

**BAYTREE BARN
OTFORD LANE
HALSTEAD
TN14 7EF
KENT:
BAT BUILDING SURVEY**

BY

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1.0 INTRODUCTION

1.1 This document was compiled in order to report upon a bat building survey¹ of the small barn² known as Baytree Barn, Otford Lane, Halstead, Kent³. The survey site consisted only of the barn which occupies a situation in the middle of a group of mixed buildings which extend southwards along a trackway from Otford Lane. The barn is west of the trackway which runs for ninety metres from Otford Lane. The barn is probably of mid to late – 20th century origin and is oriented approximately north – west to south – east. The building is surrounded by residences on all sides except to the north – east where there is a paddock. Overall, the surrounding area is semi – rural in nature with scattered dwellings, woods and fields. The centre of the village of Halling is located 1.4 kilometres to the south - west. The barn is located at an altitude of 175 metres OD. The location of the survey site is shown in Figure 1.

1.2 The **barn** as it currently exists is probably of mid – 20th century origin and is made of cinder block with a pitched asbestos / concrete fibre roof over; the roof is supported by a wooden A frame. The exterior is painted white but is not rendered. Internally, it is divided into three rooms, with the stables and five loose boxes forming the northernmost one⁴, and a second on the south - eastern side⁵ with the third in the south -eastern corner⁶. There is also a small garage on the western side and a concrete fenced yard to the north of the building.

1.3 The survey site is to be the subject of a future planning application⁷.

¹ All bats and their roosts are protected by the Wildlife and Countryside Act 1981, and the Conservation of Habitats and Species Regulations 2017.

² The building is more like a large wooden shed.

³ OS / TQ49236053 - - approximate centre. Grid reference taken from <http://gridreferencefinder.com/#>

⁴ Room 1.

⁵ Room 2, probably a former workshop.

⁶ Room 3, a former office.

⁷ Madgwick and Dottridge, 2021.

2.0 METHODS

2.1 The site **visit** took place on Friday 29th November 2021 and took approximately one and a quarter hours, during which time the entire site was visited. The purpose of the visit was to carry out a bat building survey as follows:

2.1.1 The **method** used for the **bat survey** of the buildings was a visual assessment of the quality of possible roost sites based on the descriptions of bat roosts given by Hundt (2012), Collins (2016), Corbet and Harris (1991), Harris and Yalden (2008), Mitchell - Jones and McLeish (2004) and Ransome (1990) as enhanced by extensive personal previous experience. Other methods which were also used included:

- The use of an endoscope, mirrors, a Flir E60 thermal imager and similar equipment to check cracks and cavities, including those between joints etc.
- Searching for bat droppings on flat surfaces, walls, and floors, in spiders' webs and on artefacts. These, if found, would be subsequently identified using experience, a reference collection and Stebbings, Yalden and Herman's (2007) descriptions, or DNA examination if required.
- Checking for signs of bat entry points.
- Checking for signs of bat feeding points e.g. piles of insect wings.
- Where access was difficult or dangerous, photographs of parts of the site were taken and subsequently checked and / or binoculars were used to scan potential roost sites.
- Other methods as appropriate.

2.2 During the course of the survey, an effort was made to detect the presence of any other **legally – protected species** which might occur on site.

3.0 RESULTS

3.1 No evidence of **bats** or their roosts was found anywhere in the building.

3.2 No other **protected species** were recorded.



4.0 DISCUSSION AND CONCLUSIONS

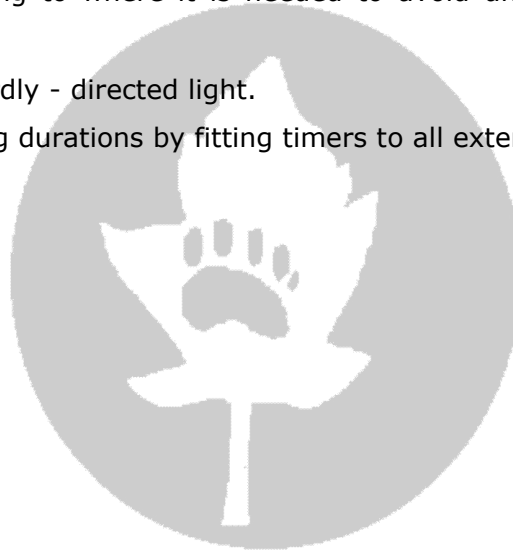
- 4.1** Short surveys such as this one are good at giving a sample of the ecological value of a given site and showing which species, if any, require more detailed survey⁸.
- 4.2** The **methods** of the survey have been used extensively elsewhere with consistent results and accord with good practice guidelines⁹. Signs of bats and their habitat parameters are reasonably obvious to an experienced surveyor and ecological surveys of this type are valuable in terms of helping to determine whether bats are likely to be present, are present, or have been present in or around a site and whether further, more detailed Phase 2 survey is required. However, the results of a survey are partially determined by the time of year at which the survey takes place, the stages in a bat's life cycle, and the accessibility of the site. At this site, access was complete except for the absence of permission to examine the southern wall of the barn which was in a neighbouring property.
- 4.3** The absence of any evidence of **bat roosting** from the barn was not surprising; no droppings were found anywhere, even though the entire site was thoroughly surveyed as were the external surfaces of the walls. The absence of gaps between the bargeboards and walls, the small size of the roof timbers, and the tight – fitting nature of the slabs of corrugated asbestos / concrete fibre that made up the roof, as well as a paucity of suitable cracks and crannies made searching easier. Overall, the building was cold and dry and lacked any physical features which would provide habitat for roosting bats. The presence of the shading trees on the southern side of the building probably also mitigated against the presence of roosting bats, had there even been anywhere for them to roost, by preventing temperatures from being high enough for maternity use. Similarly, in both winter and summer the building would be very draughty and dry, especially in rooms 1 and 2, and there was nowhere in which hibernating bats could roost. Overall, the building had negligible potential for use by roosting bats.
- 4.4** In **summary**, therefore, there was no bat habitat present in the building at the time of survey, and negligible potential for bats' use of the building.

⁸ Stork and Samways, 1995.

⁹ E.g., Chartered Institute of Ecology and Environmental Management, 2013; British Standards Institute, 2013, Collins, 2016.

4.5 It is, however, strongly recommended that, in order to accord with the National Planning Policy Framework¹⁰ and to provide some positive ecological benefits, some of the wildlife conservation measures and **mitigation** suggested by Gunnell, Murphy and Williams (2013) for instance, for bats in the built environment should be incorporated into any proposed Scheme by means of the provision of several bat boxes on the proposed building and by the provision of a suitable, bat - friendly lighting scheme. This latter should include;

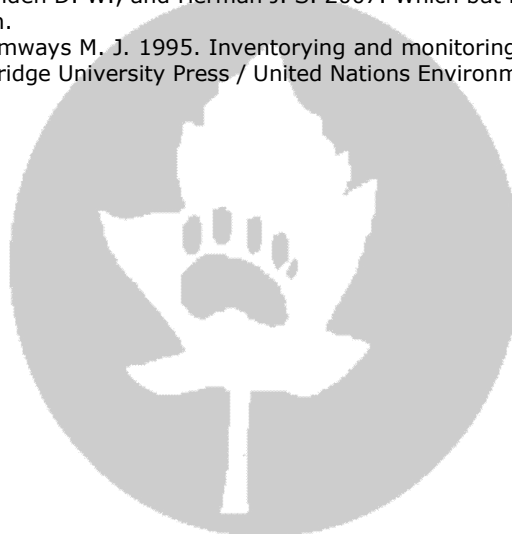
- The use of low - pressure sodium lamps where the proposed Scheme requires them.
- Fitting any mercury lamps with ultraviolet filters.
- Keeping the brightness of lamps as low as possible.
- Directing lighting to where it is needed to avoid unnecessary spillage of light.
- Avoiding upwardly - directed light.
- Limiting lighting durations by fitting timers to all external lights.



¹⁰ Ministry of Housing, Communities and Local Government, 2021.

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APPENDIX 1: BUILDING ASSESSMENT FOR BATS (nb. All data approximate)	
Survey commissioned by:	Madgwick and Dottridge
Address of site:	Baytree Barn, Otford Lane, Halstead, TN14 7EF.
OS grid reference:	TQ49236053
Date:	Friday 29th November 2021
Surveyor:	Martin Newcombe
Building type:	Former stables
Current use:	Disused
Age:	Late 20th century?
Condition	Good
Storeys:	Ground floor only.
Foundations:	Cinder block
Attic present?	Absent
Cellar present?	Absent
Walls:	Solid; concrete block.
Any wooden joints with potential for bats?	Absent
Any cavities in brick or stonework suitable for bats?	Absent
Cladding:	Absent
Hanging tiles?	Absent
Roof type:	Pitched on main building; half - pitched on garage.
Roof ridge orientation:	NW - SE
Roof covering:	Corrugated asbestos / concrete fibre
Lined with:	Breathable membrane
Soffits present?	Absent
Eaves	Space between outer wall and eaves.
Insulation present?	Absent
Internal humidity:	As external
Heating	Insolation only.
Building Axis	NW - SE
Shade present?	Trees and buildings to south.
Features of potential use to bats:	Absent
Bat roosting sites:	Absent
Number of bats at time of visit:	Absent
Droppings:	Absent
Summary bat status:	Low potential suitability due to overall design and construction of building.

Constraints on survey:	Inability to inspect outer south wall due to lack of access permission from neighbour.
Additional notes	1. Whitewashed externally.
	2. Room 2 with incomplete plywood ceiling.
	3. Garage with one window.
	4. Sealed bargeboards throughout.
	5. Garage with strong organic chemical smell.
	6. Roof repaired c. 7 years ago.





FIGURE 1: THE SITE LOCATION.
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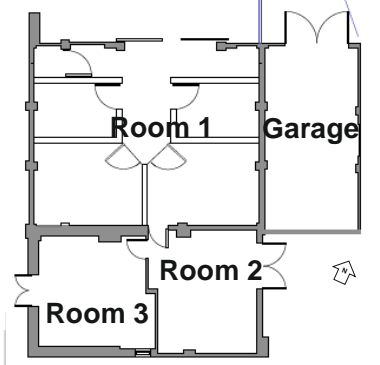


FIGURE 2: THE ARRANGEMENT OF THE ROOMS.



FIGURE 3: A VIEW OF THE BARN FROM THE NORTH.



FIGURE 4: THE WESTERN WALL.



FIGURE 5: ROOM 1 SHOWING THE INSIDE OF THE ROOF.



FIGURE 6: ROOM 2.



FIGURE 7: ROOM 3.



FIGURE 8: THE INTERIOR OF THE GARAGE.



FIGURE 9: THE ASBESTOS / CONCRETE FIBRE ROOF OF THE BARN.



FIGURE 10: SHOWING THE OPEN GAPS AT THE EAVES.



FIGURE 11: THE GARAGE BARGEBOARDS.

ⁱ Martin Newcombe is principal of MN Wildlife, a small ecological practice in Kent, which has now been operating for over 30 years. Martin studied botany and zoology at college before qualifying as a further education lecturer. His interests and that of his practice are in mammals and woodland matters, with extensive experience in badgers, bats, dormice, deer, woodland management and conservation and general ecology. He holds a Natural England (NE) bat class licence level 2, and a NE dormouse licence, and has also held many NE badger licenses.