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BAT PRESENCE / ABSENCE SURVEY AND BAT- TRACKING REPORT

At

Glen Dimplex Factory

Stone Lane
Whiston
Knowsley
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NGR: SJ 47998 91567

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EXECUTIVE SUMMARY

A bat scoping survey was undertaken on 13th August 2025. 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 (2023). The proposed development involves the demolition of the existing buildings and the construction of a housing scheme. This will include the construction of numerous residential dwellings with associated access roads, footpaths and landscaping.

Bat Presence / Absence surveys were undertaken by UES in August and September 2025. 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 England and Bat Conservation Trust (BCT) publications. Moreover, a suite of surveys were undertaken of Building 1, which included bat back-tracking surveys, supplementary presence / absence surveys, and static detector analyses, which were active between 2nd October – 28th November 2025.

Glen Dimplex Factory is located in an suburban area that provides low quality habitat for bats. The habitats on site mainly comprise buildings and hardstanding urban habitats, with smaller areas of grassland and woodland which offer limited foraging opportunities for bats given their isolated context. Within the nearby area, the landscape consists of a network of residential dwellings with interlinked amenity gardens, and a playing field associated with the adjacent high school. These habitats will provide connectivity to higher quality habitats within the wider surrounding area such as public parks, woodlands, agricultural fields and a golf course.

There are seven buildings located within the proposed development site, which were assessed for their potential to support roosting bats:

- Buildings 1, 2 and 3 – low potential to support roosting bats,
- Buildings 4, 5 and 6 – negligible potential to support roosting bats,
- Building 7 – moderate potential to support roosting bats

Three species of bat were recorded during the bat presence / absence survey: common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, and noctule *Nyctalus noctula*. Activity was generally low and dominated by common pipistrelle activity. Soprano pipistrelle and noctule were recorded to a much lower extent.

Building 1 was subject to a suite of bat surveys including; bat back-tracking surveys, supplementary bat emergence surveys, and static detector installation. It is considered that likely absence has been confirmed, although mitigation measures, including the requirement for a precautionary non-licensed method statement is discussed in section 4.2, which will be implemented to cover the destructive works.

Buildings 2, 3 and 7 were assessed as having low or moderate potential to support roosting bats and as such were subject to a one or two bat presence/ absence surveys. During these surveys no bats were recorded emerging from the buildings, as such no additional mitigation or compensation measures regarding bats are required for these buildings.



As no bats were found to be roosting within Buildings 2, 3 or 7, no further survey work or mitigation measures are required for the development to proceed, with respect to roosting bats and these buildings.

No roosting bats were identified within Building 1 and it is considered that likely absence has been confirmed. Nevertheless, in order to reduce the risk of harm to bats to negligible levels, a precautionary non-licensed method statement will be implemented to cover the destructive works. A summary of this method statement is included in section 4.2 of this report.

The roofs of the buildings are likely used by nesting herring gulls *Larus argentatus* and lesser black-backed gulls *Larus fuscus*. Moreover, due to the potential presence of breeding birds within the buildings, it is recommended that the works take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place during this period, a breeding bird nest check should be undertaken prior to the commencement of works by a suitably experienced ecologist and an ecological clerk of works appointed to oversee the works if considered necessary.

Feral pigeons *Columba livia domestica* were identified within the buildings onsite and feral pigeons are known to breed all year round. Given the number of pigeons present and the potential for birds to be nesting at the time of the proposed works, it may be necessary to engage the services of a pest control contractor who may be able to remove the feral pigeons under general licence, provided that all the necessary criteria have been met.

This report should be read in conjunction with appendices 1 to 7, 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 Toby Leverett BSc MSc, UES Graduate Ecologist. Other surveyors include:

- Tom Kenwright BSc MSc ACIEEM, UES Senior Ecologist. Tom is licensed by Natural England to disturb, take and handle all species of bats under licence number 2023-11076-CL18-BAT (level 2).
- Mark Halliwell MBiol PGDip, UES Senior Ecologist. Mark is licensed by Natural England to disturb, take and handle all species of bats under licence number 2023-11661-CL18-BAT (level 2).
- Daniel Smith BSc MScRes, UES Ecologist. Daniel is licensed by Natural England to disturb, take and handle all species of bats under licence number 2024-12117-CL18-BAT (level 2).
- Ysobella Cox BSc MBiol, UES Senior Ecologist. Ysobella is licensed by Natural England to survey all species of bats by observation using an artificial light under licence number 2024-12344-CL17-BAT (level 1). Ysobella is listed as an accredited agent on the bat survey licence of Toby Hart (2015-15898-CLS-CLS (level 3) and 2015-15899-CLS-CLS (level 4)). As such, she has been deemed competent to undertake licensable activities such as using an endoscope to survey for bats.
- Heather Tewnion BSc, UES Field Ecologist
- James Stubbs BSc MRes, UES Graduate Ecologist
- Josh Howard BSc, UES Graduate Field Ecologist
- Harry Fox BSc MRes, UES Graduate Ecologist
- Nathaniel Foley MSci, UES Graduate Ecologist
- Osian Shirley MSci, UES Graduate Ecologist
- Josie Wynn BSc, UES Graduate Ecologist
- Jonathan Heayns BSc MSc, UES Graduate Ecologist
- Bethany Dineley BSc, UES Graduate Ecologist

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 July 2025 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 bat-back-tracking 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 proposed development involves the demolition of the existing buildings and the construction of a housing scheme. This will include the construction of numerous residential dwellings with associated access roads, footpaths and landscaping.

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 7, 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 inspection

The buildings onsite were searched both externally and internally for bat presence and features associated with bat activity, as detailed in BCT guidance (Collins, 2023). This was conducted on 13th August 2025 by Mark Halliwell and Bethany Dineley.

2.2.1 External inspections

The external inspection 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 | • 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 inspections

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 Surveys

2.3.1 Emergence surveys

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

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.

2.3.2 Bat back-tracking surveys

With regard to Building 1, which features a complex of former factory buildings that are all linked together, due to the number of buildings that require surveys, their size and close proximity to each other, bat back-tracking surveys were identified as the most appropriate survey method. Building 1 was divided into multiple discrete sections which were covered by an individual surveyor. These sections overlapped with the closest surveyors such that the entire building was covered during the surveys. During the dawn survey period, surveyors repeatedly walked a transect route of their section. If a bat was detected, the surveyor would follow the individual in order to determine whether the bat was returning to a potential roosting site. Surveyors were in communication with each other with the aid of hand-held radio devices, which enabled surveyors to react in real-time to bat activity.

This survey approach was supported with the aid of static detector deployment (see section 2.3.3 below). It is considered an acceptable methodology in this instance due to the urban nature of the site, which indicates it is likely to be used by louder, more light-tolerant bat species such as common pipistrelle.

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. The survey data collected was primarily used to identify areas of the building which may be used by roosting bats based on the time at which they were recorded and their observed activity. Subsequent presence / absence surveys would be conducted if there was evidence to suggest bats may be roosting within a particular area of Building 1, for instance if repeated activity with a particular area of the building was identified, or if bats recorded late on in the survey could not be tracked offsite.

2.3.3 Static deployment

An Anabat Swift and Anabat Express static detector was deployed in Building 1 between 2nd October 2025 and 28th November 2025 (for exact location, see Appendix 1 – Site plan). These devices use frequency division technology with a frequency range of 5 – 250kHz and records echolocation calls in full spectrum and zero crossing format. Both detectors have an integrated GPS receiver which automatically sets the internal clock, calculates sunset and sunrise times,



and records the location. All registrations are automatically recorded onto an SD card and time, date and temperature stamped.

The detector was installed within an internal area of Building 1 adjacent to identified PRFs (cracks in brickwork and on gaps leading to the wall plate of an internal dividing wall) and on an observed flight path that individual common pipistrelle are known to use.

2.3.4 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 Walkabout bat detectors were used during the survey. 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 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.

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.

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 use the binoculars during the survey as a night-vision aid.

2.3.5 Weather conditions

Table 1 - Weather conditions and survey timings

DATE	SURVEY TYPE	TIMINGS	SUNSET/ SUNRISE	TEMP.	WIND	RAIN	CLOUD COVER
23/08/25 Building 2,3,7	Emergence	20:06 – 21:51	20:21	19°C	Still	Dry	100%
26/08/25 Building 1	Bat back-tracking	04:08 – 06:38	06:08	15°C	Light breeze	Intermittent moderate rain	100%
22/09/25 Building 1	Bat back-tracking	04:57 – 07:27	06:57	7°C	Still	Dry	50%



25/09/25 Building 7	Emergence	18:47 – 20:32	19:02	17°C	Very light breeze	Dry	<10%
30/09/25 Building 1, north- east section	Emergence (supplemen tary)	18:35 – 20:20	18:50	16°C	Still	Dry	75%
02/10/25 Building 1	Bat back tracking	05:15 – 07:45	07:15	13°C	Still	Dry	25%

2.4 Survey limitations

Building 1 is a large and complicated series of former factory buildings. The building was assessed as having low suitability to support roosting bats primarily due to the presence of crevices in brickwork and gaps in cladding which allows access to the tops of wall plates. Given the size and complicated structure, a bat back-tracking methodology was employed, with supplementary surveys being undertaken of any areas that were associated with bat activity that may suggest the presence of roosts. Whilst the building only has low suitability to support bats, two bat back-tracking surveys were conducted. A further single supplementary presence / absence survey was undertaken of a portion of Building 1 whereby bats were recorded flying internally during the initial bat back-tracking survey.

The second bat back-tracking survey was considered to be an invalid survey due to the unseasonably cold weather experienced in mid-September. No bats were recorded during this survey, and so it was rescheduled for a later date. However, all remaining dates in September would also have presented an invalid survey due to low morning temperatures below 10°C. Therefore, the decision was taken to conduct the survey as early as possible in October when temperatures exceeded 10°C. This was undertaken on 2nd October 2025. Given this date is only two days beyond the end of the bat survey season, and since bats were recorded in the milder temperatures this is considered to be a valid survey.

No significant limitations were associated with any of the other surveys undertaken.



3 RESULTS

3.1 Habitat assessment

Glen Dimplex Factory is located within Whiston, a town located to the east of Prescott. The habitats onsite mainly comprise buildings and hardstanding urban habitats that were associated with the disused factory. Smaller areas of grassland and semi-natural, broadleaved woodland are present along the margins of the development site, with offsite tree lines also present, that will provide slightly higher quality habitats for commuting and foraging bats.

The immediate surroundings (within 0.5km) to the north, east and west of the site comprise residential dwellings with interlinked amenity gardens and few trees offering low quality foraging and commuting opportunities for bats. Roosting opportunities may also be available within residential dwellings and other buildings in the surrounding area. Several grassland fields are situated between the residential buildings which may provide further foraging and commuting opportunities.

There is a highschool located directly adjacent to the southern boundary of the proposed development site. Although the majority of the school provides low-quality habitat for bats, in the form of hardstanding and buildings, the sports fields and trees provide some higher quality habitats for foraging and commuting bats. In addition, a small area of Whiston Woods is located approximately 250m to the south of the site, which is surrounded by agricultural land. These habitats will support an abundance of invertebrates upon which bats can forage.

Higher quality habitats are present in the wider surrounding area (within 2km), such as a golf course located approximately 900m to the south of the site. The golf course contains numerous tree lines offering a commuting corridor for bats, whilst roosting opportunities may also be available within PRFs in the mature trees. Further agricultural fields extend to the south and east of the site, and Stadt Moers Park is also located approximately 1km to the west. The park contains a large amount of woodland and grassland, with ponds also present. Eccleston Park is also situated approximately 800m to the north east of the site, offering similar habitats to Stadt Mooers park, which will support an abundance of invertebrates and provide foraging and commuting opportunities for bats.

3.2 Building inspections

There are seven buildings onsite at Glen Dimplex Factory, Knowsley, which have been numbered for the purposes of this report (See Appendix 1 – Site Plan). Buildings 4, 5 and 6 were assessed as having negligible suitability to support roosting bats during the bat scoping survey (UES05069/03) and are therefore not discussed further here.

3.2.1 External inspection

Building 1 is the main factory building located within the centre of the development site (see Appendix 3 – Photographs, Photograph 1). It is a complex series of industrial units with a combination of pitched and flat roofs constructed from corrugated asbestos, sheet metal or bitumen felt (Photographs 1 to 4). The eaves of the building consist of wooden or asbestos fascia boards, and gaps were identified beneath the eaves, where it connects to the wall plate, which may provide a potential roosting features (PRF) for bats (Photographs 7 and 8).

The external walls are constructed from a combination of materials including redbrick, breezeblock and metal cladding. Cavities were identified within the brickwork, and where the



cladding connects to the external wall, which may also provide a PRF for bats (Photograph 9). The western-most section of the building is an openly accessible loading area covered with a corrugated roof. Feral pigeons were observed within this section of the building.

Building 2 is a disused office building with a flat roof covered in metal sheeting (Photograph 10). The lower half of the external walls are constructed from redbrick, whilst the upper half of the walls primarily comprise PVC windows with metal cladding directly above (Photograph 11). Gaps were identified where the eaves of the building connect to the cladding, which may provide a PRF for bats, and cavities were also identified within the brickwork.

Building 3 is a disused industrial building with a multi-pitched roof constructed from corrugated asbestos. The external walls are a combination of redbrick with corrugated asbestos cladding (Photograph 12). PRFs were identified during the bat scoping survey but were limited to gaps between the cladding and external walls, and cavities within the brickwork.

Building 7 is a disused social club with a multi-pitched roof constructed from interlocking concrete roof and ridge tiles (Photograph 15). PRFs were found to be associated with the roof of the building due to the presence of raised or missing roof tiles, and gaps within the mortar of the verge pointing (Photographs 16 and 17). The eaves of the building consist of wooden boxed soffits and barge boards, which are damaged in places with gaps identified between the soffits and the gable end walls, and holes within the soffits (Photograph 18). The external walls are constructed of redbrick, and a hole was identified within the brickwork on the eastern aspect of the building.

No bat droppings or other field signs of bats were found during the external building inspections.

3.2.2 Internal inspection

Building 1 contains no loft void and is open from floor-to-ceiling (Photograph 19). It is a disused factory building consisting of a complex series of industrial units and as such, there is a large amount of storage and equipment present throughout. Due to the number of windows, the building is well-lit. Since there is no loft void, internal PRFs are limited to cracks and cavities within the brickwork. No evidence of roosting bats was identified within the building, but feral pigeons were observed within the building (Photograph 20).

Building 2 contains vaulted ceilings with no internal loft space present. No suitable PRFs were identified within Building 2 during the internal building inspection.

Building 3 is a disused industrial building. It contains no loft void and is open from floor-to-ceiling. PRFs identified within the building are limited to gaps between the cladding and the wall plate, and cavities within the redbrick walls. No evidence of roosting bats was identified within the building.

Building 7 is a disused social club with false ceilings (Photograph 21). There is a large loft space within the building which is separated into two sections by a dividing wall. The loft has a traditional timber rafter and purlin structure, with exposed wooden joists indicating possible removed floors (Photograph 22). The roof is lined with a bitumen felt which is damaged within the western section of the roof and there is light ingress associated with the damaged felt, indicating potential access points into the building (Photograph 23). In addition, gaps were identified within the soffits along the eaves of the building which may provide further access points into the loft void. The gable end walls are constructed of redbrick and breezeblock, and



PRFs were also found to be associated with these areas due to the presence of gaps above the wall plate (Photograph 24). No evidence of roosting bats was identified within the building.

No bat droppings or other field signs of bats were found during the internal building inspections.

3.3 Emergence and bat back-tracking surveys

Table 2 – Survey results

DATE	SURVEY TYPE	SPECIES	NUMBER OF INDIVIDUALS	ROOST LOCATION	ACCESS POINT	TIMINGS
23/08/25 Building 2,3,7	Emergence	N/A	N/A	N/A	N/A	N/A
26/08/25 Building 1	Bat back-tracking	N/A	N/A	N/A	N/A	N/A
22/09/25	Bat back-tracking	Invalid survey	Invalid survey	Invalid survey	Invalid survey	Invalid survey
25/09/25 Building 7	Emergence	N/A	N/A	N/A	N/A	N/A
30/09/25 Building 1, North East	Emergence (supplementary)	N/A	N/A	N/A	N/A	N/A
02/10/25 Building 1	Bat back tracking	N/A	N/A	N/A	N/A	N/A



3.4 Activity summary

Table 3 – Bat activity summary

DATE	SURVEY TYPE	SPECIES	NOTES
23/08/25 Building 2,3,7	Emergence	Common pipistrelle	Low levels of common pipistrelle activity were recorded throughout the survey starting shortly after sunset.
		Soprano pipistrelle	A single soprano pipistrelle was recorded commuting past the southern end of the site.
		Noctule	Low levels of noctule activity were recorded towards the end of the survey commuting offsite.
26/08/25 Building 1	Bat back-tracking	Common pipistrelle	Common pipistrelle foraging made up the majority of the activity during the survey. 2-3 individuals were recorded foraging under the open loading areas at the northwestern and southwestern corners of Building 1 during the periods of rain. Other individuals were recorded foraging and commuting around the building sporadically during the survey. A single individual common pipistrelle was also recorded flying through Building 1, entering through a large open doorway on the northern aspect and exiting on the eastern aspect through a similar entryway. The last bat recorded was observed foraging along the treeline south of the development site at 05:04.
		Soprano pipistrelle	A single soprano pipistrelle was recorded foraging offsite to the north of the development. The last bat recorded at 05:39 was observed commuting away from the site eastwards.
22/09/25	Bat back-tracking	No bats recorded	Invalid survey – rescheduled for 02/10/25
25/09/25 Building 7	Emergence	Common pipistrelle	Very low levels of common pipistrelle activity recorded commuting around the southeastern corner of the building.
30/09/25 Building 1, north-eastern section	Emergence	Common pipistrelle	A single common pipistrelle was recorded entering the building to forage briefly before being recorded emerging from the building. This was recorded happening twice with both bats being recorded at least 45 minutes after sunset.
02/10/25 Building 1	Bat back tracking	N/A	A single common pipistrelle was recorded but not seen along the southern site boundary partway through the survey. This was recorded at 06:04, which is 1 hour and 26 minutes away from sunrise.

3.5 Static detector results

A total of two static detectors were installed within Building 1 on 2nd October 2025. The purpose of the installation of these detectors was to obtain bat activity data over a longer period of time in relation to a portion of Building 1 where individual bats had been observed flying through the building. Statics were installed from 2nd October to 28th November 2025.

Static detector 2 did not record any bat activity at all, whilst static detector 1 recorded a total of fifteen common pipistrelle sonograms. These recordings occurred on the following dates:



- **2nd October** – a total of two common pipistrelle recordings were made, one at 05:28 and one at 06:03 in the morning. These recordings are more than 1 hour and 15 minutes away from sunrise time.
- **7th October** – a total of seven common pipistrelle recordings were made all between 21:57 – 21:58, which is more than 3 hours 30 minutes from sunset time.
- **14th October** – a single common pipistrelle recording was made at 19:44, which is 1 hour and 30 minutes after sunset time.
- **31st October** – a total of four common pipistrelle recordings were made all between 17:45 and 17:47, which is at least 1 hour and 7 minutes after sunset time.
- **15th November** – a single common pipistrelle recording was made at 19:36 which is more than 3 hours 15 minutes after sunset time.

Temperature data associated with the static detectors recorded temperatures to be at least 13°C on 31st October and 15th November, whilst the remaining temperature readings were all at 16°C or higher.

These data are consistent with observations made during the bat activity survey and the supplementary emergence survey of Building 1; individual common pipistrelle are sporadically entering and leaving the building whilst commuting and foraging via the site. Activity is associated with mild weather conditions and in every instance is more than 1 hour from sunrise or sunset.



4 EVALUATION AND RECOMMENDATIONS

4.1 Evaluation of results

In summary, the habitats onsite at Glen Dimplex Factory provide low-quality foraging and commuting opportunities for bats due to the large areas of urban habitats which entirely surround the grassland and broadleaved woodland. Higher quality habitats exist within the wider surrounding area including agricultural fields, golf clubs, Stadt Moers Park and Eccleston Park, which will support an abundance of invertebrates upon which bats can forage. In addition, treelines and woodlands within these habitats will provide commuting corridors for bats, whilst roosting opportunities may be available within mature trees and buildings.

Building 1 is a complex of several connected former factory buildings. The buildings are all of low suitability to support roosting bats based on the presence of PRFs such as crevices in brickwork and under eaves providing access to the tops of wall plates. No evidence of roosting bat activity was identified during internal or external inspections. The building was subject to a suite of bat surveys including; bat back-tracking surveys, supplementary bat emergence surveys, and static detector installation. Individual common pipistrelle were recorded flying through the north-eastern portion of Building 1 sporadically. In every instance the bat was observed leaving the building and was observed foraging under the cover of the building. Static detector analysis identified only common pipistrelle bats using Building 1. In each instance bats were recorded in mild weather conditions and more than 1 hour from sunrise or sunset. It is concluded that likely absence has been determined through the suite of survey methods employed, though mitigation measures are provided that will reduce the risk of harm to bats to negligible levels.

Buildings 2 and 3 were assessed as having low potential to support roosting bats due to the presence of predominantly external PRFs including gaps underneath the eaves and cavities within the brickwork. No evidence of roosting bats was identified within these buildings during the internal and external building inspections.

Building 7 was assessed as having moderate potential to support roosting bats due to the presence of both internal and external PRFs, such as missing or raised roof tiles, gaps within the verge pointing, cavities within the redbrick walls and gaps beneath the soffits. No evidence of roosting bats was identified within these buildings during the internal and external building inspections. No bats were recorded roosting during subsequent presence / absence surveys.

Three species of bat were recorded during the bat presence / absence survey: common pipistrelle, soprano pipistrelle, and noctule. Activity was generally low with common pipistrelles making up the majority of any activity recorded. No bats were recorded roosting during any bat presence / absence surveys.

4.2 Mitigation and compensation measures

Whilst no bats were recorded roosting within Building 1, and it is considered that likely absence has been determined, the works in relation to the north-eastern section of Building 1 (see Appendix 1 – Site Plan) should proceed under a non-licensed method statement. This is considered to be appropriate as the building was too large and complicated to survey with traditional survey methodologies. However, a non-licensed approach is valid for several reasons; the building offers low suitability for roosting bats with PRFs being restricted to small crevices in an unheated building that has broadly unsuitable thermal properties for summer roosting bats (e.g. no loft voids, crevices are heavily shaded within a cool building, building is



subject to high levels of environmental disturbance due to the industrial works on site); there is no evidence of high conservation value roosts being present on site; there is no evidence of roosting activity associated with any PRF, such as droppings or feeding remains; bat activity within the building comprised individuals sporadically flying through large open doorways in all instances at least 1 hour from sunrise or sunset, which indicates roosts are not present on site.

Despite the above, a non-licensed method statement should cover the destructive works and will include mitigation measures that will reduce the risk of impacting roosting bats to negligible levels, in addition to providing plan of action in the event that evidence of bats is encountered during the destructive works, which may include the requirement to stop works and conduct further survey work or apply for a European Protected Species mitigation licence.

UES is currently producing the non-licensed method statement, but the following mitigation measures will be required as a minimum:

- **Toolbox talk** – to summarise survey data, identify sensitive features of the building that will require soft-demolition techniques, and provide information on bat ecology, bats and the law, and what to do if bats or field signs of bats are found during the works.
- **Prior inspection of potential roosting features within Building 1** – crevices in the brickwork and the tops of wall plates will be inspected prior to destructive works.
- **Soft demolition techniques of sensitive areas within Building 1** – PRFs associated with the north-eastern section of the building (i.e. the area where individual common pipistrelle were recorded flying through the building) will be demolished by hand following an inspection of features by a suitably licensed ecologist
- **Ongoing advice** – should evidence of roosting bat activity be found during the works, either when UES are present on site or thereafter, works will stop as directed by the toolbox talk. A suitably licensed bat ecologist will subsequently review the non-licensed method statement including the requirement for a European Protected Species mitigation licence.

As no bats were found to be roosting within Buildings 2, 3 and 7, no mitigation or compensation measures regarding bats are required for the development to proceed.



5 CONCLUSION

Glen Dimplex Factory is located in an suburban area that provides low quality habitat for bats. The habitats on site mainly comprise buildings and hardstanding urban habitats, with smaller areas of grassland and woodland which offer limited foraging opportunities for bats. Within the nearby area, the landscape consists of a network of residential dwellings with interlinked amenity gardens, and fields associated with the adjacent highschool. These habitats will provide connectivity to higher quality habitats within the wider surrounding area such as public parks, woodlands, agricultural fields and a golf course.

Building 1 was assessed as having low potential to support roosting bats. The building was subject to a suite of bat surveys including; bat back-tracking surveys, supplementary bat emergence surveys, and static detector installation. It is considered that likely absence has been confirmed, although mitigation measures, including the requirement for a precautionary non-licensed method statement is discussed in section 4.2, which will be implemented to cover the destructive works.

Buildings 2, 3 and 7 were assessed as having low or moderate potential to support roosting bats and as such were subject to a one or two bat presence/ absence surveys. During these surveys no bats were recorded emerging from the buildings, as such no additional mitigation or compensation measures regarding bats are required for these buildings.

The roofs of the buildings are potentially used by nesting herring gulls and lesser black-backed gulls. Due to the potential presence of breeding birds within the buildings, it is recommended that the works take place outside of the breeding bird season and should not be undertaken from March to August inclusive. If this is not possible and works need to take place during this period, a breeding bird nest check should be undertaken prior to the commencement of works by a suitably experienced ecologist and an ecological clerk of works appointed to oversee the works if considered necessary.

Feral pigeons were identified within the buildings onsite and feral pigeons are known to breed all year round. Given the number of pigeons present and the potential for birds to be nesting at the time of the proposed works, it may be necessary to engage the services of a pest control contractor who may be able to remove the feral pigeons under general licence, provided that all the necessary criteria have been met.



6 REFERENCES

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APPENDICES

Appendix 1 – Site plan



Glen Dimplex Factory, Knowsley

Site Plan

- Buildings subject to presence / absence surveys
- Buildings subject to bat back-tracking methodology
- Area of Building 1 subject to supplementary presence / absence survey
- 1 Static detector location and number
- Site boundary
- Surveyor positions (bat presence / absence survey)
- Surveyor positions (bat back-tracking survey)
- Surveyor position (supplementary presence / absence survey)
- Flight paths





Appendix 2 – Aerial photographs



Glen Dimplex Factory, Whiston

Close aerial photograph

— Development boundary



Glen Dimplex Factory, Whiston

Wide aerial photograph



Site location



Appendix 3 – Photographs



Photograph 1 – The eastern aspect of Building 1, showing the pitched roofs.



Photograph 2 – A flat roof located along the southern aspect of Building 1.



Photograph 3 – Corrugated asbestos roof on Building 1.



Photograph 4 – Sheet metal roof on Building 1.



Photograph 5 – A section of Building 1 which is constructed from metal cladding.



Photograph 6 – Wooden fascia boards located along the eaves of Building 1.



Photograph 7 – A gap between the eaves and external wall on Building 1.



Photograph 8 – A gap between the top of the wall plate and the eaves of Building 1.



Photograph 9 – Gaps are present underneath the metal cladding and external walls on Building 1.



Photograph 10 – The northern aspect of Building 2.



Photograph 11 – Showing the external structure of Building 2, including the cladding, redbrick walls and windows.



Photograph 12 – The southern aspect of Building 3 which is constructed of red brick with asbestos cladding.



Photograph 13 – Building 4.



Photograph 14 – Building 5.



Photograph 15 – Building 7 which contains a multi-pitched roof and external redbrick walls.



Photograph 16 – Missing mortar in the verge pointing of Building 7.



Photograph 17 – Missing tiles on the roof of Building 7.



Photograph 18 – Damaged boxed soffits along the eaves of Building 7.



Photograph 19 – Large open interior of Building 1.



Photograph 20 – A feral pigeon within Building 1.



Photograph 21 – A damaged false ceiling within Building 7.



Photograph 22 – Traditional timber rafter and purlin structure within Building 7.



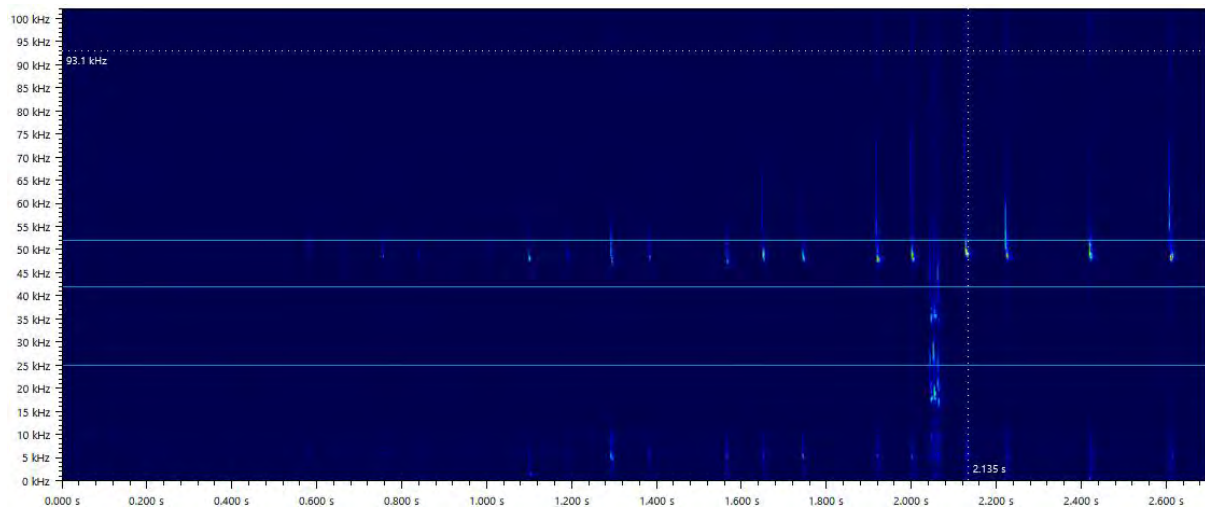
Photograph 23 – Damaged bitumen felt lining the roof of Building 7.



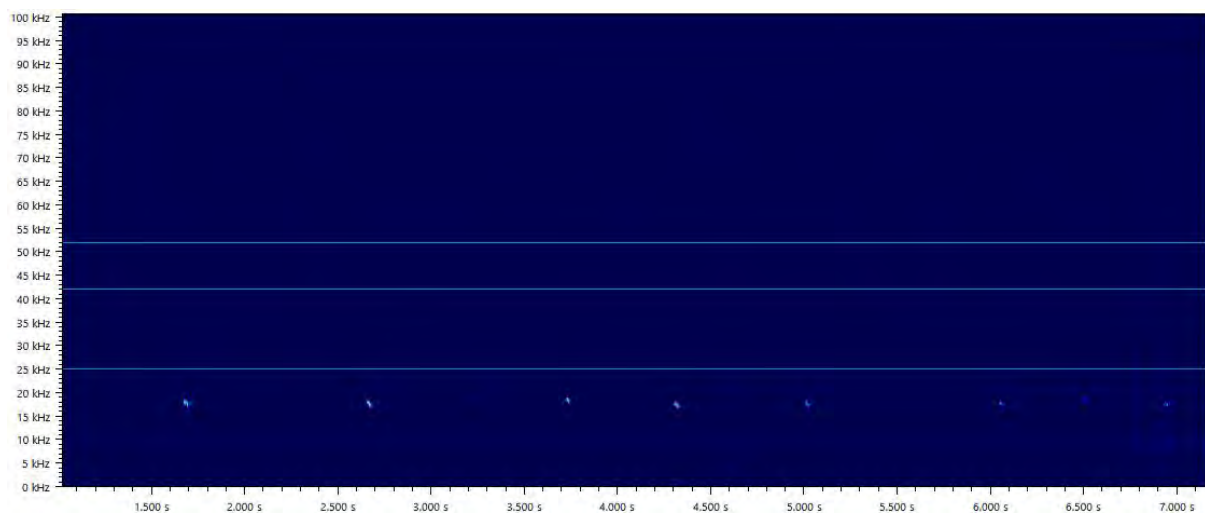
Photograph 24 – Gaps above the wall plate within the loft space of Building 7.



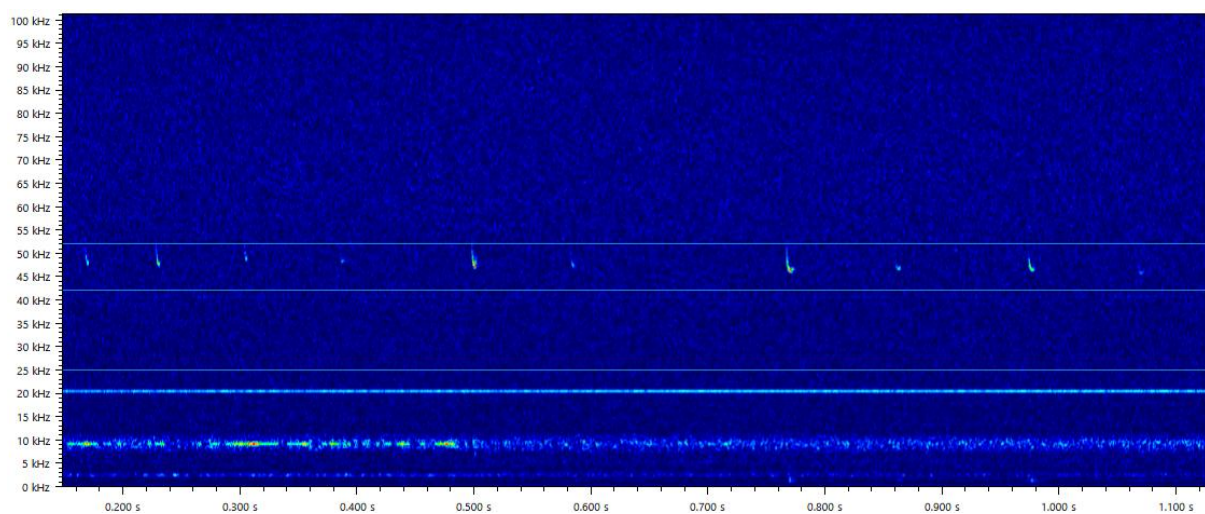
Appendix 4 – Results



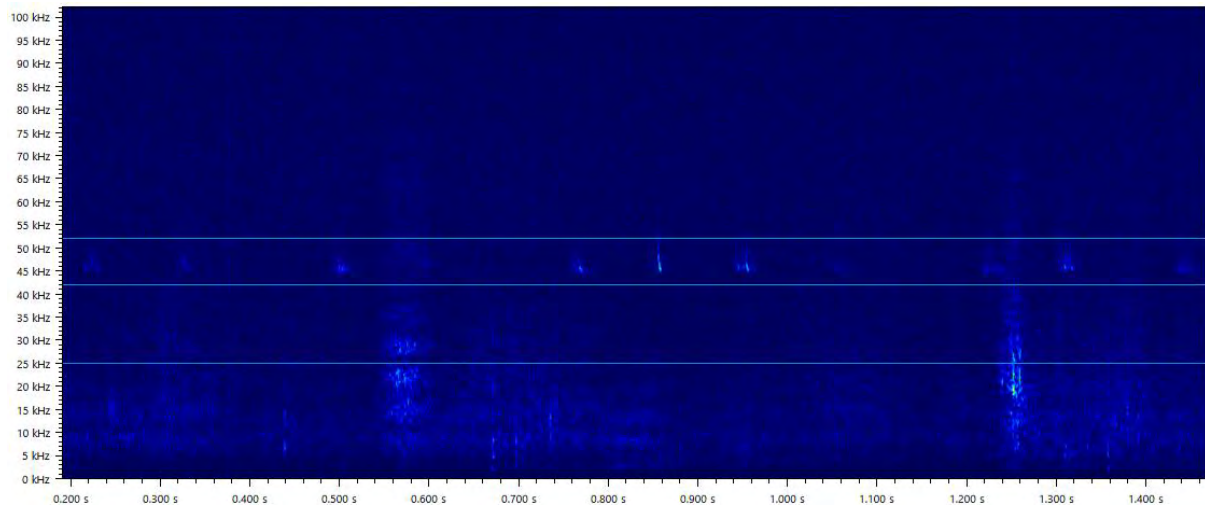
Sonogram 1 – First bat of survey 1, a common pipistrelle recorded at 20:49 on 23rd August 2025.



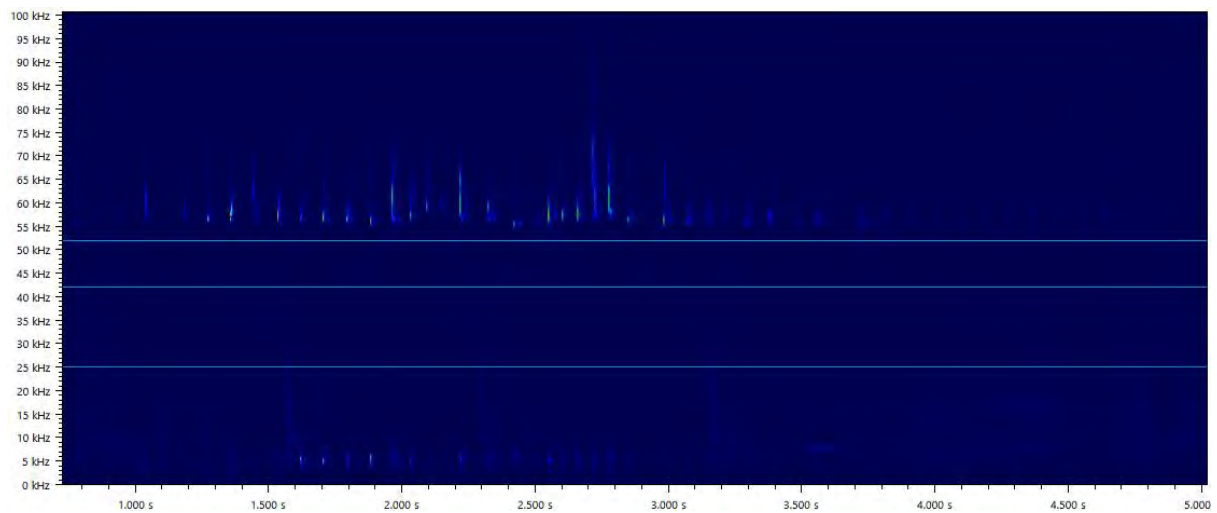
Sonogram 2 – Example of a noctule recorded at 21:24 on 23rd August 2025.



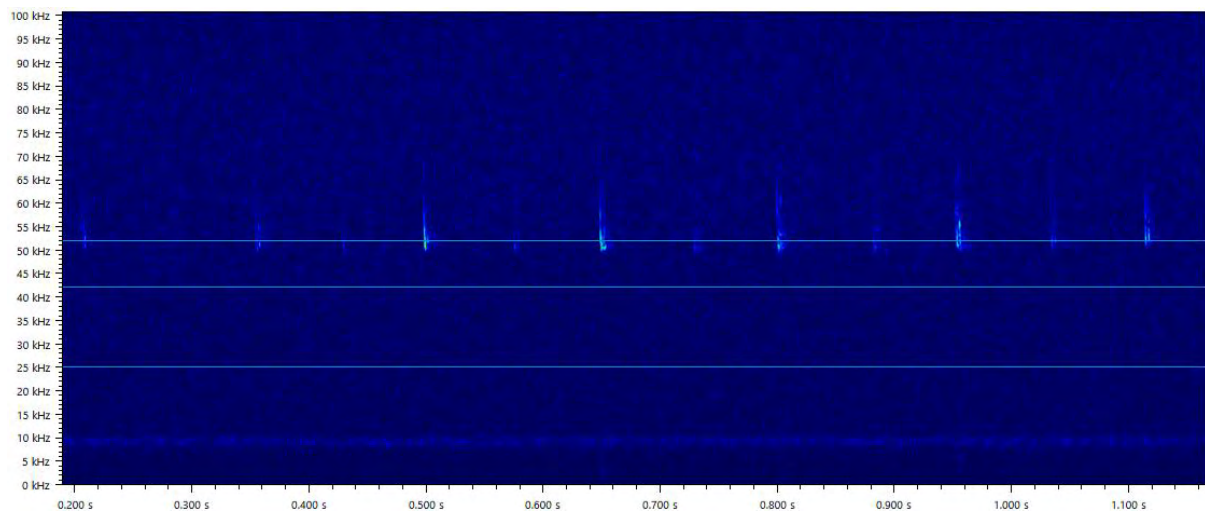
Sonogram 3 – Last bat of survey 1, a common pipistrelle recorded at 21:41 on 23rd August 2025.



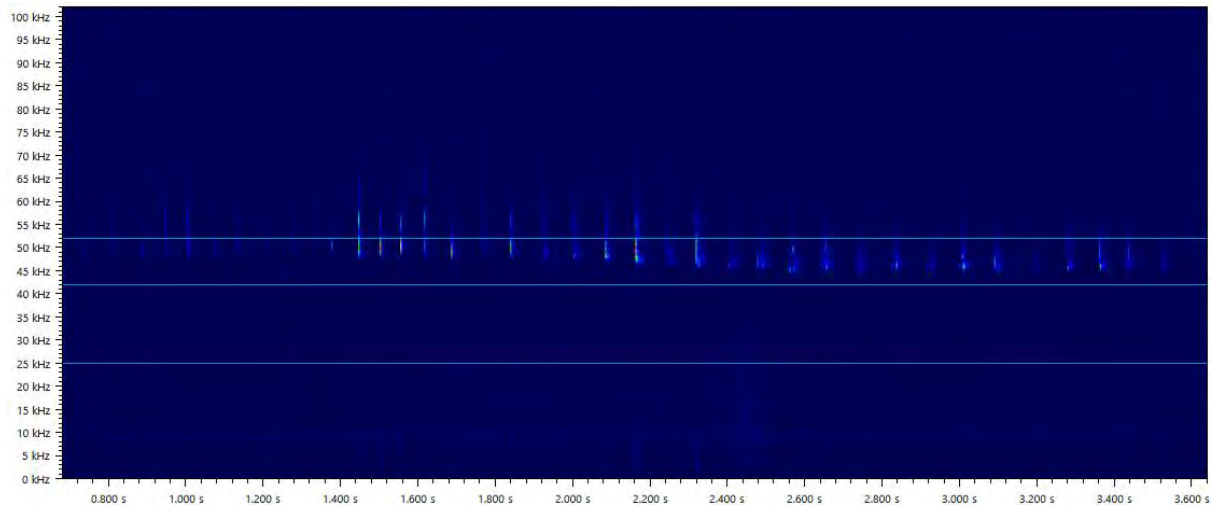
Sonogram 4 – First bat of survey 2, a common pipistrelle recorded at 04:07 on 26th August 2025.



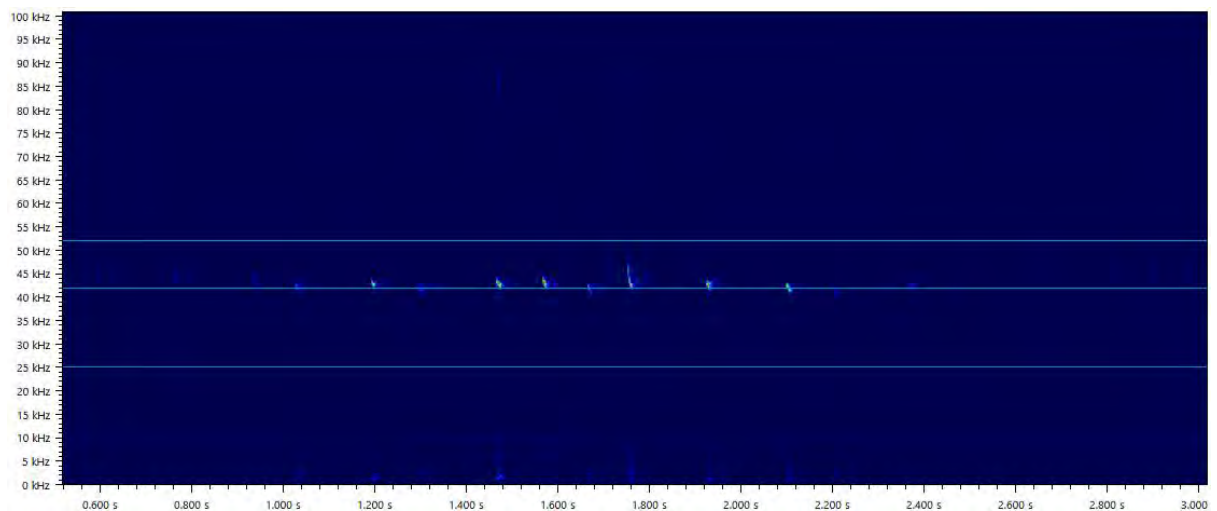
Sonogram 5 – Last bat of survey 2, a soprano pipistrelle recorded at 05:39 on 26th August 2025 flying eastwards away from site.



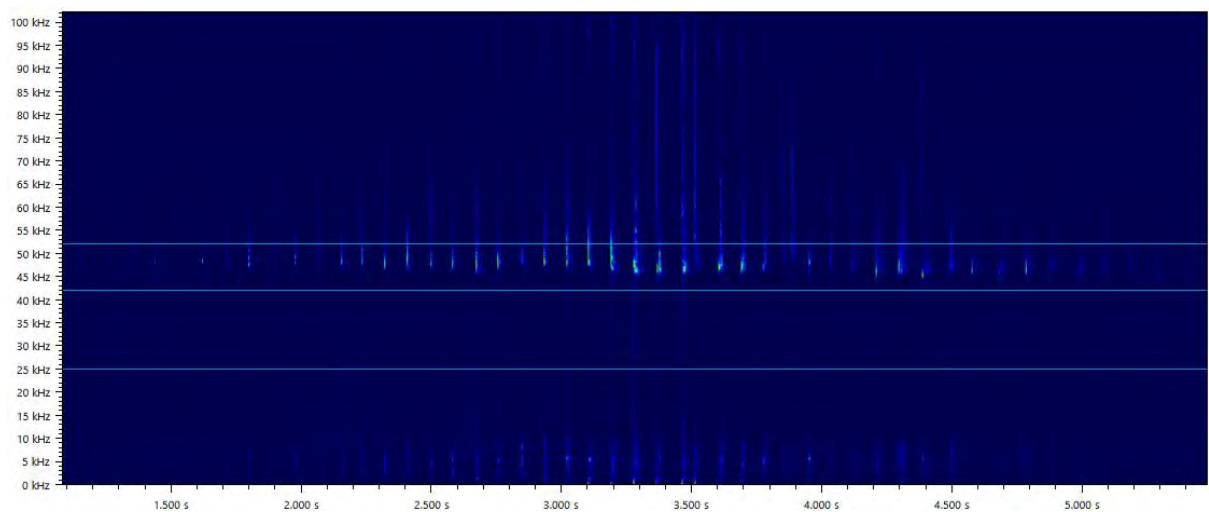
Sonogram 6 – First bat of survey 4, a common pipistrelle recorded at 19:33 on 25th September 2025.



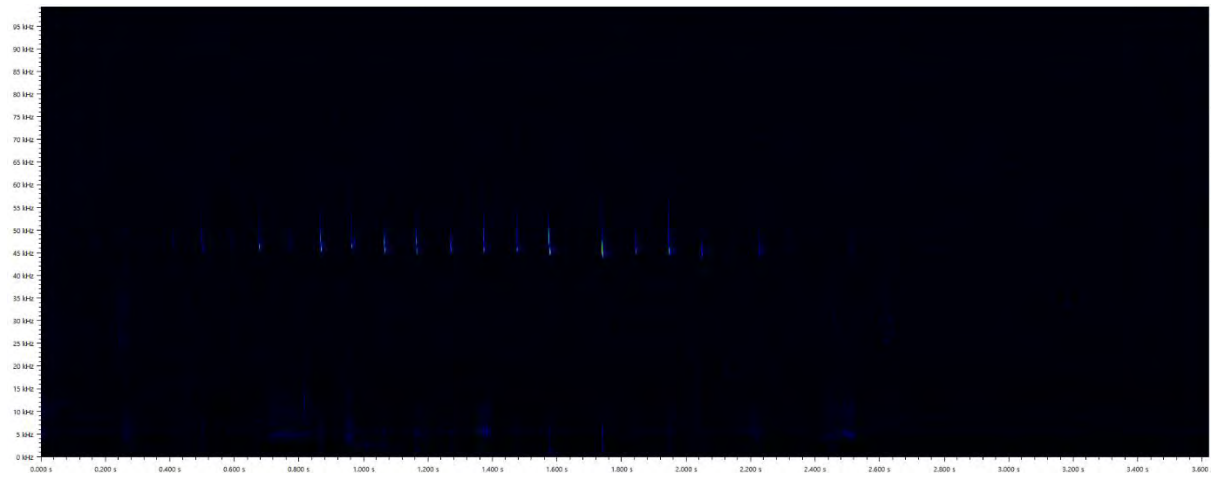
Sonogram 7 – Last bat of survey 4, a common pipistrelle recorded at 19:40 on 25th September 2025.



Sonogram 8 – First bat of survey 5, a common pipistrelle recorded at 19:10 on 30th September 2025.



Sonogram 9 – Last bat of survey 5, a common pipistrelle recorded at 20:04 on 30th September 2025.



Sonogram 10 – only bat recorded during survey 6, a common pipistrelle faintly heard but not seen at 06:04 on 2nd October 2025.



Appendix 5 – Infrared images



Photograph 1 – Infrared image taken of the western aspect of Building 3 at the darkest point of the survey at 21:51 on 23rd August 2025.



Photograph 2 – Infrared image taken of the southeastern aspect of Building 7 at the darkest point of the survey at 21:33 on 23th August 2025.



Photograph 3— Infrared image taken of the northwestern aspect of Building 2 at the darkest point of the survey at 21:30 on 23rd August 2025.



Photograph 4— Infrared image taken of the northwestern aspect of Building 7 at the darkest point of the survey at on.



Photograph 5 – Infrared image taken of the aspect of Building at the darkest point of the survey at on.



Photograph 6 – Infrared image taken of the aspect of the eastern aspect of Building 1 at the darkest point of the survey at 04:08 on 26th August 2025.



Photograph 7 – Image taken of the southern aspect of Building 1 at the darkest point of the survey showing light pollution from within the building at 04:03 on 26th August 2025.



Photograph 8 – Infrared image taken of the northern aspect of Building 1 at the darkest point of the survey at 04:05 on 26th August 2025.



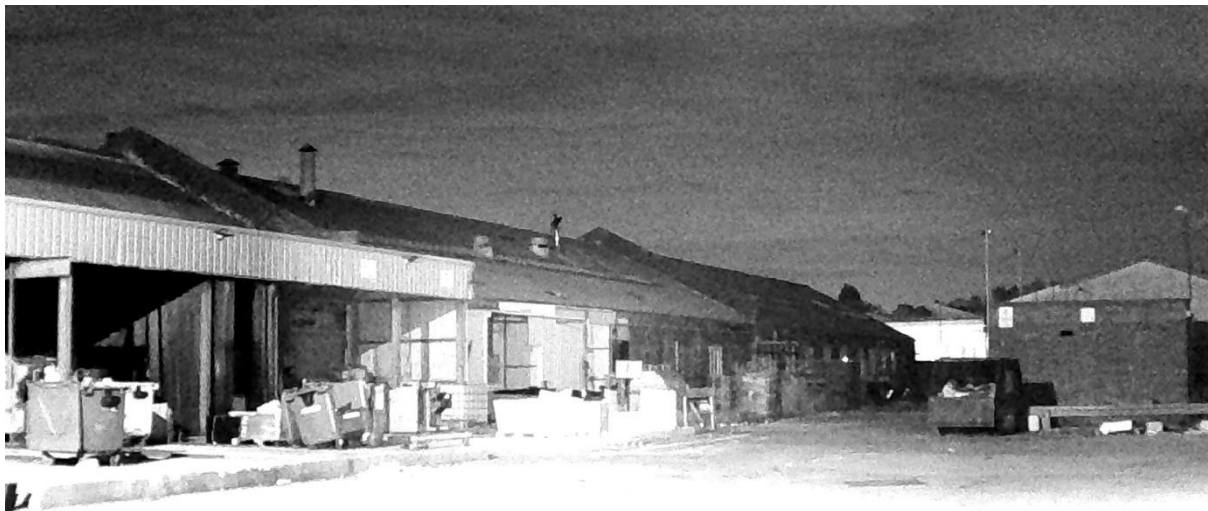
Photograph 9 – Infrared image taken of the northern aspect of Building 1 at the darkest point of the survey at 04:23 on 26th August 2025.



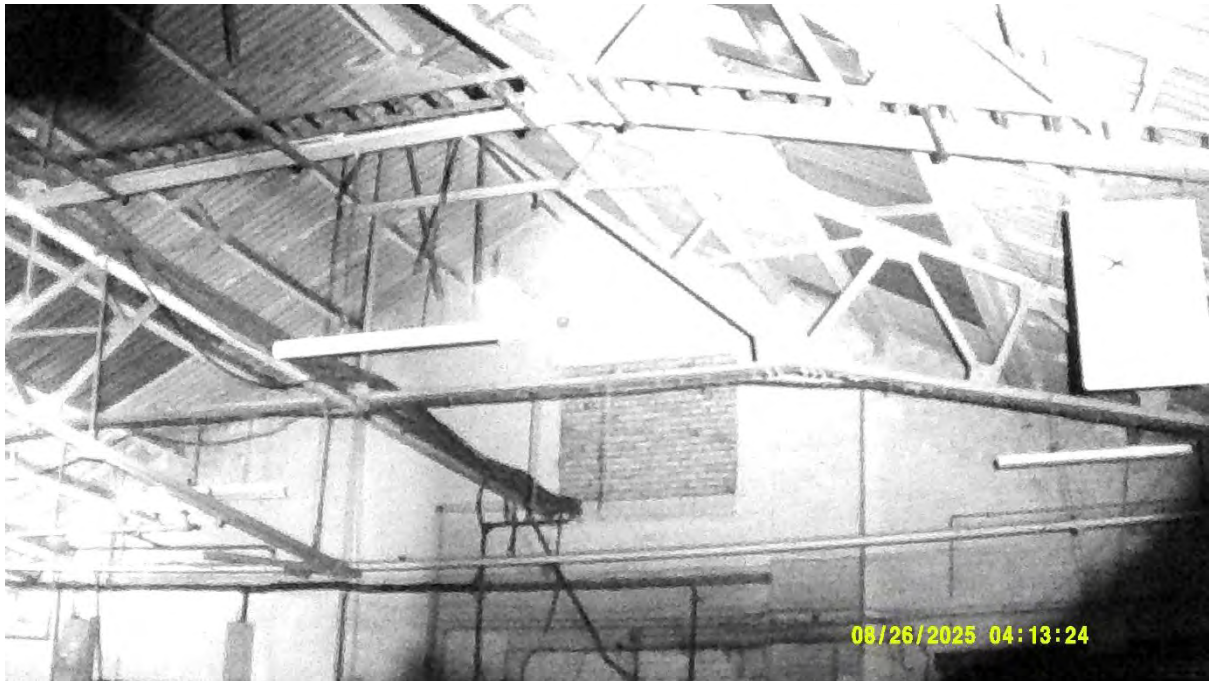
Photograph 10 – Infrared image taken of the northeastern aspect of Building 1 at the darkest point of the survey at 04:03 on 26th August 2025.



Photograph 11 – Image taken of the western interior section of Building 1 at the darkest point of the survey (security lighting always on in this area) at 04:03 on 26th August 2025.



Photograph 12 – Infrared image taken of the southeastern aspect of Building 1 at the darkest point of the survey at 04:05 on 26th August 2025.



Photograph 13 – Infrared image taken of the western end of the interior of Building 1 at the darkest point of the survey at 04:14 on 26th August 2025.



Photograph 14 – Infrared image taken of the southern aspect of Building 7 at the darkest point of the survey at 20:32 on 25th September 2025.



Photograph 15 – Infrared image taken of the northeastern aspect of Building 7 at the darkest point of the survey at 20:28 on 25th September 2025.



Photograph 16 – Infrared image taken of the northwestern aspect of Building 7 at the darkest point of the survey at 20:31 on 25th September 2025.



Photograph 17 – Infrared image taken of the northeastern aspect of Building 1 at the darkest point of the survey at 20:19 on 30th September 2025.



Photograph 18 – Infrared image taken of the northern aspect of Building 1 at the darkest point of the survey at 20:18 on 30th September 2025.



Photograph 19 – Infrared image taken of the northeastern interior of Building 1 at the darkest point of the survey at 20:23 on 30th September 2025.



Photograph 20 – Infrared image taken of the western interior of Building 1 at the darkest point of the survey at 05:14 on 2nd October 2025.



Photograph 21 – Infrared image taken of the northeastern aspect of Building 1 at the darkest point of the survey at 05:12 on 2nd October 2025.



Photograph 22 – Infrared image taken of the aspect of the western interior of Building 1 at the darkest point of the survey at 05:05 on 2nd October 2025.



Photograph 23 – Infrared image taken of the southeastern aspect of Building 1 at the darkest point of the survey at 05:07 on 2nd October 2025.



Photograph 24 – Infrared image taken of the southeastern aspect of Building 1 at the darkest point of the survey at 05:10 on 2nd October 2025.



Photograph 25 – Infrared image taken of the northeastern aspect of Building 1 at the darkest point of the survey at 05:01 on 2nd October 2025.



Appendix 6 – External lighting guidance

Lighting scheme in relation to bats

The two most important features of street and security lighting with respect to bats are:

1. The UV component. Low or zero UV installations are preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.
2. Restriction of the area illuminated. Lighting must be shielded to maintain dark areas, particularly above lighting installations, and in many cases, land adjacent to the areas illuminated. The aim is to maintain dark commuting corridors for foraging and commuting bats. Bats avoid well lit areas, and these create barriers for flying bats between roosting and feeding areas.

UV characteristics:

Low

- Low pressure Sodium Lamps (SOX) emit a minimal UV component.
- High pressure Sodium Lamps (SON) emit a small UV component.
- White SON, though low in UV, emit more than regular SON.

High

- Metal Halide lamps emit more UV than SON lamps, but less than Mercury lamps
- Mercury lamps (MBF) emit a high UV component.
- Tungsten Halogen, if unfiltered, emit a high UV component
- Compact Fluorescent (CFL), if unfiltered, emit a high UV component.
- Variable
- Light Emitting Diodes (LEDs) have a range of UV outputs. Variants are available with low or minimal UV output.
- Glass glazing and UV filtering lenses are recommended to reduce UV output.

Street lighting

- Low-pressure sodium or high-pressure sodium must be used instead of mercury or metal halide lamps. LEDs must be specified as low UV. Tungsten halogen and CFL sources must have appropriate UV filtering to reduce UV to low levels.
- Lighting must be directed to where it is needed and light spillage avoided. Hoods must be used on each lamp to direct light and contain spillage. Light leakage into hedgerows and trees must be avoided.
- If possible, the times during which the lighting is on overnight must be limited to provide some dark periods. If the light is fitted with a timer this must be adjusted to reduce the amount of 'lit time' and provide dark periods.

Security and domestic external lighting

The above recommendations concerning UV output and direction apply. In addition:

- Lighting should illuminate only ground floor areas. Light should not leak upwards to illuminate first floor and higher levels.
- Lamps of greater than 2000 lumens (150 W) must not be used.
- Movement or similar sensors must be used. They must be carefully installed and aimed, to reduce the amount of time a light is on each night.
- Light must illuminate only the immediate area required, by using as sharp a downward angle as possible. Light must not be directed at or close to bat roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit.
- Wide angle illumination must be avoided as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.
- Lighting must not illuminate any bat bricks and boxes placed on buildings, trees or other nearby locations.



Appendix 7 – 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 Amendment (EU exit) Regulations 2019 (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 Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The National Planning Policy Framework 2021 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

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.

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 NERC Act 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 the National Planning Policy Framework 2021 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

- 174.** Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
 - f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
- 179.** To protect and enhance biodiversity and geodiversity, plans should:
- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; and
 - b) promote the conservation, restoration and enhancement 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
- 180.** When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.