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# **Preliminary Bat Roost and Barn Owl Assessment**

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**12 Green Oak Glade, Pinewood**

**for**

**Paul Hillebrandt**

**13 December 2023**

**Client**

Paul Hillebrandt

**Planning authority**

Barbergh Mid Suffolk District Council

***Time limit of reliance***

*Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports and surveys can typically be relied on for 18 to 24 months from the date of survey.*

*Surveys supporting European Protected Species Mitigation Licence applications must be within the current or most recent survey season for bats (May to September), or within two survey seasons for great crested newts (March to June).*

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Author	Miranda Proctor B.Sc (Hons), Natural England licences (Bat level 1 2020-44596-CLS-CLS, Great crested newt level 1 2018-37838-CLS-CLS)
Reviewers	Lucy Reed M.Sc, B.Sc (Hons), Natural England licences (Bat level 1 2019-43094-CLS-CLS, Great crested newt level 1 2020-44647-CLS-CLS, Barn owl level 1 2023-11281-CL29-OWL) Nathan Duszynski M.Sc, B.Sc (Hons), ACIEEM, Natural England licences (Bat level 2 2017-31943-CLS-CLS, Great crested newt level 1 2016-24303-CLS-CLS, Barn owl level 1 2023-11104-CL29-OWL)
<b><i>Signed disclosure</i></b> <i>The information, data, advice and opinions provided in this report which I have provided is true and has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional bona fide opinions.</i> <i>Nathan Duszynski, ACIEEM</i>	
<b>Greenlight Environmental Consultancy Limited</b> Diss Business Hub Hopper Way Diss Norfolk IP22 4GT <a href="http://www.greenlightco.co.uk">www.greenlightco.co.uk</a>	

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## SUMMARY

- Greenlight Environmental Consultancy Ltd. has been commissioned to carry out a Preliminary Bat Roost and Barn Owl Assessment for a development at 12 Green Oak Glade, Pinewood, Suffolk, IP8 3TH (grid reference: TM 13819 41779).
- This report outlines the likelihood of bats and barn owls being present and any potential effects of the proposed development on such species.
- The ecology report is required in support of a planning application for the re-roofing and conversion works to the existing garage.
- The survey and assessment were completed by independent, qualified and experienced ecologists with Natural England survey licences for the relevant protected species.
- The findings of the assessment are that there are no significant ecological constraints that would prevent the proposed works.
- **Under the proposed plans, no further surveys/licences are required to inform an ecological impact assessment or mitigation strategy.**
- If the following mitigation and enhancements are incorporated into the proposed layout, there will be a net gain for biodiversity, as is encouraged by the National Planning Policy Framework.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Protected sites	Seven statutory protected sites within 2km. Site located within Zone A of Suffolk RAMS.	No significant impacts on protected sites and their qualifying features.	None required.
Bats	Building one (dwelling) and two (garage) have <b>negligible summer and hibernation</b> bat roosting potential. <b>Low</b> value commuting and foraging habitat on site.	Potential disturbance of bat roosts if present in buildings. Low scale loss and potential light disturbance of commuting and foraging habitats on site.	<u>Mitigation</u> Any lighting schemes will comply with Bat Conservation Trust (GN08/23) and CIE 150:2017 guidance. <u>Enhancement</u> Installation of one standalone bat box installed on southeast aspect of existing dwelling.
Breeding birds	Nesting habitats for building nesting birds present on site, including potential breeding habitat for Red and Amber listed species. No suitable barn owl foraging habitat on site.	Low scale loss of nesting habitat on site. Potential disturbance to breeding birds.	<u>Mitigation</u> Works to any buildings on site to be conducted outside bird nesting season or under watching brief of ecologist if during nesting season. <u>Enhancement</u> Installation of one swift box installed on dwelling and one small bird box, installed within garden space.

Protected habitats/species	Status	Potential effect	Recommended mitigation and enhancements
Other animals	N/A	Potential harm to animals.	<p><u>Mitigation</u></p> <p>If fencing is required, this will be porous and provide openings for hedgehogs. Rough sawn planks will be placed inside any open excavations. Construction materials will be stored off the ground on pallets and waste materials in skips.</p> <p><u>Enhancement</u></p> <p>Installation of one bee brick.</p>

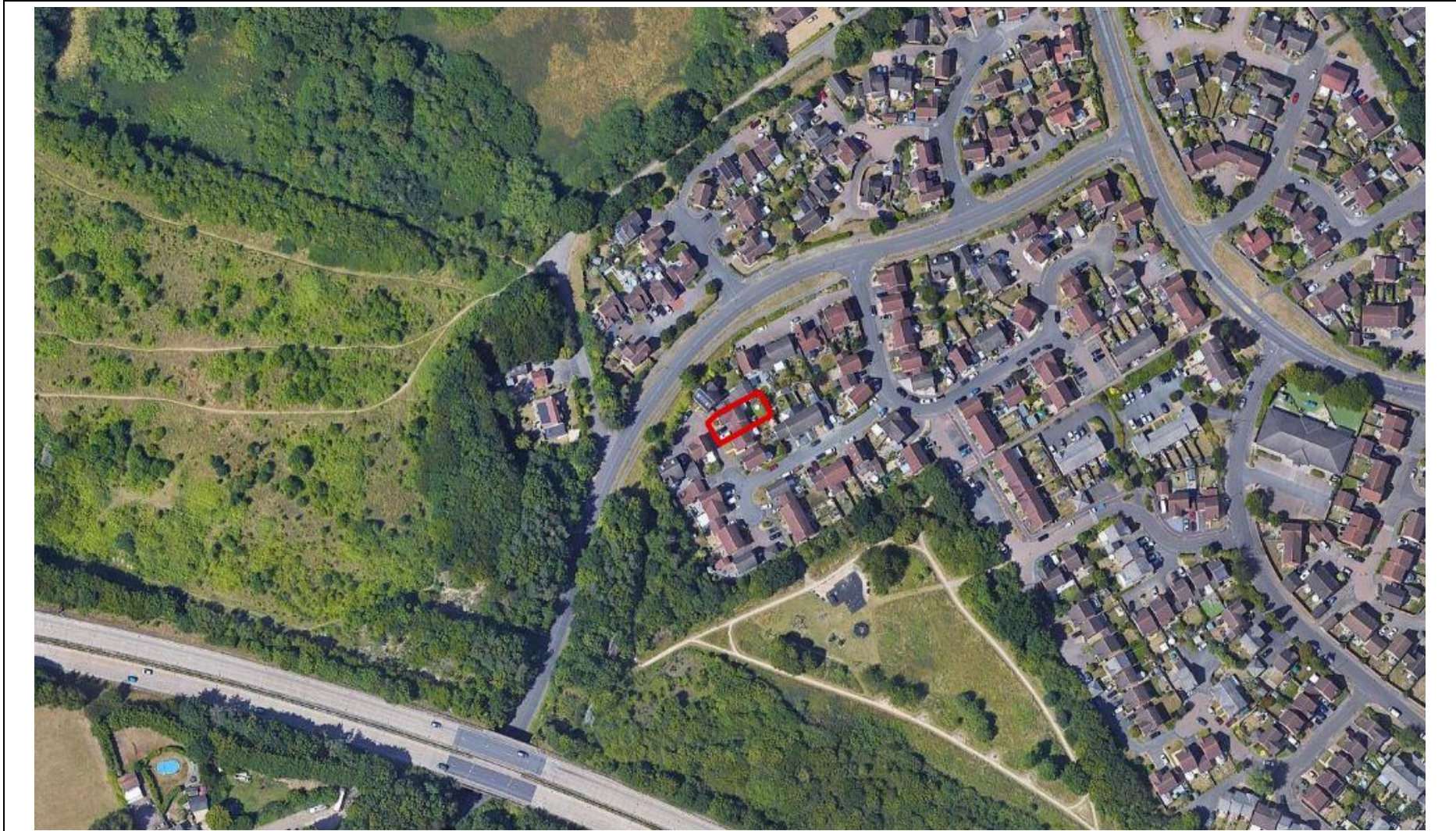
## **1. METHOD**

- 1.1. A walkover of the site was conducted on 6<sup>th</sup> December 2023 by Miranda Proctor – an independent, qualified and experienced ecologist. Survey conditions were as follows: 2°C, 5mph wind, sunny and dry.
- 1.2. All survey methods were carried out in accordance with the most up to date good practice guidance for the relevant protected species. Please refer to Appendix A for the full methodology and species breakdown.

## **2. SITE CONTEXT**

### **Location**

- 2.1. The general location of the site is shown in Figure 1 below.
- 2.2. The site is situated within Pinewood, a suburb of the town Ipswich, with the A14 located approximately 0.2km south, the A12 located approximately 1.4km west, a railway line located approximately 1.2km south and the River Orwell located approximately 2.7km east.
- 2.3. The site is enclosed by residential dwellings with associated developed land and green space on all boundaries. The wider surroundings are comprised of a mixture of residential dwellings, blocks of woodland, grassland and arable fields lined with mature trees and hedgerows.



**Figure 1**  
Satellite image of site surroundings, site indicated by red line.  
Image © Google, date accessed 06/12/23

### 3. DESCRIPTION OF THE DEVELOPMENT

- 3.1. The proposals are for the re-roofing and conversion works to the existing garage. Please refer to Appendix I for the proposed plans.

### 4. PROTECTED SITES

#### Statutory

- 4.1. There are seven statutory protected sites located within 2km – one Area of Outstanding Natural Beauty, five Local Nature Reserves (“LNR”) and one Sites of Special Scientific Interest (“SSSI”). Please refer to Appendix C for the full citation.
- i. Suffolk Coast and Heaths AONB, approximately 1.9km east.  
*“The Suffolk Coast and Heaths Area of Outstanding Natural Beauty (AONB) is a low-lying coastal landscape of astonishing variety, stretching from the Stour estuary in the South to Kessingland in the north, and covering 403 square kilometres.”* Landscapes for Life, 2023.
  - ii. Bourne Park Reed Beds LNR, approximately 1.2km east.  
*“Reedbed and tall herb fen with patches of scrub woodland, along the northern bank of Belstead Brook.”* Natural England, 2023.
  - iii. Bobbits Lane LNR, approximately 0.5km east.  
*“A local nature reserve comprising wet meadows which provide habitats for rare species such as otter, water vole, kingfishers, egrets, toads and other species.”* Natural England, 2023.
  - iv. Stoke Park Wood LNR, approximately 1.1km east.  
*“Mixed woodland with glades. Species include ancient woodland indicator species.”* Natural England, 2023.
  - v. Millennium Wood LNR, approximately 0.9km southeast.  
*“This is an ancient, semi-natural woodland. Spring Wood has bluebells and wood anemones. Other species include small leaved lime and white admiral butterfly.”* Natural England, 2023.
  - vi. Spring Wood, Belstead LNR, approximately 0.5km southeast.  
*“Spring Wood – ancient oak woodland with hazel understorey.”* Natural England, 2023.
  - vii. Bobbitshole, Belstead SSSI, approximately 1.1km southeast.  
*“This geological site is the type locality for the Ipswichian (last) Interglacial, where during the excavation of the sewage works, organic lacustrine deposits provided a continuous record of sedimentation, vegetational history, and non-marine mollusca from the Wolstonian late-glacial to the end of Ipswichian – Interglacial... A nationally important Pleistocene reference site.”*



- 4.2. The proposed development falls outside of all SSSI Impact Risk Zones relating to residential developments, and although the site is located within Zone A of the Suffolk Recreational Disturbance Avoidance and Mitigation Strategy (“RAMS”) zone of influence, there will be no net gain in residential units.

## 5. PROTECTED AND NOTABLE SPECIES

### Desktop review

#### *Protected species licences*

- 5.1. A 2km search on <http://www.magic.gov.uk/> indicated no records of granted European Protected Species (“EPS”) Mitigation Licences.

### Bats

- 5.2. There are two buildings located on site, as indicated in Figure 2 and photos 1-5.



#### *Building one - dwelling*

- 5.3. The dwelling is constructed of brick walls, with a pitched concrete pantile roof. The dwelling features PVC soffit boxes and PVC framed windows and doors. A PVC framed conservatory is present at the northeast aspect.
- 5.4. Internally the loft space is closed; the roof features no ridge beam, artificial lighting, bitumen lining and modern ‘W’ timber trusses. The loft space features chipboard sheets lining the gable

walls and eight inches of fibreglass insulation partially covered in boards on the loft floor. The loft space is used for storage.

- 5.5. No bats, evidence of bats or roosting features were observed.
- 5.6. The dwelling is assessed as **negligible** summer and hibernation roost suitability for bats due to the lack of bats, evidence of bats and roosting features. Please note, the building is occupied during winter months and features central heating, which would create fluctuations in temperature and humidity.



**Photo 1**, northeast aspects of building one and two, looking northwest.



**Photo 2**, internal view of building one looking southeast.

*Building two - garage*

- 5.7. The garage is constructed of brick walls, with a pitched concrete pantile roof. The garage features tight fitting PVC soffit boxes, a timber framed door on the southeast aspect and a metal garage door on the southwest aspect.
- 5.8. Internally the loft space is closed and features a bitumen lining, modern 'W' timber trusses and no ridge beam. The loft space features chipboard sheets lining the southeast gable wall and eight inches of fibreglass insulation partially covered in boards on the loft floor. The loft space is used for storage.
- 5.9. No bats or evidence of bats were observed. Although a very small number of crevices are present beneath the lifted lead flashing, they are small, situated on the northeast aspect, cobwebbed and thus considered unsuitable for roosting bats.
- 5.10. There were no signs of use by bats on the building exterior or interior and the structure provides unsuitable roosting environments. As bats can use small and apparently unsuitable features on occasion, the building is assessed as **negligible** (summer and hibernation) roost suitability for bats in accordance with the latest survey guidelines (Collins, 2023).



**Photo 3**, internal view of building two, looking northeast.

#### *Trees*

- 5.11. Trees were considered outside the scope of works.

#### *Foraging and commuting links*

- 5.12. The site itself provides **low** value foraging habitat for bats within garden space.
- 5.13. The landscape immediately adjacent to the site is considered of **low** to **moderate** value for foraging and commuting bats, with linked gardens and hedgerows providing links to the wider landscape. Additionally, the River Orwell located approximately 2.7km east provides moderate value foraging and commuting habitat providing links to the wider landscape. Residential dwellings adjacent the site and within Pinewood have the potential to provide roosting opportunities for bats.

#### **Birds**

- 5.14. Birds in the UK are classified into three categories of conservation importance - red, amber and green. Factors such as global threat level, population decline, breeding population decline and contraction of breeding range are taken into account to determine classification.
- 5.15. The following bird species were observed during the site visit:

**Amber listed:**

Dunnock  
Woodpigeon

*Prunella modularis*  
*Columba palumbus*

**Green listed:**

Blackbird  
Blue tit

*Turdus merula*  
*Cyanistes caeruleus*

- 5.16. The site provides suitable nesting habitats for building nesting species.
- 5.17. The site provides potential breeding habitat for the following Red listed species: house martin *Delichon urbicum*.
- 5.18. The site provides potential breeding habitat for the following Amber listed species: dunnock, song thrush *Turdus philomelos*, woodpigeon and wren *Troglodytes troglodytes*.
- 5.19. No signs of barn owl were found on the site and no foraging habitat is present.

## 6. DISCUSSION AND CONCLUSIONS

### Protected sites

- 6.1. The development footprint falls outside all identified protected sites (statutory and non-statutory). There are seven statutory protected sites located within 2km of the site.
- The closest statutory protected sites are Bobbits Lane LNR located approximately 0.5km east and designated for its wet meadows, and Spring Wood, Belstead LNR located approximately 0.5km southeast and designated for its ancient woodland habitats.
- 6.2. The proposed development falls outside of any SSSI Impact Risk Zones relating to residential developments and although it falls within Zone A of the Suffolk RAM there will be no net gain in residential units.
- 6.3. The proposed development is expected to have no effects on statutory or non-statutory protected sites or their qualifying features, owing to its relatively small scale, distance to protected sites and limited predicted impacts beyond the area of works.

### Bats

- 6.4. The proposed works are expected to result in a low scale loss of potential roosting, foraging and commuting habitats for bats through the re-roofing and conversion works of building two (garage), and through increased noise and light levels.
- 6.5. As a precautionary measure, the following mitigation will be implemented to avoid impacts on bats from the proposed works:
- i. Any lighting schemes will follow guidance from the Bat Conservation Trust (GN08/23) and CIE 150:2017. Warm-white (<3,000K) lights with UV filters (where necessary) will be installed away from roosting locations and linear features. Lighting units will feature a beam angle <70°, connected to movement sensors and feature baffles, hoods, louvres and horizontal cut off units at 90° where necessary.
- 6.6. Building Regulations state that the energy efficiency of buildings must be improved where possible and that contractors must assess the condensation risk within the roof space and make appropriate provisions in line with BS 5250:2011. This British Standard states that both High Resistance (bitumen type 1F) and Low Resistance (non-bitumen coated roofing membranes (NBCRM)) underlays are acceptable as long as appropriate ventilation is provided. As NBCRM are proven to entangle bats through regular contact, which also compromises the integrity of the membrane, the Bat Conservation Trust recommend only NBCRM that have passed the

snagging propensity test (must be supplied/installed with the necessary certification) or traditional type 1F bitumen are used.

6.7. As enhancements, the following will be implemented:

i. One standalone bat box installed on the southeast aspect of the existing dwelling (Greenwood's Ecohabitats three crevice bat box – Appendix F).

6.8. After these precautionary mitigation measures, we predict no impact on bats as a result of the development plans. We consider that a European Protected Species Licence will not be required, and no further surveys are necessary.

### **Birds**

6.9. The proposed works are expected to result in a low scale loss of bird nesting habitat through the re-roofing and conversion works to building two (garage).

6.10. As a precautionary measure, the following mitigation will be implemented to avoid impacts on birds from the proposed works:

i. Any works affecting bird nesting habitat such as management of buildings would ideally need to be conducted outside the main nesting season. If work is planned during the bird nesting season (between 1<sup>st</sup> March and 31<sup>st</sup> July), then a precautionary check of all habitats will be conducted by a qualified ecologist immediately prior to starting any work. If any nesting birds are found, an appropriate protection zone from the nest will be required and will be maintained until the young have fledged.

6.11. As enhancements, the following will be implemented:

i. One swift box installed on the dwelling on site (Vivara Pro WoodStone Swift Nest Box – Appendix F).

ii. One small bird box installed in the garden space (Schwegler 1B or 2H Nest Box – Appendix F).

6.12. Natural England and Local Planning Authorities (“LPA”) have recognised a significant decline in swift populations across the country, and are actively endorsing integrated swift boxes to provide a net gain in biodiversity, as is encouraged by National Planning Policy Framework (NPPF) 2023.



### **Other animals**

- 6.13. The surrounding habitat of the site is considered suitable for hedgehogs. To maintain potential hedgehog routes within the site and between the site and further habitats, any fencing installed will be porous and provide access openings for hedgehogs (see Appendix G for examples).
- 6.14. General mitigation to protect wildlife during the construction period are as follows:
- i. Any excavations will have a rough sawn plank placed inside to act as a ramp to allow any animals that have fallen in to escape. The excavations will be checked each morning works are scheduled for, to remove any animals trapped.
  - ii. Construction materials will be stored off the ground on pallets and waste materials in skips, to prevent providing shelter for animals and subsequent harm when materials are moved.
- 6.15. As enhancements, the following will be implemented:
- i. The installation of one bee brick on converted building (Bee brick – Appendix H).

## 7. BIBLIOGRAPHY

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## Appendix A

### Methods

#### Desktop Review

A desktop review of published data, such as records of protected sites and species, OS maps and satellite images has been carried out. A data search was carried out using [www.magic.gov.uk](http://www.magic.gov.uk) for statutory protected sites and habitats.

A field survey visit was conducted to confirm the findings of the desktop review and to record habitats and species located on site.

Equipment available for use during the survey were binoculars, ladders, torches, endoscope and a digital camera.

#### Bats

An assessment of the habitats on and surrounding the site for bat interest was made, in accordance with latest bat survey guidelines (Collins, 2023).

The building(s) on site was assessed for its potential to support roosting bats and involved a thorough internal and external search of all suitable cavities, holes and crevices. All suitable areas, including objects, ledges and floors were inspected for the following signs:

- Bat droppings
- Stains around roosting places and entrance points
- Urine marks
- Prey remains
- Areas devoid of cobwebs
- Live or dead bats
- Suitable cracks and crevices for bats to enter

In exposed conditions, the signs of bat usage such as droppings and urine marks can be obliterated by heavy rain.

An evaluation system was applied to the building(s) using the following criteria:

- **Suitability – none.** No habitat features on site likely to be used by any roosting bats at any time of year i.e. a complete absence of crevices/suitable shelter at all ground/underground levels.
- **Negligible roost suitability for bats.** These buildings have no obvious potential roosting features for bats, or minor features in an isolated or unsuitable location such that the presence of a bat roost is considered highly unlikely. However, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasions. Such buildings usually fall into two main types: generally, well maintained without cracks and crevices, no gaps between bargeboard or soffit and wall, or without an attic space; or those which contain some or all of the above features, but are both draughty and thick in cobwebs or contain strong odours such as solvents, diesel etc. It must be borne in mind that a

building from this latter group can become suitable for bats following refurbishment. This often happens to houses once the attic space has been cleaned and under-felted prior to timber treatment. When no suitable habitats for bats are found, no further surveys or European Protected Species (“EPS”) mitigation licence are required.

- **Low roost suitability for bats.** Buildings in this category have one or more potential roost sites that could be used by individual bat opportunistically. These buildings do not however provide suitable conditions (such as space, shelter, temperature, humidity, or light and noise disturbance) to be used on a regular basis by a large number of bats. Structures with low roost suitability for bats will require **one dusk emergence survey** conducted between May and August to assess their current use by bats.
- **Moderate roost suitability for bats.** These buildings contain one or more potential roosting sites which could be regularly used by bats owing to their size, shelter, protection and conditions. These buildings are however unlikely to support a roost of high conservation status (maternity roost or hibernation roost). Structures with moderate roost suitability for bats will require two surveys, **two dusk emergence surveys** conducted between May and September with at least one of the surveys undertaken between May and August, to assess their current use by bats.
- **High roost suitability for bats.** This group includes buildings with one or more potential roost sites which are obviously suitable for use by a larger number of bats on a regular basis and potentially for longer periods of time owing to their size, shelter, protection and conditions. These buildings may support a roost of high conservation status (maternity roost or hibernation roost) and will require three activity surveys to assess their current use by bats. The surveys should include at least **three dusk emergence surveys** conducted between May and September with at least two of surveys undertaken between May and August.

Trees on and around the site were assessed for their suitability to support roosting bats. The assessment involved a ground level inspection of the exterior of the trees to search for features offering roosting potential to bats such as split limbs, woodpecker holes, cavities, lifted bark, dense thick-stemmed ivy, etc.

An evaluation system was applied to the trees using the following criteria:

- **Suitability - none.** Either no potential roosting features in the tree or highly unlikely to be any. Trees highly unlikely to be used by roosting bats.
- **Further Assessment Required.** Further assessment required to establish if potential roosting features are present in the tree.
- **Potential Roosting Feature – Individual (“PRF-I”).** Potential roosting features only suitable for individual bats or very small numbers of bats, either due to the size of lack of suitable surrounding habitats i.e. trees with limited roosting potential.
- **Potential Roosting Feature – Multiple (“PRF-M”).** Potential roosting features suitable for multiple bats and may therefore be used by a maternity colony.

The habitats on and around the site were assessed for their commuting and foraging potential for bats. An evaluation system was applied to the commuting and foraging potential using the following criteria.

- **Suitability – none.** No habitat features on site likely to be used by any commuting or foraging bats at any time of year i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats.
- **Negligible commuting and foraging potential for bats.** Habitat features unlikely to be used by commuting or foraging bats i.e. no obvious flight-paths or foraging opportunities. However, a small element of uncertainty remains in order to account for non-standard bat behaviour.
- **Low commuting and foraging potential for bats.** Habitats that could be used by a small number of commuting or foraging bats such as, a gappy hedgerow, unvegetated stream or lone trees, but are isolated and not well connected to the surrounding landscape.
- **Moderate commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, lines of trees, scrub, linked back gardens, grasslands and water features.
- **High commuting and foraging potential for bats.** Habitats that are continuous and connected to the wider landscape such as, river valleys, watercourses, hedgerows, lines of trees, deciduous woodland, and grazed parkland. These habitats are likely to be used regularly by commuting or foraging bats and are likely to be close to, or connected to, known roosts.

### **Birds**

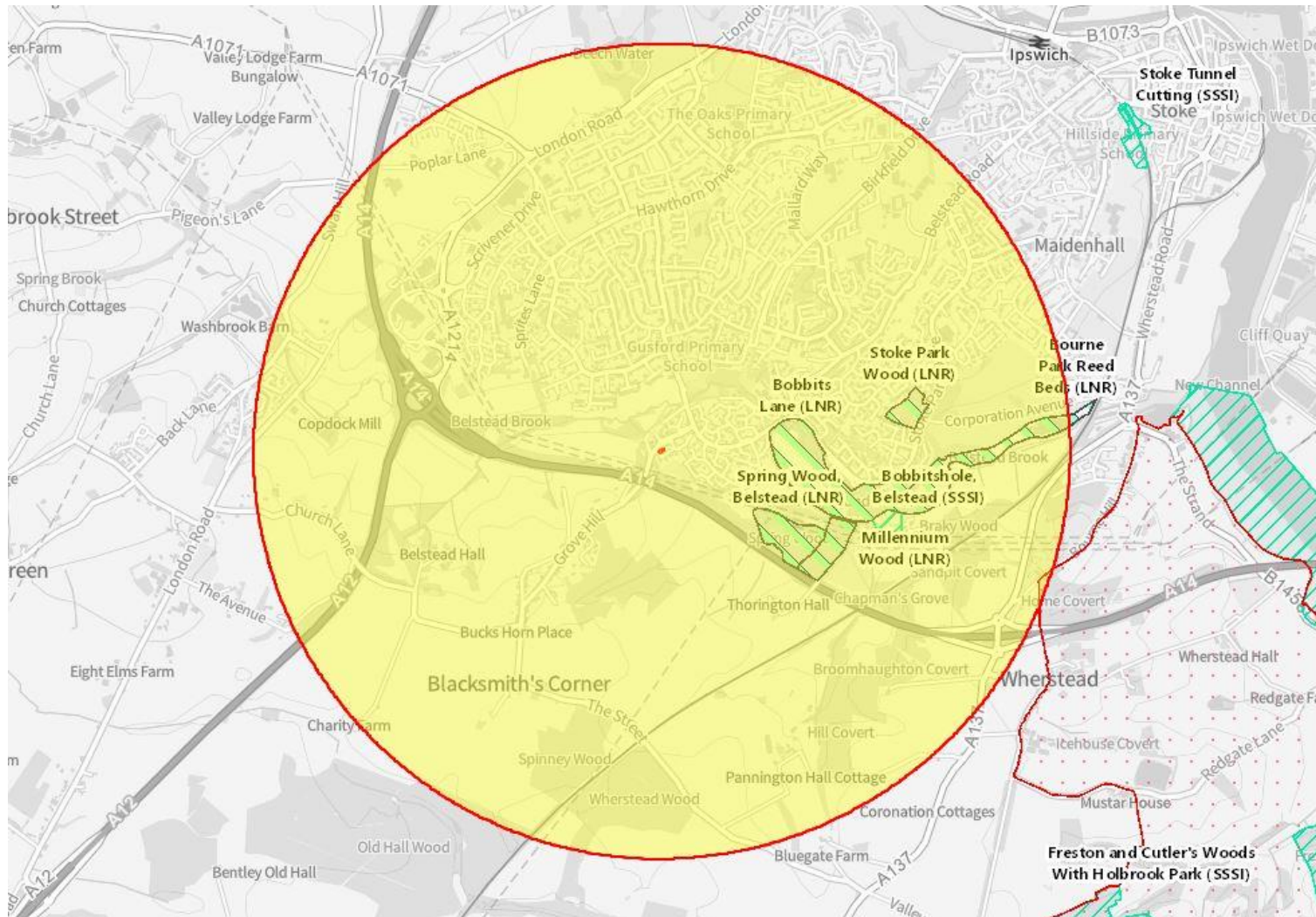
The site and its surrounding habitats were assessed for their potential to support breeding birds. Bird nesting habitat could include grassland, hedgerows, scrub, trees and buildings.

Bird species noted during the site visit were recorded. Trees, buildings and grassland were checked for use by barn owls, swifts and skylarks.

### **Constraints**

Although the survey was conducted outside of the main activity season for bats, a preliminary roost assessment could be completed by assessing the suitability of the building for occupation by bats.

**Appendix B**  
**Map of protected sites within 2km**



## Appendix C Protected sites citations

### SSSI citations

COUNTY: SUFFOLK      SITE NAME: BOBBITSHOLE, BELSTEAD

DISTRICT: BABERGH

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981

Local Planning Authority: BABERGH DISTRICT COUNCIL

National Grid Reference: TM 149413      Area: 1.8 (ha.) 4.4 (ac.)

Ordnance Survey Sheet 1:50,000: 169      1:10,000: TM 14 SW

Date Notified (Under 1949 Act): –      Date of Last Revision: –

Date Notified (Under 1981 Act): 1987      Date of Last Revision: –

Other Information:

This is a new site.

Description and Reasons for Notification:

This geological site is the type locality for the Ipswichian (Last) Interglacial, where during the excavation of the sewage works, organic lacustrine deposits provided a continuous record of sedimentation, vegetational history, and non-marine mollusca from the Wolstonian late-glacial to the end of Ipswichian – Interglacial (subzone Ip IIb). A nationally important Pleistocene reference site.



## Appendix D Legislation

### European Protected Species

**The Ramsar Convention (1971)** on Wetlands of International Importance especially as Waterfowl Habitat seeks to promote the conservation and wise use of wetlands, particularly those which support internationally significant numbers of water birds. This is achieved through the designation of Ramsar Sites.

**The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC)** sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It requires member states to designate Special Protection Areas (SPAs) for protection of certain species.

The main piece of legislation relating to nature conservation in Great Britain is **The Wildlife and Countryside Act 1981 (as amended)**. This Act is supplemented by provision in **The Countryside and Rights of Way (CROW) Act 2000** and **The Natural Environment and Rural Communities Act 2006 (in England and Wales)**. This act provides varying degrees of protection for the listed species of flora and fauna, including comprehensive protection of wild birds, their nests and eggs.

**The Countryside and Rights of Way Act 2000** strengthens the protection given to SSSIs. It revises the procedures for the notification of SSSIs and for the consenting of operations which may damage the special interest of a SSSI. Local authorities have a duty to take steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of SSSIs. The act also strengthens the existing provisions of the Wildlife and Countryside Act 1981 for the enforcement of wildlife legislation, including a new offence of "recklessly" destroying or damaging the habitats of certain protected species.

UK wildlife is also protected under **The Conservation (Natural Habitats &c.) Regulations 1994** (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. In 2017, these Regulations, together with subsequent amendments, were consolidated into **The Conservation of Habitats and Species Regulations 2017**.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites. The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

### National Planning Policy - National Planning Policy Framework (NPPF)

Section 15 of the National Planning Policy Framework 2021 (NPPF): Conserving and enhancing the natural environment states that 'planning policies and decisions should contribute to and enhance the natural and local environment by ... minimising impacts on and providing net gains for biodiversity.'

Office of The Deputy Prime Minister (“ODPM”) Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the planning system.

Paragraph 98 of Circular 06/2005 states that ‘the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat’.

### **Implications of legislation and policies**

Without this ecological assessment, the potential developer would be unable to demonstrate due diligence in his responsibilities. Furthermore, the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in non-determination or refusal of the application.

With legal responsibilities and planning implications, it is essential that any ecological assessment of a potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

### **Bats**

All bat species in Britain are protected under the Wildlife and Countryside Act 1981 through inclusion on Schedule 5. They are also protected under the Conservation (Natural Habitats &c.) Regulations 1994 (which were issued under the European Communities Act 1972), through inclusion on Schedule 2. On 30<sup>th</sup> November 2017, these Regulations, together with subsequent amendments, were consolidated into the Conservation of Habitats and Species Regulations 2017.

European protected animal species (“EPS”) and their breeding sites or resting places are protected under Regulation 42. It is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs. It is an offence to damage or destroy a breeding or resting place of such an animal. It is also an offence to have in one's possession or control, any live or dead European protected species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit an offence only if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or (b) the local distribution of abundance of that species. The existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale still apply to European protected species.

This legislation provides defences so that necessary operations may be carried out in places used by bats, provided the appropriate Statutory Nature Conservation Organisation (in England this is Natural England) is notified and allowed a reasonable time to advise on whether the proposed operation should be carried out and,

if so, the approach to be used. The UK is a signatory to the Agreement on the Conservation of Bats in Europe, set up under the Bonn Convention. The Fundamental Obligations of Article III of this Agreement require the protection of all bats and their habitats, including the identification and protection from damage or disturbance of important feeding areas for bats.

### **Barn Owls**

The Habitats Regulations (1994), as amended, states that a person commits an offence in the case of Barn Owl only if this species is disturbed in the breeding season. This applies equally to all those bird species listed under Schedule 1.

### **Breeding Birds**

It is an offence to kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while that nest is in use or being built (even of "pest" species); take or destroy the eggs of any wild bird.

### **Natural England Licensing - EPS Mitigation Licensing**

Licences can be obtained from the Wildlife Management and Licensing Service at Natural England to allow certain activities that would otherwise constitute an offence, for the purposes of development (e.g. destruction of a bat roost, loss of great crested newt aquatic and terrestrial habitat, etc).

## Appendix E

### Native species suitable for planting and sowing

Plants should be obtained from specialist nurseries and preferably be of local genetic stock.

Key: (f) – fruit and berry species; (e) – evergreen species; (se) semi-evergreen species; (d) – deciduous species

Trees	
Alder (d)	<i>Alnus glutinosa</i>
Apples (f; d)	<i>Malus spp.</i> (local varieties)
Ash (d)	<i>Fraxinus excelsior</i>
Beech (d)	<i>Fagus sylvatica</i>
Bird cherry (f; d)	<i>Prunus padus</i>
Elder (f; d)	<i>Sambucus nigra</i>
Elm (d)	<i>Ulmus procera</i>
Field maple (d)	<i>Acer campestre</i>
Pedunculate oak (d)	<i>Quercus robur</i>
Rowan (f; d)	<i>Sorbus aucuparia</i>
Pears (f; d)	<i>Pyrus spp.</i>
Silver birch (d)	<i>Betula pendula</i>
Small-leaved lime (d)	<i>Tilia cordata</i>
White willow (d)	<i>Salix alba</i>
Wild cherry (f; d)	<i>Prunus avium</i>
Walnut (d)	<i>Juglans regia</i>

Shrubs	
Blackthorn (f; d)	<i>Prunus spinosa</i>
Buckthorn (f; d)	<i>Rhamnus catharticus</i>
Crab apple (f; d)	<i>Malus sylvestris</i>
Dog rose (f; d)	<i>Rosa canina</i>
Dogwood (f; d)	<i>Cornus sanguinea</i>
Field maple (d)	<i>Acer campestre</i>
Guelder-rose (f; d)	<i>Viburnum opulus</i>
Hawthorn (f; d)	<i>Crataegus monogyna</i>
Hazel (d)	<i>Corylus avellana</i>
Holly (e)	<i>Ilex aquifolium</i>
Honeysuckle (f; d)	<i>Lonicera periclymenum</i>
Spindle (f; d)	<i>Euonymus europaeus</i>
Wild privet (f; se)	<i>Ligustrum vulgare</i>
Yew (f; e)	<i>Taxus baccata</i>

Flowering plants	
Bird's-foot trefoil	<i>Lotus corniculatus</i>
Black knapweed	<i>Centaurea nigra</i>
Common cat's-ear	<i>Hypochoeris radicata</i>
Common sorrel	<i>Rumex acetosa</i>
Common vetch	<i>Vicia sativa</i>
Cowslip	<i>Primula veris</i>
Field scabious	<i>Knautia arvensis</i>
Foxglove	<i>Digitalis purpurea</i>
Lady's bedstraw	<i>Galium verum</i>
Meadow buttercup	<i>Ranunculus acris</i>
Meadow vetchling	<i>Lathyrus pratensis</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Primrose	<i>Primula vulgaris</i>
Red clover	<i>Trifolium pratense</i>
Selfheal	<i>Prunella vulgaris</i>
Sweet violet	<i>Viola odorata</i>
Wild daffodil	<i>Narcissus pseudonarcissus</i>
Yarrow	<i>Achillea millefolium</i>

Grasses	
Common bent	<i>Agrostis capillaris</i>
Crested dog's-tail	<i>Cynosurus cristatus</i>
Meadow fescue	<i>Festuca pratensis</i>
Red fescue	<i>Festuca rubra</i>
Rough meadow-grass	<i>Poa trivialis</i>
Small timothy	<i>Phleum bertolonii</i>
Smooth meadow-grass	<i>Poa pratensis</i>
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>
Yellow oat-grass	<i>Trisetum flavescens</i>

#### Flowering Lawn Mixture – EL1 Emorsgate Seeds

<https://wildseed.co.uk/product/mixtures/complete-mixtures/special-habitat-mixtures/flowering-lawn-mixture/>

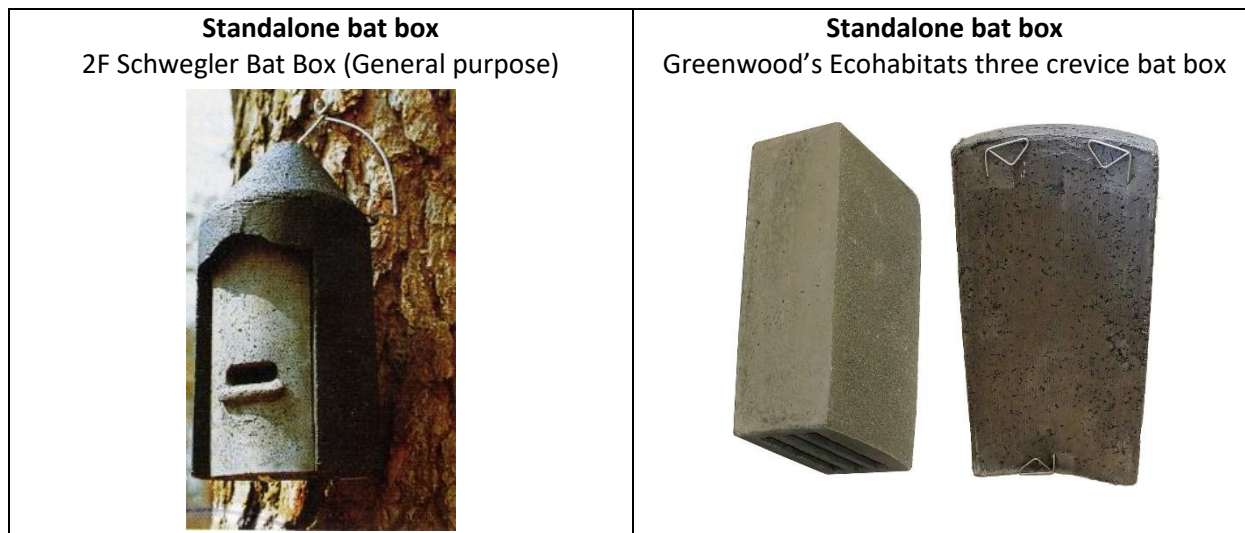
#### Wildflower Meadow Mixture – EM3 Emorsgate Seeds

<https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/>

## Appendix F

### Examples of bat and bird boxes

(images sourced from [www.nhbs.com](http://www.nhbs.com), [www.habibat.co.uk](http://www.habibat.co.uk), [www.manthorpe.co.uk](http://www.manthorpe.co.uk), [www.barnowltrust.org.uk](http://www.barnowltrust.org.uk) and [www.greenwoodsecohabitats.co.uk](http://www.greenwoodsecohabitats.co.uk))



#### Recommendations for installing bat boxes:

(Sourced from Bat Conservation Trust [www.bct.org](http://www.bct.org))

Ideally, several boxes should be put up facing in different directions to provide a range of conditions.




Locate boxes:

- Where bats are known to feed close to hedges and treelines (some bats use a treeline or hedgerow for navigation, putting boxes near these features may help the bats find the box).
- On trees: boxes should be placed on the trunk of a mature tree, where there is a clear flight line/accessible entrance.
- On buildings: boxes should be placed as close to the eaves as possible.
- As high as possible (ideally, at least 3 to 4m above the ground, where safe installation is possible).
- In sunny places, sheltered from strong winds (usually between south-west and south-east).

Make sure the boxes are secured.

Boxes can be installed on trees using adjustable ties to avoid damaging the trees. Otherwise, timber screw bolts or nails can be used. Aluminium alloy nails are less likely to damage saws and chipping machinery.

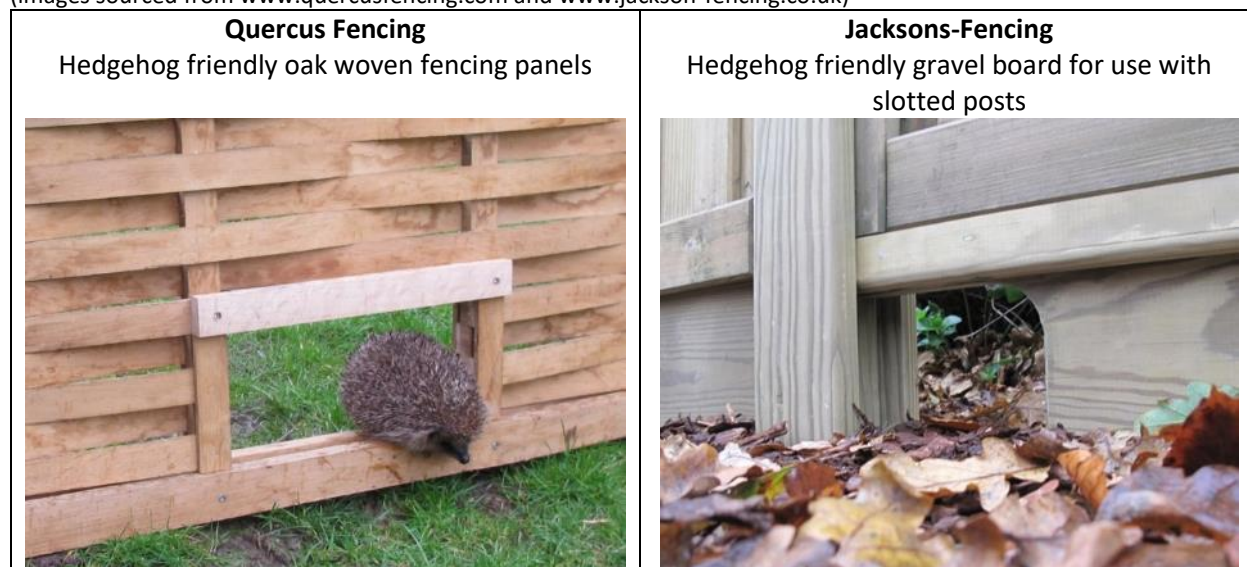
Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents. Once bats find a place they want to live they can return over and over again. Droppings on the landing area, urine stains around the lower parts of the box and chittering noises from inside on warm afternoons and evenings are signs of occupation.

<p style="text-align: center;"><b>Small bird nesting box</b> 1B Schwegler Nest Box</p> 	<p style="text-align: center;"><b>Small bird nesting box</b> 2H Schwegler Robin Box</p> 
<p style="text-align: center;"><b>Swift box</b> Vivara Pro WoodStone Swift Nest Box</p> 	
<p><b>Recommendations for installing bird boxes:</b> (Sourced from British Trust for Ornithology <a href="http://www.bto.org">www.bto.org</a>, Manthorpe <a href="http://www.manthorpe.co.uk">www.manthorpe.co.uk</a> and Barn Owl Trust <a href="http://www.barnowltrust.org.uk">www.barnowltrust.org.uk</a>)</p>	
<p>The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully.</p> <p>Tips for putting up a nest box:</p> <ul style="list-style-type: none"> <li>• Boxes should be sited 1-3m from the ground, ideally on tree trunks but can be placed on the side of a shed or wall. Avoid areas where foliage obscures the entrance hole.</li> <li>• Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.</li> <li>• Shelter your nest box from prevailing wind, rain and strong sunlight. The box should face between north and east, and angled vertically or slightly downwards to prevent rain entering.</li> <li>• Make sure cats cannot get into the box.</li> <li>• Keep nest box away from bird feeders.</li> <li>• Use galvanized or stainless steel screws or nails. If fixing boxes to trees, galvanised wire can be used to tie the box to the trunk or hang it from a branch. Make sure to regularly inspect these fittings (every two or three years) to ensure the box remains securely attached.</li> </ul> <p>Tips for putting up house sparrow terraces and swift bricks/boxes:</p> <ul style="list-style-type: none"> <li>• Locate ≥5m high on the gable wall of the property and above the level of the insulation zone.</li> <li>• Where possible, install in locations that are unlikely to receive large amounts of direct sunlight during the hottest times of the day, ideal places include below the overhang of the verge and barge board.</li> </ul>	

## Appendix G

### Examples of hedgehog friendly fencing

(images sourced from [www.quercusfencing.com](http://www.quercusfencing.com) and [www.jackson-fencing.co.uk](http://www.jackson-fencing.co.uk))



#### Recommendations for installing hedgehog friendly fencing:

(Sourced from Hedgehog Street [www.hedgehogstreet.org](http://www.hedgehogstreet.org))



A hedgehog friendly fence should have a gap measuring at least 13cm by 13cm in the gravel board. These gaps allow any hedgehog to pass through but are too small for nearly all pets.

At least one hedgehog friendly fence panel should be located on each side of your garden, to provide unimpeded access.

Almost all fencing materials can be made hedgehog friendly, but may require DIY adaptations. Please note that some concrete gravel boards contain metal rods running along the length of the boards to provide strength and rigidity, and cannot be cut. To overcome this, a gap can be left between the gravel board and post to provide the required gap.

## Appendix H Bee Bricks

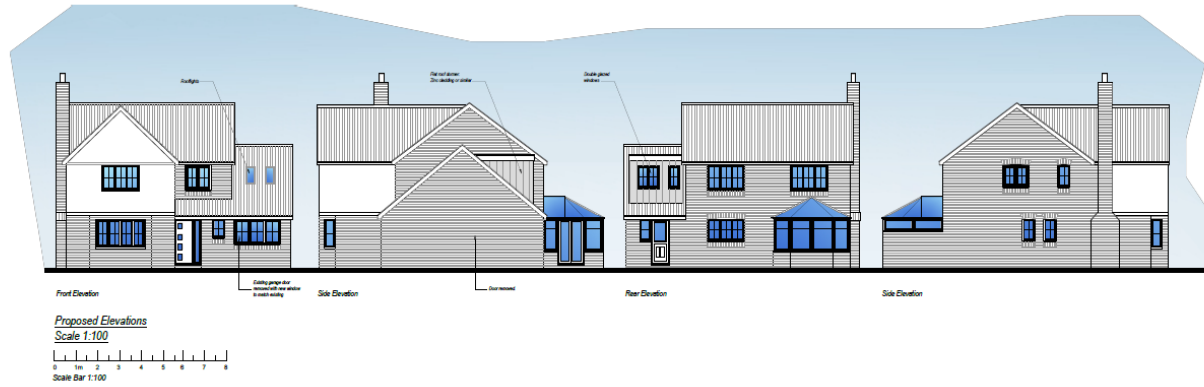
(images sourced from [www.nhbs.com](http://www.nhbs.com) and [www.greenandblue.co.uk](http://www.greenandblue.co.uk))

Bee post	Bee bricks
	
<b>Recommended bee brick installation</b> (Sourced from NHBS <a href="http://www.nhbs.com">www.nhbs.com</a> )	
<ul style="list-style-type: none"><li>• Bee bricks will be installed on a south facing sunny spot of an external wall of the residential dwelling, at a minimum height of 1m. No vegetation should be obstructing the holes.</li><li>• Bee posts will be positioned south facing in a sun exposed spot, with no vegetation covering the fascia. The posts must be set in a concrete base at a minimum of 30mm, similar to installing a fencepost.</li></ul>	



## **Appendix I**

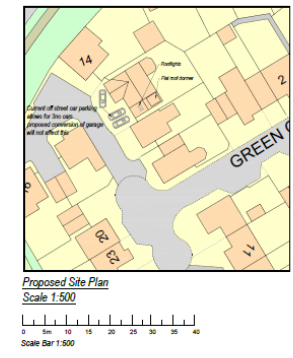
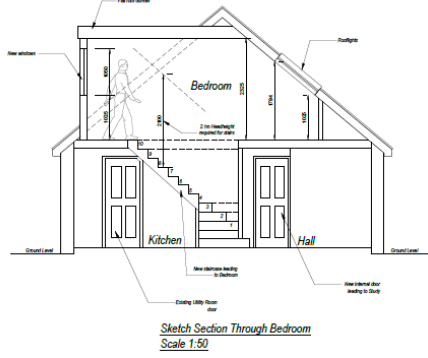
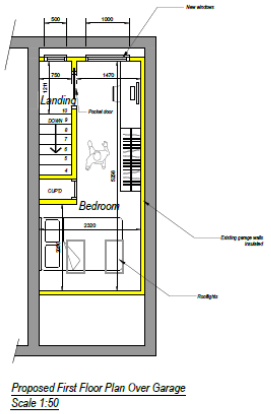
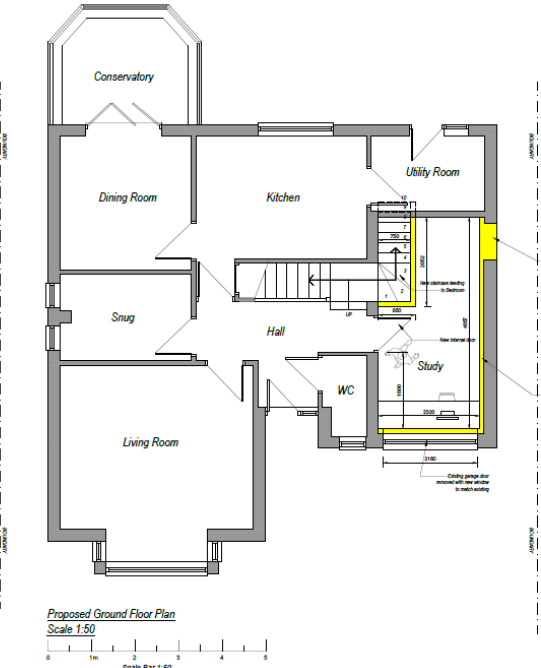
### **Proposed plans**



**Notes**

- Drawing not to be scaled
- All measurements to be checked on site
- Any construction work carried out prior to receiving all necessary approvals for planning and/or building regulations is entirely at the householder's/scientist's risk

Existing Walls  
Proposed Walls



REV A - Design changes - 09/10/2023

Tel: 01473 876012  
office@dakingdesigns.co.uk  
www.dakingdesigns.co.uk

daking designs ltd  
architectural designers

Project:  
Proposed Garage Conversion & Loft Conversion Over Garage with Internal Alterations at 12 Green Oak Glade, Pinewood, Warwick, CV3 7TE

Drawing Details:  
Proposed Floor Plans, Elevations & Site Plans

Date:	Scale:	Drawn:
Sept/2023	See Drawing @ A1	BCW
Number:		Rev:
526-002		A