Bat Surveys 2021

The garage to the rear of The Bell, Bury, Odiham

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Contents

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date. This report provides a snap shot of the species that were present at the time of the survey only.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Iconic Europe to undertake bat surveys of the garage which lies in the curtilage of The Bell, The Bury, RG29 1LY.

1.2 The preliminary roost assessment in June 2021 recorded low numbers of droppings and feeding remains towards the western end of the loft space. The building contained features such as crevices within the exposed wooden beams, large gaps underneath the eaves, gaps between wooden beams and brickwork, plus slipped, missing or curved clay tiles.

1.3 DNA analysis of the droppings was inconclusive and the building was assessed as having 'moderate' potential to support roosting bats. Therefore, a minimum of two bat emergence/re-entry surveys were recommended.

1.4 This report summarises the results of the The Ecology Partnerships emergence and re-entry surveys conducted on site between July and August 2021.

Site Context and Status

1.5 The site comprises of the two-storey garage building that also serves as storage set within the curtilage of the Grade II listed public house The Bell. The site lies just off the high street of Odiham, a semi-rural village that is located 9km east of Basingstoke (SU 74018 50997). The immediate surroundings comprised of retail buildings and residential housing to the west, north and east, with All Saints Parish Church and graveyard to the south. Further afar the surroundings predominantly consist of arable land.

1.6 The approximate red line boundary of the site is shown in Figure 1.

Description of Proposed Development

1.7 The current plans for the site involve the refurbishment and redevelopment of the two-storey garage building into flats, which will impact the roof structure and tiles.

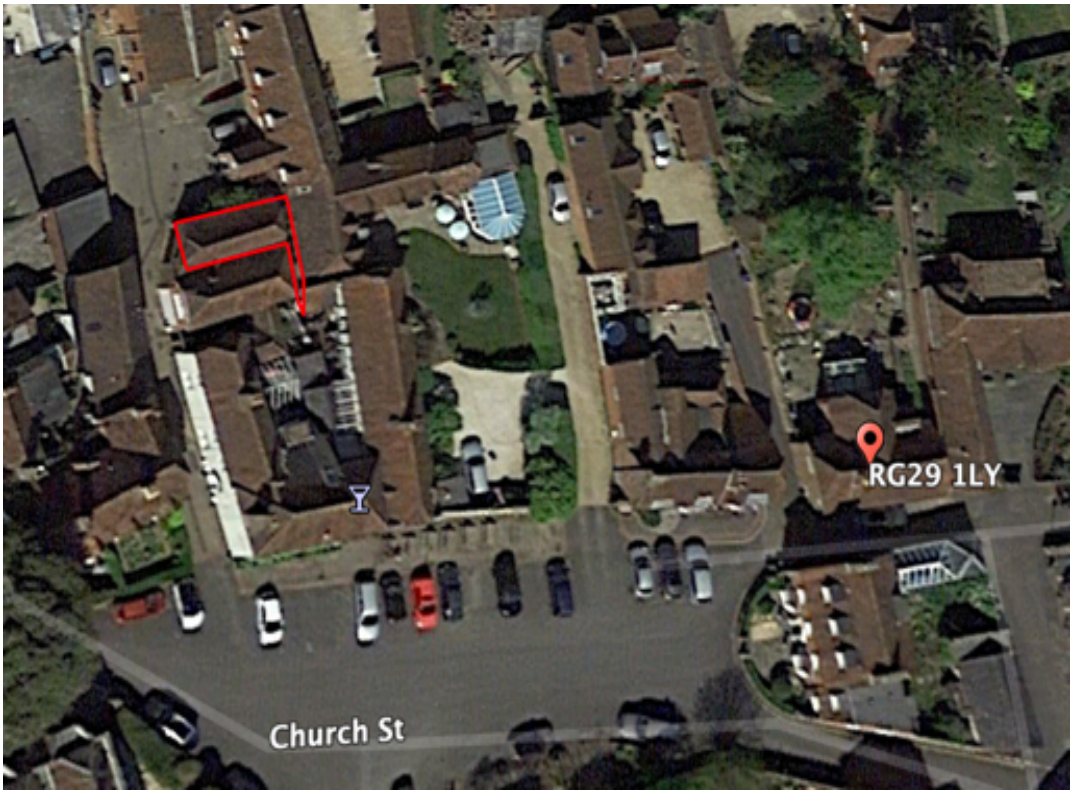

Figure 1: Approximate location of the site boundary (in red) from Google Earth Pro (Taken on: 7th June 2021)

2.0 Legislation

2.1 Under the Natural Environment and Rural Communities (NERC) Act 2006, it is now the duty of every Government department in carrying out its functions "*to have regard, so far as it is consistent with the proper exercise of those functions, to the purpose of conserving biological diversity in accordance with the Convention*". Seven species of bat (Barbastelle, Bechstein's, Noctule, Soprano pipistrelle, BLE, Greater horseshoe and Lesser horseshoe) are listed as Species of Principal Importance in England under Section 41 of the NERC Act.

2.2 All bats are covered by the following relevant legislation: the Wildlife and Countryside Act (WCA) 1981 (as amended); the Countryside and Rights of Way Act 2000; the Natural Environment and Rural Communities Act 2006; and by the Conservation of Habitats and Species Regulations (CHSR) 2010.

2.3 Under the WCA 1981, it is an offence to:

- intentionally, recklessly or deliberately disturb a roosting or hibernating bat i.e. disturbing it whilst it is occupying a structure or place used for shelter or protection);
- intentionally or recklessly obstruct access to a roost (i.e. a structure or place used for shelter or protection).

2.4 Under the CHSR 2010, it is an offence to:

- deliberately capture (or take), injure or kill a bat;
- intentionally, recklessly or deliberately disturb a bat, in particular (i) any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; (ii) any disturbance which is likely to impair their ability in the case of hibernating or migratory species, to hibernate or migrate; or (iii) any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong;
- damage or destroy a breeding site or resting place (roost) of a bat.

3.0 Dusk and Dawn Survey Methodology

3.1 Following the Bat Conservation Trust guidelines (Collins 2016), the 'moderate' potential bat roost potential buildings required two surveys to take place, involving one dusk emergence survey of the buildings. As the building was confirmed as a bat roost after the initial survey, a third survey also had to be undertaken. All surveys occurred within the optimal time period between May and August.

3.2 Two dusk emergence surveys were carried out on 30th June and 14th July 2021 with one dawn re-entry survey on the 27th August 2021. The aim of the surveys are to confirm the buildings usage by bats, the type of roost, access/egress points and the numbers of bats present within the building. The results of the surveys will inform the application for a Natural England licence to legalise the loss / disturbance to bat roosts on site as part of proposals and to inform appropriate mitigation.

3.3 A dawn survey can increase the chance of surveyors visually assessing bat behaviour and movement as well as providing good opportunities for recording. Dusk emergence

surveys commence at least 15 minutes before sunset until 1.5 hours after sunset, and dawn survey commence 2 hours prior to sunrise and finish 15 minutes after sunrise, during which time, bats are identified and recorded.

3.4 The surveys followed Bat Conservation Trust guidelines (Collins 2016). Bat surveys are required to be undertaken during suitable weather conditions, when conditions are relatively dry and mild with little/no wind. Surveyors were positioned in order to cover areas of interest and record any flyovers and activity around the buildings (Figure 2).

3.5 All surveyors were equipped with either a Batlogger M or an Echo Meter Touch 2 Pro. Surveyors included Aimee Littlechild BSc (Hons), Charlotte Chandler BSc (Hons) MSc QCIEEM and Digby Hayden BSc (Hons).

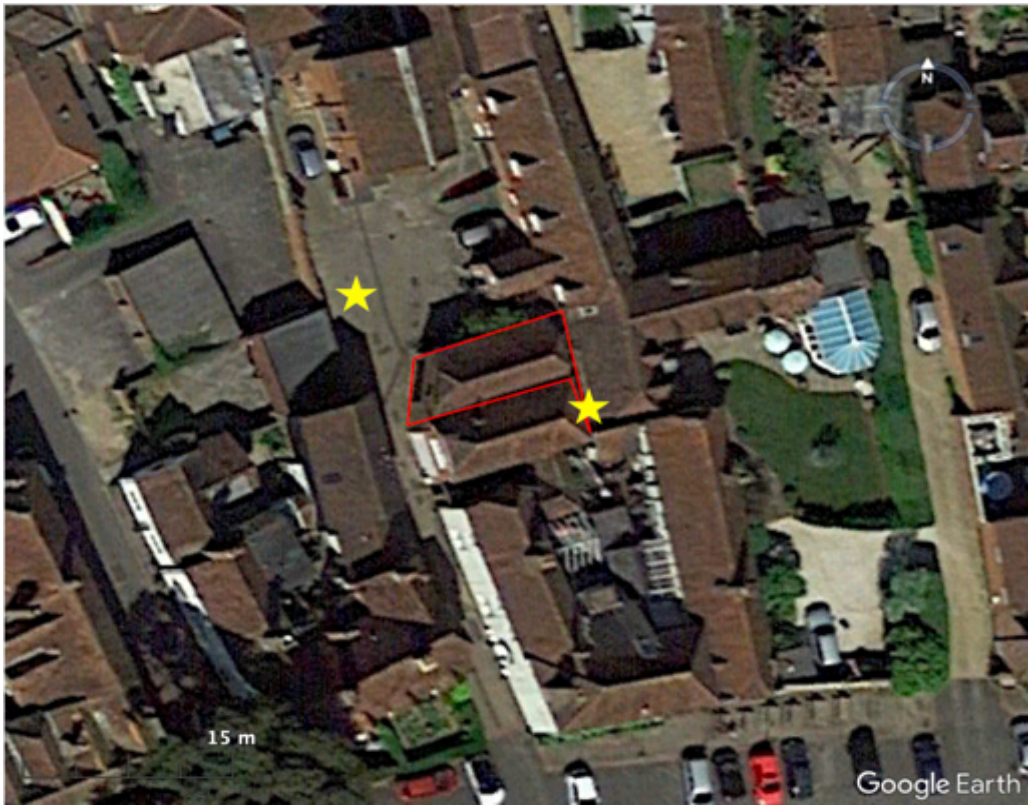

Figure 2: Surveyor positions (yellow stars) around the garage red line boundary

Limitations

3.6 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.

3.7 It must be noted that the southern elevation of the barn was not visible during surveys, due to the proximity of the roof structure of the neighbouring property.

4.0 Survey results

30th June 2021 – Dusk survey

4.1 During the set up for this survey, it was noted that the door on the eastern elevation was open, whereas it was closed during the initial PRA. It was observed that at some point between the PRA and this initial survey, clearance works had occurred within the first floor, with all contents removed including the internal rooms within the eastern section removed and floor swept.

4.2 Sunset was at 21:23 and the weather was dry and clear with 10% cloud cover and a temperature of 16°C dropping to 13°C by the end of the survey. Bat activity the building was considered to be low with numerous passes by common pipistrelles (*Pipistrellus pipistrellus*) and brown long-eared (BLE, *Plecotus auritus*) bats.

4.3 The first bat recorded was a soprano pipistrelle at 21:48, which emerged from a building north of the red line boundary and then foraged in the adjacent courtyard intermittently until 22:24.

4.4 At around 22:07 a BLE emerged from the upper floor of the garage building via the open door on the eastern elevation. This bat flew in and out of the building 3 times before leaving for the last time at 22:09. BLE was recorded intermittently foraging around the building and adjacent gardens until 22:36.

4.5 No other bats were observed to emerge or re-enter the garage building and no other bat species was recorded during the survey.

14th July 2021 – Dusk survey

4.6 Prior to the survey commencing, five fresh bat droppings were recorded across the first floor underneath the apex, indicating infrequent use since the previous survey.

4.7 Sunset was at 21:15 and the weather was dry and clear with 0% cloud cover and a temperature of 20°C dropping to 17°C by the end of the survey. Overall, bat activity was similar to the previous survey, although another bat species was also recorded during the survey.

4.8 The first bat recorded was a noctule bat at 21:28 commuting over the site. Noctule bat passes were also recorded commuting over site at 21:30, 21:34 and 22:33. At 21:41 a common pipistrelle bat was observed commuting north to south down the alley to the east of the garage building, linking the garage building with the main Bell public house. Numerous common pipistrelle passes were recorded, foraging within the alley and courtyard intermittently until 22:29.

4.9 At 22:04 a BLE bat emerged from the eastern doorway before returning inside and then exiting the building through a gap under the eaves on the western elevation at 22:09.

4.10 No other bats were observed to emerge or re-enter the garage building and no other bat species was recorded during the survey.

27th August 2021 – Dawn survey

4.11 Prior to this survey, an additional ~30 droppings were recorded across the first floor, with numerous yellow underwing moth wings also recorded towards the western end of the building, in a similar location to the butterfly wings found during the initial PRA (Figure 3).

Figure 3- Feeding remains recorded underneath ridge and beam features towards the western elevation, prior to the survey conducted on 27th August 2021.

4.12 The final survey was a dawn survey. Sunrise was at 06:08 and the weather was clear and dry with a temperature of 13°C during the survey. Overall, this survey was quieter than the previous dusk surveys, with fewer passes of both BLE and common pipistrelle bats.

4.13 The first bat recorded was two BLE bats foraging within the courtyard north of the garage building. Common pipistrelle was recorded commuting over the building at 04:55 and 05:31, then foraging in the courtyard at approximately 05:43.

4.14 A BLE bat was recorded foraging up and down the alley east of the building at 05:32, before entering via the open door at 05:33. At 05:35, the BLE then exited via the eastern door again, foraged for two minutes in the courtyard then left site.

4.15 No other bats were observed to emerge or re-enter the garage building and no other bat species was recorded during the survey.

5.0 Discussion

5.1 Between the initial PRA and the first emergence survey, the first floor of the garage building had been cleared out with the door on the eastern elevation left open. As such, it is considered that the building was made more suitable for BLE bats by providing a larger access point and a larger space within the first floor in which to fly and forage in.

5.2 A single BLE was seen emerging from the garage building on both the first and second dusk surveys. A BLE was also seen to re-enter the building on the third dawn survey, however it left again within 2 minutes and did not return before the end of the survey. As such, the building is confirmed as a regular day roost for bats. Although the specific roost location has not been identified, the apex and/or mortise joints are the most likely roosting feature. Feeding remains were also recorded beneath the apex towards the western elevation. Overall, it was considered that the roost is not of major significance and likely used as a regular day roost and night feeding perch by low numbers of a single common species.

Mitigation

5.3 As a day bat roost has been identified within the garage building, all works to this building will need to occur under a Natural England low-impact licence. With regards to the licence, the following methods are considered to be implemented:

- Establish two Eco Bat Boxes or similar box on the eastern elevation of the building (in lieu of any biological features within the red line boundary), prior to any works;
- Conduct a Tool Box Talk (TBT) to all team members on site with regards to the presence of bats using the building, bats legal protection, measures that will be undertaken to ensure that bats are not harmed, good working practises, licensable activities and what to do if a bat is found;
- Once this TBT has been conducted then works to the building can commence under direct supervision of a registered consultant (RC) / accredited agent;
- The tiles of the building will be hand removed. All tiles will be removed by hand individually, with the tiles being turned prior to stacking. If a bat is found, then the RC will gently move the bat to a bat box on site;

- Once the tiles of the building have been removed, other features such as the bitumen felt lining will be removed, again under direct supervision from the RC;
- Once the RC has rechecked the whole of the building and is happy that all licensable activities to the building have occurred (i.e. the features which bats are using for roosting have been removed), then the remaining works to the buildings can occur without further supervision;
- It is considered that this process is likely to take between 2 to 3 days.

Figure 4: Eco Bat Box – the cavity design model.

Licence Application

5.4 The timing of the works with regards to the licence requirements is as follows:

- A licence application will be made following planning permission being granted;
- Furthermore, any conditions which are pertinent to ecology will be discharged before the low impact bat licence will be applied for. An update survey must occur (walk over or internal survey) in the last 3 months prior to works;

- Two bat boxes are to be established on the eastern elevation of the garage building;
- Once the licence is issued (the licence should take 10 working days for issue), all licensable works can commence. All licensable works (removal of tiles etc) should take in the region of 2 or 3 days.

Timings

5.5 Given the fact that a maternity roost was not identified and that one bat species uses the garage building for a summer day roost, licensed works do not have seasonal restrictions.

5.6 Prior to works commencing, and in lieu of any trees within the red line boundary, two bat boxes will be erected on the eastern elevation of the garage building. This means that if any bats are found during works then they can be gently captured and moved by hand to another appropriate roosting place. Bat boxes provide alternative roosting opportunities throughout the redevelopment of the site so that bats always have a roosting place available to them.

5.7 The project will be monitored by a suitably qualified ecologist throughout the whole of the development and will be managed to assess whether the presence of an ecologist is required during some stages of the works.

Recommendations and Enhancements

5.8 Bats were recorded foraging in and around the site. Therefore, a sensitive lighting scheme is recommended for the whole of the site since any new lighting would contribute to a significant change in light levels compared with present conditions. Recommendations include:

- Installing lighting only if there is a significant need;
- Using LED luminaries due to their lower intensity, sharp cut-off and good colour rendition – any lights with UV elements or metal halide lights should not be used;
- Lights with peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone 2012);
- Lights with an upward light ratio of 0% and good optical control;
- Careful consideration of column height to avoid light spill;

- Any external security lights should use motion-sensors and short (1-minute) timers;
- Avoid putting lighting within the alleyway between the garage building and The Bell and angling light away from this feature which is used by foraging bats;
- Planting a barrier or using man-made features required within the scheme to form a barrier.

5.9 It is always recommended that where possible enhancements for wildlife are included within the new developments where possible.

5.10 In addition to the Eco bat box to be installed on the garage building as discussed above, a double chambered rocket box could be installed within the area that is currently The Bell pub garden (Figure 5).

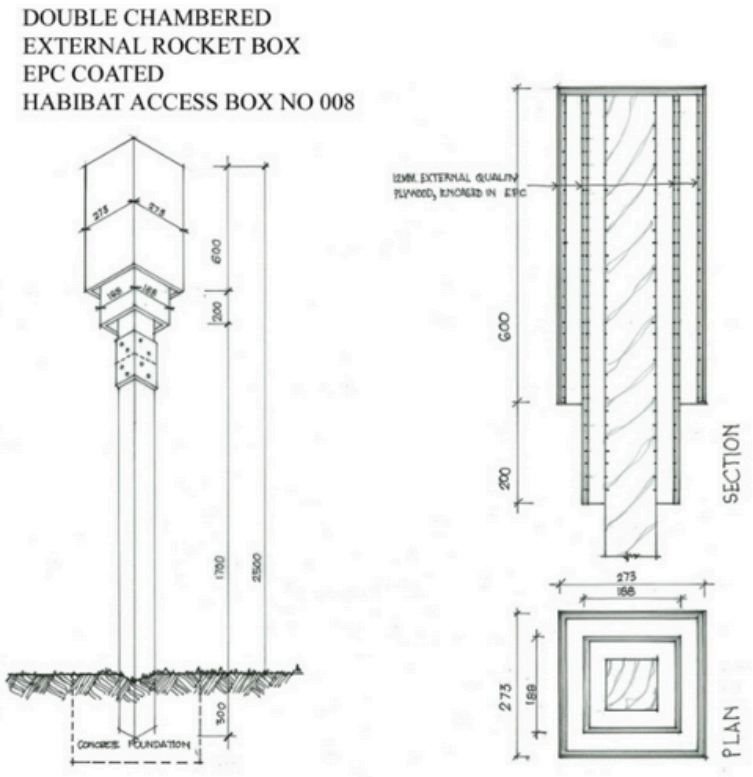

Figure 5: Double chambered rocket.

5.11 The siting of bat boxes is important, bat boxes are best located and have the best rate of occupancy, when they are situated within or adjacent to bat-friendly features, such as hedgerows or woodland, providing connectivity to the wider landscape. At this site, there

are no biological features within the red line boundary, so the compulsory bat box should be installed near the roosting area established, on the eastern elevation. Bat boxes should be situated where they are sheltered from strong winds and ideally be exposed to the sun for most of the day, therefore southern aspects are favourable. Bat boxes should be hung as high as possible, preferably around 5m high, although lower boxes may also be used by brown long-eared bats.

5.12 Sweet nectar and protein-rich pollen, especially night-scented flowers, are bait to encourage insects, a food source for bats. These species should be incorporated into the development where possible:

- Evenings primrose (*Oenothera biennis*)
- Field poppies (*Papaver rhoeas*)
- Knapweed (*Centaurea sp.*)
- Night-scented stock (*Matthiola longipetala*)
- Red campion (*Silene dioica*)
- Honeysuckle (*Lonicera periclymenum*)
- Sweet williams (*Dianthus barbatus*)
- Angelica species (*Angelica sp.*)
- Wisteria (*Wisteria floribunda*)
- Lavenders (*Lavandula sp.*)

6.0 CONCLUSION

6.1 Emergence/re-entry surveys have revealed that one bat species uses the garage building for roosting on a regular basis, brown long-eared bat. There are numerous internal and external features which provide roosting opportunities including lifted or missing tiles and mortise joints in the timber frame. The roost is considered to be of low conservation significance as they support only low numbers of a single common species.

6.2 The redevelopment of the garage into a flats will impact roosting bats and as such, works must commence sensitively under a Natural England low-impact licence, as to best ensure that no bats are harmed during the works.

6.3 Prior to any works on site, alternative roosting spaces will be provided in the immediate area through the use of two bat boxes. A tool box talk will be given to contractors and sensitive removal of bat features will be supervised by a suitably qualified ecologist. A low impact licence does not have seasonal restrictions.

6.4 Recommendations and enhancements have been made, including a sensitive lighting scheme, to ensuring that bats can continue to roost, forage and commute within the site post development.

7.0 REFERENCES

Bat Conservation Trust (2008) *Bats and Lighting in the UK – Bats and the built environment series (Version 2).* Bat Conservation Trust, London.

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

Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

The Ecology Partnership (2021) P*reliminary Roost Assessment of the garage to the rear of The Bell, The Bury, Odiham*. Leatherhead.

Internet resources:

Magic Interactive Map: www.magic.gov.uk

Google Maps: www.google.co.uk/maps

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