



Bat Survey Report – Preliminary Roost Assessment

175 Kentwood Hill,
Tilehurst RG31 6JE

February 2021

Report conditions

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Summary

A preliminary bat roost assessment was carried out at 175 Kentwood Hill, Tilehurst, Reading to assess the possible presence or likely absence of bats and bat roosts in order to support a planning application with Reading Borough Council for a two-storey extension.

175 Kentwood Hill is an early-20th century detached house in a residential suburb to the west of Reading. It is of traditional brick construction, with a fully hipped, timber framed roof with machine-pressed plain clay tiles and half-round clay ridge and hip ridge tiles.

The surrounding landscape is found to be characterised by denser residential development, with some larger areas of higher-quality bat foraging habitat in the urban parks and woodlands within the suburban matrix.

Visual bat survey work at the site finds no direct evidence of recent or historic bat roosting activity in the loft. The majority of the roof tiles are found to be in good condition, although some deterioration is noted to sections of the hip ridges. Although appearing to present suitable roost locations in the small cavities under these ridge tiles, close inspection of these areas from within the loft finds no evidence of bat activity and it is concluded that the house does not support a bat roost.

Overall, the house is judged to present low roost suitability, and that bats and bat roosts are likely absent.

No further survey work is recommended.

In view of the survey findings, it can be concluded that the development is unlikely to result in a breach of the legislation that protected bats and is likely to accord with relevant planning policy with respect to biodiversity.

1. Introduction

Objectives

- 1.1. The purpose of this assessment is to provide information on the possible presence or likely absence of bats at 175 Kentwood Hill, to support a planning application with Reading Borough Council. Where bat roosts are identified, or where their presence cannot be confidently ruled out, the report sets out an assessment of the impacts to these and where necessary makes recommendations for measures to avoid, mitigate or compensate for impacts to bats as necessary, dependent on the nature and scale of the impacts.

Site Description

- 1.2. 175 Kentwood Hill is an early-20th century detached house in a residential suburb to the west of Reading. It is of traditional brick construction, rendered externally, and with a fully hipped, timber framed roof with machine-pressed plain clay tiles and half-round clay ridge and hip ridge tiles.
- 1.3. The house faces east onto Kentwood Hill. There is a full gable bay to the front of the house, a flat-roofed garage to south of the house and a single-storey modern lean-to roofed extension to the rear (west). There is a brick chimney up the southern elevation of the house, although this does not run through the loft space. The soffit boxes around all elevations are white uPVC. Photos 1 and 2 in Appendix 1 show the front and rear elevations of the house.

Proposed works

- 1.4. The proposal is for the construction of a new extension to the side of the existing house. Existing and proposed plans are shown in Appendix 2.

Limitations

- 1.5. Internally, the house loft was fully accessible. There had been a recent light snowfall prior to the survey; however, this did not significantly obscure any of the roof features and it had largely melted by the time the survey was carried out. All external elevations of the house were visible during the survey work.
- 1.6. There are therefore no identified limitations to the survey work.

2. Methods

Desk study

- 2.1. A desk-based assessment was carried out on in January 2021. This used a variety of information. Online ecological data (MAGIC¹) was used to gain information on designated sites and priority habitats within 1km of the site. Aerial photos and Ordnance Survey mapping (again via MAGIC) were used to gain an understanding of the landscape context of the site. MAGIC was also used to identify if any licenses had been granted by Natural England for developments in the search area affecting European protected species (EPS).
- 2.2. A data request from the Thames Valley Environmental Records Centre (TVERC) or the Berkshire and South Bucks Bat Group (BSBBG) was not carried out at this time. Consideration of the value of seeking additional records on the context of the bat use of the site (if present) was taken after the site survey work.

Field survey

- 2.3. A visual bat survey was carried out on 25th January 2021 by Adam Egglesfield of AE Ecology, who holds a current licence to survey bat roosts. Survey methodology used during the work is guided by and consistent with that set out in the Bat Conservation Trust's '*Bat Surveys for Professional Ecologists: Good Practice Guidelines*' 3rd edition, (Collins, J. (ed) 2016).
- 2.4. The house was subject to a detailed internal and external search. The aims of this were to identify evidence of bat activity and/or identify the presence of any features that could potentially support roosting bats or features through which bats could gain access to possible roost locations. External areas were inspected to identify potential bat access points and roosting features. Such features typically include missing, slipped, broken or bowed roof tiles, gaps around fascias and soffits, gaps in brickwork (such as missing mortar or expansion gaps), lifted chimney, roof, or window flashing, and gaps around window and door casements.

¹ Multi-Agency Geographic Information for the Countryside - <http://magic.defra.gov.uk/>

- 2.5. The external inspection also aimed to identify any actual direct evidence of bat use such as droppings adhering to walls, floors or windowsills below gaps, or staining around possible access gaps.
- 2.6. Features were inspected using Opticron Discovery 10x42 close-focusing binoculars and where necessary and safely possible, a ladder. High-powered torches (Clulite Clubman CB2 and Lenser P7.2) were used to illuminate potential roost and roost access features.
- 2.7. Where present and safely accessible, any internal voids and similar spaces were inspected for evidence of bat presence such as live bats, corpses, droppings, feeding remains and staining. The building was subsequently assessed for its suitability to support roosting bats, from 'negligible' to 'high', in line with the survey guidelines.

Foraging and commuting habitat

- 2.8. An assessment was made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bats. The assessment was based on the presence of key habitat features such as woodland, scrub, hedgerows, grassland, and open water and watercourses, which are highly attractive to bats as both a foraging resource and as commuting routes. The presence of such habitats, particularly in a mosaic or network with other suitable habitat, typically increases the potential for structures to be exploited by bats where suitable roost and access opportunities are present. The presence of unlit semi-natural vegetation and habitat linkages between the site and the surrounding landscape were also considered.

3. Results

Desk study

- 3.1. The map in Appendix 3 shows the location of the site and its surrounding relevant ecological interest features produced from MAGIC.

Nationally and locally designated sites and notable habitats

- 3.2. There are no statutory designated sites such as Sites of Special Scientific Interest (SSSI) in the search area. The most notable areas of habitat in the search area are the River Thames, approximately 700m to the north-east, and the associated meadows beyond, before the valley rises to the north up to Mapledurham and Caversham beyond.
- 3.3. There is a network of urban woodlands to the east of the site, with Round Copse being within approximately 250m of the site, and Blundell's Copse and Lousehill Copse lying just outside the 1km search area. All these woodlands are locally designated as Local Wildlife Sites in recognition of their local value to biodiversity. These form part of a broader Biodiversity Opportunity Area.
- 3.4. There is a further area of open space to the rear of the house, at Arthur Newbery Park, a large area of open informal grassland with many parkland trees and a broad woodland strip along the south and east boundaries. The garden at 175 Kentwood Hill backs onto this area.
- 3.5. Outside of these areas, the land within the search area is highly urbanised, with extensive residential development around the site.

Protected species

- 3.6. MAGIC holds one record of a licence having been granted for works involving bats within the search area. This was for a development site approximately 500m to the north, and affected common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, and brown long-eared *Plecotus auritus* bats.

Preliminary roost assessment

Internals

- 3.7. Photos 3 and 4 show the general conditions of the loft. Internally, the loft has a layer of modern glass fibre insulation between the joists, laid over the top of the traditional lath and plaster ceiling of the floor below. There is no lining to the roof tiles and as a result of this, a moderate level of wind-blown dust and debris was noted across all the floor areas and stored household items. However, this was not deep or dense enough to preclude a thorough search of the horizontal surfaces. No bat droppings or other evidence of bat roosting activity was seen in any areas of the loft during this search (Photos 5 to 7).
- 3.8. The undersides of the roof tiles are exposed and there are small areas of visible external light through these (Photo 8). However, none of the gaps across the main roof faces appeared large enough to allow bats into the loft and no larger gaps (e.g., >8-10mm) were observed during the loft inspection.
- 3.9. Some areas of visible deterioration to the hip ridge bedding mortar were noted from within the loft, with lines of crumbled old mortar on some areas of loft floor along the hip ridge lines (Photos 9 to 11). Inspection in these areas found a small number of areas where the bedding mortar to the hip ridges had deteriorated and voids were apparent under the ridge tiles. Gaps large enough to allow bats to access the loft from these ridge tile crevices were present in a small number of locations.
- 3.10. All these areas were closely inspected. Not bats or evidence of bats was seen in any areas under the ridge tiles or associated timberwork or floor areas (Photo 12), and in all cases, there was extensive cobwebbing, with no droppings or other bat evidence caught in the cobwebs (Photo 13), adhering to the adjacent roof elements or on the floor areas below. No bat droppings were visible inside the ridge tile cavities.

Externals

- 3.11. Externally, the main roof tiles were generally closely fitting with only minor unevenness noted during the loft inspection. None of the gaps created over the uneven areas were large enough to allow bat access – see Photos 14 and

15. Several gaps were noted under the hip ridge tiles where these had previously been indicated during the loft inspection (Photo 16).
- 3.12. The soffits were found to be in good condition and tightly sealed against the external walls (Photo 17). The chimney flashing was in good condition (Photo 18).

4. Discussion

Legislation and planning policy

- 4.1. Bats are legally protected under both domestic and international law (the Wildlife and Countryside Act 1981 (as amended)² and the Conservation of Habitats and Species Regulations 2010 (as amended)³ respectively). All native bat species are European Protected Species (EPS). This legislation makes it an offence to kill, injure or disturb bats, or to destroy or damage their roosts, even when the bats are not present.
- 4.2. Paragraph 175 of the National Planning Policy Framework (NPPF) (MHCLG, 2018) requires that when determining planning applications, if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then permission should be refused.
- 4.3. Policy CS36 'Biodiversity and Geology' of the Reading Borough Council Adopted Core Strategy (revised 2015) states that:

"Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes."

- 4.4. The supporting text to the policy states that

"Protected species identified by the Species Action Plan of the Reading Biodiversity Action Plan (BAP) and their habitats must also be protected from any direct or indirect harm resulting from development."

Interpretation of habitat context

- 4.5. The immediate surroundings are characterised by denser residential development, with some larger areas of higher-quality bat foraging habitat in the urban parks and woodlands within the suburban matrix. The value of the surrounding habitat to bats is reduced by the denser urban development and higher degree of streetlighting, although there is likely to be an established

² <http://www.legislation.gov.uk/ukpga/1981/69>

³ <http://www.legislation.gov.uk/uksi/2010/490/contents/made>

local population of species such as common and soprano pipistrelle bats that are more adapted to urban environments.

Interpretation of roost suitability

- 4.6. Internally, the main loft space presents a suitable roosting location due to the timber beams and other construction features. The roof is unlined, but no gaps between the tiles were noted that could allow bats to access the loft. Gaps associated with deteriorating mortar along some sections of the hip ridges are large enough to allow bats into the loft, or to allow bats to roost in the small cavities under the ridge ties themselves. However, the deteriorating mortar made a reasonable inspection of these areas possible from within the loft.
- 4.7. No evidence of historic or recent bat use was seen in any areas. It is confidently concluded that the loft does not support roosting bats, nor is there evidence to suggest that there have historically been bats roosting within the loft.
- 4.8. As the loft is unlined, there is no potential for bats to roost in small crevices between tiles and underfelt. With the exception of the hip ridge tile sections, all external features were found to be in good condition and no potential roost access opportunities were identified in any areas across the main roof faces, chimney flashing, or soffits.
- 4.9. Overall, given the presence of suitable roost features under some of the ridge sections, it cannot be concluded that the house offers negligible roost suitability. However, it can be concluded, on the basis of a thorough search, the lack of a roof lining, and the ability to closely inspect the damaged areas or ridge, that 175 Kentwood Hill offers low bat roost suitability, and does not currently support a bat roost.
- 4.10. In view of the findings of the survey work it is concluded that the development is unlikely to result in a breach of the Habitats Regulations.

Recommendations

- 4.11. As it is concluded that the development is unlikely to affect bats, there is no recommendation for any further bat survey work.

5. Conclusions

- 5.1. A preliminary roost assessment was carried out at 175 Kentwood Hill, Tilehurst, Reading.
- 5.2. Assessment of the surrounding landscape found that there are areas higher-quality bat foraging habitat in the urban parks and woodlands within the denser urban and suburban areas around the house.
- 5.3. Visual bat survey work found no direct evidence of recent or historic bat roosting activity. The majority of the roof covering was found to be in good condition, although some deterioration was noted to sections of the hip ridges. Although appearing to present suitable roost locations under these tiles, close inspection of these areas from within the loft found no evidence of bat activity.
- 5.4. Overall, the house was judged to present low roost suitability, but in view of the survey findings, it is concluded that the house does not support a bat roost.
- 5.5. No further survey work is recommended.
- 5.6. In view of the survey findings, it can be concluded that the development is unlikely to result in a breach of the legislation that protected bats and is likely to accord with relevant planning policy with respect to biodiversity.

References

- Chartered Institute of Ecology and Environmental Management (CIEEM). (2013), *Guidelines for Preliminary Ecological Appraisal*. CIEEM; Winchester.
- Collins, J. (ed.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. Bat Conservation Trust; London.
- MHCLG, (2018). *National Planning Policy Framework*. Ministry of Housing, Communities and Local Government; London.
- Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature; Peterborough.

Appendix 1 – Photos



Photo 1 Front of house



Photo 2 Rear of house



Photo 3 General conditions in loft



Photo 4 General conditions in loft



Photo 5 Loft insulation



Photo 6 Loft floor boarding



Photo 7 Top of water tank



Photo 8 Small points of light visible between tiles



Photo 9 Line of crumbled mortar from hip ridge above



Photo 10 Exposed underside of hip ridge tile



Photo 11 Ridge beam below ridge tile cavities



Photo 12 Timberwork below tiles



Photo 13 Heavy cobwebs across hip ridge beam



Photo 14 Roof tiles in good condition (rear of house)



Photo 15 Roof tiles in good condition (front of house)



Photo 16 Missing mortar to hip ridge tile (see also Photos 9 and 10)



Photo 17 Soffit tight to external wall



Photo 18 Chimney flashing in good condition

Appendix 2 – Existing and proposed plans



Existing elevations⁴



Proposed elevations

⁴ From plans produced by A1 Space Design to support the planning application

Appendix 3 – MAGIC map

