

AEWC^{Ltd}

Animal Ecology & Wildlife Consultants

Bat Survey Report

The Hermitage

**Batchmere Road
Almodington
West Sussex
PO20 7LD**

Brigitte de Coriolis

23-078
September 2023

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Summary

- AEWCLtd were commissioned by Alan Unsted on behalf of their client to undertake a daytime bat assessment at The Hermitage, Batchmere Road, Almodington, PO20 7LD at grid reference SZ 82748 97806 to help inform the proposed development of the site.
- The house at The Hermitage is a detached two-storey brick-built dwelling with a half-hipped roof supporting a mixture of hand and factory-made clay roof tiles.
- The proposal is for the construction of a two-storey extension off the eastern elevation of the building which will involve the demolition of the existing single-storey lean-to on the eastern side of the building.
- A bat assessment was carried out on the 29th of June 2023 which identified **high potential** for the building to support crevice-dwelling bats in the batten spaces of the eastern elevation.
- This report details the results of the detailed bat survey, which was carried out between the 29th of June 2023 and the 30th of August 2023, by Brigitte de Coriolis, a Natural England licensed bat ecologist, assisted by Oliver King and Tom Wright, qualified ecologists.
- The dusk emergence surveys recorded **no bats** emerging from or entering the building. As such, there are no known constraints regarding these species and the proposed development.
- **Bats are highly mobile species and therefore may turn up on sites at any time. Should bats, or evidence of bats, be identified during the works the procedure in section 7 of this report must be followed.**
- **Only the eastern elevation was subject to direct survey under the current proposals. High potential for bats was identified present on all elevations of the building, therefore should any future works be proposed, that will directly impact any other areas of the roof, further detailed bat survey of the impact areas will be required.**

This report has been prepared by AEWCLtd, with all reasonable skill, care and diligence within the terms of the Contract with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the Professional Guidance and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

1 Introduction

- 1.1 AEWCLtd were commissioned by Alan Unsted on behalf of their client to undertake a daytime bat assessment at The Hermitage, Batchmere Road, Almodington, PO20 7LD to help inform the proposed development of the site.
- 1.2 The bat surveys and report writing were carried out in accordance with Bat Surveys: Good Practice Guidelines (Bat Conservation Trust, 2016).
- 1.3 No ecological surveys are known to have been carried out for the site previously. Bat assessment was therefore required to ascertain whether bats, or potential for bats, is present at the site and represents a constraint to the proposed development.
- 1.4 A bat assessment was carried out on the 29th of June 2023 which identified high potential for crevice-dwelling bats within the batten spaces of the roof.
- 1.5 Further surveys were therefore required to ascertain whether bats are present at the site, characterise roosts and determine whether bats represent a constraint to the proposed development.
- 1.6 This report details the results of the bat survey and outlines recommendations in relation to bats and the proposed development of the site.

Aims and objectives

- 1.7 The objectives of the survey were to:
 - Identify the potential of the building on site to support roosting bats;
 - Identify whether bats are present using the building on site;
 - Estimate the size and status of any existing bat roost within the building;
 - Determine the potential impacts on any bat roost from the proposed development schedule; and
 - Provide information for use in the design and development of ecological mitigation and enhancement measures where appropriate.

Site Location

- 1.8 The proposed development site is located at The Hermitage, Batchmere Road, Almodington, PO20 7LD at central grid reference SZ 82748 97806. The site is located in a rural area south-west of Chichester with the nearest main road being the A286 approximately 1.8km north-west of the site connecting Chichester to West Wittering, the surrounding landscape comprises predominantly of arable land with mature tree lines running along some lanes and watercourses. The site is located approximately 2.5km from the coast and the Pagham Harbour Site of Special Scientific Interest is located roughly 3.5km to the south-east. See Figure 1.

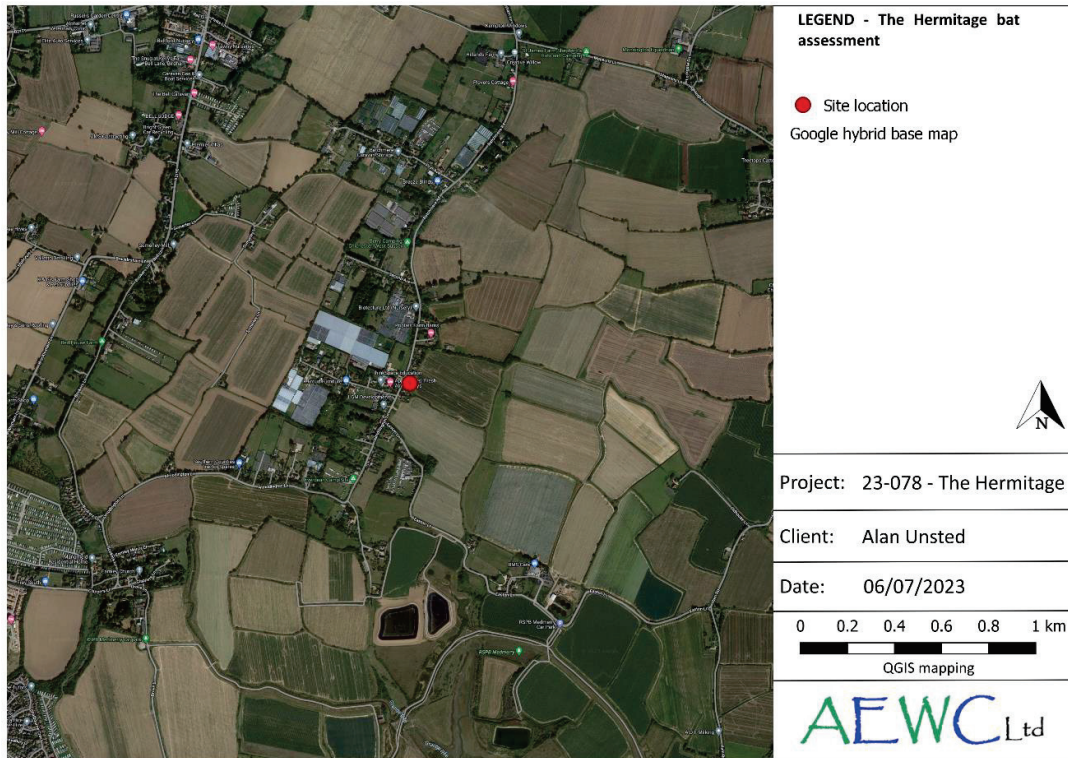


FIGURE 1: SHOWING THE LOCATION OF THE SITE

1.9 The building subject to survey is a two-storey brick-built house with a single-storey metal-roofed extension attached at the southern end.

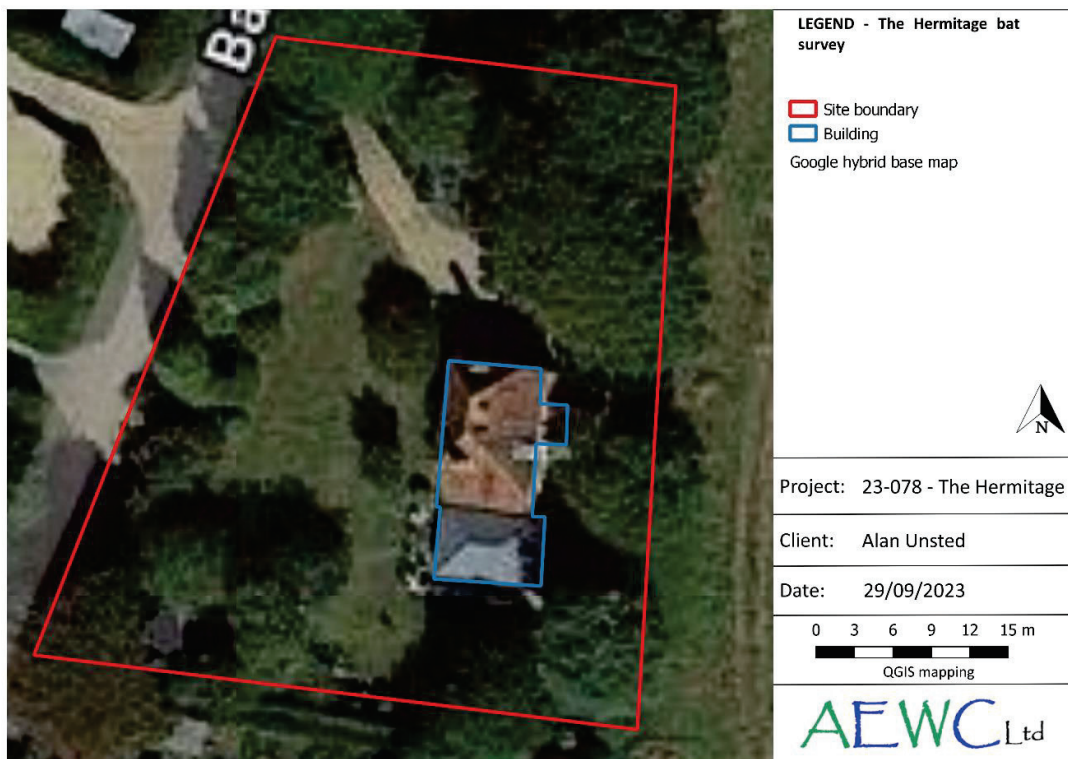


FIGURE 2: SHOWING THE BUILDING SUBJECT TO SURVEY.

Legislation

- 1.10 All species of bats are listed on *Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:
- intentionally kill, injure or take (capture etc.);
 - possess;
 - intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
 - sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.
- 1.11 A roost is defined as ‘any structure or place which a bat uses for shelter or protection’. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present.
- 1.12 Any disturbance of a bat occupying a roost can lead to prosecution. Disturbance can be caused by noise, vibration and artificial lighting. Penalties for breaking the law can include fines of £5,000 per bat, imprisonment and the seizure of equipment.
- 1.13 Furthermore, seven bat species (barbastelle, Bechstein’s, noctule, soprano pipistrelle, brown long-eared, lesser horseshoe and greater horseshoe) are also Species of Principal Importance in England under *Section 41 of the Natural Environment and Rural Communities Act 2006*.

Development proposals

- 1.14 The proposal is for the construction of a two-storey extension off the eastern elevation of the building which will involve the demolition of the existing single-storey lean-to on the eastern side of the building.

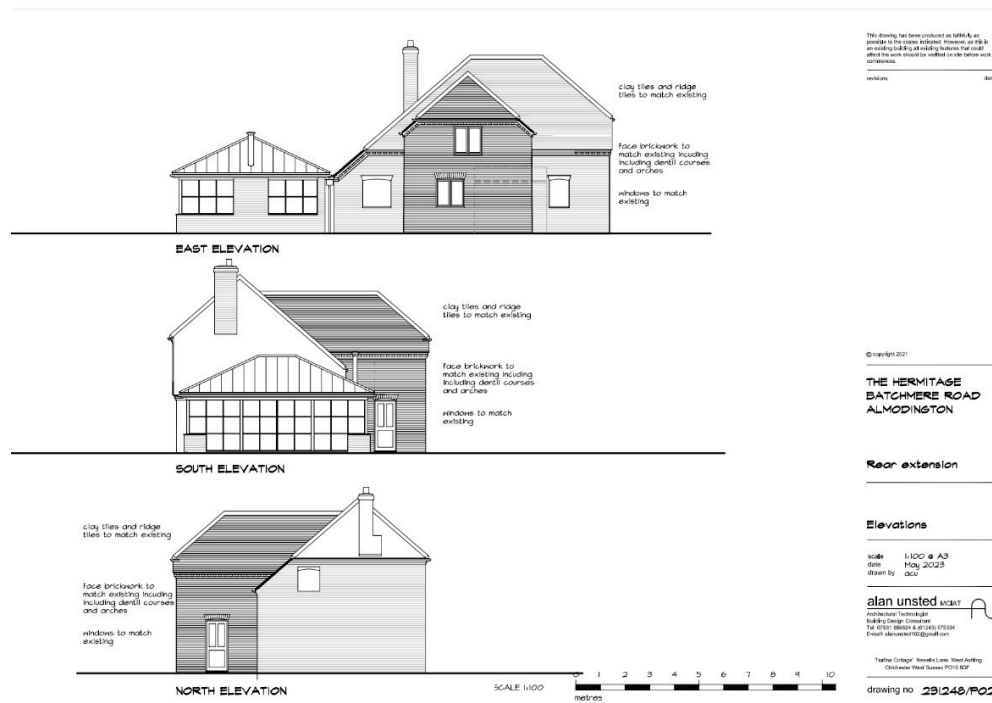


FIGURE 3: SHOWING THE PROPOSED PLANS.

2 Methods

Daytime Assessment

- 2.1 A detailed bat building inspection was undertaken on the 29th of June 2023 by Brigitte de Coriolis, a Natural England licensed bat ecologist and Oliver King, qualified ecologist.
- 2.2 A systematic internal inspection of the building was conducted using a high-powered torch to illuminate all areas thought to be suitable for roosting bats. Additionally, an external search around the perimeter of the building was conducted and any possible access points i.e. gaps and crevices were noted and surveyed with a high-powered torch and ladder as appropriate.
- 2.3 The building's suitability for bat roosting was assessed by examining structural features that may influence the suitability of a building to support roosting bats; these include the presence of a roof void, the presence of access points into the building (including gaps beneath barge boards, weatherboarding, soffits and fascias, gaps under lead flashing, gaps within masonry and under loose tiles, gaps between tenon and mortise joints), the complexity and size of any roof void and daytime light levels in the roof void.
- 2.4 The building's suitability for roosting bats was also assessed by examining the surrounding habitat. Important habitat features surrounding the structure which may

influence roost potential include whether the structure is in a semi-rural or parkland location, its proximity to significant linear habitat features such as a watercourse, mature hedgerow, wooded lanes or an area of woodland.

- 2.5 All surfaces were also surveyed for signs of bat presence. Features of potential value to bats were surveyed not only for the presence of bats but also for signs that could indicate use by bats, such as:
- bat droppings that are dry and do not putrefy, but can crumble away to dust;
 - staining of access points used by bats to enter the structure; and
 - feeding remains such as moth and butterfly wings.
- 2.6 The survey included an external inspection of the trees present within the survey area to look for the presence of Potential Roosting Features including woodpecker and rot holes, horizontal cracks and splits in stems and branches, partially detached platey bark, cankers, hollows and cavities, double-leaders forming compression forks with included cavities, gaps between overlapping branches, partially detached ivy with stem diameter exceeding 50mm and bat, bird or dormouse boxes.
- 2.7 Taking account of these architectural, habitat features and signs of presence, the building was then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2016) and professional judgement. The primary objective of this exercise was to identify the need for further detailed bat survey later in the year, or alternatively to obtain sufficient information that would dismiss the need for further assessment.

Emergence Surveys

- 2.8 The evening emergence surveys were conducted on the 10th of July, 8th and 30th of August 2023, a time of year when bats are active and maternity colonies should be present. Conditions were good for all bat surveys with warm weather, and any bats present were likely to be active. The emergence surveys began a minimum of 15 minutes before sunset and finished a minimum of 1 and a half hours after sunset on each survey.
- 2.9 Batlogger M bat detectors were used for taking time-expanded recordings of any bats when they may emerge from the buildings. These recordings were analysed on Elekon bat analysis software that facilitates species identification.
- 2.10 Professional Canon XA night vision video cameras were used as night vision aids (NVA's) alongside surveyors to film areas of the buildings with the assistance of external infra-red lamps to ensure suitable lighting to accurately identify if bats emerge from the building. Cameras were deployed on tripod stands to view areas with bat roosting potential. Footage was reviewed at an appropriate speed on a computer after the survey using VLC player software which does not skip frames at any review speed, to ensure any bat emergences and bat emergence points were recorded. Where necessary footage was slowed down to ensure the exact emerge point could be identified.

- 2.11 Three emergence surveys were undertaken at The Hermitage. Each survey was undertaken by a single surveyor and single night vision camera watching the eastern elevation of the building, the only area to be affected by the development proposals. The surveyor and camera were positioned to get a good all round view of the impact areas.

3 Constraints/Limitations

- 3.1 Bats are difficult to locate in large structures, with so many potential roosting areas, particularly in inaccessible areas such as large buildings, finding the exact roosting site can be difficult, especially male/single bat roosting sites. It should be noted that it is not always possible to identify bat presence by examining externally around buildings as poor weather conditions may have washed away droppings which were deposited on exposed surfaces.
- 3.2 Bats can have seasonal use of buildings and being so mobile may arrive and start using a site after it has been surveyed, or roost somewhere else during the period it was surveyed. For this reason, bats may potentially be present but remain undetected, particularly during daytime assessment.
- 3.3 The survey was focussed on the proposed impact area only. Should future proposals impact other areas of the building further detailed survey may be required.

4 Results

Daytime Assessment

- 4.1 The building is a two-storey, brick-built dwelling with a half-hipped roof supporting a mixture of hand and factory-made clay roof tiles. The southern hip extends to a catslide roof, with a more recent single-storey extension to the southern elevation supporting a pitched metal roof. Attached to the eastern side of the building is a single-storey lean-to clad with wooden weather boarding and a pitched roof of factory-made clay tiles.
- 4.2 Externally, there are numerous gaps suitable for access by bats on all elevations of the house beneath lifted roof tiles, mortar gaps in the brickwork and beneath the lead flashing on the east-facing dormer.
- 4.3 The house has two roof voids, the first is located on the south-eastern corner of the building and accessed from the ground floor. This void is no more than 2m³ in size and heavily cobwebbed. The roof is lined with bituminous felt and light ingress was noted along the eastern side of the void. No droppings typical of bats were found within this void and the large amount of cobwebbing present suggests this void has not been used by bats recently, if ever.

4.4 The second void is located centrally over the first floor, it has been converted into ancillary living space with two roof light windows located along the eastern side of the void and is in current use as a storage space. The void is boarded internally, small gaps in the boarding revealed the roof to be lined with bituminous felt, with fibreglass insulation observed between the felt and the boarding in some places. No evidence of bats was found within this void.

4.5 No separate void is present within the small, single-storey extension on the eastern elevation.



Photograph 1: *The eastern elevation of the house*



Photograph 2: *Hand-made roof tiles on the eastern elevation as seen out of the pitched roof windows*



Photograph 3: *Mortar gaps in the ground floor brickwork*



Photograph 4: *The first roof void showing heavy cobwebbing*



Photograph 5: The second roof void facing north

Photograph 6: The second roof void facing south

Emergence Surveys

- 4.6 **10th July 2023** – Weather conditions were good for the survey (19°C and overcast with a slight breeze at 21:00) and any bats present were likely to be active. No bats were recorded to emerge from or enter the building over the course of the survey. A high level of common pipistrelle (*Pipistrellus pipistrellus*) and soprano pipistrelle (*Pipistrellus pygmaeus*) foraging activity was recorded throughout the survey.
- 4.7 **8th August 2023** – Weather conditions were good for the survey (17°C and overcast with a slight breeze at 20:22) and any bats present were likely to be active. No bats were recorded to emerge from or enter the building over the course of the survey. A high level of common pipistrelle and soprano pipistrelle foraging activity was recorded throughout the survey and *Myotis spp.* were recorded at several points.
- 4.8 **30th August 2023** – Weather conditions were good for the survey (17.5°C and clear with a slight breeze at 19:38) and any bats present were likely to be active. No bats were recorded to emerge from or enter the building over the course of the survey. A high level of common pipistrelle and soprano pipistrelle foraging activity was recorded throughout the survey and *Myotis spp.* were recorded at several points.
- 4.9 A diagram showing the locations of the surveyor and night vision camera during the evening surveys can be seen in Figure 4 below.

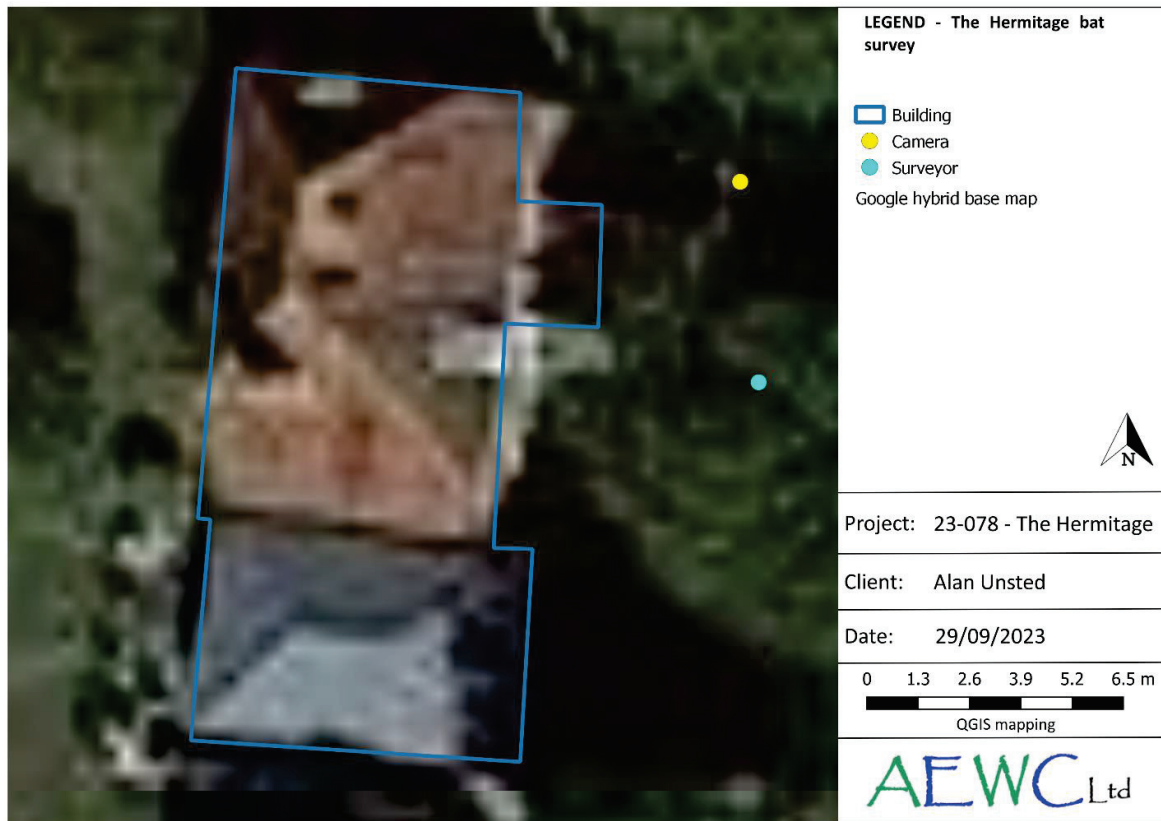


FIGURE 4: SHOWING POSITIONS OF THE SURVEYOR AND NIGHT VISION CAMERA DURING THE THREE EMERGENCY SURVEYS.

5 Evaluation

- 5.1 Initial observations consider the local area suitable for bats due to roosting opportunities provided by surrounding buildings and trees and foraging opportunities provided by surrounding gardens, farmland and native hedgerows.
- 5.2 The daytime assessment identified high potential within the building for use by crevice-dwelling bats due to the presence of numerous external gaps beneath lifted roof tiles and loose lead flashing providing access into the batten spaces, as well as mortar gaps in the brickwork.
- 5.3 The conversion of the central roof void has resulted in bright internal conditions and a complete lack of suitable roosting provision, this void is therefore considered to hold negligible potential for void-dwelling bat species. The very small size of the other roof significantly reduces its suitability for bats, and it is considered unlikely to have been used by void-dwelling species due to the very high level of cobwebbing.
- 5.4 No bats were recorded to emerge from the eastern elevation of the building on any of the three surveys. High levels of foraging activity were recorded on each survey within 10 to 20 minutes of sunset indicating there are likely roosts present nearby, within

surrounding buildings and potentially within the other elevations of the property that were not subject to direct survey.

- 5.5 The high level of foraging along the eastern side of the building also highlights the value of the eastern boundary tree line for bats within an area dominated by arable land with limited woodland habitat. The tree line is across a dry ditch from the development footprint; there will be no direct impact on the trees present as a result of the proposals, however there is potential for light spill from any additional lighting to indirectly impact commuting and foraging bats, particularly species such as long-eared bats or some *Myotis* species which are more light-sensitive.

6 Conclusions & Recommendations

- 6.1 The building was considered to have high potential to support roosting bats, however bats were not found during the emergence surveys and, as such, there are no known constraints regarding these species and the proposed development.
- 6.2 **Bats are highly mobile species and therefore may turn up on sites at any time. Should bats, or evidence of bats, be identified during the works, the procedure in section 7 of this report must be followed.**
- 6.3 Lighting can have notable negative impacts on commuting bats, that are known to be present locally. There is potential for lighting during and post-development to cause indirect disturbance in these areas. Additional external lighting should be avoided or kept to the minimum necessary, and preferably on a motion sensor to reduce lighting time. **Lighting should be designed in accordance with the Institute of Lighting Professionals Guidance note 8: ‘*Bats and Artificial lighting in the UK*’ which can be downloaded for free from the ILP website. In particular, lighting must avoid illumination of the eastern boundary tree line to prevent impacts to foraging and commuting bats.**
- 6.4 Additional work lighting which may be required must be positioned to ensure that it shines onto the area of works with minimal spread into the wider area.
- 6.5 **Only the eastern elevation was subject to direct survey under the current proposals. High potential for bats was identified present on all elevations of the building, therefore should any future works be proposed that will directly impact any other areas of the roof, further detailed bat survey of the impact areas will be required.**

7 Procedure to follow in the event a bat is found on site.

- 7.1 Bats are present within the vicinity of the site and may be found at any location on, in or around the buildings. Bats are protected species, and these procedures must be followed to avoid committing an offence.
- 7.2 If a bat is found at any location around the site DO NOT TOUCH unless necessary for the safety of the bat.
- 7.3 If the bat was uncovered in a roosting location carefully replace covering ensuring the bat is not crushed or harmed. If this is not possible cover the animal with a loose covering.
- 7.4 Stop all work at that area and the immediate vicinity. Work may continue at other areas around the site.
- 7.5 Call the AEWCLtd bat licensed project ecologist Annika Binet 07528 956486, call the office on 08452 505585, or licensed ecologists Daniel Whitby 07764813002 or Brigitte de Coriolis 07545130203.

8 References

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