



NOCTURNAL BAT SURVEY REPORT

SITE LOCATION

Hopwood Hall College,
Rochdale Road,
Middleton,
Manchester,
M24 6XH

ISSUE DATE

2nd August 2024

SEED REF

1697B-NBR-V1-A

CLIENT

Seven Architecture

ARBORICULTURAL CONSULTANCY

SEED-ARB.CO.UK

DOCUMENT CONTROL

Date	Author	Checked	Revision
02.08.2024	Katie Brewer	KB	Rev A

NOTE:

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1. Introduction

Scope & Purpose

- 1.1.1. Seed Arboriculture Ltd were commissioned by Seven Architecture to undertake a Nocturnal Bat Survey for the proposed development at Hopwood Hall College, Rochdale Road, Middleton, Manchester, M24 6XH.
- 1.1.2. The author of this report is Katie Brewer BSc (Hons), Consultant Ecologist. The project has been peer-reviewed by Katie Bird MEnvSci, ACIEEM Associate Director. Katie is highly experienced managing schemes and has produced many ecological reports to inform planning permission.
- 1.1.3. A Preliminary Roost Assessment (PRA) was undertaken at the site in January 2024 by Katie Brewer and Katie Bird, please see Preliminary Ecological Appraisal Report. The PRA assessed the chapel as providing **'moderate'** bat roosting potential due to the smashed windows providing internal access into the building. The roof consisted of the original copper throughout with small gaps identified along the roof however the internal inspection of the chapel found that this lead to a concrete roof and not a cavity. The copper is anticipated to fluctuate in temperature and copper is a good conductor of heat. The building was found to have "Low Bat Roosting Potential" however, a previous nocturnal bat survey undertaken in 2008 which identified one common pipistrelle emergence. As the features on the building have remained the same since the survey, two further nocturnal surveys were undertaken by SEED as detailed below.

Site Location

- 1.1.4. Please refer to Figure 1 for the site location.



Figure 1 - Site Location Plan

Objectives

1.1.5. The objectives of the nocturnal bat surveys are as follows:

- Confirm likely presence/absence of roosting bats.
- Assess the value of the building for roosting bats.
- Identify the species assemblage of bats using the site.
- Provide recommendations on any further surveys or mitigation required for bats

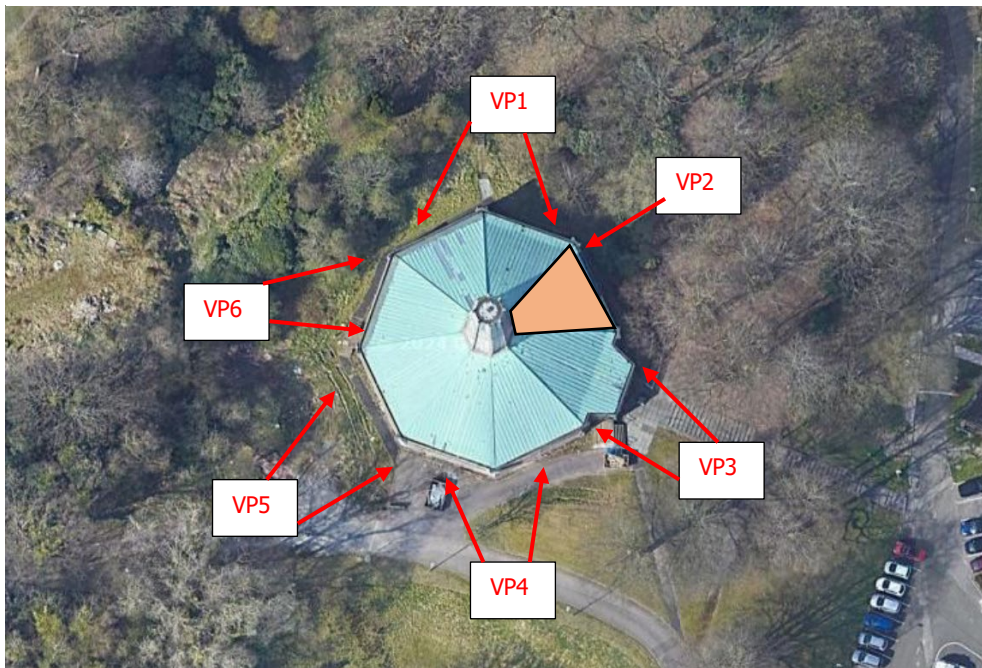
2. Methodology

Desk Study

Nocturnal Bat Surveys

- 2.1.1. Two nocturnal surveys were undertaken on 9th May 2024 and the 27th June 2024, by qualified surveyors. Infrared cameras (Nightfox Red, Digital Night Vision Goggles) were used to aid the surveys. Titley Scientific Chorus's were deployed at each camera on the second survey. Please refer to Figure 2 for locations of vantage points (VPs) used during the dusk survey.
- 2.1.2. A section of the roof was not clearly visible during the survey due to the trees surrounding the building, blocking the view. Please see Figure 2 where the area of the roof has been highlighted in orange. This limitation has been considered within the recommendations and limitations.

Figure 2 – Building surveyed, vantage points and area which was not fully visible.

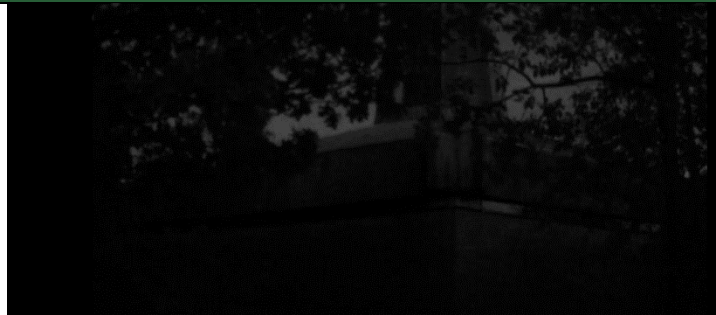


- 2.1.3. The surveys were undertaken in line with guidance as set out in Collins (2023 updated guidance). Surveyors used Echo Meter Touch and Titley Chorus's. All surveyors were suitably experienced undertaking bat emergence surveys. Please refer to Table 1 below for details of surveyors. The camera footage was reviewed by competent ecologists as soon as possible after the survey, using relevant media players. The Titley Chorus data was reviewed on Kaleidoscope Analysis Software. Please refer to Table 2 for the IRCs camera images at the darked points.

Table 1 - Bat Survey Details

Date	Sunset Time	Start	Finish	Surveyors	Weather Conditions
09/05/2024	20:54	20:39	22:24	VP1 – Camera VP2 – Rhiannon Hobbs VP3 - Camera VP4 – Lizzie Stores VP5 – Camera VP6 – Katie Smith	Temp Start: 17°C Temp End: 14°C Cloud: 0/8 Wind: 1 (Beaufort scale) Rain: None
05/06/2024	21:25	21:10	22:55	VP1 and VP2 – Cameras and Joshua Dixon VP3 and VP4 – Cameras and Allegra Lindsay VP5 and VP6 – Cameras and Miles McGaffighan	Temp Start: 11.8°C Temp End: 10.7 °C Cloud: 3/8 Wind: 1 (Beaufort scale) Rain: None

Table 2 – Camera Screenshots

Details	Image
09/05/2024 VP1	
09/05/2024 VP3	

09/05/2024 VP5	
05/06/2024 VP1	
05/06/2024 VP2	
05/06/2024 VP3	

05/06/2024 VP4	
05/06/2024 VP5	
05/06/2024 VP6	

Limitations

- 2.1.4. An area of the roof was not fully visible due to the surrounding trees which blocked the view, this constraint has been considered in the mitigation and recommendations of the report.
- 2.1.5. During the first survey, cameras were only used to cover three Vantage Points (VPs) as the survey was completed at the beginning of May it was not certain that cameras were required on all VPs. After the first survey it was understood that cameras are to be used for all vantage points and therefore six cameras were used for the second survey. This is not considered a constraint to the survey results as three of the vantage points on the first survey were covered by people and the results were consistent.

3. Survey Results

Dusk Survey (09/05/2024)

- 3.1.1. Bat activity was recorded throughout the survey by all vantage points. Species identified during the survey includes common pipistrelle (*Pipistrellus pipistrellus*) and noctule (*Nyctalus noctula*). The species were identified commuting and foraging within the surrounding areas of the building and within the adjacent woodland. Bats were identified foraging over the grassland by VP4 which is located adjacent to the woodland, anticipated to support the bats with bat boxes identified on the trees during the PEA.
- 3.1.2. There were no roost locations identified by VP2, VP4 and VP6 during the survey.
- 3.1.3. A review of the IRC camera footage did not identify any bats emerging/ re-entering from the building from the points of view at VP1, VP3 and VP5.
- 3.1.4. **No roost locations were recorded during the dusk survey.**

Dusk Survey (05/06/2024)

- 3.1.5. Bat activity was recorded during the survey, there were less bats identified during the survey. The first bat was recorded at 21:49 and was identified as a common pipistrelle nearby VP5 and VP6 and it was identified from the adjacent woodland and foraging over the grassland. Bats were identified commuting around the building and into the open habitats and woodland for foraging purposes.
- 3.1.6. A review of the IRC camera footage (VP3) found one bat emerging at 22:11 from the building at Roost 1 it was located within the gutter of the building. The bat emerged without echolocation, as such the species is unknown.
- 3.1.7. **One roost location was recorded during the dusk survey.**

Figure 3 – Roost 1





4. Assessment

Impact Assessment

- 4.1.1. The proposed development works involve the refurbishment of the building. It is a listed building, and the extent of proposed works is unknown.
- 4.1.2. The nocturnal bat surveys identified one non-breeding day roost. As no echolocation was recorded during the survey, it is recommended a bat licenced ecologist inspects the location of emergence, to identify whether any bat droppings are present for eDNA analysis.

Option 1 – Retain Roost

- 4.1.3. Depending on the scope of works, it is recommended that the roost is retained and protected. The roosting feature relates to an external gutter. If it is possible, it is recommended the feature is retained and unimpacted by the proposed works. A minimum 2m buffer (relating to external features, including the metal trim above the gutter) around the roost location would need to be obtained to protect the roost, and minimise risk of disturbance.
- 4.1.4. The following Precautionary Working Methods would need to be followed:
- The Ecologist will undertake an internal and external daylight inspection to assess the status of the site for bats prior to works commencing on site. The Ecologist will check for fresh droppings and accurately assess the levels of bat activity, with particular care taken in relation to the areas to be impacted by the works.
 - The Ecologist will attend site on the days of the scheduled works to undertake a search for bats prior to the works commencing, specifically in relation Roost 1. Any areas considered to have bat potential by the ecologist will be inspected using an endoscope. A 2m buffer zone will be marked out and the contractors will be shown area to not be impacted.
 - All contractors working on the site will be briefed with a Toolbox Talk by the Ecologist, on the legal protection afforded to bats and their roosts, and on how to proceed if a bat is discovered during the work.
 - If bats are encountered during works, all works will cease, and no works can proceed until the relevant further surveys have been completed, and the relevant European Protected Species Licence has been obtained to allow the activities to proceed.

Option 2 – Roost Destruction Required

- 4.1.5. If Option 1 is not possible and the gutter needs to be removed and a buffer cannot be maintained, there is a risk of injury and/or killing bats or disturbing/destroying a known bat roost. As such, an appropriate mitigation licence would be required prior to any works being completed on the building.
- 4.1.6. Development should not result in overall loss of bat roost sites and therefore a replacement roost site will need to be provided for the species affected. The Bat Mitigation Guidelines (Mitchell-Jones, 2004) states that avoiding damage or loss of existing roosts is the preferred option in all cases and wherever possible, replacement roost habitats should be on a “like for like” basis to replicate the existing conditions selected by bats.

- 4.1.7. No works to the building (including destructive investigative) are to be conducted prior to obtaining a licence and agreed upon with the bat ecologist. The eDNA analysis will be required of the roost location to identify the species of what bat has emerged. As no bat was identified on the first survey, it was considered disproportionate to complete a third survey with the risk of the bat not emerging from Roost or no echolocation used.

Bat Licence

- 4.1.8. An appropriate mitigation licence must be obtained before the roost is destroyed to facilitate the development. This can include either an Earned Recognition (ER) Licence or a Standard European Protected Species Mitigation Licence (EPSL).
- 4.1.9. The roosts located on the building will be destroyed under the supervision of the licence bat ecologist under the appropriate licences. No works will be undertaken without the licenced bat ecologist attending site.

Three Tests

- 4.1.10. A licence to derogate from the statutory protection afforded to bats can be granted for a number of specified reasons or purposes as set out in Regulation 53 of the Conservation of Habitats and Species Regulations 2010 (as amended). These reasons are often referred to as the 'three tests'. Consideration of the three tests is to be used to demonstrate that it is reasonable to assume that a Natural England licence will be granted in this case.

Test 1

- 4.1.11. Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment", typically referred to as the 'Overriding Public Importance Test'.

Test 2

- 4.1.12. Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative", typically referred to as the 'No Satisfactory Alternative' test.

Test 3

- 4.1.13. Regulation 53(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range", typically referred to as the 'Favourable Conservation Status' test.

Working Methods

- 4.1.14. Renovation of the building will cause an offence to be committed by the way of disturbance or damage to bats or their roosts under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (As amended).

- 4.1.15. Therefore, renovation of the building on the site, which was assessed to support one non-breeding day roost for a peak count of an unknown species, should be undertaken under an appropriate mitigation licence. In addition, the following Precautionary Working Methods (PWMs) are to be undertaken under the supervision of a licenced bat ecologist to reduce the risk of killing or injuring any bats.
- 4.1.16. Pre-commencement works are as follows:
- Before works can start, a minimum of one general purpose bat boxes will be fixed to a suitable location. The bat box specification may differ depending on the results of the eDNA. A bat box specific to the species would be selected to ensure the compensation roost is suitable for said species.
 - Boxes are to be affixed onto retained trees located within the landowners land (location to be agreed with the client). Boxes must be positioned on a south-west or south-east-facing aspect, at a minimum of 4m from the ground, and must remain in situ. The likely location would be the adjacent broadleaved mature trees.
 - The licenced ecologist will undertake a daylight inspection to assess the status of the site for bats prior to works commencing on site. The ecologist will check for fresh droppings and accurately assess the levels of bat activity.
 - The ecologist will attend site on the day of the scheduled renovation works to undertake a search for bats in the identified roost locations prior to the works commencing. Any bats found will be relocated into the roost provisions, already installed on site. The initial stages of the works will occur under the supervision of the ecologist.
 - All contractors working on the site will be briefed with a Toolbox Talk by the licenced ecologist, on the legal protection afforded to bats and their roosts, and on how to proceed if a bat is discovered during the course of the work.
 - If bats are encountered during works, the licenced ecologist will capture them, whilst wearing thin gloves. Any bats found that do not need to be taken into care will then be placed in the bat box, which will act as receptor sites during demolition works.
- 4.1.17. Once the selected features have been removed under supervision, works can proceed in the absence of the licenced ecologist, at their discretion. If a bat is discovered at any unsupervised time, work must cease immediately, and a licenced bat handler must be called for advice. This advice will include leaving the bat to disperse of its own accord or wait for the licenced ecologist to move the bat. Builders and contractors are explicitly forbidden from handling bats except in the case of finding a trapped or injured bat. In which case the bat may be moved into a safe and secure place (e.g. a box) and the ecologist must be contacted immediately.

Roost Provision

- 4.1.18. The renovation of the building should not result in the overall loss of bat roosts. Therefore, a replacement roost site will need to be provided, per roost. In this case, a total of one roost was identified. The Bat Mitigation Guidelines state that avoiding damage or loss of roosts is the preferred option so this should be employed where possible. If the loss of the roost cannot be avoided, replacement roost provisions should be on a “like-for-like” basis to replace the existing conditions that will be lost.

- 4.1.19. To mitigate for the loss of bat roosts, a minimum of one crevice bat box will be installed prior to the proposed works. Box types such as Greenwood's Ecohabitats –Crevice Bat Box would be suitable, which are known to support pipistrelles, as present commuting and foraging around the site. The bat box specification may differ depending on the results of the eDNA. A bat box specific to the species would be selected to ensure the compensation roost is suitable for said species.
- 4.1.20. The boxes will act as receptor site should any live bats be found during the supervised destruction of the roosts. The boxes are to be installed onto a retained mature tree under the same site ownership (ideally at a minimum height of 4m from the ground level). This will minimise the risk of them being damaged by vandalization or the bats being targeted by predators such as domestic cats.

Lighting Mitigation (If applicable)

- 4.1.21. 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. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting at Night" (2023).
- 4.1.22. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
- Keep site lighting to minimum levels.
 - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
 - Lighting should feature peak wavelengths greater than 550nm.
 - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
 - The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
 - The use of hard landscaping features to block light and create dark corridors.
 - Avoid illuminating habitats of value.
 - Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
 - Column heights of lighting can be considered to minimise light spill.

Summary

- 4.1.23. The building was found to support one non-breeding day roosts for an unknown species in relation to guttering. The proposed works to the building will cause the destruction of the roost and breach of legislation under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended) should no mitigation be applied. As a result, the works require an appropriate mitigation licence to be undertaken lawfully and minimise the risk of impacting roosting bats.

- 4.1.24. Compensatory roost provisions will be implemented before any works take place to provide compensatory habitat for the loss of the roost.

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