

Bat Emergence and Re-Entry Surveys (BERS)

Survey site:

155 Barkham Road, Wokingham, Berkshire, RG41 2RS

Client:

Claire Elliott

Report date:

16th September 2024

Project:

This report is prepared to inform a planning application for the proposal described as:

“The construction of a two storey roof extension including the removal of the dormer windows and the demolition of the existing garage”

This report is supplementary to the Preliminary Roost Assessment report completed by John Wenman Ecological Consultancy LLP (2023).

BERS survey methodology and legislation can be found in the Arbtech Supplement: [BERS Methodology and Legislation - 2024.](#)

This report is an addendum to and must be read in conjunction with the Preliminary Roost Assessment completed by John Wenman Ecological Consultancy LLP (2023) for the same site address.

This table may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.

Executive Summary

Background

PRA – John Wenman Ecological Consultancy LLP January 2023

Number of buildings on site – 1

Buildings requiring further survey – B1

B1

Evidence of bats – low number of likely pipistrelle spp. Droppings (no DNA analysis completed) found in the southern, and north-east hip of roof void, identified through size and shape. Many external roosting features present for crevice dwelling species such as; gaps under hanging tiles, slipped/broken tiles, gaps in mortar.

Habitat value – High

BERS results

Building B1 was subject to survey.

The surveys confirmed the following roosts in B1:

1. Common pipistrelle day roost x 1 individual bat under edge hanging tiles on the dormer window on the north-western elevation
2. Soprano pipistrelle day roost x1 individual bat under right hand bargeboard on the dormer window on the south-western elevation

The development will need to be permitted by a bat mitigation licence.

The site surveys were designed and managed by Phillip Wooding BSc (Hons) MSc, Graduate Ecologist	
See surveyor locations in the BERS plan in Appendix 1	
<i>Limitations</i>	Light rain present at the start of V3, starting at 19:12 and ending at 19:30. Due to light rain camera covers were utilised on V3, the cover on the camera viewing the south-western elevation slipped slightly over the lens obscuring a section of the footage for a small period of time. The PRA was completed by a separate company, as only one bat dropping was found on internal inspection, it was likely that previous droppings had been collected during the PRA. This bat dropping was subject to the crumble test to determine whether it was from a bat or a rodent and therefore further DNA analysis could not be completed.

Field Survey							
Dusk Emergence Survey 1							
Building B1							
Surveyor and position		Lead Surveyor 1 – Phillip Wooding – 1 year of bat survey experience – observing the southern and western elevations Surveyor 2 – Ben Duursma – 2 years of bat survey experience – observing the northern elevation Surveyor 3 – Giorgina Shaw – 2 years of bat survey experience – observing the northern and eastern elevations Unmanned Camera – Observing the southern elevation					
Weather (start/end)		Temperature (°C): 21 Relative humidity (%): 81 Cloud cover (%): 40 Wind (m/s): 1.3 Rain: None			Temperature (°C): 19 Relative humidity (%): 89 Cloud cover (%): 0 Wind (m/s): 1.3 Rain: None		
Equipment used		Echometer Touch 2, Nightfox whisker IR camera, Nightfox XB5 Pro IR torches					
Results							
Date of survey	Sunset Start - End	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
01/08/2024	Sunset 20:50 20:35 – 22:20	CPx1	Day	B1	Dormer hanging tiles, NW elevation	Small gap under edge hanging tile	Small gap under hanging tile
Surveyor observations							
Surveyor 1		No emergences seen. The first bat activity was a common pipistrelle that was heard not seen at 21:10, further common pipistrelle activity was seen and heard foraging around the front garden and passing to and from the back garden very frequently until 22:16. Noctules were heard not seen at 21:34 and 21:47.				N/A	

<i>IR position 1</i>	The footage reflected the view of surveyor 1. No bat emergence or additional bat activity was recorded	
<i>Surveyor 2</i>	No emergencies seen. The first bat detected was a common pipistrelle heard but not seen at 21:02. Between 21:19 and 21:32 there was constant common pipistrelle foraging activity in a circular flight path above the rear garden. At 21:33 two common pipistrelles were observed foraging in a westerly direction directly adjacent to the north-western elevation of B1. At 21:44 a noctule was heard but not seen. The final bat detected was a common pipistrelle observed at 21:58 foraging in a westerly direction directly adjacent to the north-western elevation of B1.	N/A
<i>IR position 2</i>	The footage reflected the view of surveyor 2. No bat emergence or additional bat activity was recorded	

<i>Surveyor 3</i>	The first bat detected was a common pipistrelle heard not seen (quite faint) at 21:08. At 21:12 there was an emergence by a common pipistrelle from the edge hanging tile of the dormer window above the conservatory heading south-east to north-west. At the time 21:17 a common pipistrelle was also heard not seen. However, for more than 30 minutes (from the time 21:19-22:03) there was constant foraging activity in the rear garden recorded by possibly 2 common pipistrelles, this activity was constant with many sightings. Between this time (at 21:25) one common pipistrelle was recorded flying south-east to north-west along the south-western elevation of B1. Also, at the time 21:34 a Noctule was heard not seen. The last bat recorded was a common pipistrelle heard not seen at 22:16.	
<i>IR position 3</i>	The footage reflected the view of surveyor 3. No bat emergence or additional bat activity was recorded	

<i>Unmanned camera</i>	No emergencies seen. Very occasional passes seen, likely by the common pipistrelles seen foraging around the front garden by surveyor 1.	
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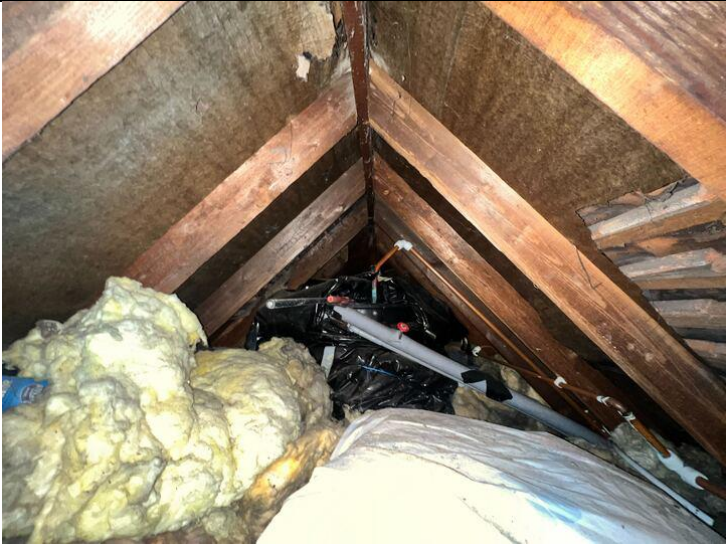
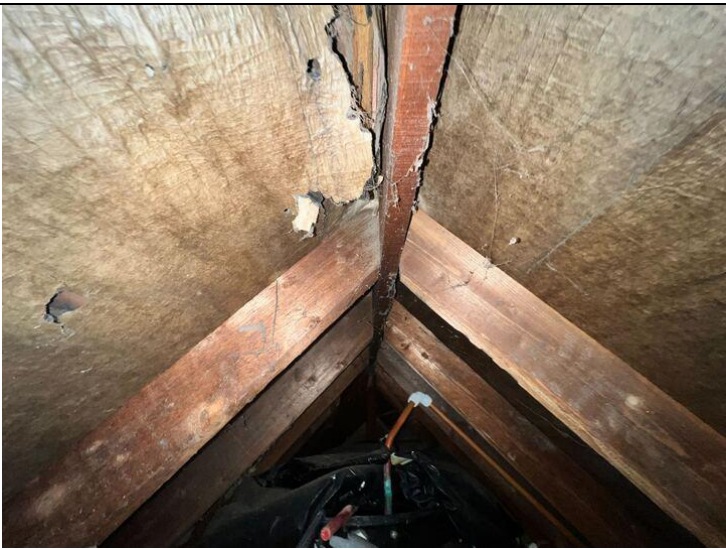
Field Survey							
Dusk Emergence Survey 2							
Building B1 and B2							
Surveyor and position		Lead Surveyor 1 – Phillip Wooding – 1 year of bat survey experience – observing the southern and western elevations Surveyor 2 – Ben Duursma – 2 years of bat survey experience – observing the northern elevation Surveyor 3 – Sarah Cooke – 4 years of bat survey experience – observing the northern and eastern elevations Unmanned Camera – Observing the southern elevation					
Weather (start/end)		Temperature (°C): 19 Relative humidity (%): 83 Cloud cover (%): 90 Wind (m/s): 1.2 Rain: None			Temperature (°C): 17 Relative humidity (%): 86 Cloud cover (%): 100 Wind (m/s): 1 Rain: None		
Equipment used		Echometer Touch 2, Nightfox whisker IR camera, Nightfox XB5 Pro IR torches					
Results							
Date of survey	Sunset Start - End	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
22/08/2024	Sunset 20:10 19:55 – 21:40	N/A	N/A	B1	N/A	N/A	N/A
Surveyor observations B1							
Surveyor 1		No emergences seen. The first bat activity was a common pipistrelle that was seen passing north-west to south-east along the western elevation at 20:26, further common pipistrelles were heard not seen very infrequently until the last one at 21:32. A noctule was heard not seen at 21:14.				N/A	

<i>IR position 1</i>	The footage reflected the view of surveyor 1. No bat emergence or additional bat activity was recorded.	
<i>Surveyor 2</i>	No emergences seen. The first bat detected was a common pipistrelle observed foraging in a circular motion above the northern elevation of B1 at 20:45. At 20:45, a common pipistrelle was observed passing in an easterly direction adjacent to the northern elevation of B1. The final bat detected was a common pipistrelle observed foraging in a circular motion above the northern elevation of B1 at 20:47.	N/A
<i>IR position 2</i>	The footage reflected the view of surveyor 2. No bat emergence or additional bat activity was recorded.	
<i>Surveyor 3</i>	No emergences seen. The first bat was a common pipistrelle at 20:40 seen flying west to north across the north-west elevation and back again. At 20:43 a common pipistrelle was seen flying north to west across the north-west elevation and	N/A

	back again and at 20:46 a common pipistrelle was seen flying west to north across the north-west elevation. A common pipistrelle was heard not seen at 20:47 and 21:32. A noctule was heard not seen at 21:14.	
<i>IR position 3</i>	The footage reflected the view of surveyor 3. No bat emergence or additional bat activity was recorded.	
<i>Unmanned camera</i>	No emergences seen. No bat activity seen.	

Field Survey	
Dusk Emergence Survey 3	
Building B1	
Building inspection prior to survey	<u>Summary</u> - One bat dropping found inside roof space at the north-east hip of the roof void behind a fold of the insulation, in the same place as described from the PEA/PRA. This dropping was crushed to tell if it was a bat dropping or a mouse dropping and was likely pipistrelle as described in the PEA/PRA. - Ripped roof lining present along much of the loft space exposing bare tiles. - Cobwebs present along the ridge beams suggest a lack of void dwelling species activity. - The loft space was small so the far ends could not be accessed directly to look for droppings.
	Photo 1. Looking south at the southern section of the loft space. Ripped roof lining can be seen on the right of the picture and at the end of loft on the right, as described in the PRA.  A photograph showing the interior of a roof void. Wooden rafters are visible, forming a triangular structure. Below the rafters, there is a layer of yellow insulation. On the right side, there is a hole in the roof lining, revealing a dark space above. The lighting is warm, likely from a flashlight.

	Photo 2. Looking west down the western section of the loft space		
	Photo 3. The ridge beam present on the southern end of the loft space, showing cobwebs and ripped roof lining with exposed tiles		

	Photo 4. Looking north at the northern end of the loft space	
	Photo 5. The ripped roof lining and cobwebs present along the ridge beam at the northern end of the loft space	

Surveyor position	and Lead Surveyor 1 – Phillip Wooding – 1 year of bat survey experience – observing the southern and western elevations Surveyor 2 – Ben Duursma – 2 years of bat survey experience – observing the northern elevation Surveyor 3 – Kristina Wood – Natural England Bat Licence number; 2024-11935-CL17-BAT – observing the northern and eastern elevations Unmanned Camera – Observing the southern elevation						
Weather (start/end)	Temperature (°C): 10.5 Relative humidity (%): 71 Cloud cover (%): 90 Wind (m/s): 2.8 Rain: None			Temperature (°C): 9.8 Relative humidity (%): 76 Cloud cover (%): 90 Wind (m/s): 1.2 Rain: None			
Equipment used	Echometer Touch 2, Nightfox whisker IR camera, Nightfox XB5 Pro IR torches						
Results							
Date of survey	Sunset Start - End	Species and numbers	Roost type	Structure reference	Roost location	Access points	Dimensions and explanation of roost location
12/09/2024	Sunset 19:23 19:08 – 20:53	SPx1	Day	B1	Bargeboard SW elevation	Gap under bargeboard SW elevation	Gap under bargeboard
Surveyor observations							
Surveyor 1	One re-entry seen. The first bat activity was a common pipistrelle that was heard not seen at 19:40. At 20:06 a soprano pipistrelle was seen foraging around the south-western dormer then seen re-entering at the bottom right corner of the bargeboards on the dormer window. At 20:14 a brown long-eared bat was seen passing west to south along the western elevation. The final bat activity was a soprano pipistrelle that was heard not seen at 20:18						

<i>IR position 1</i>	The footage reflected the view of surveyor 1. No bat emergence or additional bat activity was recorded.	
<i>Surveyor 2</i>	No emergences seen. The first bat detected was a common pipistrelle observed passing in a south-easterly direction at 19:46. At 20:03 a common pipistrelle was observed foraging in a circular motion above the rear garden of B1. At 20:07 a soprano pipistrelle was observed passing in a south-easterly direction adjacent to the western elevation of B1. The final bat detected was a heard but not seen common pipistrelle at 20:18.	N/A
<i>IR position 2</i>	The footage reflected the view of surveyor 2. No bat emergence or additional bat activity was recorded.	
<i>Surveyor 3</i>	No emergences seen. Activity started at 19:45 when a common pipistrelle flew from east to southwest across the rear garden of the site. At 20:03 a common pipistrelle foraged around the	N/A

	rear garden for several minutes. At 20:18 a common pipistrelle was heard but not seen.	
<i>IR position 3</i>	The footage reflected the view of surveyor 3. No bat emergence or additional bat activity was recorded.	 A nighttime infrared (IR) photograph of a two-story house with a prominent conservatory. The conservatory has a gabled roof and multiple windows. A timestamp in the bottom right corner reads "09/12/2024 20:18:00".
<i>Unmanned Camera</i>	No emergences seen. No bat activity seen.	 A nighttime infrared (IR) photograph of a house, showing a dormer window with multiple panes. The house is partially obscured by foliage in the foreground. A timestamp in the bottom right corner reads "09/12/2024 20:49:54".

Conclusions, Impacts and Recommendations	
Survey Results Summary	<u>Roost 1:</u> Species: common pipistrelle Peak count: 1 Roost type: Day Roost location: north-western elevation of B1 Access point: right hand edge hanging tiles <u>Roost 1:</u> Species: soprano pipistrelle Peak count: 1 Roost type: Day Roost location: south-western elevation of B1 Access point: beneath right hand bargeboard on the dormer window <u>Droppings</u> A low number of droppings found in the southern end, and north-east hip of roof void during PRA, visually identified to be of a pipistrelle spp. And one bat dropping, likely pipistrelle too, found during BERS crushed to identify whether bat or rodent at the north-east hip of roof void.
Impact Assessment	The proposed development will result in the destruction of the identified roosts.

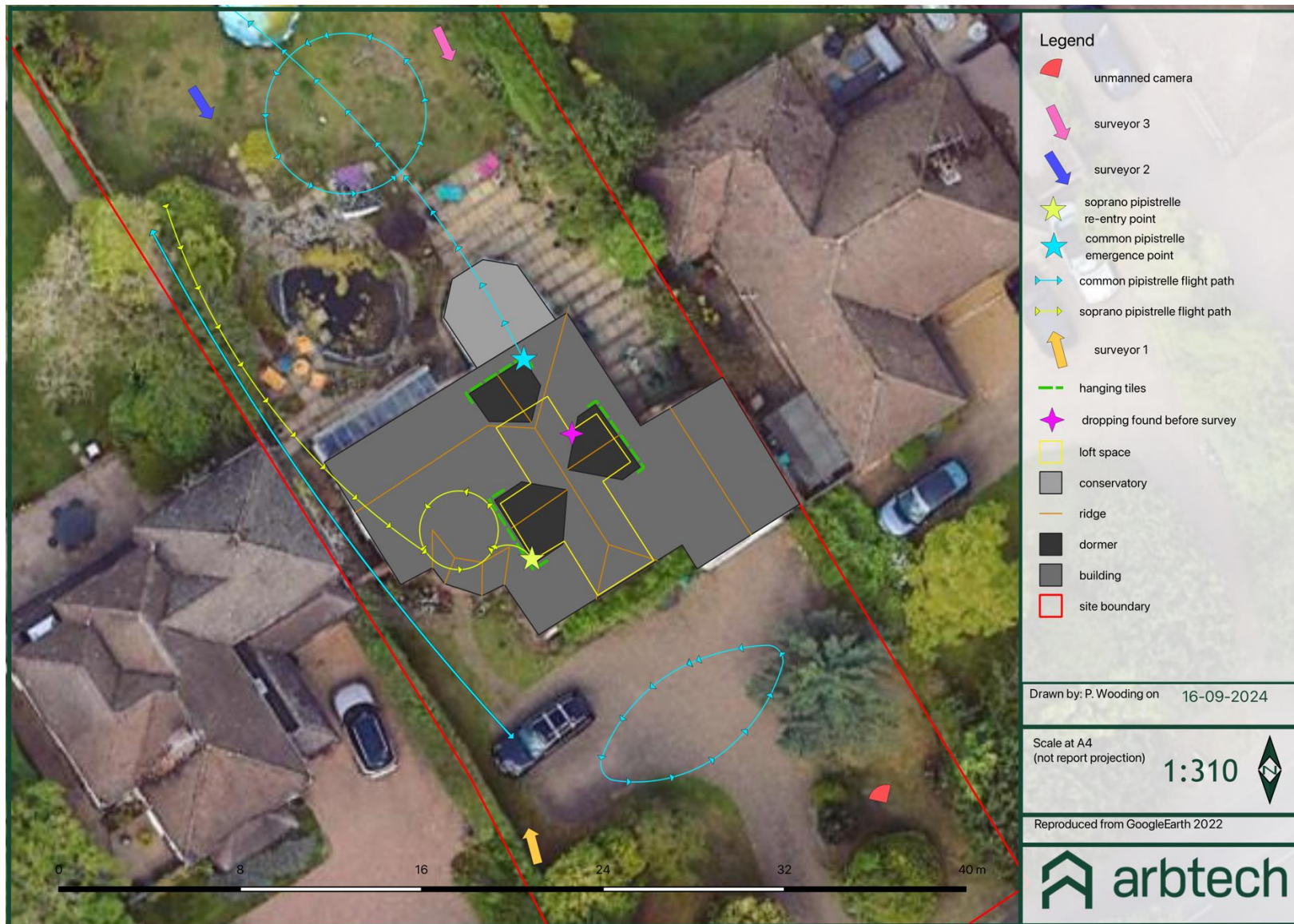
	The proposed development will include the use of lighting which could spill onto bats roosting, foraging or commuting habitat and deter bats from using these areas.
<i>Recommendations</i>	An EPSL application to Natural England will be required to legally permit the proposed works. Due to the number of roosts and species present, the site is eligible for a Bat Mitigation Class Licence (BMCL). The BMCL application requires that surveys have been undertaken within the most recent active bat season (optimal May to August, suboptimal September). Planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission, where possible to do so. A Material Changes Check will be required within three months of the BMCL submission, if no survey work has been undertaken within that period. The BMCL will include the following measures: • The installation of two bat boxes at the site (one bat box per species) prior to works commencing to form a receptor site for any bats found during the works. These boxes may be installed on buildings or trees but must be in an undisturbed location and will need to be maintained in this location post-development. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. • The provision of a toolbox talk to contractors, by the Registered Consultant or an Accredited Agent, to inform them of the presence of bat roosts. • A pre-commencement inspection of any roost features by the Registered Consultant or an Accredited Agent using a torch and an endoscope (this may be via ladders, scaffolding or a mobile elevated platform).

	• The removal of bat roost features by hand under the supervision of the Registered Consultant or an Accredited Agent (where it is not possible conclude absence of bats during the pre-commencement inspection). • Avoiding the use of unnecessary lighting, particularly at night, or implementing a low impact lighting strategy to avoid illumination of retained or newly created roosts or roost features. • Avoiding excessive noise or vibration disturbance e.g. from power tools or radios, within close proximity of retained or newly created roosts or roost features. You must include a certificate that proves the roofing membrane has passed a ‘snagging propensity test’ if you’re using a non-bitumen coated roofing membrane. A snagging propensity test checks that the membrane can stand the repeated snagging actions of roosting bats. To pass, a membrane must show no change in the average number of loops per cm² as rotations are increased from 0 to 1000. You do not need a certificate for bitumen 1F felt that has a non-woven, short fibre construction. Should timber treatment be required this should follow guidance set out at the below link: https://www.gov.uk/government/publications/bat-roosts-insecticides-and-timber-treatments/timber-treatment-products-suitable-for-use-in-or-near-bat-roosts The BMCL will only include the bat species, numbers and roost types listed above. If bats are found during periods of adverse weather conditions, these must be left undisturbed until weather conditions become more favorable to move bats to the receptor bat box.
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	BMCLs do not allow for the disturbance of hibernating bats. Therefore, if any bats are found during the hibernation period November to March or if any unexpected bat species or roost types are identified works must cease and advice must be sought from the Registered Consultant regarding the possible requirement for further bat surveys and whether a BMCL is still appropriate. <u>Bat lighting</u> A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on.
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	Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting on the developed site will make use of the most up to date technology available.
<i>Enhancements</i>	The installation of two additional bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be integrated boxes, built into the southern or western elevation of the refurbished building. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for crevice dwelling species such as Beumaris Woodstone Bat Box or a similar alternative brand.

Appendix 1: BERS plan



Version control			
Status	Issue	Name	Date
Draft	0.1	Phillip Wooding BSc (Hons) MSc, Graduate Ecologist	16/09/2024
Review	0.2	Josephine McCarthy, Consultant Ecologist, [Natural England Bat Licence Number: 2019-41480-CLS-CLS (CL18 Level 2)]	30/10/2024
Final	1.0	Phillip Wooding BSc (Hons) MSc, Graduate Ecologist	30/10/2024

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