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PROTECTED SPECIES SURVEY

SEREN BARN

OFF RUTHIN ROAD, BWLCHGWYN

LL11 5UY

FOR

Mr E Carbery

14th June 2020

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1. INTRODUCTION

A preliminary protected species survey (bats and nesting birds) was undertaken on the 11th June 2020. The survey was carried out by David Bennett, a licensed and experienced bat surveyor and ecologist (Natural Resource Wales & Natural England licenses - Natural Resource Wales & Natural England licenses - NRW 69536 following a request by the current owner of the property. The survey was requested to satisfy planning requirements in respect of any protected species issues for a building known as Seren Barn, Bwlchgwyn, Wrexham, North Wales, LL11 5UT.

A planning consent is being sought to permit a change of use with conversion of the building into residential accommodation. Previous use has been varied but includes use as an office for an off-road driving company.

2. BAT BIOLOGY

There are now 17 species of bat (breeding) in the UK, many of which can be found within this part of Wales. Each bat gives birth just once a year, early in summer, the females tending to gather together in a communal roost to give birth and bring up their young. This is the time when they are most likely to use buildings. By the end of the summer the roosts are often vacated for other more suitable hibernation sites such as caves, mines or trees. Hibernation sites are usually characterised by stable temperatures with a high level of humidity. When temperatures fall and food becomes scarce they hibernate and live off body fat stored during the autumn. During mild winters bats can still often be seen on an evening flying and looking for food. Bats use a variety of different structures for the purposes of roosting, these can include mature trees, caves, mines, buildings (old and new), bridges and tunnels.

Bats will generally cause no harm to buildings or the people that occupy the buildings. They can be very discreet and are often not noticed because of their preference to occupy tiny spaces, cracks and crevices in roof voids. Some species such as the brown long eared bat will utilise open loft areas for flying and moving around in. They will roost on bare exposed timber beams, typically beneath the ridge beam. The droppings produced are harmless (largely made up of insect fragments) and do not carry any disease although a very large roost can sometimes produce large quantities of droppings.

3. LEGISLATION

All of our species of domestic bat are protected under both UK and European legislation. In the UK they are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation (Natural Habitats &c.) Regulations 1994. The Habitats Directive has been superseded by The Conservation of Habitats and Species Regulations 2017.

To summarise it is illegal not only to intentionally kill, injure or take any bat but also too recklessly or intentionally damage, destroy or obstruct access to any place that a bat uses for shelter or protection, or to disturb a bat while it is occupying such a place. A roost is protected whether or not bats are present at the time. The reason for this is that bats tend to remain loyal to certain roost sites, often over a long period of time.

The presence of a species protected under European or UK legislation is a material consideration when a planning authority is considering a development proposal which, if carried out would be likely to result in disturbance or harm to the species or its habitat. The Environment (Wales) Act 2016 (Section 6) Biodiversity and resilience of ecosystems duty states that “A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions”.

4. AIMS

The aims of the survey were:

1. To describe any evidence of protected species in the study area.
2. To assess the impact of carrying out the proposed works.
3. To suggest mitigation measures as appropriate.

5. STUDY AREA

The site consists of the barn with areas of grass and hardstanding all surrounded by a wooden panel fence. The barn is set within an established residential area with other properties along the sides of the access drive.

The barn has been constructed using a mix of blockwork and brick, the sides have been rendered while the front has wood panelling. The pitched roof is constructed using a timber frame covered with heavy timber joists which are then covered with timber shingles, there is no roof felt or insulation.

The site plan is shown in Appendix 1 and the photos are shown in Appendix 2.

6. METHODOLOGY

The building was subjected to an internal and external survey on the 11th June 2020, the weather conditions were dry and clear. As much of the building as possible was searched (health and safety and access permitting) using a Cluson rechargeable lamp, a Seesnake endoscope (paying particular attention to the roof sections, ledges and any gaps or cavities). A search was made for bat droppings, staining, odour, old skeletons and feeding signs (such as wing casings etc). Other evidence such as bird's nests and other signs of nesting birds was also looked for both internally and externally.

7. RESULTS

No visible evidence of bats was found, no droppings were apparent and there were no signs of feeding, staining, marking etc. The internal roof space is completely open with all areas of the roof and inner wall plate being visible. The internal area is light and open due to windows and electric lighting.

Externally, the front of the barn has been covered with wooden cladding and it is well sealed with a Tyvek lining behind the wood. The gables (front and rear) just below the edge of the shingles are well sealed with mortar, there are no gaps, cavities or missing sections. The top of the wall on the rear gable elevation is well sealed with no gaps or points of access.

There is a small gap at eaves level where the wall plate timber sits just back from the edge of the wall. This space was inspected, no evidence of bats was found, nesting birds were found near one corner. The wall plate is visible from both the outside and inside of the barn and with no felt or insulation all areas can be inspected.

Overall, there does not appear to be any evidence of use by bats and nothing that would appear to cause any issues with the current proposal. The overall potential for the barn to support roosting bats is negligible due to a lack of suitable roost space or dark cavities. The proposals mainly include conversion of the interior space, the externals such as eaves, gables etc will be left as they are. Internal insulation will be placed under the timber joists with the timber shingles and roof structure remaining as existing.

8. CONCLUSIONS, IMPACTS AND MITIGATION FOR BATS

No evidence suggesting bat use has been found during this survey and for the reasons suggested is thought unlikely and no further survey work is required. It therefore appears that there are no apparent issues relating to the proposed works in respect of bats at the present time. As outlined above it is often difficult to inspect every crevice or hidden section in a building (due to access or health and safety issues). In addition bats tend to be nomadic, which reduces the chances of finding bats on one or even several visits. This situation arises frequently when carrying out this type of survey. However, the survey has been completed to a good standard and it is not anticipated that any problems will occur. Carrying out the survey also puts in place demonstrable safeguards regarding the avoidance of illegal activities.

As a general note, most buildings offer potential for over-wintering and seasonal occupancy for individual bats. This use can be sporadic during the season and actual presence through emergence surveys cannot be fully confirmed. It is therefore recommended that the following precautionary recommendations should be undertaken as good working practice during the construction phase.

- **Any shingles that need to be disturbed should be carefully removed by hand to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.**
- **Door and window frames should be removed with care to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.**

- Structural members, lintel bearings, purlins or wall plates should be removed with care to ensure that no roosting, torpid or hibernating bats are injured during the proposed works.
- In the unlikely event that bats were found during the construction process then all work should cease and Natural Resource Wales Species Officer 0300 065 3000 and/or a licensed bat worker should be contacted for further advice.

The alterations to the barn offer the opportunity to create some bat friendly features. *Pipistrelle sp.* and other crevice dwellers such as *Myotis* bats will readily take to new and/or converted buildings as long as suitable access points and features are retained or created. The following features should be included to try to encourage bats to use the building.

- Two Beaumaris midi bat boxes should be fitted to the wall on the rear south-east gable end. The boxes should be fitted directly to the wall, high up, one each side of the ridge area just below the roof overhang.

9. NESTING BIRDS

The only evidence of nesting birds is at eaves level just above the wall top where nest material has been wedged in in front of the wall plate. The works as proposed do not impact upon there area so there should be no issues in respect of disturbance if carrying out works during the nesting season.

All breeding birds are protected under Section 1(1) and 1(2) of the Wildlife and Countryside Act 1981, as amended. This makes it an offence to damage, disturb, or obstruct access to nests during the bird breeding season (generally March to September).

10. REFERENCES

BCT 2016 Good Practice Guidelines 2nd Edition 2016 BCT

Joint Nature Conservation Committee 2004 *Bat Workers Manual* JNCC Peterborough

Mitchell-Jones A J 2004 *Bat Mitigation Guidelines* English Nature Peterborough UK

Appendix 1 – Site location plan



Appendix 2 – Site Photos

Front elevation



Side elevation



Side elevation with chimney



Rear elevation



Wooden roof shingles



Front gable is well sealed at the roof edge, ship-lap panels are tight to the wall



Front gable is well sealed



Chimney and lead flashing is all intact and sealed



Ridge tiles are all intact and well seated with no gaps



Fascia boards on the flat roof section are tight to the wall



Fascia boards are tight to the wall



Rear gable is well sealed with no gaps or missing sections of mortar



Rear gable is well sealed



Gable is tight to the block wall with no gaps



Sealed around the rear gable end



Flat roof extension is open and light



Roof overhang on the eaves sits tight onto the wall plate



Chimney on the side elevation



The roof is made of timber then covered externally with timber shingles



Internal roof area is open and light with no loft or attic space, all areas are visible



Appendix 3 – Examples of bat mitigation

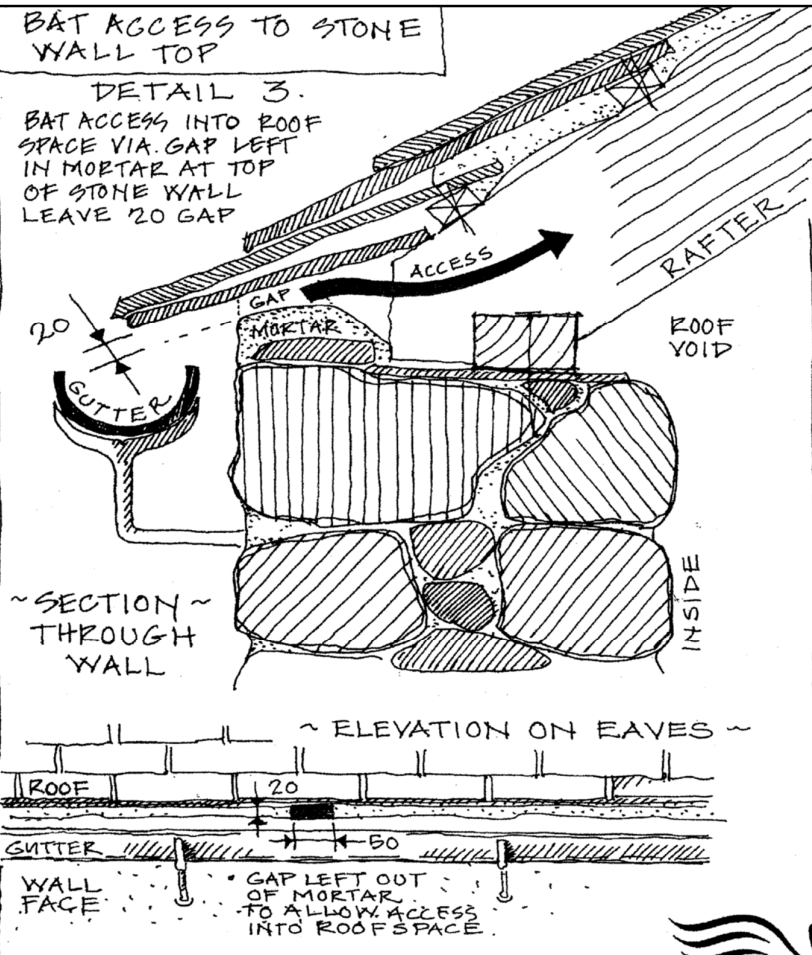
Beaumaris Woodstone Bat Box

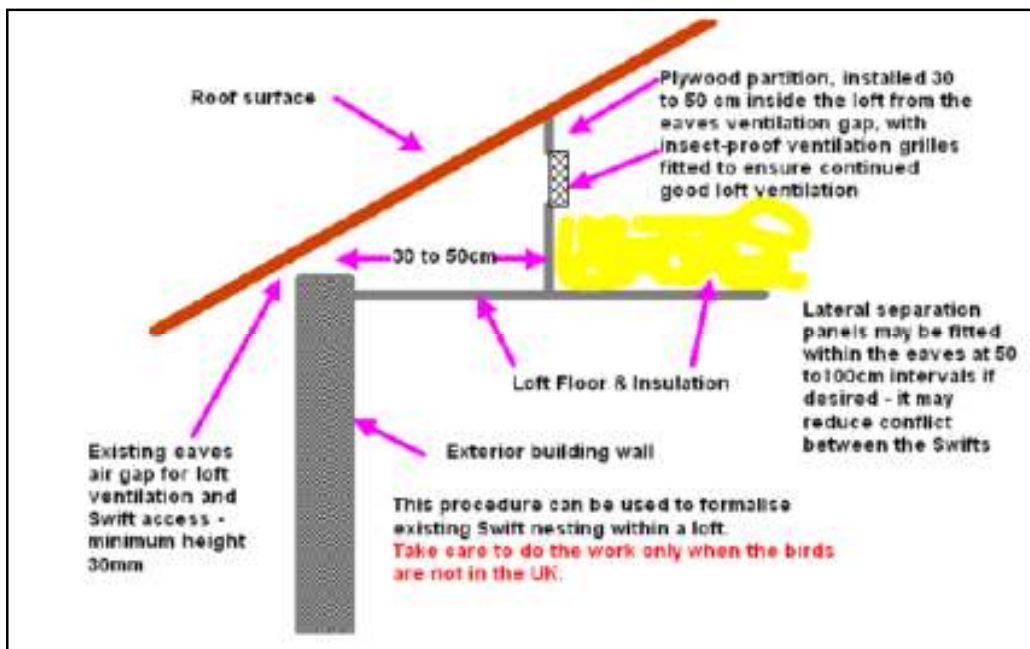
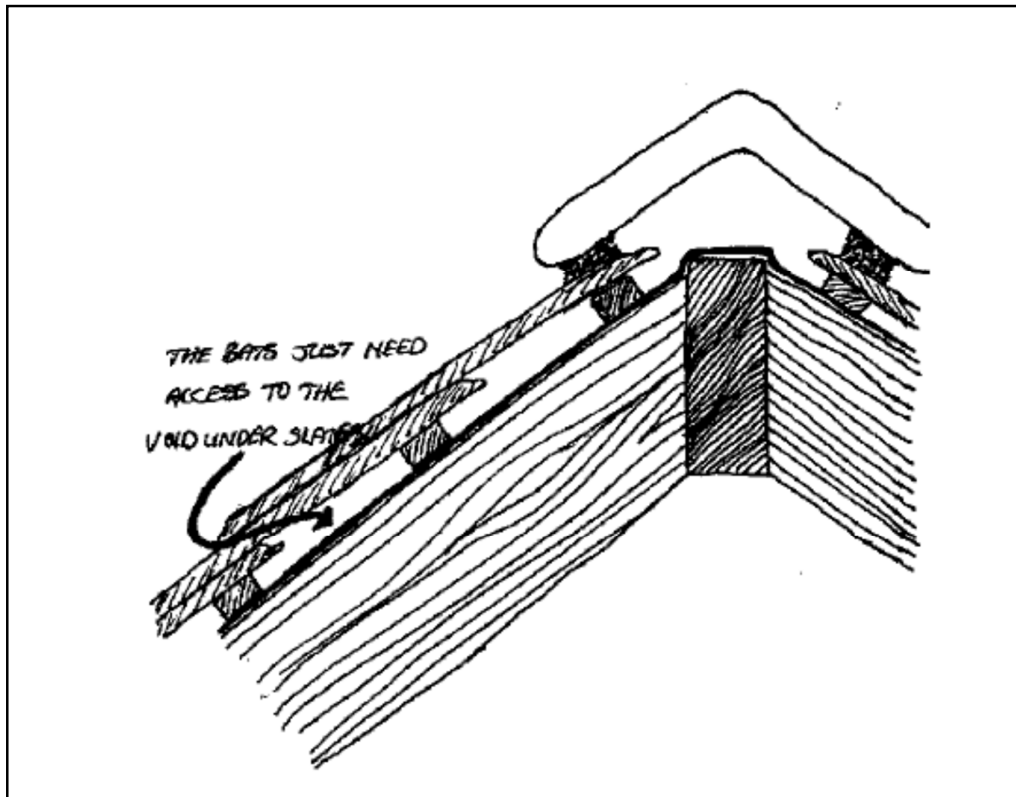


BAT ACCESS TO STONE
WALL TOP

DETAIL 3.

BAT ACCESS INTO ROOF
SPACE VIA GAP LEFT
IN MORTAR AT TOP
OF STONE WALL
LEAVE 20 GAP





FASCIA BOARD
BAT ACCESS

DETAIL 7

