



Bat Mitigation Strategy

**Commercial Premises, 35, Boulton Road,
Reading RG2 0NH**

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Lewis Tennet to develop a bat mitigation strategy based on the emergence surveys conducted by Dr Jonty Denton and his team over the course of the summer months of 2022. The site is Commercial Premises, 35, Boulton Road, Reading RG2 0NH.
- 1.2 An initial preliminary roost assessment (PRA) including an internal/external building assessment on the 25th November 2021 by Dr Jonty Denton.
- 1.3 This report presents the results of Dr Jonty Denton's internal and external surveys and emergence surveys conducted on the buildings and how the results may affect the proposed development.

Site context and Status

- 1.4 The site is located in a light industrial estate, north of Rose Kiln Lane and south of Cradock Road. To the north, east and south of the site lies the industrial estate. To the west is the River Kennet and associated green infrastructure. Further west is the A33. The central grid reference is SU71437135. The aerial photograph overleaf (Figure 1 and Figure 2 in the wider landscape) shows the site and its immediate surroundings.

Description of Proposed Development

- 1.5 The proposal are for the demolition of part front and rear of the industrial unit and the extension of the building. The proposals for the site are shown in Figure 3 below. This shows the demolition of the southern section of the office unit and the demolition of the warehouse and its subsequent extension.

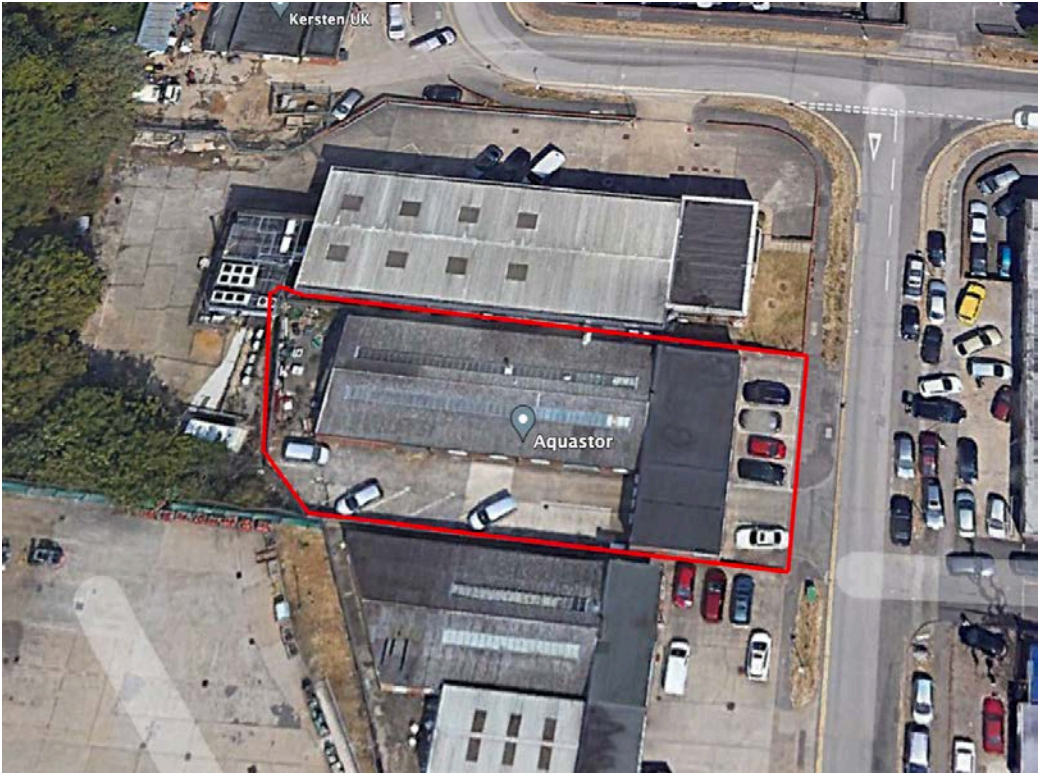


Figure 1: Approximate location of the surveyed buildings on site.

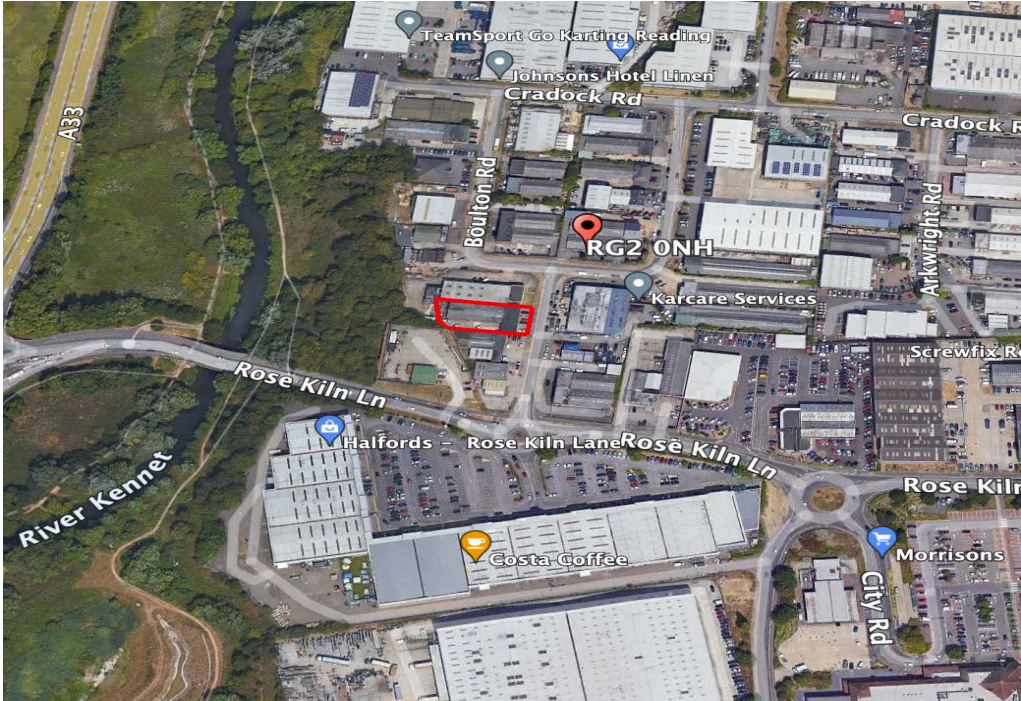


Figure 2: Approximate location of the surveyed buildings on site set within the wider landscape

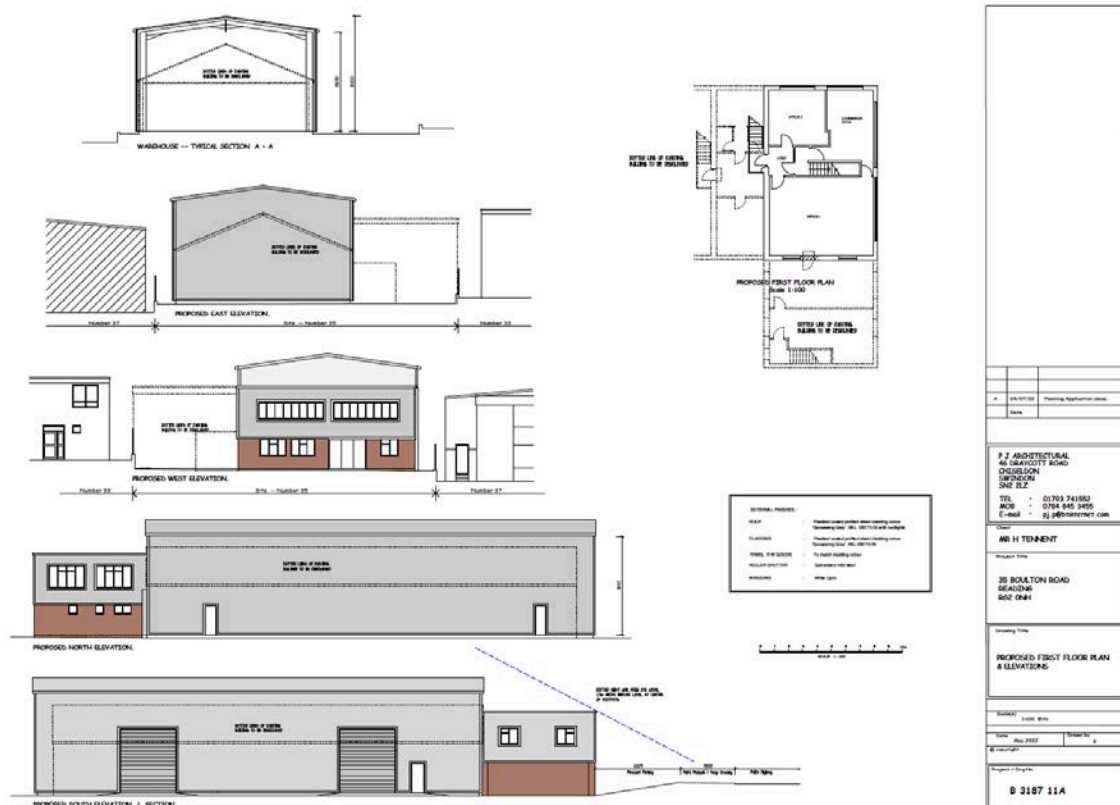


Figure 3: Development plans for the site

Legislation

- 1.6 Under the NERC Act (2006) it is now the duty of every Government department in carrying out its functions *“to have regard, so far as it is consistent with the proper exercise of those functions, to the purpose of conserving biological diversity in accordance with the Convention”*.
- 1.7 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. The NPPF has been reviewed in terms of this site. It must be noted that the Government has now included a statement to *“encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value”*
- 1.8 Bats are covered by the following relevant legislation: the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act, 2000; the Natural Environment and Rural Communities Act (NERC, 2006); and by the Conservation of Habitats and Species Regulations (2010).

2.0 Methodology

Bat Emergence Survey

- 2.1 Internal and external surveys and site assessment followed Bat Conservation Trust guidelines (Collins 2016), with the emergence surveys on the buildings where bat droppings / potential for bats were found require three emergence/re-entry surveys to take place. These surveys should take place between May and September, with at least two of the surveys being carried out between May and August.
- 2.2 The aim of the survey effort is to confirm the site's usage by bats, type of roost, access/egress points and the numbers of bats present within the building. The results of the survey will inform the application for a Natural England licence to legalise the loss / disturbance to bat roosts on site as part of proposals and to inform appropriate mitigation.
- 2.3 Dusk emergence surveys commence at least 15 minutes before sunset until 1.5-2 hours after sunset, during which time, bats are identified and recorded. Bat surveys are required to be undertaken during suitable weather conditions, when conditions are relatively dry and mild with little/no wind.
- 2.4 The surveyors were equipped with a Echometer Touch. IR cameras were also used on each of the surveys to support data collection. The location of the surveyors in relation of the buildings are shown in figure 4 below. IR cameras were positioned alongside the surveyors.

Limitations

- 2.5 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment.

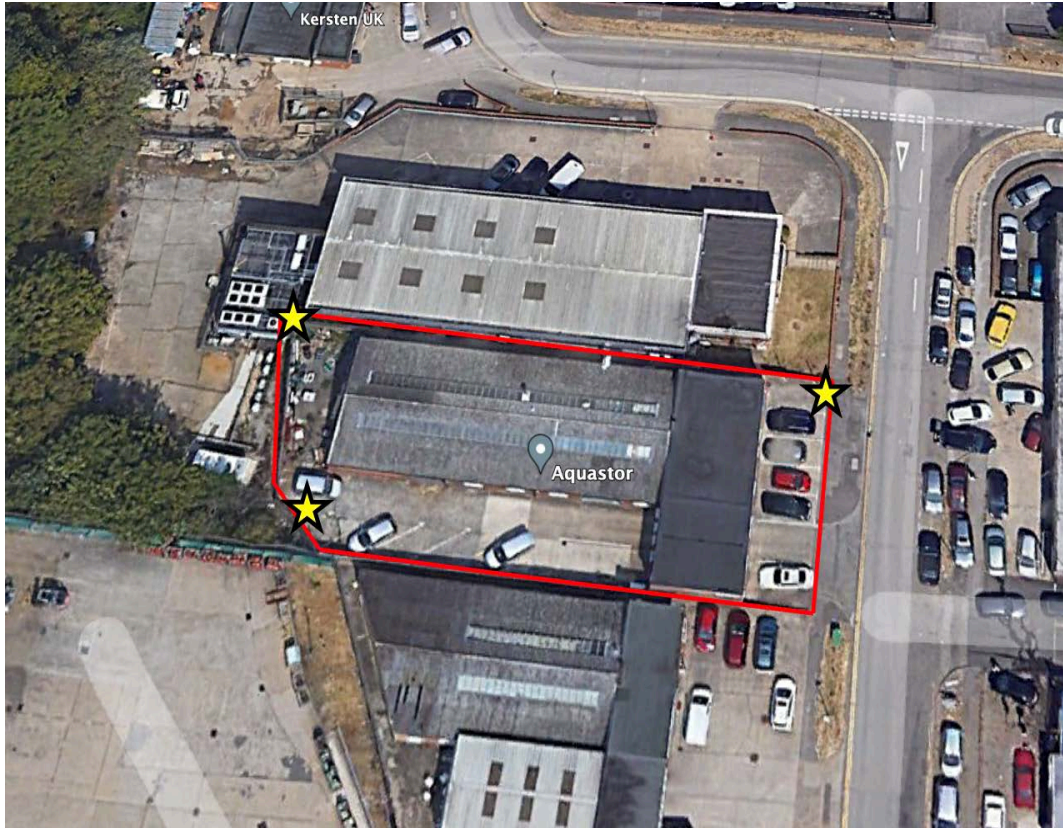


Figure 4: Location of surveyors and cameras in relation to the buildings

3.0 Results

Desk Top Study Data

- 3.1 The site is located on the edge of the industrial estate, with industrial units located to the north, east and south of the site. To the west is an area of un names lowland deciduous woodland which is located on the banks of the River Kennet. In addition, extensive areas of floodplain grazing marsh, a priority grassland habitat, is located along the river and to the west of the A33. These habitats are shown in figure 5.
- 3.2 The River Kennet forms an extensive linear green and blue corridor along the west of the site and into the flood plains to the west. This provides optimal foraging habitat for bats.
- 3.3 Within 1km of the red line boundary a total of one bat licence is identified (Figure 6);
- 2015-14868-EPS-MIT for the destruction of a resting place for brown long eared bats and common pipistrelles, approximately 958m south west of the site.
 - A GCN licence is present over 950m from the site in Whitley.

- 3.4 Within 2km of the red line boundary a total of five bat licences are recorded (Figure 6);
- 2015-15548-EPS-MIT for the destruction of a resting place for common and soprano pipistrelles approximately 1.8km south west;
 - EPSM2010-2590 for the destruction of a breeding and resting place for soprano pipistrelles approximately 1.9km north west;
 - 2017-32379-EPS-MIT for the damage and destruction of a resting place for common pipistrelles approximately 1.4km north;
 - 2016-22301-EPS-MIT for the damage and destruction of a resting place for common pipistrelles approximately 1.6km north east; and
 - 2014-3941-EPS-MIT for the damage and destruction of a resting place for common and soprano pipistrelles approximately 1.5km north east.

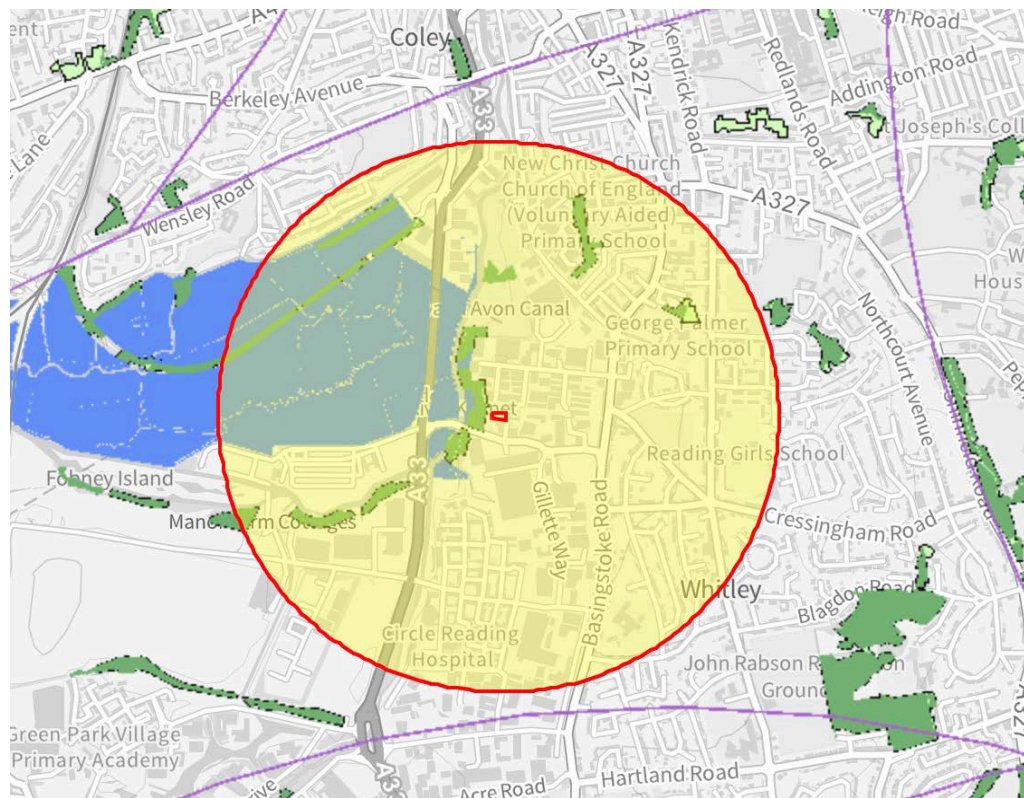


Figure 5: Lowland deciduous woodland to the west (green) and floodplain grazing marsh (blue)

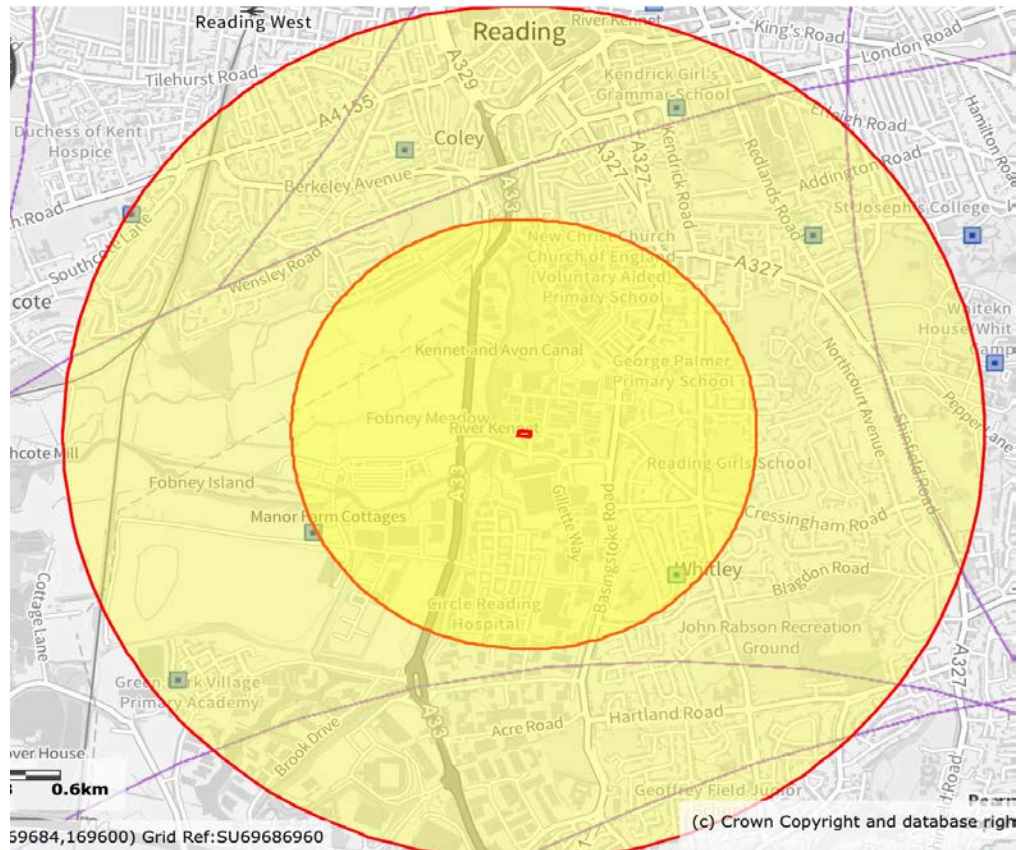


Figure 6: Bat licences (blue squares) within 2km of the redline boundary

Internal / External Bat Survey

- 3.5 The workshop is a large open single-span pitched roof of corrugated cement sheets on a metal frame. The internal space is used for fabrication works and is permanently illuminated via side windows and skylights. There were no enclosed roof voids, but the roof was lined with fibre board sheets (several of which have failed due to leaks through the cement sheets above). The space between the lining and corrugated sheets is open above the guttering on both the north and south elevations, and therefore could be accessed by roosting bats.
- 3.6 During the initial investigation no internal evidence of roosting bats (such as droppings, wing cases etc) was identified. However, the fascias on the western gable and the roof, was considered to have 'low' potential for roosting bats. As such, further surveys were recommended in 2022.

Activity / Emergence Surveys

- 3.7 The surveys were conducted at dusk on the 9th May, 3rd and 30th June 2022. All surveys were conducted in suitable conditions in line with the BCT guidelines.
- 3.8 During the initial survey on the 9th May 2022 a total of three soprano pipistrelles were recorded roosting behind fascia on west gable end (Figure 7) and emerged at 20.39 in quick succession. A total of 2 common pipistrelle and a further 2 soprano pipistrelles were recorded during the survey, but not emerging. No other bats were recorded during the survey.
- 3.9 On the 3rd June the western roost had been abandoned and likely the same bats had switched to roost on the north face 15m to the east (figure 7). No bats were recorded to be roosting in the building on the 30th June.

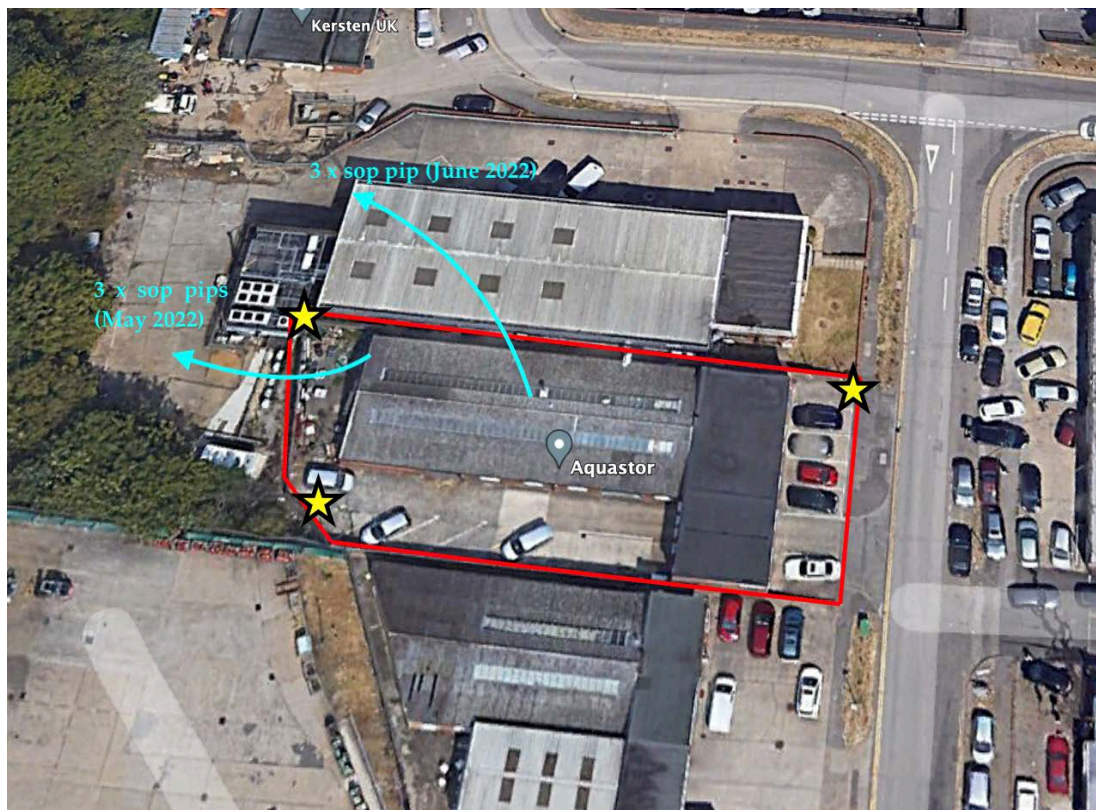


Figure 7: Summary of emergence

4.0 Discussion

- 4.1 The industrial unit supported a range of features which were considered suitable for roosting bats, albeit the building itself lacked evidence of bats within. Externally, the roof supported some features and the gables and fascias were considered to provide 'low' potential to support roosting bats.
- 4.2 Habitats in the local area, such as deciduous woodland and floodplain grazing marsh are located to the west of the site and are considered the only habitats within the immediate landscape which provides suitability for bats. The redevelopment of the site will not impact upon the ecological integrity of the wider landscape, with development of the building resulting in the alteration of industrial unit only, no impacts will occur on any green infrastructure or habitats.
- 4.3 After the three surveys the building was confirmed to support roosting bats. A total of 2 roosts were identified:
- The fascia on the western aspect of the building (peak count 3 individuals) considered to be a day roost for soprano pipistrelles;
 - The roof on the northern aspect of the building (peak count 3 individuals) considered to be a day roost for soprano pipistrelles.
- 4.4 A peak count of three individuals were recorded during the survey period, all of which were considered to be soprano pipistrelles. Considering the low number of bats, which are common and widespread, and that the roosts are considered to be day roosts for low numbers, and two bat roosts have been identified, the redevelopment of the buildings will need to occur under a Natural England low-impact license.
- 4.5 With regards to the licence, the following methods are considered to be implemented;
- Establish alternative roosting provision to be provided prior to any works as mitigation;
 - Conduct a Tool Box Talk (TBT) to all team members on site with regards to the presence of bats using the building, bats legal protection, measures that will be undertaken to ensure that bats are not harmed, good working practises, licensable activities and what to do if a bat is found;

- Once this TBT has been conducted then works to the building can commence under direct supervision of a registered consultant (RC) / accredited agent;
- The facias of the building will be hand removed. All roof sections will be removed by hand individually where possible. If a bat is found, then the RC will gently move the bat to a bat box on site;
- Once the facias and roof sections of the building have been removed, other features such as the internal wooden lining will be removed, again under direct supervision from the RC;
- Once the RC has rechecked the whole of the building and is happy that all licensable activities to the building have occurred (i.e. the features which bats are using for roosting have been removed), then the remaining works to the buildings can occur without further supervision;
- It is considered that this process is likely to take 2 days.

Licence Application

4.6 The timing of the works with regards to the licence requirements is as follows:

- A licence application will be made following planning permission being granted;
- Furthermore, any conditions which are pertinent to ecology will be discharged before the low impact bat licence will be applied for. An update survey must occur (walk over or internal survey) in the last 3 months prior to works;
- One bat box (see details below) is to be established within the site boundary;
- Once the licence is issued (the licence should take 10 – 15 working days for issue), all licensable works can commence. All licensable works (removal of tiles etc) should take in the region of 2 days;
- Works under a low impact licence have no seasonal restrictions.

Compensation/ Mitigation Strategy

4.7 To compensate for the loss of any roosts as a result of the proposals, suitable replacement roosts will be required.

4.8 In order to provide a new roost for any bats found during the demolition works, as well as a permanent replacement an eco rocket box (crevice roost chamber design) should be established in the north western corner of the site of sufficient height (as per the box detail of

a 4m high pole). This stand alone structure is required to be established prior to any works, and as there are no trees are present on site, and the building is to be impacted by works (due to demolition), the only option is for the provision of a stand alone box, located within the edges of the red line boundary, but not attached to the building itself during the redevelopment process.

- 4.9 An eco rocket box has a weatherproof external shell made from 100% recycled plastic, with a wooden internal roost chamber. The outer shell is constructed from recycled plastic primarily made from plastic waste which has been collected from farms across the UK. It is UV stabilised to give a design life of 20+ years. Further details can be found on <https://www.nestbox.co.uk/products/eco-rocket-bat-box>
- 4.10 The structure and dimensions are provided below (Figure 8) for ease, and these are also found on the Nest Box Company website. Note that the pole is 4m as a minimum, and therefore the pole would be considered at a suitable height to provide a suitable roosting alternative during construction.

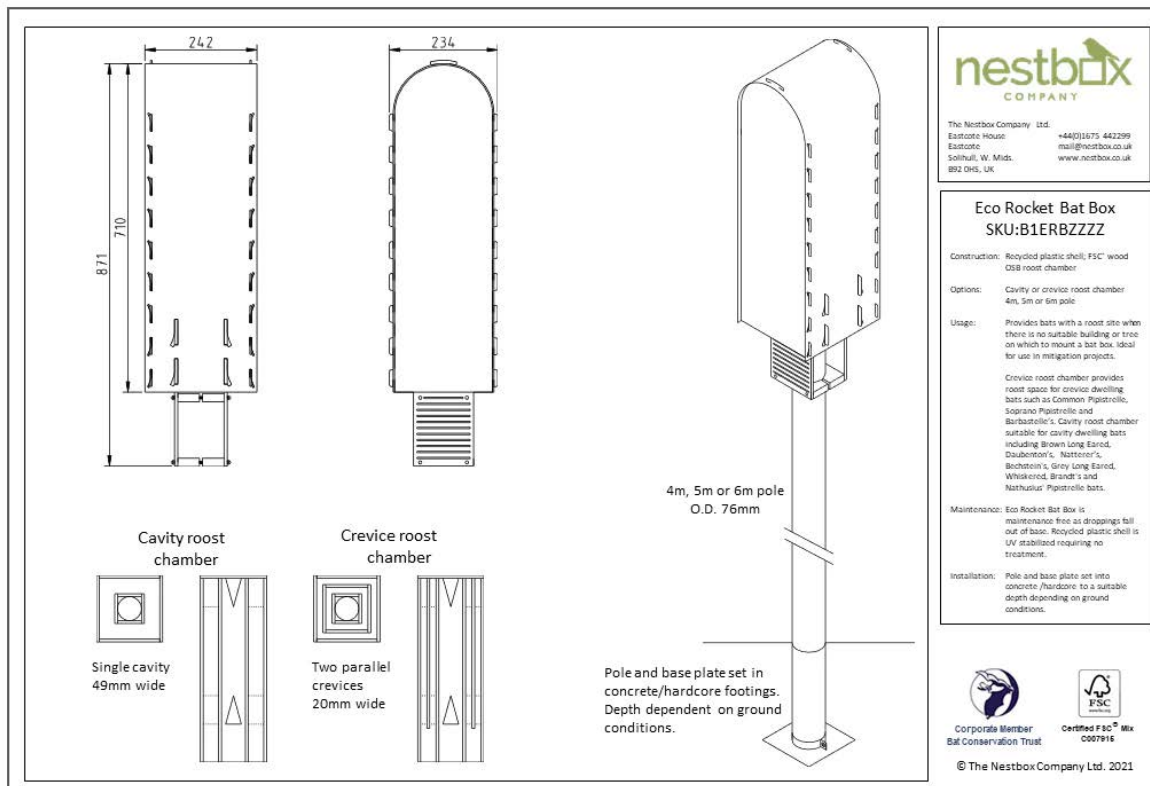


Figure 8: The Eco Rocket Bat Box (<https://www.nestbox.co.uk/products/eco-rocket-bat-box>)

- 4.11 Once the new warehouse structure has been built, additional bat boxes, affixed to the building, will be provided. A total of four Beaumaris Woodstone Bat Boxes (see figure 9 below), or similar dependent on availability, will be affixed to the structure of the building on the western apex.
- 4.12 The location of these bat boxes is shown in Figure 10 and Figure 11 below.



Figure 9: The Beaumaris Woodstone Bat Box which can be fixed to external walls

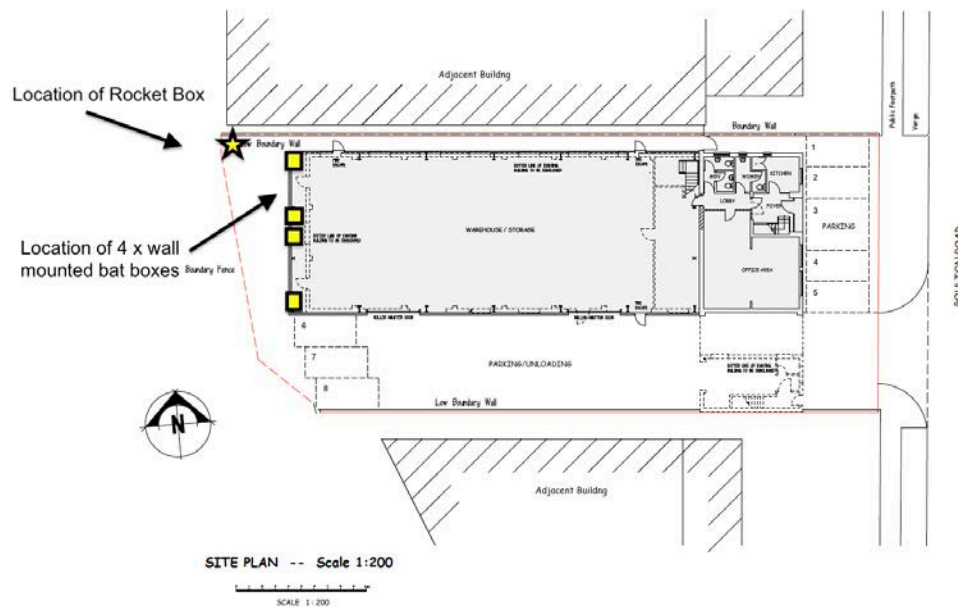


Figure 10: Location of the Rocket Box and Wall Mounted Bat Box (Recommended Beaumaris Bat Box)

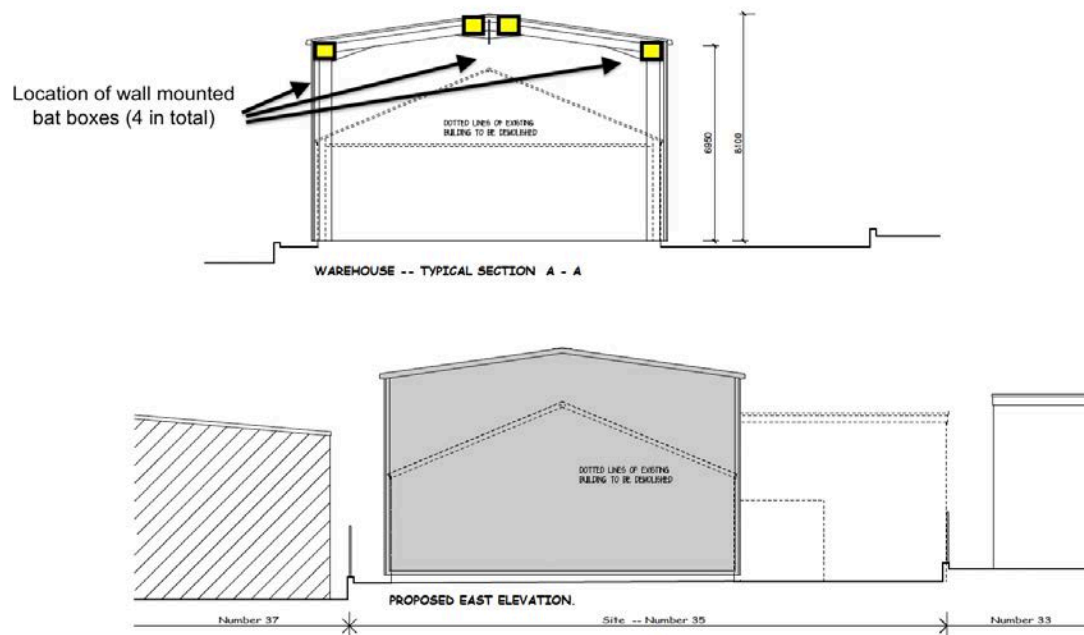


Figure 11: Location of Wall Mounted Bat Box (Recommended Beaumaris Bat Box)

Additional Measures

- 4.13 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as on site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development.
- 4.14 No lighting should be placed on the western aspect of the site or near the new bat roost. As no lighting is proposed as part of the proposals along this western aspect, it is considered that no additional mitigation measures are required as part of the proposals.

5.0 Conclusions

- 5.1 Three dusk emergence surveys were undertaken in order to confirm the sites usage by bats, type of roost, access/egress points and numbers of bats present within the buildings.

- 5.2 The surveys on the buildings were all undertaken in May and June 2022 in optimal conditions. Three soprano pipistrelles were seen emerging from the building on two occasions from two differing roosting points.
- 5.3 As works will impact the building they must commence sensitively under a Natural England low-impact licence.
- 5.4 Recommendations and enhancements have been made to ensure that bats can continue to roost, forage and commute along the site post development.

6.0 References

Bat Conservation Trust (2018). *Bats and artificial lighting in the UK – Bats and the built environment series, (Guidance Note 08/18)*. Bat Conservation Trust, London.

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

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

Google Earth: www.earth.google.co.uk

Appendix 1: Bat Activity Phase 1 and Phase 2 Reports / Dr Jonty Denton

**Commercial Premises,
35 Boulton Road,
Reading,
RG2 0NH**

Phase 1 Daytime Bat Assessment

Dr.Jonty Denton FRES FLS MCIEEM CEcol

25th November 2021

Written by: Dr. Jonty Denton (Chartered Ecologist) 31 Thorn Lane, Four Marks, Hampshire,
GU34 5BX

email: jontydenton@aol.com

Quality Control

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the *Code of Professional Conduct issued by the Chartered Institute of Ecology and Environmental Management (CIEEM)*. We confirm that the opinions expressed are our true and professional bona fide opinions.

The contents of this report were correct at the time of the site visit. The report is provided for the sole use of the named client and is confidential.

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Summary

Consultant Chartered Ecologist Dr.Jonty Denton FRES FLS MCIEEM CEcol was commissioned to undertake a Daytime Bat Assessment (Phase 1) of Commercial Premises @ 35 Boulton Road, Reading, RG2 0NH.

This is required to support a planning application seeking to remove and replace the existing roof.

The Daytime Bat Assessment / Phase 1 Bat Survey was undertaken in accordance with the Bat Conservation Trust Guidelines (Collins, 2016) by Dr.Jonty Denton on 25th November 2021.

There was no evidence of bats internally, however there are enclosed spaces beneath the corrugated cement roof sheets and around the fascias on the western gable. The workshop therefore has low potential and a **phase 2 bat emergence survey is recommended.**

INTRODUCTION

Background

I was contracted by the owners to undertake a Phase 1 Daytime Bat assessment at Commercial Premises @ 35 Boulton Road, Reading, RG2 0NH. This report presents the findings of the survey undertaken on the 25th November 2021; which is aimed at assessing the suitability of the building to support roosting bats.

The proposals are for the removal and replacement of the existing roof.

Site Setting and Description

The building is orientated west-east to the west of Boulton Rd, in an industrial estate surrounded by other buildings; to the east of the River Kennet with Fobney Meadows beyond.

The structure is oriented west-east with the western gable adjacent to a wooded corridor on the east bank of the Kennet. The site therefore is close to habitats suitable for foraging and commuting bats.

METHODS

Phase 1 Bat Survey Methods

The Daytime Bat Assessment / Phase 1 Bat Survey was undertaken in accordance with the Bat Conservation Trust Guidelines (Collins, 2016).

The Phase 1 Bat Survey was carried out on the 25th November 2021, and comprised of a daytime walkover of the site, internally and externally, to record evidence of any protected bat species.

Details of the survey methods are given below.

The workshop was investigated externally to identify potential bat access/egress locations and roosting areas such as gaps or holes between wooden cladding, roof tiles, fascias and soffits and to record direct evidence of bat presence such as droppings and urine staining. This was followed by a detailed investigation of all accessible internal spaces to record evidence of bat roosting activity such as droppings, feeding remains, live animals, corpses,

urine staining and fur staining. The building was assessed as to its suitability for supporting roosting bats. The survey conformed to current Bat Conservation Trust guidelines (Bat Conservation, (2016) *Bat surveys for professional ecologists: Good practice guidelines* 3rd edition).

The details of the assessment criteria used to determine the ecological value of on-site attributes is outlined below. During the Phase 1 survey the assessment criteria are based on the potential for the site to support the species considered. However, in many cases Phase 2 surveys will be required to confirm presence /absence of any bat species and hence the importance of a population at the site, therefore the assessment of value should be considered as provisional.

Where possible, a provisional assessment of potential will be made although this may well require Phase 2 surveys to confirm status.

High Potential- High potential buildings are those that have features highly suitable for use by roosting bats, including gaps around soffits, hanging tiles, extensive roof spaces etc. High potential buildings are often, but not always, buildings of more historic construction. Further Phase 2 surveys will be required to confirm the presence/absence of bats.

Medium Potential- Medium potential buildings have a moderate number of features that may be utilised by bats for roosting, these may include loose fascias, roof spaces etc. Further Phase 2 surveys are likely to be required to confirm the presence/absence of bats.

Low Potential- Low potential buildings are those that provide limited bat roosting potential although some features that may be utilised by bats may be present. Further Phase 2 surveys are likely to be required to confirm the presence/absence of bats.

No/Negligible Potential – These are buildings that are extremely unlikely to support roosting bats due to the absence of suitable features. Further Phase 2 surveys are unlikely to be required for buildings with negligible potential.

Phase 1 Survey Equipment

During the Phase 1 survey the surveyor was equipped with 10 x 42 close focus binoculars and a high-powered torch.

RESULTS

Bats are fully protected under the Wildlife and Countryside Act 1981, as amended, and also receive additional protection via The Conservation of Species and Habitats Regulations (2010) from intentional killing and injury and from intentional damage, destruction or obstruction of access to a place of shelter. It is an offence to kill or injure a bat or interfere with any roosting or resting site. A bat roost is interpreted as "any structure or place used for shelter or protection" whether or not bats are present at the time or not. Barbastelle Bats, Bechstein's Bat, Noctule, Soprano Pipistrelle, Brown Long-eared Bat, Greater Horseshoe Bat and Lesser Horseshoe Bat are also UK BAP Priority Species and SPI.

According to the DEFRA's MagicMap, the nearest bat licenses issued is for a building on the water works site 933m to the west.

The building was subject to a full Phase 1 bat survey outlined below.

Building Assessment

The workshop is a large open single-span pitched roof of corrugated cement sheets on a metal frame. The internal space is used for fabrication works and is permanently illuminated via side windows and skylights.



Figure 2. West gable looking north. Red arrows indicate potential access points for bats.



Figure 2. Southern elevation looking north. The corrugated sheeting is open above the guttering, providing potential access points into the spaces above the lining.

Interior assessment: There are no enclosed roof voids, but the roof is lined with fibre board sheets (several of which have failed due to leaks through the cement sheets above). The space between the lining and corrugated sheets is open above the guttering on both the north and south elevations, and therefore could be accessed by roosting bats.



Figure 3. Interior of workshop looking east.

EVALUATION, IMPACTS AND RECOMMENDATIONS

Phase 1 Bat Survey

There was no evidence of bat activity within the building, however the fascias on the western gable end have some potential for roosting bats. The cement sheet roof is largely close-fitting but is lined internally with potential access above the guttering into the spaces beneath along the entire north and south elevations. The workshop therefore has low potential for bats and **a Phase 2 bat survey is recommended.**

A dusk emergence survey is recommended to confirm whether bats are still utilising the property. This can be carried out in suitable weather between May and the end of September.

This would entail surrounding the structure with surveyors such that all potential entrance/exit points are covered. The structure is then watched from either 15 minutes before sunset to 2 hours after or 2 hours before dawn to sunrise.

All emerging or re-entering bats are recorded along with their flight path, their species and the time of flight.

An emergence survey would identify:

- Whether bats are present in a structure, the species and number involved
- Entrance and exit points for the roost
- The type of roost
- Actions needed to be taken to ensure legal compliance

If any bats emerge two further surveys would be required a fortnight apart to support bat mitigation and licensing.

References & Bibliography

Communities and Local Government (2018) *Technical Guidance to the National Planning Policy Framework*. Department of Communities and Local Government, London. DEFRA.

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

Institute of Environmental Assessment (1995). *Guidelines for Baseline Ecological Assessment*. Institute of Environmental Assessment, London.

JNCC (2010) *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. JNCC, Peterborough

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PHASE 2 BAT SURVEY

July 2022

The surveys were conducted at dusk on the 9th May, 3rd and 30th June 2022.

Surveyors were stationed to the north-east viewing the northern and eastern elevations, and south-west viewing the western and southern elevations. Canon XA40 HD digital camcorders with IR illumination were also employed at each station (see figure 1). Survey commenced 30 minutes before sunset and continued until 90 minutes after sundown. *EchotouchPro*, *Echotouch*, and *Batbox Duet* detectors were employed to monitor and record bat activity. Walkie-talkie communications were maintained between surveyors to avoid multiple counting and help triangulate emergence and flight lines.

RESULTS

The nights were all suitable for bats with two species recorded on all three dusk surveys.

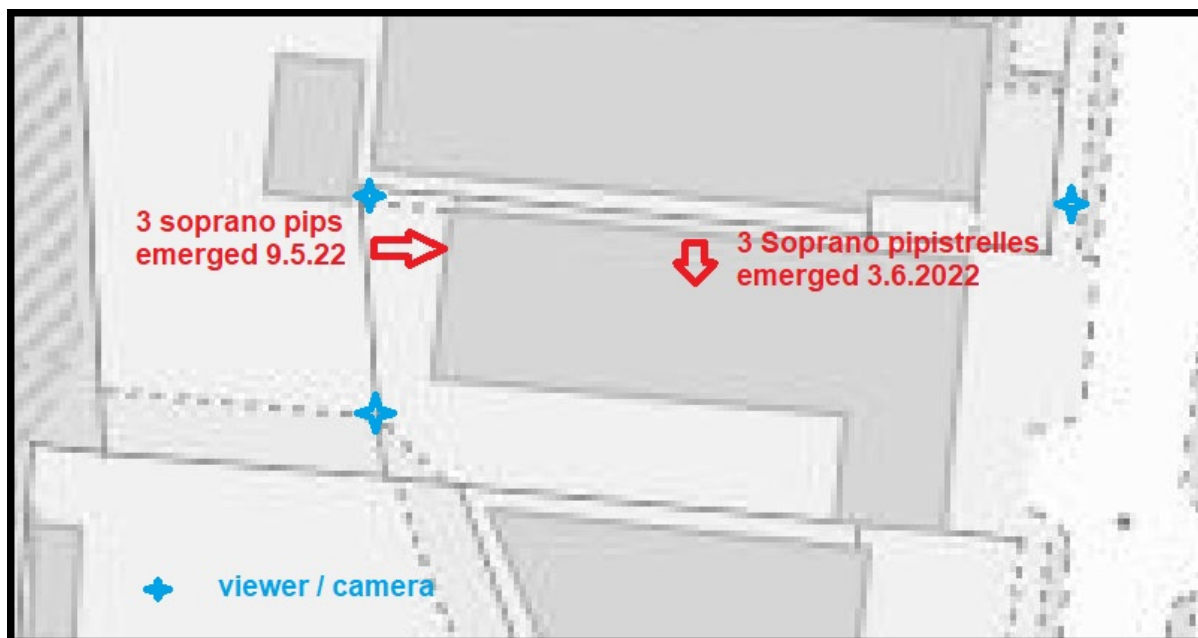


Figure 1. Locations of viewers, cameras and sightings

SPECIES ENCOUNTERED

Common Pipistrelle *Pipistrellus pipistrellus*

A peak count of one during all three surveys. No evidence of roosting.

Soprano Pipistrelle *Pipistrellus pygmaeus*

Three were roosting behind fascia on west gable end on 9th May, but by 3rd June this had been abandoned and likely the same bats had switched to roost on the north face 15m to the east. None appeared to be roosting in the building on the 30th June. One flew in from north offsite and down using same flight line as emergence of 3rd June.

Noctule *Nyctalus noctule*

A peak count of one on 3rd June

CONCLUSIONS

The roof supports a small roost of Soprano pipistrelles. Therefore the works will require a mitigation strategy and low-impact license.

APPENDIX 1. FIELD DATA

Project		Start time	19.55	Finish	22.03	Temperature	17 C at start 16 C at finish
	JD RD	9.5.22		sunset	20.31	Weather 100% cloud beaufort 1	
Bat passes heard							
Station no.	Start time		No.	passes	comments		
SW	20.39	Soprano Pip	1	1	Emerged west gable on northern fascia		
SW	20.39	Soprano Pip	1	1	Emerged west gable on northern fascia		
SW	20.39	Soprano Pip	1	1	Emerged west gable on northern fascia		
SW	20.59	Soprano Pip	1	1	Flew west across yard from Boulton rd.		
SW	21.08	Common pip	1	1	Foraging to west		
SW	21.17	Soprano Pip	1	1	Flew east across yard looping back to south from Boulton rd.		
SW	21.17	Common Pip	1	1	Brief pass to west of yard		

Project		Start time	19.45	Finish	22.50	Temperature	17 C at start 16 C at finish
	JD RD	3.6.22		sunset	21.15	Weather 10% cloud beaufort 0	
Bat passes heard							
Station no.	Start time		No.	passes	comments		
NE	21.25	Pipistrelle sp.	1	1	Emerged from roof and flew up gap along north side from half way back flew to river		
NE	21.27	Pipistrelle sp.	1	1	Emerged from roof and flew up gap along north side from half way back flew to river		
SW	21.43	Soprano Pip	1	1	Flew up gap to north of bldg. appeared to emerge from north face of roof circa half way along		
SW	22.15	Soprano Pip	1	1	Brief pass to west of yard		
SW	22.17	Common Pip	1	1	Brief pass to west of yard		

Project		Start time	19.55	Finish	22.48	Temperature	17 C at start 15 C at finish
	JD RD	30.6.22		sunset	21.18	Weather 60% cloud beaufort 0	
Bat passes heard							

Station no.	Start time		No.	passes	comments
NE, SW	21.40	Soprano Pip	1	1	Flew in over roof of Virgin Media bldg. swooping down and along side of building merging out towards river.
SW	21.47	Common Pip	1	1	Flew in from north over Virgin media bldg. and across yard to west of west gable.
SW, NE	22.04	Soprano Pip	1	1	Flew in from SW and flew up and along narrow passage between bldgs and out to north

APPENDIX 1. FIELD DATA

Project		Start time	19.55	Finish	22.03	Temperature	16 C at start 14 C at finish
	JD RD	9.5.22		sunset	20.30	Weather 0% cloud beaufort 1	
Bat passes heard							
Station no.	Start time		No.	passes	comments		
SW	20.50	Pipistrelle sp.	1	1	Emerged west face fascia		
SW	20.59	Soprano Pip	1	1	Emerged west face fascia		
NE, SW	21.09	Soprano Pip	1	1	Emerged west face fascia		
SW	21.13	Soprano Pip	1	1	Flew east up yard		
SW	21.15	Soprano Pip	1	1	Flew east up yard		
SW	21.17	Common pip	1		Flew east up yard		

Project		Start time	20.30	Finish	22.33	Temperature	16 C at start 14 C at finish
	JD RD	3.6.22		sunset	21.12	Weather 100% cloud beaufort 2	
Bat passes heard							
Station no.	Start time		No.	passes	comments		
NE, SW	21.25	Soprano Pip	1	1	Emerged from roof and flew up gap along north side from half way back flew to river		
NE	21.27	Soprano Pip	1	1	Emerged from roof and flew up gap along north side from half way back flew to river		
NE, SW	21.09	Noctule	1	1	High pass to south-west		

The Ecology Partnership Ltd
Thorncroft Manor
Thorncroft Drive
Leatherhead
KT22 8JB

Tel: 01372 364 133

www.ecologypartnership.com

Approved: Alexia Tamblyn MA (Oxon) MSc CEcol CEnv MCIEEM FRGS

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