and trees confined to the site boundary, predominantly outside of the application area, enough survey detail on the habitat communities was obtained in order to inform this assessment.
- 3.4.4 The details in this report will remain valid for a period of two years from the date of the surveys (20/01/2021)<sup>6</sup>, after which if no site works have commenced, the validity of this assessment should be reviewed to determine whether further updates are necessary.

<sup>6</sup> Based on current site conditions and species advice as per guidance produced by CIEEM provided at <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>



## 4 BASELINE ECOLOGICAL CONDITIONS

### 4.1 Statutory designated sites

4.1.1 There are no statutory designated sites within 2 km of the site.

### 4.2 Non- statutory designated sites

4.2.1 There is one Wildlife Site within 2 km. This is W317: Erddig Estate located 1.6 km south-west of the site. It is a National Trust-run estate with woodlands, semi-improved neutral grasslands and marshes.

### 4.3 Habitats

4.3.1 The majority of the site consist of hard standing and one building. Dominant habitats and their location and extent are shown on **Figure 3145/01** in **Appendix D**. Photographs of key habitat features and target notes are provided in **Appendix E**.

4.3.2 There is a large stand of Japanese Knotweed (Invasive Non-Native Species listed on Schedule 9 of the Wildlife & Countryside Act) located to the south boundary (Target Note 1, **Figure 3145/01** in **Appendix D**) at the site entrance. This knotweed is mixed with Bramble *Rubus fruticosus*.

4.3.3 Habitat, in the form of isolated trees and shrub planting, occurs along the site boundaries. To the west is a dominant band of Cherry Laurel *Prunus laurocerasus* (Invasive Non-Native Species **not** listed on Schedule 9 of the Wildlife & Countryside Act), refer to Target Note 2, **Figure 3145/01** in **Appendix D**).

4.3.4 An Arboricultural Implications Assessment (AIA) has been produced<sup>7</sup> detailing the locations of trees on site. The majority of the surveyed trees are low quality self-set natural regeneration consisting of Sycamore *Acer pseudoplatanus*, Ash *Fraxinus excelsior* and Hawthorn *Crataegus monogyna*. For further information please refer to the AIA report (**Appendix F**).

<sup>7</sup> Arboricultural Implications Assessment (20/01/21) ROAVR Environmental Document Ref: 21\_5837\_01\_25

4.3.5 The main building on site consists of a single storey of red brick construction with shuttered doors and boarded-up windows. The fascias are metal with no gaps evident. The roof is of a profiled metal construction with a shallow slope.

4.3.6 The 'cabins' appear to be containers converted into accommodation for temporary use.

#### 4.4 Priority habitats

4.4.1 No Section 7 habitats as listed under the Environment (Wales) Act 2016 are present within the site boundary.

#### 4.5 Protected and notable species

4.5.1 The following section presents the findings of the desk study (species recorded within 1 km of the site within the last 10 years) and extended Phase 1 habitat survey in relation to protected and notable species.

4.5.2 Where a species or species group has been omitted, this is due to there being no records and/or no suitability on site to support the species. The public version of the COFNOD data is provided in **Appendix G**. No protected or notable species were recorded within the site itself.

##### *Invertebrates*

4.5.3 The desk study identified two records of notable or protected invertebrates within a 1 km search radius within the last ten years. These are for the Wall butterfly *Lasiommata megera* which were recorded in residential property gardens.

4.5.4 The habitats on site do not have any potential for invertebrates, being predominantly hard standing. Outside the site is a buddleia bush, attractive to a number of butterflies but are considered a 'problematic' plant species as it spreads widely by seed and can suppress other flora.

##### *Birds*

4.5.6 A number of bird species have been recorded within 1 km of the site within the last 10 years. The site itself provides little in the way of suitable habitat for nesting and



foraging bird species. The main area of interest includes the dense Laurel and shrub planting along the western boundary, the majority of which is outside the planning application red line boundary. The building has very little potential for nesting birds. No evidence of old nesting material was noted during the survey.

### **Bats**

- 4.5.7 There are three records for bat species within 1 km of the site recorded within the last ten years. They are for noctule *Nyctalus noctule* and common pipistrelle *Pipistrellus pipistrellus* which were recorded foraging in the wider area. No roosts have been identified during the desk study, though it is likely that some of the residential properties in the wider area would be suitable for crevice-dwelling bats.
- 4.5.8 The existing site currently offers little in the way of supporting habitat for roosting, commuting and foraging bats. In the wider area, the trees associated with the residential areas, shrub planting and amenity grasslands offer habitat of low suitability, though they are of some value in the absence of any 'good' habitat.

### **Hedgehogs**

- 4.5.9 Numerous records of the hedgehog *Erinaceus europaeus* within 1 km have been recorded within the last 10 years. Some were recorded in residential gardens whilst another was rescued from a drain or were recorded 'wandering' the streets. The site itself offers no suitable habitat for hedgehogs; adjacent shrub habitat does provide refuge and cover.

## **4.6 Priority species**

- 4.6.1 No Priority Species as listed in Section 7 of the Environment (Wales) Act 2016 occur on site or are considered relevant to the site in question due to the lack of suitable supporting habitats.

## **4.7 Invasive non-native / problematic species**

- 4.7.1 The following species listed on Schedule 9 of the Wildlife and Countryside Act or which are 'problematic' were recorded during the site survey.



### ***Japanese knotweed***

- 4.7.2 Japanese knotweed is listed on Schedule 9 of the Wildlife and Countryside Act. The frontage with Holt Road, to the western side of the site entrance (refer to **Appendix E** for photos) is dominated by a mature stand of this invasive plant, approximately 13 m in length x 5 m in width. Dead stems from several crowns merge to form a continuous stand which shows no sign of treatment. Bramble is also present.
- 4.7.3 Japanese Knotweed is an invasive perennial plant capable of rapid growth and penetrating hard construction finishes such as paving, bitumen macadam, joints in concrete and brickwork, and joints in drains. It is an offence under the Wildlife and Countryside Act knowingly to introduce Japanese Knotweed into the wild. Waste containing Japanese Knotweed must be disposed of in accordance with the provisions of the Waste Management Regulations, including the description of the waste as containing rhizomes or stems of Japanese Knotweed.
- 4.7.4 Rhizomes of Japanese Knotweed are known to extend a considerable distance beyond the visible vegetation (up to 7m has been reported) and to a depth of up to 3m. It is likely that rhizomes extend beneath the adjacent car parking area, and possibly beneath the boundary wall to the verge beyond.

### ***Cherry Laurel***

- 4.7.5 This species is listed as an Invasive Non Native Species but is not a Schedule 9 species. It becomes a 'problem' and is invasive where it occurs in more wild natural settings where it encroaches upon woodland habitat.
- 4.7.6 It has been widely planted for screening and hedging in urban areas, such as the Ty Nos site, and it currently provides useful screening. It also produces abundant fruit, which can be dispersed by birds. The species is 'hardy' so would tolerate root damage during construction and/or radical coppicing to reduce the size every so often.

---

***Buddleia***

- 4.7.8 There is one stand of the problematic species Buddleia located outside the site boundary (Target Note 3, **Figure 3145/01** in **Appendix D**). This species is not listed on Section 9 of the Wildlife and Countryside Act though it can be quite persistent and, in natural habitats, can quickly out compete more native species.



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## 5 POTENTIAL EFFECTS AND RECOMMENDATIONS

The following sections discuss the potential effects of the proposals for the site on those ecological features which have been identified and advises upon methods with can either avoid, mitigate or compensate for these effects. Further survey recommendations are also provided where it is felt these are necessary in order to inform upon appropriate and proportional mitigation.

### 5.1 Statutory and non-statutory designated sites

#### *Potential effects*

- 5.1.1 No effects upon statutory or non-statutory sites would occur.

### 5.2 Habitats

#### *Potential effects*

- 5.2.1 In order to construct the scheme, there is likely to be the removal of trees and shrubs, or encroachment upon these habitats.
- 5.2.2 The AIA report recommends the removal of a number of low quality self-set trees including Sycamore, Ash and Hawthorn. The locations of these are provided within the AIA report.
- 5.2.3 The loss of these trees is not considered to be a significant effect, where replacement tree planting can be included within the landscape proposal for the site.
- 5.2.4 The other habitats on site provide very little in the way of biodiversity value as the site is predominantly hard standing. No Section 7 habitats as listed under the Environment (Wales) Act 2016 would be lost. Any shrub planting to be lost can be easily replaced in landscape proposals. The main habitats effect is the potential disturbance to Japanese Knotweed which is covered in **Section 5.4**.



---

**Recommendations**

- 5.2.5 Where works are in close proximity to trees, the recommendations as set out within the AIA should be adhered to.
- 5.2.6 The proposals should aim to include landscape planting which contains a more diverse native flora including species of local provenance.

**5.3 Protected and notable species*****Invertebrates******Potential effects***

- 5.3.1 No effects to invertebrates are envisaged.

***Recommendations***

- 5.3.2 Any landscaping or planting schemes should favour native species which attract invertebrates.

***Birds******Potential effects***

- 5.3.3 The site provides some suitable foraging and nesting habitat for small passerines, generally within the shrub planting which occurs along the site boundaries.
- 5.3.4 The main effect on nesting birds is from the loss of and disturbance to habitat which they use for nesting and foraging. This effect would be greatest where vegetation clearance or disturbance, if required, is conducted within the nesting bird season (considered to be March-August inclusive but can be later or earlier in the season depending upon climatic conditions).

***Recommendations***

- 5.3.5 It is advised that vegetation removal is conducted outside the nesting bird season. Where vegetation removal is required within this period, then a suitably experienced ecologist will need to conduct a nesting bird check immediately before vegetation removal. Any active birds' nests should be left undisturbed with a suitable buffer (dependent upon species and extent of disturbance) until the nest is no longer in use.

- 5.3.6 The buildings offered very little potential for nesting birds; however, it is advised that if this building is demolished within the nesting bird season, then this is also subject to a nesting bird check.
- 5.3.7 Consideration should be given to the installation of bird boxes on new buildings around the site and bird feeding areas in communal spaces to enhance and achieve biodiversity objectives. Sparrow nest boxes could be placed on the northern and eastern sides of buildings. Example bird boxes are provided in **Appendix H**.

### **Bats**

#### **Potential effects**

- 5.3.8 The structures on site contained negligible potential for bats owing to a lack of potential roost features and access into the structures.

#### **Recommendations**

- 5.3.9 No further surveys are required unless the scheme is delayed for two years or more (as described in **Section 3.4.4**).
- 5.3.10 Consideration should be given to the installation of integrated bat boxes into the proposed structures or placed externally onto a south-east or south-west aspect to enhance and achieve biodiversity objectives. Example bat boxes are provided in **Appendix H**.

### **Hedgehogs**

#### **Potential effects**

- 5.3.11 Hedgehogs may occur within the shrub areas which bound the site. The main potential impact would be if they were disturbed or injured during site clearance works within these areas.

#### **Recommendations**

- 5.3.12 It is advised that during site clearance, the contractors are made aware of the potential for encountering hedgehogs. Any vegetation should be checked underneath before final clearance and site preparation. If any hedgehogs are found,

then these must be removed to a suitable location outside the working area. There is a hedgehog rescue centre in Wrexham<sup>8</sup>.

5.3.13 The 'Hedgehogs and Development' guidelines<sup>9</sup> suggest that connectivity to the wider landscape is important to enable ground-dwelling species such as hedgehogs to move around freely. Any new installed boundaries and barriers which may surround the development, including fencing, railing and gates, should be made permeable e.g.:

- through the use of fence panels with 13 x 13 cm holes at ground level (hedgehog holes)
- leaving a sufficient gap beneath gates;
- leaving brick spaces at the base of brick walls

5.3.14 Examples of access are provided in **Appendix H**.

## 5.4 Invasive non-native / problematic species

### *Potential effects – Japanese knotweed*

5.4.1 There may be the disturbance of Japanese Knotweed during site clearance and construction. It is an offence under the Wildlife & Countryside Act to cause this species to spread into the wild.

### *Recommendations – Japanese knotweed*

5.4.2 It will be necessary to ensure that this species is not caused to spread off site during construction, either by operatives or on-site machinery, or by any means. A demarcation zone should be set up to ensure that works do not encroach upon or disturb the ground within the root zone of this species.

5.4.3 A Biosecurity Risk Assessment and Method Statement is advised to ensure that the appointed contractor is aware of their responsibilities. This can be produced by RML, the appointed contractor with experience of working with Japanese Knotweed, or by

<sup>8</sup> <https://www.scoot.co.uk/Wales/Clwyd/Wrexham/Wrexham-Hedgehog-Rescue-DJST694.html>

<sup>9</sup> <https://www.hedgehogstreet.org/wp-content/uploads/2019/03/Hedgehogs-and-developers-ZR.pdf>

other suitable qualified personnel with experience of the removal, eradication and control of this invasive species.

- 5.4.4 It will also be necessary to protect the proposed development from damage by Japanese Knotweed, and to meet regulatory requirements. To do this, it will be necessary to eradicate all living Japanese Knotweed together with any material that might regenerate in the future, from the development site, within the period of construction.
- 5.4.5 Typically, a three-year programme of herbicide applications would be the least-cost option, but this would be likely to delay the development. Where the quantities justify the cost of deploying specialist equipment, the on-site soil treatment process (commercially available as 'Klaro') can be used to treat the infested soils so that they can be re-used on site. Excavation and removal to licensed landfill is usually the most expensive option, and the least sustainable within the Waste Hierarchy.

#### ***Potential effects - Cherry Laurel***

- 5.4.6 At present this species offers screening for the site and may be retained. In addition, within an urban setting, its potential to be invasive may be considered less of an issue.

#### ***Recommendations – Cherry Laurel***

- 5.4.7 As an invasive species, it is advised that if possible, this species is removed and replaced with a suitable native shrub/hedge species. Contractors need to be made aware of its occurrence and what to look out for.
- 5.4.8 Control and removal measures for this species include the following<sup>10</sup>:

1. Cut during the winter (September to March) and follow up with stump treatment immediately.

<sup>10</sup> Advice only, an appointed approved landscape contractor would be able to provide further detail and undertake the required measures.

2. Pull up any seedlings if they come out easily and dig out any larger plants by machine or manually where feasible (do not leave any roots behind).
3. Treat young bushes, any regrowth from stumps and any remaining seedlings with a foliar spray mixed with an adjuvant (this breaks down the waxy layer on the surface of the leaf) between May to October.
4. Treat mature bushes with a stem injection treatment, if available. If not, then apply a foliar spray as for other younger bushes.
5. Burn the cuttings (only if burning on site is allowed) or remove to licensed green waste disposal site.
6. Remove accumulated leaf litter from soil surface as this will restrict growth of replacement plants.

### ***Potential effects - Buddleia***

- 5.4.9 The stand of the problematic species Buddleia is outside the site boundary and so should not be disturbed by the works. Inadvertent disturbance of seeds (including topsoil from around the plant) could cause it to spread into the wild.

### ***Recommendations***

- 5.4.11 Contractors need to be made aware of its presence and the need to avoid disturbance.
- 5.4.12 If seedling Buddleia is observed within the site, it should be removed or treated with approved herbicide during the growing season.
- 5.4.13 The removal, control and eradication of all of these species and replacement with native flora, in particular the removal of Japanese knotweed is hugely beneficial for biodiversity.



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## 6 CONCLUSIONS

### 6.1 Summary of effects and recommendations

- 6.1.1 This report presents the findings of the desk study, extended Phase 1 habitat survey and Preliminary Roost Assessment and provides an assessment of the potential effects on ecological features which may result from the future use of the site.
- 6.1.2 No effects on statutory or non-statutory sites are envisaged.
- 6.1.3 There are no Section 7 Habitats on site, the site is of low biodiversity value.
- 6.1.4 The site has little value for protected or notable species, and none were recorded on site. Reasonable Avoidance Measures have been advised for species such as nesting birds and hedgehogs, should they be found on site.
- 6.1.5 Biodiversity enhancements including the provision of native planting in landscape proposals, provisions for bats, nesting birds and hedgehogs and the removal or control of invasive plants have been advised.
- 6.1.6 If no development of the site happens within 24 months of this report being issued, then a re-assessment of the site's ecological status will need to be carried out.



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## 7 REFERENCES

- CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester
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## APPENDIX A: SITE LOCATION PLAN



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|                                                                                                                  | <b>Strategic Assets</b>                                                                                                                                      |             |
| Ty Nos                                                                                                           |                                                                                                                                                              |             |
| (for identification purposes only)                                                                               |                                                                                                                                                              |             |
|  MapInfo<br>Strategic Partner | Scale                                                                                                                                                        | 1:629       |
|                                                                                                                  | Time                                                                                                                                                         | 10:20:12 AM |
|                                                                                                                  | Date                                                                                                                                                         | 2 Jul 2020  |

## APPENDIX B: SCHEME PROPOSALS



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|   |                                                         |          |    |
|---|---------------------------------------------------------|----------|----|
| F | ISSUED FOR PAC                                          | 22.01.21 | ME |
| E | REVISED SITE LAYOUT                                     | 21.01.21 | ME |
| D | PLOTS #6-9 REPOSITIONED & REVISED PARKING LAYOUT (5-12) | 20.01.21 | ME |
| C | REVISED SITE LAYOUT                                     | 18.01.21 | ME |
| B | STAFF HUB ADDED                                         | 23.11.20 | ME |
| A | ADDITIONAL PARKING ADDED                                | 12.10.20 | ME |

| REV | DESCRIPTION | DATE | BY |
|-----|-------------|------|----|
|-----|-------------|------|----|

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PROJECT  
Ty Nos  
for Clwyd Allyn

DRAWING TITLE  
PROPOSED SITE PLAN (With  
elevation drawing  
references)

|             |          |       |         |
|-------------|----------|-------|---------|
| SCALE       | DATE     | DRAWN | CHECKED |
| 1 : 500 @A3 | 06/10/20 | ME    | SV      |

|                |             |
|----------------|-------------|
| DRAWING STATUS | PRELIMINARY |
|----------------|-------------|

|        |            |          |
|--------|------------|----------|
| JOB No | DRAWING No | REVISION |
| C1039  | 003        | F        |

**AG**

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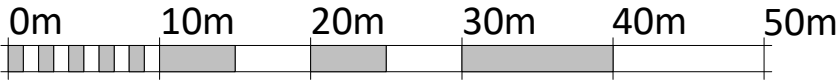
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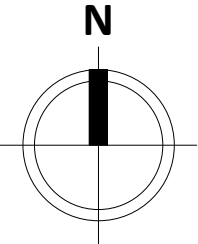
PRINTED: 22/01/2021 13:00:41

A3

PROPOSED SITE PLAN



VISUAL SCALE 1:500 @ A3



## APPENDIX C: RELEVANT PROTECTED SPECIES LEGISLATION

The following has been produced as a guide, to outline possible offences that could occur during the scheme. For a definitive list of all species of flora and fauna, and a full interpretation you should refer to relevant Acts listed below.

### Conservation of Habitats and Species Regulations 2017 (as amended) by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

Schedule 2 applies to all European Protected Species (EPS) which includes all bat species, otters, great crested newts, dormice, otters, sand lizards, smooth snake and natterjack toad amongst others. The protection afforded is overlapping but separate from the Wildlife and Countryside Act 1981 (as amended).

It is an offence:

- to deliberately capture, injure or kill
- to deliberately disturb
- to damage or destroy a breeding site or resting place of an EPS; this applies whether species are present or not.

### The Wildlife and Countryside Act 1981 (as amended)

*Applies to all wild birds where it is an offence:*

- to kill, injure or take any wild bird (subject to certain exceptions)
- to take, damage or destroy a nest whilst it is in use or being built
- to take or destroy the egg of any wild bird

#### Schedule 1

It is also an offence to disturb any wild bird listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)

- while it is nest building
- at a nest containing eggs or young
- disturbs the dependant young of any such bird.

#### Schedule 5

For animals fully protected under Schedule 5 which includes all bats, great crested newts, otters, water voles, sand lizards, smooth snake and natterjack toad, it is an offence:

- to intentionally kill or injure or take
- to intentionally damage or destroy or obstruct access to any structure or place which a species uses for shelter or protection, at any time even if the animal is not there
- to intentionally disturb whilst it is occupying a place which it uses for shelter or protection
- to obstruct access to any structure or place which an animal uses for shelter or protection

Adder, grass snake, common lizard and slow worm are only protected from being killed or injured and the white-clawed crayfish is only protected from being taken.

#### Schedule 9

Invasive non-native species are listed under Schedule 9. It is an offence:

- to plant or otherwise cause to grow in the wild any species listed on Schedule 9.

In addition, The Invasive Alien Species (Enforcement & Permitting Order) took effect on the 1<sup>st</sup> December 2019. It introduces enforcement provisions, offences and penalties needed to comply with the requirements of EU Regulation (1143/2014) on the prevention and management of the introduction and spread of invasive alien species. The provisions apply to 66 species known as 'species of Union concern'. Under the Order, NRW and the police may impose criminal sanctions in Wales relating to an offence under the Order. As the regulator, NRW may also impose civil sanctions.

Licences may be issued under the Order allowing activities which are prohibited under the EU Regulation to be carried out. These activities can only be carried out in compliance with the conditions of a licence. Natural Resources Wales are the licensing body in Wales.

#### Protection of Badgers Act 1992

The Protection of Badgers Act 1992 fully protects badgers and their setts.

It is an offence to kill, injure or take a badger, or to damage or interfere with a sett unless a licence is obtained from Natural Resources Wales.

Offences include:

- killing, injuring and taking (or attempting these)
- possession of a dead badger (or derivative)
- cruelly ill-treating a badger
- damaging a badger sett or any part of it
- destroying a badger sett
- obstructing access to / entrance of a badger sett
- causing a dog to enter a badger sett
- disturbing a badger whilst occupying a sett



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## APPENDIX D: PHASE 1 HABITAT PLAN AND TARGET NOTES



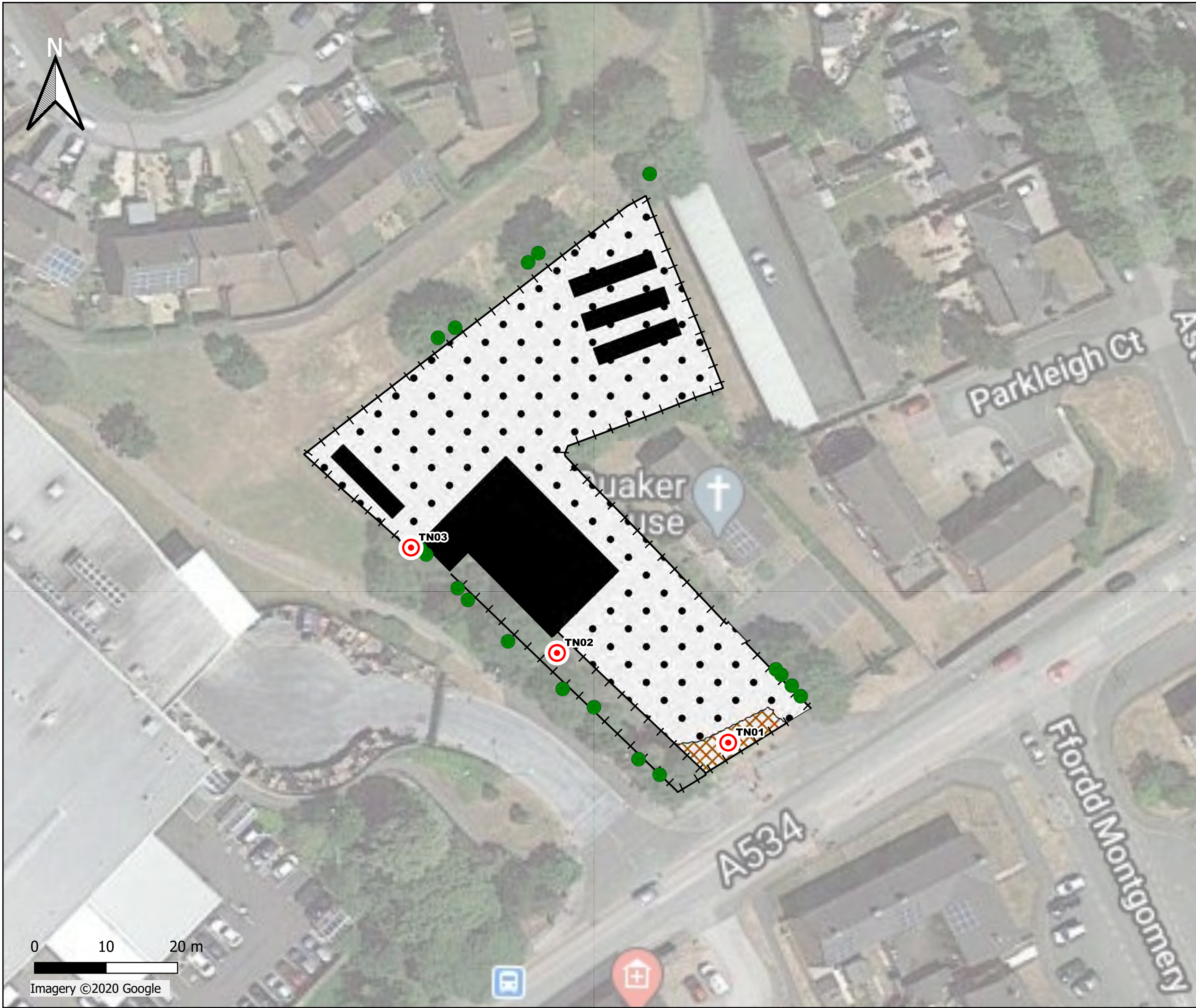
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Cleient / Client:

CLWYD ALYN

Enw project / Project name:

Ty Nos, Holt Road, Wrexham

Teitl lluniad / Drawing title:

Phase 1 Habitat Plan

Eglurhad / Key:

A3.1 Parkland, scattered trees

J2.4 - Fence

J1.4 - Introduced shrub

J3.6 - Buildings

J4 - Bare ground

Target note

PLANNING

|                                             |                               |                                    |
|---------------------------------------------|-------------------------------|------------------------------------|
| Graddfa / Scale (A3):<br>1:500 @ A3         | Dyddiad / Date:<br>25/01/2021 | Darparuwyd gan:<br>Drawn by:<br>RJ |
| Rhif lluniad / Drawing number:<br>3154 / 01 |                               | Gwirwyd gan:<br>Checked by:<br>DH  |
| Darparuwyd gan / Prepared by:               |                               | Cwynted:<br>Revision:<br>01        |

## Target Notes

| Target Note | Description                           |
|-------------|---------------------------------------|
| TN1         | Stand of Japanese knotweed 13 m x 5 m |
| TN2         | Cherry Laurel                         |
| TN3         | Buddleia                              |



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## APPENDIX E: PHOTO REFERENCES



**Photo Ref 1:** Japanese knotweed along southern boundary.



**Photo Ref 2:** View to southern elevation of existing building



**Photo Ref 3:** Eastern elevation of existing building



**Photo Ref 4:** Northern elevation of existing building

**Photo Ref 5:** Temporary cabins**Photo Ref 6:** Boundary wall to the north**Photo Ref 7:** Fascia boarding, no gaps**Photo Ref 8:** Cherry laurel along the western boundary



**Photo Ref 9:** Building western elevation



**Photo Ref 10:** Site overview looking south, showing roof of existing building



**Photo Ref 11:** Shrub and tree layer to the west of the site, outside the red line boundary.

## APPENDIX F: ABORICULTURAL IMPLICATIONS ASSESSMENT



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**Project:** 21\_5837\_01\_25  
**Site:** Ty Nos, Holt Road, Wrexham,  
**Client:** Richards Moorehead & Laing Ltd



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|                  |                                        |
|------------------|----------------------------------------|
| Document Title:  | Arboricultural Implications Assessment |
| Document Author: | Matt Harmsworth                        |
| Project Manager: | Matt Harmsworth                        |
| Project Title:   | Ty Nos, Holt Road, Wrexham             |

### Revision History.

| Date:     | Version number: | Summary of changes: |
|-----------|-----------------|---------------------|
| 20/1/2021 | 1.0             | First Draft         |
| 20/1/2021 | 1.0             | First Issue         |

### Distribution.

| Approved by:    | Signature | Date:     | Version: |
|-----------------|-----------|-----------|----------|
| Matt Harmsworth | MWH       | 20/1/2021 | 1.0      |
| Donna Hall      | DH        | 20/1/2021 | 1.0      |

### Re-Survey Date.

| Survey Type: | Lifecycle:    | Re-survey Date: |
|--------------|---------------|-----------------|
| BS5837: 2012 | Planning Only | N/A             |

Report no: 21\_5837\_01\_25

Date: 21st January 2021

FAO: Donna Hall, Principal Ecologist.

eMail: d.hall@rmlconsult.com



## Summary:

The tree survey for Ty Nos contains the details of nine individual trees, and two tree groups that are all located on the periphery of the usable site.

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

We understand that the site is to be redeveloped with residential units and associated hard and soft landscape and a number of tree removals are recommended to facilitate the new layout.

The project should be used as an opportunity to plant some new robust and sustainable tree cover throughout the scheme but any such planting should be chosen carefully so as not to impact any new footprint in the future.

---

### *Report Author.*

*Matthew Harmsworth attended Merrist Wood College in Guildford, Surrey in the late 1990's studying horticulture and arboriculture as well as a National Diploma in Countryside Recreation before gaining employment as a Countryside Ranger with Surrey County Council (later Surrey Wildlife Trust).*

*After a number of years Matthew started an Arboricultural Contracting business serving residential and commercial clients across the SE of England and also gained his aerial NPTC certificates.*

*Following the sale of this business in 2009 Matthew moved to North Wales as a junior self-employed consultant for Fairley Arboriculture and studied at Myerscough online to study an FDSc in Arboriculture and become a technician member of the Arboricultural Association.*

*ROAVR Environmental was formed in 2010 and since then has carried out arboricultural consultancy Nationwide with directly employed consultants. Matthew has written well in excess of 600 BS 5837 2012 tree reports.*



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  2. [Site Conditions & Site Surroundings](#)
  3. [Drawings](#)
  4. [The Tree Population](#)  
[Preliminary Management Recommendations.](#)  
[Future Management Recommendations.](#)
  5. [Trees & Construction - General Issues](#)
  6. [Tree Constraints - Information](#)
  7. [Structures within the RPA of trees - Information](#)
  8. [Arboricultural Impact Assessment - Site Specific](#)  
[Appendix: BS 5837: 2012 – Guidance Notes](#)  
[Stage 1: Survey Details and Notes](#)  
[Appendix: Survey Methodology](#)
  9. [Limitations](#)
- [Appendix 1 – Site Location](#)
- [Appendix 2 – Arboricultural Data Tables](#)



## Arboricultural implications assessment to BS 5837 2012 of trees at: Ty Nos, Holt Road, Wrexham.

### 1 Scope

- 1.1 We have recently been instructed to undertake an appraisal of mature tree cover at the Holt Road site.
- 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 20/1/2021 following the guidance in the British Standard by Connor Harmsworth. 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 two tree groups, no woodland blocks and nine individual trees. 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 one of the self-set clumps within G1 located offsite.*



*Photographic plate showing one of the self-set clumps within G1 located offsite.*



*Photographic plate showing one of the poor quality offsite clumps  
Growing through the boundary fence line.*



*Photographic plate showing the self-set ash and sycamore growing through the fence at the site entranceway.*





## 2. Site Conditions & Site Surroundings

- 2.1 The site is situated in Wrexham in the Wrexham County Borough Council control area. The site is located toward the centre of the town and has an inner city feel.
- 2.2 The site is home to a collection of detached buildings with associated hard and soft landscape.
- 2.3 The wider locality is predominantly residential. The site is accessed via a drive to the south of the built footprint.
- 2.4 A desktop assessment has highlighted that site is not within a Conservation Area nor are there any TPO protected trees on or adjacent to the plot.
- 2.5 All desktop assessment data was cross checked and validated on the 20/1/2021 using the web portal provided by the local planning authority and cross checked with the DEFRA MAGIC database.

<https://www.wrexham.gov.uk/sites/default/files/2020-09/wrexham-cons-area-map.pdf>

- 2.6 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.
- 2.7 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.
- 2.8 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.
- 2.9 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.
- 2.10 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 are a number of drawings.
- 3.2 The tree constraints plan has been produced using a client supplied topographical survey. 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.



## 4. The Tree Population

### 4.1 BS5837: 2012 Tree Categorisation:

BS5837: 2012 sets out the methodology for surveying trees on potential development sites in order to identify them within a prioritised system of retention categories, as summarised below and given in full within the BS5837: 2012 Cascade Chart for Tree Retention.

**A Category Trees** of high quality and value in such a condition as to be able to make a substantial contribution for a minimum of 40 years.

**B Category Trees** of moderate quality and value in such a condition as to make a significant contribution for a minimum of 20 years.

**C Category Trees** of low quality and value currently in adequate condition to remain until new planting could be established and expected to remain for a minimum of 10 years, or young trees with a stem diameter less than 150mm measured at 1.5 meters above ground level.

**U Category Trees** in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural or forestry management.

### 4.2 Additionally, BS5837: 2012 provides subcategories 1-3 within the category system outlined above which indicate the area(s) in which a tree or group retention value lies. An explanation of these values is given within the BS5837: 2012 Cascade Chart for Tree Retention.

1 - Retention values that are mainly arboricultural

2 - Retention values that are mainly landscape.

3 - Retention values that are mainly cultural, including conservation.

### 4.3 In line with BS5837: 2012, A and B category trees should be considered as a constraint on site and provide a substantial contribution to the site. As a result, A and B category trees should be retained and incorporated into the scheme where possible.

### 4.4 Generally C and U category trees are considered to be of low quality or are young specimens that can be readily replaced and therefore should not be a constraint in terms of future development.

### 4.5 However, it is generally considered desirable to retain trees wherever reasonably possible to ensure continuity of tree cover and to provide a mature landscape to the development.



- 4.6 The survey contains details of a number of trees. The comments including species, age, condition and the BS5837:2012 retention category for each individual tree and group of trees are provided in detail in the Tree Schedule (data tables). The full data collection methodology is appended behind the data tables.
- 4.7 The location of each individual tree and their associated constraints are illustrated on the appended Tree Constraints Plan.

### Preliminary Management Recommendations - Regardless of the proposals.

- 4.8 The majority of the surveyed trees are low quality self-set natural regeneration. They offer some useful screening but many are impacting the boundary fence lines with partially occluded stems. It is likely many will require removal due to condition within the next ten-years.

### Future Management Recommendations - Regardless of the proposals.

- 4.9 The trees should be inspected sooner if there is a noticeable decline in their condition, or following extreme weather events.



## 5. Trees & Construction - General Issues

- 5.1 This report has been prepared to inform the design layout of potential development and should be submitted with a planning application.
- 5.2 Due to the changing nature of trees and other site circumstances this report and recommendations are limited to a one year period. Similarly, this report could be invalidated if any alterations are made to the site that could change the conditions as seen at the time of inspection.
- 5.3 Under certain circumstances, roots can affect foundations, drains and other underground services. These issues have not been addressed by this report. Trees are dynamic structures that can never be guaranteed 100% safe; even those in good condition can suffer occasional damage under only average weather conditions. A lack of recommended work does not imply that a tree will never suffer damage.
- 5.4 Typically, about 80% of roots will be found in the upper 500mm of soil and often extending well beyond the canopy spread. The threat to the trees by development comes from:

- (a) root severance or fracture
- (b) compaction of the soil, preventing gaseous exchange and moisture percolation
- (c) possible change to moisture gradients due to surface water run-off or interception
- (d) physical damage to low branches and trunk.
- (e) damage from chemical run-off from construction activities

The consequences for the tree of such damage are:

- (i) instability, if severe enough
- (ii) entry points for pathogenic fungi at wounds / fractures
- (iii) loss of vitality due to reduced oxygen, mineral and moisture take-up; all leading to
- (iv) root death, and
- (iv) a general decline or possible death of the tree.

- 5.5 Within a short distance of the stem, the roots of trees are highly branched, so as to form a network of small-diameter woody roots, which can extend radially for a distance much greater than the height of the tree, except where impeded by unfavourable conditions.



- 5.6 All parts of this system bear a mass of fine, non-woody absorptive roots, typically concentrated within the uppermost 600mm of the soil. The root system tends to develop sufficient volume and area to provide physical stability.
- 5.7 The uptake of water and mineral nutrients by the root system takes place via the fine non-woody roots and associated beneficial fungi. Their survival and functioning, which are essential for the health of the tree as a whole, depend on the maintenance of favourable soil conditions. All parts of the root system, but especially the fine roots, are vulnerable to damage.
- 5.8 BS5837:2012 'Trees in relation to design, demolition and construction – Recommendations' gives information on determining a root protection area (RPA). This is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
- 5.9 The default position should be that structures (section 3.10 of BS5837) are located outside the RPAs of trees to be retained. However, If structures (including hard surfacing) are proposed within the root protection area of a retained tree it will require an overriding justification (5.3.1 of BS5837). The project arboriculturist needs to demonstrate that the trees can remain viable, the area lost to encroachment can be compensated for elsewhere contiguous with the RPA and mitigation measures to improve the soil environment of the tree can be implemented.



## 6. Tree Constraints - Information

- 6.1 Constraints imposed by trees during development, both above and below ground need to be considered within the site layout design. Protection is afforded to the tree by defining a Root Protection Area (RPA) within which no development activity should take place. The size of the RPA is defined in the British Standard and relates to trunk diameter. The RPA is normally the minimum position for placement of tree protective fencing. The data tables hold a column figure as an offset in meters from the stem that the root protection area extends to.
- 6.2 Nominally the RPA is represented by a circle around the tree. The area of the RPA may however, subject to the consideration of the arboricultural consultant, and be altered to a polygon in order to reflect the site conditions and requirements. For example, existing hard surfaces and foundations are likely to restrict or limit root growth while good quality soil may promote and extend root growth.
- 6.3 Root Protection Areas primarily relate to below ground constraints (root protection). Other constraints that must be considered include:
- The current as well as ultimate height and spread of a tree
  - Large trees close to a building, particularly a dwelling, can cause apprehension to owners/occupiers that result in pressure for tree removal or inappropriate pruning. Buildings should be sited allowing for the species height, spread and overall habit
  - Species characteristics; i.e. density of foliage, fruit-fall, susceptibility to honeydew drip, or branch drop. Trees are shedding organisms. The leaves of some species may cause problems with blocking of gullies and gutters. Fruit may cause slippery patches and honeydew drop can affect surfaces (particularly cars).  
If conflicts may arise, detailed design may address such issues, such as non-slip paths, use of car-ports, provision of leaf guards or grilles etc.
  - The potential impact on direct and diffuse light of a particular location of land; shading of buildings by trees can be a problem, especially where rooms require natural light, in addition open spaces such as gardens and sitting areas should be designed to meet requirements for direct sunlight (for at least part of the day)
  - Infrastructure requirements in relation to trees e.g. easements for underground or above ground apparatus and visibility splays
  - Space for the provision of new planting or landscaping
  - The proposed end use of space within Root Protection Areas
  - The requirement to protect overhanging canopies of trees that overhang or extend beyond Root Protection Areas



## 7. Structures within the RPA of trees - Information

- 7.1 In the development layout design structures should be positioned outside of RPAs as far as practicable(5.9). In some exceptional instances there may be an overriding justification for construction within the RPA. In such cases technical solutions may be available to minimise to an acceptable level of disturbance to the tree or trees. Where such technical solutions may be relied upon full details will need to be included within a method statement. Advice must be sought from a suitably qualified arboriculturalist to develop a solution.
- 7.2 In some cases it may be unavoidable to place permanent hard surfacing within an RPA (for example the placement of an access driveway or parking area). In such cases the following should apply:
- No excavation of the soil should take place, other than scraping of the turf/vegetation layer
  - Any design must avoid compaction, allowing an even distribution of weight
  - New hard surfacing should not exceed 20% of any existing unsurfaced ground within the RPA If the proposed surface is likely to require de-icing salt then run-off should be directed away from the RPA
  - Permeable hard surfacing can result in soil moisture saturation for long periods (resulting in root death). Where there is a risk of water-logging a design should incorporate land drainage
- 7.3 Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement systems (cell-web). Piles, pads or elevated beams can support bridges over RPAs. In all cases full specifications and methodology must be included within a supporting method statement.



## 8. Arboricultural Impact Assessment - Site Specific

### 8.1 Overview

8.1.1. Provided to us for comment are plans titled - C1039.100B\_Proposed Site Plan.PDF.

8.1.2. The plans show the demolition of the existing footprint and the erection of a number of self-contained apartments with associated hard and soft landscape.

8.1.3. The extent of the proposals will require the removal of the majority of the existing tree cover. Indeed most would not be suitable for retention close to residential development. Off site tree cover can remain in place. The RPA's of a number of trees have been trimmed to the existing boundary wall line.

8.1.4. Existing vehicular access from the south shall be kept.

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

#### Trees Potentially Affected:

Retention Category A: None

Retention Category B: Six

Retention Category C: One

Retention Category U: Four

#### Tree Pruning:

No pruning is required to facilitate the proposals.

#### RPA:

RPA: Ground level changes are proposed within the RPA of a number of trees.

RPA: Soil Compaction Trees adjacent the construction area (preventable by installing tree protection measures).

8.1.6. Other potentially damaging activities often associated with construction sites include, demolition or the careless use of plant machinery, hazardous materials, or fires.



8.1.7. All of the above potential impacts are considered in detail throughout this section. Section 9 specifies the measures proposed to minimise all possible potential risks of damage to the retained trees.

## 8.2. Tree Removal.

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

Retention Category A: Our survey did not identify any Retention Category A trees.

Retention Category B: It is proposed to remove T6, T7 and T8.

Retention Category C: It is proposed to remove T9.

Retention Category U: It is proposed to remove T10 and G11.

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

## 8.3. Mitigation Planting.

8.3.1. The trees to be removed are of such low amenity value that no mitigation planting is considered necessary. However, there is ample scope to plant one or two more trees within the site to mitigate against tree loss.

## 8.4. Impact on Tree Canopies.

8.4.1. The western stems of G1 sit close to the proposed footprint and may require some pruning works.

## 8.5. Impact on Tree Roots.

8.5.1. All affected trees are to be removed.

## 8.6. New Surfaces.

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

## 8.7. Underground Services.

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



## 8.8 Changes in Ground Levels.

8.8.1 All affected trees are to be removed.

## 8.9 Soil Compaction.

8.9.1 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.

8.9.2. 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.

8.9.3 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.

## 8.10 Demolition Activities.

8.10.1 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.

## 8.11. Hazardous Materials.

8.11.1 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.



### 8.12. Cabins and Site Facilities.

8.12.1. 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.

### 8.13. Boundary Treatments.

8.13.1. No details have been provided to us at present on the boundary treatment. It may be that the northern stem of G1 requires removal as it is growing through the existing site boundary fence line.

### 8.14. Impact of Retained Trees on the Development.

8.14.1. 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.

### 8.15. Summary.

8.15.1. In order to facilitate the development, it is proposed to remove a number of low quality self-set trees. The project provides an opportunity to enhance the locality with some new planting and this should be welcomed.



## 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 climbed 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 on 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 climbed 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.



## 9. Limitations

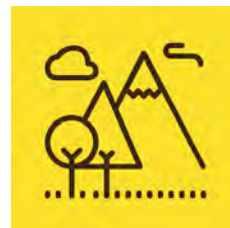
- 9.1 ROAVR Environmental has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
- 9.2 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.
- 9.3 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. M Harmsworth tech.arbor.a, DipRS  
Consultant Arborist

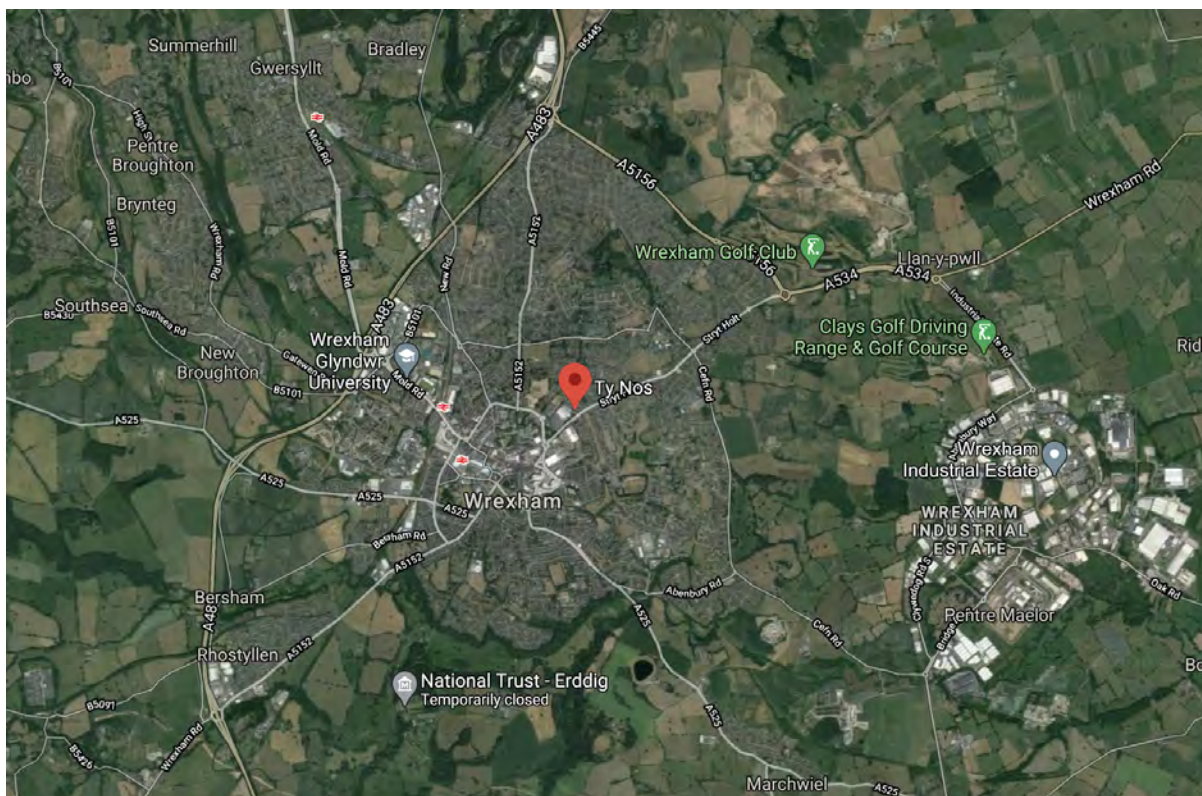
# Matt Harmsworth

Prepared by: Matthew Harmsworth.  
Checked by: Ffion Maguire.





## Appendix 1 – Site Location







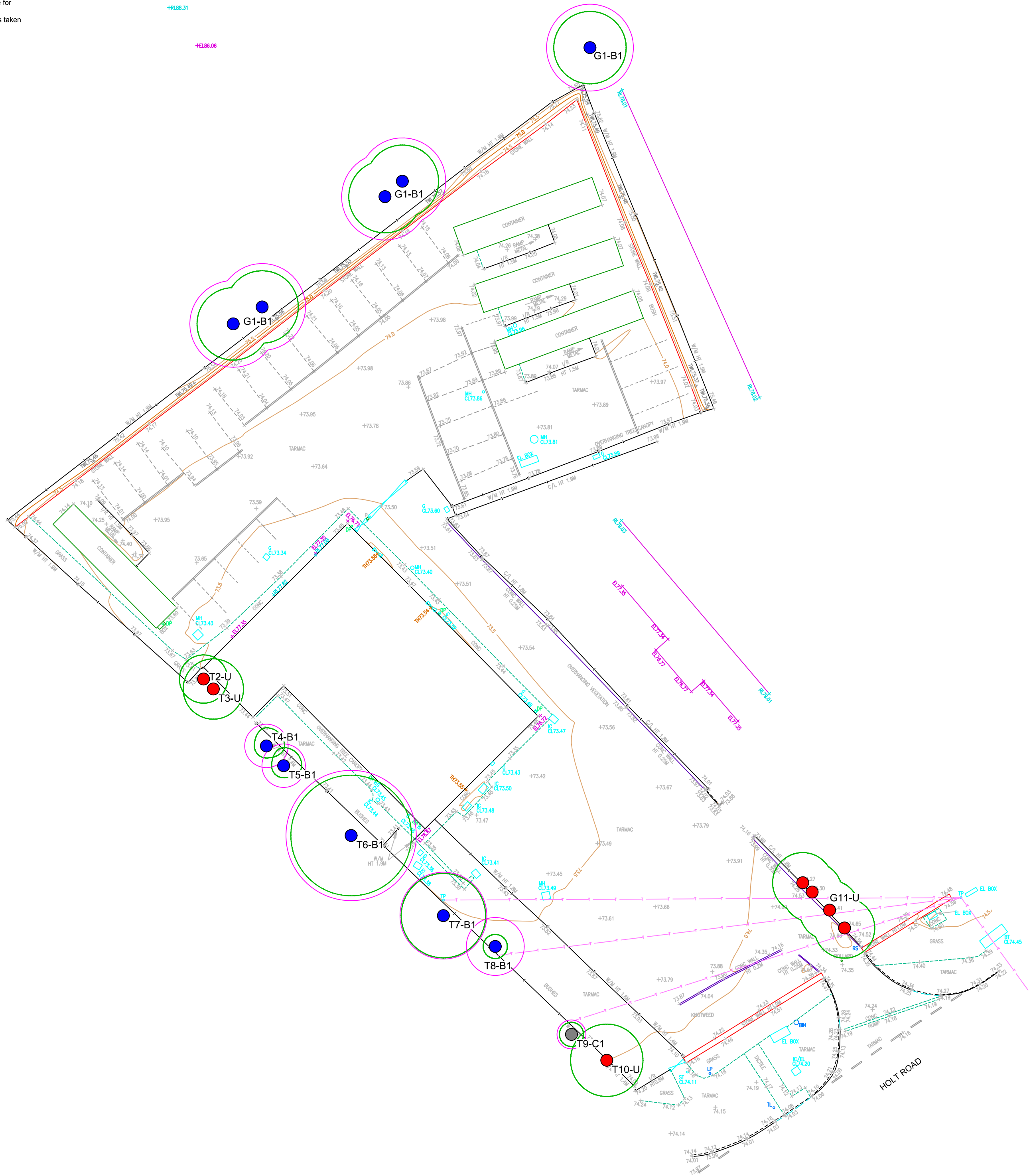
## Appendix 2 – Arboricultural Data Tables

| Tree Number | Species                                                                | Age Class | DBH     | Height (crown height) | N        | E   | S   | W   | Condition | Life Expectancy | Physical Description                                                                                                                                                                                      | Comments                                                                                                          | Managment Recommendations | RPA offset from stem. | Category Rating |
|-------------|------------------------------------------------------------------------|-----------|---------|-----------------------|----------|-----|-----|-----|-----------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------|-----------------|
| G1          | <i>Acer pseudoplatanus</i> (Sycamore), <i>Fraxinus excelsior</i> (Ash) | EM-SM     | 300 max | 8 max                 | As drawn |     |     |     | Fair-Good | 20+             | Tree located within raised bed. Part of linear group. Stem divides at ground level. Stem divides below 1.5m.                                                                                              | Offsite group of several multi-stemmed individuals on banking above site; constrained RPA; dbh estimated          | No works required         | 3.6                   | B3              |
| T2          | <i>Acer pseudoplatanus</i> (Sycamore)                                  | EM        | 200     | 8(1)                  | 2        | 2   | 2   | 2   | Fair      | 20+             | Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Branches encroaching upon building.                                                                              | Poor quality multi-stemmed self-set on boundary fence line; limited long term prospects due to location and form. | Consider Removal          | 2.4                   | U               |
| T3          | <i>Acer pseudoplatanus</i> (Sycamore)                                  | EM        | 250     | 7(1)                  | 2.5      | 2.5 | 2.5 | 2.5 | Fair      | 20+             | Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Branches encroaching upon building.                                                                              | Poor quality multi-stemmed self-set on boundary fence line; limited long term prospects due to location and form. | Consider Removal          | 3                     | U               |
| T4          | <i>Fraxinus excelsior</i> (Ash)                                        | EM        | 150     | 7(3)                  | 1.5      | 1.5 | 1   | 1   | Fair      | 20+             | Tree located within hard surface area. Leaning North-East. Branches encroaching upon building.                                                                                                            | Located offsite; self-set.                                                                                        | No works required         | 1.8                   | B1              |
| T5          | <i>Fraxinus excelsior</i> (Ash)                                        | EM        | 150     | 7(2)                  | 1.5      | 1.5 | 1   | 1   | Fair      | 20+             | Tree located within hard surface area. Tree located within raised bed. Leaning North-East. Mechanical Damage. Branches encroaching upon building.                                                         | Located offsite; self-set.                                                                                        | No works required         | 1.8                   | B1              |
| T6          | <i>Acer pseudoplatanus</i> (Sycamore)                                  | M         | 450     | 11(3)                 | 5        | 5   | 5   | 5   | Fair      | 20+             | Tree located within hard surface area. Unable to inspect stem due to undergrowth. Mechanical Damage. Low branches over road/footpath. Branches encroaching upon building.                                 | Located offsite; self-set.                                                                                        | No works required         | 5.4                   | B1              |
| T7          | <i>Fraxinus excelsior</i> (Ash)                                        | M         | 300     | 11(3)                 | 3.5      | 3.5 | 3.5 | 3.5 | Fair      | 20+             | Tree located within hard surface area. Tree located within raised bed. Unable to inspect stem due to undergrowth. Low branches over road/footpath.                                                        | Located offsite; self-set.                                                                                        | No works required         | 3.6                   | B1              |
| T8          | <i>Fraxinus excelsior</i> (Ash)                                        | M         | 200     | 10(3)                 | 1        | 1   | 1   | 1   | Fair      | 20+             | Tree located within hard surface area. Tree located within raised bed.                                                                                                                                    | Located offsite; self-set.                                                                                        | No works required         | 2.4                   | B1              |
| T9          | <i>Crataegus monogyna</i> (Hawthorn)                                   | EM        | 100     | 7(1)                  | 1        | 1   | 1   | 1   | Fair      | 10+             | Poor shape & form. Declining. Tree located within hard surface area. Tree located within raised bed. Unable to inspect stem due to undergrowth. Mechanical Damage.                                        | Located offsite; self-set.                                                                                        | No works required         | 1.2                   | C1              |
| T10         | <i>Acer pseudoplatanus</i> (Sycamore)                                  | M         | 300     | 8(1)                  | 3        | 3   | 3   | 3   | Poor      | <10             | Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Mechanical Damage. Low branches over road/footpath.                                                              | Partially occluded through fence at entrance to the site.                                                         | Requires removal          | 3.6                   | U               |
| G11         | <i>Acer pseudoplatanus</i> (Sycamore)                                  | SM-M      | 310 max | 7 max                 | As drawn |     |     |     | Poor      | <10             | Poor shape & form. Declining. Tree located within hard surface area. Part of linear group. Major bark wounding on stem. Stem divides at ground level. Mechanical Damage. Low branches over road/footpath. | Partially occluded through fence at entrance to the site.                                                         | Requires removal          | 3.72                  | U               |

## Arboricultural Data Tables Terms

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tree Number                            | Reference number (T1, T2 etc for trees / G1, G2 etc for tree groups / H1, H2 etc for hedgerows)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Species                                | Common name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Height                                 | Height of tree to the nearest metre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| DBH                                    | Diameter of stem (mm) at breast height (1.5 metres above ground)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| RPA radius (m)                         | The radial measurement of the Root Protection Area in metres indicating the minimum distance from the centre of the trees stem to the recommended position of the protective (Heras) fencing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| RPA (m2)                               | The Root Protection Area, measured in square metres. This measurement is directly proportional to and calculated from the trees DBH measurement as specified in section 4.6 of BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Crown Spread                           | The maximum spread of the trees canopy measured from the stem in four directions (North, East, South, West)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Age class                              | <p>The estimated age class of the tree (relative to species)</p> <ul style="list-style-type: none"> <li>o Y - Young</li> <li>o SM - Semi-mature</li> <li>o EM - Early-mature</li> <li>o M - Mature</li> <li>o LM - Late-mature</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Preliminary management recommendations | Recommendations (made with respect to the development proposals if available) for removal, retention and/or remedial arboricultural works.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Estimated remaining years              | Estimated safe, usable life expectancy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Category grade                         | <p>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 &amp; C being assigned one of three separate sub categories (1, 2 or 3):</p> <p>A – Trees of high quality with an estimated remaining life expectancy of at least 40 years.<br/> B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.<br/> 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</p> <p>Subcategories: 1: Mainly arboricultural &amp; aesthetic qualities<br/> 2: Mainly landscape qualities<br/> 3: Mainly cultural values, including conservation</p> <p>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</p> |

**General Notes**  
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.  
Depictions of tree canopies are based on measurements taken to four cardinal compass points.  
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.  
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**Tree Constraints Plan**  
showing existing layout with  
tree categories and root  
protection zones.

**Key**

-  **Category A**  
Trees of high quality with an estimated remaining life expectancy of at least 40 years
-  **Category B**  
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
-  **Category C**  
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
-  **Category U**  
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
-  **BS 5837:2012 Root Protection Area**  
Note: The RPA limits for some groups may be represented by a dashed/hatched category coloured line.
-  **Tree**  
Showing Canopy extents, category colour, tag number (with category) and optional indication arrow showing bearing of first significant branch.

Tree/Group/Hedge numbering: 1-11.



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Client  
RML Consulting

Project  
Holt Road, Wrexham.

Drawing Title  
Tree Constraints Plan

Scale  
1:250@A2

Date  
Jan 2021

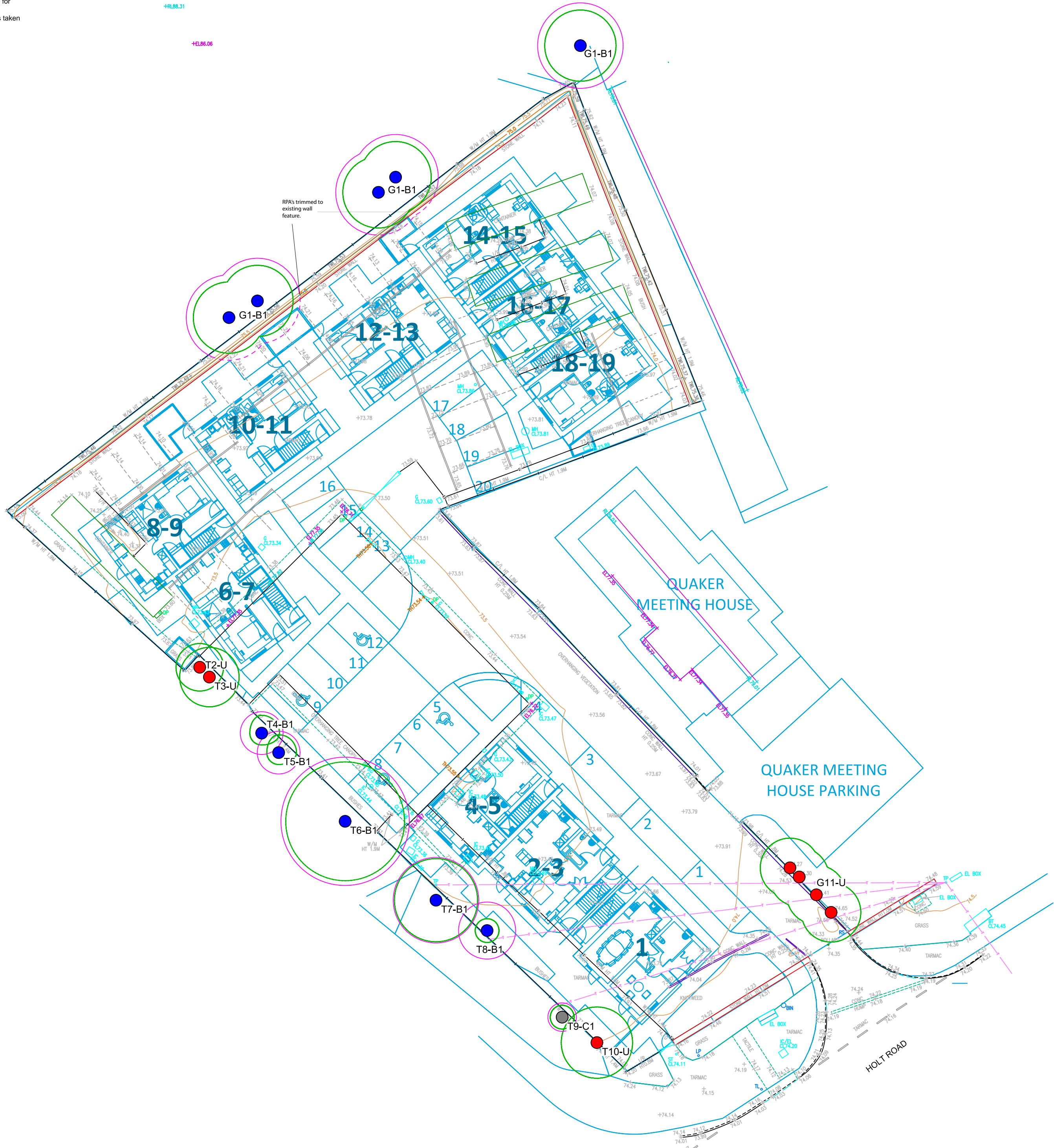
DB  
CS

CB  
MH

Drawing Number  
21\_5837\_01\_25

Rev  
1

**General Notes**  
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.  
Depictions of tree canopies are based on measurements taken to four cardinal compass points.  
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.  
The original of this drawing was produced in colour – a monochrome copy should not be relied upon.  
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**Tree Assessment Plan**  
showing proposed layout  
with tree categories and  
root protection zones.

**Key**

- Category A**  
Trees of high quality with an estimated remaining life expectancy of at least 40 years
- Category B**  
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
- Category C**  
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
- Category U**  
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
- BS 5837:2012 Root Protection Area**  
Note: The RPA limits for some groups may be represented by a dashed/hatched category coloured line.
- Tree**  
Showing Canopy extents, category colour, tag number (with category) and optional indication arrow showing bearing of first significant branch.

Tree/Group/Hedge numbering: 1-11.



**ROAVR Environmental**  
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Client  
RML Consulting

Project  
Holt Road, Wrexham.

Drawing Title  
Tree Assessment Plan

Scale  
1:250@A2

Date  
Jan 2021

DB  
CS

CB  
MH

Drawing Number  
21\_5837\_01\_25

Rev  
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## APPENDIX G: COFNOD DATA – PUBLIC VERSION



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# cofnod

Gwasanaeth Gwybodaeth Amgylcheddol Gogledd Cymru  
North Wales Environmental Information Service

## Cofnod Environmental Informaon Sear ch - E08662 (Public Version)

### Search Details

**Our Reference:** E08662

**Your Reference:** Ty Nos 3154

**Requested By:** Richards, Moorehead and Laing Ltd

**Data Users:** Donna Hall, Ecologist, Richards Moorehead and Laing Ltd Stuart Hughes, Project Manager, ClwydAlyn Simon Venables, Architect, Ainsley Gommon Architects

**Search Date:** 19/01/2021

**Expiry Date:** null

**Search Type:** Chargeable

**Search Location:** Ty Nos Holt Road, Wrexham (SJ34105079)

### Species results have been filtered:

- **Year:** Records seen between **2010** and **2020**
- **Distance:** Between **0m** and **1100m** from the search location

### Important Issues

- Use of the data is governed by Cofnod's Terms & Conditions, available from <http://www.cofnod.org.uk/GetTermsAndConditions.aspx>.
- Unless otherwise agreed, you **must not share the data or the method for accessing it**, e.g. an eMapper link, with anyone other than specified *Data Users*.
- Data marked as confidential or sensitive must not be released into the public domain, with the exception of the Public Version of the PDF report, which has had sensitive information removed or restricted.
- You should not amend any part of the downloaded records.
- Unless otherwise agreed, use of the data is valid until the *Expiry Date*.
- The data was generated on the *Search Date* and is not live.
- The *Dataset ID* associated with each record can be used to find information about the provenance of the data.

- Verification Levels are given for each record. For further information see our Data Quality Policy.
- Please contact us at <mailto:contactus@cofnod.org.uk> if you have any questions about using the data or wish to add further Data Users.

## Notes

- Records with 4 figure grid references are displayed as 1km squares on any relevant maps. They are highlighted with (1km) next to the distance.
- Records displayed in bold are sensitive species records, and must not be released into the public domain. A public version of this report is also available and this can be released into the public domain. In the public version the resolution of sensitive species grid references are reduced and site names and comments are removed.
- **Distances:** The distance from each record to the grid reference will be shown in the 'Distance (m)' column (except in public versions of reports as referred to above). Distances are highlighted in red where records fall within 50m of the grid reference. Distances are measured from the edge of the search location to the centre point of a record's grid square.
- **Sites:** As well as designated and non-statutory Wildlife Sites/SINCs, NWWT and RSPB reserves are shown. Wildlife Sites/SINCs which remain unconfirmed by the relevant Local Authority are given 'Candidate' status and are displayed with a (C) suffix. The following reasons for candidate status apply: 1. Anglesey and Flintshire Wildlife Sites were identified by survey but have not been formally confirmed. 2. Conwy and Gwynedd Wildlife Sites were identified by survey and air photos and remain candidate until evaluated using selection criteria.
- **Habitats:** Habitats shown are from the Habitat Survey of Wales (1979 to 1997) using the Phase 1 survey methodology. The habitat at the search location is shown in red. Habitats are ordered in descending size order, with the area and percentage cover of each habitat within the search radius shown in brackets.

## Data Description

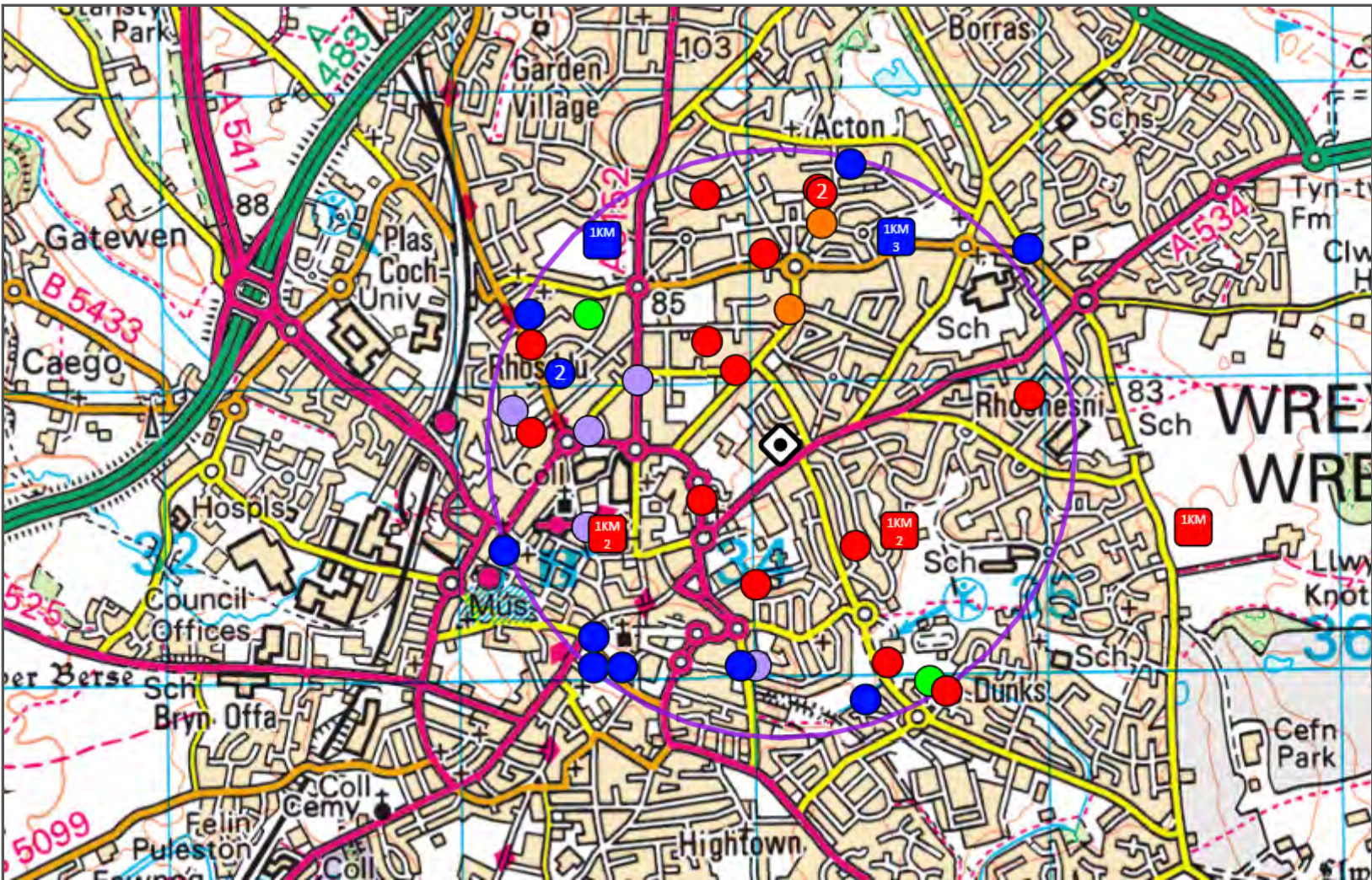
|                       |                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Distance</b>       | Indicates the distance, in metres, between the GRID REFERENCE of the record (using the central point of the grid square) and the search location. For any Sensitive Species Records, this cannot be released into the Public Domain.                      |
| <b>Species Name</b>   | Name of the taxon (usually identified to species level) using the binomial system.                                                                                                                                                                        |
| <b>Grid Reference</b> | Full grid reference based on the Ordnance Survey grid system. For any Sensitive Species Records, this cannot be released into the Public Domain.                                                                                                          |
| <b>Date</b>           | Date on which the record was made. In some cases this might be a date range, or a vague date such as 'Summer 2010'.                                                                                                                                       |
| <b>Recorder(s)</b>    | One or more people who made the original observation and recorded it in some way. It may have subsequently been included in a data collection by another person or it may have been submitted to Cofnod directly.                                         |
| <b>Abundance</b>      | Number of individuals recorded. Where not specified it is assumed that at least one was present.                                                                                                                                                          |
| <b>Record Type</b>    | The recording methods used (only where specified).                                                                                                                                                                                                        |
| <b>Site Name</b>      | The site name (if one has been supplied). For any Sensitive Species Records, this cannot be released into the Public Domain.                                                                                                                              |
| <b>Comments</b>       | Any additional notes about the sighting, including any information on habitat or substrate if this is available. For any Sensitive Species Records, this cannot be released into the Public Domain.                                                       |
| <b>Dataset ID</b>     | ID of this dataset. See 'Important Issues' for more details.                                                                                                                                                                                              |
| <b>Lists</b>          | Any local, national or international conservation statuses or legal protection which apply to this species and whether it is included in any Local Biodiversity Action Plans. See 'Abbreviations' for more details.                                       |
| <b>V</b>              | Summarised record Verification Level. The following codes are used: 1 - Unassessed, 2 - Unconfirmed, 3 - Considered Correct by Cofnod, 4 - Considered Correct by Expert. See our Data Quality policy, available from the Cofnod website for more details. |

## Contact Us

**Cofnod - Gwasanaeth Gwybodaeth Amgylcheddol Gogledd Cymru/North Wales Environmental Information Service**

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**Key**

-  Search Location
-  Search Buffer (1000m)

-  Birds
-  Butterflies and Moths
-  Mammals
-  Other Invertebrates
-  Plants

# Species Records

| Species Name                                      | Grid Reference | Site Name          | Date                                          |                                          | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                         | Dataset ID                                     | V |
|---------------------------------------------------|----------------|--------------------|-----------------------------------------------|------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---|
| Long-tailed Tit<br>( <i>Aegithalos caudatus</i> ) | SJ3350         | Wrexham, centre    | 5 records, between 03/01/2007 and 07/02/2016  | 3; 15; 5; 10                             |           | Acvity: H. Survey: Observer data; Survey: Observer data; Birdtrack; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                        | D0062/008/01;<br>D1297/025/01                  | 3 |
| Long-tailed Tit<br>( <i>Aegithalos caudatus</i> ) | SJ3451         |                    | 29 records, between 11/06/2008 and 14/06/2018 | 2; 20; 1; 3+; 8; 10; 13; 3; 12; 15; 7; 4 |           | Occurrence ID: NBN-GA000656-BGBW2009-16445886-106734503; Winter Roving<br>Record. Survey: Observer data; Survey: Observer data; Acvity: H. Survey: Observer data; Birdtrack; Birdtrack;; Birdtrack..<br>Acvity: B; Birdtrack:. Acvity: FL; Birdtrack.<br>Huddled on weeping cherry in o/g; probably more - hard t...<br>Record Type: <i>Reported to recorder</i> | D1852/002/01;<br>D0062/008/01;<br>D1297/025/01 | 4 |
| S Skylark<br>( <i>Alauda arvensis</i> )           | SJ3451         | Wrexham, NE        | 01/12/2010                                    | 1                                        |           | Birdtrack:. Acvity: F                                                                                                                                                                                                                                                                                                                                            | D1297/025/01                                   | 4 |
| Mallard<br>( <i>Anas platyrhynchos</i> )          | SJ3350         | Wrexham, centre    | 2 records, between 03/01/2007 and 16/06/2017  | 1                                        |           | Birdtrack; BirdTrack                                                                                                                                                                                                                                                                                                                                             | D1297/025/01                                   | 4 |
| Mallard<br>( <i>Anas platyrhynchos</i> )          | SJ3451         | Wrexham, NE        | 6 records, between 03/11/2008 and 20/04/2016  | 4; 40; 35; 5; 10                         |           | Survey: Observer data; Acvity: H. Survey: Observer data; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                   | D0062/008/01;<br>D1297/025/01                  | 3 |
| M Meadow Pipit<br>( <i>Anthus pratensis</i> )     | SJ3451         | Wrexham, NE        | 17/04/2017                                    | 1                                        |           | BirdTrack                                                                                                                                                                                                                                                                                                                                                        | D1297/025/01                                   | 4 |
| Swift<br>( <i>Apus apus</i> )                     | SJ3450         | Wrexham, centre, E | 4 records, between 11/07/2008 and 30/04/2010  | 1; 3; 2; 5                               |           | Survey: Observer data; Acvity: H. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                              | D0062/008/01                                   | 3 |
| Swift<br>( <i>Apus apus</i> )                     | SJ3350         | Wrexham, centre    | 6 records, between 27/04/2004 and 16/06/2017  | 1; 8; 4                                  |           | Survey: Observer data; Acvity: H. Survey: Observer data; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                   | D0062/008/01;<br>D1297/025/01                  | 3 |
| Swift<br>( <i>Apus apus</i> )                     | SJ339500       | LI13 8eb           | 2 records, both in 2010                       | 8; 1                                     |           | Esma ted number of screaming swifts. Possible breeding. Building type: House; Building type: House<br>Record Type: <i>Nest</i>                                                                                                                                                                                                                                   | D1734/001/02;<br>D1735/001/02                  | 3 |
| Swift<br>( <i>Apus apus</i> )                     | SJ333510       | Rhosddu            | 2011                                          | 6                                        |           | Esma ted number of screaming swifts. Possible breeding                                                                                                                                                                                                                                                                                                           | D1734/001/02                                   | 3 |

| Species Name                                  | Grid Reference | Site Name     | Date                                                  | Abundance                     | Comments                                                                                                                                                                                                                                                                                                                                               | Dataset ID                                     | V |
|-----------------------------------------------|----------------|---------------|-------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---|
| Swift<br>( <i>Apus apus</i> )                 | SJ3451         | Wrexham, NE   | 13 records,<br>between 2007<br>and 07/05/2018         | 1; 10; 2; 4; 15; 30; 50; 5; 3 | last of year in Clwyd?. Survey: Observer data; Esma ted number of screaming swifts. Possible breeding; Acvity: H. Survey: Observer data; Birdtrack; Birdtrack. Acv ty: M; Birdtrack:. Acv ty: F; Birdtrack. S movement with large black buzzard over the garden (kite like); Birdtrack. Last of year?; ...<br>Record Type: <i>Reported to recorder</i> | D0062/008/01;<br>D1734/001/02;<br>D1297/025/01 | 3 |
| Swift<br>( <i>Apus apus</i> )                 | SJ3351         | Wrexham, N    | 4 records,<br>between<br>02/09/2004 and<br>26/08/2012 | 1; 12; 3; 2                   | Survey: Observer data; Esma ted number of screaming swifts. Possible breeding; Acvity: H. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                            | D0062/008/01;<br>D1734/001/02                  | 3 |
| Swift<br>( <i>Apus apus</i> )                 | SJ332512       | Park Street   | 2011                                                  | 6                             | Esma ted number of screaming swifts. Possible breeding                                                                                                                                                                                                                                                                                                 | D1734/001/02                                   | 3 |
| Swift<br>( <i>Apus apus</i> )                 | SJ343517       |               | 13/06/2012                                            | 2                             | Esma ted number of screaming swifts. Possible breeding                                                                                                                                                                                                                                                                                                 | D1734/001/02                                   | 3 |
| Swift<br>( <i>Apus apus</i> )                 | SJ349514       |               | 11/07/2012                                            | 4                             | Esma ted number of screaming swifts. Possible breeding                                                                                                                                                                                                                                                                                                 | D1734/001/02                                   | 3 |
| Water Vole<br>( <i>Arvicola amphibius</i> )   | SJ346499       | River Gwenfro | 27/03/2015                                            | 1 Adult                       | Just behind sports centre. River bank has several holes in it which are approx. 3 inches in diameter.<br>kev.rimmer@bn ternet.com                                                                                                                                                                                                                      | D1117/001/01                                   | 1 |
| Canada Goose<br>( <i>Branta canadensis</i> )  | SJ3451         | Wrexham, NE   | 5 records,<br>between<br>03/11/2008 and<br>17/04/2017 | 2; 12; 8; 15; 5               | BirdTrack; Acvity: H. Survey: Observer data; Winter Roving Record. Survey: Observer data; Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                            | D1297/025/01;<br>D0062/008/01                  | 4 |
| Dipper<br>( <i>Cinclus cinclus</i> )          | SJ334501       | Wrexham       | 05/11/2018                                            | 2                             | Town centre watercourse below st giles church                                                                                                                                                                                                                                                                                                          | D1117/001/01                                   | 4 |
| Dipper<br>( <i>Cinclus cinclus</i> )          | SJ335500       | Wrexham       | 19/06/2018                                            | 1 Juvenile                    | Town centre watercourse below st giles church                                                                                                                                                                                                                                                                                                          | D1117/001/01                                   | 4 |
| Dipper<br>( <i>Cinclus cinclus</i> )          | SJ334500       | Wrexham       | 26/05/2017                                            | 1                             | Watercourse below cathedral shown on OS                                                                                                                                                                                                                                                                                                                | D1117/001/01                                   | 4 |
| Mute Swan<br>( <i>Cygnus olor</i> )           | SJ3451         | Wrexham, NE   | 4 records,<br>between<br>14/11/2008 and<br>23/01/2010 | 2; 3; 1; 8                    | Survey: Observer data; Winter Roving Record. Survey: Observer data; Birdtrack. Acv ty: F; Birdtrack:. Acv ty: F<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                            | D0062/008/01;<br>D1297/025/01                  | 3 |
| Reed Bunng<br>( <i>Emberiza schoeniclus</i> ) | SJ3451         | Wrexham, NE   | 06/03/2010                                            | 1                             | Birdtrack:                                                                                                                                                                                                                                                                                                                                             | D1297/025/01                                   | 4 |

| Species Name                               | Grid Reference | Site Name                                  | Date       |            | Abundance | Comments                                                                                                                                                                                                                                     | Dataset ID   | V |
|--------------------------------------------|----------------|--------------------------------------------|------------|------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---|
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ339510       | Penymaes Ave                               | 04/07/2016 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/004/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ33825061     | Near Wrexham<br>Police Staon               | 08/07/2012 | 1          |           | Time of sighng: 11pm; Habit at: Roadside<br>Record Type: <i>Live Sighng</i>                                                                                                                                                                  | D1383/001/01 | 4 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ343504       | Fford Montgomery                           | 05/05/2018 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/004/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ338511       | Westminster Drive<br>Wrexham               | 31/05/2020 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/005/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ34005032     | Wrexham Foyer<br>complex,Crescent<br>road  | 10/07/2017 | 1 Juvenile |           | Out wandering all day. 274g male. Brought<br>to Hedgehog Help Prestatyn. Rehydrated.<br>Stool sample shows Capillaria and Fluke. On<br>treatment and anbiocs.; Time of sigh ng:<br>10.00; Habitat: Garden<br>Record Type: <i>Live Sighng</i> | D1383/001/01 | 4 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ340514       | The Beeches,<br>Acton, Wrexham,<br>LL127BN | 22/10/2019 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/005/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ344500       | Queensway,<br>Wrexham                      | 04/03/2019 | 1 Adult    |           | Time of sighng: 8.30am; Habit at: Roadside<br>Record Type: <i>Dead on road</i>                                                                                                                                                               | D1383/001/01 | 4 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ332508       | Back Garden<br>Vernon Street,<br>Wrexham   | 28/05/2020 |            |           | Back garden<br>Record Type: <i>Live Sighng</i>                                                                                                                                                                                               | D1688/005/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ349509       | Holly Grove                                | 23/10/2016 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/004/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ342516       |                                            | 03/06/2020 |            |           | My back garden<br>Record Type: <i>Live Sighng</i>                                                                                                                                                                                            | D1688/005/01 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ34235166     | 16 Ffordd Gwilym.<br>Wrexham. LL12<br>7NT  | 10/05/2020 | 1 Adult    |           | 640g male found stuck down a drain.<br>Brought to HHP. Back legs damaged and<br>infected. Emaciated. Obviously been there a<br>long me. Died.; Time of sigh ng: 14.00;<br>Habitat: Garden<br>Record Type: <i>Live Sighng</i>                 | D1383/001/01 | 1 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ338516       |                                            | 2013       | 1          |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1574/001/03 | 3 |
| Hedgehog<br>( <i>Erinaceus europaeus</i> ) | SJ332511       | Rhosddu Rd                                 | 25/07/2019 |            |           | Record Type: <i>Live Sighng</i>                                                                                                                                                                                                              | D1688/004/01 | 3 |

| Species Name                                       | Grid Reference | Site Name                   | Date                                                   |                                                                                                                                                                         | Abundance | Comments                                                                                                                   | Dataset ID                                     | V |
|----------------------------------------------------|----------------|-----------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---|
| Peregrine<br>( <i>Falco peregrinus</i> )           | SJ35           | –Details Withheld–          | 2 records,<br>between<br>02/04/2005 and<br>01/06/2010  | 1                                                                                                                                                                       |           | –Details Withheld–                                                                                                         | D0062/008/01                                   | 3 |
| Peregrine<br>( <i>Falco peregrinus</i> )           | SJ35           | –Details Withheld–          | 24 records,<br>between<br>06/07/2004 and<br>14/03/2019 | 1; 2                                                                                                                                                                    |           | –Details Withheld–                                                                                                         | D0062/008/01;<br>D1297/026/01;<br>D1297/025/01 | 3 |
| Peregrine<br>( <i>Falco peregrinus</i> )           | SJ35           | –Details Withheld–          | 13 records,<br>between<br>17/05/2006 and<br>21/03/2016 | 2; 1; 3                                                                                                                                                                 |           | –Details Withheld–                                                                                                         | D0062/008/01;<br>D1297/025/01                  | 3 |
| Peregrine<br>( <i>Falco peregrinus</i> )           | SJ35           | –Details Withheld–          | 11 records,<br>between 1995<br>and 2012                | 4 eggs, 3 hatched, 3 fledged; 4 eggs, 2 hatched, 2 fledged; 5 eggs, 3 hatched, 3 fledged; 4 eggs, 1 hatched, 1 fledged; 2 eggs, 0 hatched; 4 eggs, 4 hatched, 4 fledged |           | –Details Withheld–                                                                                                         | D0036/001/04                                   | 3 |
| Peregrine<br>( <i>Falco peregrinus</i> )           | SJ35           | –Details Withheld–          | 02/05/2011                                             | 1                                                                                                                                                                       |           | –Details Withheld–                                                                                                         | D0062/008/01                                   | 3 |
| Hobby<br>( <i>Falco subbuteo</i> )                 | SJ35           | –Details Withheld–          | 3 records,<br>between<br>22/07/2009 and<br>04/06/2011  | 1                                                                                                                                                                       |           | –Details Withheld–                                                                                                         | D1297/025/01                                   | 4 |
| Kestrel<br>( <i>Falco nnunculus</i> )              | SJ3351         | Wrexham, N                  | 29/04/2016                                             | 1                                                                                                                                                                       |           | BirdTrack                                                                                                                  | D1297/025/01                                   | 4 |
| Japanese Knotweed<br>( <i>Fallopia japonica</i> )  | SJ3459349984   | Caia Park                   | 01/07/2016                                             |                                                                                                                                                                         |           | DINNS 2 plants either side of Gwyndefry                                                                                    | D1586/014/01                                   | 4 |
| Oystercatcher<br>( <i>Haematopus ostralegus</i> )  | SJ3451         | Wrexham, NE                 | 2 records,<br>between<br>10/03/2006 and<br>27/07/2016  | 1                                                                                                                                                                       |           | Survey: Observer data; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                               | D0062/008/01;<br>D1297/025/01                  | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ33615102     | Chester Road<br>garden wall | 28/09/2013                                             | 30+ Larva                                                                                                                                                               |           | Loads of larva along a stretch of road. Some forming their hard shell. Along Ivy & brick wall. iRecord (iRecord Ladybirds) | D1844/001/03                                   | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ33445085     | Romano                      | 23/04/2015                                             | 1 Adult                                                                                                                                                                 |           | Landed on my car, weather was sunny.<br>iRecord (iRecord Ladybirds)                                                        | D1844/001/03                                   | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ33435052     | Wrexham Library             | 17/09/2010                                             | 4 Adult                                                                                                                                                                 |           | Grouped together on the railing. railings outside wrexham library                                                          | D0969/001/05                                   | 1 |

| Species Name                                       | Grid Reference | Site Name                | Date                                          | Abundance           | Comments                                                                                                                                                                                                                                                                                                                                               | Dataset ID                    | V |
|----------------------------------------------------|----------------|--------------------------|-----------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---|
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ34005004     |                          | 06/08/2015                                    | 3 Adult             | Mint (in back yard) & basil have been attacked by greenfly for months. Ladybird first seen on mint a few weeks ago. Brought one in to help basil. Was this a dumb idea? on basil and mint. iRecord (iRecord Ladybirds)                                                                                                                                 | D1844/001/03                  | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ333510       | Wrexham, Cunliffe Street | 26/04/2010                                    |                     | 2                                                                                                                                                                                                                                                                                                                                                      | D1097/002/04                  | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ3451         | Wrexham                  | 24/05/2010                                    |                     | Walking on a leek plant in our back garden. Garden                                                                                                                                                                                                                                                                                                     | D1097/002/04                  | 3 |
| Harlequin Ladybird<br>( <i>Harmonia axyridis</i> ) | SJ33185092     | Office                   | 24/10/2013                                    | 4 Adult             | Possibly 20+ seemed to hatch in the window seals of the office. Also saw a number of Harlequin spectabilis. iRecord (iRecord Ladybirds)                                                                                                                                                                                                                | D1844/001/03                  | 3 |
| Swallow<br>( <i>Hirundo rusc a</i> )               | SJ3451         | Wrexham, NE              | 6 records, between 06/06/2007 and 23/09/2010  | 2; 4; 1; 5; 40      | my last of year in Clwyd?. Survey: Observer data; Birdtrack; Birdtrack:. Acv ty: F; Birdtrack:. Acv ty: M; Birdtrack: Record Type: <i>Reported to recorder</i>                                                                                                                                                                                         | D0062/008/01;<br>D1297/025/01 | 3 |
| Bluebell<br>( <i>Hyacinthoides non-scripta</i> )   | SJ334512       |                          | 03/04/2017                                    |                     | Date = date entered rather than date seen. It is assumed that the date they entered the record is close to the date they saw it as the me period tha t the Woodland Trust app was live was limited.                                                                                                                                                    | D1944/001/01                  | 3 |
| Bluebell<br>( <i>Hyacinthoides non-scripta</i> )   | SJ3451         | Acton                    | 26/05/2014                                    |                     |                                                                                                                                                                                                                                                                                                                                                        | D1169/004/02                  | 3 |
| Herring Gull<br>( <i>Larus argentatus</i> )        | SJ3350         | Wrexham, centre          | 10 records, between 08/07/2006 and 16/06/2017 | 2; 4; 1; 7; 8+      | Survey: Observer data; Winter Roving Record. Survey: Observer data; Acvity: H. Survey: Observer data; a few in area all year. Survey: Observer data; Birdtrack; BirdTrack Record Type: <i>Reported to recorder</i>                                                                                                                                     | D0062/008/01;<br>D1297/025/01 | 3 |
| Herring Gull<br>( <i>Larus argentatus</i> )        | SJ3451         | Wrexham, NE              | 11 records, between 09/05/2008 and 28/01/2018 | 1; 10; 3; 6; 2; 600 | Survey: Observer data; Winter Roving Record. Survey: Observer data; Birdtrack; Birdtrack;; Birdtrack. Bombarding 2 crows in o/g. Former poss nesng on old school or with young.; Birdtrack. NW movement, presumably to estuary. Usual in smaller groupings but these comprised several huge skeins across ... Record Type: <i>Reported to recorder</i> | D0062/008/01;<br>D1297/025/01 | 3 |

| Species Name                                        | Grid Reference | Site Name               | Date                                                   |                                                                                                          | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                                                | Dataset ID                                                      | V |
|-----------------------------------------------------|----------------|-------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---|
| Herring Gull<br>( <i>Larus argentatus</i> )         | SJ3351         | Wrexham, N              | 4 records,<br>between<br>19/01/2009 and<br>02/05/2011  | 20; 2; 8; 1                                                                                              |           | Survey: Observer data; Winter Roving<br>Record. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                       | D0062/008/01                                                    | 3 |
| Lesser Black-backed Gull<br>( <i>Larus fuscus</i> ) | SJ3450         | Wrexham, centre,<br>E   | 2 records, both<br>on 10/05/2014                       | 1 Female; 1 Male                                                                                         |           | f on nest, m bringing material. Survey:<br>Observer data; f on nest, m bringing<br>material. Acvity: B. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                              | D0062/008/01                                                    | 3 |
| Lesser Black-backed Gull<br>( <i>Larus fuscus</i> ) | SJ3350         | Wrexham, centre         | 3 records,<br>between<br>05/05/2009 and<br>16/06/2017  | 1; 6                                                                                                     |           | Survey: Observer data; Acvity: U . Survey:<br>Observer data; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                      | D0062/008/01;<br>D1297/025/01                                   | 3 |
| Wall<br>( <i>Lasiommata megera</i> )                | SJ3413651255   | Wrexham                 | 29/09/2016                                             | 1 Adult                                                                                                  |           | Garden: suburban                                                                                                                                                                                                                                                                                                                                                                        | D1373/001/05                                                    | 3 |
| Wall<br>( <i>Lasiommata megera</i> )                | SJ342515       |                         | 30/07/2014                                             | 3 Adult                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                         | D1373/001/05                                                    | 3 |
| Wall<br>( <i>Lasiommata megera</i> )                | SJ342516       |                         | 07/08/2014                                             | 1 Adult                                                                                                  |           |                                                                                                                                                                                                                                                                                                                                                                                         | D1373/001/05                                                    | 3 |
| Whimbrel<br>( <i>Numenius phaeopus</i> )            | SJ35           | –Details Withheld–      | 22/08/2016                                             | 1                                                                                                        |           | –Details Withheld–                                                                                                                                                                                                                                                                                                                                                                      | D1297/025/01                                                    | 4 |
| Noctule Bat<br>( <i>Nyctalus noctula</i> )          | SJ3350         | –Details Withheld–      | 20/07/2015                                             | 2 passes                                                                                                 |           | –Details Withheld–                                                                                                                                                                                                                                                                                                                                                                      | D1725/001/01                                                    | 4 |
| House Sparrow<br>( <i>Passer domescus</i> )         | SJ3350         | Wrexham<br>Denbighshire | 9 records,<br>between<br>08/07/2004 and<br>16/06/2017  | 1; 40; 5; 1 Male; 4                                                                                      |           | Occurrence ID: NBN-GA000567-BGBW2008-<br>22135525-139658594; Nearly complete<br>albino. Survey: Observer data; Occurrence<br>ID: NBN-GA000656-BGBW2009-16445533-<br>106609155; Survey: Observer data; Winter<br>Roving Record. Survey: Observer data;<br>Acvity: FF . Survey: Observer data;<br>Birdtrack; BirdTrack<br>Record Type: <i>Reported to recorder</i>                        | D1852/001/01;<br>D0062/008/01;<br>D1852/002/01;<br>D1297/025/01 | 4 |
| House Sparrow<br>( <i>Passer domescus</i> )         | SJ3451         | Wrexham, NE             | 49 records,<br>between<br>12/03/2007 and<br>23/12/2018 | 1; 6; 1 Juvenile; 1 Adult; 50; 9; 10; 8; 2; 5; 13+; 3; 2 Adult; 3<br>Juvenile; 4 Adult; 4 Juvenile; 4; 7 |           | Survey: Observer data; Winter Roving<br>Record. Survey: Observer data; late<br>fledgling being fed. Survey: Observer data;<br>peak numbers over next 2 monhts. Survey:<br>Observer data; Occurrence ID: NBN-<br>GA000567-BGBW2008-22135534-<br>139253541; Occurrence ID: NBN-<br>GA000656-BGBW2009-16445595-<br>106608855; Birdtrack; Bi...<br>Record Type: <i>Reported to recorder</i> | D0062/008/01;<br>D1852/001/01;<br>D1852/002/01;<br>D1297/025/01 | 3 |

| Species Name                                               | Grid Reference | Site Name          | Date                                                   |                | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                | Dataset ID                                                                                                                      | V |
|------------------------------------------------------------|----------------|--------------------|--------------------------------------------------------|----------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---|
| House Sparrow<br>( <i>Passer domesticus</i> )              | SJ3351         |                    | 7 records,<br>between<br>26/01/2008 and<br>29/01/2010  | 20; 6; 15; 50+ |           | Occurrence ID: NBN-GA000656-BGBW2009-16445255-106608952; Occurrence ID: NBN-GA000567-BGBW2008-22135488-139322460; Winter Roving Record. Survey: Observer data; Birdtrack;; Acvity: H. Survey: Observer data; Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                          | <a href="#">D1852/002/01;</a><br><a href="#">D1852/001/01;</a><br><a href="#">D0062/008/01;</a><br><a href="#">D1297/025/01</a> | 4 |
| Coal Tit<br>( <i>Periparus ater</i> )                      | SJ3451         | Wrexham, NE        | 27 records,<br>between<br>07/04/2007 and<br>28/01/2018 | 1; 2; 3        |           | Winter Roving Record. Survey: Observer data; Survey: Observer data; in small conifer in front garden. Survey: Observer data; Occurrence ID: NBN-GA000656-BGBW2009-16446148-106179821; Birdtrack; Birdtrack. Acv ty: FL; Birdtrack. Acv ty: B; Birdtrack. Acv ty: D; Birdtrack. Acv ty: P; Birdtrack;; Bi...<br>Record Type: <i>Reported to recorder</i> | <a href="#">D0062/008/01;</a><br><a href="#">D1852/002/01;</a><br><a href="#">D1297/025/01</a>                                  | 3 |
| Coal Tit<br>( <i>Periparus ater</i> )                      | SJ3351         |                    | 4 records,<br>between<br>31/12/2008 and<br>03/02/2010  | 1; 2           |           | Occurrence ID: NBN-GA000656-BGBW2009-16445331-106179434; Survey: Observer data; Acvity: S. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                            | <a href="#">D1852/002/01;</a><br><a href="#">D0062/008/01</a>                                                                   | 4 |
| Cormorant<br>( <i>Phalacrocorax carbo</i> )                | SJ3451         | Wrexham, NE        | 3 records,<br>between<br>01/02/2010 and<br>31/01/2011  | 1; 2           |           | Birdtrack:. Acv ty: F; BirdTrack                                                                                                                                                                                                                                                                                                                        | <a href="#">D1297/025/01</a>                                                                                                    | 4 |
| Willow Warbler<br>( <i>Phylloscopus trochilus</i> )        | SJ3451         | Wrexham, NE        | 7 records,<br>between<br>10/09/2009 and<br>24/04/2016  | 1; 2           |           | Birdtrack. Acv ty: M; Birdtrack:. Acv ty: S; Birdtrack:. Acv ty: M; BirdTrack                                                                                                                                                                                                                                                                           | <a href="#">D1297/025/01</a>                                                                                                    | 4 |
| Willow Warbler<br>( <i>Phylloscopus trochilus</i> )        | SJ3351         | Wrexham, N         | 3 records,<br>between<br>17/04/2004 and<br>07/04/2011  | 1              |           | Survey: Observer data; First record. Survey: Observer data; Acvity: S. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                | <a href="#">D0062/008/01</a>                                                                                                    | 3 |
| Green Woodpecker<br>( <i>Picus viridis</i> )               | SJ3351         | Wrexham, N         | 03/02/2010                                             | 1              |           | Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                                       | <a href="#">D0062/008/01</a>                                                                                                    | 3 |
| Pipistrellus Bat Species<br>( <i>Pipistrellus</i> )        | SJ3550         | —Details Withheld— | 20/05/2019                                             | 1              |           | —Details Withheld—                                                                                                                                                                                                                                                                                                                                      | <a href="#">D1948/001/01</a>                                                                                                    | 3 |
| Common Pipistrelle<br>( <i>Pipistrellus pipistrellus</i> ) | SJ3350         | —Details Withheld— | 20/07/2015                                             | 7 passes       |           | —Details Withheld—                                                                                                                                                                                                                                                                                                                                      | <a href="#">D1725/001/01</a>                                                                                                    | 4 |
| Common Pipistrelle<br>( <i>Pipistrellus pipistrellus</i> ) | SJ3450         | —Details Withheld— | 02/06/2015                                             | 2              |           | —Details Withheld—                                                                                                                                                                                                                                                                                                                                      | <a href="#">D1798/001/01</a>                                                                                                    | 4 |

| Species Name                                    | Grid Reference | Site Name             | Date                                                   |                              | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                                   | Dataset ID                                                                                     | V |
|-------------------------------------------------|----------------|-----------------------|--------------------------------------------------------|------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---|
| Dunnock<br>( <i>Prunella modularis</i> )        | SJ3350         | Wrexham, centre       | 11 records,<br>between<br>17/03/2004 and<br>16/06/2017 | 1; 1 Juvenile; 2; 3; 2 Adult |           | Nesng. Sur vey: Observer data; Survey:<br>Observer data; Poss. A pair stayed together.<br>Survey: Observer data; Acvity: S. Sur vey:<br>Observer data; Birdtrack; BirdTrack;<br>BirdTrack. Acv ty: P<br>Record Type: <i>Reported to recorder</i>                                                                                                                           | <a href="#">D0062/008/01;</a><br><a href="#">D1297/025/01</a>                                  | 3 |
| Dunnock<br>( <i>Prunella modularis</i> )        | SJ3451         | Wrexham, NE           | 39 records,<br>between<br>06/06/2007 and<br>28/01/2018 | 1; 2; 3; 4; 5                |           | Winter Roving Record. Survey: Observer<br>data; Occurrence ID: NBN-GA000656-<br>BGBW2009-16445770-106180015;<br>Birdtrack; Birdtrack. Acv ty: FL; Birdtrack.<br>Acv ty: B; Acvity: S. Sur vey: Observer<br>data; Birdtrack. Acv ty: P; Birdtrack.<br>Acv ty: T; Birdtrack:. Acv ty: S; Birdtrack;;<br>Birdtrack:. Acv ty: F...<br>Record Type: <i>Reported to recorder</i> | <a href="#">D0062/008/01;</a><br><a href="#">D1852/002/01;</a><br><a href="#">D1297/025/01</a> | 3 |
| Dunnock<br>( <i>Prunella modularis</i> )        | SJ3351         |                       | 5 records,<br>between<br>04/11/2008 and<br>15/07/2011  | 2; 1                         |           | Occurrence ID: NBN-GA000656-BGBW2009-<br>16445534-106179464; Winter Roving<br>Record. Survey: Observer data; Survey:<br>Observer data; Acvity: S. Sur vey: Observer<br>data; Acvity: FL. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                | <a href="#">D1852/002/01;</a><br><a href="#">D0062/008/01</a>                                  | 4 |
| Dunnock<br>( <i>Prunella modularis</i> )        | SJ331504       | Wrexham               | 09/02/2019                                             | 1                            |           | Shrubbery outside argos                                                                                                                                                                                                                                                                                                                                                    | <a href="#">D1117/001/01</a>                                                                   | 4 |
| Cherry Laurel<br>( <i>Prunus laurocerasus</i> ) | SJ3451         | Wrexham               | 04/04/2015                                             |                              |           |                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">D1169/004/02</a>                                                                   | 3 |
| Portugal Laurel<br>( <i>Prunus lusitanica</i> ) | SJ3451         | Wrexham               | 04/04/2015                                             |                              |           |                                                                                                                                                                                                                                                                                                                                                                            | <a href="#">D1169/004/02</a>                                                                   | 3 |
| Bullfinch<br>( <i>Pyrrhula pyrrhula</i> )       | SJ3451         | Wrexham, NE           | 14 records,<br>between<br>13/01/2010 and<br>06/04/2010 | 2; 3; 1                      |           | Survey: Observer data; Birdtrack:<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                                              | <a href="#">D0062/008/01;</a><br><a href="#">D1297/025/01</a>                                  | 3 |
| Bullfinch<br>( <i>Pyrrhula pyrrhula</i> )       | SJ34374992     | Caia Park,<br>Wrexham | 08/01/2019                                             | 2                            |           | Male & female.<br>Record Type: <i>Live Sighng</i>                                                                                                                                                                                                                                                                                                                          | <a href="#">D1696/001/01</a>                                                                   | 4 |
| Goldcrest<br>( <i>Regulus regulus</i> )         | SJ3450         | Wrexham, centre,<br>E | 3 records,<br>between<br>24/04/2005 and<br>01/06/2010  | 1                            |           | Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                                                          | <a href="#">D0062/008/01</a>                                                                   | 3 |
| Goldcrest<br>( <i>Regulus regulus</i> )         | SJ3350         | Wrexham, centre       | 4 records,<br>between<br>28/11/2008 and<br>16/06/2017  | 1                            |           | Survey: Observer data; Occurrence ID: NBN-<br>GA000656-BGBW2009-16444959-<br>106437824; Acvity: S. Sur vey: Observer<br>data; BirdTrack. Acv ty: S<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                             | <a href="#">D0062/008/01;</a><br><a href="#">D1852/002/01;</a><br><a href="#">D1297/025/01</a> | 3 |

| Species Name                              | Grid Reference | Site Name                | Date                                                   |                                                                                                               | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                 | Dataset ID                                                      | V |
|-------------------------------------------|----------------|--------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---|
| Goldcrest<br>( <i>Regulus regulus</i> )   | SJ3451         | Wrexham, NE              | 19 records,<br>between<br>01/01/2008 and<br>19/03/2018 | 1; 2; 3                                                                                                       |           | Winter Roving Record. Survey: Observer data; Survey: Observer data; Occurrence ID: NBN-GA000656-BGBW2009-16445769-106437839; Birdtrack; Birdtrack;; Birdtrack. In o/g; BirdTrack; Acvity: S. Sur vey: Observer data; Birdtrack. 2 FL 1 adult in o/g. Thought FL were CC at first (same area - near fir &...<br>Record Type: <i>Reported to recorder</i>  | D0062/008/01;<br>D1852/002/01;<br>D1297/025/01                  | 3 |
| Goldcrest<br>( <i>Regulus regulus</i> )   | SJ3351         |                          | 5 records,<br>between<br>17/11/2008 and<br>02/05/2011  | 1                                                                                                             |           | Occurrence ID: NBN-GA000656-BGBW2009-16445112-106437981; Survey: Observer data; Winter Roving Record. Survey: Observer data; Acvity: S. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                               | D1852/002/01;<br>D0062/008/01                                   | 4 |
| <i>Rhododendron<br/>poncum</i>            | SJ3451         | Acton                    | 26/05/2014                                             |                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                          | D1169/004/02                                                    | 3 |
| White Stonecrop<br>( <i>Sedum album</i> ) | SJ3451         | Wrexham                  | 04/04/2015                                             |                                                                                                               |           |                                                                                                                                                                                                                                                                                                                                                          | D1169/004/02                                                    | 3 |
| Starling<br>( <i>Sturnus vulgaris</i> )   | SJ3450         | Wrexham,<br>Denbighshire | 8 records,<br>between<br>26/01/2008 and<br>03/06/2010  | 1; 200+; 500+; 400+                                                                                           |           | Occurrence ID: NBN-GA000567-BGBW2008-22135817-139333564; Occurrence ID: NBN-GA000656-BGBW2009-16446147-106878522; Survey: Observer data; Winter Roving Record. Survey: Observer data; Acvity: H. Sur vey: Observer data; Flying over shopping centre. Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                  | D1852/001/01;<br>D1852/002/01;<br>D0062/008/01                  | 4 |
| Starling<br>( <i>Sturnus vulgaris</i> )   | SJ3350         |                          | 6 records,<br>between<br>18/05/2004 and<br>16/06/2017  | 9 Adult; 9 Juvenile; 1000+                                                                                    |           | Occurrence ID: NBN-GA000656-BGBW2009-16444869-106878426; Occurrence ID: NBN-GA000567-BGBW2008-22135804-139467661; Survey: Observer data; Flying around centre. Survey: Observer data; BirdTrack<br>Record Type: <i>Reported to recorder</i>                                                                                                              | D1852/002/01;<br>D1852/001/01;<br>D0062/008/01;<br>D1297/025/01 | 4 |
| Starling<br>( <i>Sturnus vulgaris</i> )   | SJ3451         | Wrexham, NE              | 40 records,<br>between<br>26/02/2007 and<br>07/01/2018 | 2; 1 Juvenile; 35; 1 Adult; 6+; 9; 10; 8; 200; 5; 6; 150+; 20; 6 Adult; 6 Juvenile; 40; 1; 100; 500; 1000; 15 |           | invesg ang bir dbbox. Used some year's ago. Survey: Observer data; copulang in back garden. Survey: Observer data; Survey: Observer data; Winter Roving Record. Survey: Observer data; FOY: young starling being fed. Survey: Observer data; Occurrence ID: NBN-GA000567-BGBW2008-22135806-139253542; Occ...<br>Record Type: <i>Reported to recorder</i> | D0062/008/01;<br>D1852/001/01;<br>D1852/002/01;<br>D1297/025/01 | 3 |

| Species Name                                | Grid Reference | Site Name       | Date                                                   |                         | Abundance | Comments                                                                                                                                                                                                                                                                                                                                                     | Dataset ID                                                      | V |
|---------------------------------------------|----------------|-----------------|--------------------------------------------------------|-------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---|
| Starling<br>( <i>Sturnus vulgaris</i> )     | SJ3351         |                 | 8 records,<br>between<br>26/01/2008 and<br>29/01/2010  | 30; 60; 3; 6; 15; 2000+ |           | Occurrence ID: NBN-GA000656-BGBW2009-16445331-106878441; Occurrence ID: NBN-GA000567-BGBW2008-22135788-139350752; Winter Roving Record. Survey: Observer data; Survey: Observer data; Acvity: H. Sur vey: Observer data; Birdtrack:<br>Record Type: <i>Reported to recorder</i>                                                                              | D1852/002/01;<br>D1852/001/01;<br>D0062/008/01;<br>D1297/025/01 | 4 |
| Redwing<br>( <i>Turdus iliacus</i> )        | SJ3350         | Wrexham, centre | 6 records,<br>between<br>10/10/2004 and<br>14/02/2019  | 1; 15; 50; 2            |           | Winter Roving Record. Survey: Observer data; Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                               | D0062/008/01;<br>D1297/026/01                                   | 3 |
| Redwing<br>( <i>Turdus iliacus</i> )        | SJ3451         | Wrexham, NE     | 13 records,<br>between<br>07/11/2007 and<br>23/12/2018 | 6; 10; 11; 1; 3; 30; 5  |           | small no flew into garden with other birds. Survey: Observer data; Survey: Observer data; up to 11 present in o/g, 07-19th, feeding on bumper holly berry crop. Survey: Observer data; small nos seen subsequently on various days, on holly or pyracanthus. Survey: Observer data; Birdtrack;; Birdtrack:. A...<br>Record Type: <i>Reported to recorder</i> | D0062/008/01;<br>D1297/025/01                                   | 3 |
| Redwing<br>( <i>Turdus iliacus</i> )        | SJ3351         | Wrexham, N      | 4 records,<br>between<br>04/02/2009 and<br>01/01/2012  | 20; 7; 1                |           | Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                                                                                                                                                            | D0062/008/01                                                    | 3 |
| Song Thrush<br>( <i>Turdus philomelos</i> ) | SJ3450         |                 | 4 records,<br>between<br>01/01/2005 and<br>26/01/2010  | 1; 1 Juvenile           |           | Occurrence ID: NBN-GA000656-BGBW2009-16446147-106817404; Occasional visitor. Survey: Observer data; Survey: Observer data; Acvity: FL. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                                                    | D1852/002/01;<br>D0062/008/01                                   | 4 |
| Song Thrush<br>( <i>Turdus philomelos</i> ) | SJ3350         | Wrexham, centre | 7 records,<br>between<br>01/03/2004 and<br>27/06/2010  | 1; 2; 3                 |           | Winter Roving Record. Survey: Observer data; Occurrence ID: NBN-GA000656-BGBW2009-16444959-106817374; Survey: Observer data; Singing. Survey: Observer data; Acvity: S. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                                                   | D0062/008/01;<br>D1852/002/01                                   | 3 |
| Song Thrush<br>( <i>Turdus philomelos</i> ) | SJ3451         | Wrexham, NE     | 22 records,<br>between<br>06/12/2007 and<br>21/03/2016 | 1; 1 Male; 2; 4         |           | Winter Roving Record. Survey: Observer data; Occurrence ID: NBN-GA000656-BGBW2009-16446148-106817381; Acvity: S. Survey: Observer data; singing, as usual, sev mes in December . Survey: Observer data; Birdtrack; Birdtrack. Acv ty: S; Birdtrack. Acv ty: P; Birdtrack;; Birdtrack:. Acv ty: S; Bird...<br>Record Type: <i>Reported to recorder</i>        | D0062/008/01;<br>D1852/002/01;<br>D1297/025/01                  | 3 |

| Species Name                                | Grid Reference | Site Name   | Date                                                  |                      | Abundance | Comments                                                                                                                                                      | Dataset ID                                                    | V |
|---------------------------------------------|----------------|-------------|-------------------------------------------------------|----------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---|
| Song Thrush<br>( <i>Turdus philomelos</i> ) | SJ3351         |             | 4 records,<br>between<br>15/11/2008 and<br>26/01/2010 | 1                    |           | Occurrence ID: NBN-GA000656-BGBW2009-16445256-106817405; Survey: Observer data; Acvity: S. Sur vey: Observer data<br>Record Type: <i>Reported to recorder</i> | <a href="#">D1852/002/01;</a><br><a href="#">D0062/008/01</a> | 4 |
| Fieldfare<br>( <i>Turdus pilaris</i> )      | SJ3451         | Wrexham, NE | 8 records,<br>between<br>18/09/2008 and<br>23/11/2018 | 2; 25+; 1; 10; 3; 20 |           | Survey: Observer data; Birdtrack. Acv ty: M; Birdtrack.: Acv ty: M<br>Record Type: <i>Reported to recorder</i>                                                | <a href="#">D0062/008/01;</a><br><a href="#">D1297/025/01</a> | 3 |
| Fieldfare<br>( <i>Turdus pilaris</i> )      | SJ3351         | Wrexham, N  | 2 records,<br>between<br>03/02/2009 and<br>14/01/2010 | 11; 1                |           | Survey: Observer data<br>Record Type: <i>Reported to recorder</i>                                                                                             | <a href="#">D0062/008/01</a>                                  | 3 |

Sites

| Site Type                   | Distance | Site Name                                                          | Sites Features |
|-----------------------------|----------|--------------------------------------------------------------------|----------------|
| Scheduled Ancient Monuments | 847m     | DE158: Wrexham Churchyard Ornamental Wrought Iron Gates and Screen |                |
| Listed Buildings            | 429m     | 87719: Former Grove Park School                                    |                |
| Listed Buildings            | 439m     | 1753: The Cottage                                                  |                |
| Listed Buildings            | 495m     | 1746: Royal Welch Fusiliers Memorial                               |                |
| Listed Buildings            | 567m     | 1754: St Giles House                                               |                |
| Listed Buildings            | 582m     | 1827: NO.28 CHESTER STREET (W SIDE),,,CLWYD,                       |                |
| Listed Buildings            | 583m     | 1828: NO.29 CHESTER STREET (W SIDE),,,CLWYD,                       |                |
| Listed Buildings            | 586m     | 1750: NO.35 CHESTER STREET (E SIDE),,,CLWYD,                       |                |
| Listed Buildings            | 586m     | 1826: NO.27 CHESTER STREET (W SIDE),,,CLWYD,                       |                |
| Listed Buildings            | 588m     | 1825: NO.26 CHESTER STREET (W SIDE),,,CLWYD,                       |                |
| Listed Buildings            | 592m     | 1824: Winge House                                                  |                |
| Listed Buildings            | 598m     | 16491: NO 24 CHESTER STREET (W SIDE),,,CLWYD,                      |                |
| Listed Buildings            | 603m     | 1823: The Old Registry Office                                      |                |
| Listed Buildings            | 608m     | 1836: Epworth Lodge                                                |                |
| Listed Buildings            | 617m     | 1835: Fern Bank and former Coach House                             |                |
| Listed Buildings            | 624m     | 1849: The Seven Stars Public House                                 |                |
| Listed Buildings            | 626m     | 1834: NO.9 GROVE ROAD (NW SIDE),,,CLWYD,                           |                |
| Listed Buildings            | 634m     | 1837: Romano                                                       |                |
| Listed Buildings            | 679m     | 1756: NO 20, CHARLES STREET (S SIDE),,,CLWYD,                      |                |
| Listed Buildings            | 679m     | 1833: Plas Gwilym                                                  |                |
| Listed Buildings            | 684m     | 16472: NO 21, CHARLES STREET,,CLWYD,                               |                |
| Listed Buildings            | 688m     | 16473: NO 22, CHARLES STREET,,CLWYD,                               |                |

| Site Type        | Distance | Site Name                                                                         | Sites Features |
|------------------|----------|-----------------------------------------------------------------------------------|----------------|
| Listed Buildings | 691m     | 16474: NO 23, CHARLES STREET,,,,,CLWYD,                                           |                |
| Listed Buildings | 707m     | 1838: General Market Building                                                     |                |
| Listed Buildings | 708m     | 16493: General Market Building                                                    |                |
| Listed Buildings | 710m     | 16494: General Market Building                                                    |                |
| Listed Buildings | 710m     | 16499: General Market Building - Public Convenience (Ladies)                      |                |
| Listed Buildings | 713m     | 16495: General Market Building                                                    |                |
| Listed Buildings | 713m     | 1829: The Feathers Public House                                                   |                |
| Listed Buildings | 713m     | 1852: Old Library                                                                 |                |
| Listed Buildings | 714m     | 16496: General Market Building                                                    |                |
| Listed Buildings | 714m     | 1822: The Old Vaults Public House                                                 |                |
| Listed Buildings | 715m     | 16497: General Market Buildings                                                   |                |
| Listed Buildings | 716m     | 16498: General Market Building                                                    |                |
| Listed Buildings | 724m     | 16503: NO 40 HENBLAS STREET,,,,,CLWYD,                                            |                |
| Listed Buildings | 724m     | 1759: Wymmstay Arms Hotel                                                         |                |
| Listed Buildings | 725m     | 16510: The Coach House                                                            |                |
| Listed Buildings | 726m     | 16511: Boundry Wall, Gate Piers and Gates at Trinity Presbyterian Church of Wales |                |
| Listed Buildings | 734m     | 16509: NO 65 KING STREET (W SIDE),,,,,CLWYD,                                      |                |
| Listed Buildings | 738m     | 16508: 63 King Street                                                             |                |
| Listed Buildings | 742m     | 16507: ,61 King Street,,,CLWYD                                                    |                |
| Listed Buildings | 744m     | 1848: Trinity Presbyterian Church of Wales                                        |                |
| Listed Buildings | 745m     | 1842: Midland Bank                                                                |                |
| Listed Buildings | 748m     | 16506: NO 59 KING STREET (W SIDE),,,,,CLWYD,                                      |                |
| Listed Buildings | 750m     | 16492: NO 28, GROSVENOR ROAD (SE SIDE),,,,,CLWYD,                                 |                |
| Listed Buildings | 752m     | 16505: NO 57 KING STREET (W SIDE),,,,,CLWYD,                                      |                |

| Site Type        | Distance | Site Name                                                                | Sites Features |
|------------------|----------|--------------------------------------------------------------------------|----------------|
| Listed Buildings | 754m     | 1832: 16492                                                              |                |
| Listed Buildings | 757m     | 1847: NO 55, KING STREET (W SIDE),,,,,CLWYD,                             |                |
| Listed Buildings | 758m     | 1841: The Golden Lion Public House                                       |                |
| Listed Buildings | 762m     | 1840: Butcher's Market                                                   |                |
| Listed Buildings | 762m     | 1853: Abbotsfield Priory Hotel                                           |                |
| Listed Buildings | 764m     | 16502: NO 11 HIGH STREET,,,,,CLWYD,                                      |                |
| Listed Buildings | 771m     | 16504: NOS 1-3 QUEEN STREET,,,,,CLWYD,                                   |                |
| Listed Buildings | 771m     | 1783: NO.26 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 771m     | 1784: NO.28 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 772m     | 16500: NO 9 HIGH STREET (N SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 776m     | 16501: NO 10 HIGH STREET,,,,,CLWYD,                                      |                |
| Listed Buildings | 780m     | 1839: NO 8 HIGH STREET (N SIDE),,,,,CLWYD,                               |                |
| Listed Buildings | 784m     | 1785: 29 High Street                                                     |                |
| Listed Buildings | 785m     | 1845: Naonal W estminster Bank                                           |                |
| Listed Buildings | 786m     | 1843: Central Arcade                                                     |                |
| Listed Buildings | 787m     | 1786: NO.30 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 787m     | 1844: The Talbot Public House                                            |                |
| Listed Buildings | 798m     | 1787: NO.31 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 798m     | 1788: NO.33 (PREVIOUSLY LISTED AS NO.32) HIGH STREET (S SIDE),,,,,CLWYD, |                |
| Listed Buildings | 808m     | 1790: NO 36 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 812m     | 1789: Embassey Public House                                              |                |
| Listed Buildings | 814m     | 1791: NO 38 HIGH STREET (S SIDE),,,,,CLWYD,                              |                |
| Listed Buildings | 815m     | 16482: NO 39, HIGH STREET (S SIDE),,,,,CLWYD,                            |                |
| Listed Buildings | 819m     | 16481: NO 37, HIGH STREET (S SIDE),,,,,CLWYD,                            |                |

| Site Type        | Distance | Site Name                                                          | Sites Features |
|------------------|----------|--------------------------------------------------------------------|----------------|
| Listed Buildings | 821m     | 1792: NO 40, HIGH STREET (S SIDE),,,,,CLWYD,                       |                |
| Listed Buildings | 825m     | 16483: NO 41, HIGH STREET (S SIDE),,,,,CLWYD,                      |                |
| Listed Buildings | 828m     | 16484: NO 42, HIGH STREET (S SIDE),,,,,CLWYD,                      |                |
| Listed Buildings | 833m     | 1793: Trustee Savings Bank                                         |                |
| Listed Buildings | 834m     | 1815: NO.6 (FORMERLY LISTED AS NO.8) TEMPLE ROW N SIDE),,,,,CLWYD, |                |
| Listed Buildings | 840m     | 1775: NO 3 CHURCH STREET (E SIDE),,,,,CLWYD,                       |                |
| Listed Buildings | 842m     | 16476: NO 4, CHURCH STREET (E SIDE),,,,,CLWYD,                     |                |
| Listed Buildings | 843m     | 16479: NO 10, CHURCH STREET (W SIDE),,,,,CLWYD,                    |                |
| Listed Buildings | 845m     | 16478: NO 9, CHURCH STREET (W SIDE),,,,,CLWYD,                     |                |
| Listed Buildings | 845m     | 1794: Horse and Jockey Public House                                |                |
| Listed Buildings | 847m     | 16477: ,8,CHURCH STREET,,,CLWYD,                                   |                |
| Listed Buildings | 849m     | 1776: NO 7, CHURCH STREET (W SIDE),,,,,CLWYD,                      |                |
| Listed Buildings | 850m     | 1774: St. Giles' Churchyard Gates                                  |                |
| Listed Buildings | 853m     | 1797: The Nags Head Public House                                   |                |
| Listed Buildings | 865m     | 1816: NO.5 TOWN HILL (S SIDE),,,,,CLWYD,                           |                |
| Listed Buildings | 871m     | 1769: Parish Church of St Giles                                    |                |
| Listed Buildings | 871m     | 1817: NO.7 TOWN HILL (S SIDE),,,,,CLWYD,                           |                |
| Listed Buildings | 873m     | 1819: Former Border Brewery Chimney                                |                |
| Listed Buildings | 878m     | 1818: Dodman's                                                     |                |
| Listed Buildings | 880m     | 1760: The Cross Foxes Public House                                 |                |
| Listed Buildings | 890m     | 1772: 2 Chest Tombs to west of Church of St Giles                  |                |
| Listed Buildings | 895m     | 1761: The Old Swan Public House                                    |                |
| Listed Buildings | 897m     | 1770: Tomb of Elihu Yale, west of Church of St Giles               |                |
| Listed Buildings | 901m     | 1771: Sundial to West of Church of St Giles                        |                |

| Site Type        | Distance | Site Name                                                                    | Sites Features |
|------------------|----------|------------------------------------------------------------------------------|----------------|
| Listed Buildings | 902m     | 1773: 2 Chest Tombs adjacent to W Boundary of Churchyard                     |                |
| Listed Buildings | 913m     | 1777: The Commercial Public House                                            |                |
| Listed Buildings | 919m     | 1778: The Cambrian Vaults Public House                                       |                |
| Listed Buildings | 938m     | 1854: Church of St James                                                     |                |
| Listed Buildings | 940m     | 1846: Nos.1,3 & 5, with Nos. 56, 58 & 60 Regent Street, King Street (W side) |                |
| Listed Buildings | 948m     | 1831: NO.2 GROSVENOR ROAD (SE SIDE),,,,,CLWYD,                               |                |
| Listed Buildings | 966m     | 1758: Willow Bridge, with adjacent Railings and Culvert Arch                 |                |
| Listed Buildings | 971m     | 1830: NO.1 GROSVENOR ROAD (NW SIDE),,,,,CLWYD,                               |                |
| Listed Buildings | 984m     | 1802: Boundry Wall and Gates to Roman Catholic Cathedral                     |                |
| Listed Buildings | 995m     | 1800: Former County Buildings                                                |                |
| Listed Buildings | 998m     | 1821: The Old Three Tuns Public House                                        |                |

# Habitats

| Habitat Code | Descripon         | Percentage Cover | Area             | At Point |
|--------------|-------------------|------------------|------------------|----------|
| J.1.1        | Arable            | 1.03%            | 32502.60 sq.m.   | No       |
| J.1.2        | Amenity Grassland | 11.94%           | 374952.70 sq.m.  | No       |
| J.3.6        | Buildings         | 71.24%           | 2237944.00 sq.m. | No       |
| NA           | Not Accessed Land | 0.58%            | 18267.04 sq.m.   | No       |

Species List (80 species)

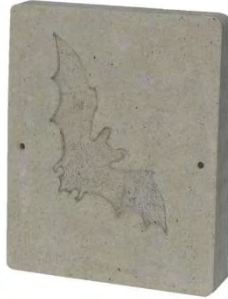
| Species Group | Scienfic Name              | English Name             | Welsh Name           | Earliest Year | Latest Year | Total Records |
|---------------|----------------------------|--------------------------|----------------------|---------------|-------------|---------------|
| Birds         | Acanthis cabaret           | Lesser Redpoll           | Llinos Bengoch Leiaf | 2004          | 2017        | 19            |
| Birds         | Accipiter genlis           | Goshawk                  | Gwalch Marthin       | 2008          | 2008        | 1             |
| Birds         | Aegithalos caudatus        | Long-tailed Tit          | Titw Cynffon-Hir     | 2007          | 2019        | 72            |
| Birds         | Aix galericulata           | Mandarin Duck            | Hwyaden Gribog       | 2007          | 2007        | 1             |
| Birds         | Alauda arvensis            | Skylark                  | Ehedydd              | 2010          | 2010        | 1             |
| Birds         | Alcedo ahis                | Kingfisher               | Glas y Dorlan        | 1996          | 2007        | 3             |
| Birds         | Anas platyrhynchos         | Mallard                  | Hwyaden Wylt         | 2007          | 2017        | 10            |
| Birds         | Anthus pratensis           | Meadow Pipit             | Corhedydd y Waun     | 2009          | 2017        | 2             |
| Birds         | Apus apus                  | Swift                    | Gwennol Ddu          | 2004          | 2019        | 54            |
| Birds         | Asio otus                  | Long-eared Owl           | Tylluan Gorniog      | 2009          | 2009        | 1             |
| Birds         | Aythya fuligula            | Tufted Duck              | Hwyaden Gopog        | 2008          | 2008        | 1             |
| Birds         | Branta canadensis          | Canada Goose             | Gwydd Canada         | 2004          | 2017        | 7             |
| Birds         | Calidris alpina            | Dunlin                   | Pibydd y Mawn        | 2007          | 2014        | 4             |
| Birds         | Chroicocephalus ridibundus | Black-headed Gull        | Gwylan Benddu        | 2009          | 2010        | 15            |
| Birds         | Cinclus cinclus            | Dipper                   | Bronwen y Dwr        | 2007          | 2018        | 8             |
| Birds         | Coturnix coturnix          | Quail                    | Sofliar              | 2004          | 2004        | 1             |
| Birds         | Cuculus canorus            | Cuckoo                   | Cog                  | 2013          | 2013        | 1             |
| Birds         | Cygnus olor                | Mute Swan                | Alarch Dof           | 2007          | 2011        | 11            |
| Birds         | Delichon urbicum           | House Marn               | Gwennol y Bondo      | 2004          | 2017        | 31            |
| Birds         | Dendrocopos minor          | Lesser Spo ed Woodpecker | Cnocell Fraith Leiaf | 1996          | 1996        | 1             |
| Birds         | Emberiza schoeniclus       | Reed Bunng               | Bras y Cyrs          | 2007          | 2018        | 10            |
| Birds         | Falco peregrinus           | Peregrine                | Hebog Tramor         | 1995          | 2019        | 62            |

| Species Group | Scienfic Name          | English Name             | Welsh Name           | Earliest Year | Latest Year | Total Records |
|---------------|------------------------|--------------------------|----------------------|---------------|-------------|---------------|
| Birds         | Falco subbuteo         | Hobby                    | Hebog yr Ehedydd     | 2002          | 2011        | 6             |
| Birds         | Falco nnunculus        | Kestrel                  | Cudyll Coch          | 2004          | 2016        | 5             |
| Birds         | Ficedula hypoleuca     | Pied Flycatcher          | Gwybedog Brith       | 2013          | 2013        | 1             |
| Birds         | Fringilla monfringilla | Brambling                | Pinc y Mynydd        | 2006          | 2018        | 37            |
| Birds         | Gallinago gallinago    | Snipe                    | Giach Cyffredin      | 2007          | 2010        | 3             |
| Birds         | Haematopus ostralegus  | Oystercatcher            | Pioden Fôr           | 2006          | 2016        | 2             |
| Birds         | Hirundo rusc a         | Swallow                  | Gwennol              | 2004          | 2019        | 20            |
| Birds         | Larus argentatus       | Herring Gull             | Gwylan y Penwaig     | 2006          | 2018        | 33            |
| Birds         | Larus canus            | Common Gull              | Gwylan y Gweunydd    | 2007          | 2010        | 11            |
| Birds         | Larus fuscus           | Lesser Black-backed Gull | Gwylan Gefnddu Leiaf | 2008          | 2017        | 11            |
| Birds         | Linaria cannabina      | Linnet                   | Llinos               | 2009          | 2009        | 3             |
| Birds         | Milvus milvus          | Red Kite                 | Barcud               | 2013          | 2013        | 1             |
| Birds         | Muscicapa striata      | Spo ed Flycatcher        | Gwybedog Mannog      | 2004          | 2009        | 5             |
| Birds         | Numenius phaeopus      | Whimbrel                 | Coegylfinir          | 2016          | 2016        | 1             |
| Birds         | Pandion haliaetus      | Osprey                   | Gwalch y Pysgod      | 2008          | 2013        | 2             |
| Birds         | Passer domescus        | House Sparrow            | Aderyn y To          | 2004          | 2019        | 110           |
| Birds         | Periparus ater         | Coal Tit                 | Titw Penddu          | 2007          | 2019        | 73            |
| Birds         | Phalacrocorax carbo    | Cormorant                | Mulfran              | 2010          | 2011        | 5             |
| Birds         | Phylloscopus trochilus | Willow Warbler           | Telwr yr Helyg       | 2004          | 2016        | 11            |
| Birds         | Picus viridis          | Green Woodpecker         | Cnocell Werdd        | 2008          | 2017        | 8             |
| Birds         | Poecile palustris      | Marsh Tit                | Titw'r Wern          | 2009          | 2011        | 2             |
| Birds         | Prunella modularis     | Dunnock                  | Llwyd y Gwrych       | 2004          | 2019        | 103           |
| Birds         | Psi acula krameri      | Ring-necked Parakeet     | Corbarot Torchog     | 2017          | 2017        | 1             |
| Birds         | Pyrrhula pyrrhula      | Bullfinch                | Coch y Berllan       | 2009          | 2019        | 21            |

| Species Group         | Scienfic Name                                          | English Name             | Welsh Name              | Earliest Year | Latest Year | Total Records |
|-----------------------|--------------------------------------------------------|--------------------------|-------------------------|---------------|-------------|---------------|
| Birds                 | Regulus ignicapilla                                    | Firecrest                | Dryw Penfflamgoch       | 2008          | 2008        | 2             |
| Birds                 | Regulus regulus                                        | Goldcrest                | Dryw Eurben             | 2005          | 2018        | 36            |
| Birds                 | Sturnus vulgaris                                       | Starling                 | Drudwen                 | 2004          | 2019        | 79            |
| Birds                 | Sylvia borin                                           | Garden Warbler           | Telor yr Ardd           | 2011          | 2011        | 1             |
| Birds                 | Turdus iliacus                                         | Redwing                  | Coch Dan Adain          | 2004          | 2019        | 32            |
| Birds                 | Turdus philomelos                                      | Song Thrush              | Bronfraith              | 2004          | 2019        | 59            |
| Birds                 | Turdus pilaris                                         | Fieldfare                | Socan Eira              | 2004          | 2018        | 15            |
| Butterflies and Moths | Lasiommata megera                                      | Wall                     | Gweirlöyn y Cloddiau    | 2014          | 2016        | 3             |
| Mammals               | Arvicola amphibius                                     | Water Vole               | Llygoden Bengron y Dwr  | 2015          | 2015        | 1             |
| Mammals               | Chiroptera                                             | Unknown Bat              | Ystlum Anhysbys         | 1982          | 1998        | 3             |
| Mammals               | Erinaceus europaeus                                    | Hedgehog                 | Draenog                 | 2002          | 2020        | 19            |
| Mammals               | Nyctalus noctula                                       | Noctule Bat              | Ystlum Mawr             | 2015          | 2015        | 1             |
| Mammals               | Pipistrellus                                           | Pipistrellus Bat Species |                         | 2004          | 2019        | 2             |
| Mammals               | Pipistrellus pipistrellus                              | Common Pipistrelle       | Ystlum Lleiaf Cyffredin | 2015          | 2015        | 2             |
| Mammals               | Plecotus auritus                                       | Brown Long-eared Bat     | Ystlum Hirglust         | 1996          | 1999        | 2             |
| Other Invertebrates   | Harmonia axyridis                                      | Harlequin Ladybird       |                         | 2009          | 2015        | 10            |
| Plants                | Crocoshia posii x aurifera = C. x crocosmiiflora       | Montbrea                 | Crib-y-Ceiliog          | 2011          | 2011        | 1             |
| Plants                | Fallopia japonica                                      | Japanese Knotweed        | Clymog Japan            | 2011          | 2016        | 2             |
| Plants                | Hyacinthoides non-scripta                              | Bluebell                 | Clychau'r Gog           | 2014          | 2017        | 2             |
| Plants                | Hyacinthoides non-scripta x hispanica = H. x massarana | Bluebell                 | Clychau'r Gog Croesryw  | 2015          | 2015        | 1             |
| Plants                | Impatiens glandulifera                                 | Himalayan Balsam         | Jac y Neidiwr           | 2011          | 2011        | 1             |
| Plants                | Lemna minuta                                           | Least Duckweed           | Llinad Bach             | 2015          | 2015        | 1             |
| Plants                | Petasites hybridus                                     | Burweed                  | Alan Mawr               | 2011          | 2011        | 1             |
| Plants                | Prunus laurocerasus                                    | Cherry Laurel            | Coeden Lawrgeirios      | 2015          | 2015        | 1             |

| Species Group         | Scienfic Name         | English Name     | Welsh Name                  | Earliest Year | Latest Year | Total Records |
|-----------------------|-----------------------|------------------|-----------------------------|---------------|-------------|---------------|
| Plants                | Prunus lusitanica     | Portugal Laurel  | Coeden Lawrgeirios Porw gal | 2015          | 2015        | 1             |
| Plants                | Raphanus raphanistrum | Radish           | Rhuddygl                    | 1988          | 1988        | 1             |
| Plants                | Rhododendron poncum   |                  | Rhododendron Wylt           | 2014          | 2014        | 1             |
| Plants                | Sedum album           | White Stonecrop  | Briweg Wen                  | 2011          | 2015        | 2             |
| Plants                | Sinapis arvensis      | Charlock         | Mwstard Gwylt               | 2016          | 2016        | 1             |
| Plants                | Valerianella locusta  | Common Cornsalad | Gwylaeth yr Oen             | 2015          | 2015        | 1             |
| Reples and Amphibians | Anguis fragilis       | Slow-worm        | Neidr Ddefaid               | 1903          | 1903        | 1             |
| Reples and Amphibians | Bufo bufo             | Common Toad      | Llyffant Dafadennog         | 1988          | 1988        | 1             |
| Reples and Amphibians | Rana temporaria       | Common Frog      | Llyffant Melyn              | 1988          | 1988        | 1             |
| Reples and Amphibians | Zootoca vivipara      | Common Lizard    | Madfall                     | 1903          | 1903        | 1             |

## APPENDIX H: EXAMPLE BAT, BIRD AND HEDGEHOG SPECIFICATION

| Bat Boxes Links to suppliers <sup>11</sup> and images                                                                                                                                      |                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>2FE Schwegler Wall-Mounted Bat Shelter</p> <p><a href="https://www.arkwildlife.co.uk/2FE_Wall_Mounted_Bat_Shelter.">https://www.arkwildlife.co.uk/2FE Wall Mounted Bat Shelter.</a></p> |   |
| <p>1FQ Schwegler Bat Roost</p> <p><a href="https://garden.jardinitis.com/schwegler-bat-roost-1fq">https://garden.jardinitis.com/schwegler-bat-roost-1fq</a></p>                            |   |
| <p>1FE Schwegler Bat Access Panel</p> <p><a href="https://www.nhbs.com/4?slug=integrated-batboxes">https://www.nhbs.com/4?slug=integrated-batboxes</a></p>                                 |  |
| <p>Habibat Bat Box - Plain (For Rendering)</p> <p><a href="https://www.nhbs.com/4?slug=integrated-batboxes">https://www.nhbs.com/4?slug=integrated-batboxes</a></p>                        |  |

<sup>11</sup> Other suppliers are available

| Bird Boxes Links to suppliers <sup>12</sup> and images                                                                                                                                                       |                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>Schwegler 1SP Sparrow Terrace Nest Box</p> <p><a href="https://garden.jardinitis.com/schwegler-1sp-sparrow-terrace-nest-box">https://garden.jardinitis.com/schwegler-1sp-sparrow-terrace-nest-box</a></p> |   |
| <p>Woodstone Sparrow Nest Box</p> <p><a href="https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box">https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box</a></p>                     |   |
| Example Hedgehog access                                                                                                                                                                                      |                                                                                     |
|                                                                                                                            |  |

<sup>12</sup> Other suppliers are available