

Bat Roost Potential Report

Freidrick Morfill House

Fireman's Cottages

Bounds Green Road

London, N22 8QF



22nd September
2022

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It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.

In order to minimise the likelihood of adverse effects on protected animal species over time, it is accepted good practice, in accordance with Natural England (NE) (formerly English Nature) guidance for ecological surveys to be repeated should works be deferred for over 12 months from the date of initial survey.

It is the duty of the landowner, developer and operations managers to act responsibly and to comply with current environmental legislation if protected species are suspected or found prior to, or during works.

The recommendations and information contained within this report are based on the information provided on the development works prior to the surveys being carried out. Should the development proposals change then the findings and recommendations contained within would potentially require revision.

The findings within this report do not constitute legal advice. Should this be required, then a suitably qualified professional practitioner should be contacted.

Approved by	Signed	Contact
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1 Summary

- 1.1 This report presents the findings of a preliminary bat roost potential survey carried out at Freidrick Morfill House, Fireman's Cottages, Bounds Green Road, London, N22 8QF. It is proposed that this building is redeveloped and the asbestos present within this building is removed.
- 1.2 The potential presence of bat roosts within a proposed development site has to be considered as all eighteen of the UK's bat species are protected under Section 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that 'a person is guilty of an offence if intentionally or recklessly they disturb [a bat] while it is occupying a structure or place which it uses for shelter or protection; or he obstructs access to any structure or place which [a bat] uses for shelter or protection'.
- 1.3 This survey was carried out on the 23rd August 2022 using standard guidance and best practice methodology outlined in the Bat Workers Manual (Mitchell-Jones & McLeish, 2004), the Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys Guidelines for Professional Ecologists – Good Practice Guidelines (BCT 2016).
- 1.4 A 2km search of bat data has been made from the National Biodiversity Network. A search of the Multi Agency Governmental Information Centre (MAGIC) was made for previously granted Natural England Mitigation Licences within 2km of the proposed development site.
- 1.5 There were two bat species present within the 2km search radius. These were each for a single record of common pipistrelle and soprano pipistrelle. There were two Natural England mitigation licences within the 2km search radius. One was for the destruction of a Daubenton's bat (*Myotis daubentonii*) resting place and one was for the destruction of a breeding and resting place for common pipistrelle.
- 1.6 This building was situated within a heavily urbanised location in north London, close to a large railway junction to the west and private residential and industrial properties in the immediate surroundings. Alexandra Park was 600m to the south west, which could provide suitable foraging habitat for bats. There were some street trees and, notably, tree lines following the railway line that could provide foraging habitat for bats, but overall the foraging habitat was of low quality.
- 1.7 No evidence of bats was found in any of the buildings surveyed and there were not any features present that could provide suitable roosting locations for bats. Therefore, this building can be considered as having a **negligible** potential to support roosting bats. The habitats present in the surrounding area had **a low** potential to support foraging and commuting bats. No further recommendation for survey is made but recommendation is made relating to lighting and the installation of ecological enhancement measures.

2 Introduction

Aim of this Study

- 2.1 This report presents the findings of a preliminary bat roost potential survey carried out at Freidrick Morfill House, Fireman's Cottages, Bounds Green Road, London, N22 8QF. It is proposed that this building is redeveloped and the asbestos present within this building is removed.

2.2 ***Figure 1 – Location of Building Surveyed***



Legal Status of Bats

- 2.3 The potential presence of bat roosts within a proposed development site has to be considered as all eighteen of the UK's bat species are protected under Section 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The WCA states that '*a person is guilty of an offence if intentionally or recklessly they disturb [a bat] while it is occupying a structure or place which it uses for shelter or protection; or he obstructs access to any structure or place which [a bat] uses for shelter or protection*'.
- 2.4 Bats are also protected under the Conservation of Habitats and Species Regulations 2019. Bats are listed as European protected species under which it is an offence if;

- *a person deliberately captures, injures or kills any wild animal of a European protected species;*
- *deliberately disturbs wild animals of any such species;*
- *damages or destroys a breeding site or resting place of such an animal.*

2.5 Disturbances of animals include in particular any disturbance which is likely to impair their ability to;

- *survive, breed or reproduce, or to rear or nurture their young;*
- *in the case of animals of a hibernating or migratory species, to hibernate or migrate; or*
- *to affect significantly the local distribution or abundance of the species to which they belong.*

3 Methodology

3.1 This survey was carried on the 23rd August 2022 using standard guidance and best practice methodology outlined in the Bat Workers Manual (Mitchell-Jones & McLeish, 2004), the Bat Mitigation Guidelines (English Nature, 2004) and Bat Surveys Guidelines for Professional Ecologists – Good Practice Guidelines (BCT 2016). Table 1 below details the specific categories for bat potential against the features within the building. This assessment classification has been made in accordance to these criteria.

3.2 **Table 1: Criteria for the Classification of Buildings for Bats (BCT 2016).**

Suitability	Description of Roosting habitats
Negligible	No suitable habitat features on site 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 sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation)
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but

	unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Bat Records Search

- 3.3 A 2km search of bat data has been made from the National Biodiversity Network. A search of the Multi-Agency Governmental Information Centre (MAGIC) was made for previously granted Natural England Mitigation Licences within 2km of the proposed development site.

Lead Surveyor

- 3.4 The survey work and reporting has been led by Richard Law BSc MRes CEnv MCIEEM FLS. Richard has been undertaking ecological survey work within the last 20 years on a number of differing locations throughout the United Kingdom for a variety of protected species, including bats (Class 2 2015-12576-CLS-CLS) reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290-CLS-CLS) and terrestrial mammals including dormice (2015-13188-CLS-CLS) and birds including barn owl licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.trackercertification.com).

Equipment Used

- 3.5 A high-power torch (1 million candle power) was utilised to illuminate any external areas of interest, with a less intrusive head torch used for assessing internal spaces. Crevices were checked using a DDENDOCAM dual lens P50 endoscope. Eagle optics 8x42 binoculars were used to further assess external areas from the ground.

4 Results

4.1 This section provides an account of the results from the survey carried out on the buildings and provide the justification for any further recommendations outlined within this report.

4.2 **Table 2: Weather Conditions at Time of Survey**

Temperature	Precipitation 24hrs Prior to Survey or during the survey	Wind Direction	Wind Speed (Beaufort Scale)	Cloud Cover
25°C	None	None	0-1	50%

4.3 The weather conditions at the time of the survey were suitable for a preliminary bat roost potential survey. There was not any precipitation prior to the survey that could potentially wash away any evidence of bats and, overall, the weather was very warm and clear.

4.4 **Table 3: Summary of 2km Radius Bat Records Search**

Common Name	Latin Name	Records
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	1
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	1

4.5 There were two bat species present within the 2km search radius. These were for a single record each of common pipistrelle and soprano pipistrelle.

4.6 **Table 4: Granted Bat Mitigation Licence Applications within 2km**

Licence Number	Distance and Direction	Species	Type	Date	NGR
2018-36923- EPS-MIT	0.7km ot the East	Daubenton's Bat	Disturbance of a Resting Place	12/10/2018 to 12/11/2018	TQ 3049 9139

2015-13317- EPS-MIT	1.7km to the North West	Common Pipistrelle	Destruction of a Breeding Site and Resting Place	07/08/2015 to 06/08/2020	TQ 2900 9219
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- 4.7 There were two Natural England mitigation licences within the 2km search radius. One was for the destruction of a Daubenton's bat (*Myotis daubentonii*) resting place and one was for the destruction of a breeding and resting place for common pipistrelle.

Building

- 4.8 This building was constructed out of a layer of corrugated metal sheeting, set over a steel frame. The roof was flat, which was covered in bitumen to weather proof. There was not any roof void present, that could potentially support roosting bats. There were gaps under the metal sheeting on the external walls, but these were also exposed to the top with limited guttering, creating a channel for any incremental weather (rain) to flow down. This would prevent anything colonising these locations, notably bats as they would be over exposed and not provided with suitable shelter. Any gaps under the sheeting was inspected with both a torch and an endoscope, with no evidence of bat present. There was also thick cobwebbing throughout the external areas of this building, indicating that there was not any ingress into any locations of this building. No evidence of bats was observed during this survey.
- 4.9 There was street lighting within very close proximity to this building and there were spot lights on the adjacent former abutment station that would illuminate this building at night. This would further reduce the potential for this building to support roosting bats. The internal space of this building comprised a former workshop and no evidence of bats was observed.

Surrounding Habitats

- 4.10 This building was situated within a heavily urbanised location in north London, close to a large railway junction to the west and private residential and industrial properties in the immediate surroundings. Alexandra Park was 600m to the south west, which could provide suitable foraging habitat for bats. There were some street trees and, notably, tree lines following the railway line that could provide foraging habitat for bats, but overall the foraging habitat was of low quality.

Summary of the Bat Roost Potential

- 4.11 No evidence of bats was found in the building surveyed and there were not any features present that could provide suitable roosting locations for bats. Therefore, this building can be considered as having a *negligible* potential to support roosting bats. The habitats present in the surrounding area had a low potential to support foraging and commuting bats.

4.12 **Table 5 : Photographs of Building**

Plate 1: Gap under metal Sheeting, checked with endoscope. Open to the top and full of detritus.	Plate 2: Corrugate sheeting, with gaps at base. No evidence of bats and full of detritus
	

5 Discussion and Recommendation

- 5.1 No evidence of bats was observed within the building and there were no suitable features that could potentially provide roosting locations for bats. Therefore, no further surveys in relation to roosting bats are required.
- 5.2 Bat species have been recorded within 2km of this location. These are sensitive to light spill and require dark commuting/ foraging corridors to maintain flightlines to roosts, breeding sites and foraging locations.
- 5.3 Low quality bat foraging habitat is present in the local area. Given the likely presence of foraging and commuting bats it is recommended that ecological enhancements are incorporated into the design to benefit roosting and foraging bats in the local area. Provision of roosting opportunities within the new buildings or on nearby mature trees is recommended. These would significantly enhance the bat roosting opportunities within the property boundaries and further enhance the biodiversity value of the local area by further adding to the local network of roosting locations.
- 5.4 To provide ecological enhancement, it is recommended that a bat box such as the Schwegler 1FF or Eco Kent bat box is installed on one of the mature trees near the proposed buildings. In addition, at least two bat roosting features should be installed into the new building and this could be either a bat access brick or alternatively a bat access tile present on the roof.

- 5.5 In the highly unlikely event that a bat is found during the development works, then works should cease, the bat left undisturbed *in situ* and consultation be made with a suitably qualified ecological consultant as to the most appropriate way to proceed. If the bat is injured, then contact should be made with the National Bat Helpline on 0345 1300 228.
- 5.6 To reduce the overall light pollution in the local area that may have an impact of the foraging bats within the local area, any lighting installed as a result of this development will conform to the specifications which are outlined within BCT Guidance Note (2018). This will reduce any light pollution would have on nocturnal activity of fauna, namely bat species, some of which are extremely sensitive to light pollution. Light spill into adjacent habitats will be reduced and avoided by the following:
- All luminaries will lack UV elements; metal halide and fluorescent sources will be avoided,
 - A warm white light spectrum on external lighting will be adopted (<2700kelvin) to reduce the blue light component
 - LED luminaries will be used where a sharp cut off is required to avoid light spill into adjacent habitat
 - External luminaries will feature wavelengths higher than 550nm to avoid the component of light most disturbing to bats
 - Column heights of external lighting will be limited
 - Luminaries will be mounted on the horizontal plane, with no upwards tilt
 - Security lighting will be set on motion sensors and on short timers (<1min)

6 References

BCT (2016) Bat Survey Guidelines for Professional Ecologist – Good Practice Guidelines 3rd Edition

English Nature (2004) Bat Mitigation Guidelines IN13.6

HMSO (1981) The Wildlife and Countryside Act 1981 (as amended) HMSO, London.

HMSO (2017). The Conservation (Natural Habitats, &c). (As amended) Regulations 2017.

Michell-Jones, T & McLeish, A. P (2004) Bat Workers Manual, JNCC

7 Appendix A: Recommended Enhancement Measures

Bat Box such as the Schwegler 1FF or Eco Kent Bat Box

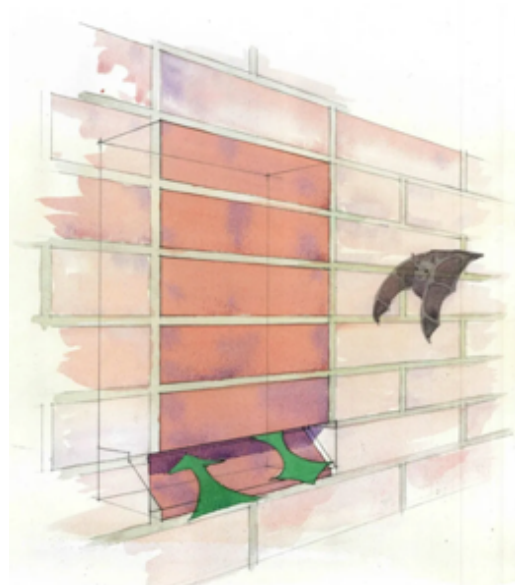


Image from Schwegler.de



Image from nestbox.co.uk

Bat Access Brick



Images from NHBS.com