

GRANGE COURT, NEWARK

Preliminary Bat Roost Assessment Report

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Report Control Sheet

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1. INTRODUCTION

1.1. SCOPE & PURPOSE

1.1.1. Collington Winter Environmental Ltd was commissioned by Mr James Quigley to undertake a Preliminary Roost Assessment (PRA) at Grange Court, Newark, NG23 6EB. This report has been produced to inform planning permission for at the site.

1.1.2. The author of this report is Andrew Taylor MSc, Graduate Ecologist at Collington Winter and this report has been supervised by Katie Bird MEnvSci, ACIEEM Principal Ecologist at Collington Winter Environmental Ltd. Katie is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location. The site is located in the rural village of South Muskham. A Village located approximately 3.5km north from Newark-on-Trent. The river Trent is located approximately 0.5km southwest from the site.

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 12th October 2023 by Andrew Taylor, and was supervised by Katie Bird MEnvSci, ACIEEM Principal Ecologist who holds a Class II Bat Licence (Reference: 2020-48950-CLS-CLS).

2.2.2. The survey was undertaken following guidance set out in Collins (2023). 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 (2023) and reproduced in Table 2.1.

Table 2.1 Assessment Criteria for Bat Roosting Potential

Bat Roosting Potential	Description
None	No habitat features on site likely to be used by any roosting bats at any time of the year
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion
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. During the PRA, internal access was not available to the eastern aspect of the loft space due to the wall located at the chimney breast.

3. SURVEY RESULTS

3.1. DESK STUDY

- 3.1.1. The site is located within a predominantly rural area of Nottinghamshire. It is surrounded by agricultural land on all aspects. The River Trent surrounds the site from southwest to northeast and is located approximately 0.5km southwest at its nearest point. The river will be of value for foraging and commuting bats. Hedgerows associated with the surrounding agricultural land are anticipated to act as linear features for commuting bats within the area, connecting the river to the site.
- 3.1.2. The following EPSLs were located within 5 km of the site based on consultation with Magic.gov.uk:
- EPSM2012-5333 – Located approximately 4.2km southeast from the site boundary. This allowed for the destruction of a breeding site and resting place for common pipistrelle (*Pipistrellus pipistrellus*) brown long-eared bat (*Plecotus auritus*) and natterer's bat (*Myotis nattereri*) from 21/12/2012 to 21/12/2017.
 - 2018-36323-EPS-MIT – Located approximately 4.6km west from the site boundary. This allowed for the destruction of a breeding site and resting place for brown long-eared bat from 16/08/2018 to 14/08/2028.
 - 2015-18287-EPS-MIT – Located approximately 4.9km southeast from the site boundary. This allowed for the destruction of a resting place for common pipistrelle from 01/02/2016 to 31/03/2021.

3.2. PRELIMINARY ROOST ASSESSMENT



- 3.2.1. A single storey residential building with a pitched roof and loft space. The external brick work was in good condition with no obvious crevices within the brick work. All windows and doors were in good condition with no gaps or crevices.
- 3.2.2. The roof was constructed of clay tiles and a felt membrane. Between 15- 20 slipped, cracked and missing tiles were observed throughout the pitched roof on both the northern, western and southern aspect. Slate tiles were present on the western aspect and northern extension. Between 1-5 lifted and slipped slate tiles were identified on the northern extension. These cracked, slipped and lifted tiles may provide a PRF for roosting bats.
- 3.2.3. Lead flashing was present and was mostly well sealed. One area of lifted flashing was present on the eastern end of the southern aspect. This may provide a PRF for roosting bats.
- 3.2.4. Gaps between the wall and eaves on the southern aspect gable were present. Roofing felt could also be seen along the eaves these gaps may lead into the cavity between the roofing tiles, roofing felt and plaster board. This cavity may be suitable for roosting bats.
- 3.2.5. A wooden beam was present on the southern aspect. This beam runs the length of the southern aspect between the redbrick wall and the roof. Gaps above and below the wooden beam were identified which provide PRFs for roosting bats.
- 3.2.6. Gaps between a wooden beam and roof was also identified on the eastern aspect on the northern extension. This gap was identified as a PRF as it may lead to a suitable cavity for roosting bats.
- 3.2.7. Internally, the building comprised a single storey of rooms. All rooms on the ground floor were well sealed providing no access to external features.
- 3.2.8. The loft space consisted of wooden support beams with a plaster boarding. A felt membrane was also present between the plasterboard and roof tiles. The majority of plaster boarding was well maintained. Only one hole was present where roofing felt could be seen underneath.
- 3.2.9. The western aspect consisted of a red brick wall with four air vents the brickwork was in good condition with no gaps in mortar. Each vent was well sealed.
- 3.2.10. The eastern aspect consisted of a breezeblock and redbrick chimney breast and a wall with wooden boarding.

Gaps at the top of the wooden boarding give access into the void behind the wall.

3.2.11. No bat droppings or feeding remains were identified within the loft space. Droppings were present however these were deemed to be mouse. Using guidance from Collins (2023), Droppings photographed and then assessed. Droppings were found not to crush.

3.2.12. Please refer to Table 3.1 for photographs.

Table 3.1 Building Photographs

Feature	Photograph
<i>Southern aspect of the building</i>	
<i>Southern aspect – slipped and lifted roof tiles</i>	

Southern aspect - Lead flashing along eastern end of aspect. Some lifted flashing can be seen.



Southern aspect – gap in mortar below wooden beam



Southern aspect – gaps above wooden beam



Southern aspect – gaps between brick wall and roof tiles where access to roofing felt could be seen








Western aspect



Western aspect – cracked and slipped tiles



<p><i>Northern aspect</i></p>	
<p><i>Northern aspect – lifted tiles</i></p>	
<p><i>North aspect of northern extension</i></p>	
<p><i>East aspect of northern extension</i></p>	
<p><i>lifted tiles on eastern aspect of northern extension</i></p>	

Northern aspect – gaps in mortar above wooden beam on eastern aspect of northern extension



Loft Space – Western aspect



Loft Space (Eastern aspect) – loft space not accessible past chimney.



Plaster boarding present on northern and southern pitched roof.



Hole in plaster board was present on the northern aspect

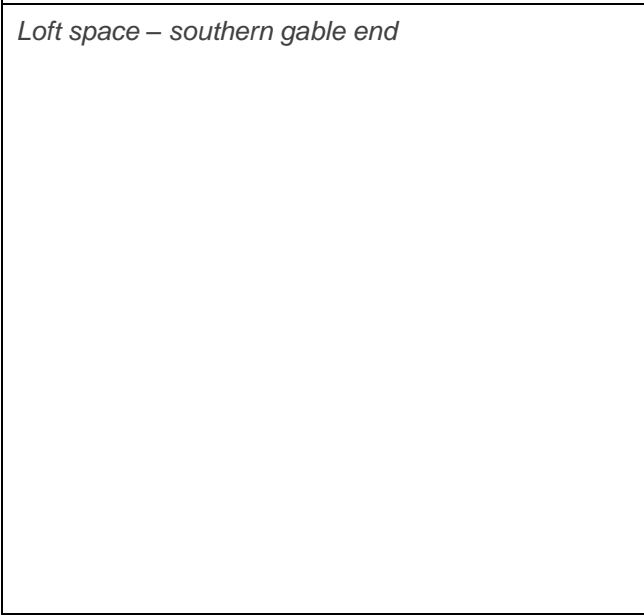


Vents on western aspect of loft space.

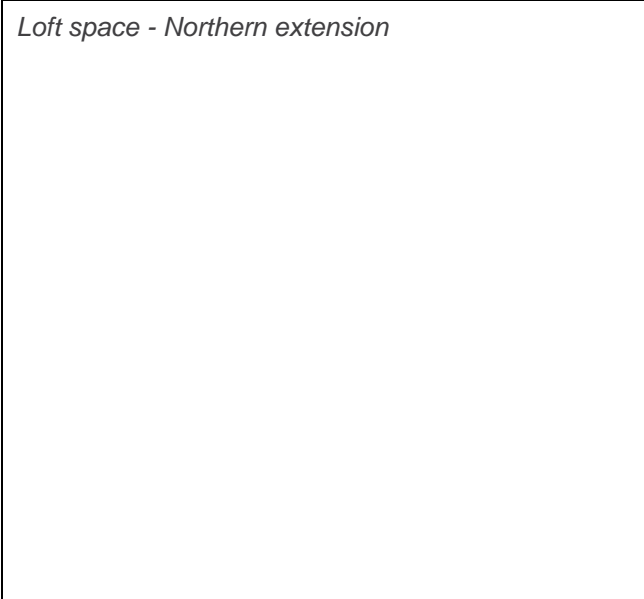




Loft space – southern gable end



Loft space - Northern extension



Mouse droppings identified in loft space



3.3. SUMMARY

3.3.1. The survey identified multiple PRFs and potential external access points in relation to the gaps between the wooden beams and roof as well as the number of slipped, cracked or missing tiles within the roof. An internal inspection of the loft space showed that tiles did not provide internal access, however the presence of both roofing felt and plaster board creates a potential roosting feature for bats. As such, the building was assessed as having **moderate** bat roosting potential. Therefore, in accordance with Best Practice guidance (Collins, 2023) further nocturnal/ re-entry surveys should be undertaken between May-September (inclusive) to determine usage by roosting bats

4. RECOMMENDATIONS

4.1. FURTHER SURVEYS

- 4.1.1. The building was found to provide bat roosting potential and therefore, in accordance with Best Practice guidance (Collins, 2023) further nocturnal/ re-entry surveys should be undertaken between May-September (inclusive) to determine usage by roosting bats. It was assessed as moderate bat roosting potential; therefore, **a minimum of two further surveys are recommended**. At least one of the surveys should be undertaken between May – August
- 4.1.2. Current plans are for an extension to the building. Potential roosting features are at risk of being impacted by the works. The results of the further surveys will determine if any mitigation is required for roosting bats. If roosting bats are located within the building, 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. All bats have some degree of sensitivity to artificial, night-time lighting. Introducing artificial lighting to areas that are not currently illuminated may sever important bat flight lines and discourage bats from using roost provisions. It is recommended external lighting is not to be provided on the buildings to ensure roosting bats are not impacted by introduced lighting.
- 4.2.2. It is advised that a light mitigation plan is produced to assess the pre- and post-development changes in lighting and to advise on an appropriately sensitive lighting scheme as part of the development.
- 4.2.3. The following measures will be implemented in the final proposed lighting strategy, following guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting in the UK” (2023):
- Keep site lighting to minimum levels.
 - LED lighting with a warm white light to be used over cool white light (<2700Kelvin).
 - Lighting feature peak wavelengths greater than 550nm.
 - Light placement to be downward facing to prevent excess horizontal or vertical light spill.
 - Avoid illuminating habitats of value.
 - Us of time security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.

5. SUMMARY

- 4.1.1. Moderate bat roost suitability was assigned to this building due to the evidence of multiple PRFs during the PRA. Two emergence surveys are to be completed in order to confirm if a bat roost is present and whether further mitigation is necessary.

- 4.1.2. **It is recommended that no works to the building is completed until the further surveys are carried. If works proceed without the further surveys, there is a risk of breaching relevant legislation.**

6. BIBLIOGRAPHY

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