

Huckle
Ecology



Ecological Survey and Impact Assessment

Briefing Note Report

Holy Oak Barn, Church Road, Combs, Suffolk, IP14 2EH



Mrs Lucy Brunero, Holy Oak Barn, Church Road, Combs, Stowmarket,
Suffolk, IP14 2EH

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Report prepared by Dr J. Huckle for Huckle Ecology Ltd

Declaration: The information and advice which we have prepared and presented it true and has been developed in accordance with the Chartered Institute of Ecology and Environmental Management Code of Professional Conduct. We confirm that any opinions expressed are our own and my true and bona fide opinions.

Digital Signature:



Dr Jon Huckle CEnv MCIEEM MSc BSc (Hons)

Executive Summary

- Huckle Ecology was commissioned in April 2023 by Ms L. Brunero to undertake an Ecological Survey and Impact Assessment of an existing dwelling at Holy Oak Barn, Church Road, Combs. The ecological assessment has been requested to inform a planning application for a proposed log burner and flue within a corner of an existing barn conversion, with specific reference to potential effects on bats.
- A desk study and Preliminary Roost Assessment (PRA) survey were undertaken in April 2023. The desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker.
- The PRA survey included an external and internal inspection of the property to identify the presence of signs of bats and the potential suitability of the structure to support bat roosting habitat. The survey recorded no evidence of bats within the building and concluded that the building provided negligible potential habitat for roosting bats and the site provides a small area of low value foraging or commuting habitat for bats.
- Mitigation and enhancement measures have been recommended that demonstrate good practice and will deliver a net gain for biodiversity in proportion to the scale and character of the proposed development. These measures include the erection of bat boxes within the applicant's property.

1 Introduction

Terms of Reference

- 1.1 Huckle Ecology was commissioned by Mrs Lucy Brunero (the applicant) to undertake an Ecological Survey and Impact Assessment at Holy Oak Barn, Combs, Suffolk.
- 1.2 The planning application is for Listed Building Consent (Ref DC/23/01563) to enable the installation of a log burner.
- 1.3 Mid Suffolk District Council has stated in a letter dated 31st March 2023 that the application fails to provide information required to make it valid, and have requested an Ecological Survey and Impact Assessment to be provided, noting that the application triggered the need for biodiversity information for numerous reasons, many of which were not relevant to the proposed installation of a log burner. However, relevant triggers include the following:
 - Works to buildings with potential for bats, barn owls and breeding birds;
 - Lighting of listed buildings within 50m of habitat with connectivity to woodland or water; and
 - Minor householder proposals within 100m of pond/moat – great crested newts, water voles and amphibians.
- 1.4 The proposed application is for the installation of a log burner within a corner of a single-storey extension to a previously converted barn.

- 1.5 The Site location is approximately 1km to the south of Stowmarket and 0.75km east of the village of Combs; the Site location is presented below in Figure 1, with the site layout and the proposed section of the roof that will be affected by the works shown in Figure 2 below.

Figure 1 Site Location Plan

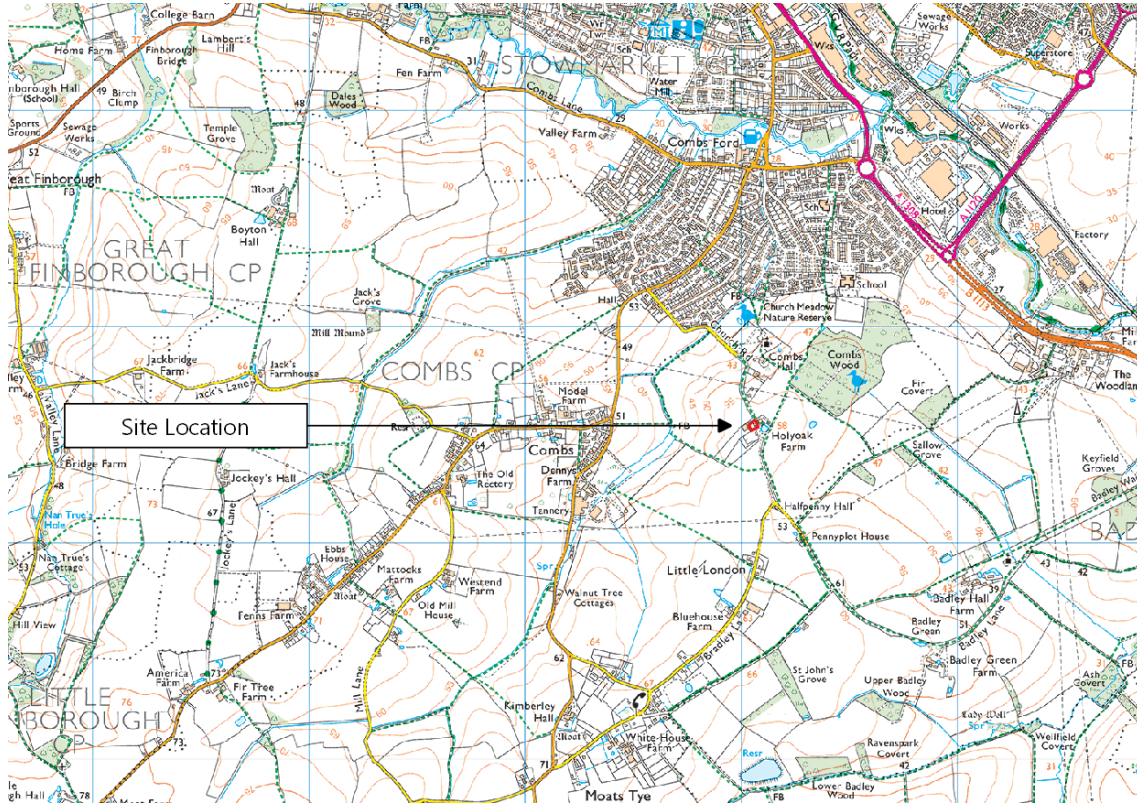


Figure 2 Site plan of Holy Oak Barn – showing location of corner of dwelling where installation of log burner is proposed (red cross)



Aim of Report

- 1.6 This report provides the findings of an Ecological Assessment of the proposed application for the installation of a log burner at Holy Oak Barn. This report is considered appropriate to inform an application for Listed Building Consent as well as for the planning permission for a projecting flue, that has been stipulated by MSDC.
- 1.7 Due to the very limited nature of the proposed works, and that there is no ground excavation associated with the installation of the log burner, the assessment has scoped out the need for an assessment of habitats and for protected species that are not likely to be present in a residential building, including great crested newts, other amphibian species, reptiles, and terrestrial mammals (other than bats).
- 1.8 Specifically, this report has focused on those species groups that could potentially be affected by the proposed work, namely bats and nesting birds; for these receptors a Preliminary Roost Assessment was undertaken to evaluate the potential suitability of the building to provide roosting habitat for bats, while also noting any evidence of breeding birds. The report also includes a desk study to provide context of the site in relation to designated sites and areas of priority habitats.
- 1.9 This report does not constitute a more comprehensive Ecological Impact Assessment (EclA) but is considered a proportionate approach where proposed works affect an existing building only and no significant excavations are required.

2 Methodology

Desk Study

- 2.1 A desk study was undertaken to review existing information regarding designated sites, habitats or species that benefit from statutory protection and/or are of nature conservation concern.
- 2.2 The scope of the desk study was to identify features of ecological value that could potentially be affected by the proposed development; for this reason, the scope of the area around the Site to be included within the desk study search has been set at a distance of 1 km which is sufficient to provide an indication of the nature conservation interest in the surrounding area and are considered appropriate for the size of the Site and the nature of the proposed development.
- 2.3 Due to the very small scale of the site, a full data search of records held by Suffolk Biodiversity Information Service (SBIS) was not considered proportionate. Information on statutory sites was obtained from the UK Government internet site MAGIC (<http://www.magic.gov.uk/>).

Bat Preliminary Roost Assessment

- 2.4 The Bat PRA was undertaken on 13th April 2023, and included an external and internal inspection of the part of the Holy Oak Barn building likely to be affected as well as considering other potential habitats included within the proposed development Site.
- 2.5 The PRA survey was undertaken by Dr Jon Huckle, an experienced professional ecologist with over 25 years of postgraduate experience and over 18 years operating as an ecological consultant. He has undertaken numerous bat surveys, including building inspections, bat activity transects, emergence and return roost surveys and has managed ecological input to numerous ecology chapters of Environmental Statements. He has provided evidence as an expert witness on bat ecology at several planning inquiries.
- 2.6 The preliminary roost assessment comprised a detailed inspection of the exterior and interior of the building to look for features that bats could use for entry/exit and to search for signs of bats, in accordance with methodological guidance produced by the Bat Conservation Trust (Collins, 2016). The objective of the survey was to determine the actual or potential presence of bats, to identify potential emergence points to focus on during emergence surveys, and to confirm the scope of further surveys that would be required to accompany the planning application, in line with best practice guidance on bat surveys (Collins, 2016).
- 2.7 For each building or tree, the PRA assigns a category to each structure according to its potential for supporting bat roosts using the criteria detailed in the BCT survey guidelines (Collins, 2016) and summarised in Table 1 below.

Table 1 Guidelines for assessing the potential suitability of proposed development sites for bats, taken from Collins 2016.

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
Negligible	Negligible habitat features onsite likely to be used by roosting bats.	Negligible habitat features on- site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space,	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the

Suitability	Description of roosting habitats	Description of commuting and foraging habitat
	<p>shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation.)</p> <p>A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.</p>	<p>surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	<p>A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).</p>	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p>
High	<p>A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.</p>	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>Site is close to and connected to known roosts.</p>

3 Survey Results

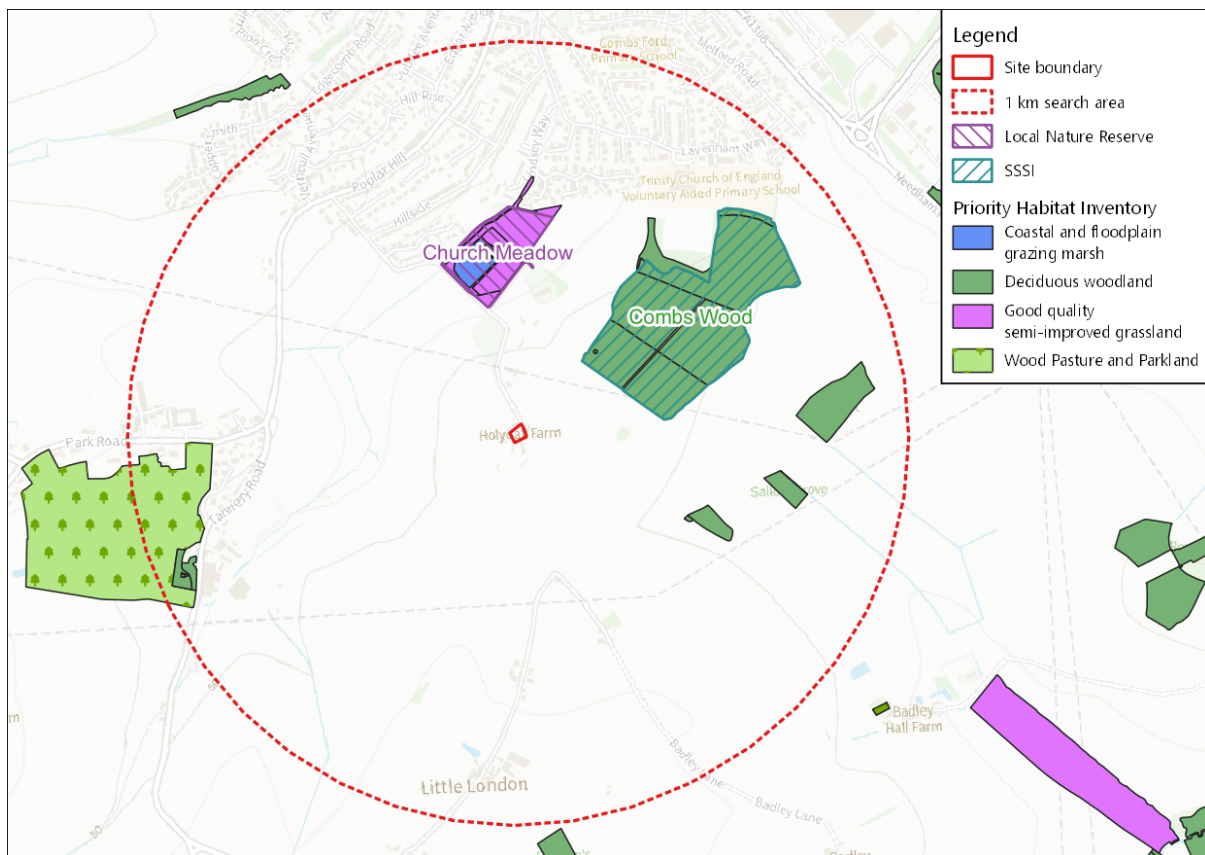
Desk Study

- 3.1 The Site itself does not benefit from any Statutory Designation.
- 3.2 Within 1km of the Site, there is one Site of Special Scientific Interest (SSSI), Combs Wood SSSI which is located between 230m and 850m northeast of the Site. Combs Wood SSSI, which is also a Suffolk Wildlife Trust nature reserve, is an area of Ancient Woodland with a well-developed coppice with standards structure with a variety of woodland types.
- 3.3 Although birds and bats are not specific designating features of the SSSI, the woodland habitat is likely to support locally important populations of both birds and bats.
- 3.4 The Site is located 230m from Combs Wood SSSI at its closest point, and is separated from the woodland habitat by an area of intensively managed arable farmland with no linear habitat such as hedgerows or lines of trees that would provide habitat connectivity between the site and the woodland.
- 3.5 A Local Nature Reserve (LNR), Church Meadow LNR is located approx. 320m north of the Site. This LNR, which is also a non-statutory County Wildlife Site, managed by Mid Suffolk District Council, and was

formerly part of Combs Hall; the meadow include earth banks and grassland as well as two ponds that have been reported to support great crested newts¹.

- 3.6 A review of the Priority Habitat Inventory has indicated that the designated sites listed above include areas of Deciduous Woodland (Combs Wood) and Good quality semi-improved grassland and Coastal and Floodplain grazing marsh (Church Meadow). In addition, within 1km of the Site there are several small areas of Deciduous Woodland and an area of Wood Pasture and Parkland.
- 3.7 The distribution of the designated sites and priority habitats are presented on Figure 3 below.
- 3.8 Due to the small extent of the proposed works and the very limited nature of the proposed development, it is considered certain that there would be no direct or indirect adverse effects on any statutory or non-statutory designated sites, or areas of Priority Habitat.

Figure 3 Location of Designated Sites and Priority Habitat within 1km of the Site



Bat Preliminary Roost Assessment

- 3.9 All bat species in England and Wales, and their resting and breeding places (roosts), are afforded protection under The Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence for anyone to intentionally or recklessly kill or injure a bat or disturb a roosting bat. It is also an offence to damage, destroy or obstruct

¹ [Church Meadow.qxd \(midsuffolk.gov.uk\)](http://midsuffolk.gov.uk)

Preliminary Roost Assessment – 13th April 2023

- 3.10 The building inspection was undertaken in April 2023 to provide an evaluation of the current potential suitability of the buildings to support bat roosting habitat. The proposed extension will involve the removal of a small number of tiles to enable the installation of a flue for the log burner; the exact number of tiles required to be removed is not known but a precautionary assumption has been made that it is expected to be approximately nine (3 tiles x 3 tiles) with some potentially reinstated with appropriate flashing around the projecting flue.
- 3.11 The log burner is to be located in the northwest corner of an existing open plan living area, with the flue passing through the ceiling and roof.
- 3.12 The survey was undertaken in bright, clear conditions and there had been no overnight rain in the preceding three days; these were optimal conditions for a building inspection. The survey was undertaken in April, which is at the start of active season for bats when bats have generally come out of hibernation and active, feeding on most nights when temperatures are suitable; in cold conditions bats may become torpid again (cool and inactive) or may move between several roosts.
- 3.13 The building inspection was able to access the external elevations of the section of the building to be affected by the proposed development as well as internally view the interior walls and loft spaces present; there were no significant limitations to the building inspection.

External Inspection

- 3.14 The northwest corner of the residential building comprised a single storey extension of the barn that appeared to be of relatively recent construction. The roof was composed of clay pan tiles, with clay ridge tiles with intact mortar present. The tiles were generally in excellent condition with minimal lifting of tiles and negligible gaps between tiles that could provide potential access points for bats. The lowest course of tiles were fitted with a PVC bird guard, which would also deter bats from entering along the bottom of the tiles.
- 3.15 The fascia and soffit boards were timber with PVC guttering along the front of the roof to be extended.
- 3.16 The walls were clad in vertical timber weatherboards, which were in excellent condition and of relatively recent origin with no warped boards or apparent cavities. The south west gable end wall included a glazed French window door and double glazed window with horizontal timber weather boards extending from a height of approx. 2m up to the apex of the gable wall.
- 3.17 Externally there were no obvious cavities or other bat Potential Roost Features (PRFs) associated with the roof, walls, or boarded sections of the building.
- 3.18 The tiles in the area of the proposed flue were inspected using close focusing binoculars and a thermal camera and no PRFs were detected.

Internal Inspection

- 3.19 The interior of the northwest corner of the barn extension comprised a plastered and painted wall and ceiling that followed the line of the roof, extending up to the eaves. The walls appeared to be recently plastered and decorated with internal timber beams along the top of the side walls and as a structural support in the gable wall.
- 3.20 There were no signs of bats and no PRFs present within the interior of the building.

Foraging and Commuting Habitat

- 3.21 The adjacent garden provides Low value foraging and commuting habitat (Collins, 2016), with areas of amenity grassland and paved areas with hedgerows and individual trees along the site boundary providing limited foraging opportunities and commuting flightlines.

Adjacent Buildings

- 3.22 To the southwest of Holy Oak Barn was a large, detached barn/workshop orientated in a NW-SE direction. This barn had timber weather boarded walls and an Onduline corrugated sheet roof. The exterior walls were in good condition but with several warped boards creating PRFs behind the boards. Internally, the barn supported several old, substantial timber beams and was of a timber frame structure. The barn was considered to provide moderate suitability as bat roosting habitat.
- 3.23 The remainder of Holy Oak Barn comprised 2-3 adjoining former barns which were all converted into part of the residential property with one used as a car port to the front. These barns were all in good condition and included a timber frame structure; a detailed inspection was beyond the scope of the survey but on a precautionary basis, the buildings were assessed as providing low to moderate potential.

Conclusion of Bat PRA

- 3.24 The external and internal inspection of the are likely to be affected by the proposed works to install a log burner and flue concluded that there were no habitat features likely to be used by roosting bats and that the building provided **Negligible** suitability as bat roosting habitat.

Evidence of Breeding Birds

- 3.25 No birds' nests were identified on the exterior of the building or within the interior of the loft space of the building.

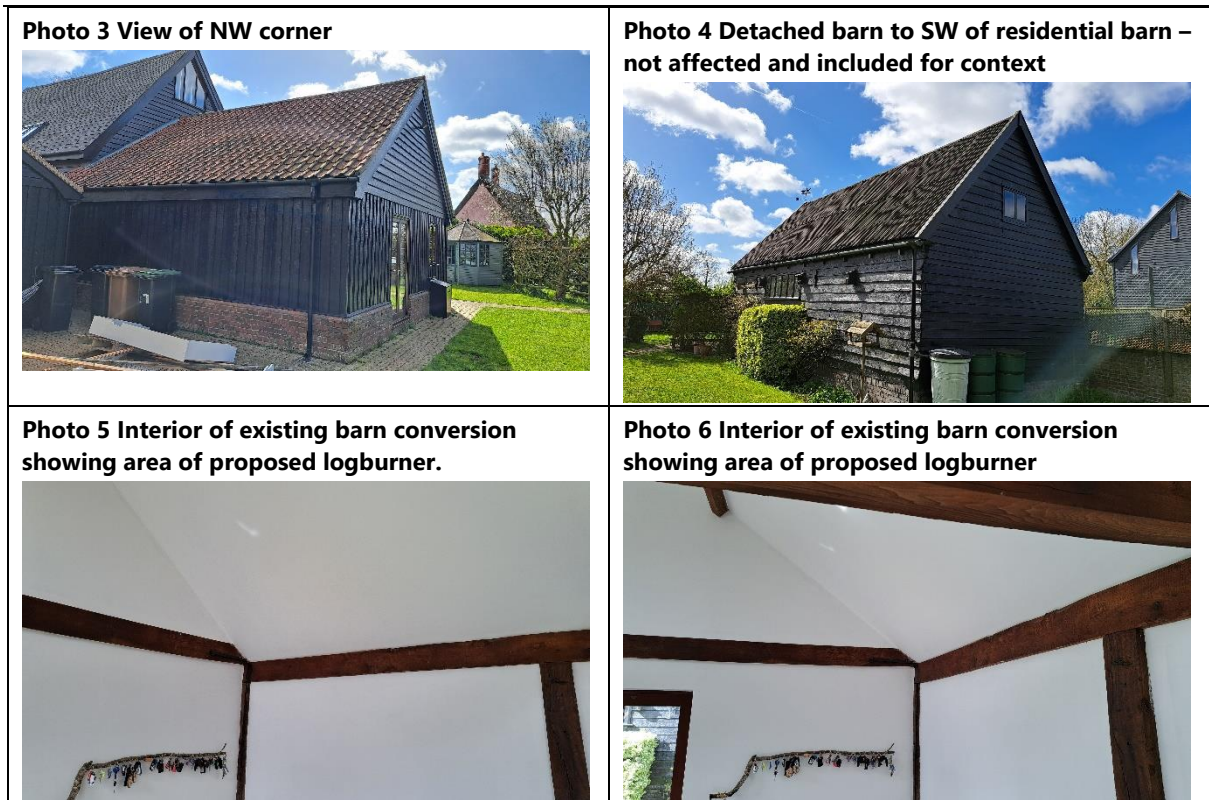
Site Photographs

Photo 1 View from NW of NW corner of barn extension showing area of proposed works



Photo 2 View of roof section showing location of proposed flue





4 Conclusions and Recommendations

- 4.1 The proposed development comprises an application for listed building consent to install a log burner and for planning permission to install a flue extending through a section of the roof at the north west corner of the building.
- 4.2 A desk study has confirmed that there are no designated sites, or areas of priority habitats, within close proximity to the site that would present material considerations for the planning decision maker. Combs Wood SSSI is located 230m from the Site but is separated from the Site by intensive arable farmland with no linear habitats providing connectivity or habitat functional linkages.
- 4.3 The proposed development is not considered likely to result in potential effects on bats; the area of the building affected by the proposed works is very limited in extent and was considered to provide negligible potential habitat for roosting bats and the wider site provides a small area of low value foraging or commuting habitat for bats.
- 4.4 It is not considered that the proposed log burner and flue will significantly affect local bat populations, as there is an abundance of alternative foraging sites within the surrounding area that would remain unaffected. No additional lighting of the proposed dwelling will be required.
- 4.5 Regardless of the absence of significant potential impacts on bats, measures designed to provide potential habitat enhancements for local bat populations are outlined below.

Biodiversity enhancements Benefiting Local Bat and Bird Populations

- 4.6 The following biodiversity enhancements are recommended to deliver a net gain for biodiversity in proportion to the scale and character of the proposed development:
- Erection of two bat boxes to provide potential roosting habitat in semi-mature trees retained within the existing land holding. The bat boxes should be of standard woodcrete construction such as the 'Schwegler 2F' or equivalent to maximise the durability of the bat boxes while minimising maintenance requirements. It is recommended that at least two boxes are installed, facing different directions (e.g., east, south and west) to provide a greater diversity of roosting opportunities.
- 4.7 Incorporation of these measures is considered to provide appropriate mitigation measures for any potential adverse effects associated with the proposed development and would also provide significant enhancements to biodiversity across the development site. With the successful implementation of these measures it is considered certain that there would be no likely significant adverse effects on local bat populations and the increase in bat roosting habitat will result in a proportionate gain for biodiversity,
- 4.8 In accordance with Charter Institute of Ecology and Environmental Management (CIEEM) guidance on the Life Span of Ecological Surveys and Reports (CIEEM, April 2019), it is advised that baseline survey results remain valid for approx. 12-18 months subject to their being no major change in the management of the site or the likelihood of ecological important species moving in to the site.

5 References

- CIEEM. (April 2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Winchester: CIEEM.
- Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. London: The Bat Conservation Trust.