



16 Saxon Street, Manchester M40 7BY

- Dusk Bat Survey Results -

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A report for



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1.0 Background and Introduction

- 1.1 As part of a planning application at 16 Saxon Road, Manchester M40 7BY Pennine ecological carried out a day time survey of the site in November 2020.
- 1.2 Proposals are understood to involve construction of two new semi-detached houses on the plot.
- 1.3 The results of the daytime survey identified 16 Saxon Road to hold 'Moderate' bat roost suitability and concluded with the following assessment (see Figure 1.1):

Bats:

Since the building is concluded to possess moderate potential for crevice dwelling bats, it is recommended that dusk emergence and/or dawn re-entry surveys should be undertaken. Surveys are required to establish whether or not bats are using the building and if present how they are using it.

The surveys will need to be conducted during the main active season of bats i.e. between May – August. Two dusk/dawn surveys are accepted as being a reasonable level of survey effort where moderate potential has been identified. The surveys must be spaced between those months, at least 2 weeks apart. In addition, a data search of local bat records could be sourced to compliment the dusk emergence surveys.

Figure 1.1: Extract from day time survey

- 1.4 PENNINE ecological were commissioned to carry out the recommended further surveys in the 2021 active season of bats; the surveys (two dusk surveys) were carried out in May 2021 in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition.



Figure 1.2: Surveyed structure at 16 Saxon Road.

- 1.5 The results, conclusions and recommendations following the surveys, including any indicative mitigation to inform an application to Natural England for a European protected species mitigation licence (EPSML), where necessary, will be supplied within this report.
- 1.6 The report should be read, understood and presented to the local authority in accordance with the recommendations provided in the day time report.
- 1.7 In accordance with *Biodiversity Net Gain: Good practice principles for development* (CIEEM *et al*, 2019), measures have been recommended proportionate to anticipated impacts to ensure that the proposed development results in a biodiversity net gain.

2.0 Bats - Legislation & Policy

- 2.1 All British bats and their ****roosts**¹ are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579). When dealing with cases where a European Protected Species (EPS) (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the Regulations, that has a statutory duty as the local authority to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 Use of Buildings by Bats

- a) Summer breeding roost (May-August)
- b) Hibernation roost (October-March)
- c) Transitional or temporary roost (Mainly spring/summer months)

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Policy

- 2.3 The National Planning Policy Framework (NPPF) has replaced the Planning Policy Guidelines (PPG's). In relation to wildlife, PPG 9 was one of the documents to which Planning Authorities referred to, particularly where a specially protected species is or may be present and will be affected by a development for which a Planning application seeks consent. The aims of the NPPF, in relation to species and habitats, are that it places a clear responsibility on Local Planning Authorities to conserve and enhance biodiversity and to encourage on the consideration that should be given to Protected Species where they may be affected by development.

¹ ******The term **roost** is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats and Species Regulations (2019) (EU Exit) (Regulation 43 (d) the term roost is not used but refers to "*a breeding site or resting place of such an animal*" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.4 Paragraph 175 of the National Policy Planning Framework (as revised in 2019) stipulates:

“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 planning permission should be refused”.

... whilst Paragraph 174 states:

“To protect and enhance biodiversity and geodiversity, plans should... promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”

- 2.5 The Office of the Deputy Prime Minister (ODPM) Circular 06/2005 provides administrative guidance on the application of the law in relation to planning and nature conservation:

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision.”

- 2.6 This is supported by a guide to good practice entitled ‘Planning for Biodiversity and Geological Conservation: Building in Biodiversity’ in which paragraphs 5.34 and 5.35 identify that species such as bats are highly dependent upon built structures for survival and that roosts can be easily incorporated into existing and new developments to benefit these species.

- 2.7 Policy EN15 under Biodiversity & Geological Conservation of the Manchester Core Strategy 2012 to 2027 states -

“Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate...”, and,

“Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation”, “It is important to recognise that brownfield sites often contain diverse and valuable biodiversity.”

3.0 Bats in Greater Manchester

- 3.1 Up to ten bat species have been recorded in Greater Manchester, most of which use built structures notably residential properties for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Greater Manchester is reflected throughout the UK.

4.0 Survey Methods

- 4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:-

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

Relative to the above the survey methods and protocol adopted were determined using the collective and long standing experience of PENNINE ecological and knowledge of the specific nature of the site.

Survey Protocol

- 4.2 The timing of the surveys took place in May, at a time when bats have entered their active season and a period of the year when maternity colonies are forming at established bat roosts, following on from winter hibernation. The active season of bats is generally accepted as May-August across the industry.

Where bats are roosting they are likely to be detected by the ecologists, trained in the use of bat detector hardware and call analysis software (Analog / Kaleidoscope) in how to detect bats and how to correctly identify/disseminate bat calls.

When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality and how complex a building is relative to observations.

In this case the bat roost potential that exists at 16 Saxon Road presents no problems for dusk observations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted. At 16 Saxon Road there are no visual constraints and to date there is no evidence to suggest the presence of such species.

It should also be noted that at dawn temperatures are usually lower than at dusk as a result bat activity can, in some locations, be less frequent. Additionally, where singular/small numbers of bats are present and there are no survey constraints then dawn surveys are of no more value than dusk surveys; singular bats can and do return to a roost before dawn and as a result a dawn survey would not record them anyway. Dawn surveys are more productive when “back tracking” bat to a roost from foraging grounds.

Survey protocol should not be determined by parties who are 1) not familiar with the site, and 2) do not have a sufficient level of experience in relation to the undertaking of dusk/dawn bat surveys.

- 4.3 The number of surveys and surveyors was adequate relative to the roost potential that was identified i.e. ‘Moderate’ and requiring Two surveyors to accurately monitor potential roost features (PRF’s) across the survey building at any one time.
- 4.4 Surveyors were strategically positioned so that all elevations with bat roost potential could be observed without limitations. The surveys were aided with Anabat electronic bat detectors

that enable the locating and recording of the high frequency calls that are emitted by bats, along with Bat logger and Peersonic RPA3 detectors; echolocation calls were analysed the next day using Analook and Kaleidoscope computer software to verify field observations.

Survey limitations

- 4.5 Following the completion of the surveys having carefully considered the results and conclusions derived, no significant constraints were experienced that might hinder the gathering of ecological data on which to base sound conclusions and recommendations.

Dusk Survey Results

- 4.6 Two dusk emergence surveys were respectively undertaken on the 5th May and 19th May 2021 by a combination of three surveyors, with two operating at any one time, as per Table 4.1 below. See Table 4.2 - 4.3 for survey results.
- 4.7 See associated imagery for visual aid in respect of survey results.

Table 4.1 - Surveyor Credentials

Name	Experience	Details
Dusk survey		
Ms. A. Weir	6 years	A seasonal ecological consultant with experience of undertaking professional bat surveys.
Mr. H. Green	30+ years	Highly experienced bat surveyor who has professional surveying experience spanning many years - Class 2 Natural England Bat Licence (CLS-03290).
Dusk survey		
Dr. T. Doherty-Bone	12 years	A highly experienced freelance Ecologist working as a sub-contractor.
Mr. D. Boyd	7 years	A highly experienced surveyor currently working as a sub-contractor.

Table 4.2 – Survey dates, times and weather conditions

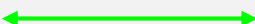
Times of Survey	Date	Weather Conditions
Dusk survey 2026 - 2206	05/05/2021	Sunset: 2046: Dry with a fresh breeze, 10% cloud Start temp: 10 ° C End temp: 10 ° C
Dusk survey 2040 - 2230	19/05/2021	Sunset: 2110: Dry and mild, light air, 20% cloud Start temp: 12 ° C End temp: 11 ° C

Table 4.3 – Dusk Survey Results

Dusk Survey	Time	Activity
05/05/2021	2026 -2206	Summary: No bat emergence for the duration of survey. 2117 hrs: Light foraging activity from a C. pip in the garden for a couple of minutes with no interaction with the building. 2119 – 2124 hrs: General commuting just south of the building by two C. pips. General activity comprised of minor foraging and three single passes by up to two Common Pipistrelle bats during the survey.
19/05/2021	2040 - 2230	Summary: No bat emergence for the duration of survey. 2131 hrs: Commuted around corner from North of house, heading SE. No interaction with the building. 2138 – 2210 hrs: C. pip passes from SE and circled around neighbouring gardens for rest of survey, consistent foraging. No interaction with the building. General activity comprised of regular foraging by a single Common Pipistrelle bat, and minimal passes.

Site location plan for Saxon Street.

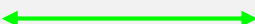


Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity

Dusk Survey Results 05/05/2021 (adapted over Google imagery)

Site location plan for Saxon Street.



Key			
	Site Boundary		Foraging activity
	Surveyor Positions		Commuting activity

Dusk Survey Results 19/05/2021 (adapted over Google imagery)

5.0 Dusk Survey Conclusions & Recommendations

- 5.1 From the two dusk survey results, it can be concluded that whilst using best practice survey methodology, emergence of bats was absent at 16 Saxon Street over the survey effort; activity was limited to singular foraging and commuting activity by a maximum of two Common Pipistrelle (*Pipistrellus pipistrellus*) bats during the combined survey effort.
- 5.2 Bats are a highly transient species with multiple roosts in an area, and can use buildings that offer potential roost features at any time of the year, therefore despite no roost behaviour being observed it should be stated that if bats, or evidence of bats (see Figure 5.1), is found at any stage during work schedule, then as a legal requirement the work at the site should immediately cease and a Bat licenced ecologist should be contacted for further advice.



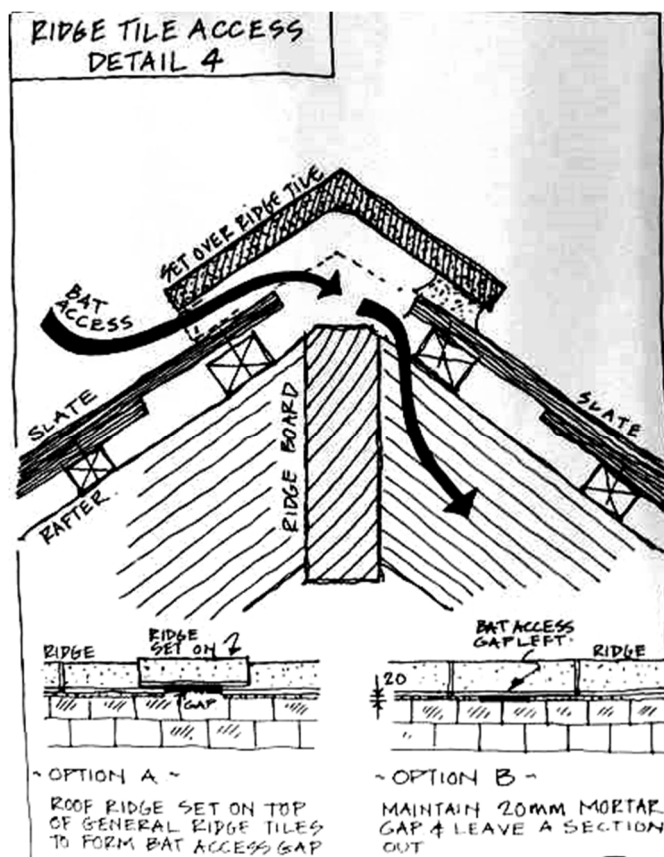
Figure 5.1 - Bat droppings (left) and pipistrelle bat (right)

- 5.3 If bat(s) or their roost will be affected then a Natural England Mitigation licence will be required to legally continue with the work. Notwithstanding the granting of a licence works that would affect a roost cannot take place if a maternity colony is in occupation.
- 5.4 Notwithstanding the results of the survey which evidence no bat roosts at the site the proposed development scheme may consider enhancement for bats, in accordance with Biodiversity Net-gain principles, local planning policy and national planning policy. See Figures overleaf for indicative ideas which could be integrated.

Enhancing a development site for Bats

Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

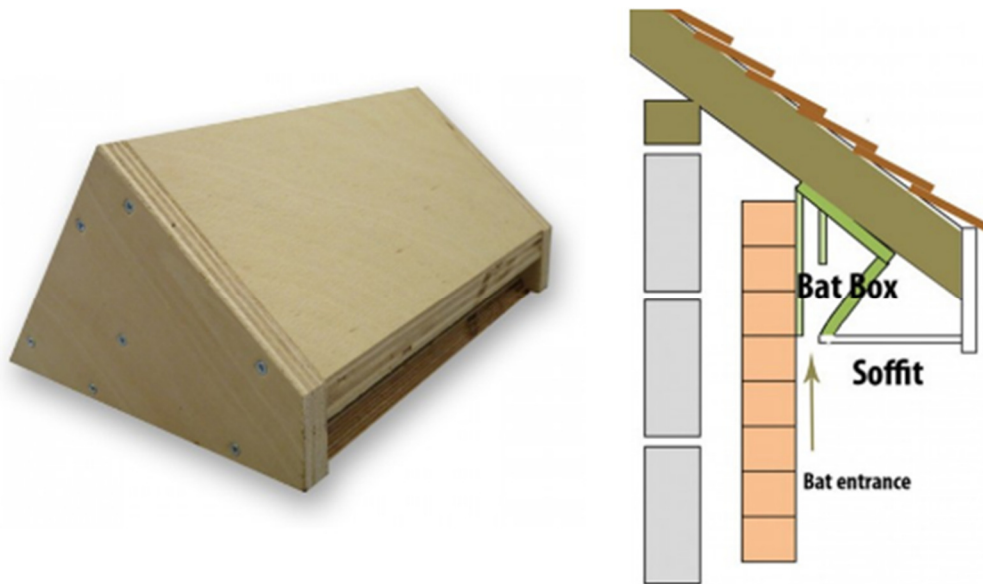


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Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box.



6.0 References

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