

4 Caledonian Road, Dewsbury
Preliminary Roost Assessment
9th January 2023



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1. Summary

- 1.1.1 A preliminary roost assessment of 4 Caledonian Road, Dewsbury was commissioned by Matthew Norris of One17 Design, on behalf of the client, Farook Asmal on 16th December 2022.
- 1.1.2 The survey was undertaken to inform proposals to demolish an existing dwelling with a new dwelling to be built on the same site (Application Ref.: 2022/93270). Bat survey works detailed in this report include a desk-based study and an internal and external visual inspection, undertaken on 5th January 2023.
- 1.1.3 Three probable pipistrelle bat droppings recorded from the exterior of the dwelling and beneath a potential roost location on the eastern corner of 4 Caledonian Road were taken as evidence of the presence of a roost. A sample dropping has been sent for DNA analysis to be identified to species level. On the basis of dropping size and morphology, the number of droppings recorded and the roost location, it appears most likely the roost comprises a day roost of either common or soprano pipistrelle bat.
- 1.1.4 The building has potential to support other bat roosts but species using the dwelling are expected to be limited to common and/or soprano pipistrelle. The worst-case roosting scenario is considered to comprise the presence of a maternity roost of one of these species, although it is much more likely the dwelling supports a day or day roosts only. The roof void appeared highly unlikely to have been used by bats.
- 1.1.5 The dwelling was considered to display a moderate level of suitability to support bat roosts. The detached garage was considered to display a negligible level of bat roost suitability. Demolition of the surveyed building will destroy the bat roost/s present.
- 1.1.6 A bat mitigation licence must be obtained to permit the proposed development. In all instances, a licence cannot be applied for until planning permission has been granted and any nature conservation related planning conditions have been discharged.
- 1.1.7 In order to characterise bat roost/s present and to inform bat mitigation licensing, it is typically necessary to undertake at least two nocturnal bat surveys during the bat activity period (peak season: mid-May to August). Nocturnal surveys should cover two surveyor positions with survey visits separated by at least 14 days (Collins, 2016).
- 1.1.8 In this instance, timings may restrict the undertaking of further nocturnal survey. If this is the case then the project would seek to obtain a mitigation licence without further nocturnal survey under the principles of Natural England Licensing Policy 4. Licensing Policy 4 allows for reduced survey data requirements where the impacts of the development can be confidently predicted. It's considered that Licensing Policy 4 would be applicable in this case given the limited range of bat roost features present, the understanding of the roost obtained from the visual inspection and the limited range of further roosts possible. These considerations provide confidence in the worst-case scenario.
- 1.1.9 The report provides detail in relation to the mitigation and compensation expected to be necessary to obtain a licence which relies upon Licensing Policy 4.
- 1.1.10 If demolition works are to commence during the nesting bird season (March- August), then they should be preceded by a nesting bird check. A recommendation for inclusion of a swift box in the scheme is also provided.

2. Introduction

- 2.1.1 A preliminary roost assessment of 4 Caledonian Road, Dewsbury was commissioned by Matthew Norris of One17 Design, on behalf of the client, Farook Asmal on 16th December 2022.
- 2.1.2 The survey was undertaken to inform proposals to demolish an existing dwelling with a new dwelling to be built on the same site (Application Ref.: 2022/93270).
- 2.1.3 Bat survey works detailed in this report include a desk-based study and an internal and external visual inspection.
- 2.1.4 The dwelling is situated in a residential area at the southern end of the town of Dewsbury.

3. Habitat Assessment

- 3.1.1 The immediate surrounding area consisted exclusively of residential housing with street lighting on local roads. The site was however close (c.115 m) to the tree lined River Calder and a woodland was located c.215 m southwest of the site, with both areas offering high quality bat foraging opportunities. Nevertheless, given the relatively urban nature of the immediate surrounding area, it is considered unlikely that bat species other than common *Pipistrellus pipistrellus* or soprano pipistrelle *Pipistrellus pygmaeus*, or bats of the *Nyctalus* species (noctule *Nyctalus noctula* or Leisler's bat *Nyctalus leisleri*) would regularly use the site.
- 3.1.2 Table 1 summarises the habitats present, adjacent to and further afield of the surveyed building.

Table 1. Location and habitat table

Name and address: 4 Caledonian Road, Dewsbury, WF12 9NT			
OS Grid Ref. SE 24255 20601		Altitude. 53 m	
Local Planning Authority: Kirklees Council			
Features on site and adjacent to site			
Feature	On site	Adjacent	Comments
Buildings	✓	✓	Located in residential area. Dwelling bordered by housing on all sides
River bordered by trees			River Calder c.115 m west of site
Standing water			Waterbody c.211 m northwest of site
Bridges tunnels and culverts			Associated with River Calder
Trees			Low density of trees in local gardens but River Calder is tree lined
Woodland			Wooded block known as Wilderness c.215 m southeast of site
Grassland	✓	✓	Amenity grassland in garden

Figure 1. Site location, as indicated by red circle



3.2 Aims

3.2.1 The survey was conducted to help determine the following:

- The presence/absence of roosting bats.
- Bat roosting areas and access/egress points into the building.
- The level of bat roost potential associated with the building.
- The number and species of bat roosting within the buildings if present.
- Identify further survey work or mitigation requirements.

4. Methodology

4.1 Data Consultation

4.1.1 A desk study with both West Yorkshire Ecology (WYE) and West Yorkshire Bat Group (WYBG) for locations within 2 km of the site were requested.

4.2 Field Survey

Internal and External Visual Inspection

4.2.1 The following personnel conducted preliminary roost assessments on 5th January 2023:

- Robert Bell (MCIEEM; Class license WML-A34-Level 4, 2016-25236-CLS-CLS)

4.2.2 The following activities were carried out during the surveys in compliance with relevant Bat Survey Guidelines (Collins, 2016):

- A brief inspection and assessment of the site and habitats present to within 300m.
- An extensive examination of all parts of the building both inside and out to record structural features and condition and to record features that may be suitable for roosting bats. Particular attention was paid to any crevices or gaps in walls, lintels, gaps between beams and joists and to the possibility of finding droppings stuck to walls, floors or other surfaces, or insect remains below beams, among a number of other factors. All signs indicative of a bat roost presence including live or dead bats, droppings, feeding remains, scratch marks and staining were recorded.
- An assessment of the building's bat roost potential (negligible, low, moderate, high or confirmed roost).

4.2.3 In addition:

- Recording of any signs of nesting bird usage of the building.

4.2.4 The following equipment was used or at hand during the survey:

- Clulight
- Binoculars
- Endoscope
- Ladders
- Camera

4.3 Survey Limitations

4.3.1 Signs of bat presence deposited on the exterior of the building during the bat activity survey season would be likely have been removed by weather action prior to the survey being undertaken. It is nevertheless an acceptable time to undertake preliminary roost assessments (Collins, 2016) and it is considered that an effective assessment of the building's bat roost potential was possible.

5. Results

5.1 Data Consultation

- 5.1.1 A total of 131 bat records was received from West Yorkshire Ecology. No historic bat records related to the site itself. Bat species positively identified in the data consultation comprised common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle *Pipistrellus nathusii*, Daubenton's bat *Myotis daubentonii*, noctule, Leisler's bat and brown long-eared bat *Plecotus auritus*. Other records were attributed to either an unidentified pipistrelle bat, or an unidentified bat species. The closest record to site comprised a grounded pipistrelle bat, recorded in 2005 in a location c.60 m north of the site. The closest known roost was recorded in 2010 from a location c.250 m from the site.
- 5.1.2 A total of 38 bat records were received from West Yorkshire Bat Group. No historic bat records related to the site itself. Bat species positively identified in the data consultation comprised common pipistrelle, Leisler's bat and brown long-eared bat. closest roost to site comprised the same 2005 grounded pipistrelle record as included in the WYE records.
- 5.1.3 A search of MAGIC showed that one bat EPS mitigation licence has been issued for a location within 2 km of the site. The licence was issued in 2019 to allow the destruction of a common pipistrelle resting places 1.2 km north of the site.

5.2 Field Survey

Preliminary Roost Assessment

- 5.2.1 A cluster of c.3 probable pipistrelle droppings was recorded beneath a crevice in brickwork at wall top height on the east corner of the dwelling. This was taken as evidence of a roost, most likely a day roost. These droppings have been sent for DNA analysis to species level.
- 5.2.2 The dwelling was considered to display a moderate level of bat roosting suitability. A detached garage on the site was considered to display a negligible level of bat roost suitability.

Description - dwelling

- 5.2.3 The surveyed c.1920s two storey dwelling was brick built with cavity walls and a multi-pitched concrete-tiled roof (Plates 1-3). The roof was hipped at the southeast end, whilst the northwest elevation had a gable with a mortared ridge and gable verge. The roof included overhanging eaves, which were lined with sarking, with soffits present at the northwest end of the building only. A bay window with a flat lead covered roof was present on the building façade (northeast elevation), with a large uPVC framed conservatory on the rear (southwest) elevation. Two brick chimneys were present at the southeast end of the roof. The dwelling had uPVC framed double-glazed windows and doors, with a mix of plastic and metal guttering. An integrated garage was present at the northwest corner of the dwelling.

External bat roost potential - dwelling

- 5.2.4 Three probable pipistrelle bat droppings were recorded, leading up to two open mortar joints at wall top height on the east corner of the dwelling (Plates 2 & 4). The highest dropping was c.10 cm below the nearest potential roost feature. A sample of the lowest

droppings was taken for DNA analysis to identify the species of origin. The droppings size and shape indicated that they originated from a pipistrelle bat species. The droppings are taken as evidence of a bat roost, most likely a day roost, used by a single bat or low number of bats.

- 5.2.5 Other potential bat roosting features on the exterior of the dwelling included sections of missing mortar on both the ridge (Plate 6) and the verge of the northwest gable. Multiple open joints were noted between protruding rafters and adjacent brickwork at eaves level (Plate 5). Around the opening of one such crevice, between a rafter and brickwork, deposited bird droppings indicated the presence of a historic nest or roost site.

Internal inspection - dwelling

- 5.2.6 The roof was lined with hessian backed Type 1F bituminous felt and suspended on a ridge beam, hip beams, rafters, purlins and battens (Plate 7). The roof had a maximum internal height of 2.2 m and was fairly clean, with c.200 mm of glass fibre insulation between and over the joists. No signs of bat presence were recorded from within the roof space.

Plate 1. Rear (southwest) elevation of dwelling, with detached garage in foreground on left of image



Plate 2. East corner of dwelling, with bat roost location circled in red



Plate 3. North corner of dwelling



Plate 4. Bat roost location on east corner of dwelling indicated by red circle with droppings circled in blue

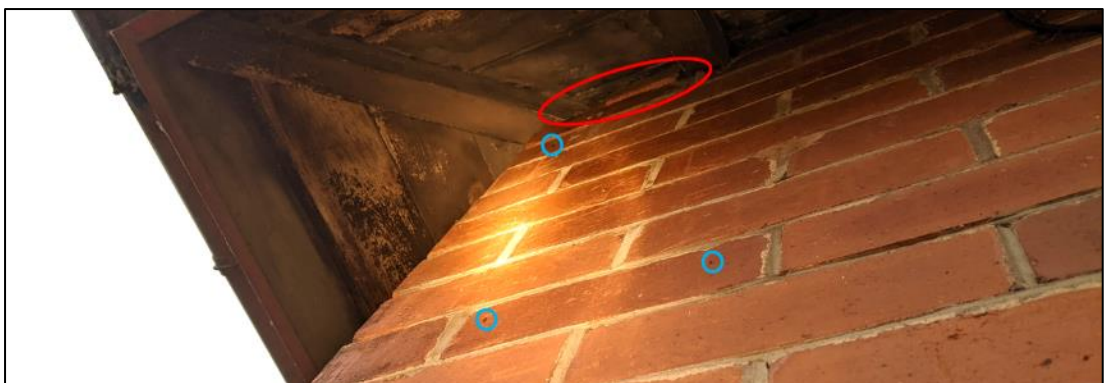


Plate 5. Example of crevice between base of protruding rafter and brickwork at eaves level (see blue circle)



Plate 6. Example of missing mortar beneath ridge tiles



Plate 7. Roof space of dwelling



Description - garage

- 5.2.7 The detached garage was single-storey and constructed from pre-fabricated concrete panels with a shallow single-pitched roof covered with corrugated asbestos-cement sheets (Plate 1). An up-and-over metal door was present in the northeast elevation, with a single paned and wood-framed window in the southwest elevation and a wooden door in the southeast elevation.

External bat roost potential - garage

- 5.2.8 No features displaying a greater than negligible level of bat roost suitability were recorded from the exterior of the garage.

Internal inspection - garage

- 5.2.9 The interior of the garage was used for storage with no roof void present and no signs of bats noted.

6. Assessment

6.1 Summary and Evaluation of Findings

- 6.1.1 Three probable pipistrelle bat droppings recorded from the exterior of the dwelling beneath a potential roost location at the eastern corner of 4 Caledonian Road was taken as evidence of the presence of a roost. A sample dropping has been sent for DNA analysis to be identified to species level. On the basis of dropping size and morphology, the number of droppings recorded and the roost location, it appears most likely the roost comprises a day roost of either common pipistrelle or soprano pipistrelle..
- 6.1.2 The building has potential to support other bat roosts but species using the dwelling are expected to be limited to common and/or soprano pipistrelle due to the location, local historic records and potential roost features present. The worst-case roosting scenario is considered to comprise the presence of a maternity roost of one of these two species, although it is much more likely the dwelling supports a day or day roosts only. The roof void appeared highly unlikely to have been used by bats.
- 6.1.3 A common or soprano pipistrelle day roost would be considered to be of low conservation importance (Mitchell-Jones, 2004) or local importance to nature conservation (CIEEM, 2021). A common or soprano pipistrelle maternity roost would be of medium conservation significance or district importance to nature conservation.
- 6.1.4 The dwelling lacked cellars or alternative areas likely to offer the cool stable temperatures and humid conditions preferred by some bat species in winter, however, bat use during the hibernation season could not be ruled out. This is particularly the case for those species known to tolerate wide temperature fluctuations within their roost locations during the hibernation season, such as pipistrelle species.
- 6.1.5 The dwelling was considered to display a moderate level of suitability to support bat roosts. The detached garage was considered to display a negligible level of bat roost suitability.
- 6.1.6 Demolition of the surveyed building will destroy the bat roost/s present.

6.2 Legislation and Policy Guidance

Bats

- 6.2.1 Bats receive protection under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended).
- 6.2.2 It is an offence to:
- Deliberately capture (or take), injure or kill a bat.
 - Intentionally or recklessly disturb bats whilst they are occupying a structure or place used for shelter or protection or obstruct access to any such place.
 - Damage or destroy the breeding or resting place (roost) of a bat.
 - Possess a bat (live or dead), or any part of a bat.
 - Intentionally or recklessly obstruct access to a bat roost.
 - Sell (or offer for sale) or exchange bats (dead or alive), or parts of parts.
- 6.2.3 The Convention on Biological Diversity, signed in Rio de Janeiro, Brazil in 1992,

requires member states to develop national strategies and to undertake a range of actions aimed at maintaining or restoring biodiversity. The UK Biodiversity Strategy was produced in response to the Convention.

- 6.2.4 In England & Wales, the Natural Environment and Rural Communities (NERC) Act, 2006 imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, “to have due regard, as far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. It notes that “conserving biodiversity includes restoring or enhancing a population or habitat”. Barbastelle *Barbastella barbastellus*, Bechstein’s bat *Myotis bechsteinii*, brown long-eared bat, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat *Rhinolophus hipposideros*, noctule and soprano pipistrelle are included as priority species within Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. At a more local level there are Local Biodiversity Action Plans for smaller geographical areas which may cover a greater or lesser range of bat species.
- 6.2.5 Where it is proposed to carry out works which will have an adverse impact on roosting bats, the site must either be registered on the Bat Mitigation Class Licence (BMCL) or Earned Recognition (ER) licence, or a European Protected Species (EPS) license must first be obtained from Natural England. This requirement applies even if no bats are expected to be present when the work is carried out.
- 6.2.6 The National Planning Policy Framework for England was revised in 2021. This document states that plans should ‘promote the conservation, restoration and re-creation 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’.

Birds

- 6.2.7 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:
- Intentionally kill, injure or take any wild bird.
 - Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

6.3 Further Survey, Recommendations and Enhancements

Bats

Bat licensing and further survey

- 6.3.1 Depending upon the type of bat roost/s present, the site may be eligible for registration on either the Earned Recognition (ER) or Bat Mitigation Class Licence. Alternatively, a full European Protected Species licence could be obtained in relation to the scheme. In all instances, a licence cannot be applied for until planning permission has been granted and any nature conservation related planning conditions have been discharged. Depending upon the type of licence, Natural England require between 10 - 30 working days to determine mitigation licence applications.
- 6.3.2 In order to characterise bat roost/s present and to inform bat mitigation licensing, it is

typically necessary to undertake at least two nocturnal bat surveys during the bat activity period (peak season: mid-May to August). Nocturnal surveys should cover two surveyor positions with survey visits separated by at least 14 days (Collins, 2016).

- 6.3.3 Were timings to restrict the undertaking of further nocturnal survey, then it may be possible to either register the site on the ER licence, or to obtain an EPS licence without further nocturnal survey if done in line with Natural England's Licensing Policy 4. Licensing Policy 4 may be applicable in this case given the limited range of bat roost features present, the understanding of the roost obtained from the visual inspection and the limited range of further roosts possible. These considerations provide confidence in the worst-case roosting scenario. Licensing Policy 4 allows for reduced survey data requirements where the impacts of the development can be confidently predicted.
- 6.3.4 In order to apply for a mitigation licence making use of Licensing Policy 4 the application would rely on the assumption that a maternity roost of pipistrelle bats (species to be confirmed by DNA analysis) was present on site, with roost mitigation to be implemented in accordance with this assumption. Proceeding down a Licensing Policy 4 route would entail additional roost mitigation, timing restrictions and extra monitoring surveys. Alternatively, if timings allow for nocturnal surveys to be undertaken and these surveys do not identify the presence of a maternity roost then the timing restrictions and monitoring requirement could be scaled back to fit the roosts confirmed as present on site.

Timings

- 6.3.5 The presence of over-wintering bats cannot be ruled out. Therefore demolition works must not commence during the peak hibernation period (December – February).
- 6.3.6 Were the Licensing Policy 4 approach adopted, then demolition must also avoid the bat maternity roosting period (May-August), with the new dwelling and its mitigation to be constructed by the beginning of the following May.

Avoidance of killing or injuring bats during construction

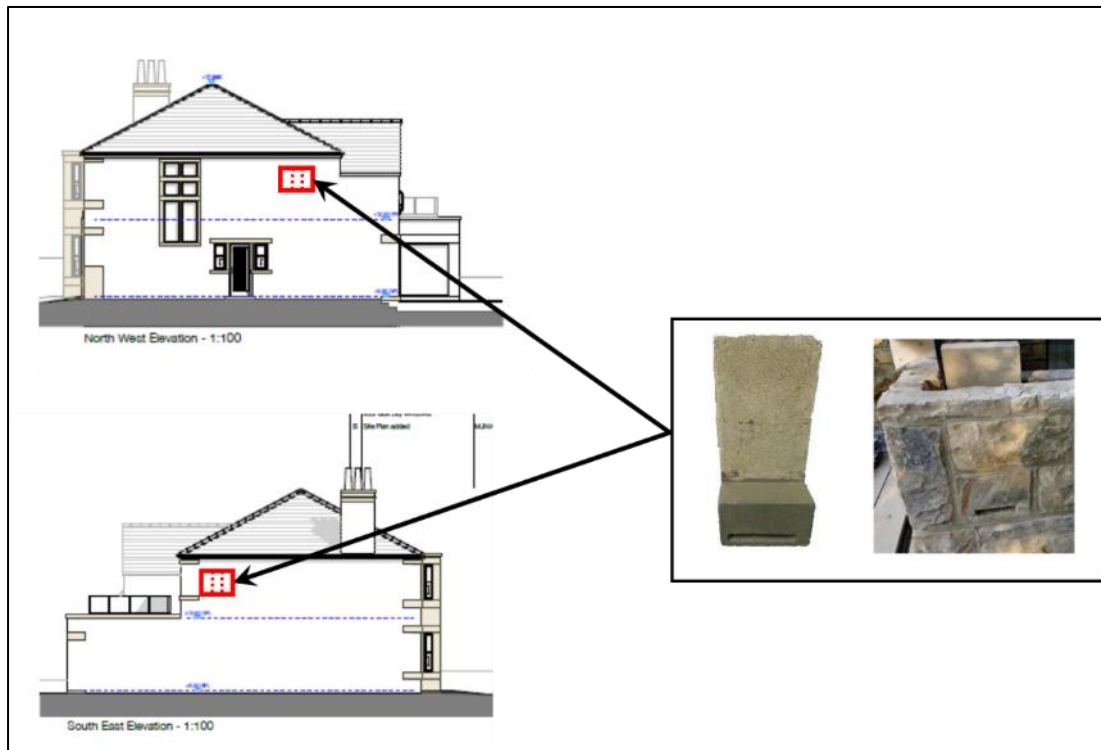
- 6.3.7 Prior to works commencing, the buildings should be re-inspected before the contractors receive a Toolbox Talk from a licenced bat ecologist. In order to avoid killing or injuring roosting bats during development, all works to known or suspected bat roost locations will need to be overseen by a licensed bat ecologist. The bat ecologist should assist with the supervised removal of roof materials with any bats captured to be subject to a health check before being placed in a temporary release box.

Long-term roost mitigation

- 6.3.8 In order to mitigate for the worst-case roosting scenario (a pipistrelle maternity roost), two connected sets of three PRO UK Build-in WoodStone Bat Boxes should be installed in both the northwest and southeast elevations of the new dwelling (see Figure 2). These units, which do not allow bats beyond the confines of the box, should be fitted at wall top height, not above windows or doors and away from artificial light spill.
- 6.3.9 As an additional precaution it is advised that only either hessian backed Type 1F bituminous felt, or TLX Batsafe breathable membrane should be used to line the new

roof. The justification for this requirement is that bats have been shown to regularly become entangled and die in the component filaments of typical modern woven roofing membranes. It is not possible to be confident bats will be restricted from accessing roofs in the future.

Figure 2. Proposed locations of two new interconnected sets of three PRO UK Build-in WoodStone Bat Boxes



Monitoring surveys

- 6.3.10 Were the scheme to rely upon Licensing Policy 4 then it would be necessary to undertake two monitoring surveys in Years 1 & 3 following the development.
- 6.3.11 Were further survey to show the presence of only day roosts of a single or low numbers of bats, then no monitoring surveys would be considered necessary.

Birds

- 6.3.12 Building demolition works should commence either outside the bird nesting period (March to August inclusive), or the works will need to be preceded by a nesting bird check.
- 6.3.13 In accordance with the aims of the National Planning Policy Framework, and to compensate for the loss of bird nesting habitat associated with the dwelling and garage, it is recommended that one integrated swift *Apus apus* box (i.e. Manthorpe Swift Brick) be installed within new building on the site (i.e. Plates 8 & 9). This box should be fitted at wall top height and may be installed across any elevation. Studies have shown that swift boxes are used by other bird species that utilise buildings and consequently this measure will provide potential nesting space for house sparrows *Passer domesticus* and starlings *Sturnus vulgaris*, in addition to potentially providing future nest space for swift.

Plates 8 & 9. Manthorpe Swift Brick



6.4 Conclusions

- 6.4.1 A bat roost has been confirmed from the dwelling (B1) at 4 Caledonian Way. This roost is expected to comprise a day roost of a common or soprano pipistrelle bat with a sample dropping sent for DNA analysis. The worst case roosting scenario is considered to comprise the presence of a pipistrelle maternity roost. This dwelling is considered to display a moderate level of bat roost suitability with the garage displaying negligible bat roost suitability.
- 6.4.2 The proposed works will result in the destruction of the roost and consequently the site will either need to be registered on the BMCL or ER licence, or an EPS mitigation licence will need to be obtained for the scheme. The mitigation proposed is considered suitable to protect the bats and roosts present on site even in a worst case scenario. If timings allow further nocturnal surveys will be completed in order to characterise the roosts present, however, if not it may be possible to proceed under Licence Policy 4 as described in this report. Detail has been provided regarding requirements in relation to obtaining a licence.
- 6.4.3 Building demolition works should commence either outside the bird nesting period (March to August inclusive), or the works will need to be preceded by a nesting bird check.
- 6.4.4 The findings of the internal and external inspection are considered to be valid for a period of 12 months, after which an update survey is likely to be required.

7. References

CIEEM (2021) Bat Mitigation Guidelines: A Guide to Impact Assessment, Mitigation and Compensation for Developments Affecting Bats Version 1.0. CIEEM.

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

Mitchell – Jones, A.J (2004) Bat Mitigation Guidelines. English Nature.

Appendix 1. Bat Records

In accordance with best practice and the requirements of bat licensing, bat records collected during surveys are supplied to the relevant biological record centres and bat groups. The records to be supplied in accordance with this survey are shown below. House names/numbers are not given out by record holding organisations except under very particular circumstances. Please let us know if you object to the distribution of these records.

Date	Species	Site Address	OS Grid Reference	Notes
05/01/2023	Probable <i>Pipistrellus</i> species	4 Caledonian Road, Dewsbury, WF12 9NT	SE 24255 20601	Three droppings indicating presence of roost, dropping sent for DNA analysis