

# *Biodiversity Enhancement Strategy*

At

*White House Farm,*

*The Street,*

*Thorndon*

*IP23 7JN*

For

*Keith and Jane Saunderson*

March 2024



**DCS** **ECOLOGY**



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The authors and surveyors used to undertake the work are appropriately qualified for the tasks undertaken. The work undertaken while preparing this report has been carried out with due care, skill, and diligence.

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# 1. Executive summary

## 1.1. Overview

DCS Ecology Ltd. was commissioned by Keith and Jane Saunderson to produce a Biodiversity Enhancement Strategy, for a granted planning application (DC/23/01147) at White House Farm, The Street, Thorndon, IP23 7JN (central grid reference TM 13646 69909, hereafter referred to as the Site).

A Biodiversity Enhancement Strategy (BES) was required in for the proposed development entailing the conversion of the north wing of a dwelling into habitable accommodation from its previous use as a log store and workshop.

The site is approximately 3200m<sup>2</sup> and is comprised of building infrastructure (dwellings and garage), hardstanding (driveway and footpath), mature trees, amenity grassland, ornamental hedgerow and scattered shrubs, and a pond. The northern wing proposed for development is approximately 6m x 8m.

This Biodiversity Enhancement Strategy summarises the results gathered by previous surveys, and details recommendations, appropriate timings, and biodiversity enhancements necessary to avoid negatively impacting species and habitats of interest found within the site. Previous surveys include a Preliminary Roost Assessment (PRA) undertaken on 31st March 2023 by DCS Ecology Ltd. Results concluded that the northern wing has negligible potential for roosting bats.

No licenses were recommended, as this was not deemed necessary. The site also contained small areas of suitable habitat for reptiles, amphibians, birds, small mammals and invertebrates.

## 2. Introduction

### 2.1. Background

DCS Ecology Ltd. was commissioned by Keith and Jane Saunderson to produce a Biodiversity Enhancement Strategy, for a granted planning application (DC/23/01147) at White House Farm, The Street, Thorndon, IP23 7JN (central grid reference TM 13646 69909).

The site is approximately 3200m<sup>2</sup> and is comprised of building infrastructure (dwellings and garage), hardstanding (driveway and footpath), mature trees, amenity grassland, ornamental hedgerow and scattered shrubs, and a pond. The northern wing proposed for development is approximately 6m x 8m.

Full Planning permission has been approved for conversion of the north wing of a dwelling into habitable accommodation from its previous use as a log store and workshop (DC/23/01147).

Previous surveys include a Preliminary Roost Assessment (PRA) undertaken on 31st March 2023 by DCS Ecology Ltd. Results concluded that the northern wing has negligible potential for roosting bats. Recommendations have been taken into consideration for this document, particularly in regards to birds, foraging bats and herpetofauna (amphibians and reptiles).

Using the information from the above survey work, this report details information of a Biodiversity Enhancement Strategy.

### 2.2 Aims and objectives

The aim of this Biodiversity Enhancement Strategy is to assist with discharging relevant conditions of planning application DC/23/01147, granted planning permission on 19<sup>th</sup> June 2023. Previous ecological reports (DCS Ecology Ltd, 2023) have recommended ecological mitigation, compensation, and enhancement measures to create a positive net gain effect on the biodiversity onsite.

The primary conditions considered relevant to this biodiversity enhancement strategy are the following:

- **CONDITION 9. PRIOR TO BENEFICIAL USE: BIODIVERSITY ENHANCEMENT STRATEGY.**

Prior to beneficial use, a Biodiversity Enhancement Strategy for protected and Priority species shall be submitted to and approved in writing by the local planning authority<sup>1</sup>.

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<sup>1</sup> The issued planning goes on to state “*in line with the recommendations contained in the Preliminary Ecological Appraisal (Skilled Ecology, January 2023)*”. However, this has been confirmed to be an error, as no surveys by Skilled Ecology have been conducted onsite.

The content of the Biodiversity Enhancement Strategy shall include the following:

- a) Purpose and conservation objectives for the proposed enhancement measures;
- b) detailed designs or product descriptions to achieve stated objectives;
- c) locations, orientations and heights of proposed enhancement measures by appropriate maps and plans (namely building mounted/integrated bat roost boxes);
- d) persons responsible for implementing the enhancement measures; and
- e) details of initial aftercare and long-term maintenance (where relevant).

The works shall be implemented in accordance with the approved details shall be retained in that manner thereafter.

Reason: To enhance protected and Priority species & habitats and allow the LPA to discharge its duties under the NPPF 2021 and s40 of the NERC Act 2006 (Priority habitats & species).

**• CONDITION 10. ACTION REQUIRED IN ACCORDANCE WITH ECOLOGICAL APPRAISAL RECOMMENDATIONS**

All mitigation and enhancement measures and/or works shall be carried out in accordance with the details contained in the Preliminary Roost Assessment (DCS Ecology 2023) as already submitted with the planning application and agreed in principle with the local planning authority prior to determination.

Reason: To conserve and enhance Protected and Priority species and allow the LPA to discharge its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), the Wildlife & Countryside Act 1981 (as amended) and s40 of the NERC Act 2006 (Priority habitats & species).

All new developments have a duty to conserve, restore, or otherwise enhance a population of a particular species or habitat under the Natural Environment and Rural Communities Act 2006 (NERC), Section 40:

Section 40 (A1)

- “For the purposes of this section “the general biodiversity objective” is the conservation and enhancement of biodiversity in England through the exercise of functions in relation to England.”

Section 40 (1)

- “A public authority which has any functions exercisable in relation to England must from time to time consider what action the authority can properly take, consistently with the proper exercise of its functions, to further the general biodiversity objective.”

## Section 40 (3)

- “The action which may be taken by the authority to further the general biodiversity objective includes, in particular, action taken for the purpose of—
  - a)conserving, restoring or otherwise enhancing a population of a particular species, and
  - b)conserving, restoring or otherwise enhancing a particular type of habitat.”

Therefore, enhancement opportunities are encouraged in order to change the overall net biodiversity impact of the development from minor-adverse neutral to neutral / minor positive.

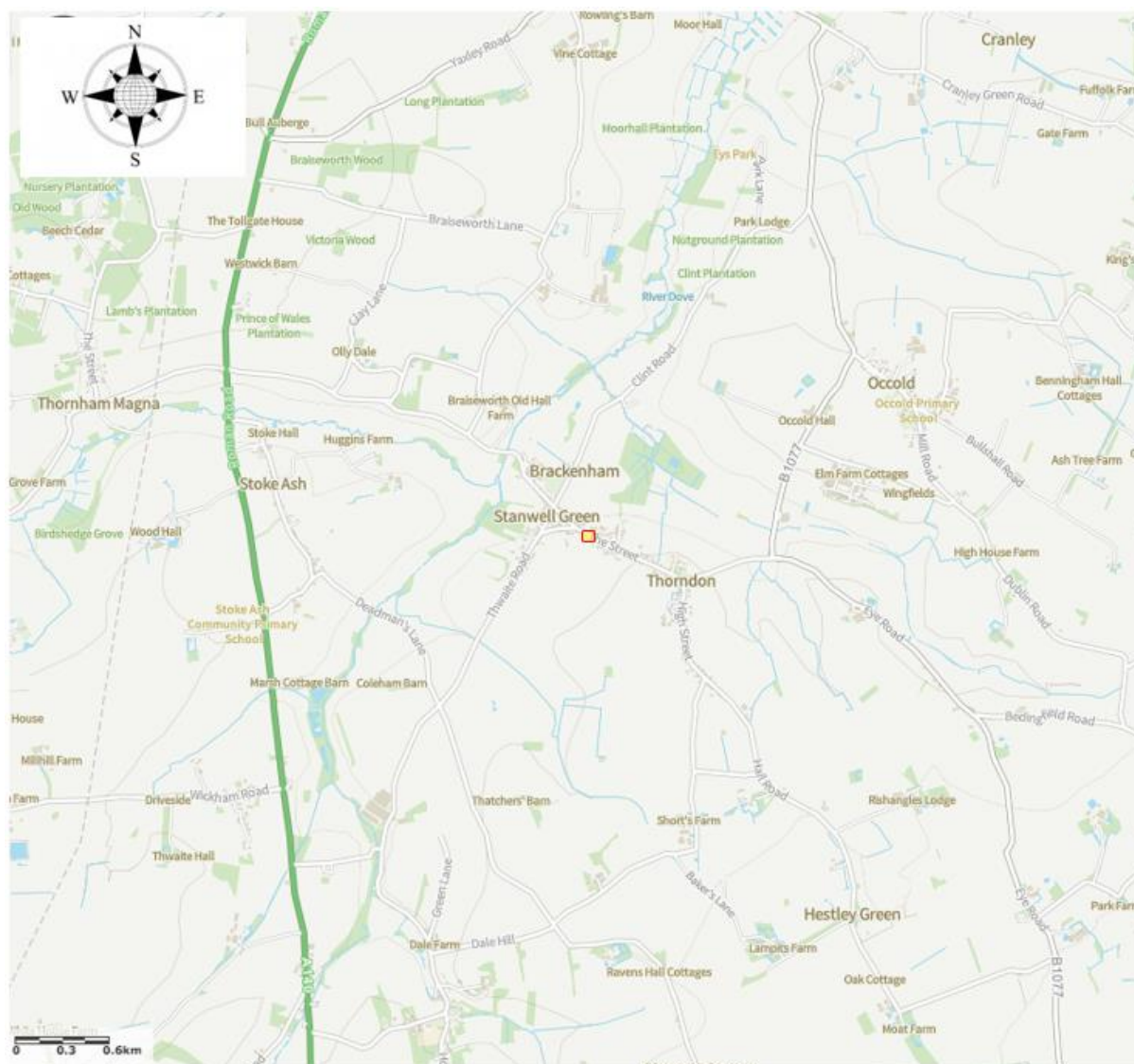
### 2.3 Site Description

The site, a northern wing (approx. 6m x 8m) of White House Farm, is a Grade II listed dwelling located in Thorndon, Suffolk, IP23 7JN (central grid reference TM 13646 69909). It lies approximately 4.0km south of Eye and 14.1km north-east of Stowmarket town centre. The river Dove runs 650m west of site. This building is a single storey extension bordered by ornamental vegetation, amenity grassland, a pond, scattered trees and shrub, as well as areas of hardstanding and buildings.

The surrounding habitats consist of residential housing with rural gardens leading east and west along The Street, surrounded by arable fields with scattered sections of deciduous woodland. Features to note within these adjacent habitats include:

- Over a dozen water bodies exist in the wider area (within 500m of site), including a pond onsite providing habitat for amphibians during their aquatic phases.
- A dense network of linear features (primarily trees lines and hedgerows) surrounding Thorndon, that act as habitat connectivity between surrounding habitats and the site. In particular, a mature hedgerow leading west then northward from the boundary of White House Farm, directly to an area of both dense and open deciduous woodland containing local and veteran trees.

The wider landscape is predominately arable fields with pockets of deciduous woodland and mixed species hedgerow (both of which are BAP priority habitat). A search radius for priority habitats within a 2km radius of Site, identified coastal and floodplain grazing marsh, good quality semi-improved grassland, lowland deciduous woodland, traditional orchards, wood pasture and parkland.



**Figure 1.** Site location (outlined in red) © Crown Copyright under licence AC0000853931.

## 2.4 Relevant legislation

Protected species, as referred to within this report, are those protected under European Legislation (Conservation of Habitats and Species Regulations 2017, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992); and those of principle importance in England as listed in Section 41 of the NERC Act (2006).

The National Planning Policy Framework (NPPF) (September 2023) places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is



that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.

Appendix IV details legislation which protects species and groups relevant to the Site (bats, reptiles, small mammals, and birds).

## 3. Previous Survey Results

### 3.1. Desk Study

Suffolk Biodiversity Information Services (SBIS) were consulted on the 5<sup>th</sup> April 2023 with regards to obtaining all protected species records and listings of all statutory and non-statutory designated sites within a 2km radius of the site. These results found records within 2km of site for rare plants, various species of bird, water voles, hedgehogs, brown hare, bats (common pipistrelle and brown long-eared bats), GCN, and stag beetles. No reptile records were identified within a 2km radius of site.

A MAGIC data search for European Protected Species (EPS) licences and Great Crested Newt Class Survey License Returns was conducted in March 2024 by DCS Ltd. The search returned seven granted applications for EPS licenses for GCN and five for bats within 7km of Site. Bat species included in these applications were common and soprano pipistrelle (*Pipistrellus pipistrellus* and *Pipistrellus pymaeus*) and brown long-eared (*Plecotus auritus*). None of these results were within a 2km radius. The closest record was c.2.03km southeast of the site (TM 1460 6810), for the destruction of a resting place in 2012 for all three of the aforementioned species.

### 3.2. Field Surveys

Below is a list of field surveys associated with planning application DC/23/00742. Significant findings have also been included below:

#### DCS Ecology (2023) Preliminary Roost Assessment

- Conducted 31<sup>st</sup> March 2023.
- The northern wing of White House Farm was searched thoroughly with a torch, endoscope, mirrors and binoculars and no signs or sightings of bats were found within the site area during the survey, and it was concluded that this wing had negligible bat roost potential.
- The external features of the rest of White House Farm contained multiple potential roost features but no signs of bats.
- The grounds contained building infrastructure (dwellings and garage), hardstanding (driveway and footpath), mature trees, amenity grassland, ornamental hedgerow and

scattered shrubs, and a pond. These habitats were considered suitable foraging/ sheltering habitat for small mammals, amphibians, common invertebrate assemblages and birds.

- Several hedgerows adjacent to site were suitable to support various species, providing connectivity to other areas (including a woodland to the north).
- Connectivity for amphibians, including GCN was limited due to obstructions or distance away from waterbodies.
- No evidence of any other protected species was found during the survey.

## 4. Compensation & Enhancement Strategy

There are a number of practices that can maximise biodiversity and are particularly relevant to this proposed development. This can be achieved by providing artificial nesting sites for birds, roosting sites for bats and hibernacula for reptiles. The indicative positions of the proposed new features can be seen in Appendix III.

It is also worth note that a Landscape Scheme Strategy Plan (drawing number 05 PROPOSED GA PLAN by Beech Architects Ltd.) notes that the only vegetation proposed for removal is “laurel trees and adjacent shrubs” with no obvious need for excavations or change in ground level.

### 4.1 Bat boxes

At least two additional bat boxes should be erected on nearby trees for roosting bats such as common pipistrelles (which were recorded roosting within 2km during the desk study). Exact designs are amendable, but DCS Ecology Ltd recommends the following:

#### **2x Eco Kent bat box (or similar Kent bat box design)**

- Eco Kent bat boxes are self-cleaning and do not require ongoing maintenance.
- If bat boxes are not to be erected by an ecologist, it is recommended that advice in Appendix V be followed prior to installation.

### 4.2 Bird boxes

Mature trees within the site may have nesting potential. For enhancement, it is recommended that a minimum of three bird boxes be erected on nearby trees to the north of the site. Exact designs are amendable, but should include bird boxes designed for passerine birds such as:

- 1 x combined robin/wren open fronted boxes such as the Woodstone Barcelona Open Nest Box
- 1 x sparrow terrace such as the Eco Sparrow Tower; and
- 1 x general purpose nest box such as the Woodstone Seville Box 28-32mm.

Bird boxes should be cleaned out once a year after young birds have fledged. If a second brood follows, the nest box should be cleaned again in late autumn. Monitoring checks should be undertaken on an annual basis, ideally September-December as this is immediately after the birds nesting season and young birds are likely to have fledged.

Precise locations of boxes should be decided by a suitably experienced ecologist at the time of erection.

If bird boxes are not to be erected by an ecologist, it is recommended that advice in Appendix V be followed prior to installation.

### 4.3 Hedgerow planting

Trees currently on/adjacent to site are to be retained. If any hedgerow is lost, it must be replaced onsite or within close proximity to site, by 1.5m planted for every 1m lost. Any new hedgerow planting must be with mixed native species, such as hawthorn (*Crataegus monogyna*), dogwood (*Cornus sanguinea*), dog rose (*Rosa canina*), hazel (*Corylus avellana*), field maple (*Acer campestre*), guelder rose (*Viburnum opulus*) and blackthorn (*Prunus spinosa*).

In addition to providing roosting opportunities and foraging opportunities for birds, and habitat for invertebrates and small mammals among others, this increases connectivity from adjacent habitats for herpetofauna (amphibians and reptiles).

### 4.4 Amphibians and Reptile

To benefit amphibians such as smooth newts (*Lissotriton vulgaris*) and GCN (which were within the SBIS 2km data search), and common reptiles such as slow worms (*Anguis fragilis*), a hibernacula consisting of logs, earth and other materials should be created near the pond to the east of the north wing, or by the hedgerow within the northwestern area of the site (or other suitable location approved by an ecologist; see Appendix II for illustration). This will allow sheltering and hibernating opportunities for amphibians and reptiles, as well as a habitat for invertebrates, creating food sources for various other insectivorous species.

### 4.5 Other Strategies for General Wildlife Enhancement

The enhancement of the pond onsite by planting at the pond margins with native species such as yellow iris (*Iris pseudacorus*), common water plantain (*Alisma plantago-aquatica*), marsh bedstraw (*Galium palustre*), lesser spearwort (*Ranunculus flammula*), water forget-me-not (*Myosotis scorpioides*), water min (*Mentha aquatica*), brooklime (*Veronica beccabunga*), meadowsweet (*Filipendula ulmaria*) and marsh marigold (*Caltha palustris*). Occasional drying is not problematic and may be beneficial as it eliminates any fish that may predate amphibians during their larval stages.

Wild meadow planting such as Emorsgate EM1 (general purpose wildflower seeds) and restrained management of grassland is encouraged, to allow habitats with longer vegetation as shelter opportunities for GCN and other species such as small mammals and invertebrates, but also those

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that feed on animals within these areas, including grass snakes, barn owls and bats. Low level shrub planting would also provide valuable sheltering, foraging, and commuting habitat for amphibians. Any plants should be native species and of local provenance.

## 5. Time Frames for Implementation

This Biodiversity Enhancement Strategy will be implemented during the construction phase. The persons responsible for ensuring that the Enhancement Strategy is adhered to at each phase have been allocated.

Enhancement feature	Start date	End date	Responsible personnel
Erection of bird & bat boxes	April 2024	April 2025	Site manager/ Contractors/ DCS Ecology Ltd
Construction of amphibian / reptile hibernacula	April 2024	April 2026	Site manager/ Contractors and DCS Ecology Ltd

## 6. References

Baker, J. et al (2011) *Amphibian Management Habitat Handbook*. Amphibian and Reptile Group (ARG), Bournemouth

BCT (2023) *Bats and Artificial Lighting at Night Guidance Note 08/23*

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J. P. Chick & Partners Ltd (2023) *White House Farm Thorndon. Structural inspection Report*.

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Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.

Reason, P.F. and Wray, S. (2023). *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1*. Chartered Institute of Ecology and Environmental Management, Ampfield.

### Web references

<https://magic.defra.gov.uk/MagicMap.aspx> [Accessed 22/03/24].

# 7. Appendices

## Appendix I: Site photos prior to works

Table 1: Site photos	
<p>White House Farm southern elevation (main building)</p>	<p>White House Farm, two-storey main section to left of image in white plaster, single storey northern wing (site) to right of image, showing eastern elevation.</p>
<p>Holes in the brickwork the created light ingress (but also potential access points)</p>	<p>Log store (northern section)</p>
<p>Wall between log store and workshop, showing faux-ceiling and roof void above workshop (top right of image)</p>	<p>Roof structural materials- pantiles, bitumen 1F felt and timber beams.</p>



Cross beams in roof section, which were dusty and lacked signs of bats.



Gaps under eaves of logstore.



Close-fitting timber joints, which were typical throughout the interior of the building.



Roof void above workshop



Eastern and western elevations of northern wing.



Northern elevation, showing ash tree to left and ornamental shrub covering northern elevation



Western elevations. Northern wing (site) to left, main dwelling to right.



Subsidence and dislodged mortar on southern elevation.



Extensive cracks running across northern elevation.



Cracks caused by ground subsidence, exterior walls.



Gap above doorway on western elevation.



Lifted ridge tiles above eastern elevation

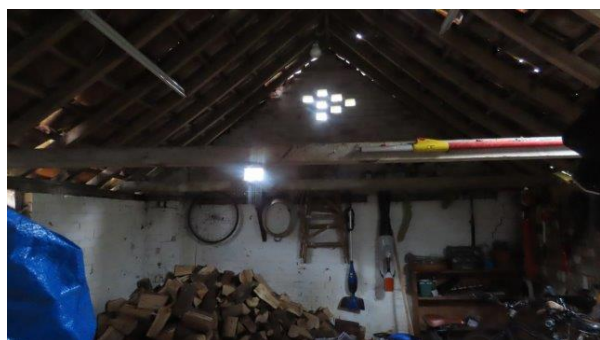




Eastern and northern elevations.



Gaps in mortar between ridge and pan tiles.



Logstore, facing north. Light ingress can be seen from holes in the brickwork (also potential access points)



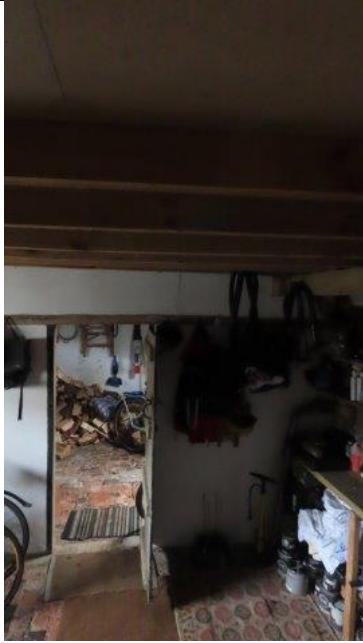
Cracks caused by ground subsidence, interior walls.



Doorway leading to main section house, with visible light ingress.





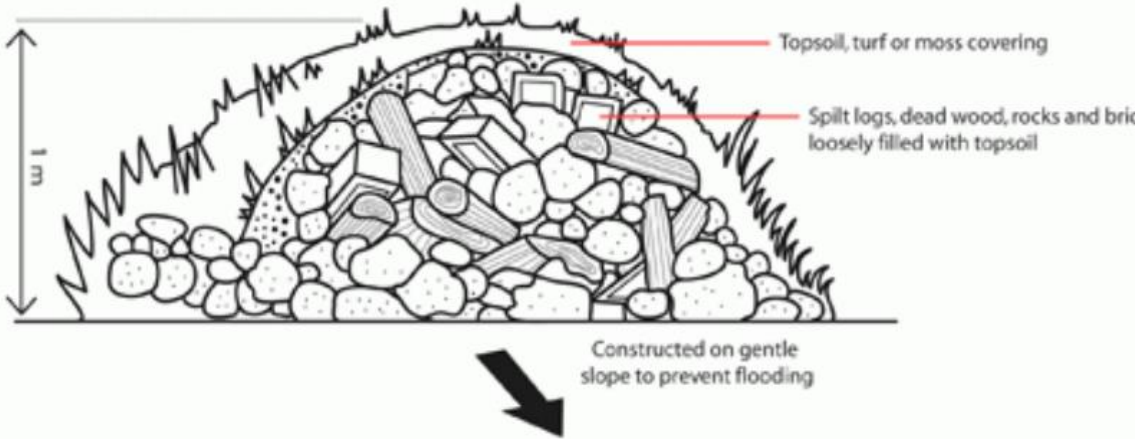


Shared driveway immediately west of site.



Workshop (southern section), facing north into logstore.

## Appendix II: Compensation features examples:

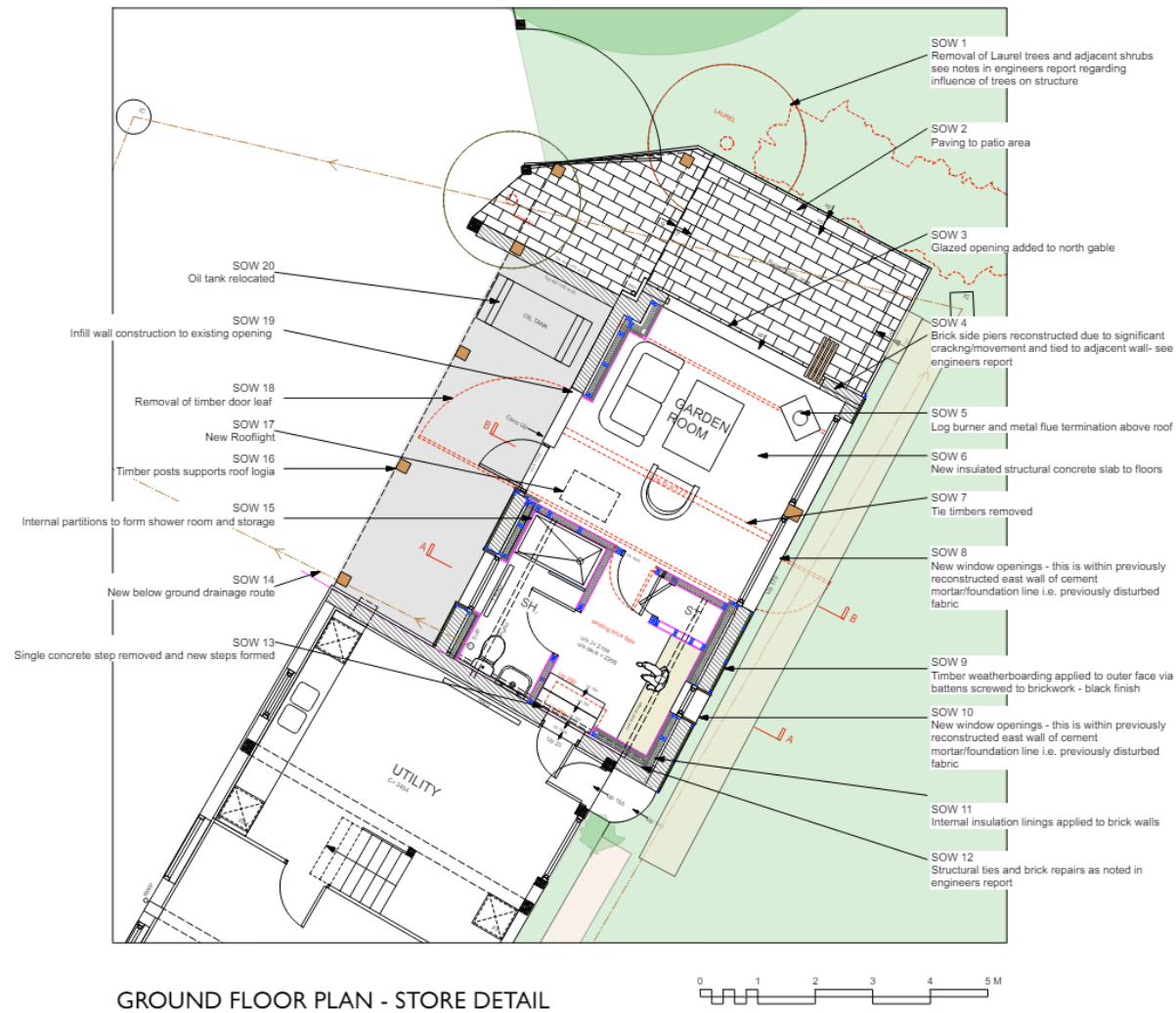
 A black plastic bat box with a wooden base and a green circular logo on the side.	 A green, house-shaped bird box with a white door and a circular entrance hole.
<p><b>Figure 2: Eco Kent bat box</b></p>	<p><b>Figure 3: Woodstone® Seville Box or similar</b></p>
 A brown, house-shaped bird box mounted on a tree trunk, with a small bird perched on the white door.	 A tall, narrow black metal tower with three circular holes and a green circular logo at the bottom.
<p><b>Figure 4: Woodstone Barcelona Open Nest Box or similar</b></p>	<p><b>Figure 5: Eco Sparrow Tower or similar</b></p>
 A cross-sectional diagram of a hibernacula. It shows a mound of soil with a height of 1m. The top layer is labeled 'Topsoil, turf or moss covering'. The middle layer is labeled 'Spilt logs, dead wood, rocks and brick loosely filled with topsoil'. An arrow points to the base of the mound with the text 'Constructed on gentle slope to prevent flooding'.	
<p><b>Figure 6: Example of amphibian/ reptile hibernacula</b></p>	

## Appendix III: Figures

### Location of Enhancement Features



**Figure 7.** Map of proposed plan, with annotated recommendations and onsite pond location. Created using drawing no.07 PROPOSED SITE BLOCK PLAN produced and copyrighted by Beech Architects Ltd. Beech Architects have given full permission for the replication of their work.



**Figure 8.** Proposed site plan. Created using drawing no.05 PROPOSED GA PLAN produced and copyrighted by Beech Architects Ltd. Beech Architects have given full permission for the replication of their work.

## Appendix IV: Relevant Protected Species Legislation

Species	Legislation	Protection
Birds	<ul style="list-style-type: none"> <li>Wildlife and Countryside Act (WCA) (1981 (as amended))</li> </ul>	<p>It is an offence to:</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure or take any wild bird</li> <li>Intentionally take, damage or destroy nests in use or being built</li> <li>Intentionally take, damage or destroy eggs</li> </ul> <p>Species listed on Schedule 1 of the WCA (1981) are afforded additional protection, making it an offence to intentionally or recklessly disturb such species at, on, or near an active nest.</p>
Bats	<ul style="list-style-type: none"> <li>Conservation of Habitats and Species Regulations 2010 (as amended)</li> <li>Wildlife and Countryside Act 1981, Schedule 5 (as amended)</li> <li>Wild Mammals Act 1996</li> </ul>	<p>It is an offence to:</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure, or take any bat.</li> <li>Intentionally or recklessly disturb a bat.</li> </ul> <p>Intentionally or recklessly damage, destroy or obstruct access to a bat roost.</p>
Great crested newts (GCN)	<ul style="list-style-type: none"> <li>Conservation of Habitats and Species Regulations 2010 (as amended)</li> <li>Wildlife and Countryside Act 1981, Schedule 5 (as amended)</li> </ul>	<p>It is an offence to:</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure, or take a GCN.</li> <li>Intentionally or recklessly disturb a GCN.</li> </ul> <p>Intentionally or recklessly damage, destroy or obstruct access to any place used by a GCN for shelter or protection.</p>
Reptiles	<ul style="list-style-type: none"> <li>Wildlife and Countryside Act 1981, Schedule 5 (as amended)</li> </ul>	<p>It is an offence to:</p> <ul style="list-style-type: none"> <li>Intentionally kill or injure a reptile.</li> </ul> <p>Sell, offer, or expose for sale, have in possession or transport for the purpose of sale any live or dead reptile or any part of, or anything derived from, a reptile.</p>
Badgers	<ul style="list-style-type: none"> <li>Wildlife and Countryside Act 1981 (as amended), Schedule 5 (as amended)</li> <li>Protection of Badgers Act 1992</li> </ul>	<p>It is an offence to:</p> <ul style="list-style-type: none"> <li>Intentionally take, injure, or kill badgers.</li> <li>Be cruel towards badgers.</li> <li>Interfere with badger setts.</li> <li>Sell and possess live badgers.</li> </ul> <p>Mark and ring badgers.</p>

## Appendix V: Supplementary information

### Recommendations for installing bat boxes:

Source: Bat Conservation Trust (<https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes/putting-up-your-box>)

Bat boxes are more likely to be used if they are located where bats are known to feed. Ideally, several boxes should be put up facing in different directions on sunny aspects to provide a range of warm conditions.

Boxes should be put as high as possible to try and avoid predation from cats on the ground or nearby structures. On buildings, boxes should be placed as close to the eaves as possible. Bats use dark tree lines or hedgerows for navigation, so putting boxes near these features could help bats find the box.

In summary, locate boxes:

- Where bats are known to feed and navigate (close to hedges and tree lines);
- Ideally at least 4m above the ground (where safe installation is possible);
- Away from artificial light sources (to protect them from predation); and
- Sheltered from strong winds and exposed to the sun for part of the day (usually south, south-east or south-west).
- Bats need time to find and explore new homes, and it may be several months or even years before boxes have residents – be patient! 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 chattering noises from inside on warm afternoons and evenings are signs of occupation.

Please note, as bats are vulnerable to disturbance and fully protected under UK law, boxes must only be opened by a licensed bat worker.

### Recommendations for installing bird boxes:

(Sourced from British Trust for Ornithology [www.bto.org](http://www.bto.org) and Manthorpe [www.manthorpe.co.uk](http://www.manthorpe.co.uk))

- The highest priority when siting a nest box must be to provide a safe and comfortable environment in which birds can nest successfully. Tips for putting up a nest box:
- 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.
- Don't place boxes too close to another nest box of the same type, as this may promote aggressive behaviour between neighbours.

- 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.
- Make sure cats cannot get into the box.
- Keep nest box away from bird feeders.
- 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. Tips for putting up house sparrow terraces and swift bricks/boxes:
- If erecting on a building, locate  $\geq 5\text{m}$  high on the gable wall of the property and above the level of the insulation zone.
- 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.



## Appendix VI: List of Abbreviations

<b>BAP</b>	Biodiversity Action Plan
<b>BCT</b>	Bat Conservation Trust
<b>BoCC</b>	Birds of Conservation Concern
<b>CHSR</b>	Conservation of Habitats and Species Regulations 2017
<b>CIEEM</b>	Chartered Institute of Ecology and Environmental Management
<b>CRoW</b>	The Countryside Rights of Way Act 2000
<b>CWS</b>	County Wildlife Site
<b>ECoW</b>	Ecological clerk of works
<b>eDNA</b>	Environmental DNA
<b>EcIA</b>	Ecological Impact Assessment
<b>EIA</b>	Environmental Impact Assessment.
<b>EPS</b>	European Protected Species
<b>GCN</b>	Great crested newt
<b>HPI</b>	Habitat of Principal Importance
<b>HSI</b>	Habitat Suitability Index
<b>HRA</b>	Habitats Regulations Assessment
<b>JNCC</b>	Joint Nature Conservation Committee
<b>LNR</b>	Local Nature Reserve
<b>LPAs</b>	Local Planning Authorities
<b>MAGIC</b>	Multi-Agency Geographic Information for the Countryside
<b>NATT</b>	Natterer's (bat)
<b>NE</b>	Natural England
<b>NERC</b>	Natural Environment and Rural Communities Act 2006
<b>NNR</b>	National Nature Reserve
<b>NPPF</b>	The National Planning Policy Framework
<b>PEA</b>	Preliminary Ecological Appraisal
<b>PRA</b>	Preliminary Roost Assessment
<b>PRF</b>	Potential (bat) Roosting Feature
<b>RAMs</b>	Reasonable Avoidance Measures
<b>SAC</b>	Special Area of Conservation
<b>SBAP</b>	Suffolk Biodiversity Action Plan
<b>SBIS</b>	Suffolk Biodiversity Information Service
<b>SPA</b>	Special Protection Area
<b>SSSI</b>	Special Site of Scientific Interest
<b>TAF</b>	Temporary Amphibian Fencing
<b>WCA</b>	Wildlife and Countryside Act 1981 (as amended)
<b>UKBAP</b>	United Kingdom's Biodiversity Action Plan

Abbreviations	Common name	Latin name
<b>BARB</b>	Western barbastelle	<i>Barbastella barbastell</i>
<b>BLE</b>	Brown long-eared	<i>Plecotus auritus</i>
<b>CPIP</b>	Common pipistrelle	<i>Pipistrellus pipistrellus</i>
<b>DAUB</b>	Daubenton's	<i>Myotis daubentonii</i>
<b>LEI</b>	Lesser noctule/Leisler's	<i>Nyctalus leisleri</i>
<b>NATT</b>	Natterer's	<i>Myotis nattereri</i>
<b>NOC</b>	Common noctule	<i>Nyctalus noctule</i>
<b>NPIP</b>	Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>
<b>SERO</b>	Serotine	<i>Eptesicus serotinus</i>
<b>SPIP</b>	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>