www cherryfieldecology co.uk

Report prepared for: Oak Court Partnerships Ltd

For the Site of: Paddington Packet Boat, High Road, Cowley, Uxbridge, UB8 2HN

| Version: | Written by: | Checked by: | Final: |
|---|---|---|---|
| Draft | Elijah Bird<br>24/04/2023 | | |
| Final | Heather Stuckey<br>09/04/2023 | Jo Gregory<br>18/05/2023 | Heather Stuckey<br>19/05/2023 |

Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be from the most recent or current season. Therefore, should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

Heather Stuckey BA (Hons), CIEEM (Qualifying Member)

heather@cherryfieldecology.co.uk

07421 833 512

## Contents

# Preliminary Roost Assessment (PRA)

## 0.0 Non-Technical Summary

### 0.1 Background

The survey undertaken follows national guidelines Collins (2016) allowing for a day-time inspection and recommends for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.

The following report details the findings and recommendations for the site of Paddington Packet Boat, High Road, Cowley, Uxbridge, UB8 2HN.

The client commissioned Cherryfield Ecology to undertake a PRA as the proposals include for the demolition of an existing pub, and the erection of a purpose-built block of student accommodation. Plans have not been provided and a verbal description has been given.

### 0.2 Results and Findings

The site consists of a disused pub, surrounded by high density residential housing and urban infrastructure and a marina to the southwest.

No bats or evidence of bats were found at the time of the survey.

B1 provides moderate potential for roosting bats as there is suitable access and opportunities for both crevice and void dwelling bats. However, the loft space is well lit and the surroundings largely urbanized.

B1 is confirmed as supporting breeding birds (pigeons).

### 0.3 Impact Assessment and Recommendations

**Bats**

B1 - **Presence/Likely Absence surveys** will be required (two surveys, a minimum of two weeks apart).

A total of four surveyors to cover B1 will be required.

One of these surveys will need to be undertaken during the optimal timeframe of mid-May to August. If bats are found to be present, one further survey will be required (a minimum of two weeks apart), which must be undertaken within the May to August window.

**Breeding Birds**

No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

# 1.0 Introduction

## 1.1 Aim of the Survey

This report aims to inform the client of any bat issues that may be present on site and that could affect the development. It recommends for further survey when considered necessary and provides possible mitigation and enhancement should this become required.

## 1.2 Background Information

The client, Oak Court Partnerships Ltd, has commissioned Cherryfield Ecology to undertake a PRA for the site of Paddington Packet Boat, High Road, Uxbridge, UB8 2HN. Planning permission is being sought to demolish an existing pub and to erect a purpose-built block of student accommodation.

This survey has checked all buildings, trees (from ground level only) or structures due to be affected by the proposals for bats, signs of bats or features known to be used by bats e.g. crevices, gaps or holes that cannot be checked for a variety of reasons.

The inspection was conducted on the 05/05/2023.

The survey can only ever provide a 'snapshot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and, therefore, a synopsis is provided.

The survey can be conducted year-round, however it can be limited due to bad weather and in the winter, when bats are not active, thus evidence and bats are often not found. During these periods, habitat value (likely presence) becomes more important to the assessment of the site.

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, which transpose Annex II of the Directive 92/43/EEC 1992 on the Conservation of Natural

Habitats and of Wild Fauna and Flora ("Habitats Directive") which defines United Kingdom protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is well-defined by the legislation as the 'resting place' of a bat. However, the word roost is used to describe this resting place and is generally accepted as the word describing where a bat or bats rest, feed or sleep.

## 2.0 Methods

The survey follows the national guidelines Collins (2016), and the following equipment is available for the inspection (it may or may not all be used):

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors as above (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence (should this be found).

The assessment allows for a detailed inspection of the site looking for bats, evidence of use by bats e.g. droppings/feeding remains, and features known to be used by bats for roosting e.g. gaps, crevices and holes. Trees and buildings are assessed from ground level only and may require climbed surveys of holes, cracks and crevices.
Biological records data is ordered from the local records centre to provide context and background information. As the data is often sensitive, a synopsis is provided.

If a deviation from the guidelines has been made, the reason and justification will be explained below:

*No deviation from the standard guidelines has been made for this survey.*

### 2.1 Limitations

This survey provides a snapshot of the site at the time of the survey only. Bats are highly mobile and can turn up from time to time, unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Roosting features (likelihood) of bat presence assessed against Collins (2016) guidelines *Source: Adapted from Collins (2016) pp 35, Table 4.1.*

| Likelihood of bat presence (Habitat Value) | Features that bats can use, regardless of evidence being present. |
|---|---|
| **Confirmed Bat Presence** | Bats are found to be present during the survey.<br>Evidence of bats is found to be present during the survey. |
| **Higher likelihood of bat presence.** | Pre-20th century or early 20th century construction.<br>Agricultural buildings of traditional brick, stone or timber construction.<br>Large and complicated roof void with unobstructed flying spaces.<br>Large (>20 cm) roof timbers with mortice joints, cracks and holes.<br>Entrances for bats to fly through.<br>Poorly maintained fabric providing ready access points for bats into roofs, walls, bridges, but at the same time not too draughty and cool.<br>Roof warmed by the sun, in particular south facing roofs.<br>Weatherboarding and/or hanging tiles with gaps.<br>Low level of disturbance by humans.<br>Bridge structures, follies, aqueducts and viaducts over water and/or wet ground. |
| **Moderate and Lower likelihood of bat presence.** | Modern, well-maintained buildings or built structures that provide few opportunities for access by bats.<br>Small, cluttered roof space.<br>Buildings and built structures comprised primarily of prefabricated steel and sheet materials.<br>Cool, shaded, light or draughty roof voids.<br>Roof voids with a dense cover of cobwebs and no sections of clean ridge board.<br>High level of regular disturbance.<br>Highly urbanised location with few or no mature trees, parkland, woodland or wetland.<br>High levels of external lighting. |
| **Negligible likelihood of bat presence.** | No features suitable for roosting, minor foraging or commuting. |

**Notes on using this table**

1 The features listed here may not be indicative of use of the site by bats during winter or spring.

2 Pre-1914 buildings may present the greatest likelihood of providing roost space for bats due to their design, materials used and age. Pre-1990 buildings, especially when close to good foraging habitat, and with favoured features such as cavity walls and soffits, also have a high likelihood of providing roost sites for some bat species.

3 Post-1990 buildings are generally less likely than older buildings to house roosts; however, some modern designs provide access to suitable roosting spaces for bats. Pipistrelles, in particular, occupy modern buildings and built structures providing that there are suitable access gaps (>8mm) and provided the structure has appropriate characteristics for roosting.

# 3.0 Results

The following section details the results of the desk study, inspection and survey; it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

## 3.1 Desk Study

The desk study is centered on Grid Reference – TQ055813 and Postcode – UB8 2HN.

Table 2: Weather Records

| Parameter | Unit/Value |
|---|---|
| Temperature | 10ºC |
| Cloud cover | 100% |
| Precipitation | Light Drizzle |
| Wind | 1/12 |

## 3.2 MAGIC

The following statutory sites and Natural England Protected Species (NEPS) have been located within the 1km search area (Figure 1).

Table 3: Magic search results

| Receptor | Distance and Direction (m/Km) | Description |
|---|---|---|
| Statutory sites | n/a | n/a |
| Granted protected species licenses (bats) | n/a | n/a |
| Priority habitat | ~1100m northeast | Wood-pasture and Parkland |
| | ~700m west | Traditional orchard |
| | ~250m west | Deciduous woodland |

MAGIC

**Magic Map**

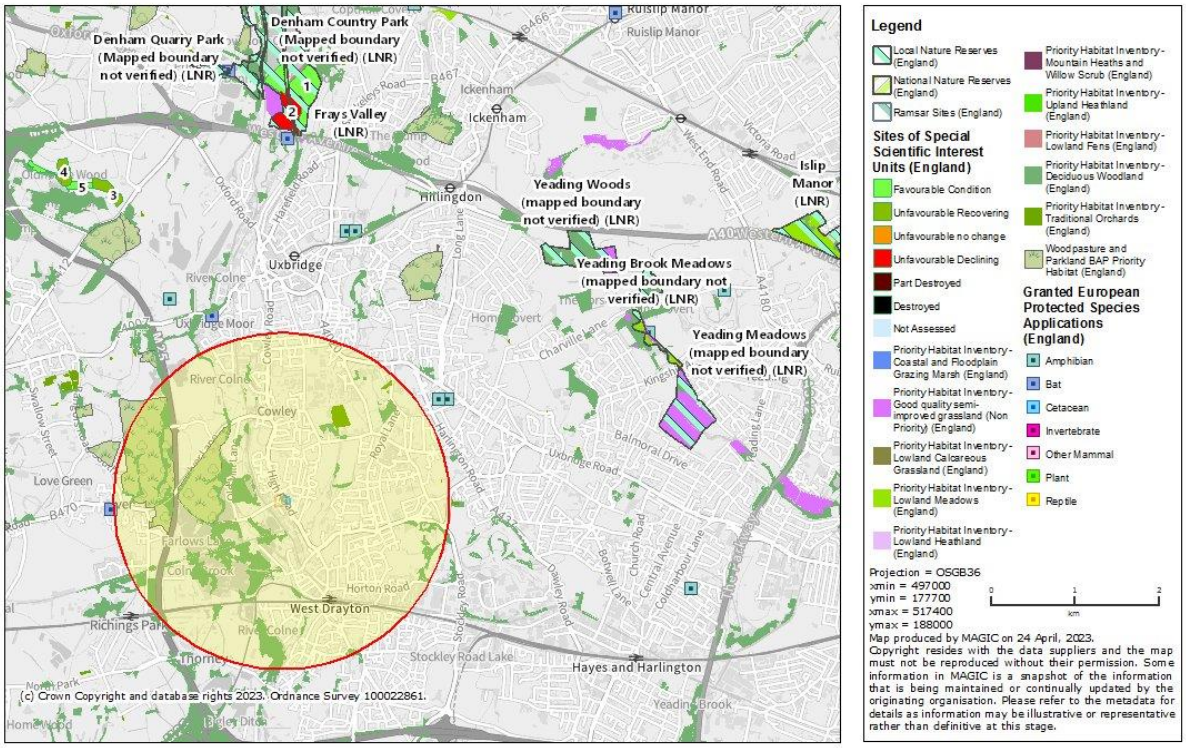


Figure 1: Magic Map Search

### 3.3 Biological Records Data

A 1km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context.

Biological records were obtained from London Bat Group (2023). A total of 79 records were provided from a total of six confirmed bat species.

Table 4: Biological Records

| Species | Number of Records | Closest record (accuracy) | Most recent record (year) |
|---|---|---|---|
| Barbastelle *Barbastella barbastellus* | 0 | - | - |
| Brown Long-Eared *Plecotus auritus* | 0 | - | - |
| Common Pipistrelle *Pipistrellus pipistrellus* | 10 | 574m (100m) | 2021 |
| Daubenton's *Myotis daubentonii* | 6 | 574m (100m) | 2005 |
| Leisler's *Nyctalus leislerii* | 0 | - | - |
| Nathusius' Pipistrelle *Pipistrellus nathusii* | 2 | 574m (100m) | 2017 |
| Natterer's *Myotis nattererii* | 0 | - | - |
| Noctule *Nyctalus noctula* | 9 | 574m (100m) | 2019 |
| Serotine *Eptesicus serotinus* | 4 | >1km (100m) | 2021 |
| Soprano Pipistrelle *Pipistrellus pygmaeus* | 18 | 574m (100m) | 2021 |
| Unidentified Bat *Chiroptera* | 0 | - | - |
| Unidentified Long-Eared *Plecotus sp.* | 0 | - | - |
| Unidentified Myotis *Myotis sp.* | 11 | 666m (100m) | 2017 |
| Unidentified Pipistrelle *Pipistrellus sp.* | 14 | 179m (100m) | 2020 |
| Unidentified Vesper *Vespertilionidae* | 5 | 865m (100m) | 2019 |
| Whiskered *Myotis mystacinus* | 0 | - | - |
| Whiskered/Brandt's *Myotis mystacinus/brandtii* | 0 | - | - |

### 3.4 Site Location and Surrounds

The site is located in Cowley, Uxbridge and is surrounded by high density housing and woodland in the immediate local. Table 5 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 5: Habitat features suitable for bat use in the general area.

| Feature | Description |
|---|---|
| Water course | Grand Union Canal is located approx. 168.41m southwest. Grand Union Slough Arm is located approx. 351.93m south. River Pinn is located approx. 408.45m southeast. Fray's River is located approx. 454.55m southwest. River Colna is located approx. 680.55m west. |
| Water bodies | Packet Boat Waterside & Marina is located approx. 224.89m southwest. Cowley Lake is located approx. 322.81m northwest. Two water bodies forming part of Regional Park is located approx. 501.37m southwest and 537.27m south. Little Britain Lake is located approx. 579.11m southwest. Two water bodies associated with Lizard Fishery are located approx. 589.46m southwest. Thorney Weir – The Mets is located approx. 878.82m southwest. Farlows Lake is located approx. 884.09m southwest. Three small unnamed water bodies are located approx. 361.72m southwest, 509.69m southwest and 669.41m northwest. |
| Woodland | A woodland forming part of Regional Park is located approx. 368.28m south. Two other woodlands are located approx. 328.10m southwest and 333.44m west. |
| Linear e.g. hedgerows | Garden hedgerows dominate the search area. |
| Pasture/arable/grassland | Regional Park is located approx. 471.61m south. Abbott's Close Playground is located approx. 647.07m northeast. Philpot's Farm Open Space is located approx. 667.24m northeast. Yiewsley Recreation Ground is located approx. 770.98m southeast. Amenity grassland in the form of playing fields can be found throughout the search area. |
| Other | A cemetery forming part of St Laurence Cowley Church is located approx. 853.55m northeast. |

### 3.5 Building, Tree or Other Structure

This section details the structures reference and description (see Figure 11 for Site Plan).

Building/tree/structure reference – B1 (Main Building)

#### 3.5.1 Description

#### 3.5.2 General

The site consists of a disused pub, surrounded by high density residential housing and urban infrastructure and a marina to the southwest.

Table 6: Building/Tree/Structure description(s)

| Building/Tree/Structure Number | Description |
|---|---|
| B1 | **External**<br>The pub has been unused for approx. 3 years (based on anecdotal evidence) and is in a state of disrepair with large holes in the roof and ceilings.<br>The roof is a series of gable ends and valleys, covered in slate roof tiles with lead flashing over the ridge. There are a number of chimneys present and decorative timber fascia boards over the eaves.<br>  <br><br>Figure 2: Front elevation of B1 |

**Internal**

Within, the roof is lined with a MRM type lining. Pigeons are nesting in the roof space, and as there are large holes within the second floor ceiling, pigeons are also occupying a number of the upstairs rooms.


Figure 3: Example of loft void in B1


Figure 4: Example of loft void in B1

A cellar is also present, accessed from within the building.


Figure 5: Example of cellar within B1


Example 6: Example of cellar within B1

### 3.6 Bats, Evidence or Likelihood of Bat Presence

The following table details the results of the survey.

Table 7: Bats, evidence or likelihood of bats being present.

| | |
|---|---|
| Bats found | No bats were found at the time of the survey. |
| Evidence of bat use | No evidence of bats was found at the time of the survey. |
| Potential for bat use | Level of likelihood of presence –<br>B1 - Moderate |

There are numerous large gaps within the roof due to damage, providing suitable access to the interior and access to the space between the tiles and the lining.

Additionally, within the loft void there were some suitable crevices found within the brick walls and the more sheltered areas of the roof could be suitable for void dwelling bats.

However, the roof void is largely well lit from daylight due to the holes within the roof and as the surroundings are of an urban nature, there are street lights situated immediately adjacent to the building.


Figure 7: Large hole in roof and potential suitable crevices within brick wall


Figure 8: Further example of holes in roof


Figure 9: Holes shown in the exterior, with potential access to the space between the tiles and the lining

The cellar has some suitable crevices, however, the only access observed was via the internal stairway.

### 3.7 Supplementary Observations

Pigeons are using the building to nest, with active nests observed at the time of the survey.


Figure 10: Pigeon eggs present within the loft void

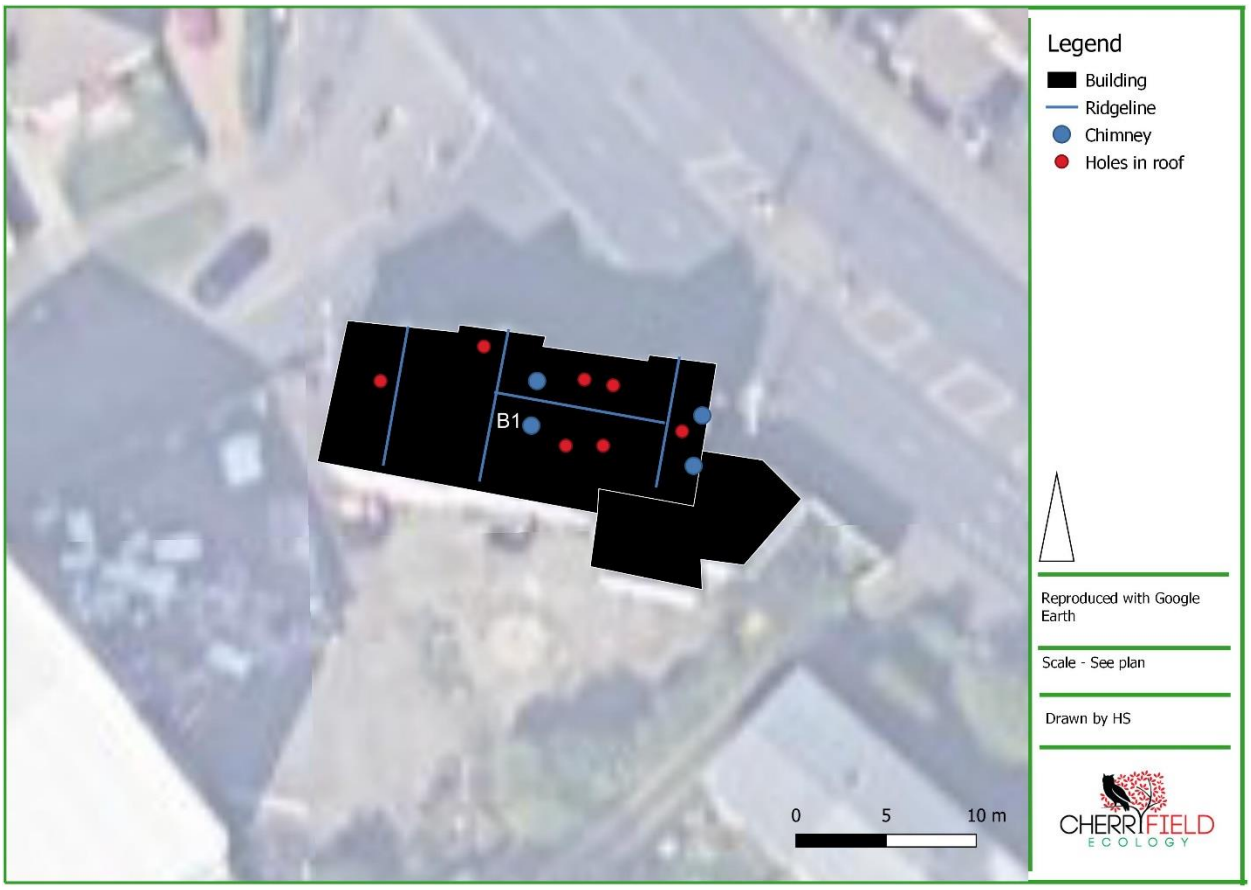


Figure 11: Site Plan

# 4.0 Conclusions, Discussion and Recommendations

The following section details the conclusions, discussion, potential impacts and recommendations in the context of the proposed works.

Building/tree/structure reference – B1 (Main Building)

## 4.1 Conclusion and Discussion

The proposals include for the demolition of an existing pub, and the erection of a purpose-built block of student accommodation

The site consists of a disused pub, surrounded by high density residential housing and urban infrastructure and a marina to the southwest.

No bats or evidence of bats were found at the time of the survey.

B1 provides moderate potential for roosting bats as there is suitable access and opportunities for both crevice and void dwelling bats, however, the loft space is well lit and the surroundings largely urbanized.

B1 is confirmed as supporting breeding birds (pigeons).

## 4.2 Potential Impact

Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and the following details a proportionate impact assessment based on current information.

Table 8: Impact Assessment.

| | |
|---|---|
| Impact | Bats - A bat roost may be lost in the development.<br>Breeding Birds – Active nests will be lost in the development. |
| Characterisation of unmitigated impact on the feature | Bats - A bat roost could be destroyed when the building is demolished resulting in a low-level loss/impact at a local level.<br>Breeding Birds – A low-level loss/impact at a local level. |
| Effect without mitigation | Without mitigation individual bats and birds could be killed, injured or trapped during the works. |
| Mitigation and Enhancement | See Table 9 and 10 |

| | |
|---|---|
| Significance of effects of residual impacts (after mitigation) | Bats - If lost roosts are replaced by bat boxes, the effects would be negligible.<br>Breeding Birds – If lost habitat is replaced by bird boxes and mitigation is followed, the effects would be negligible. |

### 4.3 Recommendations

**Bats**

B1 - **Presence/Likely Absence surveys** will be required (two surveys, a minimum of two weeks apart).

A total of four surveyors to cover B1 will be required.

One of these surveys will need to be undertaken during the optimal timeframe of mid-May to August. If bats are found to be present, one further survey will be required (a minimum of two weeks apart), which must be undertaken within the May to August window.

**Breeding Birds**

No further surveys are recommended; however, the development should take place outside the nesting season (March to August). If this is not possible, it is recommended that a qualified ecologist is on site to ensure the building/vegetation is not occupied by breeding birds, prior to demolition/clearance. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

The findings outlined in this report are valid for one year, after which updated surveys will be required.

Enhancements and mitigation are recommended (please see Section 4.4 for further details).

### 4.4 Recommended Mitigation and Enhancements

The following table details the recommended mitigation if bats are found following further surveys (Table 9).

Table 9: Proposed mitigation and compensation if bats are found following further survey.

| Work | Specification |
|---|---|
| General Information | No development will occur until bat surveys consistent with the Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition) (Collins et al. 2016) have been undertaken in the appropriate survey season, May to September (Mid-May to August optimal).<br>The Three Tests to be answered before planning can be granted (NE, 2017):<br>*Test 1:* Regulation 53(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".<br>Test 1 can be achieved via the 'imperative reasons of overriding public interest'. Although not for the ecologist to determine the planning officer will on grant of consent.<br>*Test 2*: Regulation 53(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative"<br>Test 2 would be achieved on the grant of consent as no other sites have been considered for the development.<br>*Test 3:* Regulation 53(9) (b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."<br>Test 3 will be achieved once full emergence/re-entry surveys are conducted and full mitigation appropriate to species and population has been designed and implemented via an NEPS licence issued from the statutory authority (Natural England), if this becomes necessary following a dusk and pre-dawn survey. |
| Mitigation | Based on Mitchell – Jones, (2004), ***subject to change following surveys.***<br>Under license demolition of suitable bat roosting features e.g. roof tiles etc. will require the supervision of a bat licensed ecologist.<br>The suitable bat roosting features will be stripped by hand only. All areas across the roof/wall tops/weatherboarding etc. will be checked for bats i.e. endoscope (where |

| | |
|---|---|
| | possible) and via destructive search. If bats are found, these will be removed by hand (Ecologist only) and placed in bat boxes that will be in place before works begin.<br><br>Bat boxes will be installed. These will be no less than 3m above ground level and away from any neighbouring ledge to prevent local cats predating on bats using the boxes.<br><br>Chillon Woodstone bat box(es) or similar boxes (Figure 12) will be hung on the trees at a minimum of 3m from ground level and face south/southwesterly. These boxes are known to be used by crevice and void dwelling species.<br><br>  <br><br>Figure 12: Chillon Woodstone Bat Box (British-made)<br><br>Commuting bats maybe using the grounds and surrounds – therefore, any tree, hedges or linear feature should be retained were possible. |
| Roof and Tile Linings | Bitumen Felt - When a bat roost is present and being mitigated/compensated we only recommend this type of linear for the tiles/roof covering. There is no reason that building regulations will not allow a traditional 'cold roof' and, therefore, we recommend this as the best design for bats in any project where bats are able to access the roof/loft or hung tile/weather boarding etc.<br><br>The reasoning for this is twofold; firstly, bats can damage the Modern Roofing Membrane (MRM) meaning that the MRM will become useless allowing water to pass through from above and, secondly, bats will become trapped in the fibres and die from dehydration and starvation.<br><br>**However, Natural England will accept an MRM being used in a bat roost under the following circumstances -**<br><br>**The MRM must have passed the testing regime set out in Essah *et al* (2020) and a certificate must be provided as proof of this. Assuming the certificate is provided with the license application, NE will issue/register the site.** |

| | |
|---|---|
| | **It is for the client to provide the certificate to the Ecologist applying for the license.** |
| Lighting | Any lighting near or shining onto any trees, especially those with bat boxes in or commuting routes shown to be present at further survey stage, will be designed to minimise the impact it has on potential bat roosting and commuting.<br>Lighting will be in line with the BCT lighting guidelines (Bats and Lighting in the UK (Bat Conservation Trust, 2018) *hiips://www.theilp.org.uk/documents/guidance -note-8-bats-and-artificial-lighting/*<br>This lighting were possible will be of low level, be on downward deflectors and be on PIR sensors. Using LED directional lighting can also be a way of minimising the light spill affecting the habitat. No up-lighting should be used. Light spill must be minimized to as low a lux as possible. This is because moonlight is 0.3lux, any lighting currently present on site will exceed this, thus making it impossible to achieve a lux on site of less than 1lux.<br>This will ensure that the roosting and commuting resources that the bats are likely to be using is maintained. |
| Timing | Once the NEPS licence is obtained, works can occur during the designated timeframe; it is best to avoid the maternity (mid-May to August) and hibernation (December to March) seasons. It is not always necessary if the roost can be shown to be a day roost of common species.<br>Works will be timed in order to take advantage of mild weather conditions. Several consecutive nights with temperatures no lower than 7°C to avoid disturbing potentially hibernating bats.<br>Ideally, the demolition will occur when bats are active and can be moved to alternative roosts in the area e.g. Autumn when bats are moving away from summer roosts to mating roosts. |

The local planning authority have a duty to impose enhancements. The following table details the affordable and simple enhancements suitable for the site (Table 10).

Table 10: Enhancements to allow a net gain for protected species.

| Work | Specification |
|---|---|
| Enhancements to provide a net gain as per the LPA's duty. | Chillon Woodstone bat boxes or similar boxes (Figure X) can be hung on the proposed building or trees at a minimum of 3m from ground level and face south/southwesterly. These boxes are known to be used by crevice and void dwelling species.<br>  <br>Figure 13: Chillon Woodstone Bat Box (British-made)<br><br>Bat tubes can also be built into the building (Figure 14). These require no maintenance, can be installed on a gable end/under an eave, no less than 3m above ground level, face south or north and can be faced in any material to provide an aesthetic matching the reminding building.<br>  <br>Figure 14: Example of bat tube |

Bird boxes for a variety of different species can also be installed.

A selection of open fronted boxes and songbird boxes can be installed (Figure 15 and Figure 16); it is recommended that a minimum of two of each of the boxes are installed. These will be installed at a minimum of 2m high and ideally face north to east.

Figure 15: Robin box

Figure 16: Songbird box

Swift nest boxes are recommended due to the increased lack of nesting opportunities swifts are finding in modern built dwelling homes.

Information is adapted from the RSPB hiips://www.rspb.org.uk/our -work/rspb-news/news/stories/swift-advice-for-ecologists/ and hiip://actionforswifts.blogspot.com

The following will be undertaken:

- Wherever possible, swift bricks will be installed into new or restored buildings to increase the overall availability of nest sites for swifts and other species. Birds such as house sparrow can use swift bricks, but swifts cannot use house sparrow nest bricks.
- Integral swift bricks are the preferred option on new housing developments. These should be fitted in clusters of 2 to 4 on gable ends and near the roofline where swifts would naturally look for a potential nest site. On larger commercial buildings include one swift brick per 6 m2 of wall, mounted near the roofline, in clusters of 3 or more, with approximately 1m between entrance holes.
- Try to ensure swift bricks have a minimum of 5m clearance beneath and in front. Always avoid locating them above doors and windows to help prevent a disturbance issue to both the birds and human owners.
- Alternatively, swift boxes can be placed on the external walls of a building when a restoration or opportunities don't exist to build in the boxes.

Figure 17: Example of swift bricks, that can be built into a dwelling, *Source: hiips://www.birdbrickhouses.co.uk/brick -nesting-boxes/*

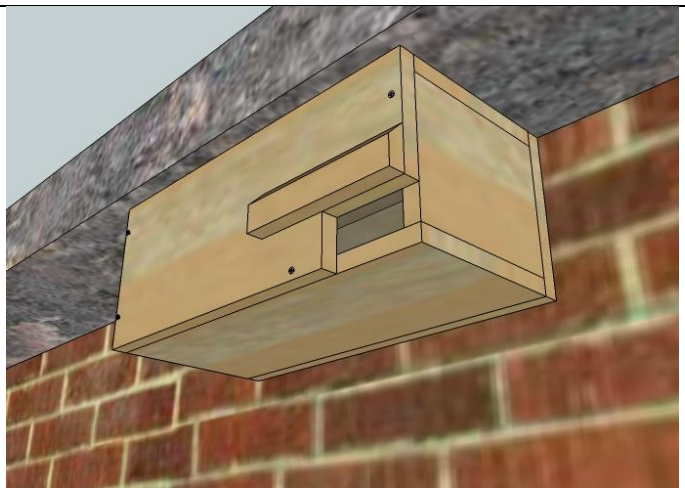

Figure 18: Swift box, *source: hiip://actionforswifts.blogspot.com/p/diy -swift-box-designs.html*

## 5.0 References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, September 2018. Chartered Institute of Ecology and Environmental Management, Winchester, online at hiips://www.cieem.net/data/files/ECIA%20Guidelines.pdf

Collins, J. (ed), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, London

Google Earth, (2017), Located on site postcode, online

MAGIC, (2017): Magic maps, NEPS licences and designated sites, online hiip://www.magic.gov.uk/Login.aspx?ReturnUrl=%2fMagicMap.asp x, accessed as report date.

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

Records: London Bat Group (2023)