

The Mount, Tower Hill, Acrefair, Wrexham LL14 3SU

Preliminary Ecological Appraisal



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on behalf of AMC Ecological Limited

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Cover Photo - view looking west from the entrance off Tower Hill.

1 EXECUTIVE SUMMARY

Contents	Summary
Site Location	The site is approximately 400m along Tower Hill off the A539 Llangollen Road from Acrefair (Grid Ref: SJ 2699 4304).
Previous Known Surveys	None known
Scope of Works	Preliminary Ecological Appraisal (PEA)
Results	There is one known Statutory Sites within the 2km search area. There are no known non-Statutory Wildlife Sites within the 2km search area. Pisagh Quarry is approximately 1.9km south of the centre of the site and managed by the Wildlife Trust Wales. There are no known RSPB reserves within 2km of the centre of the site. There are no known ponds within 500m of the centre of the site. Habitats present within the site boundary consist predominantly of structures, hardstanding, unmanaged amenity grassland and dense and scattered scrub with scattered trees. No evidence of protected species was encountered during the walkover element of the PEA. Potential bat roosting features have been identified on the main structure and images of these can be seen in Appendix B, with locations and descriptive in Appendix C. Trees were not assessed for their potential to host roosting bats. Other than the two leylandii, it is understood all the trees will be retained
Evaluation/Recommendations	Due to the distances involved and the scale of the proposal it is considered that there will be no adverse effects on either Statutory or non-Statutory sites such as Pisagh Quarry. AMC Ecological Limited have undertaken Preliminary Bat Roost Assessment on all structures associated with the site and the surrounding habitats. Outbuildings were checked internally and externally with no evidence of use by bats encountered. Overall, outbuildings are considered to have a low potential to host roosting bats.

	The main residential structure, although exhibiting a number of features is also considered to have a low potential to host rooting bats. Habitats present on the site are unlikely to be suitable for otter and therefore no further work is required. Hedgehogs <i>Erinaceus europaeus</i>, slow-worm <i>Anguis fragilis</i> and common toad <i>Bufo bufo</i> may frequent the site.
Mitigation	Additional dusk emergence bat survey work on the main structure and outbuildings is required at this time to conclude that bats are unlikely to be present. Recommendations are that a minimum of three suitably qualified bat surveyors are used for a single visit or alternatively, a single suitably qualified bat surveyor makes three visits on separate dates (May to September), with at least one survey undertaken between May and August. The two leylandii understood to be proposed for removal are recommended to be appraised for their potential to host bats during the same visit as the dusk surveys. If other trees are proposed for removal, they should also be appraised for their potential to host bats, prior to their removal. If any vegetation removal or structural demolition is to be undertaken between 1st March to 30th September inclusive, then vegetation and structures shall be searched for nesting birds, prior to disturbance by a suitably qualified ecologist. If a nest is found, the feature containing the nest and its immediate surroundings will be left undisturbed until nesting is complete, and any young have fledged. Hedgehogs, slow-worm and common toad may frequent the site. Should hedgehogs, slow-worm or common toad be encountered, then works shall cease and the hedgehog, slow-worm or common toad moved to a place of safety, via communication with a suitably qualified ecologist. Any excavations as part of the works should avoid being left open so that hedgehogs or other mammals, reptiles or amphibians do not become trapped. If excavations need to be left open, then a plank of wood should be placed from the surface to the base of the excavation as a means of escape.
Enhancement Opportunities	Bird boxes could be considered, these should be aimed at small to medium sized bird species. These should be affixed at approximately 3m height on the north-west aspect. There is an opportunity to install appropriately located bat boxes to retained trees.

2 INTRODUCTION

2.1 Background and Purpose of Survey

AMC Ecological Limited to undertake a Preliminary Ecological Appraisal on a plot of land at The Mount, Tower Hill, Acrefair, Wrexham LL14 3SU (hereafter referred to as 'the site') (see **Figure 1**).

The overall aim of a PEA is to rapidly map existing habitats and determine the potential for presence/absence of protected species.

Should protected species be present or have the potential to be present, further surveys may be required and appropriate mitigation would be formulated to avoid potentially adverse effects.

The site visit for the PEA was undertaken on the 8th of July 2022 by Mr Donald Kernott of AMC Ecological Limited. Donald is a full member of The Chartered Institute of Ecology and Environmental Management (MCIEEM), and he also holds a Level 1 Class Licence for great crested newts *Triturus cristatus* (No. 2014-5448-CLS-CLS) and a Level 2 Class Licence for bats (No. 2015-16995-CLS-CLS).

The compilation of this report has been cross referenced with CIEEM report writing standards (CIEEM 2017) and the British Standard (BS) 42020 Biodiversity – Code of Practice for Planning and Development (BSI 2013).

The PEA plan (see **Appendix A**) has been compiled in reference to Handbook for Phase 1 Habitat Survey (JNCC 1993).

2.2 Site Location

The site is approximately 400m along Tower Hill off the A539 Llangollen Road from Acrefair (Grid Ref: SJ 2699 4304) is essentially rural in character, with the wooded Tref-y-nant Brook to the north and wooded Gronwen Stream to the south (see **Figure 1**).

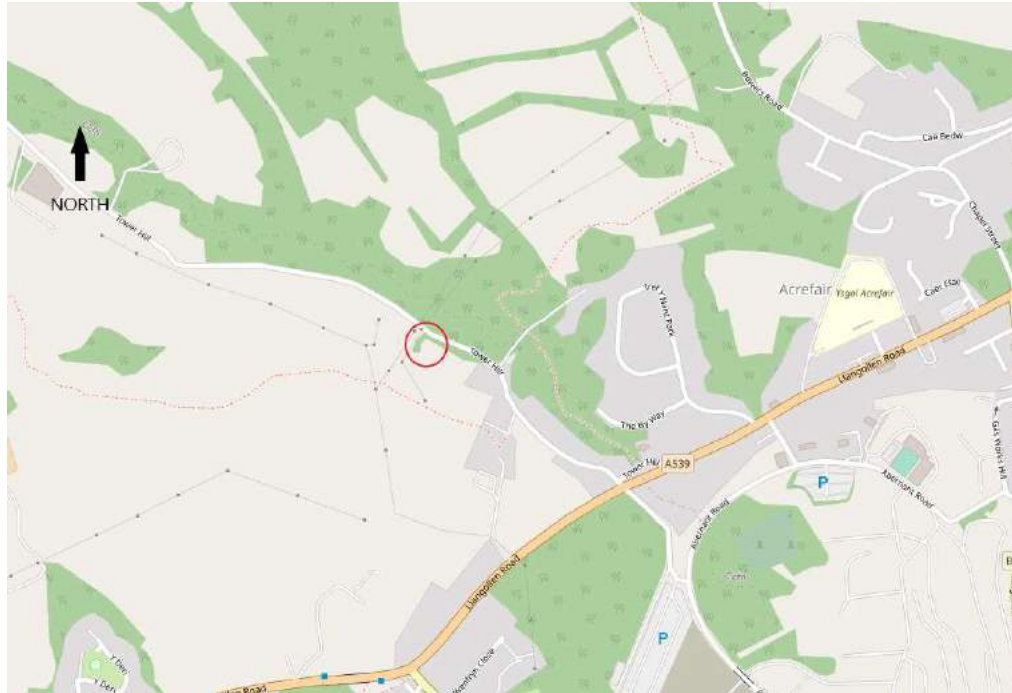


Figure 1: shows the indicative location of the site in relation to the wider area of Acrefair and surrounding countryside.

2.3 Proposed Works

It is understood the proposals are for demolition of the existing property and construction of a residential dwelling within the existing footprint.

2.4 Limitations

It is understood that a search of Multi-Agency Geographical Information System (MAGIC) website only provides a snapshot of data. A Freedom of Information request could potentially source further information but may prove costly and it is considered unlikely that it would yield any further data or add anything material to this appraisal.

MAGIC also only provides historical granted European Protected Species Licence (EPSL) applications for England only.

Using data gained by viewing information on the NBN Atlas Wales for commercial purposes is a breach of the NBN Atlas Wales licence and therefore information from it cannot be

communicated in reports. However, as an overview, NBN Atlas Wales was accessed, and information noted.

Due to the scale of the proposals, location, and the habitats to be affected it was considered that detailed historical ecological information from the centre of the site obtainable from the North Wales Environmental Information Service (Cofnod) is unlikely to reveal any additional important information.

There are no site visit-based limitations to report.

3 SURVEY METHODS

3.1 Desk Study

Desk-based ecological information was collated for a 2km radius from the site via a number of sources, as described below.

The Multi-Agency Geographical Information System (MAGIC) website (www.magic.gov.uk) was used to search for any statutory designated sites of nature conservation importance including Special Protection Areas (SPA) and Special Areas of Conservation (SAC), Ramsar sites, Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Wildlife Sites (LWS) within 2km from the centre of the site.

Wrexham Borough Council Unitary Development Plan (2005) (Map/Side 1) has also been reviewed to check for local Wildlife Site non-statutory designations.

A search for any Wildlife Trust Wales/Royal Society for the Protection of Birds (RSPB) Nature Reserves within 2km from the centre of the site has also been undertaken.

Ordnance Survey (OS) mapping was used to check for ponds within 500m of the site and other habitats of interest.

In addition, the UK Biodiversity Action Plan (UKBAP) was reviewed, with reference to the potential value of habitats and species present, or likely to be present, within or adjacent to the site.

The National Biodiversity Network Atlas Wales (NBNAW) was also accessed, and records of protected species noted – however, due to copyright laws detailed information cannot be disclosed.

3.2 Preliminary Ecological Appraisal

The PEA referenced Guidelines for Preliminary Ecological Appraisal (CIEEM 2017). The purpose of the CIEEM guidance is to set out the appropriate approach to undertaking PEAs and the appropriate application of such assessments within the planning process.

PEA is the term used to describe a rapid assessment of the ecological features present, or potentially present, within a site and its surrounding area in relation to a proposed development.

A PEA normally comprises a desk study and a walkover survey.

4 SURVEY RESULTS

4.1 Desk Study

There is one known Statutory Sites within the 2km search area.

- Afon Dyfrdwy (River Dee), approximately 1km south of the centre of the site

There are no known non-Statutory Wildlife Sites within the 2km search area.

Pisagh Quarry is approximately 1.9km south of the centre of the site and managed by the Wildlife Trust Wales.

There are no known RSPB reserves within 2km of the centre of the site.

There are no other known sites of Conservation interest within the 2km search area.

There are no known ponds within 500m of the centre of the site.

Other habitats of interest nearby from the centre of the site include the following.

- Tref-y-nant Brook and associated vegetation (woodland), with pastoral fields bound by hedgerow beyond, approximately 50m north.
- Arable and pastoral fields bound by hedgerow, approximately 50m west, 100m south-west and south respectively.
- Gronwen Stream and associated vegetation (woodland), approximately 60m south.
- Shropshire Union Canal Llangollen Branch, approximately 800m south.

The following UKBAP species are known to be present within 2km of the site. West European hedgehog *Erinaceus europaeus*, otter *Lutra lutra*, slow-worm *Anguis fragilis* and common toad *Bufo bufo*. There are also likely to be a number of bird, insect and flowering UKBAP species within 2km of the centre of the site.

Slow-worm are also protected under the Wildlife and Countryside Act 1981 (as amended).

4.2 Preliminary Ecological Appraisal

Habitats present within the site boundary consist predominantly of structures, hardstanding, unmanaged amenity grassland and dense and scattered scrub with scattered trees.

A PEA plan showing the various habitats can be found at **Appendix A**. Site images of the various habitats can be found in **Appendix B**.

The main structure is a single-storey empty residential dwelling. Other structures to the north-west and south-east of the site include small brick outhouses presumably used as sheds and unused single-storey dilapidated garage structure respectively.

To the north-west the ground rises sharply to dense continuous scrub, dominant species include snowberry *Symphoricarpos albus* and hazel *Corylus avellana* with some regenerating species of

ash *Fraxinus excelsior* and sycamore *Acer pseudoplatanus*. Under the hazel dog's mercury *Mercurialis perennis* and male fern *Dryopteris filix-mas* are present. Ivy *Hedera helix* makes up the ground flora and climbs up the boundary trees in places. Boundary trees are predominantly semi-mature to mature oak *Quercus* sp. and ash arising from the dense continuous scrub and continue round, in part, to the south-west aspect of the site.

To the north-east, the boundary of scattered scrub along Tower Hill is made up predominantly holly *Ilex aquifolium* and hazel. Individual trees along this boundary include a mature oak and two mature *leylandii Cupressus × leylandii*.

The south-west boundary where the dense continuous scrub ends is a native species hedgerow which continues part way round to the south-east boundary. Dominant species include hazel and hawthorn *Crataegus monogyna*. Where the native species hedgerow ends the remaining boundary is made up of a closeboard fence to the site access off Tower Hill.

Much of the area surrounding the main structure is hardstanding which is exhibiting signs of colonisation by saint John's wort *Hypericum perforatum*, black medick *Medicago lupulina*, false brome *Brachypodium sylvaticum*, broad-leaved dock *Rumex obtusifolius*, ragwort *Jacobaea vulgaris*, creeping jenny *Lysimachia nummularia*, buddleia *Buddleja davidii*, yellow loosestrife *Lysimachia vulgaris*, self-heal *Prunella vulgaris* and wall lettuce *Lactuca muralis*, ash, birch *Betula pendula* and willow *Salix* sp. regeneration.

To the north-west of the hardstanding and at the base of the steep banking is an area of introduced shrub, primarily made up of ornamental rose species *Rosa* sp.

The remainder of the site to the south-west is unmanaged amenity grassland. Grass species identified include perennial ryegrass *Lolium perenne*, Yorkshire fog *Holcus lanatus* and hairy brome *Bromus ramosus*. Other species identified include broad-leaved dock, ragwort, bluebell *Hyacinthoides* sp. hoary willowherb *Epilobium parviflorum*, creeping buttercup *Ranunculus repens*, lady's mantle *Alchemilla vulgaris*, cow parsnip *Heracleum maximum*, dandelion *Taraxacum* sp. lesser knapweed *Centaurea nigra*, geranium species *Geranium* sp. herb Robert *G. Robertianum*, saint John's wort, germander speedwell *Veronica chamaedrys*, hedge woundwort *Stachys sylvatica* and bramble *Rubus fruticosus*.

Protected Species

No protected species or evidence of protected species was encountered during the walkover element of the PEA. However, it could be reasonably expected that nesting birds and foraging bats are present during the period March to October and May to October respectively.

All the structures were appraised for their potential to host roosting bats as per Collins (2016). Internal and external inspections of all outbuildings were undertaken, no bats species or evidence of bats was encountered. Occasional gaps in the brickwork or under bargeboards were identified, however the structures with gaps in the brickwork have windows allowing light to penetrate.

The main structure (residential building) is considered to be a circa 1950's brick-built, single-storey, pitched slate-roofed property. Later extensions to the north-west of the property are also evident.

It has also been the subject of internal and external inspections. Internally there is no roof void. Each room was systematically inspected and surfaces checked for evidence of use of the structure by bats – none was encountered.

Appendix C identifies and lists the potential bat roosting features encountered as part of the appraisal. The majority are associated with gaps to soffit boxes and bargeboards. The roof slates and ridge tiles are in general good order, although a few loose slates are apparent on the south-west aspect.

Other than the south-west aspect, many of the gaps to soffit boxes and bargeboards are cobwebbed, indicating potential features are not in use (see **Appendix B**).

Windows, walls and the ground beneath the potential bat roosting features were checked for evidence of bats – none was encountered

Trees were not assessed for their potential to host roosting bats. Other than the two *leylandii*, it is understood all the trees will be retained.

5 SUMMARY LEGISLATION, EVALUATION and RECOMMENDATIONS

5.1 Summary of Legislation

This includes a brief summary of legislation relevant to wildlife. The original texts of the relevant legislation or specific legal advice should be consulted in individual cases where appropriate. This section does not constitute legal advice.

Protected species include those species present on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended).

Schedule 2 species are protected under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats & Species (Amendment) (EU Exit) Regulations 2019. This makes it an offence to kill, injure, damage or destroy a place of shelter or protection. Deliberate or reckless disturbance which could affect the ability of any significant group of animals to survive, breed, rear or nurture their young may also result in an offence.

Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended), whereby it is illegal to intentionally or recklessly:

- Kill, injure or take any wild bird;
- Damage or destroy or otherwise interfere with the nest of any wild bird;
- Take or destroy an egg of any wild bird.

Further, Schedule 14 of the Environment Bill 2020 was given Royal Assent on the 10th of November 2021 and became the Environment Act 2021. Amongst other elements, it introduced a mandatory requirement for biodiversity net gain in the planning system, making its provision in certain circumstances a condition of planning permission in the UK. It is understood that the Environment Act 2021 does not affect small-scale residential developments.

5.2 Evaluation and Recommendations

There is one known Statutory Site, Afon Dyfrdwy (River Dee), approximately 1km south of the centre of the site.

There are no known non-Statutory Wildlife Sites within the 2km search area.

Due to the distances involved and the scale of the proposal it is considered that there will be no adverse effects on either Statutory or non-Statutory sites such as Pisagh Quarry.

Protected Species

Bats

AMC Ecological Limited have undertaken Preliminary Bat Roost Assessment on all structures associated with the site and the surrounding habitats.

Habitats surrounding the site could be characterised as predominantly rural in character. There are several nearby and further afield suitable bat foraging habitats and potential commuting corridors. These habitats and corridors could provide access to the adjacent site which may afford roosting opportunities (trees and structure).

Outbuildings were checked internally and externally with no evidence of use by bats encountered. Occasional gaps in the brickwork or under bargeboards were identified, however the structures with gaps in the brickwork have windows allowing light to penetrate. Overall, outbuildings are considered to have a **low** potential to host roosting bats.

The main residential structure, although exhibiting a number of features is also considered to have a **low** potential to host roosting bats. This is due to most of the features having cobwebs over the entrances and therefore could be concluded as not used. The exception is the south-west aspect of the structure, where gaps are observed, but no evidence of use by bats encountered (see **Appendix B & C**).

Based on the observations undertaken and subsequent analysis, it is considered that additional dusk emergence bat survey work on the main structure and outbuildings is required at this time to conclude that bats are unlikely to be present. Recommendations are that a minimum of three suitably qualified bat surveyors are used for a single visit or alternatively, a single suitably qualified bat surveyor makes three visits on separate dates (May to September), with at least one survey undertaken between May and August.

Should bat species be found to be roosting, additional surveys may be required to characterise the roost to enable appropriate mitigation to be formulated.

Potential surveyor locations that should enable all potential features to be adequately surveyed during dusk surveys are marked with a red arrow on **Appendix C**.

The two leylandii understood to be proposed for removal are recommended to be appraised for their potential to host bats during the same visit as the dusk surveys. Should any other trees be

proposed for removal then they must also be appraised for bat potential by a suitably qualified ecologist.

Birds

If any vegetation removal or structural demolition is to be undertaken between 1st March to 30th September inclusive, then vegetation and structures shall be searched for nesting birds, prior to disturbance by a suitably qualified ecologist. If a nest is found, the feature containing the nest and its immediate surroundings will be left undisturbed until nesting is complete, and any young have fledged.

Other Species

Habitats present on the site are unlikely to be suitable for otter and therefore no further work is required.

Hedgehogs, slow-worm and common toad may frequent the site. Should hedgehogs, slow-worm or common toad be encountered, then works shall cease and the hedgehog, slow-worm or common toad moved to a place of safety, via communication with a suitably qualified ecologist.

Any excavations as part of the works should avoid being left open so that hedgehogs or other mammals, reptiles or amphibians do not become trapped. If excavations need to be left open, then a plank of wood should be placed from the surface to the base of the excavation as a means of escape.

6 MITIGATION and ENHANCEMENTS

6.1 Mitigation

Additional dusk emergence bat survey work on the main structure and outbuildings is required at this time to conclude that bats are unlikely to be present. Recommendations are that a minimum of three suitably qualified bat surveyors are used for a single visit or alternatively, a single suitably qualified bat surveyor makes three visits on separate dates (May to September), with at least one survey undertaken between May and August.

The two leylandii understood to be proposed for removal are recommended to be appraised for their potential to host bats during the same visit as the dusk surveys. Should any other trees be proposed for removal then they must also be first appraised for bat potential by a suitably qualified ecologist.

As intimated above in Section 5.2, communication with a suitably qualified ecologist, when required, to assist with any nesting bird searches or any other ecological issues that may arise, would be adequate in relation to the scale of the proposals.

Hedgehogs, slow-worm and common toad may frequent the site. Should hedgehogs, slow-worm or common toad be encountered, then works shall cease and the hedgehog, slow-worm or common toad moved to a place of safety, via communication with a suitably qualified ecologist.

Any excavations as part of the works should avoid being left open so that hedgehogs or other mammals, reptiles or amphibians do not become trapped. If excavations need to be left open, then a plank of wood should be placed from the surface to the base of the excavation as a means of escape.

6.2 Enhancements

Bird boxes could be considered, these should be aimed at small to medium sized bird species. These should be affixed at approximately 3m height on the north-west aspect of trees or structures. Suitable bird boxes can be obtained from Wildlife Services or similar approved suppliers - <https://www.wildlifeservices.co.uk/birdboxes.html>

There is an opportunity to install appropriately located bat boxes to retained deciduous trees. It is considered that suitability and location for any bat boxes would be similar to those discussed above for birds. Suitable bat boxes can be obtained from Wildlife Services or similar approved suppliers - <https://www.wildlifeservices.co.uk/birdboxes.html>

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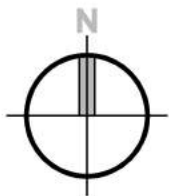
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Appendix A

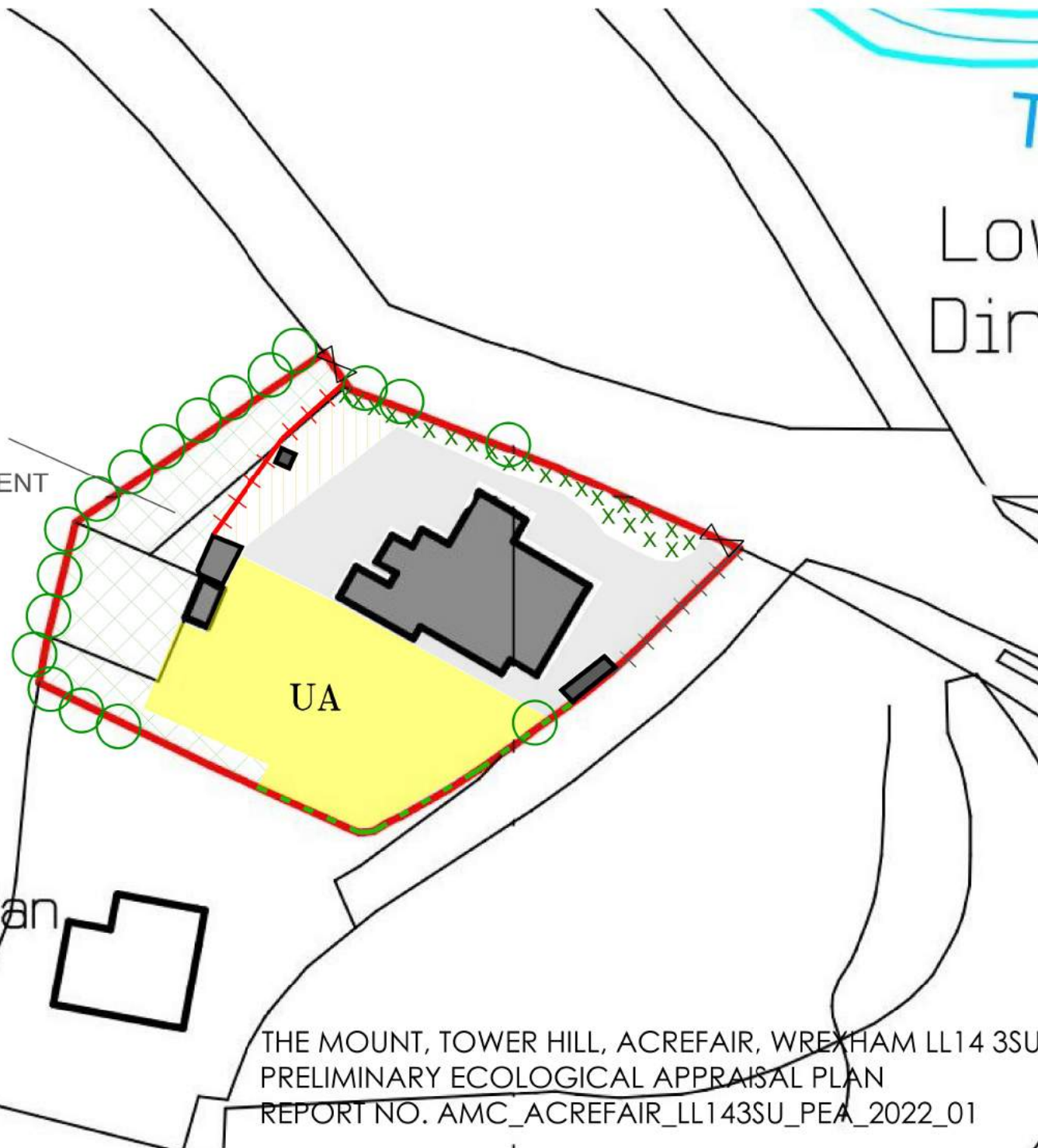
Preliminary Ecological Appraisal Plan

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STEEP EMBANKMENT

Cambrian
House



Low
Din

KEY

VEGETATION

-  INDIVIDUAL TREE
-  DENSE SCRUB
-  SCATTERED SCRUB
-  UNMANAGED AMENITY GRASSLAND
-  INTRODUCED SHRUB
-  SPECIES POOR HEDGE

MISCELLANEOUS

-  INDICATIVE SITE BOUNDARY
-  WALL
-  BUILDINGS/STRUCTURES
-  HARDSTANDING
-  FENCE
-  GATE

Drawn By DK 18/07/22

Checked by AC 20/07/22

Survey Date 08/07/22

Scale 1:400@A4

THE MOUNT, TOWER HILL, ACREFAIR, WREXHAM LL14 3SU
PRELIMINARY ECOLOGICAL APPRAISAL PLAN
REPORT NO. AMC_ACREFAIR_LL143SU_PEA_2022_01

Appendix B

Site Images



Image 1: view north-east over dense continuous scrub (snowberry) towards Tower Hill.



Image 2: view looking south-east over dense continuous scrub (hazel).



Image 3: view from steep embankment to north-west looking south-east over main structure.



Image 4: view looking west of introduced shrub *Rosa* sp. looking towards x2 outbuildings.



Image 5: general view looking north-east over unmanaged amenity grassland towards native species hedge.



Image 6: hardstanding looking north-east towards Tower Hill, with dilapidated to right and main structure to left.



Image 7: two views to the interior of the main structure showing furniture which was checked for signs of bats e.g. droppings/urine staining.



Image 8: general view of internal roof structure indicating no void present.



Image 9: Feature 1 as shown in Appendix C, showing gaps under gable soffit box with cobwebs present.



Image 10: Feature 2 as shown in Appendix C, showing gaps under gable soffit with cobwebs present.



Image 11: Feature 3 as shown in Appendix C, showing gap where soffit box meets structure extension with cobwebs present.



Image 12: Feature 4 as shown in Appendix C, showing top of brickwork adjacent to soffit where guttering ends with cobwebs present.



Image 13: Feature 5 as shown in Appendix C, showing gaps under bargeboard with cobwebs present.



Image 14: Feature 6 as shown in Appendix C, showing gaps in soffit box with limited cobwebs present.



Image 15: Feature 7 as shown in Appendix C, showing gaps under bargeboard with limited cobwebs present.



Image 16: Feature 8 as shown in Appendix C, showing panel out on soffit box.



Image 17: Feature 9 as shown in Appendix C, showing gap under soffit box at gable end and ridge joint with limited cobwebs present. Tile pointing also missing with gaps present.

Appendix C

Potential Bat Roosting Features & Surveyor Location Plan

