# Northern Academy of Vocal Excellence, Barnsley


## Bat Roost Suitability Assessment & Interim Emergence Survey

08/05/2024

Currie & Brown

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| **Report reference** | **ER-7045-01B – Bat Roost Suitability Assessment & Emergence Survey** |
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| **Date** | 08/05/2024 |
| **Report duration** | In accordance with CIEEM (2019), unless otherwise stated the findings of this report remain valid for a period of 18 months. After this period advice should be sought on the scope of any updating work required. |

| Amendment | Date | Author | QA | Summary of changes |
|---|---|---|---|---|
| ER-7045-01B | 08/05/2024 | JAR | ST | To include findings of May 2024 emergence survey. |

# Summary Statement

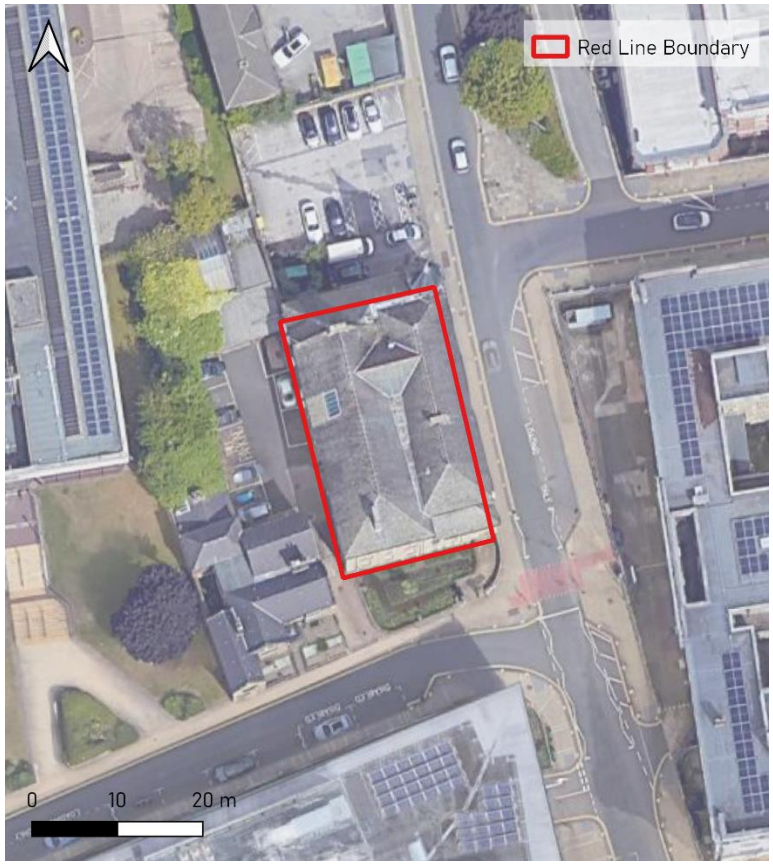
The Bat Roost Suitability Assessment concluded that the Site presents Moderate roost suitability. As such, the Site was subject to two dusk emergence surveys.

The two surveys, conducted in September 2023 and May 2024, found no direct evidence of bats roosting on-Site. The likely absence of roosting within the survey building has been demonstrated.

# Introduction

1. Brooks Ecological was commissioned by Currie & Brown to carry out a bat roost suitability assessment of the building to become the Northern Academy of Vocal Excellence, St Mary's Place, Barnsley (grid reference SE 3431 0653).
2. The application site, 'the Site', comprises a single building on the corner of St Mary's Place and Westgate, built in the 19th century as the town's law court and previously used as Barnsley Council's Computer Centre.
3. Proposals are to renovate the building for use as a choir space.

**Figure 1** The Site boundary (red line).




# Method (Roost Suitability Assessment)

4. A thorough daytime inspection of the Site was made in September 2023 to look for evidence of bats and assess suitability for roosting. Evidence of bats may take the form of droppings, feeding remains, live bats, dead bats, stains on masonry or timber from the oils in bats' fur, and claw marks made by bats regularly roosting in the same location.
5. Bat roosting potential of the building was classified according to the criteria set out in Table 1, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

**Table 1** Bat Roosting Suitability of Buildings and Trees.

| Suitability | Criteria |
|---|---|
| *Negligible* | Negligible habitat features on site likely 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 roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. |
| *Moderate* | A structure or tree with one or more potential roost sites that could be used 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 or tree 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, protections, conditions and surrounding habitats. |

6. Survey was directed by Sam Kitching BSc (Hons) MCIEEM. Sam has over 10 years' experience undertaking bat surveys in a professional capacity and is registered to use the Bat Survey Class Licence (Level 2).

**Box 1** *Bat roosts*

Bats roost in buildings and trees in different locations depending upon time of year and environmental factors such as position of the sun, proximity to heat sources and feeding grounds. The following types are commonly referred to:

Transitional roosts

Bats frequently gather early in the season (March to April) before dispersing to summer roosts. Bats can be found in high numbers in these roosts for a very short period. Transitional roosts can also be found shortly before hibernation in August to October when bats (depending upon species) can gather in roosts not used earlier in the season.

Maternity roosts

These are among the most important roosts and are normally occupied from May to August. Depending on the species involved, some maternity roosts can contain a very significant proportion of the local population.

Summer (non-breeding) roosts

Small groups of non-breeding female and male bats can gather in these roosts or bats from a local population may choose to roost individually. There are normally a large number of suitable locations for summer non-breeding roosts and these may be routinely used or used only on an occasional basis. Irregularly used summer roosts can be very hard to find without unreasonable survey effort.

Mating roosts

Around September bats will gather in roost to mate; these are often in different locations than summer or breeding roosts.

Hibernation roosts

As bats in hibernation roosts are highly vulnerable to disturbance and bats can be present in large numbers these are considered to be among the most important bat roosts. Many species of bats roost in large and nationally important hibernation roosts associated with underground sites, many of which are well known and protected. However, the most common bat in the UK (the common pipistrelle) is largely unaccounted for in winter but thought to disperse and roost individually or in small groups in thermally stable cracks and crevices in thick walls or trees.

**Box 2** *Legal background*

Bats are afforded full protection under The Wildlife and Countryside Act (1981) plus amendments, and the Conservation of Habitats and Species Regulations 2010. Under these Acts it is an offence among others, to recklessly kill, injure or disturb bats. It is also an offence to destroy or obstruct a roost even if bats are not in occupancy at the time of the action.

There are no defences against contravention of the Habitats Regulations 2010 which means that it is important for detailed and well-designed bat surveys to be carried out, prior to carrying out activities that may impact upon bat roosts such as demolition of buildings or removal of trees.

Where bats are found within a potential development site, a license from Natural England may need to be secured if works that could otherwise contravene legislation are to be carried out. These licences are only issued where Natural England is satisfied that works are unavoidable and would not have a negative impact on the favourable conservation status of bats. A Natural England license requires that the potential development site has full planning permission and that bats were a material consideration of the planning permission.

# Site Context

7. The Site is located in the centre of Barnsley and is surrounded on all sides by urban development: Westgate and St Marys Place to the south and east, respectively; a car park to the north; and a car park and the Commerce House building to the west.

8. The urban environment is interspersed with small areas of green space and trees, such as Churchfields Peace Gardens c. 80m north and the wooded embankments of the Barnsley to Penistone railway c. 450m northwest.

9. Given the large stretches of unvegetated embankment, this railway does not form a valuable corridor for bats. There are no other linear vegetated features in the Site's surroundings, effectively isolating it from better-quality foraging habitat on the outskirts of Barnsley.

# Data Search

National, Regional, and Local Status

10. The application Site lies within the natural range of 11 species of bat. These are summarised in Table 2, together with a note on each species' national status, relative abundance, and status within the 1km search area.

Local records

11. The local records provider, in this case South Yorkshire Bat Group (SYBG), was asked to provide all records from within a 1km radius of the Site.

12. Seventy-seven bat records have been returned for the search area, detailing common and unidentified pipistrelles; noctule; brown long-eared, Leisler's, and Daubenton's bats; and unidentified 'large' bat and unspecified bat species.

13. This includes four records of roosts of common pipistrelle, Leisler's bat, and unidentified bats. The closest of these is a pipistrelle roost found on Western Street, c. 390m northwest of the Site, in 1989.

14. No records relate to the Site or its immediate surroundings.

EPSM Licences

15. There are two European Protected Species Mitigation (EPSM) Licences returned from the MAGIC database within 1km of the Site. These detail the destruction of a common pipistrelle resting place in 2019, c. 175m northwest of the Site; and the destruction of a common pipistrelle resting place in 2013, c. 660m north.

16. Licence records demonstrate the presence of roosts of common bat species in the town centre, but do not infer additional potential cumulative impacts associated with these proposals.

**Table 2** List of bat species known to occur in South Yorkshire, ordered in increasing level of significance to their national population.

| Species | National Status | Within 1km radius | |
|---|---|---|---|
| | | Recorded | Roosts known |
| Common pipistrelle *Pipistrellus pipistrellus* | Common and increasing | Yes | Yes |
| Soprano pipistrelle *P. pygmaeus* | Common and stable | Possibly | - |
| Daubenton's bat *Myotis daubentonii* | Common and increasing | Yes | - |
| Brown long-eared bat *Plecotus auritus* | Common and stable | Yes | - |
| Natterer's bat *M. nattereri* | Common and increasing | - | - |
| Whiskered bat *M. mystacinus* | Uncommon but stable | - | - |
| Noctule *Nyctalus noctula* | Uncommon but stable | Yes | - |
| Leisler's bat *Nyctalus leisleri* | Uncommon and trend unknown | Yes | Yes |
| Serotine *Eptesicus serotinus* | Uncommon but stable | Possibly | - |
| Brandt's bat *M. brandtii* | Uncommon but stable | - | - |
| Nathusius's pipistrelle *P. nathusii* | Uncommon but stable | Possibly | - |

# Roost Suitability Assessment Results

18. The Site comprises a single building of dressed sandstone construction, 2–3 storeys high, with numerous hipped or double-pitched slate-tiled roof sections. The building has a three-storey turret reminiscent of a belfry on its northeastern corner, with a steeply-pitched slate-tiled conical roof. Construction was completed in 1879, as evidenced by the engraving on the building's eastern elevation.

**Figure 2** Surveyed building.

19. The stone walls were found to be in generally good condition, although some areas of sandstone show erosion developed over time. No missing masonry or gaps in mortar were observed on any of the building's elevations.

20. The numerous windows and doors, of various designs, all sit within timber frames surrounded by decoratively-shaped sandstone sills and lintels. While the timber is beginning to rot in some places, all of the frames remain well-sealed with putty, offering no potential roost features (PRFs) for bats. A pane is missing from one of the stained-glass windows beneath the turret, offering potential access for bats to the first floor of the building, but this is the only damage noted to any glass on the building.

**Figure 3** Missing glass in stained glass window.

21. Open, overhanging eaves are present on all elevations of the building and may offer potential access to wall tops and internal roof voids.

22. While the roofs are in generally good condition, some of the tiles were noted to have slipped, offering PRFs for individual crevice-roosting bats.

23. Occasional peeling was noted of the lead flashing at the junctions of rooves and brickwork, offering further PRFs for individual bats.

24. Metal guttering runs along all faces of the building, but sits flush with the eaves, offering no additional gaps which may function as PRFs.

**Figure 4** Overhanging eaves on south elevation, typical of all elevations; metal guttering also visible.

**Figure 5** Northern roof showing slipped tiles and peeling flashing.

25. The western ground floor of the building supports a colonnade, with the building set slightly back relative to the upper floors. The columns support a pair of metal beams with concrete between, which is largely intact, but features two small gaps at the northern end which appear to lead up into a cavity wall space. This may act as a PRF for crevice-roosting species.

**Figure 6** Colonnade; gaps between metal beams.


26. The western and northern elevations support several louvred vents and vented doors, with more present on the turret. These form PRFs for moderate numbers of crevice-roosting bats and may also provide access into the building's internal structure. Additional metal vents likely link to metal ducts inside the building, and so offer minimal roost suitability.

**Figure 7** Louvre vents on western and northern elevations.

27. The northern elevation also supports a metal duct, which is closely-fitted to the stonework and supports no PRFs; and a vented ground-floor window which, given its low elevation, is unlikely to act as a PRF.

**Figure 8** Duct and vented window on northern elevation.

28. The building is moderately well-lit at night by nearby streetlamps. However, this lighting is focused primarily on the ground floor, with the upper floors and rooves largely unlit.

**Figure 9** Nocturnal illumination around the building.

## Summary

29. The Site contains numerous PRFs which may offer roosting opportunities for individuals or low numbers of crevice-roosting bat species. It also supports additional features which may allow access to internal roof voids, which could support greater numbers of crevice- or void-roosting species.

30. Overall, the building was assessed as providing moderate roost suitability, and should therefore be subject to two dusk emergence or dawn re-entry surveys, with at least one carried out in the peak bat activity season (May-August).

31. The first survey was conducted on the evening following the BRSA.

## Method (Emergence Survey)

32. Brooks Ecological specialises in bat surveys ranging from individual buildings through to complex sites requiring numerous visits with large teams. In terms of the survey effort, number of personnel and number of visits required to be able to properly evaluate the building(s) use by bats, we refer to the Bat Conservation Trust Survey Good Practice Guidelines (2016). However, these guidelines are not prescriptive, and we approach each site individually as required using our professional judgement and significant experience base.

33. In this case, two visits with teams of up to five surveyors were deemed necessary to fully evaluate the potential use of the Site for roosting.

34. Survey was carried out with surveyors positioned around the building to cover all aspects where bats could potentially emerge or return, and to establish activity levels around the Site.

35. The surveyors, using heterodyne detectors, an Echo Meter Touch 2 or Anabat Scout automated bat detector, and a T2Pro thermal scope, were in place at least 15 minutes before sunset and left once all species of bat would be expected to have left a roost and patterns of activity within the Site had been appraised. Conditions and dates are summarised in Table 3 below.

**Table 3** Survey conditions.

| Date | Survey Type | Temp. Start/End | Weather |
|---|---|---|---|
| 06/09/2023 | Emergence | 24/21°C | Hazy, <5% cloud cover, 65% humidity. B2 (light breeze). |
| 07/05/2024 | Emergence | 16/14°C | Light cloud <5% cover, 63% humidity. B2 (light breeze). |

# Survey Results

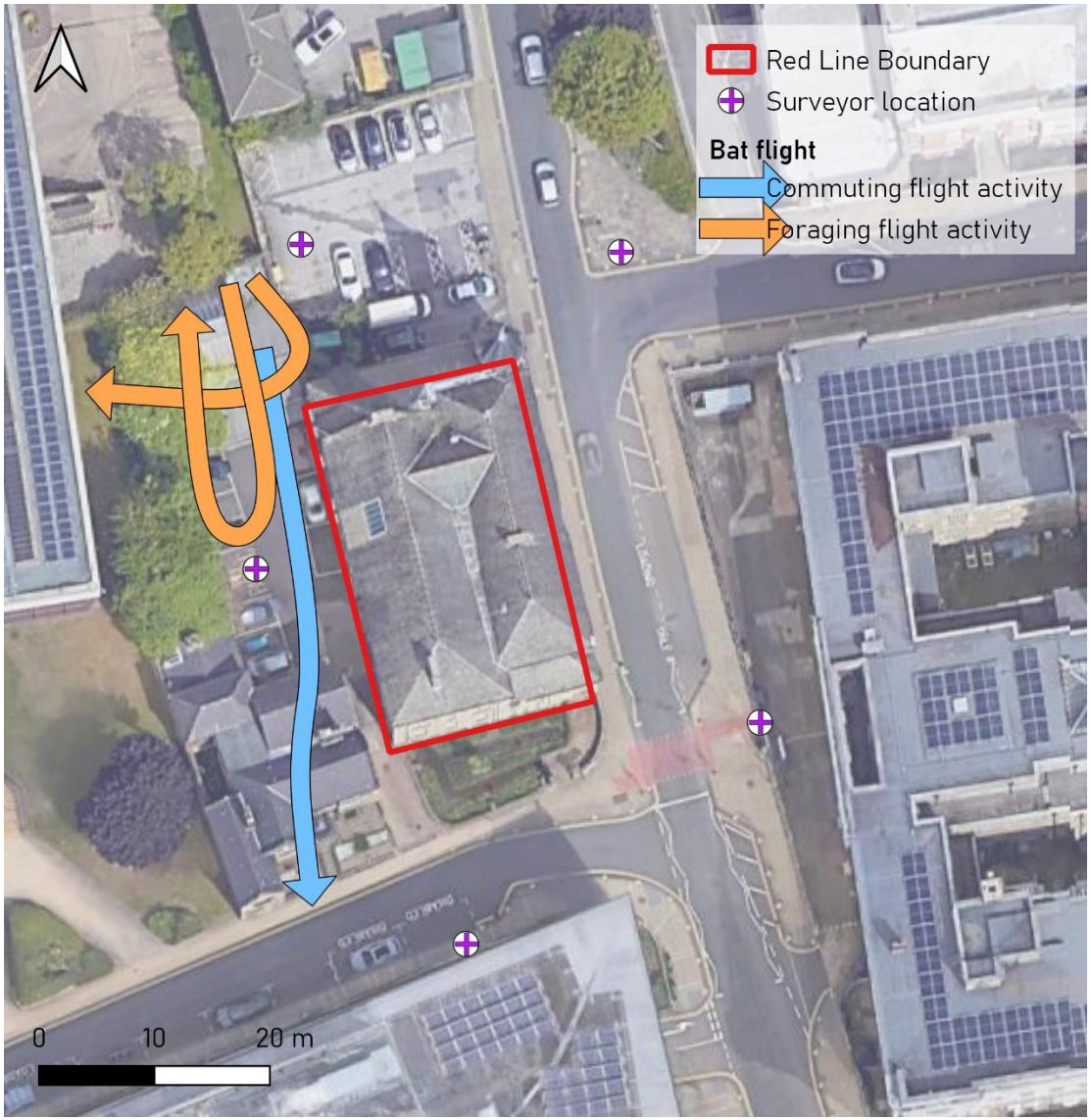
Emergence – 6th September 2023 (sunset 19:45)

36. Surveyors were positioned so as to cover all features with bat roost suitability.
37. Activity levels across the survey were generally very low, with only individual bats recorded.
38. The first contact was made at 20:06, when a soprano pipistrelle was heard but not seen, likely to the west of the Site. This was repeated at 20:09 and 20:11 by common pipistrelles, which were noted commuting north-south along the building's western flank, having arrived from off-Site.
39. At 20:18, a common pipistrelle was recorded foraging in the trees to the west of the Site, having arrived from off-Site to the north. This activity continued intermittently for six minutes, after which the bat left the Site's vicinity.
40. At 20:23, a second common pipistrelle was recorded in the courtyard west of the Site, having arrived from off-Site to the north, briefly foraging before returning in that direction.

Emergence – 7th May 2024 (sunset 20:47)

41. Surveyors were positioned in the same locations as previously (Figure 10, opposite).
42. No bats were recorded on-Site or in the vicinity, for the duration of the survey.
43. No bats were seen, or suspected, to have emerged from the surveyed building, on either survey night.

**Figure 10** Summary of bat activity on the first emergence survey.



# Conclusions and Recommendations

44. Two dusk emergence surveys, conducted in September 2023 and May 2024, have demonstrated the likely absence of roosting within the survey building. As such, proposed works present little risk of impacting upon bats or their roosts.

Standard precaution

45. Although no evidence of roosting has been found, it must be noted that bats can make use of multiple roost sites throughout the year, may frequently move between roost sites, can be very casual in their choice of roosting location, and can turn up unexpectedly at any time.

46. On this basis the developer should always be mindful of bats as a potential constraint and have a protocol in place should any bats be seen or suspected during works: works should stop, a suitably licensed ecologist consulted, and their advice followed.

Enhancement

47. The NPPF makes clear the requirement for any development project to deliver gains for biodiversity and wildlife beyond mitigating specific impacts. To this end, bat boxes should be installed on nearby buildings under the Council's control.

# References

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