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BAT SCOPING & BAT PRESENCE / ABSENCE SURVEY

At

Bridgeway Centre

Bridge Road
Wrexham
LL13 9QS

NGR: SJ 37766 49382

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EXECUTIVE SUMMARY

A bat scoping survey was undertaken at the Bridgeway Centre, Wrexham by United Environmental Services (UES) Ltd in July 2023. The objective of the survey was to establish the suitability of the buildings on site to support roosting bats, based on a site specific survey and habitat assessment. The buildings were searched externally and internally (where accessible) for bat presence and features associated with bat activity, as detailed in Bat Conservation Trust (BCT) guidance (2016).

The Bridgeway Centre is situated within Wrexham Industrial Estate, located to the south-east of Wrexham. The habitats on site include several buildings, associated car parking and access roads, areas of amenity grassland and introduced shrub. There is also a small area of plantation woodland and scrub located within the southern section of the site. The lighting across the site is predominantly comprised of motion-activated security lighting. Consequently, the majority of the site is un-lit through the night, which improves the site's suitability for foraging and commuting bats.

There are five buildings within the scope of this report at the Bridgeway Centre (other buildings have previously been assessed by UES at the Bridgeway centre, see reports UES03012/01-08). These five buildings are due to be demolished under the proposed development plans. Buildings 3, and 4 have been assessed as having low potential to support roosting bats. Although no evidence of roosting bats was recorded during the scoping survey, there are potential roosting features (PRFs) which are suitable for use by roosting bats, including gaps under fascia boards and lifted bitumen felt.

No PRFs were recorded for buildings 1, 2 and 5, and no evidence of roosting bats was observed during the scoping survey. As such, these buildings have been assessed as having negligible potential for roosting bats. Therefore, no further surveys or specific mitigation measures are required for works of demolition to these buildings, with regard to bats.

Buildings 3 and 4 were assessed as having low potential to support roosting bats, therefore presence / absence surveys were undertaken by UES in July 2023 on these buildings, as per the Bat Conservation Trust (BCT) survey guidelines. The objective of these surveys was to establish whether or not bats are using the buildings on site to roost, and if so to assess the type and importance of roosts in order to inform the planning process. The surveys were carried out to recognised guidelines, timings and weather conditions, with particular reference to Natural Resources Wales (NRW) and Bat Conservation Trust (BCT) publications.

Two species of bat were recorded during the bat presence / absence surveys: common pipistrelle *Pipistrellus pipistrellus* and noctule *Nyctalus noctula*. Activity was low with mostly common pipistrelles commuting or foraging around the small, wooded area at the south end of the site.

No bats were found to be roosting within the buildings on site. Therefore, no further survey or mitigation work is required for the development to proceed, with regards to bats.

This report should be read in conjunction with appendices 1 to 5, which provide visual representations of the survey results and statutory and planning context.



1 INTRODUCTION

1.1 Author, surveyors and qualifications

This report is compiled and written by Ben Cowell MEng, UES Sub-contractor. Other surveyors include:

- Bethan Beeston BA, UES Trainee Ecologist
- Toby Hart BSc MCIEEM PIEMA, UES Managing Director. Toby is licensed by Natural Resources Wales to disturb, take and handle all species other than greater or lesser horseshoe under licence number S086508/01

All surveyors have the knowledge, skills and experience identified within CIEEM's "Competencies for Species Survey: Bats" (2013), or were under the supervision of a surveyor with the required competencies.

1.2 Survey objectives

UES was commissioned in June 2023 to conduct site surveys which include the following activities:

- Conduct internal and external building inspections to look for field signs of bats
- Confirm bat presence or likely absence by conducting emergence and re-entry surveys of the buildings
- Assess the type and importance of the roost(s), if present
- Recommend appropriate mitigation and compensation, if applicable

1.3 Proposed development

The proposals include the demolition of existing commercial units and construction of new commercial units within the same site boundary with associated landscape and car parking.

1.4 Structure of the report

This report sets out the methodology, results, and recommendations in relation to a specific bat survey. Recommendations are in line with statutory legislation and planning policy objectives.

The report should be read in conjunction with appendices 1 to 5, which give visual representations of the survey results.



2 METHODOLOGY

2.1 General

All surveys were carried out to recognised guidelines, timings and weather conditions, with particular reference to Natural England and BCT publications (see references for further information).

The habitats on site and in the surrounding area were assessed during a walkover survey and through studying aerial photographs, in order to gauge their suitability to support roosting, foraging and commuting bats.

2.2 Building inspections

The buildings on site were searched both externally and internally for bat presence and features associated with bat activity, as detailed in BCT guidance (Collins, 2016). The initial bat scoping assessment was conducted on 15th June 2023 by Toby Hart and Bethan Beeston.

2.2.1 External inspection

The external inspections of the buildings were carried out from ground level using binoculars, and also using ladders and an endoscope to investigate suitable gaps. The objective of the survey was to find and record any signs of bat use, for example:

- Bat droppings
- Feeding remains
- Grease staining / urine marks
- Corpses or skeletons

The bat signs listed above are visible from the outside of a building. The following areas were searched, where present:

- | | |
|---------------------------|---|
| • Roof and ridge tiles | • Gaps under felt |
| • Lead flashing | • Cracks / holes in woodwork or behind cladding |
| • Eaves | • Gaps in brickwork and mortar |
| • Boxed soffits | • Air bricks |
| • Fascia and barge boards | • Grills |
| • Window sills and panes | • Vents |
| • Walls | |

2.2.2 Internal inspection

The internal inspections covered all of the accessible rooms and roof spaces within the buildings.

Bats regularly utilise specific areas within roof spaces, which were searched for any field signs of bats using high-powered torches and an endoscope, where considered necessary by the licenced ecologist. The following features were searched, where present:



- Roof beams and junctions
- Gaps under felt
- Dividing walls
- Chimney breasts
- Gaps in brickwork and mortar
- Cracks / holes in woodwork
- Floor or other surfaces on which droppings could accumulate

2.3 Emergence and re-entry surveys

Potential roost access points were identified during the building inspections. These points were covered by a surveyor during the dusk emergence and dawn re-entry periods.

Bat echolocation, flight and habitat characteristics were recorded where possible, in order to determine the species. The level and type of bat activity was also recorded to establish how bats are using the site.

2.3.1 Equipment

BATLOGGER M bat detectors and recorders were used during the survey. This device records bat echolocation calls across the full spectrum, with a sensitivity range of 10 – 150 kHz. The integrated heterodyne live monitoring also allows the observer to hear the echolocation calls in real time, with automatic tuning. The recordings are individually time/date, GPS and temperature stamped, and are of high enough quality to produce time expansion quality sonograms.

ANABAT SCOUT full spectrum bat detectors were used during the survey. This device records bat echolocation calls across the full spectrum, with a sensitivity range of 10 – 160 kHz. The integrated heterodyne live monitoring also allows the observer to hear the echolocation calls in real time, with automatic tuning. The recordings are individually time/date, GPS and temperature stamped, and are of high enough quality to produce time expansion quality sonograms.

A Canon XA11 Professional Video Camera was used in conjunction with an infra-red LED illuminator during the presence / absence surveys. Footage of the survey is recorded and reviewed post-survey. During the survey, the camera was positioned to focus on previously identified potential roosting features (PRFs) and potential roosting locations. This allowed for greater confidence that any bats using the building would be identified, even when ambient light levels prohibited surveyors from observing bats.

2.3.2 Weather conditions

Table 1 - Weather conditions and survey timings

DATE	SURVEY TYPE	TIMINGS	SUNSET / SUNRISE	TEMP.	WIND	RAIN	CLOUD COVER
24/07/23	Emergence (focusing on Building 3)	21:04 – 22:49	21:19	18°C	Still	Dry	0%



28/07/23	Emergence (focusing on Building 4)	20:58 – 22:43	21:13	17°C	Still	Dry	60%
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2.4 Survey limitations

No survey limitations were encountered.



3 RESULTS

3.1 Habitat assessment

Bridgeway Centre is situated within Wrexham Industrial Estate, located to the south-east of Wrexham. The habitats on site include several buildings, associated car parking and access roads, areas of amenity grassland and introduced shrub. There is also a small area of plantation woodland and scrub located within the southern section of the site. The lighting across the site is predominantly comprised of motion-activated security lighting. Consequently, the majority of the site is un-lit through the night, which improves the site's suitability for foraging and commuting bats.

The immediate surrounding area is similar in composition, with light industry present in all directions. However, the industrial sites are intersected with pockets of woodland and an unnamed watercourse. These are connected to larger areas of woodland, rough grassland, waterbodies and the River Clywedog, which is located approximately 450m south of the site. These habitats will provide moderate quality foraging, commuting and roosting opportunities for bats in the local area.

In the wider surrounding area, the habitats are similar in composition; light industry intersected by woodland and watercourses. Habitats beyond the industrial estate improve in quality with hedge lined pasture fields, numerous waterbodies, and blocks of woodland. These habitats will provide higher quality foraging, commuting and roosting opportunities for bats.

3.2 Building inspections

3.2.1 External inspection

There are five buildings within the survey boundary covered by this assessment, which have been numbered for the purposes of this report (see Appendix 1 – Site plan).

Building 1 is a single storey rectangular building used as both offices and a workshop (See Appendix 3 – Photographs, Photographs 1-4). The walls are constructed of breeze block with corrugated metal cladding. There is a small extension on the eastern aspect which is a similar design. The roofs are lined with bitumen roofing felt that is in excellent condition and tightly sealed. There are two metal roof lanterns present in the centre of the building. There is lead flashing present around the lanterns which is tightly sealed. The window frames are wooden, and windows are single glazed. The windows are in poor condition but no suitable cracks or crevices for bats were recorded.

Building 2 is a brick built rectangular building with a flat roof lined with bitumen roofing felt (Photographs 5-8). The windows have wooden frames in good condition. The building is currently unoccupied. The roof, fascia boards and brick work are in excellent condition with no PRFs identified.

Building 3 is a brick built rectangular building that has a similar construction to Building 2 (Photographs 9, 10, 13). There is a small extension on the northwestern aspect which is constructed of corrugated metal. The roof and walls are in excellent condition. The wooden fascia board on the southeastern aspect is slightly lifted (Photograph 11) and there is a gap at the end of the guttering on the same aspect, with raised bitumen felt (Photograph 12). These PRFs were inspected with an endoscope revealing no evidence of bats although a sheltered feature still remains.



Building 4 is a brick built rectangular building that is a similar design to Building 2 (Photographs 14, 17, 18, 19). The fascia boards are well fitted with the exception of a gap above the roller shutters on the southwestern aspect (Photograph 15), and further along on the same aspect there's a hold in the brickwork at the top of a brick pillar (Photograph 16). These PRFs were inspected with an endoscope and no evidence of bats were found.

Building 5 is a similar design to Building 3 and is currently used as a garage for repairing cars. The roof, wooden fascia boards and brick work are all in excellent condition with no PRFs identified.

3.2.2 Internal inspection

The buildings do not have any internal roof voids or loft spaces.



3.3 Activity summary

Table 2 – Bat activity summary

DATE	SURVEY TYPE	SPECIES	NOTES
24/07/23	Emergence (focusing on Building 3)	Common pipistrelle	Common pipistrelles were recorded infrequently throughout the survey although were only seen commuting south and east of the building.
28/07/23	Emergence (focusing on Building 4)	Common pipistrelle Noctule	Common pipistrelles were again recorded foraging south of the building towards the wooded area. A low number of noctules were heard and one was seen commuting to the south of the building.



4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

4.1.1 Qualitative assessment of foraging habitats

The Bridgeway centre is located in Wrexham Industrial Estate. The habitats on site are of low quality for foraging and commuting bats. The small areas of woodland and scrub will provide some suitable habitat for bats, however, the area within the vicinity of the site is well-lit with street and security lighting from the industrial estate, which reduces the suitability of the habitats for foraging and commuting bats.

Offsite habitats within the immediate surrounding area are better in quality. The woodland corridors and areas of rough grassland, waterbodies and watercourses will provide higher quality opportunities for roosting, foraging and commuting bats. However, habitats further afield are of superior quality with larger areas of woodland, hedge-lined agricultural fields and numerous waterbodies.

4.1.2 Qualitative assessment of roosting habitats

The quality of roosting habitats within the following buildings is low:

- Building 3
- Building 4

The survey recorded a low number of external PRFs such as gaps under the fascia boards on the buildings.

No PRFs were recorded for all other buildings on site and no evidence of roosting bats was recorded during the survey. As such, these buildings (**Building 1, 2 and 5**) have been assessed as having negligible potential for roosting bats. Therefore, no further surveys or specific mitigation measures are required for these buildings, with regard to bats.

Two species of bat were recorded during the bat presence / absence surveys of Buildings 3 and 4: common pipistrelle and noctule. Activity was low with mostly common pipistrelles commuting or foraging around the small, wooded area at the south end of the site.

Despite the favourable conditions, no bats were recorded roosting in the buildings on site.

4.2 Mitigation and compensation measures

As no bats were found to be using the buildings or structures on site to roost, no further mitigation or compensation measures are required with regards to bats.



5 CONCLUSION

The Bridgeway Centre is situated in an area that presents moderate habitat for foraging, roosting and commuting bats. The habitats on site offer relatively low foraging opportunities, however the low level of lighting does not impact communing opportunities across the site. The buildings on site offer a low number of potential roosting features for bats, with predominantly external PRFs such as gaps behind fascia boarding and raised felt.

No field signs of bats, such as droppings, were found during the building inspections. Furthermore, no bats were recorded roosting in the buildings on site, despite the favourable conditions.

As no bats were found to be using the buildings or structures on site to roost, no further mitigation or compensation measures are required with regards to bats.



6 REFERENCES

Chartered Institute of Ecology and Environmental Management (2013). *Competencies for Species Survey: Bats*.

Ministry of Housing Communities and Local Government (2021). *National Planning Policy Framework*.

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

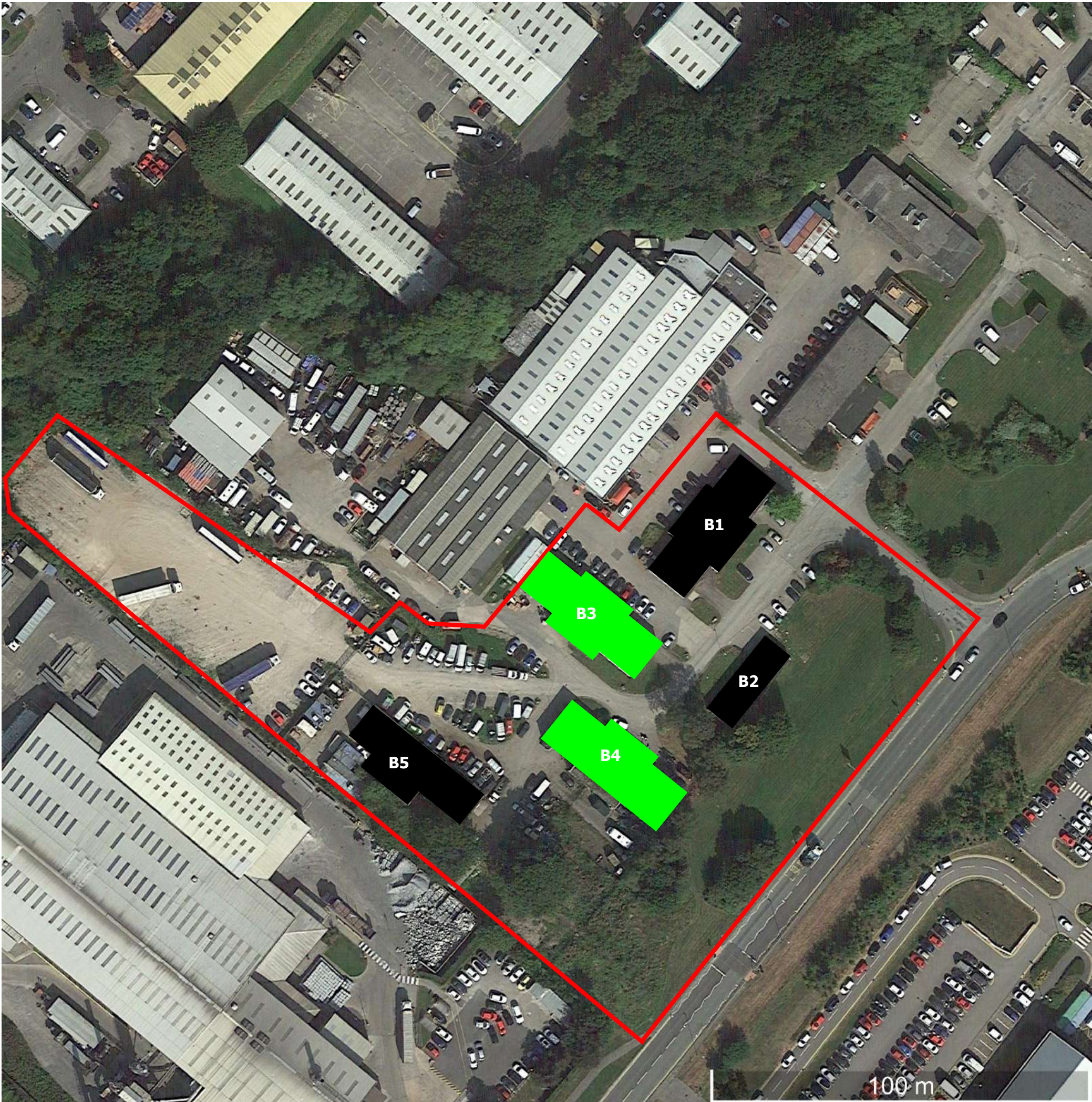
Mitchell-Jones, A.J. (2004). *Bat Mitigation Guidelines*. English Nature.

Mitchell-Jones, A.J. & McLeish, A.P. (2004). *The Bat Workers Manual*. (3rd ed.) JNCC



APPENDICES

Appendix 1 – Site plan



Site plan

Site: Bridgeway Centre,
Wrexham
NGR: (SJ) 337766 349382
Author: Ben Cowell
Date: 28/07/2023



- KEY:**
- Survey boundary
 - Buildings
 - Low bat roost potential
 - Negligible bat roost potential

THIS PLAN IS BASED UPON MAP DATA © 2023 Google, Imagery © 2023 Google

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Appendix 2 – Aerial photographs



Bridgeway Centre, Wrexham

Close aerial photograph

 Development boundary



Bridgeway Centre, Wrexham

Wide aerial photograph



Site Location



Appendix 3 – Photographs



Photograph 1 – Southeastern aspect of Building 1.



Photograph 2 – Southwestern aspect of Building 1.



Photograph 3 – Northeastern aspect of Building 1.



Photograph 4 – Northwestern aspect of Building 1.



Photograph 5 – Northwestern aspect of Building 2.



Photograph 6 – Northeastern aspect of Building 2.



Photograph 7 – Southeastern aspect of Building 2.



Photograph 8 – Southwestern aspect of Building 2.



Photograph 9 – Southeastern aspect of Building 3.



Photograph 10 – Southern aspect of Building 3.



Photograph 11 – Gap under fascia board on Southeastern aspect of Building 3.



Photograph 12 – Gap towards end of guttering on Southwestern aspect of Building 3 with raised bitumen felt.



Photograph 13 – Northeastern aspect of Building 3.



Photograph 14 – Southwestern aspect of Building 4.



Photograph 15 – gap under fascia board on Southwestern aspect of Building 4, above the roller shutters.



Photograph 16 – Hole under fascia over brick pillar on Southwestern aspect of Building 4.



Photograph 17 – Northwestern aspect of Building 4.



Photograph 18 – Northeastern aspect of Building 4.



Photograph 19 - Roof of Building 4.



Photograph 20 – Southwestern aspect of Building 4.



Photograph 21 – Southeastern aspect of Building 5.



Photograph 22 – Northeastern aspect of Building 5.



Photograph 23 – Northeastern aspect of Building 5 (further north than Photograph 18).



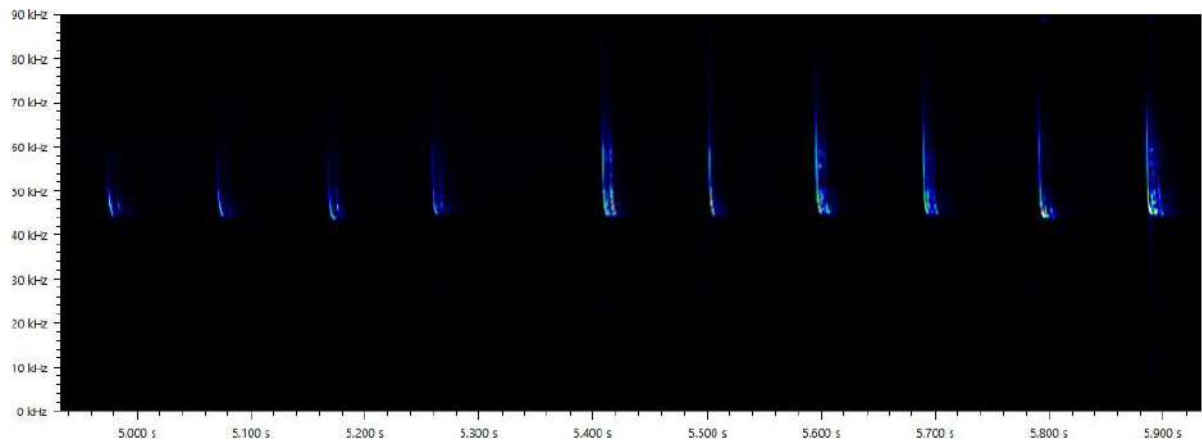
Photograph 24 – Northwestern aspect of Building 5.



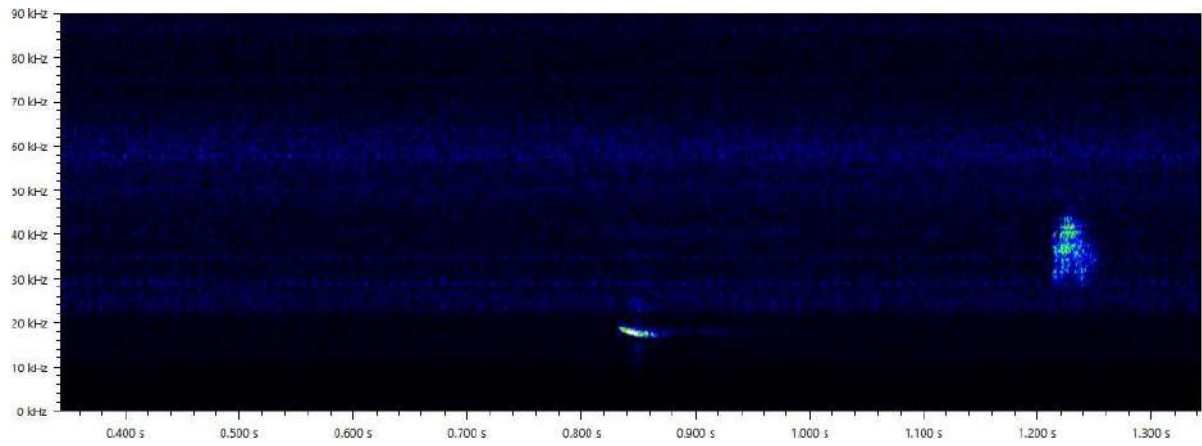
Photograph 25 – Southwestern aspect of Building 5 (further West than Photograph 16).



Appendix 4 – Results



Sonogram 1. A common pipistrelle recorded at 22:08 on 24th July 2023.



Sonogram 2. A noctule recorded at 21:49 on 28th July 2023.



Appendix 5 – Statutory and planning context

STATUTORY AND PLANNING CONTEXT

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of the legislative protection that is relevant to the findings of this report.

Habitats

Section 7 of the Environment Act (Wales) places a duty on Welsh Ministers to publish, review and revise lists of types of habitats and species in Wales which they consider are of key significance to sustain and improve biodiversity. The Welsh Ministers must also take all reasonable steps to maintain and enhance the habitats published in these lists, and encourage others to take such steps.

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (known as the “Habitats Regulations”). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat
- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include unlimited fines (formerly up to £5000), plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by NRW.

The Environment (Wales) Act 2016 also lists the following bat species as species of principle importance under Section 7:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Common pipistrelle *Pipistrellus pipistrellus*
- Soprano pipistrelle *Pipistrellus pygmaeus*
- Brown long-eared bat *Plecotus auritus*
- Greater horseshoe *Rhinolophus ferrumequinum*
- Lesser horseshoe *Rhinolophus hipposideros*

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The Environment (Wales) Act 2016 offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity, localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Planning Policy

National planning guidance is issued in the form of Planning Policy Wales (PPW - 2018). The most relevant sections are included in Chapter 6: Distinctive and Natural Places. This chapter details the policies on issues such as the protection of trees, woodlands, species, and designated sites. The document is free and available to view online