

Bat Roost Suitability Assessment
Wigton Heath Farm, Alwoodley

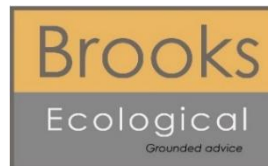
Park Lane Homes

Report Reference: ER-6208-01A

25/05/2022

Report Title:	Bat Roost Suitability Assessment Wigton Heath Farm, Alwoodley
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Summary Statement

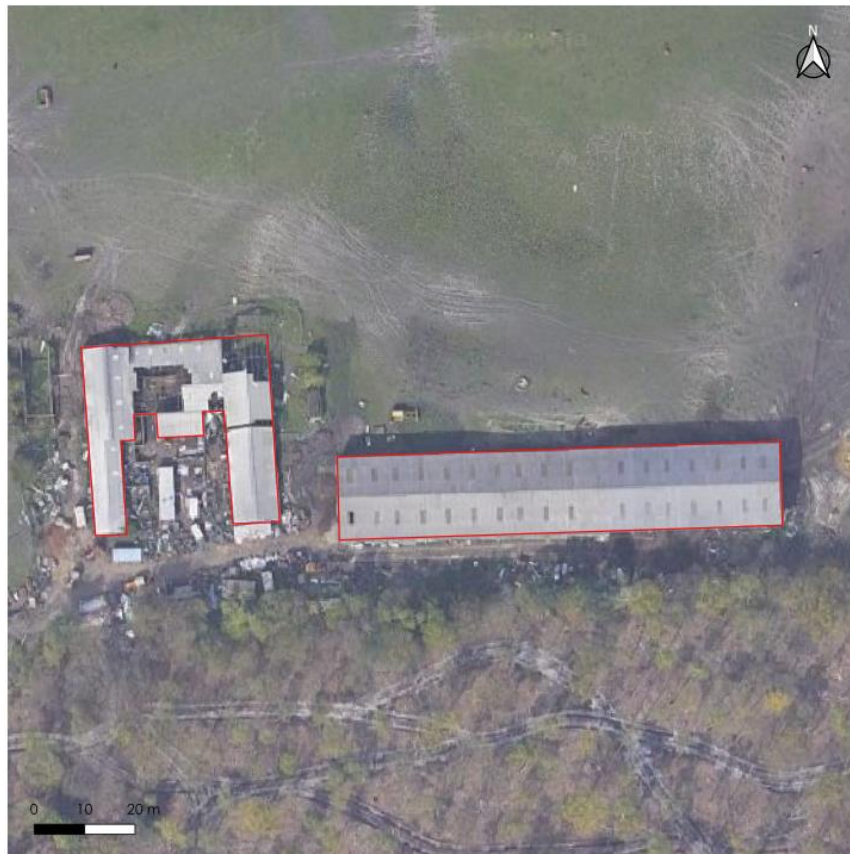
All on-site buildings of brick-wall construction have been assessed as providing Low bat roost suitability. A single evening emergence survey is recommended in order to confirm the presence or likely absence of roosting here.

Barn owl pellets were present within two of the brick buildings to the west of the Site, and a barn owl was seen exiting one of these buildings during the survey. Much of the activity appears to be associated with roosts, but there is the potential for Barn owl to nest on Site. Further survey is recommended to confirm the status of Barn owls on Site.

Introduction

1. Brooks Ecological was commissioned by Park Lane Homes to carry out a bat roost suitability assessment at Wigton Heath Farm, Manor House Lane, Alwoodley (grid reference SE 324 410).
2. The application site, 'the Site', encompasses a collection of agricultural buildings, most of which are in a neglected state and currently unused.
3. Proposals are to convert these buildings to residential use.

Figure 1 The Site boundary (red line).



Method

4. A thorough daytime inspection of the site was made in May 2022 to look for evidence of bats and assess suitability for roosting. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains on masonry or timber from the oils in bats' fur and claw marks made by bats regularly roosting in the same location.
5. Bat roosting potential of the building was classified according to the following criteria set out in Table 1, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

Table 1 Bat Roosting Suitability of Buildings and Trees.

Suitability	Criteria
<i>Negligible</i>	Negligible habitat features on site likely to be used by roosting bats.
<i>Low</i>	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
<i>Moderate</i>	A structure or tree with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
<i>High</i>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protections, conditions and surrounding habitats.

6. Surveys were directed by Christopher Shaw BSc (Hons) MCIEEM. Chris has over 10 years' experience of carrying out bat surveys in a professional capacity and is registered to use the Class Survey Licence WML CL18 (Bat Survey Level 2) and Bat Mitigation Class Licence WML CL21 Annex B.

Box 1 *Bat roosts*

Bats roost in buildings and trees in different locations depending upon time of year and environmental factors such as position of the sun, proximity to heat sources and feeding grounds. The following types are commonly referred to:

Transitional roosts

Bats frequently gather early in the season (March to April) before dispersing to summer roosts. Bats can be found in high numbers in these roosts for a very short period. Transitional roosts can also be found shortly before hibernation in August to October when bats (depending upon species) can gather in roosts not used earlier in the season.

Maternity roosts

These are among the most important roosts and are normally occupied from May to August. Depending on the species involved, some maternity roosts can contain a very significant proportion of the local population.

Summer (non-breeding) roosts

Small groups of non-breeding female and male bats can gather in these roosts or bats from a local population may choose to roost individually. There are normally a large number of suitable locations for summer non-breeding roosts and these may be routinely used or used only on an occasional basis. Irregularly used summer roosts can be very hard to find without unreasonable survey effort.

Mating roosts

Around September bats will gather in roost to mate; these are often in different locations than summer or breeding roosts.

Hibernation roosts

As bats in hibernation roosts are highly vulnerable to disturbance and bats can be present in large numbers these are considered to be among the most important bat roosts. Many species of bats roost in large and nationally important hibernation roosts associated with underground sites, many of which are well known and protected. However, the most common bat in the UK (the common pipistrelle) is largely unaccounted for in winter but thought to disperse and roost individually or in small groups in thermally stable cracks and crevices in thick walls or trees.

Box 2 *Legal background*

Bats are afforded full protection under The Wildlife and Countryside Act (1981) plus amendments, and the Conservation of Habitats and Species Regulations 2010. Under these Acts it is an offence among others, to recklessly kill, injure or disturb bats. It is also an offence to destroy or obstruct a roost even if bats are not in occupancy at the time of the action.

There are no defences against contravention of the Habitats Regulations 2010 which means that it is important for detailed and well-designed bat surveys to be carried out, prior to carrying out activities that may impact upon bat roosts such as demolition of buildings or removal of trees.

Where bats are found within a potential development site, a license from Natural England may need to be secured if works that could otherwise contravene legislation are to be carried out. These licences are only issued where Natural England is satisfied that works are unavoidable and would not have a negative impact on the favourable conservation status of bats. A Natural England license requires that the potential development site has full planning permission and that bats were a material consideration of the planning permission.

Records

7. The local records provider, in this case West Yorkshire Bat Group (WYBG), was asked to provide all records from within a 1km radius of the site.
8. Six records were returned for the area, detailing common pipistrelle, brown long-eared (BLE) and noctule bats. Three of these relate to roosts, one of which is a maternity (BLE). None relate to the Site or adjacent properties.

National, regional and local Status

9. The application Site lies within the natural range of 10 species of bat. These are summarised in the table below, together with a note on each species national status, relative abundance and status within the 1km search area.

Table 2 List of bat species known to occur in West Yorkshire, ordered in increasing level of significance to their national proportion.

Species	National Status	Within 1km radius	
		Recorded	Roosts known
Common pipistrelles <i>Pipistrellus pipistrellus</i>	Common and increasing	Yes	Yes
Soprano pipistrelle <i>P. pygmaeus</i>	Common and stable	-	-
Daubenton's <i>Myotis daubentonii</i>	Common and increasing	-	-
Brown long-eared <i>Plecotus auritus</i>	Common and stable	Yes	Yes
Natterer's <i>M. nattereri</i>	Common and increasing	-	-
Whiskered <i>M. mystacinus</i>	Uncommon but stable	-	-
Noctule <i>Nyctalus noctula</i>	Uncommon but stable	Yes	-
Brandt's <i>M. brandtii</i>	Uncommon but stable	-	-
Leisler's <i>Nyctalus leisleri</i>	Uncommon and trend unknown	-	-
Nathusius' Pipistrelle <i>P. nathusii</i>	Uncommon but stable	-	-

Site Context

10. The Site lies to the northeast of Alwoodley, within a rural setting; as shown in the figure below.
11. Farmland surrounds the site to the north, whilst to the south is a large block of broadleaved woodland, beyond which is a golf course. This provides a large area of good bat foraging habitat, in close proximity to the Site.
12. A further three golf courses are present a short distance to the northeast, whilst Eccup Reservoir and woodland associated with the Harewood Estate are present to the northwest. These features provide further bat foraging habitat, which although further way from the site, is still well connected and within range.

Figure 2 Site context.



Survey Results

14. The Site contains a collection of agricultural barns/ outbuildings, which can be split into 6 distinct sections; see Figure 3 below. These are described in turn below.

Figure 3 Location of buildings on site.



Buildings 1, 2 & 5

15. Connected red-brick farm buildings of single-storey construction, with solid brick walls. Windows and doors are unsealed allowing free-flight access into the building's interior. The roof is of double pitch construction, with corrugated metal panels over a steel frame. Internally, the buildings are divided into a series of connected rooms, some of which have panelled ceilings.
16. Elements of masonry is in a poor state of repair, with frequent gaps and incidents of damage being noted. These provide numerous crevices within the walls (both internally and externally) which could be used as occasional day roosts for solitary or small numbers of crevice dwelling bats, such as pipistrelle. These are assessed as providing low bat roost suitability.

Figure 4 Buildings 1 (foreground) & 2 (background), as seen from the southwest.



Figure 5 Crevices in walls



Figure 6 Roof structure



Building 3 & 4

17. A series of dilapidated barns, constructed partially of solid brick walls, and partially of open steel frame, with/without corrugated metal panelling.
18. The masonry is a similar condition to that described above for Buildings 1, 2 and 5. These are assessed as providing low bat roost suitability.
19. The roofs are of double-pitch construction, with a simple steel frame covered in corrugated metal or concrete / asbestos sheets; many of which have fallen away.

Figure 7 Building 4**Building 6**

20. A large agricultural barn that is still in partial use, although this is infrequent and temporary. The barn is constructed of a simple steel frame, with breeze-block and wooden panel walls. The roof is double pitched and covered in concrete/ asbestos panels.
21. The building lacks any potential roost features but could be of some value to foraging bats during adverse weather.

Figure 8 Building 6

Barn Owls

22. Whilst undertaking the survey, a barn owl was seen flying out of Building 1. No direct evidence of nesting was observed, however, the ceilings in this building are partially boarded, as shown in the figure below, which would provide suitable opportunities for nesting.

Figure 9 Partially boarded ceiling within Building 1; potential for nesting barn owl.



23. Several accumulations of barn owl pellets and guano were noted throughout Buildings 1 & 2, most of which were located directly beneath timber or metal roof beams, suggesting these are associated with roosting behaviour.

Figure 10 Barn owl pellets & guano



Summary

24. On-site buildings are simple in nature and offer few opportunities for roosting bats. The only potential roost features identified are the numerous small gaps and crevices within the solid red-brick walls. These features could support ad hoc day roosting by solitary or small numbers of crevice dwelling bats, such as pipistrelle.

Table 3 Summary of Roost Potential of Buildings.

Building	Key Features	Bat Roost Suitability
1-5	Crevices within red-brick walls.	Low
6	None.	Negligible

Figure 11 Summary of bat roost suitability



Conclusions & Recommendations

25. Buildings 1 – 5 have been assessed as providing low bat roost suitability, given the presence of numerous small gaps and crevices within red-brick walls.
26. In line with best practice guidelines (Bat Conservation Trust, 2016), further survey should be carried out to establish if potential roost features are being used by bats. This should take the form of a single evening emergence or dawn re-entry survey. Surveys should be undertaken during the active bat survey season, which runs from May to August inclusive, with September providing sub-optimal conditions.

Standard precaution

27. Although no evidence of roosting has been found in Building 6 and likely absence of roosting has been concluded, it must be noted that bats frequently move between roost sites, can be very casual in their choice of roosting location and can turn up unexpectedly at any time. On this basis the developer should always be mindful of bats as a potential constraint and have a protocol in place should any bats be seen or suspected during works: works should stop, a suitably licensed ecologist consulted, and their advice followed.

Barn owl

28. At least a single barn owl has been observed using Buildings 1 and 2 as a regular roost site, with both buildings also containing features that could support nesting.
29. The scope of the Bat Emergence Survey will be extended so as to look for evidence of active nesting behaviour and make an assessment as to the status of barn owl activity onsite and of the need for further survey by a licenced Ecologist or specific mitigation.

References

Bat Conservation Trust (2016) *Bat Surveys for Professional Ecologists – Good Practice Guidelines*

Conservation of Habitats and Species Regulations (2010 <http://www.legislation.gov.uk/uksi/2010/490/contents/made>

English Nature (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

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