



ARBOR VITAE

ECOLOGY • FORESTRY • LAND USE



PRELIMINARY BAT ROOST ASSESSMENT

Y GADLAS, HIRNANT

Project name: Y Gadlas, Hirnant, Nr. Oswestry, Shropshire, SY10 0HP

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Contents

1	INTRODUCTION	3
1.1	BACKGROUND TO DEVELOPMENT	3
1.2	SCOPE OF SURVEY	3
1.3	KEY PRINCIPLES	3
2	SITE DESCRIPTION	4
2.1	LOCATION, LANDSCAPE, AND BACKGROUND	4
2.2	BUILDING DESCRIPTION	4
3	SURVEY METHODOLOGY	5
3.1	DESKTOP STUDY	5
3.2	PRELIMINARY BAT ROOST ASSESSMENT	5
3.3	BREEDING BIRDS	5
3.4	PERSONNEL	5
3.5	CONSTRAINTS	5
4	SURVEY RESULTS	6
4.1	DESKTOP STUDY	6
4.2	PRELIMINARY BAT ROOST ASSESSMENT	6
4.3	BREEDING BIRDS	6
5	EVALUATION OF RESULTS AND IMPACT	7
5.1	BATS	7
5.2	BREEDING BIRDS	7
6	MITIGATION AND ENHANCEMENT	7
6.1	BATS	7
6.2	BREEDING BIRDS	8
6.3	ENHANCEMENT	8
7	SUMMARY	9
8	REFERNCES	10
	FIGURE 1 LOCATION. 1:50,000	11
	FIGURE 2 AERIAL PHOTOGRAPH	12
	FIGURE 3 PROPOSED ELEVATIONS	13
	FIGURE 4 PROPOSED PLAN	14
	APPENDIX 1 PHOTOGRAPHS	15

1 INTRODUCTION

1.1 BACKGROUND TO DEVELOPMENT

Planning permission will be sought for the conversion of an existing workshop into a dwelling at Y Gadlas, Hirnant. The proposals will include the removal of a rear lean-to and an addition at the east elevation.

1.2 SCOPE OF SURVEY

Arbor Vitae were commissioned by Robert Good to undertake a Preliminary Bat Roost Assessment (PBRA) to establish the potential of the buildings to be used by roosting bats. Bats and their roosting sites are legally protected under The Conservation of Habitats and Species Regulations 2017 and The Wildlife and Countryside Act 1981.

The survey was also designed to assess the presence of any breeding birds using the buildings. All wild nesting birds, their nests and eggs are legally protected under The Wildlife and Countryside Act 1981.

There is one pond within 250m of the site. Upon inspection, the pond was completely dry and appeared to be a shallow depression in the land beneath a mature oak. The area has no discernible qualities of a pond and therefore the possible presence of Great crested newts was discounted.

1.3 KEY PRINCIPLES

All ecological surveys conducted by Arbor Vitae Environment Ltd are underpinned by the following key principles, as outlined by CIEEM (2018):

Avoidance - Seek options that avoid harm to ecological features (for example, by locating on an alternative site).

Mitigation - Adverse effects should be avoided or minimized through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.

Compensation - Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.

Enhancements - Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

2 SITE DESCRIPTION

2.1 LOCATION, LANDSCAPE, AND BACKGROUND

The workshop is located within the grounds of Y Gadlas, a residential property in Hirnant, near Pen y Bont Fawr (Figure 1). The land surrounding the site is dominated by agricultural grassland, associated native hedgerows and broadleaved woodland and coniferous plantations (Figure 2).

The conversion will provide a dwelling house adjacent to a range of existing residential properties at the site. Access to the site exists from the B4396 to the south of the site.

2.2 BUILDING DESCRIPTION

The workshop is a single storey structure with original stone wall bases. There is a central structure with a lean-to at the north elevation, joining the sloped roof of the main building and a lean-to canopy at the south elevation with Perspex panels covering a concrete pad.

The walls are timber framed and clad with timber paneling and boarding internally. Externally, the elevations are clad with timber boarding which fit tightly together. The panels are fixed onto the elevations with timber batons and the cladding is completely sealed.

Internally, the roof frame is constructed from new timbers and there are low level, single pane windows at the north and east elevation. The floor is concrete and the roof is unlined. The roof is covered with box profile sheets and slopes from 1 ½ storeys to low level at the north elevation. There are some transparent panels within the roof acting as sky lights making the structure bright internally.

The structure is surrounded by gravel and tarmac at the south, east and west elevation. Improved grassland abounds the north elevation of the workshop and there are several young trees to the east of the building including silver birch, ash and elder.

3 SURVEY METHODOLOGY

3.1 DESKTOP STUDY

An initial desk study was carried out to gain background information regarding any protected species or designations within the area. The main sources of information were MagicMap and NBN Atlas.

3.2 PRELIMINARY BAT ROOST ASSESSMENT

One visit was made to survey the property on 12/11/2020.

The objective of the survey was to find and record any signs of use by bats, for example:

- Droppings, sometimes in concentrations below roost sites,
- Feeding signs such as butterfly and moth wings,
- Staining of timber, brickwork around access points.

The general structure of the building was assessed for its potential to provide bats with roosting opportunities.

The surrounding landscape and links to other nearby habitats were also taken into consideration during the assessment.

3.3 BREEDING BIRDS

The building was assessed for its potential to provide birds with nest sites, and to record any existing evidence of previous nesting.

3.4 PERSONNEL

One surveyor was used: Phillipa Stirling MSc GradCIEEM, assistant ecologist.

3.5 CONSTRAINTS

Breeding birds would not have been present at the time of the survey but previous nesting and potential nest sites would be apparent.

4 SURVEY RESULTS

4.1 DESKTOP STUDY

The desk study revealed the following records of protected species:

Species	Distance from site	Protection
Daubenton's bat	0.4km	Wildlife and Countryside Act 1981 Conservation of Habitats and Species Regulations 2017
Whiskered bat	0.6km	Wildlife and Countryside Act 1981 Conservation of Habitats and Species Regulations 2017
Natterer's bat	0.6km	Wildlife and Countryside Act 1981 Conservation of Habitats and Species Regulations 2017
Brown long-eared bat	0.4km	Wildlife and Countryside Act 1981 Conservation of Habitats and Species Regulations 2017
Lesser horseshoe bat	0.7km	Wildlife and Countryside Act 1981 Conservation of Habitats and Species Regulations 2017
Merlin	0.9km	Wildlife and Countryside Act 1981
Goshawk	0.9km	Wildlife and Countryside Act 1981
Peregrine	0.9km	Wildlife and Countryside Act 1981
Barn owl	0.4km	Wildlife and Countryside Act 1981

4.2 PRELIMINARY BAT ROOST ASSESSMENT

The workshop is a single skin construction with no cavities or gaps present within which may be used by bat species. The roof structure does not provide any suitable opportunities for bats and the inspection did not find any evidence to suggest that bats are using the structure. The timber cladding on the elevations is very well sealed and there are no gaps between the boards or where the cladding meets the building. Overall, the workshop has 'negligible' potential as a bat roost.

4.3 BREEDING BIRDS

During the internal and external inspection of the workshop, no evidence of nesting birds was found. The structure does not provide many suitable opportunities for breeding birds and it is unlikely to become used.

5 EVALUATION OF RESULTS AND IMPACT

5.1 BATS

The workshop holds 'negligible' potential as a bat roost and no further survey work is necessary.

The proposals will have no impact on this group of protected species and therefore a European Protected Species Mitigation Licence will **not** be needed for works to proceed.

Any new lighting should be considerate to nocturnal wildlife, as set out below.

5.2 BREEDING BIRDS

There was no evidence to suggest that breeding birds have or will use the workshop to be converted. The proposals are very unlikely to have any impact on this group and no further survey work is required.

6 MITIGATION AND ENHANCEMENT

6.1 BATS

In order to ensure that the replacement dwelling does not adversely impact bats or other nocturnal wildlife through the installation of external lighting, the following measures will be adopted:

- Hedgerows and key habitat features including mature trees on the site should not be illuminated in order to retain dark movement corridors for nocturnal wildlife. Illuminance along these features should be below 0.2 lux on the horizontal plane, and 0.4 lux on the vertical plane.
- Any exterior security or decorative lights to be installed on the development site shall be less than 3 m from the ground and fitted with hoods to direct the light below the horizontal plane, at an angle of less than seventy degrees from vertical, and shall not be fixed to, or directed at, gables or eaves.
- Security lighting should be set on motion sensors with short timers (<1 minute) and should be LED with a passive infrared trigger.
- External lights should be hooded and directed toward the ground to reduce upward light spill.

6.2 BREEDING BIRDS

The proposals will have no impact on breeding birds or habitats which may be used by them and therefore mitigation is not required.

6.3 ENHANCEMENT

In order to provide opportunities for protected species on site, the following should be installed:

- 1x Woodcrete bat box suitable for crevice dwelling species to be installed into a mature tree on site. The box should be at least 3m from the ground and face south or south west.
- 1x Woodcrete bird box suitable for hole nesting species. The box should be placed into a mature tree at least 2m from the ground and should face away from the prevailing wind.

7 SUMMARY

Planning permission will be sought for the conversion of an existing workshop into a dwelling at Y Gadlas, Hirnant. The proposals will include the removal of a rear lean-to and an addition at the east elevation. The conversion will provide a dwelling house adjacent to a range of existing residential properties at the site. Access to the site exists from the B4396 to the south of the site.

Arbor Vitae were commissioned by Robert Good to undertake a Preliminary Bat Roost Assessment (PBRA) to establish the potential of the buildings to be used by roosting bats. The survey was also designed to assess the presence of any breeding birds using the buildings.

The workshop is a single storey structure with original stone wall bases. The walls are timber framed and clad with timber paneling and boarding internally. Externally, the elevations are clad with timber boarding which fit tightly. Internally, the roof frame is constructed from new timbers and there are low level, single pane windows at the north and east elevation. The roof is covered with box profile sheets and slopes from 1 ½ storeys to low level at the north elevation. The structure is surrounded by gravel and tarmac at the south, east and west elevation.

The workshop holds 'negligible' potential as a bat roost and no further survey work is necessary. The proposals will have no impact on this group of protected species and therefore a European Protected Species Mitigation Licence will not be needed for works to proceed. Measures to ensure that any additional external lighting will not impact nocturnal wildlife will be implemented following works on site.

There was no evidence to suggest that breeding birds have or will use the workshop to be converted. The proposals are very unlikely to have any impact on this group and no further survey work is required.

In order to provide opportunities for protected species on site, the following should be installed:

- 1x Woodcrete bat box,
- 1x Woodcrete bird box.

8 REFERENCES

Bat Conservation Trust (2018) Bats and artificial lighting in the UK. *Bats and the Built Environment series*, Guidance Note 08/18. Institution of Lighting Professionals.

Collins, J. (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.

Mitchell-Jones, T., 2004. Bat mitigation guidelines. External Relations Team, English Nature.

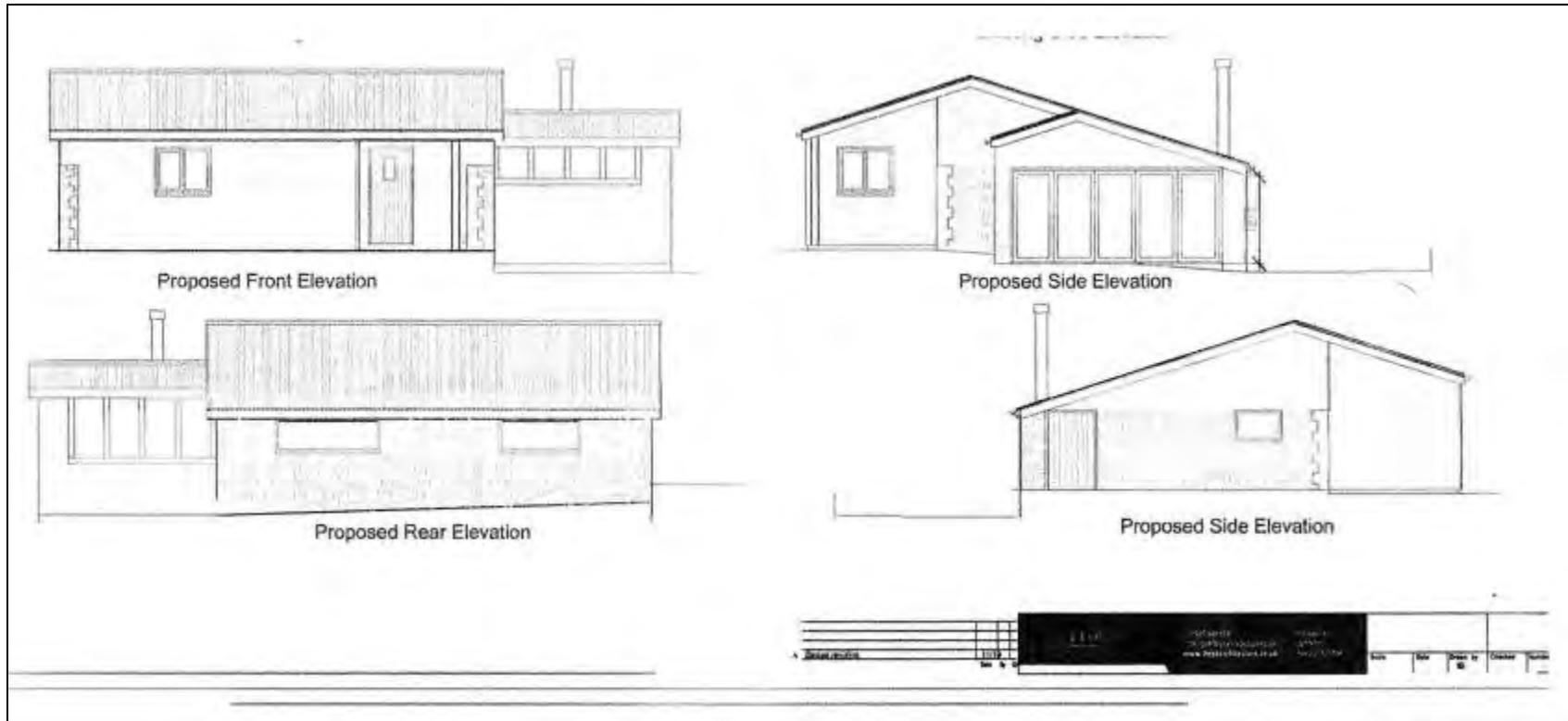
FIGURE 1 LOCATION. 1:50,000



FIGURE 2 AERIAL PHOTOGRAPH



FIGURE 3 PROPOSED ELEVATIONS



APPENDIX 1 PHOTOGRAPHS



Interior of workshop.



Sloping roof at north elevation.



Lean-to porch at south elevation.



Paneling to the elevation is very tightly sealed.