



Preliminary Roost Assessment

Bell Farm Avenue, York, YO31 9BQ

York City Council

Status	Issue	Name	Date
Draft	1	Gareth Hey BSc (hons) MSc ACIEEM	15/12/2023
Reviewed	1.1	Mel Reid BSc (Hons) MRes MRSB, Senior Consultant	14/12/2023
Final	2	Ann Balshaw BA (Hons)	15/12/2023

Arbtech Contact Details:

Tel: 01244 66 11 70
Email: ecology@arbtech.co.uk
<https://arbtech.co.uk>

York City Council

Bell Farm Avenue, York, YO31 9BQ

Limitations and Copyright

Arbtech Consulting Limited has prepared this report for the sole use of the above-named client or their agents in accordance with our General Terms and Conditions, under which our services are performed. It is expressly stated that no other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us. This report may not be relied upon by any other party without the prior and express written agreement of Arbtech Consulting Limited. The conclusions and recommendations contained in this report are based upon information provided by third parties. Information obtained from third parties has not been independently verified by Arbtech Consulting Limited.

© This report is the copyright of Arbtech Consulting Limited. Any unauthorised reproduction or usage by any person other than the addressee is strictly prohibited.

Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

This approach is enshrined in Government planning guidance, for example, paragraph 174 of the National Planning Policy Framework for England.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Contents

1.0 Introduction and Context7

 1.1 Background7

 1.2 Site Context7

 1.3 Scope of the Report7

2.0 Methodology.....8

 2.1 Desk Study8

 2.2 Field Survey.....8

 2.3 Breeding Birds and Other Incidental Observations8

 2.4 Suitability Assessment.....8

 2.5 Limitations9

3.0 Results and Evaluation.....10

 3.1 Desk Study Results10

 3.2 Designated Sites.....10

 3.3 Historical Records10

 3.4 Field Survey Results.....10

4.0 Conclusions, Impacts and Recommendations.....28

 4.1 Informative Guidelines28

 4.2 Evaluation.....28

5.0 Bibliography33

 Appendix 1: Site Location Plan34

 Appendix 2a: Bat Survey Plan B1.....35

 Appendix 2b: Bat Survey Plan B2.....36

 Appendix 2c: Bat Survey Plan B337

 Appendix 2d: Bat Survey Plan B4.....38

 Appendix 2e: Bat Survey Plan B5.....39

 Appendix 3: Legislation and Planning Policy Related to Bats40

1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by York City Council to undertake a Preliminary Roost Assessment (PRA) at Bell Farm Avenue, York, YO31 9BQ (hereafter referred to as “the site”). The survey was required to inform a planning application for internal and external alterations to five buildings (hereafter referred to as “the proposed development”). The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting. This has been undertaken with due consideration to the “Bat Surveys for Professional Ecologists —Good Practice Guidelines” publication (Collins, 2023). No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Context

The site is located at National Grid Reference SE 61102 53942 comprising five buildings. It is surrounded by residential development and associated infrastructure on all boundaries. The wider landscape comprises the River Foss, which is located approximately 70m west of the site, along with significant areas of residential and urban development. A site location plan is provided in Appendix 1.

1.3 Scope of the Report

This report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection of built structures where possible, to determine the presence or the suitability of any features which bats could use for roosting and to assess the suitability of the site’s bat foraging and commuting habitat.
- An outline of potential impacts on any confirmed or unidentified roosts has been provided, based on the proposed development.
- Recommendations for further surveys and mitigation have been made, along with advice on the requirements for a European Protected Species Licence (EPSL) application if appropriate.
- Opportunities for the enhancement of the site for roosting, foraging and commuting bats have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a 2km radius review of statutory designated sites with bat qualifying interests and granted EPSL records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

2.2 Field Survey

The survey was undertaken by Gareth Hey BSc (hons) MSc ACIEEM, an ecologist with over 10 years' experience, currently holding a Natural England Class 2 bat licence (licence ref: 2021-51195-CLS-CLS) on 05/12/2023.

The PRA focussed on five built structures which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. An internal inspection of the buildings was also made, including the living areas and any accessible roof spaces, using a torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space. An endoscope was used to complete a close-up inspection of any accessible features, where appropriate.

2.3 Breeding Birds and Other Incidental Observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

Built structures were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 for buildings below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Classification	Feature of building and its context
Moderate to high	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).

Commented [NG1]: Please add your bat licence number into reports

	Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A small number of possible roost sites or features, used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.
Negligible	Unsuitable for use by bats.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the features on site in the context of their suitability for roosting bats, this does not provide a complete characterisation of the site. This survey provides a preliminary view of the likelihood of bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study. Bats are highly mobile creatures that switch roosts regularly and therefore the usage of a site by bats can change over a short period of time.

A biological records data search has not been undertaken. However, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of desk study results is provided below.

3.2 Designated Sites

No statutory designated sites with bat qualifying interests were identified within 2km of the site.

3.3 Historical Records

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in close proximity to the licensed site. EPSL records for bats are summarised in Table 2.

Table 2: Granted EPSLs for bats within 2km of the site

EPSL reference	Distance from the site	Bat species affected	Impacts allowed by licence
EPSM2013-5983	1.6km north	Brown long-eared bat	Destruction of a resting place
2014-4445-EPS-MIT 2014-4445-EPS-MIT-1	1.9km east	Common pipistrelle	Destruction and damage of a resting place
EPSM2013-6327	1.9km south	Common pipistrelle	Destruction of a resting place

3.4 Field Survey Results

The PRA focussed on five built structures which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat. The results of the field survey are illustrated in Appendix 2. The weather conditions recorded at the time of the survey are shown in Table 3.

Table 3: Weather conditions during the survey

Date: 05/12/2023	
Temperature	4.5°C
Humidity	56%
Cloud Cover	70%
Wind	1mph
Rain	Light

Buildings Overview

The buildings (B1-B5) are all identical in their structure and built form, therefore, for ease of reading, their general description is as follows. All of the buildings at the site are two-storey brick-built structures with uPVC windows at the front. The windows and doors to the rear of the properties have largely been boarded over, to prevent unauthorised entry and vandalism. To the rear of the buildings are two, two-storey flat roof extensions. The roofs of the buildings are pitched and hipped with concrete roof tiles present throughout, with the hip of the roof comprising a valley, constructed using lead flashing. The buildings contain a series of air vents, which have a mesh covering over their opening on the roof. Three chimney stacks are present on the buildings, with one located at each end of the building, along with one through the central section. The chimneys are brick built with lead flashing present around their base. Timber soffits are present throughout the buildings. Internally, there are roof spaces present throughout all of the building, aside from two areas, one in B1 and one in B3, as shown on the plan provided in Appendix 3. The roof of the buildings is constructed with a modern timber frame, with bitumen felt present between the frame and the concrete roof tile. Each buildings suitability for roosting bats is discussed further below.

B1 –western elevations (pictured opposite).

On the western elevation on the northern most aspect, there are a number of cracks within the ridged tiles on the hip of the roof.



B1 –western elevations (pictured opposite).

The photograph opposite shows a close up of the gaps present within the ridged tiles on the western elevation of B1. These features are likely to provide suitability for both crevice dwelling and void dwelling bat species.



B1 – northern elevation (pictured opposite).

The brick gable end of B1 is in very good condition with no gaps around the tops of the gable ends.



B1 – eastern elevation (pictured opposite).

To the rear of B1, on the eastern elevation, the two storey flat roof extensions have been boarded over. There are gaps present in areas of this elevation between the soffit and brickwork, where gaps have appeared due to deterioration.



B1 – eastern elevation (pictured opposite).

The picture opposite shows the gap present between the soffit and also a gap present between the fascia and the render, above a uPVC window. These features are likely to provide suitability for crevice dwelling bat species.



B1 – southern and eastern elevation (pictured opposite).

On the southern aspect of the eastern elevation, there are gaps present where the two-storey extension meets the main building, where the soffit and brick work connects. The red circle shows the location of these. It was not possible to zoom into these, as this aspect of this elevation was viewed from the curtilage of B2.



B1 – southern gable end (pictured opposite).

The chimney stack on the southern end of the building is in good condition. Here the flashing within the valley of the chimney stack section of the building can be observed. This is well sealed on this elevation, with no gaps or holes present suitable for roosting bats.



B1 Interior

B1 – loft space (pictured opposite).

There are three loft spaces present within B1, along with a loft conversion with a vaulted ceiling. The three loft spaces are all identical, comprising a timber roof frame with bitumen felt that is in excellent condition. The felt throughout all of the loft spaces is in excellent condition, with no gaps or holes present where bats could access. There are a significant number of cobwebs present within the loft space (as consistent throughout all of the buildings at the site). Given the above, building B1 is considered unlikely to provide suitability for void dwelling bat species.

**B1 Evidence of bats**

There was no evidence of roosting bats located internally or externally on the survey building.

B1 Breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

B2 – southern elevation (pictured opposite)

The southern elevation of B2 is overall in excellent condition, with no features present to support roosting bats.



B2 – western elevation (pictured opposite)

The brickwork and flashing located around the chimney stack and valley is in excellent condition, with no gaps or holes present suitable for roosting bats.



B2 – northern elevation (pictured opposite).

As with B1, there are gaps present where the flat roof extension adjoins the main structure. The gap is present between the soffit and the brickwork, that could provide suitable access for crevice dwelling bat species.



B2 – northern elevation (pictured opposite).

The above picture shows a close up of the gap present between the soffit and the brickwork. On B2, these gaps are present throughout, on both of the two-storey extensions.



B2 Interior

B2 – loft space (pictured opposite).

There are four loft spaces present within B2. The loft spaces are identical in structure as with B1, comprising a timber roof frame with bitumen felt that is in excellent condition. The felt throughout all of the loft spaces is in excellent condition, with no gaps or holes present where bats could access. There are a significant number of cobwebs present within the loft space (as consistent throughout all of the buildings at the site). Given the above, building B2 is considered unlikely to provide suitability for void dwelling bat species.

**B2 Evidence of bats**

There was no evidence of roosting bats located internally or externally on the survey building.

B2 Breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

B3 – southern and western elevation (pictured opposite).

B3 has had recent remedial works to the timber facias and soffits throughout and is well sealed around the buildings, with no gaps or holes present suitable for roosting bats.



B3 – northern elevation (pictured opposite).

As detailed above, the remedial works that have taken place throughout the facias have resulted in the building been well sealed throughout, and the gaps present around the extensions on B1 and B2 are not present on B3. Overall, it is determined that B3 is of negligible suitability for roosting bats.



B3 – southern and eastern elevation (pictured opposite).

B3 is well sealed throughout, with no gaps or holes present suitable for roosting bats.



B3 Interior

B3 – loft space (pictured opposite).

There are four loft spaces present in B3. The loft spaces are identical in structure to the previous buildings, comprising a timber frame with a well-sealed bitumen felt. The felt throughout all of the loft spaces is in excellent condition, with no gaps or holes present where bats could access. There are a significant number of cobwebs present within the loft space (as consistent throughout all of the buildings at the site). Given the above, building B3 is considered unlikely to provide suitability for void dwelling bat species.



B3 Evidence of bats

There was no evidence of roosting bats located internally or externally on the survey building.

B3 Breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

B4 – southern elevation (pictured opposite).

The brickwork, soffits, roof tiles and lead flashing are in excellent condition on the southern elevation, with no gaps or holes present suitable to support roosting bats.



B4 – northern elevation (pictured opposite).

As with B1 and B2, there are gaps present where the extension connects to the main structure that provides suitability for crevice dwelling bats.



B4 – Eastern elevation (pictured opposite)

The brickwork and flashing located around the chimney stack and valley is in excellent condition, with no gaps or holes present suitable for roosting bats.



B4 Interior

B4 – loft space (pictured opposite).

There are four loft spaces present within B4. The loft spaces are identical in structure to all the other buildings, comprising a timber roof frame with bitumen felt that is in excellent condition. The felt throughout all of the loft spaces is in excellent condition, with no gaps or holes present where bats could access. There are a significant number of cobwebs present within the loft space (as consistent throughout all of the buildings at the site). Given the above, building B4 is considered unlikely to provide suitability for void dwelling bat species.

**B4 Evidence of bats**

There was no evidence of roosting bats located internally or externally on the survey building.

B4 Breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

B5 – Southern elevation (pictured opposite)

On the southern elevation, there are a few gaps present, within the roof tiles and valley on the south-western aspect of the building.



B5 – Southern and western elevation (pictured opposite)

There is a gap present between the lead flashing and concrete tile on this elevation, as shown in the image opposite.



B5 – Southern elevation (pictured opposite)

The photograph opposite shows where there is a 4cm gap present where a tile has become dislodged. This provides suitable entry for bats.



B5 – Northern elevation

As with B1, B2 and B4, there are gaps of approximately 3cm in width between the bargeboard and brickwork, where the extension connects to the main structure that provides suitability for crevice dwelling bats.



B5 – Western elevation

The chimneys at both ends of the building is in excellent condition, with no gaps around the brickwork or lead flashing at the base of the chimney with suitable gaps for roosting bats.



B5 Interior

B5 – loft space (pictured opposite).

There are three loft spaces present within B5 as one of the loft spaces has been converted into a living space by the previous occupiers. The loft spaces are identical in structure to all the other buildings, comprising a timber roof frame with bitumen felt that is in excellent condition. The felt throughout all of the loft spaces is in excellent condition, with no gaps or holes present where bats could access. There are a significant number of cobwebs present within the loft space (as consistent throughout all of the buildings at the site). Given the above, building B5 is considered unlikely to provide suitability for void dwelling bat species.



B5 Evidence of bats

There was no evidence of roosting bats located internally or externally on the survey building.

B5 Breeding birds and other incidental observations

There was no evidence of nesting birds located internally or externally on the survey building.

Foraging and Commuting Habitat

The area immediately surrounding the site provide excellent foraging and commuting habitat for bats. There are a significant number of mature trees within the area immediately surrounding the sites that will provide excellent foraging habitat.

Bats use linear features in the landscape to commute to areas where foraging is available. The River Foss lies approximately 70m to the west of the site at its closest point and has a number of mature trees located on either bank of the river, which in addition to providing high value commuting habitat, will also be of high suitability for foraging bats. Given the above, the connectivity to the site from the wider area is considered to be excellent.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 3.

Bats

Bats are protected under the Wildlife and Countryside Act and the Conservation of Habitats and Species Regulations 2017 (amended by the Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019).

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2023) recommend additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform an EPSL application to Natural England. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey.

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2023) recommend additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence or likely absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey. If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSL application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately, and a suitably qualified ecologist should be contacted for further advice.

Birds

Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 4 presents an evaluation of the value of the site for bats and also details any other ecological constraints identified such as nesting birds in relation to the proposed development which will comprise internal and external refurbishments to the five buildings at the site.

Preliminary Roost Assessment

Table 4: Evaluation of the site for bats and any other ecological constraints

Feature	Survey conclusions (with justification)	Foreseen impacts	Recommendations <i>Measures required to adhere to guidance, legislation and planning policies.</i>	Biodiversity Enhancements <i>The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021)</i>
Roosting bats B1 and B5	B1 and B5 have high value for roosting bats. There are a number of features present on these structures, from cracked ridged and roof tiles, to gaps within the gable ends and valleys of the hip roof. In addition to the above, there are also gaps present where the extension meets the main structure, between brickwork and bargeboards. The internal areas of the buildings are largely unsuitable for void dwelling species such as brown-long eared, however, the features that are present could provide suitability for crevice dwelling bat species.	The proposed development will result in the demolition of the two-storey extensions and internal renovations of these buildings. This could result in damage/modification/destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Three bat emergence and re-entry surveys are required during the active bat season (May – September) to confirm presence or likely absence of a bat roost in the building. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of three weeks apart. Five surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted. If bat roosts are confirmed in the building an EPSL application to Natural England will be required. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	To be confirmed upon completion of the surveys.
Roosting bats B2 and B4	B2 and B4 have moderate value for roosting bats. Within these buildings there are gaps present between the bargeboard of the main building and the two-storey flat roof	The proposed development will result in the demolition of the two-storey extensions and internal renovations of these buildings. This could result in damage/modification/destruction of any bat roosts present and could cause disturbance, death or injury to bats.	Two bat emergence and re-entry surveys are required during the active bat season (May – September) to confirm presence or likely absence of a bat roost in the building. At least two of the surveys should be completed during the optimal survey period mid-May to August inclusive. One of these surveys should be a dawn re-entry survey or infra-red cameras should be used as an aid. Surveys should be a minimum of three weeks apart.	To be confirmed upon completion of the surveys.

	extension that could provide suitability for crevice dwelling bat species. The internal areas are largely unsuitable, as they are well sealed and have a high number of cobwebs present, indicating a lack of internal flying by void dwelling bats. These buildings are classified as moderate as they do not have the level of potential roosting features that were observed in B1 and B5.		Five surveyors are required to provide full coverage of the building. Surveys are likely to be required before planning permission can be granted. If bat roosts are confirmed in the building an EPSL application to Natural England will be required. The EPSL application requires that surveys have been undertaken within the most recent active bat season and planning permission must have been granted and all relevant wildlife-related conditions have been discharged prior to submission.	
Roosting bats B3	Building B3 has negligible value for roosting bats. The building has had a series of remedial works in the last couple of years and the gaps present between the bargeboards and two-storey extension of the above buildings is not present here, as the soffit and facias are well sealed to the brickwork. The roof tiles are in excellent condition, with no gaps present throughout.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	To be confirmed upon completion of the suite of surveys at the site.
Foraging and commuting bats	There are no habitats on the site which could be used by bats for foraging or commuting.	The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures:	None.

		<p>The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.</p>	<ul style="list-style-type: none"> • 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. <p>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.</p> <p>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.</p> <p>Wall lights and security lights will be 'dimnable' 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.</p>	
<p>Nesting birds</p>	<p>The buildings could be used by common and widespread nesting birds, particularly on the top of the chimney stacks. However, no evidence of nesting was recorded on the survey.</p>	<p>The proposals will not include for impacts to the chimneys at the site and as such, it is anticipated that there will be no impacts on nesting birds as a result of the proposed development.</p>	<p>None.</p>	<p>The installation of two swift nest boxes at the site will provide additional nesting habitat for birds.</p> <p>The bird boxes will be installed on the new building.</p> <p>PRO UK Rendered Build-In Swift Box or suitable alternative should be positioned at least 5m high on a non-south-facing wall, with a</p>

				clear flight path from the entrance. Installation of boxes should take place as per the manufacturers instructions.
Other ecological constraints	None identified.	N/A	N/A	N/A

5.0 Bibliography

- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins, J. (2023). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 4th edition, Bat Conservation Trust, London.
- Garland, L. & Markham, S. (2008) Is Important Bat Foraging and Commuting Habitat Legally Protected? <http://biodiversitybydesign.co.uk/cmsAdmin/uploads/protection-for-bat-habitat-sep-2007.pdf>
- Google Earth. Accessed on 07/12/2023.
- Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and Artificial Lighting in the UK. Bats and the Built Environment Series Publication: http://www.bats.org.uk/news.php/406/new_guidance_on_bats_and_lighting.
- Magic Database. <http://www.magic.gov.uk/MagicMap.aspx> Accessed on 07/12/2023.
- National Planning Policy Framework (2021) <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Natural England Designated Sites View. <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx> Accessed on 07/12/2023.
- Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
- Wray, S., Wells, D., Long, E., Mitchell-Jones, T (2010) Valuing Bats in Ecological Impact Assessment. IEEM In-Practice. Number 70 (December 2010). Pp. 23-25.

Appendix 1: Site Location Plan



Appendix 2a: Bat Survey Plan B1



Appendix 2b: Bat Survey Plan B2



Appendix 2c: Bat Survey Plan B3



Appendix 2d: Bat Survey Plan B4



Appendix 2e: Bat Survey Plan B5



Appendix 3: Legislation and Planning Policy Related to Bats

LEGAL PROTECTION

All species of bat are fully protected under *The Conservation of Habitats and Species Regulations 2017* (as amended) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

Bats are also protected under the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by Natural England will be required for works likely to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficiency/success to be monitored. The legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost (Garland & Markham, 2008).

There are 17 species of bat breeding in England and Natural England issues licences under Regulation 55 of the Habitats Regulations to allow you to work within the law.

Licences are issued for specific purposes stated in the Regulations, if the following three tests are met:

- The purpose of the work meets one of those listed in the Habitats Regulations (see below);
- That there is no satisfactory alternative;
- That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

The Habitats Regulations permits licences to be issued for a specific set of purposes including:

1. include preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
2. scientific and educational purposes;
3. ringing or marking; and,
4. conserving wild animals.

Development works fall under the first purpose and Natural England issues bat mitigation licences for developments.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.