

AEWC Ltd

Animal Ecology & Wildlife Consultants

Bat Survey Report

Rest Harrow

**Middle Way
East Preston
Littlehampton
BN16 1SB**

Brigitte de Coriolis

**24-069
November 2024**

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Contents

Summary.....	2
1 Introduction	3
2 Methods.....	6
3 Constraints/Limitations.....	8
4 Results.....	9
5 Evaluation, Conclusions & Recommendations	15
6 Procedure to follow in the event a bat is found on site.	16
7 References.....	17
Figure 1: Showing the location of the site.....	4
Figure 2: Showing the buildings subject to survey	4
Figure 3: Showing the existing and proposed plans.	6
Figure 4: Showing statutory designated sites and granted eps licences within 2km of the site. Bat licences shown in blue.....	9
Figure 5: Showing a lack of hpi habitat on or in proximity to the site	10
Figure 6: Showing positions of surveyors and night vision cameras during the 2 nd August and 27 th August emergence surveys.	15

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Report and version number	24-069-BS-v1
Survey Dates	16 th July, 2 nd and 27 th August 2024

Summary

- AEWCLtd were commissioned by ABL3 Architects on behalf of their client to undertake detailed bat survey at Rest Harrow, Middle Way, East Preston, Littlehampton, BN16 1SB at central grid reference TQ 08704 01707 to help inform the proposed development of the site.
- The site contains a detached single-storey residential dwelling and a garage building situated within an amenity garden.
- The proposal is for demolition of the existing house and garage to make way for construction of a new residential dwelling as well as the construction of two new outbuildings.
- A bat assessment was carried out on the 16th July 2024 which identified moderate potential to support roosting bats within the house and negligible potential within the garage, which may be impacted by the proposed works, further detailed bat survey was therefore required.
- This report details the results of the detailed bat survey, which was carried out between 16th July and 27th August 2024 by Brigitte de Coriolis, a Natural England licensed bat ecologist.
- The garage building was assessed as holding negligible potential to support roosting bats. Therefore, no further surveys were required, and there are no known constraints regarding these species and the proposed works.
- The house was assessed as holding moderate potential for roosting bats, however no bats were recorded during the emergence surveys. 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 6 of this report must be followed.**
- **There is potential for nesting birds within the house, climbing vegetation and larger shrubs surrounding the house. Vegetation clearance and demolition should be undertaken outside the breeding bird period from March to August. Should any vegetation clearance be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds by a suitably qualified ecologist. No vegetation can be cleared or building demolished whilst a nest is occupied, regardless of species.**

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 ABL3 Architects on behalf of their client to undertake a detailed bat survey at Rest Harrow, Middle Way, East Preston, Littlehampton, BN16 1SB 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, 2023).
- 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 16th July 2024 which identified moderate potential to support roosting bats within the roof void and batten space of the roof of the house, and negligible potential within the garage.
- 1.5 Further surveys were therefore required for the house to ascertain whether bats are present or increase confidence in a result of likely absence of bat roosts and whether bats represent a constraint to the proposed development and identify any mitigation, compensation and licensing requirements for the 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 the site to support roosting bats;
 - Identify whether bats are present using the buildings 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 Rest Harrow, Middle Way, East Preston, Littlehampton, BN16 1SB at central grid reference TQ 08704 01707. The site is located in a semi-urban part of Littlehampton, on the edge of the village of East Preston. The surrounding landscape comprises residential properties with associated amenity gardens to the east, south and west of the site, with a mosaic of agricultural land to the north. The coastline is located around 278m to the south of the site. See Figure 1.



FIGURE 1: SHOWING THE LOCATION OF THE SITE

1.9 The site contains a detached single-storey residential dwelling and a garage building situated within an amenity garden.

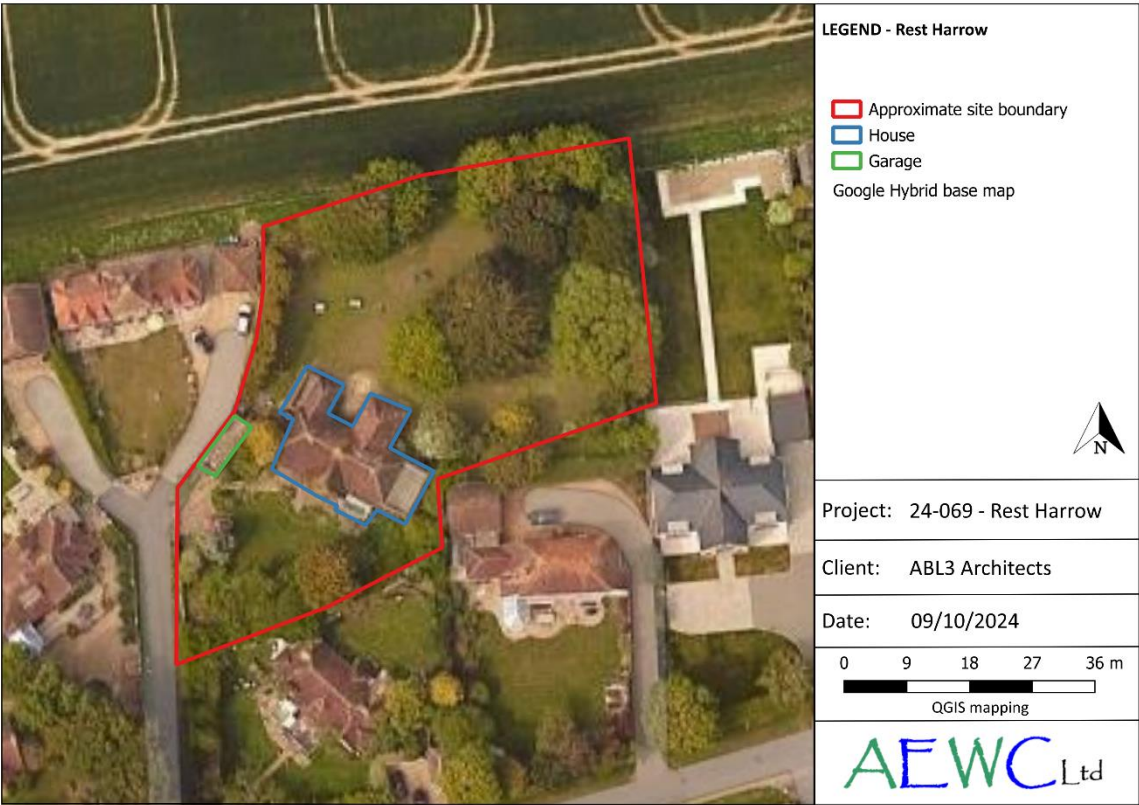


FIGURE 2: SHOWING THE BUILDINGS SUBJECT TO SURVEY

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 demolition of the existing house and the garage to make way for construction of a new residential dwelling on the existing footprint, as well as the construction of a new garage in the southern corner of the site.

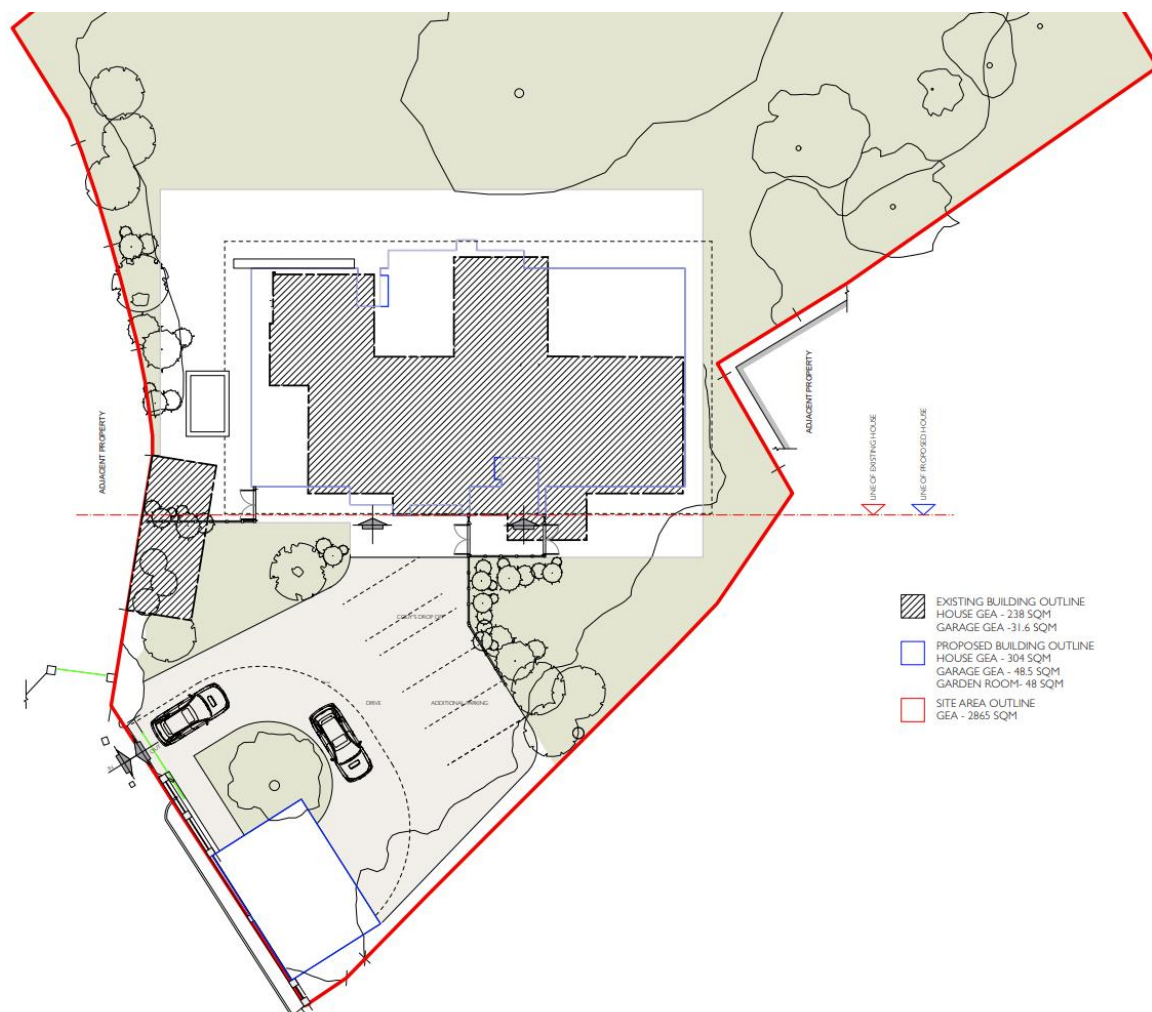


FIGURE 3: SHOWING THE EXISTING AND PROPOSED PLANS.

2 Methods

Pre-existing Information Search

- 2.1 The Multi Agency Geographic Information for the Countryside (MAGIC) website provided by the Department for Environment, Food and Rural Affairs (Defra) was consulted to obtain information about any international or European level designated nature conservation sites within 2km of the site boundary, afforded protection either directly by the Conservation of Habitat and Species (Amendment)(EU Exit) Regulations 2019 or to the same level of protection through planning policy (the National Planning Policy Framework and Local Development Framework). Information regarding statutory designated sites, such as Sites of Special Scientific Interest (SSSI), within a 2km radius of the site were also obtained from MAGIC.
- 2.2 MAGIC was also used to assess the habitats surrounding the site and obtain records of granted EPS licences within 2km of the site, to infer species likely to be present and better assess in-combination impacts of the proposed works.

Daytime Assessment

- 2.3 A detailed bat building inspection was undertaken on the 16th July 2024 by Brigitte de Coriolis, a Natural England licensed bat ecologist.
- 2.4 A systematic internal inspection of the buildings 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 buildings 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.
- 2.5 The buildings' 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.
- 2.6 The buildings' 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.
- 2.7 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.
- 2.8 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.
- 2.9 Taking account of these architectural, habitat features and signs of presence, the buildings were then assigned a level of roost suitability based the criteria given in the Bat Conservation Trust's Bat Surveys: Good Practice Guidelines (Collins, 2023) 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

- 2.10 The evening emergence surveys were conducted on 2nd August and 27th August 2024, 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.
- 2.11 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.
- 2.12 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.
- 2.13 Three surveyors and four professional night vision cameras were used for both emergence surveys (Figure 6). The surveyors and four cameras were positioned to get a good all-round view of the building with a particular focus on the areas of impact and where potential roost features were identified present.

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.

4 Results

Pre-existing Information Search

Statutory Designated Sites:

4.1 There are no statutory designated sites located within 2km of the proposed site. See Figure 4.

Non-statutory Designated Sites

4.2 There are no non-statutory sites located within 2km of the proposed site.

Granted EPS Bat Licences

4.3 There is one granted EPS licence for bats within 2km of the site. This is detailed in Table 1 and shown in Figure 4.

TABLE 1: EPS LICENCES WITHIN 2KM OF THE SITE

Case reference of granted application	Species on the licence	Licence Start Date	Licence End Date	Impact on a breeding site	Damage of a breeding site	Damage of a resting place	Destruction of a breeding site	Destruction of a resting place
2020-48782-EPS-MIT	BLE, C-PIP	03/09/2020	31/10/2026	N	N	N	N	Y

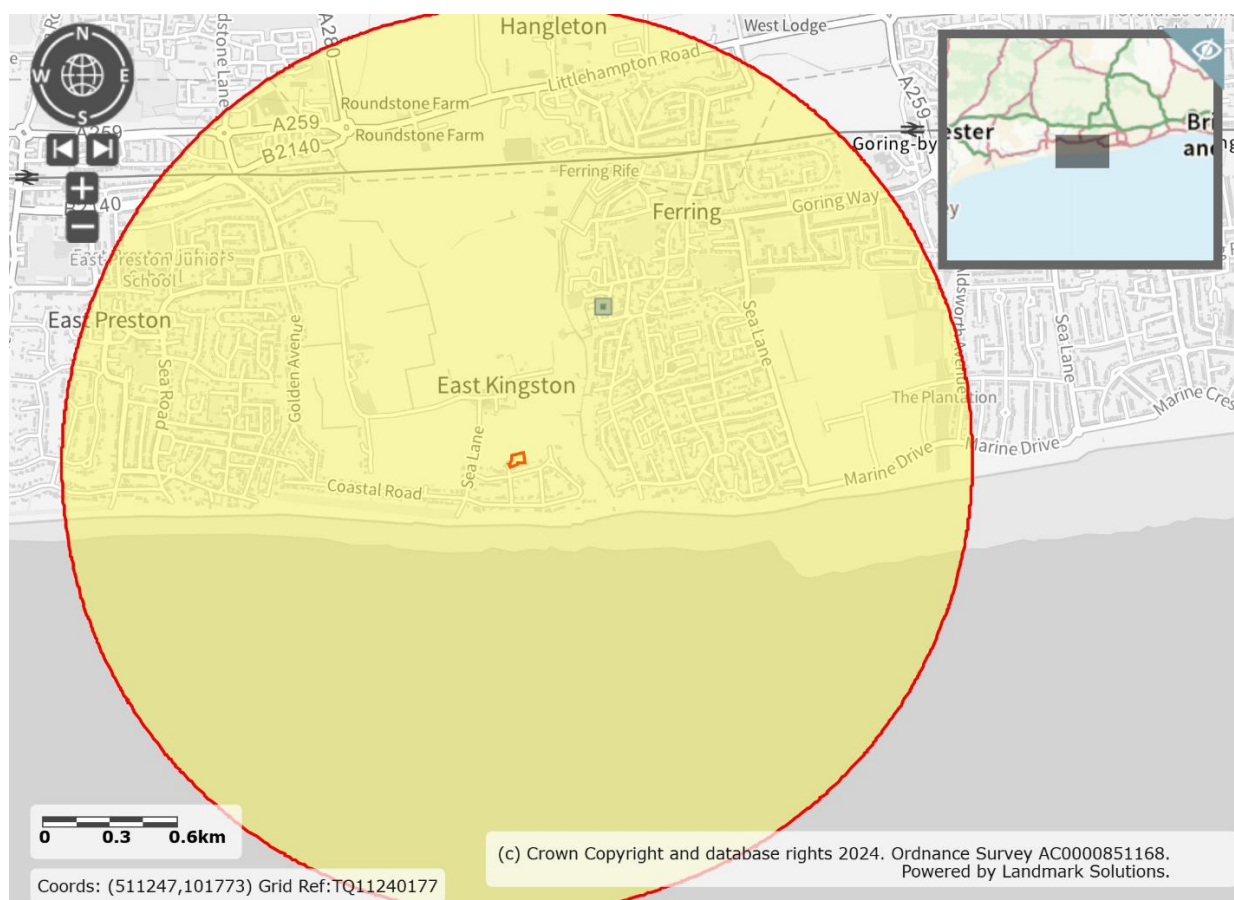


FIGURE 4: SHOWING STATUTORY DESIGNATED SITES AND GRANTED EPS LICENCES WITHIN 2KM OF THE SITE. BAT LICENCES SHOWN IN BLUE

Habitats of Principal Importance

4.4 There are no HPI located within or immediately adjacent to the site.

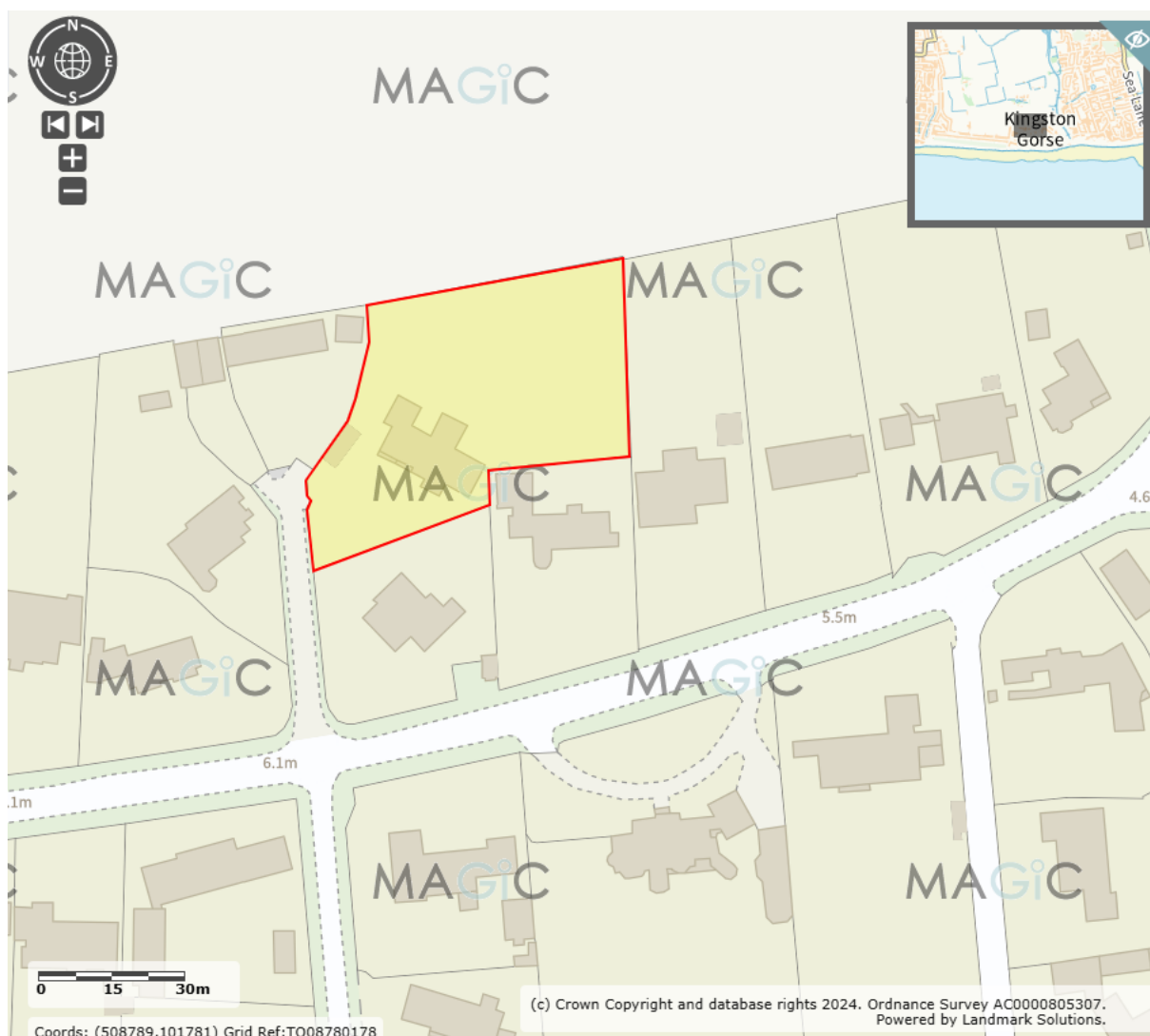


FIGURE 5: SHOWING A LACK OF HPI HABITAT ON OR IN PROXIMITY TO THE SITE

Daytime Assessment

4.5 The site comprises a detached single-storey residential property and a garage building which were examined for bats and signs of their presence and then assigned a level of potential to support roosting bats.

House

4.6 The house is a single-storey, brick-built detached residential dwelling with a hipped roof supporting clay roof tiles. Two intersecting extensions on the northeast elevation have hipped roofs, along with an intersecting gabled roof on the southwest elevation and a part-flat, part-pitched roof section at the southeast elevation. Two chimneys are located at the roof ridge.

4.7 The roof was noted to have several lifted and missing tiles on all elevations, which provide potential access into the batten space of the roof for crevice-dwelling species.

An area of loose lead flashing around the roof vent also allows potential access into the batten space of the roof or roof void.

- 4.8 Internally, the roof is wood framed and lined with timber sarking, with fibreglass insulation present at the floor level. The chimneys, timbers, water tanks and associated pipework create a degree of clutter, however the void is tall and with good internal flight space for void-dwelling species. The roof void was heavily cobwebbed along the ridge, especially at the hip apices and around the chimneys. An old wasp nest was noted inside the roof void, in addition to evidence of small and large rodents. No evidence of bats was identified within or around the house.
- 4.9 Due to the features described, the house was identified to hold moderate potential to support roosting bats. As such, a minimum of two emergence surveys were required to be carried out in the active season of May to September.

Garage building

- 4.10 The garage building is a brick-built detached building with a flat timber roof covered in bitumen felt, which serves as a storage area. A parapet wall is present around all but the northeast elevation of the building, supporting a very small area of decorative clay tiling comprising a ridge and two tile courses.
- 4.11 Externally, no gaps were noted that would provide suitable access into the garage with garage door, windows, and the roof felt largely tight fitting. The decorative clay tiles were largely tight-fitting; a low number of gaps were noted where the upper tile was slightly uneven, however these are mortared directly to the parapet with no batten space present, and these crevices are shallow and relatively exposed. Fine cobwebbing was also present across some of these gaps.
- 4.12 Internally, the roof is wood framed and lacks suitable tight roosting crevices for bats. Cobwebbing was noted at the window frames, garage door, and the beams. No evidence of bats was found externally or internally within the garage.
- 4.13 Due to the absence of suitable access points or roost features, the garage building was identified to hold negligible potential to support roosting bats. As such, no other surveys were required for this building.



Photograph 1: West side of south elevation of house.



Photograph 2: East side of south elevation of house.



Photograph 3: Northeast corner of house.



Photograph 4: West side of north elevation of house.



Photograph 5: Loose lead flashing around the roof vent and lifted tiles.



Photograph 6: Uneven roof tiles on the north elevation.



Photograph 7: Roof void within the house.



Photograph 8: Heavy cobwebbing at the hip apices.



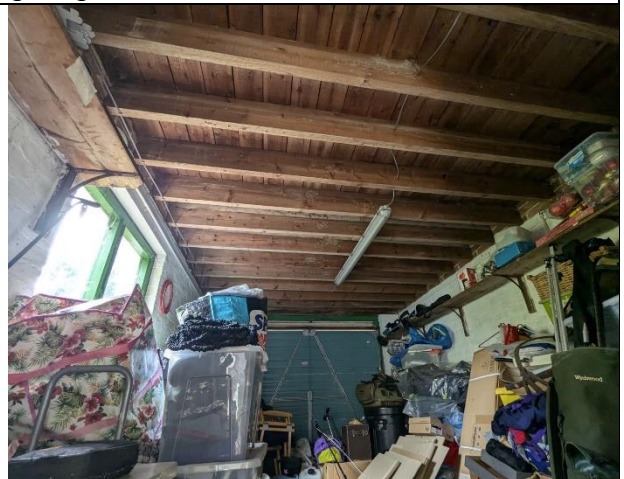
Photograph 9: North elevation of the garage showing lack of roof void.



Photograph 10: South elevation of the garage with the flat roof.



Photograph 11: A narrow gap in the decorative roof tile.



Photograph 12: The garage interior.

Trees and vegetation

4.14 None of the trees on site were found to contain any features with roosting potential and were therefore considered to hold negligible potential for bats. As such no further surveys were required.

- 4.15 The climbing vegetation present on the west elevation of the house and larger shrubs immediately surrounding the house have potential for nesting birds.



Photograph 13: Climbing vegetation on the elevation of the house and shrubbery.

Emergence Surveys

- 4.16 **2nd August 2024** – Weather conditions for the survey were good (19.6°C, dry, 30% cloud cover and a breeze of 3-Beaufort). The survey recorded no bats emerging from the house. Medium levels of foraging activity from common pipistrelles (*Pipistrellus pipistrellus*) were recorded from 15 minutes after sunset to the end of the survey, with a single soprano pipistrelle (*Pipistrellus pygmaeus*) and noctule (*Nyctalus noctula*) pass.
- 4.17 **27th August 2024** – Weather conditions for the survey were good (18°C, dry, 10% cloud cover and no breeze). The survey recorded no bats emerging from the house. Medium levels of common pipistrelle foraging activity were recorded along the tree line bordering the garden from 15 minutes after sunset to the end of the survey, with passes from noctules, soprano pipistrelles, serotines (*Eptesicus serotinus*), a long-eared bat (*Plecotus sp.*) and *Myotis spp.*
- 4.18 A diagram showing the locations of the surveyors and night vision cameras during the evening surveys can be seen in Figure 6 below.



FIGURE 6: SHOWING POSITIONS OF SURVEYORS AND NIGHT VISION CAMERAS DURING THE 2ND AUGUST AND 27TH AUGUST EMERGENCE SURVEYS.

5 Evaluation, Conclusions & Recommendations

- 5.1 Initial observations consider the local area suitable for bats. Residential gardens and agricultural land in close proximity to the site provide foraging and commuting habitat for a range of common bat species. Buildings and trees within the local area additionally offer potential roosting opportunities.
- 5.2 Due to the lack of suitable access points or roost features, the garage building was assessed as holding negligible potential to support roosting bats. Therefore, no further surveys were required, and there are no known constraints regarding these species and the proposed works.
- 5.3 The daytime assessment identified moderate potential for the house to support roosting bats within the batten spaces of the roof tiles and within the roof void; however, bats were not found during the emergence surveys and, as such, there are no known constraints regarding these species and the proposed works.
- 5.4 The trees on site were assessed to hold negligible potential to support roosting bats. No trees are proposed to be impacted under the current development proposals and, as such, there are no known constraints regarding these species.

- 5.5 Vegetation clearance and building demolition should be undertaken outside the breeding bird period from March to August. Should any vegetation clearance or demolition be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds by a suitably qualified ecologist. No vegetation can be cleared or building demolished whilst a nest is occupied, regardless of species.
- 5.6 The recording of low numbers of common pipistrelle bats close to sunset is considered to be indicative of the presence of day roosts for low numbers of individuals within close proximity to the site. **As bats are highly mobile species and the property contains suitable features to support crevice-dwelling bats, they may turn up on sites at any time. Should bats, or evidence of bats, be identified during the works, the procedure in section 6 of this report must be followed.**
- 5.7 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. No lighting should be positioned so as to shine on potential/confirmed roosts and commuting features. **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.**
- 5.8 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 Procedure to follow in the event a bat is found on site.

- 6.1 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.
- 6.2 If a bat is found at any location around the site DO NOT TOUCH unless necessary for the safety of the bat.
- 6.3 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.
- 6.4 Stop all work at that area and the immediate vicinity. Work may continue at other areas around the site.
- 6.5 Call the AEWC Ltd bat licensed project ecologist Brigitte de Coriolis 07545130203, call the office on 08452 505585, or licensed ecologist Daniel Whitby 07764813002.

7 References

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