

3 CWMCARN, EMMERGREEN READING

Preliminary Bat Roost Assessment Report

May 2023



Report Control Sheet

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1. INTRODUCTION

1.0 SCOPE & PURPOSE

1.1.1. Collington Winter Environmental Ltd was commissioned by SK Design Consultant to undertake a Preliminary Roost Assessment (PRA) at the site at 3 Cwmcarn Emmergreen, Reading, RG4 8LE. This report has been produced to inform a planning application at the site of a two-story extension on the southern aspect which includes the demolition of the current conservatory and a single-story extension on the eastern aspect.

1.1.2. The author of this report is Katie Brewer BSc (Hons), Ecologist at Collington Winter Environmental Ltd. This project is overseen and managed by Olivia Collington BSc (Hons), MEnvSc, CEnv Director at Collington Winter Environmental Ltd. Olivia is highly experienced managing schemes and has produced many ecological reports to inform planning permission.

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location. The site location is number 3 Cwmcarn, Reading, RG4 8LE (SU 70929 76550).

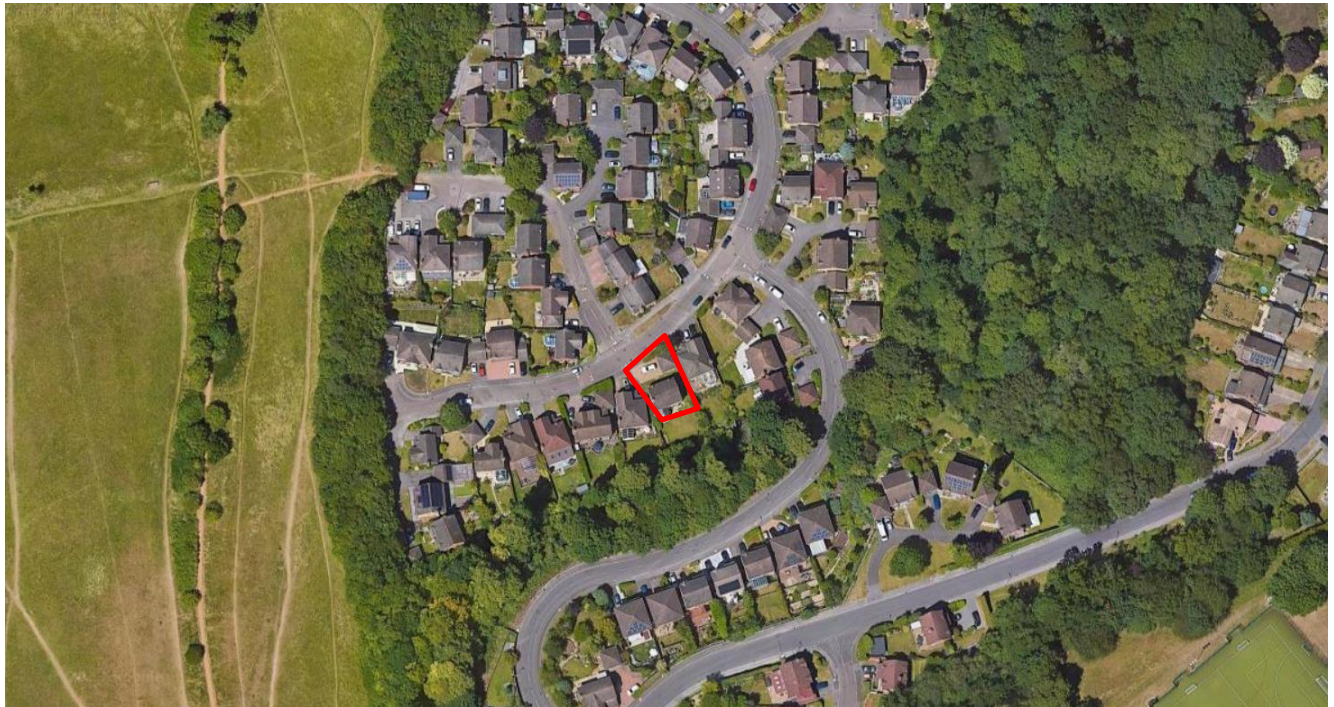


Figure 1.1 Site Location

1.3. OBJECTIVES

1.3.1. The objectives of the PRA are as follows:

- Identify any areas of bat roosting potential within the building
- Assess the value of the building for roosting bats
- Search for signs of bats
- Provide recommendations on any further surveys or mitigation required for bats

2. METHODOLOGY

2.1. DESK STUDY

2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:

- Review of aerial and OS maps for habitat information.
- Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- Locations of granted European Protected Species Licences (EPSL) within 5 km of the site based on consultation with magic.gov.uk.

2.2. PRELIMINARY ROOST ASSESSMENT

2.2.1. A Preliminary Roost Assessment (PRA) of the site was undertaken on 3rd May 2023 by Katie Brewer BSc (Hons). The roost assessment was overseen by Olivia Collington who holds a level one bat licence (2020–46960-CLS–CLS).

2.2.2. The survey was undertaken following guidance set out in Collins (2016). This includes undertaking a detailed internal and external inspection of any features to compile information on potential roosting features (PRFs) and potential access points. A search for field signs of bats (i.e. droppings, urine stains and feeding remains) was also completed. The use of binoculars and torches assisted with the survey.

2.2.3. The building was assessed as per categories listed in Table 4.1 Collins (2016) and reproduced in Table 2.1.

Table 2.1 Assessment Criteria for Bat Roosting Potential

Bat Roosting Potential	Description
Negligible	Negligible features on site likely to be used by roosting bats.
Low	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 habitats to be used on a regular basis by larger numbers of bats.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.
High	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 for longer periods of time.

2.3. SURVEY LIMITATIONS

2.3.1. There were no limitations throughout the survey.

3. SURVEY RESULTS

3.1. DESK STUDY

3.1.1. The site is located within a residential area of Reading, the town centre is located approximately 3km south from the site boundary. Bugs Bottom Park and Garden is located approximately 0.1km west from the site boundary which connects to greater habitats which consists of farmland and patches of woodland. Bugs Bottom connects to the trees located on the southern aspect of the residential garden. A patch of woodland is also located approximately 0.08km east from the site boundary. These surrounding habitats will provide suitable foraging and roosting habitats for local bat populations.

3.1.2. The following EPSLs were located within 5 km of the site based on consultation with magic.gov.uk:

- 2018-35917-EPS-MIT – located approximately 0.2km northeast from the site boundary which allowed for the destruction of a resting place for common pipistrelle (*Pipistrellus pipistrellus*) between 27/06/2018 - 30/11/2018.
- EPSM2013-6025 - located approximately 0.7km northeast from the site boundary which allowed for the destruction of a resting place for brown long-eared bat (*Plecotus auritus*) between 26/07/2013 – 31/12/2013.
- 2015-18560-EPS-MIT - located approximately 1.3km southwest from the site boundary which allowed for the destruction of a resting place for soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat between 2016-2021.
- 2014-3600-EPS-MIT - located approximately 1.3km southwest from the site boundary which allowed for then destruction of resting place for common pipistrelle between 2014-2019.
- EPSM2012-4078 - located approximately 1.4km northeast from the site boundary which did not allow for the destruction of a resting place or breeding place for brown long-eared bat, daubenton's myotis (*Myotis daubentonii*) and natterers myotis (*Myotis nattereri*) between 2012-2014.
- 2016-27061-EPS-MIT - located approximately 1.4km south from the site boundary which allowed for the destruction of a resting place for common pipistrelle and brown long-eared bat between 03/01/2017 – 03/01/2017.
- EPSM2012-4292 - located approximately 1.4km northwest from the site boundary which allowed for the destruction of a resting place for common pipistrelle, soprano pipistrelle and brown long-eared bat between 2012-2014.
- 2014-2980-EPS-MIT - located approximately 1.5km southwest from the site boundary which allowed for the destruction of a resting place for common pipistrelle and soprano pipistrelle between 2014-2015.
- 2017-32046-EPS-MIT - located approximately 1.6km northeast from the site boundary which allowed for the destruction of a resting place for soprano pipistrelle between 2017-2018.
- 2017-28760-EPS-MIT - located approximately 1.6km northwest from the site boundary which allowed for the damage of a resting place for common pipistrelle and brown long-eared bat between 2017-2022.
- 2015-13539-EPS-MIT - located approximately 1.7km southwest from the site boundary which allowed for the destruction of a resting place for common pipistrelle between 2015-2016.
- 2014-1343-EPS-BDX - located approximately 1.7km southeast from the site boundary which did not allow for the destruction of a resting place or breeding site for soprano pipistrelle between 01/10.2014 – 30/10/2014.
- EPSM2011-3175 - located approximately 1.7km southeast from the site boundary which did not allow for the destruction of a resting place or breeding site for common pipistrelle 2011-2012.
- EPSM2012-4727 - located approximately 1.8km north from the site boundary which allowed for the destruction of a resting place for common pipistrelle between 16/10/2012-31/10/2012.
- 2015-14137-EPS-MIT - located approximately 1.9km southwest from the site boundary which allowed for the destruction of a resting place for common pipistrelle and soprano pipistrelle between 2015-2020.
- 2018-33476-EPS-MIT - located approximately 1.9km southeast from the site boundary which allowed for the destruction of a resting place for serotine bat (*Eptesicus serotinus*) between 2018-2023.
- 2018-38007-EPS-MIT – located approximately 2.2km southeast from the site boundary which allowed for the damage of resting place for common pipistrelle and brown long-eared bat between 2019-2021.
- 2020-44895-EPS-MIT - located approximately 2.4km southeast from the site boundary which allowed

for the destruction of a resting place for common pipistrelle, soprano pipistrelle, brown long-eared bat and daubenton's myotis between 2020-2025.

- 2018-34387-EPS-MIT - located approximately 2.5km southeast from the site boundary which did not allow for the destruction of a resting place and breeding site for common pipistrelle between 01/05/2018 – 30/09/2018.
- 2017-28045-EPS-MIT - located approximately 2.7km southeast from the site boundary which did not allow for the destruction or damage of a breeding site or resting place for daubenton's myotis between 2017-2022.
- EPSM2013-6155 – located approximately 3km southeast from the site boundary which allowed for the destruction of a resting place for common pipistrelle between 2013-2015.

3.1.3. A further 16 EPSL's were located within 5km of the site boundary.

3.2. PRELIMINARY ROOST ASSESSMENT

3.2.1. The site consisted of a two-storey brick residential dwelling with a conservatory extension located on the southern aspect and a detached garage on the northern aspect of the site. All brickwork surrounding the residential dwelling was found to be in good condition with no gaps or crevices and no missing mortar identified throughout. All windows and doors surrounding the dwelling were found to be in good condition and they led directly into the internal residential aspect of the house, they did not provide any PRF's throughout. All rooms within the internal aspect of the dwelling were sealed throughout with no access points identified. All overhanging eaves surrounding the dwelling were well sealed, vents were identified on the northern and southern aspect of the eaves which were well sealed, they did allow natural lighting into the loft space however, it did not create an access point into the loft, and they were not identified as a PRF.

3.2.2. The roof consisted of slate tiles throughout which were all found to be well sealed and there were no gaps or crevices identified along the tiles which could create a PRF. A chimney was located on the western aspect of the dwelling, one small gap was identified within the led flashing which surrounded the chimney, it is unknown if this remained as a small gap or led to a larger area, this was identified as a PRF.

3.2.3. A total of two gaps were identified within the soffit boards of the house, they were located on the south-eastern corner and the north-western corner. It is unknown if these lead to a small gap or create a larger roosting feature, these were identified as a PRF as it is anticipated that these gaps may be used by bats opportunistically. It should be noted that the gap on the north-western aspect of the dwelling will not be affected throughout the proposed development.

3.2.4. Internally, the house had one accessible loft space, it should be noted that only the southern aspect of the roof will be affected throughout the development. The loft space consisted of insulation along the floor space. Breeze block walls were located on the eastern and western aspect of the loft, these were well sealed with no gaps identified. The roof consisted of roofing felt with supporting wooden beams, some gaps were identified along the roofing felt which led directly to the external roofing tiles. Although the gaps led to the external slate tiles, there were gaps within the tiles which would provide access into the loft space therefore, they were not considered a PRF. There was only natural lighting identified along the vents located on the overhanging eaves which were inspected throughout the external inspection. There were no bat droppings or feeding remains identified, it is anticipated that bats are unable to access the loft space.

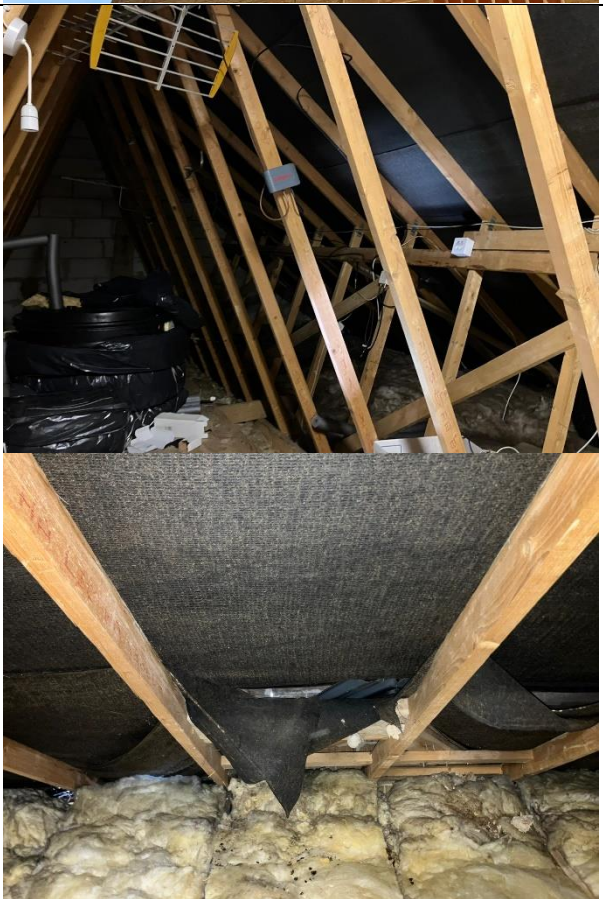
3.2.5. A conservatory is located on the southern aspect of the dwelling, this is to be demolished throughout the proposed development. The consisted of glass and supporting beams throughout and led to the residential area of the dwelling. There were no gaps or crevices identified throughout, it did not provide any PRF.

3.2.6. A detached garage was located on the northern aspect of the dwelling which consisted of the same brickwork and roofing tiles as identified on the residential dwelling. All brickwork and tiles were well sealed throughout, there were no gaps or crevices identified, this did not provide any PRF's.

3.2.7. Please refer to Table 3.1 for photographs.

Table 3.1 Building Photographs

Feature	Photograph
Northern aspect of the building.	
Southern aspect of the building.	
Conservatory located on the southern aspect of building.	

<i>Eastern aspect of dwelling with hole in soffit circled in red.</i>	
<i>Loft space.</i>	
<i>Detached garage on northern aspect.</i>	

3.3. SUMMARY

3.3.1. The following survey identified a total of two PRF's in relation to the two holes identified within the soffit boards on the south-eastern and the north-western corner. It is unknown if these create small gaps or larger gaps along

the soffit boards of the dwelling. A total of one small gap was also identified within the led flashing surrounding the chimney, the size of the gap is unknown. As such, the building was assessed as having low bat roosting potential.

- 3.3.2. A dwelling with low bat roosting potential is a structure with one or more potential roost sites that could be used by an individual bat opportunistically. These do not provide enough space, shelter, protection or appropriate conditions to be used on a regular basis by large numbers of bats.

4. RECOMMENDATIONS

4.1. FURTHER SURVEYS

- 4.1.1. The building was found to provide **low bat roosting potential** and therefore, in accordance with Best Practice guidance (Collins, 2016) further nocturnal/ re-entry surveys should be undertaken between May-August (inclusive) to determine usage by roosting bats. It was assessed as **low bat roosting potential**; therefore, a minimum of **one further survey** is recommended.
- 4.1.2. The results of the further surveys will determine if any mitigation is required for roosting bats. If roosting bats are located within any of the buildings, a Natural England Mitigation Licence may be required for development to proceed. The Licence can only be obtained once planning permission has been granted and all wildlife conditions discharged. However, the bat emergence surveys must be undertaken prior to planning permission being applied for as they are a material consideration.

4.2. LIGHTING MITIGATION

- 4.2.1. Construction lighting should not be directed towards retained and surrounding habitats. The construction lighting will impact bats which are sensitive to light. Directional lighting will be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.

5. SUMMARY

5.1.1. Low bat roost suitability was assigned to this building due to the lack of evidence of PRFs during the PRA. One emergence or re-entry survey is to be completed in order to confirm if a bat roost is present and whether further mitigation is necessary.

6. BIBLIOGRAPHY

- Bat Conservation Trust (2018). Bats and Artificial Lighting in the UK: Bats and the Built Environment Series.
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition. The Bat Conservation Trust, London.
- Downs, N. C. et al (2003) The effects of illuminating the roost entrance on the emergence behaviour of *Pipistrellus pygmaeus*. Biological Conservation 111, 247-252.
- Institute of Lighting Engineers (2005). Guidance Notes for the Reduction of Obtrusive Light.
- Mitchell-Jones (2004). Bat Mitigation Guidelines: Working Today for Natura Tomorrow. English Nature.
- Mitchell-Jones and McLeish (2004). Third Edition Bat Workers' Manual.
- Packman, C., Zeale, M., Harris, S. & Jones, G. (2015). Management of bats in churches – a pilot. English Heritage Research Project: 6199.

