
BAT SCOPING SURVEY

Cae Brymer Farm

for

Blueprint Architectual Services

23rd September 2020

SCALES Consultancy Ltd

Sarah Carver Amphibians Landscape Ecology Services

Balancing Ecology and Development

Client

Blueprint Architectual Services

Wrexham Industrial Estate,
3K4, Redwither Tower
Abbey Road,
Wrexham LL13 9XT

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Authors	Paul Cassidy MCIEEM
Reviewer	Sarah Carver MCIEEM

SCALES CONSULTANCY LTD Tan-y-Coed, Wrexham Road Pontblyddyn Mold Flintshire CH7 4HG Tel 07980 780879 sarahmariecarver@btinternet.com	SCALES Consultancy Ltd Sarah Carver Amphibians Landscape Ecology Services Balancing Ecology and Development
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EXECUTIVE SUMMARY

This report is written by Paul Cassidy MCIEEM. It provides an assessment of the potential impacts on bats as a result of the proposed development at Cae Brymer Farm.

A bat scoping survey was undertaken on 19th September 2020. The objective of the survey was to establish the suitability of the building to support roosting bats, based on a site-specific survey and habitat assessment. The building was searched externally and internally (where accessible) for bat presence and features associated with bat activity, as detailed in Bat Conservation Trust (BCT) guidance (2016).

Cae Brymer Farm located in an area which provides good habitat for bats. The site itself consists of buildings and hardstanding and presents limited foraging opportunities for bats. The surrounding land is mainly in agricultural use with extensive arable land. The connectivity between habitats in the local area is very good due to the presence of hedgerows, tree lines and unlit country lanes. It is likely that the wider area provides good foraging and commuting opportunities for a variety of bat species.

The suitability of the building for roosting bats is limited, with a small number of predominantly external potential roosting features (PRFs) consisting of small gaps in mortar. The interior of the ground floor of the building open to flight access through open doorways and missing windows., but internal PRFs are limited with the only gaps in plasterboard being used by nesting birds.

The small number of external PRFs were closely examined for evidence of use by bats, and no field signs were found. A single bat dropping was found on furniture on the ground floor of the barn, suggesting a single or small number of bats have flown in the barn.

As the only PRFs identified were examined and no use by bats was confirmed then no further surveys are recommended. The habitats on site provide limited foraging opportunities for bats, but the wider landscape presents suitable foraging and commuting habitat. The lack of roosting opportunities in the barn presents negligible suitability for roosting bats

Due to the potential presence of breeding birds within the building at the time of development, it is recommended that the works take place outside of the breeding bird season (March to August inclusive). If this is not possible, a breeding bird nest check should be undertaken prior to the commencement of works by a suitably experienced ecologist, and an ecological clerk of works appointed if considered necessary.

1 INTRODUCTION

Author, surveyors and qualifications

This report is compiled and written by Paul Cassidy MCIEEM. Paul is licensed by Natural Resources Wales to disturb, take and handle all species of bats under licence number S088256/1.

Paul has the knowledge, skills and experience identified within CIEEM's "Competencies for Species Survey: Bats" (2013).

Proposed development

The proposed plans involve the renovation of the two-storey to create a small residential development.

2 METHODOLOGY

General

The survey was carried out to recognised guidelines, timings and weather conditions, with particular reference to BCT publications.

The habitats on site and in the surrounding area were assessed during a walkover survey and by studying aerial photographs, in order to gauge their suitability to support roosting, foraging and commuting bats.

The building on site was searched both externally and internally for bat presence and features associated with bat activity, as detailed in BCT guidance (Collins, 2016). This was conducted on 19th September 2020 by Paul Cassidy. The survey was carried out in mid-September. All parts of the building were accessible for survey.

External inspection

The external inspection of the building on site was carried out from ground level using binoculars, and also using ladders and an endoscope to investigate suitable gaps. The objective of the survey was to find and record any signs of bat use, for example:

- Bat droppings
- Feeding remains
- Grease staining / urine marks
- Corpses or skeletons

The bat signs listed above are visible from the outside of a building. The following areas were searched:

- Roof
- Gaps in brickwork and mortar
- Eaves
- Vents
- Window sills and panes
- Walls

Internal inspection

The internal inspection covered all of the accessible rooms and roof spaces within the building.

Bats regularly utilise specific areas within roof spaces, which were searched for any field signs of bats using high-powered torches and an endoscope, where considered necessary by the licenced ecologist. The following features were searched:

- Roof beams and junctions
- Dividing walls
- Gaps in brickwork and mortar
- Cracks / holes in woodwork
- Floor or other surfaces on which droppings could accumulate
- Furniture and other items

RESULTS

Habitat assessment

Cae Brymer Farm is located approximately 500m to the east of Wrexham Industrial Estate. The habitats on site comprise agricultural buildings and workshops, with areas of concrete hardstanding.

The immediate surrounding area comprises arable, vegetable and pasture fields, divided by a network of hedgerows with occasional mature trees. A number of ponds are present in the wider landscape, and the River Dee is located over 1.5km to the east. Roads in the rural location are unlit. The area is largely rural with farmhouses, farm buildings and other dwellings present in the landscape. These habitats will provide good foraging, commuting and roosting opportunities for bats in the local and wider area.

Building survey

External inspection

The barn building is of standard brick and mortar construction, two lines of bricks with no cavity. The roof consists of a single layer of corrugated asbestos with Perspex panels allowing light ingress. The asbestos panels are supported by an internal metal frame.

The southern aspect of the barn has a large opening on the ground floor allowing open flight access to the interior. A single poorly-fitting timber door is also present, along with two single-glazed metal-framed windows. Concrete lintels are present above doorways and windows. At the top of the wall mortar lines the contours of the corrugated roofing sheets. The wall of the first storey above the large opening has some gaps in the mortar as a result of subsidence. The gaps in the mortar reach approximately 10mm in width and lead to the interior of the first floor. The gaps were inspected closely using ladders, torch and endoscope and no evidence of use by bats was found.

The eastern aspect of the building is a gable end and has a large opening on the ground floor allowing flight access to the interior. The top of the walls on both pitches of the roof are fitted with concrete which lines the top of the wall and the roofing sheets with no gaps present. Three PRFs were identified on this wall – a narrow gap to the south of the lintel above the doorway, and two drilled holes in the brickwork of the first storey. All were inspected and no evidence of the presence of bats was identified. The holes in the brickwork lead through into the first floor of the barn.

The northern aspect of the building has an open doorway and two single-glazed metal-framed windows, all of which provide flight access to the interior of the ground floor though missing glass panes and open windows. A boarded aperture leads to the first floor. No PRFs are present on this aspect of the building.

The western aspect of the barn is adjacent to an agricultural barn constructed from corrugated sheeting, with the lower section of the wall forming the end wall of this larger barn. The apex of the gable has a gap at the end of the ridge sheeting. A single PRF is present in the wall accessible from inside the larger barn, where there is a gap in the brickwork. No evidence of use by bat was identified.

No bats, bat droppings or other signs of use by bats were found during the external building inspection.

Internal inspection

The ground floor of the barn is divided into three rooms. The first room, along the southern aspect of the barn, is open to flight access through a large aperture. This also permits extensive light ingress. The room has plastered walls and ceiling with some gaps in the plaster. These gaps have been used by birds, with disused nests of barn swallow *Hirundo rustica* present, and extensive bird droppings throughout the room. All features and items were searched for the evidence of presence of bats, and a single bat dropping was found in the centre of the room.

The second room, located in the northeastern corner of the barn, leads directly from the first room through an open archway. Flight access is also possible from the exterior via an aperture in the eastern aspect. The walls and ceiling are fitted with plasterboard with some small gaps but no PRFs. Bird droppings and old barn swallow nests indicate extensive use by birds.

The third room on the ground floor is accessed via a door in the northern aspect of the barn. The room has a timber ceiling which is well fitted and in good condition with no gaps or crevices. The brick walls are in good condition with no PRFs. The room has been used extensively by birds, with old barn swallow nests present and chickens using the room. A timber staircase leads from this room to the first floor.

The first floor consists of one large room, with timber floorboards. The walls are of exposed brick and mortar, with the only gaps being the PRFs identified on the eastern aspect of the building. The room has no ceiling or separate roof space, extending upwards into the metal frame and corrugated asbestos roof. Perspex panels allow ingress of daylight into the room. The room has been used extensively by birds, with old house sparrow *Passer domesticus* nests present and a large amount of bird droppings.

No evidence of use by roosting bats was identified during the internal inspection. All PRFs including walls and furniture were extensively searched. A single bat dropping was discovered in the centre of the large ground floor room. As the room is open to flight access it is considered that this dropping came from a bat flying inside or through the barn.

4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

4.1.1 Qualitative assessment of foraging habitats

Whilst the immediate surroundings of agricultural buildings and hardstanding on the farm site provide limited foraging opportunities, the farm is situated in a rural area which provides good habitat for bats. The open agricultural land and hedges are likely to support a good diversity of insects on which bats can forage.

4.1.2 Qualitative assessment of roosting habitats

The quality of roosting habitats within the buildings on site is poor, with a small number of external PRFs consisting of drilled holes and subsidence cracks in the brickwork. These features were closely examined and no evidence of use by bats was found. Such as gaps in stonework and in the more beneath the roof tiles at gable ends. buildings. PRFs within the building are limited, the few gaps in the plasterboard of the downstairs rooms are filled with bird nesting material. All were checked for evidence of the presence of evidence of roosting bats but none was found.

4.2 Mitigation and compensation measures

4.2.1 Bats

As no roosts were found in the barn and the few PRFs present were found to contain no evidence of the presence of bats then no further surveys with regard to bats are necessary. A single bat dropping found in the larger ground floor room of the barn indicates that bats have used the area, and therefore any lighting scheme for the proposed development must consider the presence of foraging and / or commuting bats.

4.2.2 Breeding birds

Old barn swallow and house sparrow nests were present in all rooms of the barn. Due to the potential presence of breeding birds within the building, it is recommended that the works take place outside of the breeding bird season (March to August inclusive). If this is not possible, a breeding bird nest check should be undertaken prior to the commencement of works by a suitably experienced ecologist and an ecological clerk of works appointed if considered necessary.

5 CONCLUSION

The barn at Cae Brymer Farm is located on a site offering limited foraging potential for bats, however the wider landscape provides good quality foraging and commuting habitats for bats. The building itself has a small number of potential roosting features on the exterior, and the openings on the southern and eastern aspects of the building enable access by bats and birds.

PRFs identified on the exterior of the building were examined using ladder, torch and endoscope and were all found to contain no evidence of the presence of bats. The gaps in the brickwork lead straight through to the building interior, and with no wall cavity there are no potential roosting sites within these features. Gaps in the plaster of the ceiling of the downstairs rooms contained no evidence of the presence of bats and have been used by nesting birds. A single dropping found in the centre of the larger ground floor room is considered to be from a bat flying in the room. No further surveys with regard to bats are considered necessary.

Due to the potential presence of breeding birds within the building at the time of development, it is recommended that the works take place outside of the breeding bird season (March to August inclusive). If this is not possible, a breeding bird nest check should be undertaken prior to the commencement of works by a suitably experienced ecologist and an ecological clerk of works appointed if considered necessary.

REFERENCES

Chartered Institute of Ecology and Environmental Management (2013). *Competencies for Species Survey: Bats*.

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

PHOTOGRAPHS



Photograph 1 – Southern aspect of barn



Photograph 2 – Eastern aspect of barn



Photograph 3 – Northern aspect of barn



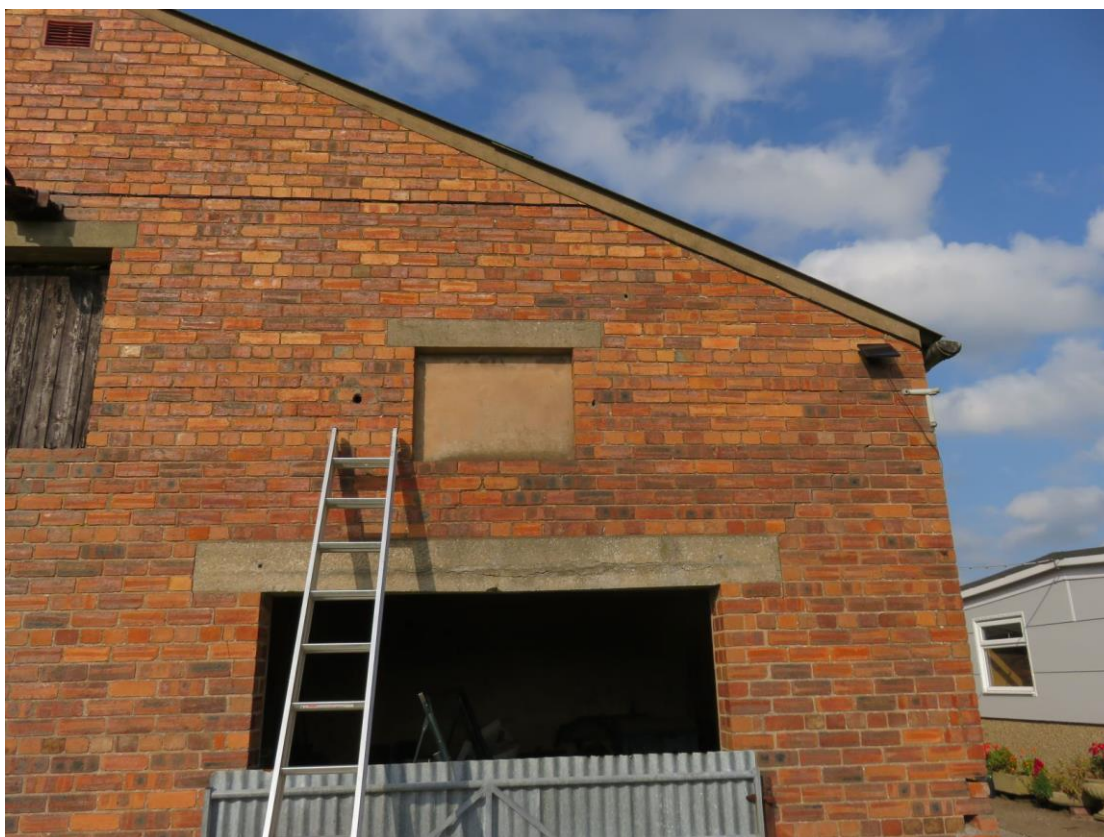
Photograph 4 – Western aspect of barn from interior of adjacent barn



Photograph 5 – Western aspect of barn viewed from northwest



Photograph 6 – PRFs on southern aspect



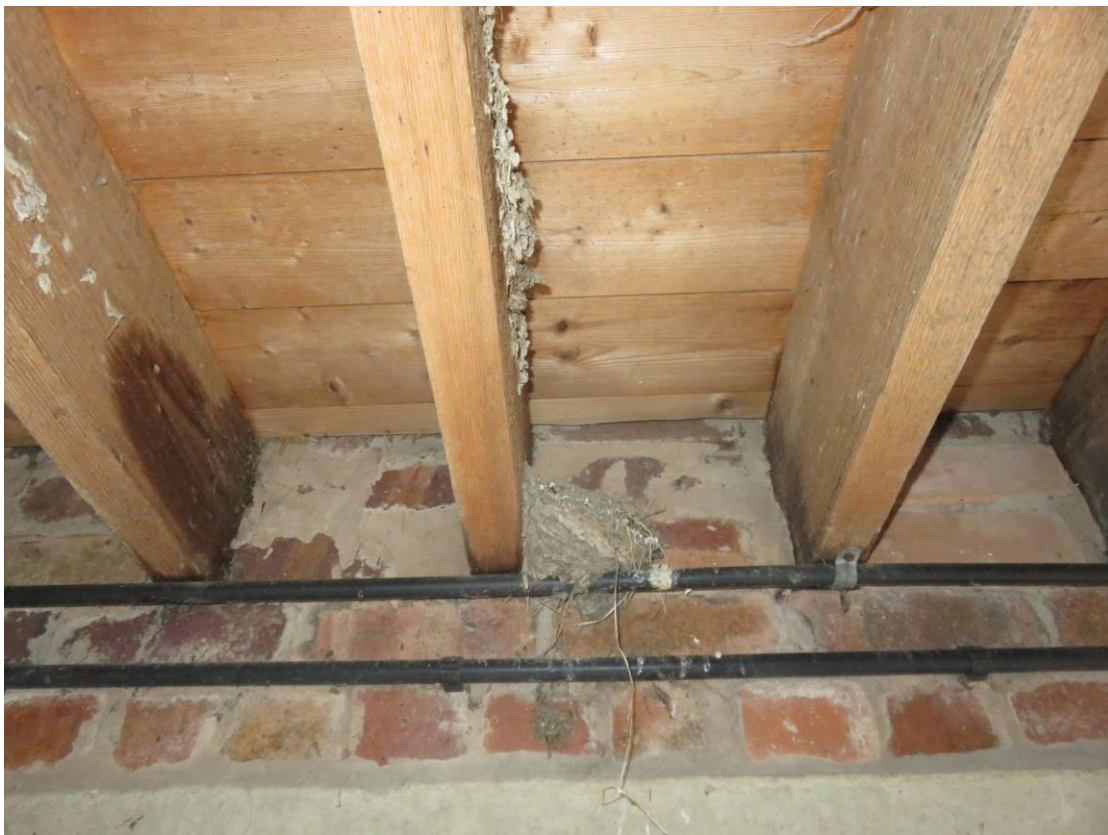
Photograph 7 – PRFs on eastern aspect



Photograph 8 – Ground floor larger room



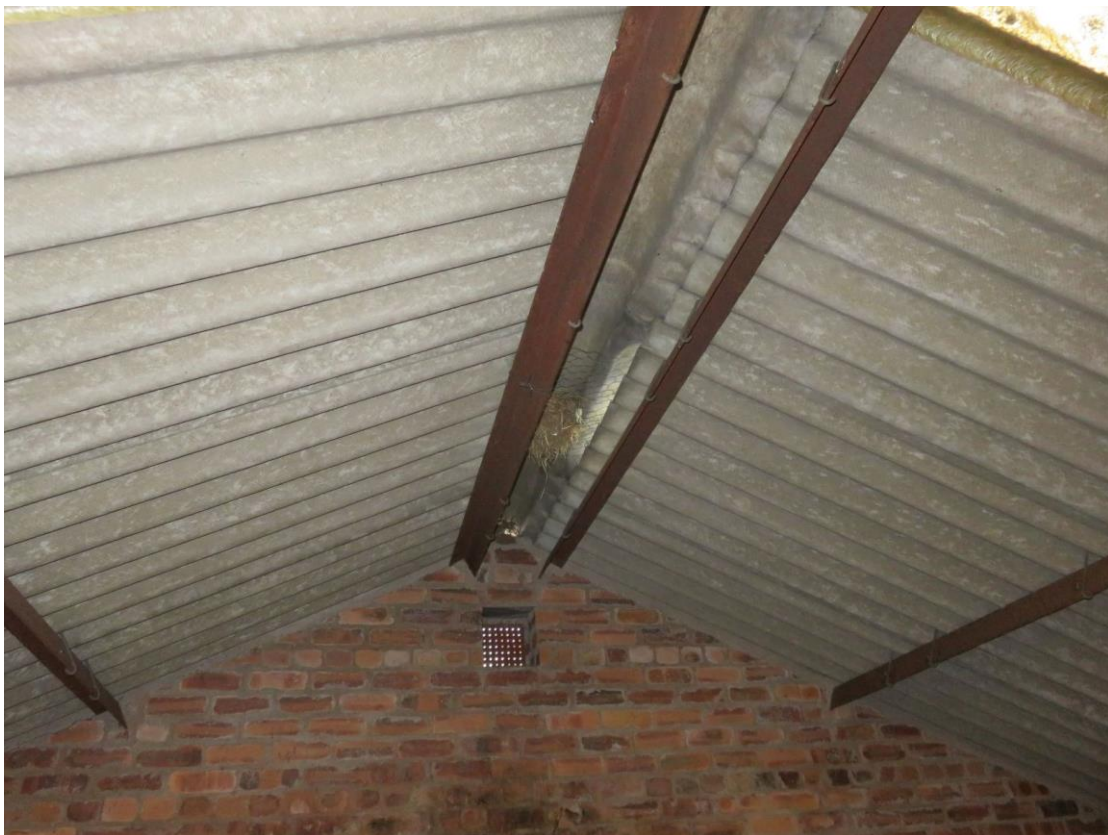
Photograph 9 – Ground floor second room



Photograph 10 – Ceiling of third ground floor room



Photograph 11 – Upstairs room



Photograph 12 – Interior of asbestos roof



Photograph 13 – Single bat dropping found in larger ground floor room