McBains 5th Fl, 26 Finsbury Square London EC2A 1DS

6th October 2020

Dear Conor O'Brien

RE: Barnes School Bat Surveys

JFA Environmental Planning were commissioned to undertake bat surveys of the Barnes School caretaker's cottage, Cross St, London, SW13 OAP (OS Grid Reference TQ216758) prior to an application for planning permission for a new SEN (Special Education Needs) building as shown on drawing LOND01-MCB-XX-ZZ-DR-A-SK03-S4-P1.

An initial extended Phase 1 Habitat on the 23rd July 2020 assessed the cottage as having moderate bat roosting potential and a semi-mature tree had low moderate bat roosting potential. Therefore, further emergence/re-entry surveys were recommended of the property and an inspection survey of the tree. This letter details the findings of the bat surveys undertaken and any further recommendations.

Survey Aim

The aim of the survey was to determine if the property or semi-mature tree supported roosting bats and if present the species, number of bats and type of roost present and the need for any further mitigation and/or enhancement in the context of the development proposals.

Legislation

Details of the legislation protecting bats is given in Appendix 1.

Survey Methodology

Bat records were requested from Greenspace Information for Greater London Biological Records Centre (GIGL) of all records within 1km of the caretaker's house from the last ten years. A search of Natural England (NE) bat mitigation license records on the MAGIC website was also undertaken.

The initial extended Phase 1 Habitat on the 23rd July 2020, assigned a level of bat roosting suitability to the property as per the criteria provided in Appendix 2. A Preliminary Roost Assessment of the caretaker's cottage was then undertaken on the 18th August 2020. The building was externally and internally searched for evidence of bats using a high-power torch, binoculars and an endoscope (where appropriate and where access was possible). The semi-mature tree with bat potential was inspected using an endoscope and ladder on the same day. The inspections were undertaken in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016) and were undertaken by Elizabeth Burtenshaw, Class bat licence CL 18, Registration Number 2015 -11626- CLS-CLS, Level 2.

Two emergence/re-entry surveys were undertaken in line with standard guidance to determine the presence or absence of roosting bats at the time of survey (Collins, 2016). The survey was undertaken by two professional ecologists to provide sufficient visual coverage of the building. one at the front and one at the rear of the property. Each surveyor was equipped with an Echo Meter Touch detector in conjunction with an iPad and an Anabat Express and a Sony camcorder with night shot and an infrared light. Both surveys were undertaken in suitable weather. Details of the survey are provided in Table 1.



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Table 1: Bat survey details

Date	Survey type	Sunset/sunrise	Weather	Surveyors
		time		
18/08/20	Dusk emergence	20:16	22oC, 1/8, dry, light breeze	Elizabeth Burtenshaw & Calum Wallace
21/09/20	Dawn re-entry	06:46	15-13oC, 8/8, dry, no wind	

Survey Limitations

The two emergence/re-entry surveys were undertaken towards the end of the recommended season. Although within the survey window, such timing could potentially miss a maternity colony of some species. However, the detailed inspection found no evidence of bats and potential roosting features that could not be directly inspected are very unlikely to support a maternity roost. Therefore, the timing of these surveys is not a limitation to achieving the survey aim.

Results

The desk study revealed up to five species of bats recorded within 1km of the cottage (see Table 2). Records were restricted to those in the last 10 years: common pipistrelle, soprano pipistrelle, noctule, Leisler's bat, and serotine.

Species		Date	Distance from scheme (km)
Serotine	Eptesicus serotinus	2017	0.82
Leisler's bat	Nyctalus leisleri	2016	0.6
Noctule	Nyctalus noctula	2017	0.15
Common Pipistrelle	Pipistrellus pipistrellus	2015	0.57
Soprano Pipistrelle	Pipistrellus pygmaeus	2017	0.57

Table 2: Bat records from GIGL showing the nearest records to the caretaker's cottage within 1km

The original desk study in July 2020 for the Preliminary Ecological Appraisal revealed three bat mitigation licenses within 1km of the site, two in the last ten years in 2014 and 2017, all three licenses were for soprano pipistrelle roosts to damage or destroy resting sites. A further check of MAGIC in October 2020 could only find details of the 2009 record for a soprano pipistrelle roost, located approximately 600m south east of the site (Magic Maps, 2020).

The caretaker's cottage is located adjacent to Barnes School, separated by neighboring residential properties. It is in a heavily urbanized area where suitable habitat is limited to small amenity gardens attached to residential properties. There is a tree lined stream – Beverly Brook approximately 120m to the south.

The house is brick construction with a concrete tile roof that slopes to the front of the house. At the rear of the property there are small amount of hanging tiles (see Appendix 3). There is also some immature ivy growing up the south east wall, but insufficient to support roosting bats. No evidence of bats was found during the external inspection. There are several gaps present externally that are suitable for supporting individual crevice dwelling bats, including:

- Several lifted hanging tiles on the north east facing wall (Photo A3.2); and,
- Several lifted roof tiles where they overhang the wall, in both corners on the north east facing wall (Photo A3.3).

Internally, the roof void was fully accessible and runs the length of the house (Photo A3.4). The floor is part boarded and, covered in fibre glass insulation and no outside light could be seen within the roof void. There were old cobwebs and an old wasp's nest found within the roof void. No evidence of bats was found in the roof void. The building was assessed as having moderate suitability for roosting bats. No evidence of bats was found in the roof void but there are several external features with a reasonable likelihood of supporting roosting bats. Therefore, an emergence and a re-entry surveys were recommended.

The inspection of the cherry tree found one feature with low potential to support roosting bats, a downward tear (Photo A3.5). The feature was fully inspected, and no evidence of bats was found.

The emergence/re-entry surveys found no evidence of bats roosting in the property (see Table 3).

Table 3: Emergence/re-entry survey results

Date	Survey type	
18/08/20	Dusk emergence	No bats were recorded emerging from the house
21/09/20	Dawn re-entry	No bats were recorded re-entering the house

Occasional passes by common pipistrelle, soprano pipistrelle and noctules were recorded during the two emergence/re-entry surveys, mainly commuting past or over the building.

Discussion

The caretaker's cottage was assessed as having moderate potential to support a limited number of crevice dwelling bats. Further surveys found no evidence that the property supports a bat roost. The tree in the rear garden was inspected and found to have low potential to support roosting bats.

The results of the survey mean that the proposed development is not constrained by the presence of bats, and that a mitigation license for bats (under the Habitats and Species Regulations 2017, as amended) will not be required.

Recommendations

Due to the dynamic nature of roosting bats, if at any time bats or evidence of bats are discovered in the building or trees to be removed prior or during works, then works should stop immediately and advice sought from a bat licensed ecologist. The validity of the surveys undertaken in terms of timeframe and the requirement for any update surveys should follow CIEEM's guidance 'Advice Note on the Lifespan of Ecological Reports and Surveys' (2019).

As bats were recorded commuting in the surrounding area during the surveys, any external lighting proposed around the building should comply with the Bat Conservation Trust's document: Bats and Artificial Lighting in the UK – Bats and the Built Environment Series (2018). This includes avoiding lighting where possible, and if lighting is necessary avoiding lighting semi-natural habitats such as hedgerows and specifying lighting that minimizes the impact on wildlife.

In line with the National Planning Policy Framework (NPPF), the planning authority is advised that "Opportunities to incorporate biodiversity in and around developments should be encouraged". Therefore, the following recommendations have been made for enhancing the site for bats. It is recommended at least two integrated bat boxes (suitable for bat species such as common and soprano pipistrelle such as Habibat bat boxes) be included in the design of the proposed building. The bat boxes will be installed at least 4m above the ground and should face south east or north west away from artificial lighting, so not towards the road which is extremely well lit. The boxes will be placed and located adjacent to commuting or foraging habitat, such as dark tree / hedge lines, whilst ensuring that clear access is maintained to the boxes for bats. The integrated bat boxes are designed to not require cleaning or maintenance.

If you have any queries, then please do not hesitate to contact me.

Yours sincerely

C. Willace

Calum Wallace Ecologist

References

Bat Conservation Trust (BCT). (2018). Bats and Artificial Lighting in the UK – Bats and the Built Environment Series. Guidance Note 08/18.

Chartered Institute of Ecology and Environmental Management (CIEEM). (2019). Advice Note on the Lifespan of Ecological Reports and Surveys.

Collins, J. (ed) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust, London.

Appendix 1: Bat Legislation

European Protected Species (EPS)

All EPS, which includes all bats, are fully protected through inclusion within Schedule II of the Conservation of Habitats and Species Regulations 2017. This legislation makes it an offence to deliberately capture, kill, injure or disturb an EPS. It is also an offence to damage or destroy a breeding site or resting place of these species. For the purposes of this legislation disturbance has been defined as that likely:

- To impair their ability:
 - (i) To survive, breed or reproduce, or to rear or nurture their young; or,
 - (ii) To hibernate or migrate.
- To affect significantly the local distribution or abundance of that species to which they belong.
 - It may be possible to apply for a licence from Natural England to allow activities that would otherwise be an offence under these Regulations.

Wildlife and Countryside Act 1981 (as amended)

All bat species are protected from being intentionally or recklessly disturbed whilst using a place of rest or shelter and / or from being obstructed from entering such a place. No licences are available for the purposes of development for offences under the Wildlife and Countryside Act 1981 (as amended). Some offences are subject to a number of defences including if the disturbance was the *'incidental result of a lawful operation that could not reasonably have been avoided'*.

Appendix 2: Categories used to classify bat roosting potential of buildings

Likelihood of	Criteria
roost presence	

Likelihood of roost presence	Criteria
Negligible	No features thought to be of use to bats on the building and little or no possibility of its use as a bat roost. Examples : modern buildings in good condition with no cracks in soffit boxes, loose tiles or access to internal spaces which may provide roosting habitat.
Low	Some minor features which may support individual roosting bats on occasion, but unlikely to be used regularly and/or by significant numbers of bats. Examples : Modern buildings with some cracks in brickwork, loose tiles or other features which could support individual bats; buildings with features which could be used as roosts but with poor connectivity to habitats in the wider landscape.
Moderate	Building with a number of features which could be used by roosting bats either individually or in groups, but are unlikely to be used by large number of bats or by breeding females. Examples : Modern buildings with access to soffit boxes and loose tiles which could allow access to roof voids; buildings with connectivity to habitats in the wider landscape.
High	Structures with many access points, often in internal spaces which could support maternity colonies and linked to foraging habitats within the wider landscape. Roosting is highly likely in these sites. Examples : Old buildings with many access points to internal spaces (soffit boxes, roof voids etc) which could be used by many bats; buildings linked to high quality habitat features in the wider countryside.
Confirmed roost	Bats or evidence of bats found

Appendix 3: Photos



Photo A3.1: Front of caretaker's cottage (south west facing)



Photo A3.2: Rear (north east facing) of caretaker's cottage lifted hanging tiles in corner and gap under roof tile



Photo A3.3: Rear (north east facing) of caretaker's cottage, gaps under roof tile



Photo A3.4: Internal roof void



Photo A3.5: Low potential feature on cherry tree in rear of caretaker's cottage rear garden