**J L Brierley, Turnbridge Mills, Huddersfield**

**WHS SITE - BAT SURVEY REPORT**

**June 2023**

KNIGHT SKY ECOLOGY
PRACTICAL ECOLOGY SOLUTIONS

**E:** info@knightskyecology.co.uk

**M:** 07535 457027

**W:** www.knightskyecology.co.uk

**Report Ref:** KSE_013_03

# CONTENTS

**1 INTRODUCTION ..... 1**
1.1 Instruction and Report Aims ..... 1
1.2 Site Description ..... 1
**2 METHODS ..... 3**
2.1 Overarching Guidance ..... 3
2.2 Survey Personnel ..... 3
2.3 Desk Study ..... 3
2.4 Presence / Absence Survey ..... 4
2.5 Survey Comments ..... 5
**3 RESULTS ..... 6**
3.1 Baseline Data ..... 6
3.2 Presence / Absence Survey ..... 6
3.3 Nesting Birds ..... 7
**4 EVALUATION AND CONCLUSIONS ..... 8**
4.1 Bats ..... 8
4.2 Nesting Birds ..... 8
**5 RECOMMENDATIONS ..... 9**
5.1 Bats ..... 9
5.2 Nesting Birds ..... 9
**6 REFERENCES ..... 11**
**APPENDIX A. LEGISLATION FOR BATS**
**APPENDIX B. WEATHER DATA AND EQUIPMENT**
**APPENDIX C. SURVEY RESULTS**
**APPENDIX D. PHOTOS**

# 1 INTRODUCTION

## 1.1 Instruction and Report Aims

Knight Sky Ecology was commissioned to undertake bat surveys at J L Brierley, Turnbridge Mills, Quay Street, Huddersfield, HD1 6QT. The bat surveys were undertaken in relation to the proposed demolition of buildings at the site.

Previous bat survey works were undertaken at the site in 2018 but are now invalid due the age of the survey data (see Sections 2 and 3).

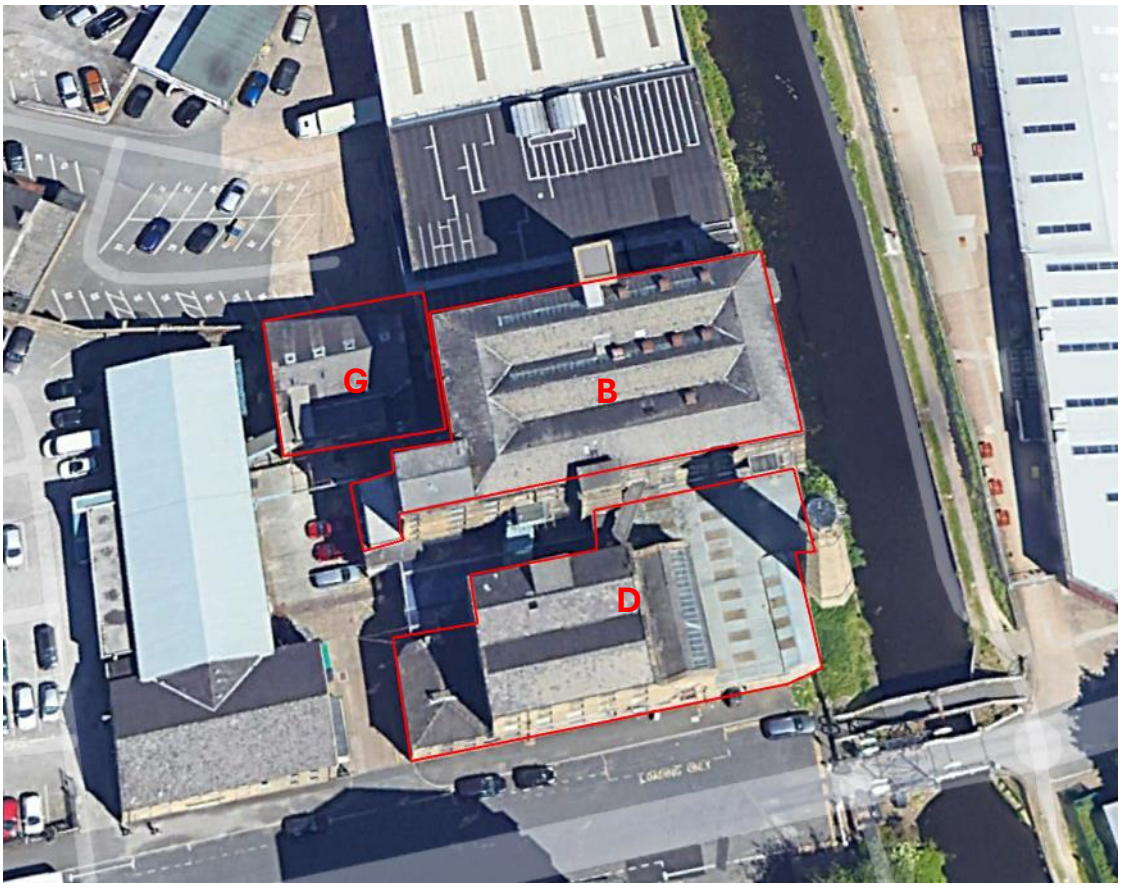
The primary aim of the bat surveys was to gather updated information on the presence or absence of a bat roost(s) at the site. This report presents the results of the bat surveys and provides all the necessary data, assessment and guidance to satisfy the relevant planning and conservation policy obligations and legislative framework. Details of the legislation afforded to bats is presented in Appendix A.

## 1.2 Site Description

The buildings are located on the north side of Quay Street in the centre of Huddersfield and form part of a complex of former mill buildings (Tunbridge Mills) which are used for industrial and leisure purposes, or, are currently vacant. The surrounding area comprises a mix of residential, retail and industrial premises. Huddersfield Broad Canal is to direct east and the River Colne is 300m east.

The buildings proposed for demolition were referred to in the previous bat survey report as Buildings B, C, D, D1, G and N. This report is keeping to the same building references; however, the collection of attached buildings comprising C, D, D1 and N are herein referred to as Building D. Figure 1.1 provides an aerial image of the building locations.

**Figure 1.1. Building locations**



# 2 METHODS

## 2.1 Overarching Guidance

The bat surveys were primarily based on the methods described in '*Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd edition. Bat Conservation Trust, London'* (Collins, J., 2016). Any deviation from standard practice is justified where required.

## 2.2 Survey Personnel

All site-based surveys were led by Ryan Knight MCIEEM whom holds a Level 2 Natural England Class Licence (ref. 2015-12611-CLS-CLS) and has held this licence for over 10 years. Ryan has also acted as the named ecologist on numerous European Protected Species (EPS) mitigation licences issued by Natural England which covered several bat species and roost types. All other personnel who were involved in the surveys have been trained by Ryan and / or have several years of experience in bat surveys. Names and licenses (if held) are provided in Table 2.1.

**Table 2.1. Other surveyor details**

| Name | Initials | Natural England licence or experience |
|---|---|---|
| Stuart Macpherson ACIEEM | SM | 2021-10079-CL18-BAT |
| Catherine Wood | CW | 2016-24176-CLS-CLS |
| Richard Storton | RS | 10+ years' experience conducting dusk emergence and dawn re-entry surveys |
| Ian Wright | IW | 2023-11218-CL18-BAT |
| Unnamed surveyor[1] | US1 | Class 2 licence holder |

## 2.3 Desk Study

**Background Data**

The following bat survey report has been issued to support previous development proposals at the site:

- Bat Report. JLB Mills, Huddersfield. (BL-Ecology, February 2019).

The field survey information within this report is now largely invalid due to the age of the data. However, the report does provide a very useful context to the updated surveys and is referenced accordingly.

In addition, Knight Sky Ecology also undertook a preliminary site inspection on 28th February 2023 and two dusk emergence surveys of mill buildings to the direct south of Quay Street in May 2023 (Knight Sky Ecology, 2023). Relevant information from these surveys is included within this report.

[1] The surveyor has requested that their name not be included within this report. Further confidential information of their experience can be provided separately where requested.

## 2.4 Presence / Absence Survey

Two dusk emergence surveys were undertaken on each building. The site was visited on four separate occasions during May and June 2023. The dates of each survey are included in Table 2.2. Figure 2.1 provides an overview of the survey positions adopted for each building. A total of seven survey positions were used on the first survey and six on the second survey (also see 2.5 Survey Comments).

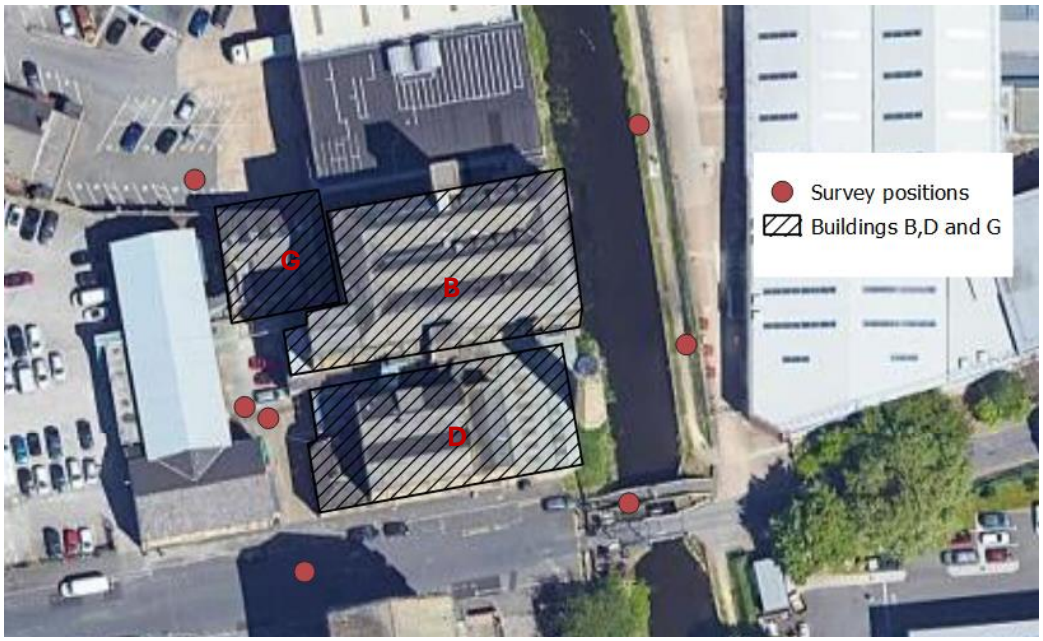
These survey positions enabled clear sightlines of all suitable bat roost egress features and the recording of the species and numbers of bats emerging from the property if present. All other non-emergence bat activity was also recorded including flight direction, type of activity, time of activity and species.

Each survey was started at least 15mins before sunset and continued for at least 1hr and 30mins after sunset. Table B.1 in Appendix B details the survey times, weather conditions, equipment used and survey locations. The survey positions at the rear (west) elevations of the buildings comprised a surveyor with a bat detector supported by a Night Vision Aid (NVA). NVAs were not used for the positions along Quay Street and on the canal side (also see 2.5 Survey Comments). In locations where surveyors used NVAs, any footage of potential emergence activity was reviewed along with any instances where there was reasonable doubt about the visual or audible findings.

**Table 2.2. Dusk emergence survey dates**

| Building reference | Bat Roost Suitability | First Survey | Second Survey |
|---|---|---|---|
| Building D | Moderate | 04/05/2023 | 25/05/2023 |
| Buildings B and G | Moderate | 17/05/2023 | 06/06/2023 |

**Figure 2.1. Survey positions**



### 2.5 Survey Comments

It is acknowledged that there is a move towards the use of NVAs as a standard protocol within the next year (Bat Conservation Trust, 2022). NVAs were not used within three to four survey positions during both surveys as night-time lighting levels were relatively high on each elevation. For example, the east elevations of both buildings on the canal were very brightly lit by the high-powered security lights on the adjacent retail distribution unit and, the south elevations of Building D were also brightly lit by street lighting. There was also an element of risk concerning the safety of equipment in such locations. It should be noted that all bat activity comprised early emerging species (common pipistrelle). Images where an NVA was deployed are provided in Appendix D.

On the second survey, six surveyors were considered sufficient to cover all potential roost features (as compared to the first survey where seven positions were used).

The surveys were undertaken within the main bat activity period during suitable weather conditions. The surveys conducted on the property were considered sufficient and proportionate to fully inform the development proposals. Whilst no significant constraints to the survey were encountered, precautionary mitigation is advised in consideration of the findings and scale of the site (see Sections 4 and 5).

This report will remain valid for a period of 18 months from the date of issue. An ecologist should be contacted for advice on the revalidation requirements of the report if planning permission is not obtained or works do not commence within this time period.

# 3 RESULTS

## 3.1 Baseline Data

The dusk emergence surveys in September 2018 (BL-Ecology, 2019) recorded five roost locations of common pipistrelle within Building B and Building D (C, D, D1 and N). All roosts were day roosts comprising one to three bats. The locations of the roosts are shown in Figure 3a of the 2019 report. Common pipistrelle were the only species recorded during the surveys.

No indication of a potential roost location was observed during the site visit in February 2023; however, such evidence is unlikely to be found on such surveys of large buildings and within the time of year the site visit was undertaken. It is confirmed that the conditions of the buildings do not appear to have changed since the surveys in 2018.

The report from the 2018 surveys detailed bat droppings and a bat found in the lift shaft of John L Brierley Mill (directly south of Building D on the opposite side of Quay Street). An account of a further bat found in the mill was provided during the February 2023 visit. Such findings are commonly associated with maternity roost locations.

Updated dusk emergence surveys undertaken on mill buildings to the south of Quay Street on 3rd May and 24th May 2023 did not record any evidence of a bat roost. Common pipistrelle were the only species recorded. There was frequent foraging activity of up to 5 bats around the courtyard and lift shaft of the adjacent John L Brierley Mill.

## 3.2 Presence / Absence Survey

**Dusk emergence surveys – Building D**

No evidence of a bat roost was recorded on Building D. During the first survey, regular foraging activity of common pipistrelle was recorded with bats foraging between Buildings B and D including constant foraging circuits high up along the roof verge of Building B. On the first survey, the first bat was seen at 20:42 (sunset was 20:42) which indicates emergence from a roost close by. Activity along the south elevations (Quay Street) was very low. During the second survey, frequent to constant bat activity of one to four common pipistrelles was recorded on each elevation. The first bat was recorded at 21:36 (19mins after sunset). A bat was also observed in repeated flights to and from an adjacent building to the west with the bat very briefly landing on the wall. This activity was associated with investigative behaviour of a potential roost site. Social calls were also recorded.

**Dusk emergence surveys – Buildings B and G**

No evidence of a bat roost was recorded on Buildings B and G. Similar levels of bat activity to the surveys of Building D were recorded. Bat activity was frequent to constant towards the roof of Building B along the west and south elevations with up to four bats recorded on any one occasion. Bat activity on the canal side (east) was frequent with one to two common pipistrelle recorded foraging during both surveys. Occasional foraging was also recorded in the car park adjacent to Building G.

Table C.1 in Appendix C provides a summary of the survey results from all surveys.

### 3.3 Nesting Birds

Swifts were observed in-flight during every visit to the site and on 25th May, a single bird was seen landing on the wall of Building B on the east side facing the canal. This observation was made during a survey of Building D. It is considered likely that this observation was associated with a nest site. No other potential nesting evidence of swifts were recorded during any other visit. On 6th June, a blue tit nest was observed in a stone wall cavity on the south elevation of Building D.

# 4 EVALUATION AND CONCLUSIONS

## 4.1 Bats

No evidence of a bat roost was observed within Buildings B, D or G. During each survey, bat activity comprised one to five common pipistrelle bats. Bats were recorded foraging on a frequent to constant basis. Such activity and low species diversity is a reflection of the urbanised location and environmental conditions (i.e., high ambient light levels). The buildings and the adjacent canal do provide sheltered foraging features for common pipistrelle.

The absence of bat roosts from the surveys in 2023 presents different results from the surveys undertaken in 2018 where up to five roost locations were identified on Buildings B and D.

The 2023 results present the most up to date information and based on these surveys alone, bats do not present a significant ecological constraint to the development proposals. However, Building B is six storeys and Building D is four storeys and all buildings subject to survey present a relatively uncommon challenge to providing a sufficiently robust dataset regarding the presence or absence of bat roosts. Whilst survey guidelines were followed, it is considered prudent to adopt a slightly more precautionary approach when considering the need for further mitigation, particularly as five roosts have been recorded on the site previously. There are indications that the adjacent JLB Mill is a maternity roost. Bats (particularly common pipistrelle) utilise several roosts throughout the year and do switch roosts on a relatively frequent basis. Bats may utilise roosts at the site in other periods such as late summer / autumn.

However, based on current results, it is concluded that the development would NOT require a European Protected Species licence and unlicensed precautionary mitigation procedures should be followed during demolition. This mitigation is provided in Section 5.

This conclusion takes into account the location of the incidental recording of a potential roost site on a building to the immediate west. This potential roost site (common pipistrelle day roost) is outside of the development site and would not be directly impacted. Potential disturbance (noise, vibration etc) would not constitute an impact that would be licensable under the Conservation of Habitats and Species Regulations 2017 (also see Appendix A).

## 4.2 Nesting Birds

Evidence of nesting birds was observed in Building D (blue tit) and Building B (swift). Under the Wildlife and Countryside Act 1981 (as amended), it is illegal to intentionally take, damage or destroy a wild bird's nest while it is being used or built and it is illegal to intentionally take or destroy eggs.

In the absence of mitigation, the demolition of Buildings B and D may result in the destruction of nest sites if works are undertaken between March and September.

Swifts are a red-listed bird species of conservation concern (Stanbury. *et al.,* 2021) which means that they are of most concern in the UK due to significant population declines. Swifts are also a Kirklees Local Species of Principal Importance. Blue tit are a green listed species (least concern).

# 5 RECOMMENDATIONS

## 5.1 Bats

**Precautionary Method Statement**

The below listed precautionary mitigation procedures should be followed during the demolition works. An updated Method Statement is advised to be submitted once the demolition schedule and processes are fully finalised.

- There are no strict timing constraints to the work with regards to bats but it is advised that the works are completed during the period in which bats would be active (i.e., outside of mid-October to April).
- Before works commence, a bat licensed ecologist will provide a toolbox talk to the contractors in order to explain the presence of bats, their legal protection, roles and responsibilities, the proposed method of working, basic identification of bats and procedures should bats or evidence of bats be found.
- The contractor is to assign a 'Biodiversity Champion' to liaise directly with the ecologist and to ensure the works are carried out in accordance with this Method Statement. Regular correspondence during the scheduled works will be required.
- A pre-works inspection of the building is to be undertaken by the ecologist. This could should be in the form of a visual inspection if sufficient access is possible and / or a dusk emergence or dawn re-entry survey to reconfirm absence of bat roosts.
- At this stage it is not known if the roofs of the buildings are proposed to be soft stripped during the demolition process. However, in the unexpected event that a bat is discovered, contractors will be advised to contact the licensed ecologist whom will travel to site to collect. Contractors will be specifically forbidden to handle bats. Contractors will be advised that if it is necessary to remove a bat to avoid it being harmed, gloves MUST be worn. It should be carefully placed in a cardboard box and kept in the dark in a quiet place until the licensed ecologist arrives on site.
- If the continuing works are, on balance, likely to result in contravention of the legislation afforded to bats (see Appendix A), the works would stop and a Natural England mitigation licence will be sought.

## 5.2 Nesting Birds

Any development works which have to potential to impact nesting birds should be completed outside of March to September. It may be possible to undertake works within the beginning of this period or towards the end of this period if a nesting bird check is carried out to confirm absence of nests. Swifts do not nest until early to mid-May; however, blue tits can nest from March onwards.

If the proposals should seek methods to exclude nests prior to the nesting season, the feasibility and efficacy of any such methods would need to be considered very carefully and such methods must be discussed with a suitably qualified ecologist.

In order to compensate for the loss of a swift nest site, three swift boxes are recommended to be installed on an adjacent building to Building B. These boxes should be hung directly under a roof overhang or gutter, avoiding direct sunlight. The boxes need to be placed at a sufficient enough height for swifts (at least 4.5m above ground level). The Woodstone Burgos Swift Box model (sourced from https://www.wildcare.co.uk) or FSC Wooden Swift Box model (sourced from https://www.nhbs.com) are recommended.

# 6 REFERENCES

Bat Conservation Trust (2022). Interim Guidance Note: Use of night vision aids for bat emergence surveys and further comment on dawn surveys. Bat Conservation Trust. London.

BL-Ecology (2019). Site: JLB Mills, Huddersfield. Bat Report. Reference 0115_18 (RE01). 7th February 2019.

Knight Sky Ecology (2023). J L Brierley, Turnbridge Mills, Huddersfield. Bat Survey Report. June 2023.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at https://britishbirds. co.uk/content/status-our-bird-populations

# APPENDIX A. LEGISLATION FOR BATS

**The Wildlife and Countryside Act 1981**

All bat species in England are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Section 9 of the Act make it an offence to intentionally or recklessly kill, injure or take any wild animal included in Schedule 5. In addition, it is an offence to (intentionally or recklessly):

- Damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of bats.

**The Conservation of Habitats and Species Regulations 2017**

Bats are listed within Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) as European Protected Species of animals. Part 3 (Protection of animals); Regulation 43 (1) of the Habitats Regulations make it an offence to:

- Deliberately capture, injure or kill any wild animal of a European protected species;
- Deliberately disturb wild animals of any such species;
- Deliberately take or destroys the eggs of such an animal; or
- Damages or destroy a breeding site or resting place of such an animal.

For the purposes of the legislation, the disturbance of wild animals includes any disturbance which is likely to impair their ability to survive, to breed or to reproduce, or to rear or nurture their young; or in the case of hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

In addition, under this legislation there are offences relating to possession, control sale and exchange of European Protected Species.

**European Protected Species Mitigation Licensing**

Where it is likely that a proposed scheme would result in contravention of this legislation, a bat mitigation licence would be required to allow the works to proceed. As part of this process, the application must meet 'three tests' for licensing under the Conservation of Habitats and Species Regulations 2017 (as amended). Planning guidance and case law also confirm that local authorities have a statutory duty under the Regulations to have regard to these three tests when deciding whether to grant planning permission. The three tests are as follows:

- Regulation 55 (2) (e) states that a derogation licence can only be issued for preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;

- Regulation 55 (9) (a): that there is no satisfactory alternative; and
- Regulation 55 (9) (b): that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

# APPENDIX B. WEATHER DATA AND EQUIPMENT

**Table B.1. Weather data and equipment**

| **Date** | 5th May 2023 | 17th May 2023 | 25th May 2023 | 6th June 2023 |
|---|---|---|---|---|
| **Building Ref.** | Building D | Buildings B and G | Building D | Buildings B and G |
| **Sunset** | 20:42 | 21:04 | 21:17 | 21:32 |
| **Survey duration** | 20:25 to 22:15 | 20:49 to 22:45 | 21:00 to 22:50 | 21:15 to 11:05 |
| **Weather conditions** | • Dry throughout<br>• 11°C at survey start<br>• 9 °C at survey end<br>• 100% cloud cover<br>• Wind - Beaufort scale (Bft) 1-2 | • Dry throughout<br>• 14°C at survey start<br>• 12°C at survey end<br>• 100% cloud cover<br>• No wind | • Dry throughout<br>• 17°C at survey start<br>• 15°C at survey end<br>• 80% cloud cover<br>• Wind - Bft 1 | • Dry throughout<br>• 15°C at survey start<br>• 12 °C at survey end<br>• 100% cloud cover<br>• Wind – Bft 1 |
| **Surveyors and equipment** | • RS – Batbox Duet<br>• CW - Peersonic RPA3<br>• RK– EMT2 Pro with tablet | • CW - Peersonic RPA3<br>• RK– EMT2 Pro with tablet<br>• SM – Batbox Duet with Anabat Chorus<br>• US1 - EMT2 Pro with tablet and Panasonic VX980 with supplementary IR torches | • CW - Peersonic RPA3 and Nightfox whisker with x1 Nightfox XC5 torch.<br>• RK– EMT2 Pro with tablet<br>• RS – Batbox Duet | • SM – Batbox Duet with Anabat Chorus<br>• RK– EMT2 Pro with tablet and Canon XA15 infrared (IR) camera with x2 Nightfox XC5 torches<br>• IW – EMT2 Pro with tablet and Panasonic VX980 with supplementary IR torches |

# APPENDIX C. SURVEY RESULTS

**Table C.1. Results summary per survey position**

| Building ref. | Date | Surveyor | Survey Position | Time | Species | No. of Bats | Activity |
|---|---|---|---|---|---|---|---|
| Building D | 04/05/2023 | CW | South-east | 21:09 | Common pipistrelle | 1 | Unseen |
| Building D | 04/05/2023 | CW | South-east | 21:12 | Common pipistrelle | 1 | Pass from behind chimney |
| Building D | 04/05/2023 | CW | South-east | 21:15 | Common pipistrelle | 1 | Occasional foraging unseen |
| Building D | 04/05/2023 | RK | North-east | 20:42 | Common pipistrelle | 1 | Foraging around Building B |
| Building D | 04/05/2023 | RK | North-east | 20:58 | Common pipistrelle | 1 | Foraging around Building B |
| Building D | 04/05/2023 | RK | North-east | 21:00 to 21:15 | Common pipistrelle | Up to 4 | Foraging around Building B |
| Building D | 04/05/2023 | RK | North-east | 21:15 to 22:15 | Common pipistrelle | 1 to 2 | Foraging around Building B and flights over roof |
| Building D | 04/05/2023 | RS | South-west | 20:50 | Common pipistrelle | 1 | Flight over building roof and foraging on street |
| Building D | 04/05/2023 | RS | South-west | 20:52 to 21:00 | Common pipistrelle | 2 | Foraging behind position |
| Building D | 04/05/2023 | RS | South-west | 21:00 to 21:15 | Common pipistrelle | Up to 3 | Foraging high over adjacent Building B |
| Building D | 04/05/2023 | RS | South-west | 21:15 to 21:30 | Common pipistrelle | 2 | Social flight activity on street |
| Building D | 04/05/2023 | RS | South-west | 21:30 to 22:15 | Common pipistrelle | 2 | Frequent foraging in courtyard and high above building |
| Buildings B and G | 17/05/2023 | CW | South-west | 20:57 | Common pipistrelle | 1 | Pass from behind and foraging around top of building |
| Buildings B and G | 17/05/2023 | CW | South-west | 21:09 | Common pipistrelle | 1 | 3n. Passes and foraging in courtyard and top of building |
| Buildings B and G | 17/05/2023 | CW | South-west | 21:21 | Common pipistrelle | 1 | Pass south to north |
| Buildings B and G | 17/05/2023 | CW | South-west | 21:26 to 21:53 | Common pipistrelle | Up to 3 | Frequent foraging in courtyard and high above building |
| Buildings B and G | 17/05/2023 | CW | South-west | 21:53 to 22:1 | Common pipistrelle | 1 | Activity decreased |
| Buildings B and G | 17/05/2023 | SM | South-east | 21:00 | Common pipistrelle | 1 | Foraging between buildings |
| Buildings B and G | 17/05/2023 | SM | South-east | 21:13 to 21:17 | Common pipistrelle | Up to 4 | Foraging between Buildings D and B |

| Building ref. | Date | Surveyor | Survey Position | Time | Species | No. of Bats | Activity |
|---|---|---|---|---|---|---|---|
| Buildings B and G | 17/05/2023 | SM | South-east | 21:30 to 22:45 | Common pipistrelle | 1 | Constant foraging on canal |
| Buildings B and G | 17/05/2023 | RK | North-east | 21:25 to 22:45 | Common pipistrelle | 1 to 2 | Constant foraging on canal |
| Buildings B and G | 17/05/2023 | US1 | North-west | 21:10 | Common pipistrelle | 1 | Flew across car park |
| Buildings B and G | 17/05/2023 | US1 | North-west | 21:13 | Common pipistrelle | 1 | Very faint pass not seen |
| Buildings B and G | 17/05/2023 | US1 | North-west | 21:15 | Common pipistrelle | 1 | Foraging around buildings |
| Buildings B and G | 17/05/2023 | US1 | North-west | 21:22 | Common pipistrelle | 1 | Foraging around buildings |
| Building D | 25/05/2023 | CW | North-west | 21:36 | Common pipistrelle | 1 | Call including social call heard not seen |
| Building D | 25/05/2023 | CW | North-west | 21:37 | Common pipistrelle | 1 | Flying between building and into courtyard |
| Building D | 25/05/2023 | CW | North-west | 21:40 to 21:50 | Common pipistrelle | Up to 4 | Several passes and foraging |
| Building D | 25/05/2023 | CW | North-west | 21:50 | Common pipistrelle | 1 | Bat seen repeatedly touching down on wall of adjacent building to west. No re-entry |
| Building D | 25/05/2023 | CW | North-west | 21:50 to 22:50 | Common pipistrelle | 2 to 4 | Constant foraging and social calls |
| Building D | 25/05/2023 | RS | South | 21:41 | Common pipistrelle | 1 | Flight from behind across building |
| Building D | 25/05/2023 | RS | South | 21:45 | Common pipistrelle | 1 | Several passes and foraging over eastern end of building |
| Building D | 25/05/2023 | RS | South | 21:45 to 22:50 | Common pipistrelle | 2 | Constant activity behind position |
| Building D | 25/05/2023 | RK | East | 21:37 | Common pipistrelle | 1 | Pass from behind chimney |
| Building D | 25/05/2023 | RK | East | 21:42 | Common pipistrelle | 1 | Flight along south elevation to canal |
| Building D | 25/05/2023 | RK | East | 21:44 | Common pipistrelle | 1 | Flight around building along Quay St |
| Building D | 25/05/2023 | RK | East | 21:45 to 22:50 | Common pipistrelle | 1 to 2 | Frequent to constant foraging on canal and social calls heard |
| Buildings B and G | 06/06/2023 | SM | South | 21:55 | Common pipistrelle | 1 | Brief pass |
| Buildings B and G | 06/06/2023 | SM | South | 22:09 | Common pipistrelle | 1 | Brief foraging on canal |
| Buildings B and G | 06/06/2023 | SM | South | 22:15 | Common pipistrelle | 1 | Brief foraging on canal |
| Buildings B and G | 06/06/2023 | SM | South | 22:18 to 22:33 | Common pipistrelle | 2 | Foraging on canal |
| Buildings B and G | 06/06/2023 | SM | South | 22:43 | Common pipistrelle | 1 | Brief pass |
| Buildings B and G | 06/06/2023 | RK | West and South | 21:43 | Common pipistrelle | 1 | Foraging in courtyard |

| Building ref. | Date | Surveyor | Survey Position | Time | Species | No. of Bats | Activity |
|---|---|---|---|---|---|---|---|
| Buildings B and G | 06/06/2023 | RK | West and South | 21:45 | Common pipistrelle | 1 to 3 | Foraging high up on roof verge |
| Buildings B and G | 06/06/2023 | RK | West and South | 22:00 to 22:15 | Common pipistrelle | 3 to 4 | Constant foraging |
| Buildings B and G | 06/06/2023 | RK | West and South | 22:15 to 22:30 | Common pipistrelle | 1 to 2 | Constant foraging |
| Buildings B and G | 06/06/2023 | RK | West and South | 22:30 to 23:05 | Common pipistrelle | 1 | Activity decreased |
| Buildings B and G | 06/06/2023 | IW | North and west | 21:47 | Common pipistrelle | 1 | High pass around building |
| Buildings B and G | 06/06/2023 | IW | North and west | 21:53 | Common pipistrelle | 1 | Several passes over buildings and brief foraging in carpark |
| Buildings B and G | 06/06/2023 | IW | North and west | 21:56 to 22:01 | Common pipistrelle | 1 | Foraging high around building |

# APPENDIX D. PHOTOS

| | |
|---|---|
| **Photo 1.**<br>South elevation of Building D with street lighting | |
| **Photo 2.**<br>South and east elevations of Building D (Building B in background) | |
| **Photo B3.**<br>South-east elevation of Building B. | |

| | |
|---|---|
| **Photo 4.**<br>North-east elevation of Building B. | |
| **Photo 5.**<br>Location of swift landing on Building B | |
| **Photo 6.**<br>West and south elevations of Building B | |

| | |
|---|---|
| **Photo 7.**<br>Location of blue tit nest site. | |
| **Photo 8.**<br>View of Buildings B and G | |
| **Photo 9.**<br>Image of survey footage of west elevation of Building D. | |

| | |
|---|---|
| **Photo 10.**<br>Image of survey footage of south elevation of Building B. | |
| **Photo 11.**<br>Image of survey footage of east elevation of Building D. | |
| **Photo 12.**<br>Image of survey footage of north elevation of Building B. | |