



Bat Activity Assessment

Block F, Bounds Green, Southway, London, N11 2UL.

July 2023

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Project: Block F, Bounds Green, Southway, London, N11 2UL.

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1.0 Non-technical summary

1.1 A Preliminary Ecological Assessment suggested a Moderate bat roost potential in the eastern end of the industrial building in the form of five cavities in the corrugated concrete weatherboarding. The industrial buildings' generally low bat roost potential is increased to moderate potential by the proximity to the railway embankment corridor. Two bat emergence surveys are recommended to determine the use (if any) by bats of the building. Surveys should be conducted by suitably qualified ecologists between May – September inclusive, in suitable weather conditions.

1.2 Two bat emergent surveys recorded no bats emerging from the building or foraging in the area. Therefore, it is doubtful that a bat roost is present in the building and that the works will not impact any roosting bats.

2.0 Introduction

Purpose of the report

2.1 The survey aimed to assess the likely potential of bat roosts activity. The survey and report are required to support a proposed development.

2.2 The British Standard BS 42020:2013,¹ an appraisal by a suitably qualified professional Ecologist, is undertaken to ensure a rigorous and thorough independent review. The assessment has followed the Chartered Institute of Ecology and Environmental Management Guidelines,² which is proportionate to the scale of the project.

Qualifications and Competence of the Ecologist

2.3 The Ecologist has over 25 years of conservation experience. Founder of a new conservation charity and previously worked as Head of Conservation for a Wildlife Trust, Director of Studies for the Field Studies Council and Course Director and Lecturer for the University of Essex and Cambridge.

¹ Biodiversity – Code of practice for planning and development, BS 42020:2013.

² CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition, and CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

2.4 The Ecologist has been nationally recognised by respected organisations and awarded various fellowships for his *outstanding or significant contribution* to these disciplines, including conservation and biodiversity for landscape-scale conservation projects.

2.5 Currently on the external advisory board for the University of Essex and representing the Chartered Institute of Ecology and Environmental Management at the University of Southampton, judging national ecological projects and as an ecological expert for the Southwood Foundation.

3.0 Methodology

Dusk Emergence Survey

3.1 Andrew May (lead) and Luke Day conducted the survey. They were positioned facing the potential bat roost features, allowing all features and aspects to be viewed. The surveyors recorded bat activity using Echo Meter Touch 2 Pro. Analysis of any recordings was undertaken. Survey results were recorded to include bat access points, bat species, time, and type of activity (e.g. emergence, re-entry, commuting, foraging). Any significant activity patterns and access points were identified and recorded

3.2 The surveys began twenty minutes before sunset and concluded an hour and a half afterwards. The temperature at the start of the survey on the 6th of July was 16°C, and the 19th of July was around 19°C. The weather on both occasions was dry, with a gentle breeze with partial cloud cover.

4.0 Results

Emergence Survey

4.1 No bats emerged from the building during the surveys undertaken on the 6th and 19th July, 2023.

4.2 No bats were recorded foraging in the local area.

Constraints

4.3 No constraints were present.

Table 1: Dusk Emergence Results

Date	Species	Roost type	Number of bats	Structure	Location of structure	Roost type
6/7/23 and 19/7/23	No emergence recorded					

5.0 Conclusion

5.1 No bats were recorded emerging from the building suggested in the Preliminary Ecological Survey. In addition, no bat activity levels were present on-site during the emergence survey.

5.2 In the unlikely event that any bats or evidence of a roost are found during work, all work on site must stop, and a licensed ecologist should be contacted immediately to take the appropriate course of action.

6.0 Recommendations

Enhanced roosting opportunities for bats

6.1 The development should include the provision of two 2F Schwegler bat boxes with a double front panel (or similar as available) or a wall-mounted bat box suitable for crevice dwelling bats to be installed on the eastern aspect of the house at the height of over 3m. Alternatively, these can be installed onto suitable trees within the garden, at 3m or higher in a sunny open position, facing different aspects to provide a range of micro-habitats.

Wildlife Beneficial Landscape

6.2 Any future landscaping planting should seek to enhance biodiversity. This includes improving connectivity to the surrounding habitats and providing food and shelter for various species. All amenity planting and formal landscaped areas should be designed to provide a range of nectar sources and managed to benefit wildlife. In turn, this will benefit the residents. No invasive species should be planted.

Lighting

6.3 A sensitive lighting strategy should prevent light spills from enhancing the dark corridor, potentially benefiting nocturnal and crepuscular species. In addition, this would ensure that the boundary habitats are kept dark during the hours of darkness.

6.4 Lighting has become a key issue in the conservation and protection of bats. Light spilling directly onto roost access will, at best, delay the emergence of bats (of any species). As the critical nocturnal insect abundance occurs at or soon after dusk, any delay in emergence times can significantly affect foraging times and, ultimately, survival.

6.5 Light can also influence the movement of bats along commuting routes/corridors and foraging areas. See the excerpt below from the BCT 'Bats & the Built Environment Series':

"Many night-flying species of insect are attracted to light, especially those lamps that emit an ultraviolet component and particularly if it is a single light source in a dark area. As well as moths a range of other insects can be attracted to light such as crane flies, midges and lacewings. Studies have shown that, although noctules, Leisler's, serotine and pipistrelle bats swarm around white mercury street lights (this would also apply to metal halide) feeding on the insects attracted to the light, this behaviour is not true for all bat species. The slower flying broad-winged species such as long-eared bats, Myotis species (which include Brandt's, whiskered, Daubenton's, Natterer's and Bechstein's), Barbastelle and greater and lesser horseshoe bats generally avoid streetlights. In addition, it is also thought that insects are attracted to lit areas from further afield. This is thought to result in adjacent habitats supporting reduced numbers of insects. This is a further impact on the ability of the light avoiding bats to be able to feed. It is noticeable that most of Britain's rarest bats are among those species listed as avoiding light. Clearly, effective mitigation where there is potential for impact on bats has importance in the conservation of these species."

6.6 The key points research has identified are:

- No bat roost access points or immediate flight paths from the roost should be directly illuminated.
- For foraging areas, there are two key principles of mitigation for bats:
 - reduce or remove the UV output

- prevent unnecessary light both spatially (light spill) and temporally (timing of lights).

6.7 Nighttime working should be avoided during construction to prevent lighting impacts on nocturnal and crepuscular species. The external site landscaping works should be limited to daylight hours, at least 15 minutes after sunrise and no later than 15 minutes before sunset, thus ensuring that there will be no requirement for artificial lighting, particularly between April and October (inclusive). This will eliminate any potential for additional light spillage into potential bat flight lines or effects on other nocturnal species, such as owls.

6.8 If nighttime working cannot be avoided, then the following measures should be implemented:

- Direct any task lighting away from buildings, trees and hedges;
- Set any necessary security lighting on short timers with sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation;
- Limit lighting times to provide dark periods;
- LED luminaires are preferred due to the lower intensity and sharp cut-off. Colour rendition and dimming capability;
- All luminaires should lack UV elements, and metal halide fluorescent sources should not be used. Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and,
- Carefully consider the height of columns to avoid light spills.