



NOCTURNAL BAT SURVEY REPORT

SITE LOCATION

The Farmhouse,
Hollingworth Road
Littleborough
OL15 0AZ

ISSUE DATE

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SEED REF

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CLIENT

Project 3 Architects

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1. Introduction

Scope & Purpose

- 1.1.1. Seed Arboriculture Ltd were commissioned by Tim & Lisa Knight to undertake a Nocturnal Bat Survey for the proposed development at The Farmhouse, Hollingworth Road, Littleborough, OL15 0AZ.
- 1.1.2. The author of this report is Emma Anderson, Assistant Ecologist. The project has been managed and overseen by Olivia Collington BSc (Hons), MEnvSc, CEnv, Director and Principal Ecologist. Olivia is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.
- 1.1.3. A Preliminary Roost Assessment (PRA) was undertaken at the site in May 2023 by E3P. The PRA assessed the building to provide **'moderate'** bat roosting potential due to gaps beneath the roof tiles at the gable ends of both buildings providing potential roosting features for crevice dwelling bats. As such, two further surveys were recommended, as detailed within this report.

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 PRA are as follows:
- Identify any areas of bat roosting potential within the building
 - 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. The nocturnal surveys were undertaken as dusk surveys on 29th August and 11th September 2023 by six suitably experienced surveyors. An infrared camera (Nightfox Red, Digital Night Vision Goggles) was used to aid the survey (See Figure 2 referenced as IRC).
- 2.1.2. Please refer to Figure 2 for locations of vantage points (VPs) used during the dusk survey.



Figure 2 - Site Location Plan

- 2.1.3. The surveys were undertaken in line with guidance as set out in Collins (2016). Surveyors used heterodyne handheld bat detectors. All surveyors were suitably experienced undertaking bat emergence surveys. Please refer to Table 1 below for details of surveyors.

Table 1 - Bat Survey Details

Date	Sunset/ Sunrise Time	Start	Finish	Surveyors	Weather Conditions
29/08/2023	20:06	19:51	21:36	VP1 – Caitlin O'Connor VP2 – Dean Robinson VP3 – Andy Taylor VP4 – Jess Davies VP5 – Darnell Shaw VP6 – Michael Boucher	Temp: 14 Celsius Cloud: 2/8 Wind: 1 max (Beaufort scale) Rain: None
11/09/2023	19:35	19:20	21:05	VP1 – Samuel Penrhyn-Lowe VP2 – Emma Anderson VP3 – Allegra Lindsay VP4 – Jess Davies VP5 – Darnell Shaw VP6 – Joshua Dixon	Temp: 17 Celsius Cloud: 8/8 Wind: 1 max (Beaufort scale) Rain: Light, intermittent

- 2.1.4. Due to the surveys being conducted by observation during low light conditions, this may cause constraint of visual assessments. No surveyors were visually constrained during the survey, other than that of low light conditions, and all potential roosting features were observed throughout the survey time period.

Table 2 – 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.

3. Survey Results

Dusk Survey (29/08/2023)

- 3.1.1. Bat activity was recorded consistently throughout the survey with common and widespread species identified. The first bat was identified at 20:38 (approximately thirty-two minutes after sunset) by both VP3 and VP6 and was a common pipistrelle (*Pipistrellus pipistrellus*), which was heard but not seen. Common pipistrelle bats were recorded continuously across all vantage points, with the last recording at 21:31. These bats were observed commuting between and foraging in the vicinity of the groups of trees bordering the site to the northwest and southeast.
- 3.1.2. Soprano pipistrelle (*Pipistrellus pygmaeus*) were heard not but seen up to three times throughout the survey by VP3, VP5, and VP6, between 20:50 and 21:13.
- 3.1.3. No emergencies or re-entries were recorded by the infra-red camera.
- 3.1.4. No roost locations were recorded during the dusk survey.

Dusk Survey (11/09/2023)

- 3.1.5. Bat activity was recorded throughout the survey with common and widespread species identified. The first bat was identified at 20:02 (approximately twenty-seven minutes after sunset) by VP2 and was a common pipistrelle (*Pipistrellus pipistrellus*) foraging along the northwest treeline. The bat was recorded continuously until 20:26.
- 3.1.6. Common pipistrelle bats were recorded consistently across all vantage points until the conclusion of the survey at 21:05. Foraging behaviour was observed most frequently, with instances of commuting also recorded.
- 3.1.7. Soprano pipistrelle (*Pipistrellus pygmaeus*) were recorded and observed commuting and foraging around the site by VP1, VP3, and VP4 between 20:03 and 20:59. Brown long eared (*Plecotus auritus*) bats were heard but not seen by both VP1 and VP2 between 20:47 and 20:52. Noctule (*Nyctalus noctula*) bats were also heard but not seen by both VP1 and VP5 at 20:34 and 20:38 respectively.
- 3.1.8. No emergencies or re-entries were recorded by the infra-red camera.
- 3.1.9. No roost locations were recorded during the dusk survey.

4. Assessment

- 4.1.1. Bat activity was recorded consistently throughout the survey, with common and widespread species being identified within the local area. Foraging and commuting activity was observed and recorded by all vantage points.
- 4.1.2. However, no bats were observed emerging from any potential roosting feature during the survey. As such, no roost locations were observed during the survey.

5. Recommendations & Mitigation

Impact Assessment

- 5.1.1. As no bat roosts were identified during the survey, there is not anticipated to be an impact upon roosting bats during development.

Lighting Mitigation

- 5.1.2. 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. The following recommendations are to be considered within the scheme 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.
 - Internal lighting should be positioned away from windows to minimise light spill.
 - 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.
 - Avoid illuminating the eastern woodland and the bat box locations.
 - 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

- 5.1.3. The buildings were not found to support roosting bats of any species. Only common and widespread species were identified foraging throughout the survey.

- 5.1.4. As no bats were identified emerging from the buildings, it is not anticipated that roosting bats will be impacted by the proposed development. No further surveys are required with the proposed development.
- 5.1.5. It is recommended that lighting mitigation measures are implemented to protect foraging and commuting bats within the local area.

6. Bibliography

- Bat Conservation Trust (2018). Bats and Artificial Lighting in the UK: Bats and the Built Environment Series.
- Bat Conservation Trust and Institute of Lighting Professionals (2023). 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.
- Mitchell-Jones (2004). Bat Mitigation Guidelines: Working Today for Natura Tomorrow. English Nature.
- Mitchell-Jones and McLeish (2004). Third Edition Bat Workers' Manual.