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BAT PRESENCE / ABSENCE SURVEY

At

Bridgeway Centre
Bridge Road
Wrexham Industrial Estate
Wrexham
LL13 9QS

NGR: SJ 37877 49487

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Tom Kenwright

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EXECUTIVE SUMMARY

An updated bat presence / absence survey of Building 1 and Building 2 at the Bridgeway Centre, Wrexham (See Appendix 1 – Site plan) was undertaken by United Environmental Services (UES) Ltd in May and June 2024. The updated surveys were required to assess the use of the buildings by bats following previous bat presence / absence surveys undertaken in September 2020 by UES. The previous 2020 survey recorded roosting bats in both Building 1 and 2 (see report ref: UES03012/03):

- **Roost 1**: Common pipistrelle *Pipistrellus pipistrellus* day roost used by a single bat, within Building 1.

- **Roost 2:** brown long-eared (BLE) bat *Plecotus auritus* day roost used by a single bat within Building 2.

The objective of the surveys was to establish whether or not bats are still 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. The proposals include the demolition of the two remaining buildings on site.

The Bridgeway Centre is situated within Wrexham Industrial Estate, located to the south-east of Wrexham. The site is situated in an area that provides low-moderate quality habitat for foraging, roosting and commuting bats. The habitats on site provide low quality foraging and commuting opportunities, however habitats and landscape features of higher quality are present within the local area. The buildings on site contain a small number of low-quality roosting features for bats, with predominantly external potential roosting features such as gaps behind fascia boarding and raised felt.

Three species of bat were recorded during the presence / absence surveys, namely common pipistrelle, soprano pipistrelle *Pipistrellus pygmaeus* and noctule, *Nyctalus noctula*. Low levels of activity were recorded during the emergence surveys, with common pipistrelles foraging and commuting west of Building 2, whilst a noctule was seen passing from north to south over Building 2. No emergence was recorded within either Building 1 or 2 during the updated surveys.

No bats were observed roosting in the buildings during the updated bat presence / absence survey undertaken by UES in May and June 2024, despite the surveys being undertaken during the peak survey season and in suitable weather conditions.

As there is no recent evidence of bats roosting in the buildings, it is considered that bats are no longer and are not currently using the buildings for roosting purposes. As such, it is considered that a European Protected Species (EPS) licence from Natural Resources Wales is not needed for the works to proceed. However, there remains a residual risk that bats may use the buildings to roost in the future. As such, the works should proceed under a non-licenced method statement to protect bats in the event that they are present at the time of the works.

This report should be read in conjunction with Appendices 1 to 6, 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 Nathaniel Foley MSc and UES Graduate Ecologist. Other surveyors included:

- Paul Cassidy ACIEEM, UES Sub-contractor. Paul is licensed by Natural Resources Wales to disturb, take and handle all species of bats under licence number S088256/1
- Bethan Beeston BA, UES Field Ecologist.
- Josh Howard BSc, UES Graduate Field Ecologist.
- Steven Atkinson, UES Sub-contractor.

This report has been reviewed and verified by Tom Kenwright BSc MSc ACIEEM, UES Senior Ecologist. Tom is licensed by Natural Resources Wales to disturb, take and handle all species, other than horseshoe species, under licence number S094176/1.

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 2024 to conduct site surveys which include the following activities:

- Confirm bat presence or likely absence by conducting two bat presence / absence 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 and previous survey information

The development proposals entail the demolition of the remaining buildings on site, and the construction of new commercial units in their place.

A suite of bat surveys has been undertaken of the buildings on site, which include:

- 24/02/2020 - Bat scoping survey undertaken by UES (Report ref: UES03012/02).
- 22/09/2020 - Bat presence / absence survey of Buildings 1 and 2 were undertaken in September 2020 by UES (Report ref: UES03012/03).
- 17/02/2023 – Updated bat scoping survey on Building 1 and 2.

The results of the previous bat scoping and presence / absence surveys are detailed below:

September 2020 - Buildings 1 and 2

- Roost 1 – A single common pipistrelle emerged from the western aspect of building, at the corner of L-shape on Building 1 (See Appendix 1).
- Roost 2 – BLE emerged from the north-western aspect between roofing felt and fascia board of Building 2.

February 2023 – Building 1 and 2

- During the updated scoping survey, a single bat dropping was recorded externally, beneath Roost 2 on Building 2.

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 6, 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 Resources Wales 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, 2023). Details of previous surveys can be found within section 1.3 of this report.

2.2.1 External inspection

The external inspections of the building was 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
- Lead flashing
- Eaves
- Boxed soffits
- Fascia and barge boards
- Windowsills and panes
- Walls
- Gaps under felt
- Cracks / holes in woodwork or behind cladding
- Gaps in brickwork and mortar
- Air bricks
- Grills
- Vents

2.2.2 Internal inspection

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

Potential roost access points were identified during the building inspections. These points were covered by a surveyor during the dusk emergence 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.

Nightfox Whisker Night Vision Binoculars were used in conjunction with Nightfox XB5 940nm Low Glow Infrared LED Flashlights to monitor part of the building during the surveys. The Binoculars were positioned alongside surveyors to cover potential roost access points and recorded video footage to be reviewed post-survey. Surveyors can also use the binoculars during the survey as a night-vision aid. Additional infrared illuminators are positioned away from the NVA such that a larger area of the site can be illuminated ,which enables a larger depth of field

An Anabat Walkabout bat detector was used during the surveys. This allowed the observer to hear bat echolocation calls and see the sonograms in real time, aiding identification. All registrations were automatically recorded onto a memory card and time/date stamped. The device can record and display both zero crossing and full spectrum bat echolocation calls and has a built-in GPS and mapping system.

ANABAT SCOUT full spectrum bat detectors were used during the surveys. 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.

Canon XA11 Professional Video Camera was used in conjunction with an infra-red LED illuminator to monitor part of the building during the surveys. The camera was positioned to cover potential roost access points. Footage of the survey was recorded and reviewed post-survey.

2.3.2 Weather conditions

Table 1 - Weather conditions and survey timings

DATE	SURVEY TYPE	TIMINGS	SUNSET	TEMP.	WIND	RAIN	CLOUD COVER
13/05/2024	Emergence	20:48-22:33	21:03	14°C	Light Breeze	Moderate rain	100%
17/06/2024	Emergence	21:26-23:11	21:41	12°C	Still	None	10%

2.4 Survey limitations

The infrared camera positioned on the northwestern aspect of Building 2 (known roosting area), lost power early on during one of the surveys however this was immediately replaced with the camera initially positioned on the northwestern aspect of Building 1. The northwest of Building 1 was subsequently covered by a surveyor without a night vision aid, but this aspect was in a well-lit area close to security lights, ensuring sufficient visibility throughout the survey. As such, this is not considered to significantly affect the results from either position.

Moderate levels of rainfall was experienced during the first survey, however bat activity was still recorded to a similar low level as during the second emergence survey, which was undertaken in optimal survey conditions. Furthermore, the known roosting locations were subject to a detailed inspection immediately prior to the survey and no evidence of bats was observed. Therefore, is not considered to have significantly affected the survey results.

3 RESULTS

3.1 Habitat assessment

Bridgeway Centre is situated within Wrexham Industrial Estate, located to the south-east of Wrexham. Habitats within the immediate vicinity of the buildings predominantly comprises areas of hardstanding, including areas of gravel and rubble following the recent demolition of surrounding buildings in addition to access roads and car parking.

The immediate surrounding area comprises of light industry which is 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

Building 1 is a multi-purpose single-storey commercial building, used for offices and retail. The building is an 'L' shape and is constructed from brick with a flat roof lined with 1F bitumen roofing felt (See appendix 3 Photograph 1-3). The brickwork and roof are in excellent condition. There is a small amount of wooden cladding present on the eastern and western aspects of the building which is tightly sealed. Metal boxed soffits are also present on several aspects of the building. There is one gap in the brickwork immediately below the boxed soffit on the southern aspect of the building (Photograph 4). The windows have a mixture of wooden window frames and UPVC, all of which are in good condition. There is a small extension on the south-eastern aspect of the building. The extension is constructed of corrugated metal with a flat roof lined with 1F bitumen roofing felt.

Building 2 is a similar design but is rectangular in shape and has been painted white (Photograph 5-7). There are wooden barge boards present on all aspects of the building, which are mostly in good condition. However, the barge board on the western aspect is broken and lifted (Photographs 8) which leaves the bitumen roofing felt exposed, and a gap is present beneath.

No bats or bat field signs were recorded during the updated external building inspections.

3.2.2 Internal inspection

No internal loft voids or areas that could be used by roosting bats are present within either building.

3.3 Emergence and re-entry surveys

Table 2 – Survey results

DATE	SURVEY TYPE	SPECIES	NO. OF BATS	ROOST LOCATION	ACCESS POINT	TIMINGS
13/05/2024	Emergence	N/A	N/A	N/A	N/A	N/A
17/06/2024	Emergence	N/A	N/A	N/A	N/A	N/A

3.4 Activity Summary

Table 3 – Survey results

DATE	SURVEY TYPE	SPECIES	NOTES
13/05/24	Emergence	Common pipistrelle	One individual bat was recorded passing offsite.
17/06/24	Emergence	Noctule Common and soprano pipistrelle	A single bat pass was observed commuting east to over the site. Very low level of activity, limited only to foraging early on in the survey circling above Building 1 and a pass from west to east commuting over the site later in the survey.

4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

Bridgeway Centre is situated within Wrexham Industrial Estate, located to the south-east of Wrexham. Habitats within the immediate vicinity of the buildings predominantly comprises areas of hardstanding, including areas of gravel and rubble following the recent demolition of surrounding buildings in addition to access roads and car parking. The immediate surrounding area comprises of light industry which is 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.

Three species of bat were recorded during the presence / absence surveys, namely common pipistrelle, soprano pipistrelle and noctule. Low levels of activity were recorded during the emergence surveys, with pipistrelles foraging and commuting west of Building 2, with a single noctule observed commuting over the site.

No roosting bats were observed during either of the surveys of the pre-commencement external inspections.

4.2 Roost assessment

Whilst no bats were observed roosting within the buildings during the 2024 surveys, the building has been used by roosting bats in the past bats, as detailed below:

Roost 1 was located beneath the lead flashing of a corrugated plastic porch, on the western aspect of the L-shaped Building 1 (close to the corner of the L-shape) – a single common pipistrelle was recorded to be using the roost. Due to the small dimensions of the roosting feature and the singe bat recorded, it is considered likely that the roost was used as a day / transitional roost on a casual basis, by an individual bat (Photograph 3).

Roost 2 was located on the western aspect of Building 2. An individual BLE bat was recorded emerging from between the raised roofing felt and the damaged wooden fascia board. The structure of this roost (a small crevice) makes it unsuitable for a large number of this species of bat (usually found in larger loft voids). Therefore, it is considered likely that the roost was used as a day / transitional roost on a casual basis, by an individual bat (Photograph 6).

The environmental conditions (humidity, temperature etc.) and roosting features within the buildings and the small number of external roosting features are of poor suitability to support hibernating bats. It is considered unlikely that bats are using the building for hibernation purposes.

4.3 Mitigation and compensation measures

No bats were observed roosting in the buildings during the updated bat presence / absence survey undertaken by UES in May and June 2024, despite the surveys being undertaken during the peak survey season and in suitable weather conditions.

As there is no recent evidence of bats roosting in the buildings, it is considered that bats are no longer and are not currently using the buildings for roosting purposes. As such, it is considered that a European Protected Species (EPS) licence from Natural Resources Wales is not needed for the works to proceed. However, there remains a residual risk that bats may use the buildings to roost in the future. As such, the works should proceed under a non-licenced method statement to protect bats in the event that they are present at the time of the works.

5 CONCLUSION

The Bridgeway Centre is situated in an area that presents low-moderate quality habitat for foraging, roosting and commuting bats. The habitats on site provide low quality foraging and commuting opportunities, however habitats and landscape features of higher quality are present within the local area. The buildings on site contain a small number of low-quality roosting features for bats, with predominantly external potential roosting features such as gaps behind fascia boarding and raised felt.

Two individual bats were recorded roosting across two roosting locations on site during previous surveys undertaken by UES in 2020. One within Building 1 and the second within Building 2, being used by a common pipistrelle and a BLE, respectively. The two roosts were considered to be day / transitional roosts used by individual bats. The bats present were likely to have been males, non-breeding females or juveniles. It is considered highly unlikely that bats are using the buildings for hibernation purposes.

Three species of bat were recorded during the 2024 updated bat presence / absence surveys: common pipistrelle, soprano pipistrelle and noctule. Low levels of activity were recorded during both surveys.

No bats were observed roosting in the buildings during the updated bat presence / absence survey undertaken by UES in May and June 2024, despite the surveys being undertaken during the peak survey season and in suitable weather conditions.

As there is no recent evidence of bats roosting in the buildings, it is considered that bats are no longer and are not currently using the buildings for roosting purposes. As such, it is considered that a European Protected Species (EPS) licence from Natural Resources Wales is not needed for the works to proceed. However, there remains a residual risk that bats may use the buildings to roost in the future. As such, the works should proceed under a non-licenced method statement to protect bats in the event that they are present at the time of the works.

6 REFERENCES

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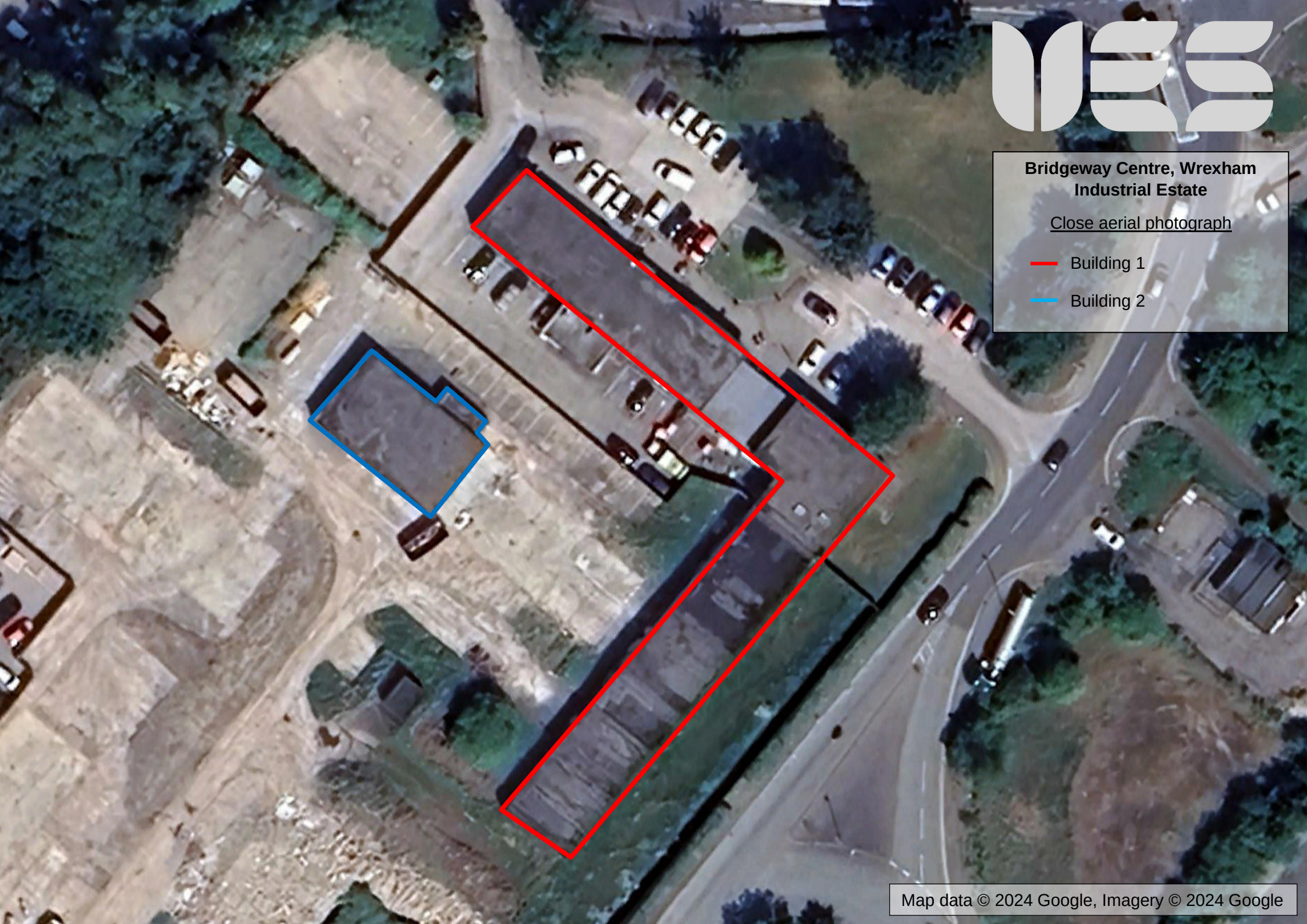
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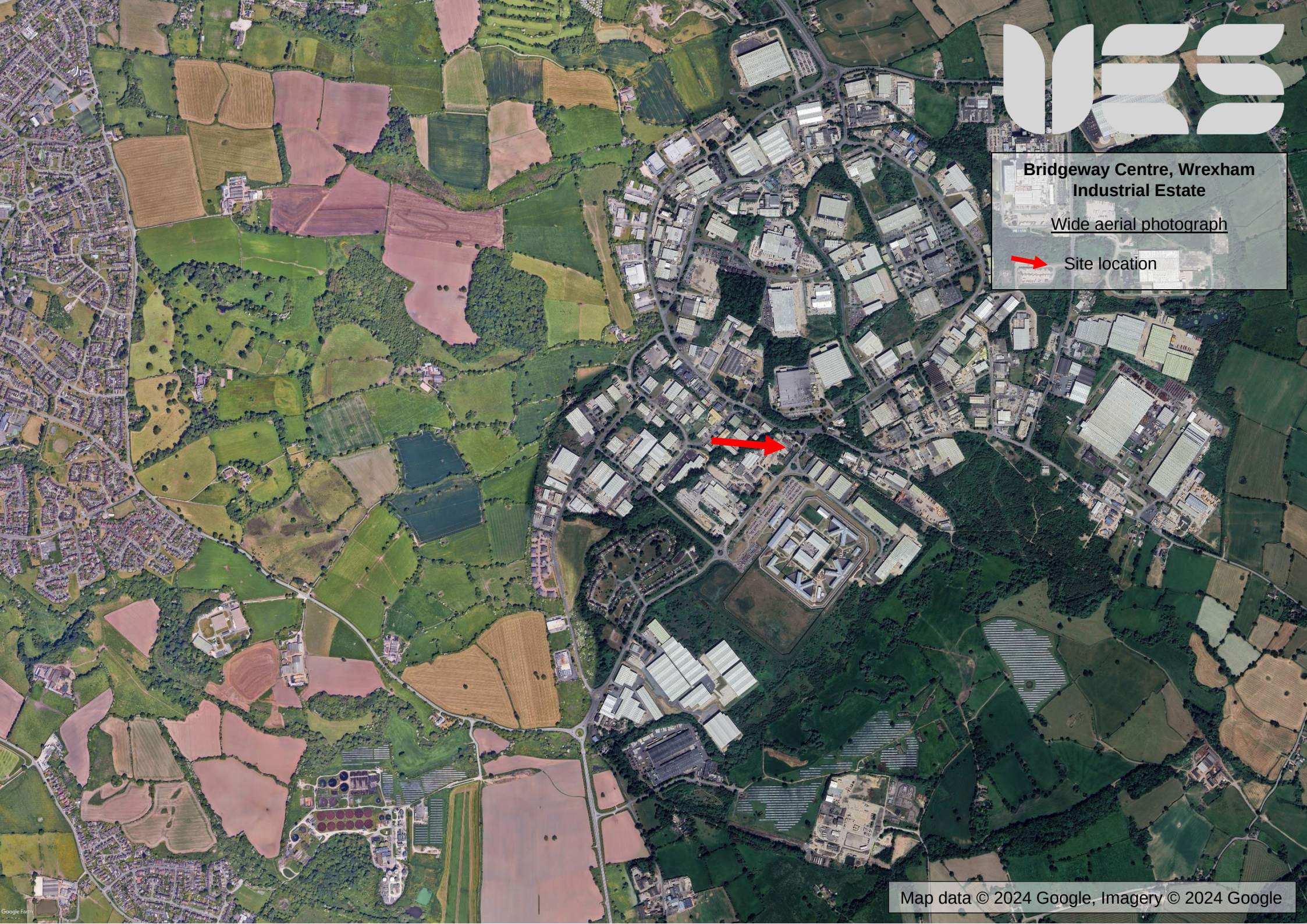
APPENDICES

Appendix 1 – Site plan


B1
B2
Bridgeway Centre, Wrexham Industrial Estate
Site Plan
Buildings surveyed
Surveyor positions
Bat flight lines
Roost 1 (common pipistrelle in 2020)
Roost 2 (BLE in 2020)
Location of bat dropping in 2023
Map data © 2024 Google, Imagery © 2024 Google


Bridgeway Centre, Wrexham Industrial Estate
Close aerial photograph
Building 1
Building 2
Map data © 2024 Google, Imagery © 2024 Google

Appendix 2 – Aerial photographs


Bridgeway Centre, Wrexham Industrial Estate
Wide aerial photograph
Site location
Map data © 2024 Google, Imagery © 2024 Google

Appendix 3 – Photographs



Photograph 1 – Eastern aspect of Building 1.



Photograph 2 – Southern aspect of Building 1.



Photograph 3 – Northwestern aspect of Building 1, showing the location of Roost 1.



Photograph 4 - Gap in brickwork on southern aspect of Building 1.



Photograph 5 – Northern aspect of Building 2.



Photograph 6 – Western aspect of Building 2, showing the location of Roost 2.



Photograph 7 – Western and southern aspects of Building 2.



Photograph 8 – Gap between overhanging roofing felt and fascia board on western aspect of Building 2.

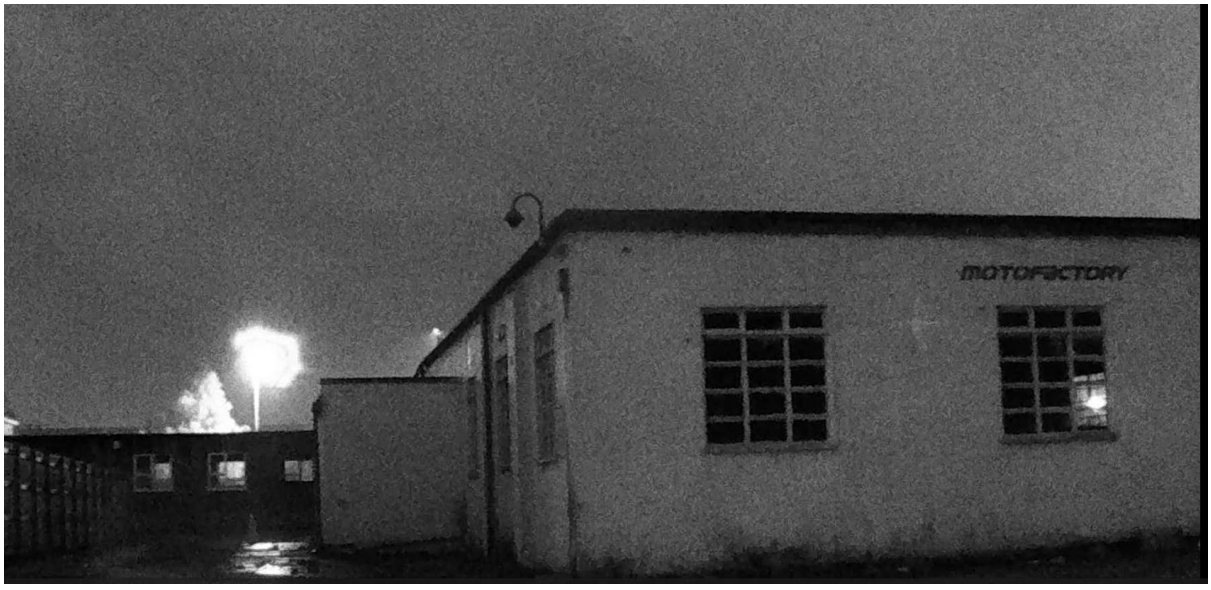
Appendix 4 – Camera viewpoints



Camera Viewpoint 1 – Southwestern aspect of the Building 1 on 13/05/2024.



Camera Viewpoint 2 – Northeastern aspect of Building 1 on 13/05/2024.



Camera Viewpoint 3 – Northwestern aspect of Building 2 on 13/05/2024.



Camera Viewpoint 4 – Southwestern aspect of Building 1 on 17/06/2024.

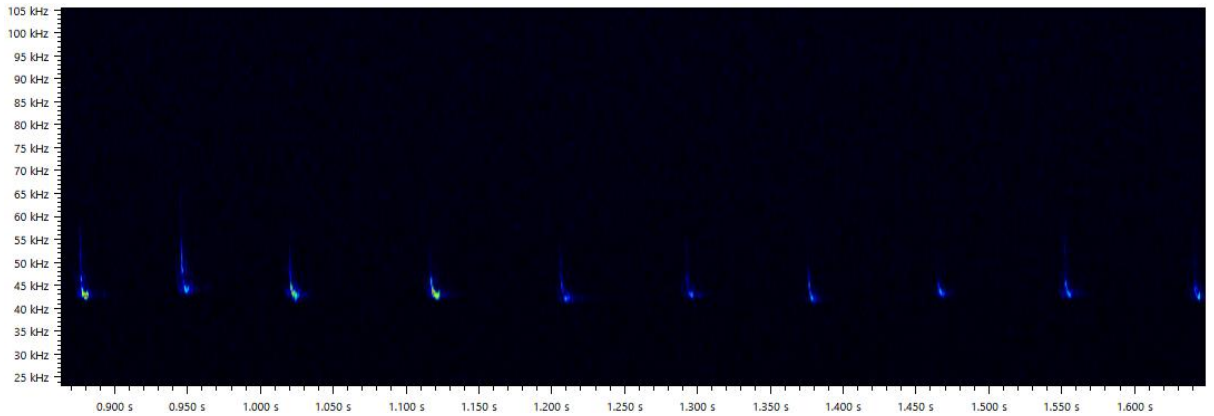


Camera Viewpoint 5 - Northwestern aspect of Building 2 on 17/06/2024.

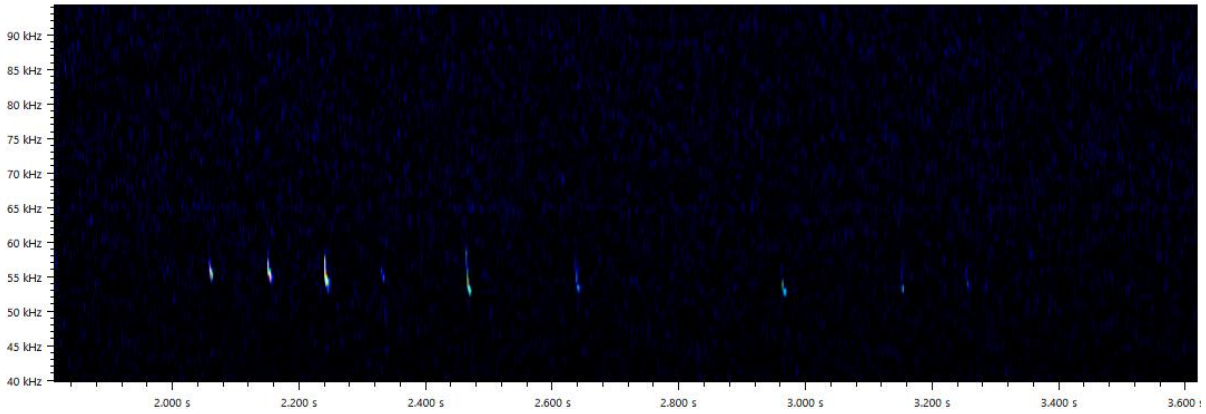


Camera Viewpoint 6 – Southwestern aspect of Building 2 on 17/06/2024.

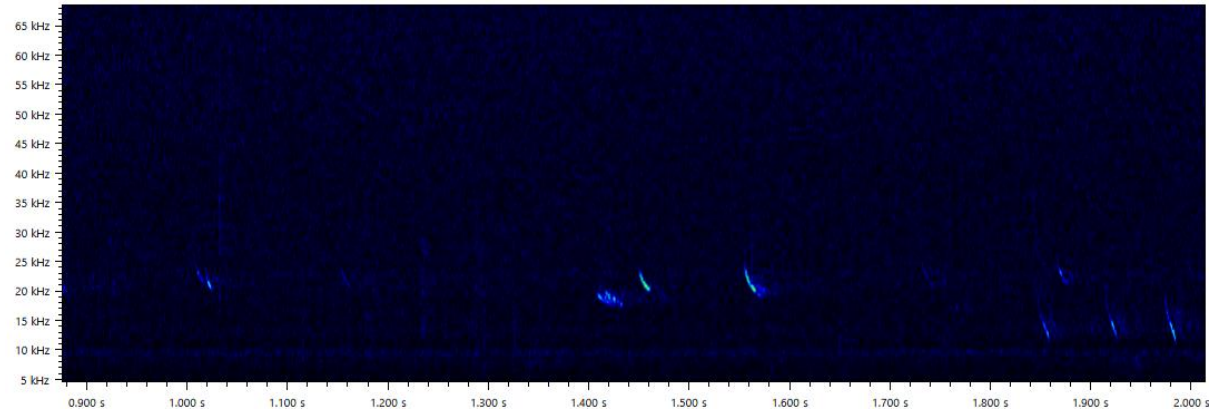
Appendix 5 – Results



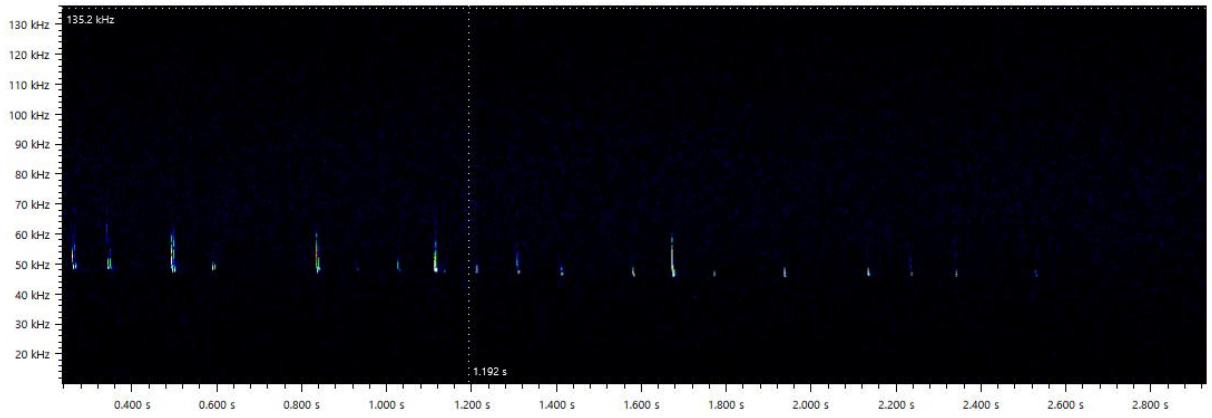
Sonogram 1 – Common pipistrelle recorded at 21:48, first bat recorded during survey on 13/05/2024.



Sonogram 2 – Soprano Pipistrelle recorded at 22:56 on 17/06/2024.



Sonogram 3 – Noctule recorded at 22:17 on 17/06/2024.



Sonogram 4 – Final recording of survey, common pipistrelle at 23:06 on 17/06/2024.

Appendix 6 – 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.

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 fines of 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 National Resources Wales (NRW).

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

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

Section 40 requires every public body in the exercising of its functions 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

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.