4 Wash Lane, Great Finborough

Preliminary Bat Roost Assessment

Prepared by Castle Hill Ecology
on behalf of Mrs K. Dykes

October 2022

4 Wash Lane – Preliminary Bat Roost Assessment

The contents of this report have been produced with due consideration of best practice guidance, and in accordance with the Charted Institute of Ecology and Environmental Management's Guidelines for Ecological Report Writing (CIEEM, 2017) and the Bat Conservation Trust's guidelines for writing bat reports (Collins, 2016).

Survey data and biological records within this report are valid for a maximum of 18 months from the date of issue. After this period, updated survey work will be required to determine a new ecological baseline, supported by updated biological records from Suffolk Biodiversity Information Service.

This report has been compiled by Miss Rachel Bates, BSc (Hons) MSc ACIEEM.

Castle Hill Ecology
5 The Maltings,
41 High Street,
Chesterton, Cambridge
CB4 1NQ

Mobile: 07534 340964
Email: rachel@castlehillecology.co.uk

Client: Mrs K. Dykes

Report Number: 202210/01

	Prepared By:	Checked By:	Date:
Draft	Rachel Bates	Jonathan Durward BSc (Hons) CEnv CIEEM	05/10/2022
Final Issue	Rachel Bates		11/10/2022

CONTENTS

1. SUMMARY

1.1 Castle Hill Ecology was commissioned by the client in September 2022 to carry out a Preliminary Bat Roost Assessment of buildings at 4 Wash Lane, to support a planning application for the demolition of an existing porch and construction of a two-storey extension, demolition of the existing garage and construction of a cart lodge, and the creation of a covered seating area adjacent to the existing rear extension. The assessment is based on internal and external building inspections, and an evaluation of on-site habitats.

1.2 This report details the methodologies used to assess and evaluate likely ecological impacts on bats as a result of the development proposals. Results of the desk study and findings of the survey work are presented and discussed, followed by mitigation measures that may be required. Recommendations are then made for bat-specific biodiversity enhancements which can be incorporated into the scheme design.

1.3 The garage was categorised as having negligible suitability to support roosting bats, and no evidence of roosting bats was recorded during the inspection. No further survey or mitigation measures are required. 4 Wash Lane was categorised as having **low suitability** to support roosting bats. No evidence of roosting bats was recorded during the building inspection.

1.4 Under current development proposals, the new two-storey extension will tie into the existing building at the east gable end, below the level of the roof. The existing loft space will not be altered or impacted during works. The demolition of the existing porch and the construction of a covered seating area adjacent to the rear extension will result in the loss of some pantiles, which provide limited roosting opportunities for crevice-dwelling bats.

1.5 Given the nature of development proposals and the low impact to the fabric of the building where there is limited suitability to support roosting bats, it is considered disproportionate to carry out further activity survey work in this instance. A supervised soft-strip carried out under a non-licenced Working Method Statement, with appropriate mitigation measures in place, is a pragmatic approach which will ensure the favourable conservation status of bats in the local environment will be maintained.

1.6 Foraging and commuting bats should be taken into consideration within the scheme design and during all site works. The lighting strategy provided in Section 6.4 will be implemented during all site works and maintained post-development to ensure minimal disturbance to bats that may utilise surrounding habitat.

1.7 Breeding birds should be taken into consideration during all phases of the proposed works. A method of works has been provided in Section 6.4 to ensure any breeding birds and their nests remain protected throughout the project.

1.8 Biodiversity enhancements in line with the NPPF (2021) will include the installation of two externally mounted bat boxes on the east gable end of the new extension. The boxes will be suitable for crevice-dwelling species, such as the genus *Pipistrellus*.

2. INTRODUCTION

2.1 Background

2.1.1 Castle Hill Ecology was commissioned by the client in September 2022 to carry out a Preliminary Bat Roost Assessment of buildings at 4 Wash Lane, hereafter referred to as 'the Site'. A roost assessment was required to inform and support a planning application for the demolition of an existing porch and construction of a two-storey extension, demolition of the existing garage and construction of a cart lodge, and the creation of a covered seating area adjacent to the existing rear extension.

2.1.2 This report details the methodologies used to determine the presence or likely absence of roosting bats within the buildings. Results of the desk study and findings of the survey work are presented and discussed in order to evaluate likely ecological impacts on bats as a result of the proposed development. Details of any mitigation measures or the need for a European Protected Species mitigation licence are then provided, with recommendations for biodiversity enhancements for bats which could be incorporated into the scheme design.

2.2 Site Location and Description

2.2.1 The Site is located at 4 Wash Lane, Great Finborough, Stowmarket, Suffolk IP14 3BJ (central National Grid Reference TM 03034 58467). The location of the Site is shown in Figure 2.1.

Figure 2.1: Location of the Site (Source – Google Maps)

2.2.2 The Site comprises a residential dwelling and an outbuilding, set within a garden of short-sward amenity grassland with planted shrubs and scattered trees. A hardstanding driveway provides access into the Site from Wash Lane, which borders the Site to the east. Combs

Lane runs along the southern boundary, with residential properties and a small caravan park to the west, and broadleaved woodland to the north which runs alongside the River Rat. The Site lies on the western outskirts of Stowmarket, within a rural setting.

2.2.3 The wider landscape comprises a mosaic of arable farmland and grazing pasture which is well connected to parcels of woodland and scrub by a network of hedgerows and tree lines. There are scattered residential and commercial properties, and areas of parkland to the east and west. A new housing development is under way to the north. A corridor of woodland runs alongside the River Rat, providing good habitat connectivity across the landscape.

2.3 Report Objectives

2.3.1 The key objectives of this report are to:

- Present the findings of the Preliminary Bat Roost Assessment;
- Determine the presence or likely absence of roosting bats, and categorise the suitability of the buildings to support roosting bats;
- Identify and evaluate likely ecological impacts on bats, their roosts and potential roost features as a result of the proposed development;
- Provide details of mitigation measures that may be required, and identify the need for a European Protected Species licence for bats; and
- Provide recommendations for biodiversity enhancements specific to bats in line with the National Planning Policy Framework (NPPF, 2021).

3. LEGISLATION

3.1 Environment and Biodiversity

3.1.1 Under the National Planning Policy Framework (NPPF, 2019), local planning authorities should aim to conserve and enhance the natural environment when determining planning applications. Local planning authorities also have an obligation to seek opportunities to further enhance the conservation status of Species and Habitats of Principle Importance.

3.1.2 Species and Habitats of Principal Importance for the conservation of biodiversity in England (JNCC, 2009) are covered under Section 41 of the Natural Environmental and Rural Communities (NERC) Act (2006). Species and habitats listed within Section 41 need to be taken into consideration by a public body when performing any of its functions, such as assessing planning applications.

3.1.3 Bat species listed within Section 41 include Western Barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, Noctule *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared *Plecotus auritus*, Greater Horseshoe *Rhinolophus ferrumequinum*, and Lesser Horseshoe *Rhinolophus hipposideros*.

3.2 Wildlife Legislation

3.2.1 European Protected Species are afforded protection under the Habitats Regulations 2017, which is transposed into UK law by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. European Protected Species are afforded additional protection under the Wildlife and Countryside Act 1981 (as amended) and the Countryside Rights of Way Act 2000. It is an offence to:

- Deliberately or recklessly capture, injure or kill any wild animal of a European Protected Species;
- Deliberately or recklessly disturb any such animal;
- Damage or destroy their breeding site or resting place; and
- Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from these species.

3.2.2 Disturbance of European Protected Species constitutes any activity which is likely to:

- Impair their ability to survive, to breed or reproduce, or to rear or nurture their young; OR in the case of animals of a hibernating or migratory species, to hibernate or migrate; and
- To significantly affect the local distribution or abundance of the species to which they belong.

3.2.3 **Breeding birds** (all species) are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird and to take, damage or destroy the nest (whilst being built or in use) or eggs. Schedule 1 species are afforded additional protection from disturbance at or near nest sites, including reckless disturbance under the Countryside Rights of Way Act 2000.

4. SURVEY METHODOLOGY

4.1 Desk Study

4.1.1 A data search for bat records within 1km of the Site was requested from Suffolk Biodiversity Information Service in September 2022. Only records within the last 15 years are considered to be relevant.

4.1.2 Multi-Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk was accessed in September 2022 to identify existing European Protected Species mitigation licences for bats within the search area. MAGIC was also accessed to locate any statutory designated areas with bats listed as a qualifying feature.

4.2 Surveyor Qualifications

4.2.1 A site visit was carried out on the 26th September 2022, led by Rachel Bates BSc (Hons) MSc ACIEEM and assisted by Jonathan Durward BSc (Hons) CEnv MCIEEM. Rachel has over ten years' experience in professional ecological consultancy and holds Class 3 and 4 bat survey licences (2019-40153-CLS-CLS and 2017-28515-CLS-CLS respectively) for the purpose of the survey.

4.2.2 The site visit comprised an internal and external inspection of buildings and an evaluation of on-site and surrounding habitat. Weather conditions at the time of the site visit were cool and dry with scattered sunshine, with 70% cloud cover, temperatures of 13ºC and a light breeze (4-7 mph).

4.3 Preliminary Roost Assessment

4.3.1 The residential property of 4 Wash Lane and a garage were subject to internal and external inspections to categorise their suitability to support roosting bats. The inspections were carried out following current best practice guidance (Collins, 2016). Close focusing binoculars, an endoscope and a high-powered torch were used to identify and assess any potential roost features and to look for evidence of roosting bats.

4.3.2 Potential roost features on a building may include raised or missing roof tiles, ridge tiles, lead flashing or hanging tiles, and gaps under soffit boxing or within brickwork. Evidence of bats and their roosts include the presence of droppings, stain or grease marks, feeding remains, or the bats themselves.

4.3.3 The suitability of buildings to support roosting bats and the quality of on-site and surrounding habitats were categorised based on the classification criteria in 'Bat Surveys for Professional Ecologists' (Collins, 2016). Classification criteria is presented below:

- **Negligible:** a structure or tree with features unlikely to be used by roosting bats. Habitats on site unlikely to be used by foraging or commuting bats.
- **Low:** a structure or tree with one or more potential roost sites that may be utilised by opportunistic bats but are not suitable for use on a regular basis or by a large number of bats. Isolated habitats or habitat with limited connectivity could be used by a small number of foraging or commuting bats.

- **Moderate:** a structure or tree with one or more potential roost sites that may be utilised on a regular basis but unlikely to support a roost of high conservation status. Continuous habitat that provides good connectivity within the wider landscape and offers foraging opportunities.

- **High:** a structure or tree with one or more potential roost sites suitable for use by a larger number of bats on a regular basis and for longer periods of time. Continuous high-quality habitat that is well connected within the wider landscape and offers high-quality foraging habitat. The site is close to and connected to known roosts.

4.5 Survey Limitations

4.5.1 Droppings below or near to any external bat roost features may only remain for a few weeks before degrading, dependant on weather conditions. Weather conditions had been unsettled throughout the previous week, and so it was anticipated that any droppings may no longer have been visible unless they were very recent.

4.5.2 There were no accessible roof voids above the rear extension, and so the rear extension was subject to an external inspection only.

4.5.3 An absence of species records from within the data search results, or an absence of field signs of fauna during the habitat survey, does not provide confirmation that a species is absent from within the site or the search area.

4.5.4 This ecological survey provides baseline data at the time of the survey only and does not include fauna which may be present at different times of the year.

5. SURVEY RESULTS

5.1 Desk Study

Statutory Designated Areas

5.1.1 There are no statutory designated areas within 1km of the Site that have been designated with bats as a qualifying feature.

Bat Records

5.1.2 Three species of bat were returned in the data search; Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus* and Daubenton's *Myotis daubentonii*. All records were for grounded bats which were taken into care and later released. The nearest record lies approx. 750m to the south-east.

5.1.3 No European Protected Species mitigation licences for bats have been granted by Natural England within the search area.

5.2 Preliminary Roost Assessment

5.2.1 Two buildings were subject to internal and external inspections, a residential property and a garage to the north of the property. A third structure, a small wooden garden shed with a pitched roof of bitumastic roofing felt, was not subject to a full assessment. Photos from the building inspections are provided in Appendix A.

Residential Property

5.2.2 4 Wash Lane is a two-storey brick-built residential property with a pitched roof of clay pantiles and clay ridge tiles. The tiles were generally tight-fitting but gaps were present and several tiles were missing at eaves level on the southern elevation, providing an access point into an internal roof void. A chimney at the western ridge had lead flashing around the base which had risen slightly in places. Brickwork, windows and doors were well maintained iand tight-fitting. The east gable end was sealed and extended beyond the level of the roof. There was no soffit boxing, fascia boards or bargeboards.

5.2.3 To the north of the property was a single storey brick-built extension of a similar construction to the main building, with some gaps between tiles. To the east was a small entrance porch, also of a similar construction and with tight-fitting lead flashing where the porch joined the eastern wall of the property. Timber bargeboards on the east elevation were tight-fitting against the brickwork. No droppings or other evidence of roosting bats was recorded around the exterior of the building.

5.2.4 Cluttered by stored items and with electric lighting to aid frequent access, the timber-framed roof void was cold and drafty. There were crevices between the rafters and the brickwork of the gable ends which were densely cobwebbed, with light cobwebbing across the length of the ridge beam. The underside of the roof was clad by bitumastic roofing felt which was in good condition. Loft insulation lay between the joists, with chip boarding across the joists to create a floor. Nesting material was noted at eaves level next to the missing pantiles. No droppings or other evidence of roosting bats was recorded.

Bat Roost Potential

5.2.5 4 Wash Lane contained a limited number of potential roost features externally, primarily gaps between and underneath the clay pantiles. The internal roof void had very limited suitability to support crevice- and cavity-dwelling species given the conditions within the void. The type and extent of features indicates suitability for a low number for crevice-dwelling bats, such as the genus *Pipistrellus*. 4 Wash Lane is therefore categorised as having '**low suitability'** to support roosting bats.

Garage

5.2.6 A single-storey brick-built garage with a pitched roof of corrugated cement-based sheets was present to the north of the residential property. There was no soffit boxing. Bargeboards were noted on the east and west gable ends. Used for storage and as a workshop, and accessed daily, doors on the east and south elevations led to a cluttered and well-lit interior. The timber-framed structure has no internal roof or wall cladding, and was clean and well-ventilated. No droppings or other evidence of roosting bats was recorded.

Bat Roost Potential

5.2.7 The garage contained no potential roost features, either internally or externally, and was categorised as having '**negligible suitability'** to support roosting bats.

5.3 Habitat Assessment

5.3.1 The Site comprises a residential dwelling and an outbuilding, set within a garden of short-sward amenity grassland with planted shrubs and scattered trees. A hardstanding driveway provides access into the Site from Wash Lane. A belt of broadleaved woodland to the north runs alongside the River Rat.

5.3.2 The wider landscape comprises a mosaic of arable farmland and grazing pasture which is well connected to parcels of woodland and scrub by a network of hedgerows and tree lines. There are scattered residential and commercial properties, and areas of parkland to the east and west. A new housing development is under way to the north. A corridor of woodland runs alongside the River Rat, providing good habitat connectivity across the landscape.

5.3.2 Habitat within the Site itself is categorised as being of overall 'moderate quality' for foraging and commuting bats (Collins, 2016), providing some foraging resources and contributing to good connectivity between any bat roosts and foraging habitat within the wider landscape.

6. DISCUSSION and ECOLOGICAL IMPACTS

6.1 Development Proposals

6.1.1 Current development proposals include the demolition of an existing porch and construction of a two-storey extension, demolition of the existing garage and construction of a cart lodge, and the creation of a covered seating area adjacent to the existing rear extension. Figure 6.1 shows the proposed elevations of the extension. Figure 6.2 shows the location and elevations of the proposed cart lodge.

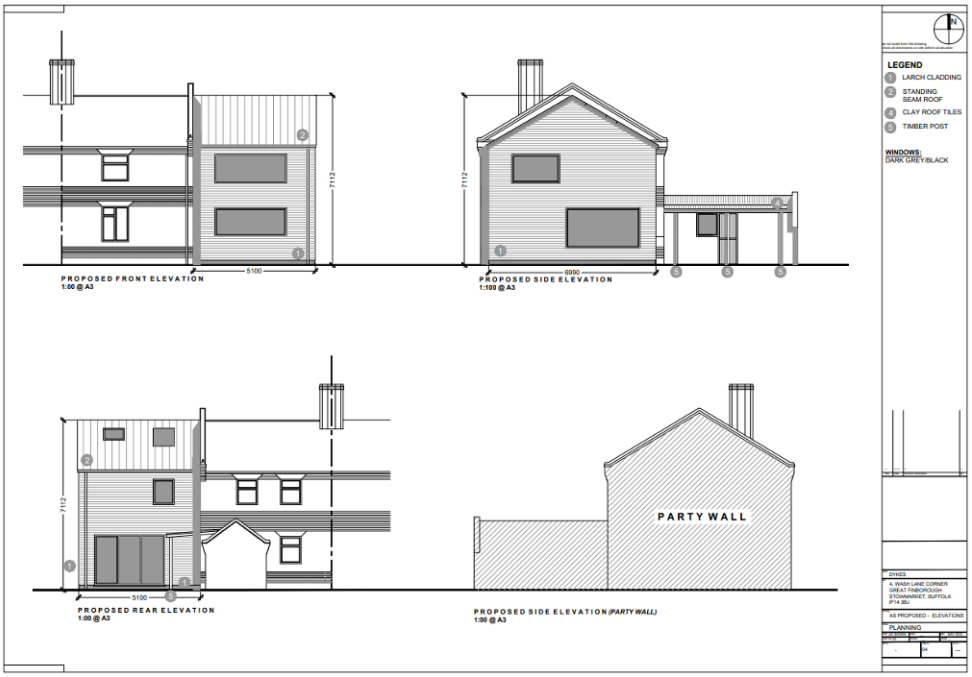

Figure 6.1: Proposed elevations of the extension (Source: client)

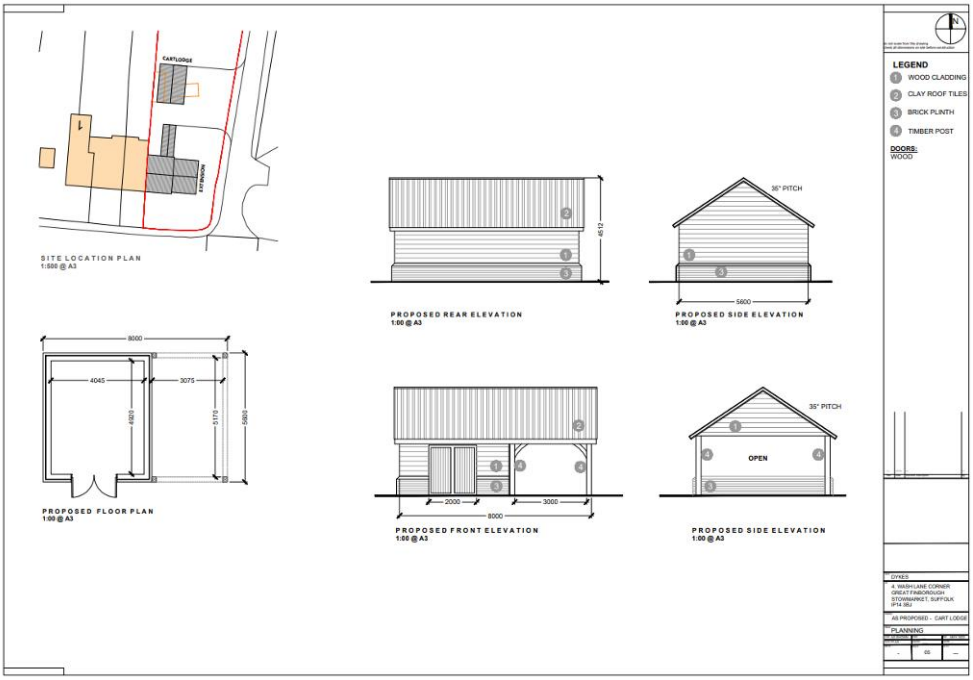

Figure 6.2: Proposed elevations of the cart lodge (Source: client)

6.2 Direct Impacts

6.2.1 Under current guidance (Collins, 2016), buildings with features which have potential to be utilised by bats require further survey to determine the presence or likely absence of roosting bats. Buildings categorised as having low suitability to support roosting bats should be subject to a minimum of one bat activity survey during the months of May to August/September.

6.2.2 Under current development proposals, a new two-storey extension will tie into the property at the east gable end, below the level of the existing roof. The loft space will not be altered or impacted during construction works and there will be no alterations to the roof. Demolition of the existing porch and construction of a covered seating area adjacent to the rear extension will result in the loss of some roof pantiles, which provide sub-optimal roosting opportunities for crevice-dwelling bats given their height and location within the building. Pantiles to be lost under current proposals are highlighted by the yellow circles in Plates 1 and 2.

Plate 1: All porch pantiles will be lost

Plate 2: First three rows of pantiles will be lost

6.2.3 Current proposals may result in the short-term, temporary disturbance to individual bats in the unlikely event they are present during the removal of pantiles, and will result in the loss of sub-optimal roost features with potential to be used opportunistically by the more common crevice-dwelling species such as *Pipistrellus* sp. These actions are likely to have a low to negligible impact on individual bats at a site level (Mitchell-Jones, 2004).

6.2.4 Given the nature of current proposals, no change to the main roof structure, and the loss of some features with limited potential to support roosting bats, it is considered disproportionate to carry out further activity survey work in this instance (BSI, 2013). A soft-strip carried out under supervision as part of a Non-licenced Working Method Statement, with appropriate and proportionate mitigation measures in place and the inclusion of biodiversity enhancements for bats post-development, is a considered to be a pragmatic approach which will maintain the favourable conservation status of bats in the local area.

6.2.5 The garage, which will be demolished under current proposals, was categorised as having negligible suitability to support roosting bats. No further survey of the garage or mitigation measures are required.

Non-Licenced Working Method Statement

6.2.6 The following mitigation measures as part of the Non-licenced Working Method Statement will be implemented and adhered to at all times to ensure an offence against bats does not occur during site works (Mitchell-Jones, 2004).

1. The soft-strip will take place during the months of September/October/November or March/April, when bats are less active but not at their most vulnerable during winter hibernation.

2. The soft-strip will take place when daytime temperatures will reach a minimum of 8^{o}C, when disturbance is less likely to have an adverse impact in the unlikely event that a bat is found. Active bats are more likely to move away of their own accord.

3. Prior to the commencement of the supervised soft-strip, a toolbox talk will be given to site workers by the supervising ecologist. The talk will cover a general introduction to bats, current legislation, what signs of bats to look for during works, and what to do should a bat be found.

4. Clay pantiles will be removed by hand only under the direct supervision of a qualified and licenced bat ecologist. Each pantile will be lifted carefully and turned over before placing it on the ground, checking for field signs before moving on to the next tile.

6.2.7 Should evidence of bats be encountered at any stage of the supervised soft-strip, works will cease immediately and Natural England will be contacted for advice on how to proceed. A European Protected Species mitigation licence will then be required for works to continue lawfully.

6.3 Indirect Impacts

6.3.1 Habitat with and adjacent to the Site will likely be utilised by foraging and commuting bats. Upon completion of the proposed development there may be additional light-spill from any external lighting on the new cart lodge or extension. In addition, temporary lighting used during site works may cause disturbance to foraging and commuting individuals.

6.3.2 With the implementation of the mitigation measures detailed below, it is unlikely that temporary or permanent lighting will adversely impact commuting or foraging bats.

- **Works should not commence until at least 1 hour after dawn and should finish at least 1 hour before sunset to avoid causing disturbance to bats that may utilise surrounding habitat.**

- **Outdoor lighting should; aim to have as little light spill as possible with light spread near to or below the horizontal; use light sources that emit minimum ultra-violet light to avoid attracting large numbers of insects; be as low-level and directional as possible, and be of the minimal levels required for health and safety (Gunnell *et al*., 2012).**

6.4 Breeding Birds

6.4.1 Evidence of nesting birds was recorded during the inspection of the roof void, with limited suitability of the porch or northern extension to support breeding birds. As a precaution, it is recommended that any vegetation removal and site take place between September and February (inclusive) to avoid the breeding bird season.

6.4.2 **If this timeframe is not feasible, a suitably qualified ecologist will carry out a pre-work site check to ensure there are no active nests. If an active nest is found, a minimum of a 3m buffer zone around the nest will be implemented to ensure it is not disturbed or destroyed. The nest will then be left until any young have successfully fledged.**

.

6.5 Biodiversity Enhancements

6.5.1 In line with the NPPF (2021), biodiversity enhancements will include the installation of two externally mounted bat boxes on the east gable end of the new extension. The boxes will be suitable for crevice-dwelling species, such as the genus *Pipistrellus*. Both boxes will be erected a minimum of 4m above ground level to reduce the risk of predation. No security or other external lighting will shine directly onto or within proximity to the boxes to encourage use by bats.

7. REFERENCES

BSI (2013) *BS 42020:2013 Biodiversity – Code of practice for planning and development.* British Standards.

CIEEM (2017) *Guidelines for Ecological Report Writing*. 2nd ed. Charted Institute of Ecology and Environmental Management, Winchester.

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

Gunnell, K., Grant, G. and Williams, C. (2012) *Landscape and urban design for bats and biodiversity.* Bat Conservation Trust, London.

Gunnell, K., Murphy, B. and Williams, C. (2013) *Designing for Biodiversity: A technical guide for new and existing buildings.* RIBA Publishing, London.

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

NPPF (2021) *National Planning Policy Framework: Biodiversity and Geological Conservation.* Department for Communities and Local Government, Norwich.

APPENDIX A - Building Inspection Photos

Residential Property

Plate 1: South and east elevations

Plate 2: North and east elevations

Plate 3: South elevation of the porch

Plate 4: North elevation of the porch

Plate 5: North and east elevations of the extension

Plate 6: Gaps at eaves level & bird nest material

Plate 7: West gable end with chimney

Plate 8: East gable end

Plate 9: Internal cladding and rafters

Plate 10: Roof structure at eaves level

Plate 11: Cobwebs at roof apex

Garage

Plate 12: West and south-west corner

Plate 13: South elevation

Plate 14: East elevation

Plate 15: Garage interior

Shed

Plate 16: Garden shed, south and east elevations