MHE | MHECONSULTING
environmental consultants

Ecology Report

PROPOSED RESIDENTIAL DEVELOPMENT
College Farm, Wyverstone, Stowmarket, Suffolk

March 2024

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Issue	Revision	Description	Date	Signed
1	0	Draft	14/04/23	H. Evans
1	1	Initial review	14/04/23	C. Whiting
1	2	Revised following receipt of plans	16/01/24	H. Evans
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1	4	Revised following receipt of amended plans	01/03/24	H. Evans
1	5	Final draft for external review	06/03/24	C. Whiting
1	6	Updated following amendments to the BNG Small Sites Metric	08/03/24	C. Whiting

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Executive Summary

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of a building and adjacent land at College Farm, College Road, Wyverstone, Stowmarket, Suffolk IP14 4SD. A Planning Application is to be submitted to Mid Suffolk District Council (MSDC) to demolish an existing redundant farm building and erect five new dwellings. Landscaping of the development includes native hedgerow and tree planting with areas of lawns that should be sown with a flowering lawn seed mix to provide nectar sources for beneficial insects, e.g., bees and hover flies. **A Biodiversity Net Gain (BNG) assessment has been undertaken and the development will deliver a 10.54% BNG in area habitats.**

The application site comprises a large former agricultural barn accessed via a concrete driveway. A narrow strip of grassland with tall ruderal vegetation and scattered scrub is present to the south of the building, adjacent to an arable field which extends around the west, where an area of moss-covered concrete with ruderal vegetation separates the field from the rear of the building. A larger strip of dense scrub habitat with tall ruderal vegetation abuts the northern elevation of the building and beyond this is an area of rough, more tussocky grassland with tall forbs. Along the eastern boundary, to the north and south of the current access are areas of modified grassland containing trees, scattered young trees (saplings/shrubs) are present within the areas of scrub. The site is set within a primarily rural setting with arable fields to the west and some residences to the east. Two ponds exist within 250m of the application site.

The application site is assessed as supporting generally sub-optimal habitats of a *low* value to species of common reptile and amphibian, with some limited refuge opportunities available (e.g., scrub), with the (off-site) land to the north of the building offering habitats of a higher value (e.g., rough grassland, scrub and brash pile). It is considered unlikely that GCN would be present within the site due to the nature of the terrestrial habitats present and poor habitat suitability of the nearest pond.

No evidence of roosting bats was observed within the building, with no potential roosting niches within any trees. Kestrel (*Falco tinnunculus*) pellets were observed inside the building along with a robin's (*Erithacus rubecula*) nest. Scattered trees around the site provide nesting and song perch habitat, while the dense scrub provides suitable nesting habitat for some species. The areas of scrub and ruderal vegetation are likely to support some S. 41 list invertebrate species, whilst hedgehog (*Erinaceus europaeus*) can use bramble for overwintering and will use grassland and arable fields to forage. No brown hare (*Lepus europaeus*) was observed on the arable field during the surveys but may be present locally.

Significant residual negative effects upon habitats and species are mainly restricted to the loss of an arable field, scrub, grassland, ruderal vegetation, and some immature trees with potential impacts upon on nesting birds, hedgehog, brown hare, foraging and commuting bats, reptiles, and amphibians.

The losses of any native trees/shrubs and scrub should be compensated through the incorporation of hedgerow and tree planting around the site boundaries and the loss of bird nesting habitat within these areas and the barn should be compensated via the provision of bird boxes within the new dwellings.

Recommendations are made to avoid wildlife offences and ecological impacts, particularly in relation to protected species. Where impacts cannot be avoided, measures are proposed to mitigate remaining effects including timing of works, good working practices and further protected species surveys (e.g., badger), with compensation and biodiversity enhancements proposed, ensuring losses are offset and some gains made.

1 Introduction

1.1 BRIEF

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of a building and adjacent land at College Farm, College Road, Wyverstone, Stowmarket, Suffolk IP14 4SD (TM 03238 66941; Figure 1). A Planning Application is to be submitted to Mid Suffolk District Council (MSDC) to demolish an existing redundant farm building and erect five new dwellings.

Landscaping of the development includes native hedgerow and tree planting, whilst lawns should be sown with a flowering lawn seed mix to provide nectar sources for beneficial insects including bees and hover flies.

A prior approval Class Q application (ref. DC/22/04228) for the demolition of the existing barn and the erection of five new dwellings was approved by MSDC.

The ecological survey and this report are necessary to:

- Identify the existing ecological value of the site.
- Identify the need for further (e.g., protected species) surveys.
- Assess any potential adverse impacts of the proposed development on ecological features of the site or nearby designated sites.
- Make recommendations for mitigation (if required).
- Identify opportunities for biodiversity enhancements.

This report will be used to develop the proposals as necessary, and to form the basis for the submission of biodiversity information with any planning application. It reflects the sites at the time of the survey and should be reviewed and revised as appropriate.

1.2 SITE LOCATION AND DESCRIPTION

The application site (Figure 1) is located off College Road and comprises a large former agricultural building (Photos 1 and 2) and areas of hardstanding (Photo 3) with areas of grassland, tall ruderal vegetation and dense scrub, with some scattered trees and shrubs present (Figure 2). The remainder of the site comprises an arable field (Photo 4) to the west and south of the building. The site is set within primarily rural surroundings, with arable fields to the west and some residences to the east, two ponds exist within 250m of the application site.

Photos are provided in Appendix A1.

2 Planning policy and legislation

2.1 INTRODUCTION

This chapter summarises the key legislation and policies relevant to assessing the biodiversity impacts of the scheme upon habitats and species.

2.2 PLANNING POLICY

2.2.1 National Planning Policy Framework (NPFF)

The National Planning Policy Framework was originally published in 2012 and recently revised on 19 December 2023, this document replaces the previous version of the NPPF, published in September 2023. The document sets out the Government's planning policies for England and provides guidance on how these policies are expected to be applied. It provides a framework for, and must be taken account of within, locally prepared plans for housing and other development, and is a material consideration in planning decisions.

An overarching objective of the NPPF, which aims to secure net gains, is to contribute to protecting and enhancing the natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

The full NPPF is available to view online using the gov.uk website: https://assets.publishing.service.gov.uk/media/65829e99fc07f3000d8d4529/NPPF_December_2023.pdf

Policies of particular relevance to development and biodiversity include: 180, 186, 187 and 188, which are listed below.

180. Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

186. When determining planning applications, local planning authorities should apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
b) development on land within or outside a Site of Special Scientific Interest (SSSI), and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSIs;
c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

187. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas (SPAs) and possible Special Areas of Conservation (SACs);
b) listed or proposed Ramsar sites; and
c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.

188. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects) unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

2.2.2 *Local Plan*

Adopted local plans provide the framework for development across England, and include policies related to conserving and enhancing the natural environment. Planning policies and supporting documents that are used to plan, deliver and monitor development across the Babergh and Mid Suffolk District Council areas: https://www.midsuffolk.gov.uk/planning/planning-policy/adopted-documents/babergh-district-council/babergh-local-plan/

These policies encourage environmental net gains from new development through the creation of new habitats and green infrastructure. Both policies also implement the mitigation hierarchy to avoid, mitigate and compensate for any losses due to new development. However, neither policy specifies the need for the 10% biodiversity net gain. Net gains for biodiversity are secured as per para 180 d) of the NPPF (2023).

2.2.3 *Biodiversity Net Gain*

Biodiversity net gain (BNG) is an approach to the development and management of land that aims to leave biodiversity in a measurably better state than it was before development occurred. It will ensure habitats for wildlife are retained, enhanced and created through the development process.

Under the Environment Act 2021, all planning permissions, with a few exceptions, are required to deliver a minimum of 10% increase in the biodiversity net gain delivered compared to the pre-development baseline. BNG will be measured using Defra's Statutory biodiversity metric for Major applications and the Small Sites Metric for Minor applications. All net gains will need to be secured and monitored for at least 30 years.

These commitments are further developed in Policy LP16 of the new Joint Local Plan and in the Biodiversity Net Gain Interim Planning Guidance Note for Suffolk. More detailed guidance on BNG will also be set out in a new Biodiversity and Trees Supplementary Planning Document.

The Interim Biodiversity Net Gain Planning Guidance Note for Suffolk[1] provides detailed guidance for applicants and decision makers in local authorities across Suffolk during the interim period before 12 February 2024 when a measurable biodiversity net gain of at least 10% will be a mandatory requirement for all major developments (and minor developments from 2 April 2024), with some exceptions (see Section 2.3.1 - Environment Act (2021) below).

Paragraph 3.2 of the Interim Guidance Note states that:

For the purposes of this interim guidance authorities (*in Suffolk*) *will be requesting at least 10% biodiversity net gain on all major developments. Major developments include:*

i) Where the number of dwellings to be provided is ten or more;
ii) Where the number of dwellings to be provided is not known, a site area of more than 0.5 hectares;
iii) Provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or
iv) Development carried out on a site having an area of one hectare or more.

2.3 LEGISLATION

2.3.1 *Environment Act 2021*

The Environment Act received royal assent in November 2021. The Act will set clear statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water and waste, and includes an important new target to reverse the decline in species abundance by the end of 2030. Of particular relevance to development planning will the requirement for all new development to deliver a quantified (10%) Biodiversity Net Gain.

2.3.2 *Natural Environment and Rural Communities (NERC) Act 2006*

Section 40 places a duty on every public body in exercising its functions, to have regard to the purpose of conserving biodiversity; this includes restoring or enhancing

[1] https://democracy.ipswich.gov.uk/documents/s36985/PD-22-14%20Appendix%201%20-%20Suffolk%20Wide%20BNG%20Guidance%20Document.pdf

populations or habitats. A key purpose of this duty is to embed consideration of biodiversity as an integral part of policy and public-sector decision making. S*pecies and habitats of principal importance* in this respect are those published under Section 41 ("S. 41") of the NERC Act 2006.

2.3.3 *Wildlife and Countryside Act 1981 (as amended)*

Rare and scarce habitats and species are afforded varying levels of protection under the Wildlife and Countryside Act 1981 (as amended) (hereafter "WCA 1981"). Some species and groups are afforded full protection (e.g., Schedule 1 bird species, bats), whilst others receive partial protection (e.g., widespread reptiles). Section 3.1 provides further detail relevant to this scheme. Species afforded legal protection are referred to by their relevant schedule ("Sch.") within the act, i.e., "WCA1i" (birds), "WCA5" (other animals), or "Sch. 8" (plants).

Invasive plant species such as Japanese knotweed (*Reynoutria japonica*) and giant hogweed (*Heracleum mantegazzanium*) are listed on Schedule 9 of the WCA 1981. It is an offence to plant or otherwise cause these species to grow in the wild and this includes the development of sites such that the plant colonises land owned by a third party.

2.3.4 *The Countryside and Rights of Way (CROW) Act 2000*

The CROW Act 2000 strengthened and updated elements of the WCA 1981, and gave a statutory basis to biodiversity conservation, requiring government departments to have regard for biodiversity in carrying out its functions and to take positive steps to further the conservation of listed habitats and species. It strengthened the protection of SSSIs and threatened species. Many of its provisions have been incorporated as amendments into the WCA 1981 and some have been superseded by the NERC Act 2006.

2.3.5 *The Conservation of Habitats and Species Regulations 2017*

The Conservation of Habitat and Species Regulations 2017 (hereafter referred to as the Habitat Regulations 2017) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), and elements of the EU Wild Birds Directive, into national law. The 2017 Regulations provide for the designation and protection of 'European sites' (SPAs, and SACs), the protection of 'European Protected Species' ("EPS"), and the adaptation of planning and other controls for the protection of European Sites.

They have been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019, which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit.

Under the Regulations, competent authorities i.e. any Minister, government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the relevant EC Directives.

2.3.6 *Protection of Badgers Act 1992*

The Protection of Badgers Act 1992 (hereafter "PBA 1992") consolidates and improves upon the previous Badgers Act 1973, Badgers Act 1991, and Badgers (Further Protection) Act 1991. Under the PBA 1992 (except when holding a licence to do so) it

is illegal for a person to wilfully; kill, injure, take, posses, sell, or otherwise cruelly treat a badger. It is also illegal to dig out, damage, destroy, or obstruct entry to setts (including by use of dog(s)). Further information on offences, exceptions, and penalties are listed on the PBA 1992 on legislation.gov.uk.

3 Methodology

3.1 INTRODUCTION

This report has been produced with reference to relevant guidance, most notably:

- Guidelines for Ecological Report Writing (CIEEM, 2017);
- Biodiversity – Code of Practice for Planning and Development (BS 42020:2013[2]);
- Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018); and
- Biodiversity Net Gain: good practise principles for development (CIRIA, CIEEM and IEMA, 2016).

The following sections summarise the approaches used to review existing data, and to undertake appropriate field surveys to scope and inform an Ecological Impact Assessment (EcIA) for the scheme. Where further surveys are considered necessary, this is identified in section 5.

3.2 DESK SURVEY

The following data sources were consulted to assess the potential for the application site to support protected or notable habitats/species:

- Aerial photos, Ordnance Survey maps, Natural England open-source data, and the MAGIC website (http://magic.defra.gov.uk/): These were used to identify habitat types including priority habitats, suitability for particular species/groups, and the locality of nationally and internationally designated sites; and
- Historical biological records: species and locally designated site records within 2km of the sites were provided by the Suffolk Biological Information Service (SBIS).

From this exercise, it was concluded that the following legally protected species/groups may be present on the sites and/or land immediately adjacent:

- Amphibians including great crested newt (GCN) (*Triturus cristatus*)[3] and reptiles such as grass snake (*Natrix helvetica*)[4];
- Mammals including badgers (*Meles meles*)[5] and bats[2];
- Breeding birds[6] including Red and Amber status[7] species; and
- S. 41[8] list habitats such as hedgerows, and species such as hedgehog (*Erinaceus europaeus*).

In the context of the setting and nature of the developments, the 'zone of influence' of the scheme is considered restricted to habitats on the sites and species within 250m of the site boundaries.

3.3 FIELD SURVEY

An initial site walkover was undertaken on 4 April 2023 to 1) record habitats present, and 2) assess the value of the habitats present for protected and notable species. An updated survey was conducted on 9 February 2024. A list of vascular plants and a

[2] BSI Standards publication BS 42020:2013 Biodiversity – Code of practice for planning and development.
[3] GCNs and all species of bats receive full protection under the WCA 1981 and Habitats Regulations 2017.
[4] Widespread reptiles and amphibians receive partial protection under the WCA 1981.
[5] Badgers and their setts are afforded protection by the PBA 1992.
[6] All wild birds, their nests and eggs are protected under the WCA 1981 (as amended), level of protection varies per species.
[7] The conservation statuses of UK bird species are listed within the Birds of Conservation Concern 4 (Eaton *et al*., 2015).
[8] S. 41 of the NERC Act 2006 lists 'habitats and species which are of principal importance for the conservation of biodiversity in England'.

description of the vegetation was made, including the location and extent of any Schedule 9 (WCA 1981) plants.

A further site visit was undertaken on the 9 February 2024 following changes to the proposed site layout and the need to carry out a BNG assessment.

Photos of the habitats present, and any field signs are provided in Appendix A1.

3.3.1 *Habitats and vascular plants*

The site was walked with all distinct vegetation and habitat types, and any features of interest identified (Figure 2) using the UKHab Survey methodology (Butcher *et al.*, 2020). Care was taken to record as many species as possible.

3.3.2 *Amphibians and reptiles*

a) Amphibians

Two ponds are located within 250m (Figure 1) of the application site. Pond P1 is within a residential garden and was assessed with regards to suitability for supporting breeding GCNs, and other common amphibians, using the GCN Habitat Suitability Index (HSI) as developed by Oldham *et al*. (2000). P2 was inaccessible at the time of survey.

The terrestrial habitat suitability of the sites was assessed with respect to refugia, and foraging habitat based on the known habitat preferences of GCNs and widespread amphibians such as common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*) and common toad (*Bufo bufo*).

b) Reptiles

Habitats on and around the application sites were assessed with respect to the known foraging and refuge habitat preferences of widespread reptile species.

3.3.3 *Bats*

a) Preliminary Roost Assessment

The existing bridge structure was assessed for its suitability to support roosting bats with reference to the NE Bat Mitigation Guidelines (Mitchell-Jones, 2004) and the Bat Conservation Trust (BCT) "Bat Surveys: Good Practice Guidelines, 4th edition" (Collins, 2023). The criteria used to determine the level of Bat Roost Potential (BRP) of buildings are outlined in Table 3.1.

Table 3.1 Bat Roost Potential (BRP) of buildings.

Bat Roost Suitability	Description
Confirmed presence	Bat presence confirmed during the scoping survey
High	Buildings that have many areas suitable for roosting which are obviously suitable for use by a larger number of bats including maternity colonies.
Moderate	Buildings with a small number of areas suitable for roosting, but still supporting features that could be attractive to bats and potentially support maternity colonies.
Low	Buildings with limited roosting opportunities but which could be used on a sporadic or occasional basis by a low number of bats, but which are unsuitable for maternity roosts.

Negligible	Buildings which appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids and/or absence of suitable access points.

b) Tree roost potential

Existing trees around the site boundaries were visually checked to assess their suitability for use by roosting bats, using the criteria outlined in the Bat Conservation Trust (BCT) "Bat Surveys: Good Practice Guidelines, 4th edition" (Collins, 2023) and summarised in below in Table 3.2.

Table 3.2 Guidelines for assessing the suitability of trees for roosting bats on proposed development sites.

Suitability	Description
NONE	Either no Potential Roosting Features (PRFs) in the tree or highly unlikely to be any.
FAR	Further assessment required to establish if PRFs are present.
PRF	A tree with at least one PRF present. Where a PRF is recorded a further distinction is made between those that are likely to only be suitable for individual/low numbers of bats (PRF – I) or multiple bats (PRF – M) such as a maternity colony.

c) Foraging and commuting habitat

Consideration is given to the value of any potential foraging and commuting habitats (i.e., hedgerows, trees, streams, ponds, composting areas) on the application site as per Table 4.1 of the BCT guidelines. The criteria used are listed below in Table 3.3.

Table 3.3 Commuting and foraging habitats

Suitability	Description
High	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. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, trees-lined watercourses, and grazed parkland. Site is close to and connected to known roosts.
Moderate	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. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
Low	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 surrounding landscape by other habitats.

	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland situation) or a patch of scrub.
Negligible	Negligible habitat features on site likely to be used by commuting and foraging bats.

3.3.5 *Nesting birds*

The value of the sites was assessed in relation to nesting birds. This was supplemented with field records of birds seen or heard within the site, or nests observed.

3.3.6 *Badger*

The application sites and adjacent habitats were surveyed for evidence of badger activity including setts, day beds, latrines, diggings/snuffle holes, paths/runs, scratching posts, hair, and footprints. Any potential sett found was then assessed for evidence of recent use by badger and classified as per current guidance (Scottish Badgers, 2018).

3.3.7 *S. 41 list habitats and species*

The site was surveyed to determine the presence of any S. 41 habitats such as native species-rich hedgerows. The site's suitability for S. 41 list species such as hedgehog was assessed based on their habitat preferences.

3.3.8 *Non-native invasive plant species*

The site was inspected for Schedule 9 species such as Japanese knotweed and giant hogweed.

3.4 SURVEY CONSTRAINTS

All the site was accessible for inspection. Botanical surveys are best done in the late spring to summer period.

3.5 SURVEYORS

The initial site survey was undertaken Hannah Evans MSci (Hons) Qualifying CIEEM, who was assisted by Katya Bathgate BSc (Hons). Hannah Evans is an ecologist who has over two years' experience surveying for amphibians, bats, reptiles, and water vole. Katya recently graduated from a zoology degree and has experience as an ecological assistant. Her primary areas of interest are birds and reptiles.

The updated survey (following the amendment of plans) was conducted by Alex Gregory BSc (Hons) Qualifying CIEEM. Alex is an ecologist who has over three years' experience conducting botanical surveys and surveys for protected species.

3.6 ASSESSMENT

Impacts and effects upon habitats and species are assessed with reference to the CIEEM Guidelines for Ecological Impact Assessment (2018) and are reported in Section 5, based on the baseline conditions reported in Section 4.

The assessment includes potential impacts upon habitats and species during the construction and operational phases of the scheme. It considers positive and negative impacts, their extent, magnitude and duration, frequency and timing, and reversibility.

4 Results

4.1 INTRODUCTION

This chapter summarises the results of the desk and field surveys.

4.2 BASELINE ECOLOGICAL CONDITIONS - DESK STUDY

4.2.1 Designated sites

Any locally designated sites (e.g., Local Nature Reserves) within 2km nationally designated sites within 5km, and internationally designated sites within 13km of the application site along with the approximate straight-line distances from the application site to the closest point of the designated site are listed below in Table 4.1.

Table 4.1 Relevant designated sites

Site name	Site designation	Distance
The Gardens Great Ashfield	SSSI	3.3km NW
Waveney and Little Ouse Valley Fens	SAC	11.8km N
Redgrave and South Lopham Fens	Ramsar	11.8km N

Locally designated sites

No Local Nature Reserves or County Wildlife Sites (CWSs) are located within 2km of the application site.

Nationally designated sites

The Gardens Great Ashfield SSSI is located c. 3.3km to the north-west of the application site. The site comprises four floristically rich ancient meadows and is one of the remaining examples of unimproved calcareous clay and neutral grassland in Suffolk. It is traditionally managed by a combination of grazing and cutting for hay and supports a wide variety of grasses and herbs including a population of common twayblade (*Listera ovata*). The grass sward is dominated by quaking grass (*Briza media*), crested dog's tail (*Cynosurus cristatus*), red fescue (*Festuca rubra*) and glaucous sedge (*Carex flacca*).

The herb flora is exceptionally rich and contains many species characteristic of this type of grassland, notably green-winged orchid (*Orchis morio*) and bee orchid (*Ophrys apifera*). Other species include meadow saxifrage (*Saxifraga granulata*), pepper saxifrage (*Silaum silaus*), adder's-tongue fern (*Ophioglossum vulgatum*), ox-eye daisy (*Leucanthemum vulgare*) and sulphur clover (*Trifolium ochroleucon*). Of additional interest is the presence of a black poplar (*Populus nigra*), possibly a hybrid, which is present on the western boundary.

The application site falls within the SSSI Impact Risk Zone for the above designated site and the scheme meets the listed risk criteria (e.g., all planning applications except householder).

Internationally designated sites

Waveney and Little Ouse Valley Fens SAC exemplifies spring fed fen meadows associated with Molinia grassland M24 *Molinia caerulea – Cirsium dissectum*. A rarity in East Anglia. The Molinia meadows are found here in conjunction with M13 *Schoenus nigricans – Juncus subnodulosus* mire and 7210 calcareous fens with *Cladium mariscus*. Where the fen-meadow is grazed it is more species-rich, with frequent southern marsh-orchid (*Dactylorhiza praetermissa*).

Redgrave and South Lopham Fens Ramsar site is an extensive example of lowland base-rich valley, notable for its lack of fragmentation. The diversity of the site is due to the lateral and longitudinal zonation of the vegetation types characteristic of valley mires, such as dry birch woodland, scrub and carr woodland, floristically-rich fen grassland, mixed fen, wet heath and areas of reed and saw sedge. The site supports many rare and scarce invertebrates, including a population of the fen raft spider (*Dolomedes plantarius*).

Habitats Regulations Assessment

Where a development or project may, alone or in combination, have a 'likely significant effect' upon the features of the Natura 2000 or Ramsar site, the Habitats Regulations 2017 require a Habitats Regulations Assessment (HRA) to be undertaken. Advice from NE states that increased housing located within 1km by foot and 13km by car of coastal Natura 2000 sites (SPAs and Ramsar sites) may potentially cause disturbance to the interest features due to walkers (and dogs). Disturbance to bird species that breed and/or overwinter within the sites is considered to cause the greatest impact.

HRAs are undertaken by a "competent authority" (CA), which in the case of Local Plans and most planning applications is the Local Planning Authority (LPA). Within Suffolk, Mid Suffolk and Babergh District Councils, in partnership with neighbouring authorities East Suffolk and Ipswich Borough Council and have developed the 'Suffolk Recreational disturbance Avoidance and Mitigation Strategy' (Suffolk RAMS) to address likely significant effects upon coastal Natura 2000 habitats sites resulting from development within the area. The strategy provides the practical basis and evidence to identify projects to mitigate the impact of new development on the protected sites.

The Suffolk RAMS comprises the delivery of a costed mitigation package of county wide measures aimed at delivering the necessary mitigation to avoid adverse effects on the integrity of the Habitats sites. The purpose of this is to influence visitor behaviour in such a way that their visits have a minimal impact. In the majority of cases, a RAMS contribution will be the Council's preferred mechanism for securing mitigation for in-combination recreational disturbance impacts on habitats sites (European designated sites) as a result of new residential development within 13km of Natura 2000 sites.

No coastal Natura 2000 sites are located within 13km of the site and therefore no significant impacts upon these sites as a result of the proposed development are anticipated. It is considered unlikely that a HRA will be required, no further assessment will be made within this document.

4.2.2 *Species*

No protected or notable species records exist for the site. Table 4.2 identifies species records for within 250m (**in bold**) and 2km of the application site boundary.

Table 4.2 Protected/notable species within 2km of the application site.

Scientific name	Common name	Legal /conservation status
Amphibians and reptiles		
Anguis fragilis	Slow worm	WCA5; S. 41
Lissotriton vulgaris	Smooth newt	WCA5
Natrix helvetica	Grass snake	WCA5; S. 41
Rana temporaria	Common frog	WCA5

Triturus cristatus	Great crested newt	EPS; WCA5; S. 41
Bats		
Myotis daubentonii	Daubenton's	EPS; WCA5
Myotis nattereri	Natterer's	EPS; WCA5
Nyctalus noctula	Noctule	EPS; WCA5; S. 41
Pipistrellus pipistrellus	Common pipistrelle	EPS; WCA5
Pipistrellus pygmaeus	Soprano pipistrelle	EPS; WCA5; S. 41
Plecotus auritus	Brown long-eared	EPS; WCA5; S. 41
Birds		
Alauda arvensis	Skylark	Red Status; S. 41
Apus apus	Swift	Amber Status
Delichon urbicum	House martin	Amber Status
Emberiza citrinella	Yellowhammer	Red Status; S. 41
Falco tinnunculus	Kestrel	Amber Status
Linaria cannabina	Linnet	Amber Status; S. 41
Motacilla cinerea	Grey wagtail	Red Status
Muscicapa striata	Spotted flycatcher	Red Status; S. 41
Passer domesticus	House sparrow	Red Status; S. 41
Perdix perdix	Grey partridge	Red Status; S. 41
Prunella modularis	Dunnock	Amber Status; S. 41
Pyrrhula pyrrhula	Bullfinch	Amber Status; S. 41
Streptopelia turtur	Turtle dove	Red Status; S. 41
Sturnus vulgaris	Starling	Red Status; S. 41
Turdus iliacus	Redwing	WCA1i
Turdus pilaris	Fieldfare	Red Status, WCA1i
Turdus philomelos	Song thrush	Red Status; S. 41
Turdus viscivorus	Mistle thrush	Red Status
Tyto alba	Barn owl	WCA1i
Vanellus vanellus	Lapwing	Red Status; S. 41
Other mammals		
Erinaceus europaeus	Hedgehog	S. 41
Lepus europaeus	Brown hare	S. 41
Invertebrates		
Coenonympha pamphilus	Small heath	RLGB.Lr(NT); S.41; UKBAP

4.2.3 *Additional species records*

Assessment of Natural England's GCN class licence return data revealed that two licences have been granted for GCN within 2km of the site. The first (2019-43795-EPS-MIT-1), is a licence which allows the damage and destruction of a resting place of GCN at a location c.450m to the north of the site. This was granted in 2020 and is due to expire in 2039. The second (2020-48909-EPS-MIT), was also for the destruction of a resting place of GCNs which was granted in 2020 and is due to expire in 2025, located c. 1.5km east of the site. In addition, two ponds that are located c.1km to the north of the site were surveyed in 2019 and GCN were found to be absent.

The search returned no granted EPSMLs for bats within 2km of the application site. The closest record (2018-33915-EPS-MIT) is from c. 2.7km west of the site and it allowed the destruction of a resting place of common pipistrelle and Natterer's bat, it was granted in 2018 and expired in 2019.

4.2.4 *Priority habitats*

An area classified as wood pasture and parkland (BAP Priority Habitat) is located c. 300m northeast of the application site.

4.3 BASELINE ECOLOGICAL CONDITIONS – FIELD SURVEY

4.3.1 *Habitats and vascular plants*

Descriptions of the habitats (Figure 2) and the characteristic plants species present are provided below with photos provided in Appendix A1.

a) *Built environment* **(u1b5 buildings, u1b developed land - sealed surface, u1f sparsely vegetated urban land, 129 wet moss lawns, 81 ruderal or ephemeral)**

The application site consists of a redundant farm building (Photos 1 and 2) with small areas of concreted, hardstanding surface to the east and west partially colonised by a mixture of ruderal vegetation and mosses that have established (Photo 3). The surface to the west of the building features an abundance of cock's-foot (*Dactylis glomerata*), willow-herb (*Epilobium ciliatum*) and spear thistle (*Cirsium vulgare*), with less frequent common nettle (*Urtica dioica*), ragwort (*Jacobaea vulgaris*), yarrow (*Achillea millefolium*), dove's-foot crane's-bill (*Geranium molle*), groundsel (*Senecio vulgaris*), common cat's-ear (*Hypochaeris radicata*), common chickweed (*Stellaria media*), hairy bittercress (*Cardamine hirsuta*) and common field speedwell (*Veronica persica*) with a covering of carpet sedum (*Sedum lineare*) and gold moss stone crop (*Sedum acre*).

b) *Arable field* **(c cropland, c1c cereal crops, 516 active management)**

Adjacent to the buildings western and southern elevations is an arable field (Photo 4), which had been sown with a cereal crop at the time of the updated survey, this area comprises the majority of the development site.

c) *Scrub, grassland, and trees* **(g grassland, g4 modified grassland, h3d dense scrub, 10 scattered scrub, 16 tall forb, 81 ruderal or ephemeral, 32 scattered trees, 200 tree, 33 line of trees, 81 ruderal or ephemeral, 106 mown, 202 young trees self-set, 203 mature tree, 507 nutrient enriched substrate)**

Patches of dense scrub surround the building to the north, south and west (Photos 5 and 6). It comprises primarily bramble *(Rubus fruticosus agg.*) with occasional hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and elder (*Sambucus nigra*). The scrub to the north of the building also contains three small field maple (*Acer campestre*) (DBH <30cm) trees and an elder shrub. Adjacent to the northeast corner of the building are two medium field maple trees (DBH <45-50cm).

Between the arable field and the southern elevation of the barn is a very narrow strip of grassland interspersed with tall forbs and some small, scattered patches of bramble scrub (Photo 7). Ruderal species recorded comprise of primarily cocks'-foot with hogweed (*Heracleum sphondylium*), nettle, willowherb, spear thistle, garlic mustard (*Alliaria petiolata*), cleavers (*Galium aparine*) and bristly oxtongue (*Helminthotheca echioides*) - all of which are indicative of nutrient enrichment from inputs to the adjacent arable field. Approximately four small saplings/shrubs of elder and buddleia (*Buddleja davidii*) are also present within this area.

Along the eastern site boundary, to the north and south of the existing building are areas of mown, modified grassland (Photos 7 and 8) containing an abundance of annual meadow (*Poa annua*) and perennial rye (*Lolium perenne*) grass. Bristly oxtongue, creeping buttercup (*Ranunculus repens*), and common daisy (*Bellis perennis*) are frequent, and spear thistle, doves-foot cranesbill and cock's-foot are

occasional throughout the sward, while white dead nettle (*Lamium album*) and groundsel are rarer. Midway along the grassed area, adjacent to the field and southern site boundary are two Lombardy poplar (*Populus nigra*) trees (DBH c. 70cm), three additional trees exist within the managed grassland to the north.

An area of rough grassland exists to the north of the building (Photo 9) with tall vegetation dominated by cow parsley (*Anthriscus sylvestris*) and common nettle with a large section of wild teasel (*Dipsacus fullonum*) at the east site boundary. Other species observed include annual meadow grass (*Poa annua*), perennial rye grass (*Lolium perenne*), ground ivy (*Glechoma hederacea*), lord's-and-ladies (*Arum maculatum*) ragwort, Alexander's (*Smyrnium olusatrum*), bitter-dock (*Rumex obtusifolius*), yarrow, creeping thistle (*Cirsium arvense*), red dead nettle (*Lamium purpureum*), cleavers (*Galium aparine*), fringed willow herb (*Epilobium ciliatum*), nipplewort (*Lapsana communis*), spear thistle (*C. vulgare*), groundsel (*Senecio vulgaris*) and lesser burdock (*Arctium minus*). The northern edge of the grassland is separated from a lane by an additional line of sycamore trees, with a brash pile towards the western end (Photo 10).

4.3.2 *Amphibians and reptiles*

a) Amphibians

i) Ponds

Two ponds are shown on OS maps within 250m of the application site boundary P1 (Photo 11, Figure 1) is approximately 150m east of the application site and P2 is c. 250m to the northeast, no access was secured to assess P2 of these ponds for their suitability to support breeding GCNs and other amphibians, although it is very small and at the junction of some fields.

Pond P1 is in the garden of a residential property located c. 230m to the northeast of the application site. It was assessed as supporting *Poor habitat suitability* for GCNs (HSI score = 0.28) due to being densely stocked with rudd (*Scardinius erythrophthalmus*) and waterfowl causing high turbidity. and negligible macrophyte cover. The application site offers sub-optimal habitat for GCN and it is therefore considered unlikely that they would be present within the site boundaries.

ii) Terrestrial habitats

The application site is considered to provide suboptimal – *low* value terrestrial habitats for common amphibians. Some limited foraging habitat exists to the north of the building, within the ruderal vegetation and rough grassland, with refuge/dispersal habitats limited to the scrub around the building's perimeter and the brash pile in the northwest corner of the site wider site.

b) Reptiles

Local historical reptile records exist for grass snake and slow worm, from within 2km of the application site. However, the nature of habitats on and surrounding the site (e.g., arable farmland) are likely to reduce the probability of significant populations of either species being present. Limited potential for exists slow worm, which favour a mosaic of habitats containing scattered scrub and tussocky grassland, affording cover (e.g., refuge from predators) as well as open areas for basking, present to the north of the building.

Grass snakes are more widespread in arable landscapes, especially where ponds exist nearby (e.g., pond P1 and P2), such that individuals may occasionally pass through the site. A brash pile located towards the site's northern boundary provides potential refuge

habitat but is doesn't contain lots of organic matter which will decompose in the summer months, is. The overall habitat suitability of the site for reptiles was assessed as *low,* with the adjacent habitats to the north providing habitats of a greater value.

4.3.3 *Bats*

a) Tree Roost Assessment

All of the immature trees surrounding the building possessed no visible PRFs and therefore are considered to support a *negligible* level of BRP (Collins, 2016), PRF-none (Collins, 2023). The trees along the eastern boundary are more mature and could support potential roosting niches, however, these are to be retained as part of the proposals.

b) Building assessment

The redundant farm building is built of breezeblocks and brick with a metal frame. The roof is constructed with cement asbestos roof and walls with some corrugated plastic and metal sheets in place of missing panels, the roof itself is visibly lifted and warped, creating gaps at the eaves of the building along with cracks and broken boards that provide access to the building's interior. A large sliding metal door is present on the eastern elevation with a double wooden/metal door present on the west. Rows of windows line the northern and southern aspects of the building.

A large crack (Photo 12) is present on the southeast corner and another mid-way along the southern elevation of the building (Photo 15), which would provide a potential roosting niches, no bats were seen. The barn has multiple broken windows which would again provide points of access. In general, the building is not well sealed with bramble and ivy growing through the walls and ceiling, particularly to the west and south aspects. This creates a light and draughty interior (Photos 16), partially divided into bays.

No bats or evidence of roosting bats was found within the building and therefore it is considered to support a *negligible* level of BRP.

c) Foraging and Commuting Habitat

The scrub and ruderal vegetation were assessed as being habitats of *low* value to foraging bats, and the commuting opportunities are largely limited to the trees at the boundaries (Collins, 2016).

4.3.4 *Nesting birds*

During the site survey greenfinch (*Carduelis chloris*) (Red Status), chaffinch (*Fringilla coelebs*), pheasant (*Phasianus colchicus*), blackbird (*Turdus merula*) and common pigeon (*Columba livia*) were observed. Approximately 10 pellets of various ages, consistent in shape, size, and content with that of a kestrel were located within the building - concentrated below the ridgeline and towards the west elevation door (Photos 13 and 14). The carcass of a dead pheasant was found in one of the bays in the northwest section while a robin's (*Erithacus rubecula*) nest was in the rafters of the central bay on the north side. A pigeon's nest was also visible in one of the trees to the north of the building.

The bramble scrub provides habitat for small passerines such as common whitethroat (*Sylvia communis*) (Amber status) and linnet (*Linaria cannabina*) (Red Status; S. 41). The arable farmland to the south may support nesting skylark (*Alauda arvensis*) (Red

Status; S. 41), but the application site is too close to properties and boundary habitats which will be used by predators.

The trees around the building offer nesting, foraging and song perch habitat for a range of farmland and common garden bird species and will provide a seasonal source of food (e.g., fruit and berries) for notable migratory species such as fieldfare (*Turdus pilaris*) (Red Status, WCA1i) and redwing (*Turdus iliacus*) (Red Status, WCA1i).

Mature trees at the site boundaries offer potential nesting a song perch habitat for a range of common bird species.

4.3.5 *Badger*

No evidence of badger was observed during the site survey.

4.3.6 *S. 41 list species*

The scrub around the building provides suitable refuge habitat for hedgehog, whilst the ruderal vegetation and scrub will offer some limited foraging opportunities (along with the uncultivated field margin to the south, modified grassland to the east and rough grassland to the north) for the species and brown hare (*Lepus europaeus*). Scrub and forbs present across the site could support a range of S. 41 list invertebrates such as butterflies and moths.

4.3.7 *Non-native invasive plants*

No non-native invasive species were recorded within the application site boundary.

4.4 GEOGRAPHIC CONTEXT

The geographic context of a feature is a useful consideration within an assessment of impacts. For this report, the geographic frames of reference for the habitats and species present on sites are provided in Table 4.3; values are based upon the criteria in Table A3.1 in Appendix A3 and expert best judgements.

Table 4.3 Feature value based on geographic context

Feature	Value
Scrub, trees, ruderal vegetation, grassland and arable field	Local
Amphibians and reptiles	Local
Bats	Local
Nesting birds	Local
S. 41 species	Local

5 Assessment and recommendations

5.1 INTRODUCTION

The following section provides a summary description of the proposed developments, with an assessment of associated impacts and likely significant effects upon biodiversity.

The assessment and recommendations are based on use of the mitigation hierarchy, which in the first instance aims to avoid impacts. Where impacts cannot be avoided, they should be minimised (through mitigation). Only where impacts cannot be avoided or minimised should there be compensation for biodiversity harm.

Ecological enhancements are suggested, and consideration is given to individual as well as overall net gains or losses of biodiversity.

5.2 DESCRIPTION OF PROPOSED DEVELOPMENT

Planning permission is being sought to demolish an existing farm building and construct 5 dwellings resulting in the loss of part of an arable field, areas of hardstanding surfaces, some modified grassland and dense scrub habitat containing tall ruderal vegetation and some scattered trees.

The losses of any native trees/shrubs and scrub should be compensated through the incorporation of hedgerow and tree planting around the site boundaries into a suitable Landscape Design Strategy (LDS) and the loss of bird nesting habitat within these areas and the barn should be compensated via the provision of bird boxes within the new dwellings.

This assessment and recommendations provide preliminary recommendations for mitigation, compensation, and enhancements for the proposed development. They are based on a Site Plan, Location Plan, Block Plan as Proposed and Elevations as Proposed, provided by Les Andrews MCIAT (Drawing No. 1925/01, 1925/20 and 1925/22) and information available at the time of writing and should be updated accordingly as the scheme is subsequently amended.

5.3 FURTHER SURVEYS REQUIRED

It is generally advised that subject to no significant change in site management regimes, and dependent on the species present, baseline survey results remain valid for approximately 12 – 18 months (CIEEM, 2019). Exceptions include where mobile species are/may be present, where site management practices cease or change, or where existing guidance indicates otherwise.

5.4 ASSESSMENT OF IMPACTS

The EcIA assessment process (CIEEM, 2018) involves:

- Identifying and characterising impacts and their effects.
- Incorporating measures to avoid and mitigate negative impacts and effects.
- Assessing the significance of any residual effects after mitigation.
- Identifying appropriate compensation measures to offset significant residual effects.
- Identifying opportunities for ecological enhancement.

The emphasis in EcIA is on the assessment of 'significant effects' i.e. an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. In broad terms significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species including extent, abundance, and distribution.

The ecological features to be subject to detailed assessment in this report are those judged to be important and potentially affected by the project; protected species are included where the development will result in a potential breach of legislation.

5.5 HABITATS AND VASCULAR PLANTS

a) Potential impacts

Vegetation clearance and construction activities will result in the permanent loss of small areas of scrub and grassland with ruderal vegetation and part of an arable field. This represents a loss of habitats but the majority of it is of limited ecological significance and will be compensated for through the proposed site landscaping, including new hedgerow planting around the site boundaries. Some small trees may be removed to accommodate the new development, this is considered a significant ecological impact at the Local level and will require like for like compensation through the planting of new native trees.

Any accidental damage to retained habitats during the construction phase would result in a significant negative effect at the local level.

b) Mitigation

Retained trees should be protected from damage with Heras (or similar) fencing during the construction phase and Root Protection Areas (RPAs) used to inform the detailed design.

c) Residual effects

Any native tree or shrub removed will require compensation (see section 5.11).

5.6 AMPHIBIANS AND REPTILES

a) Potential impacts

Given the habitats present and current site management, overall losses of habitat are of negligible ecological significance to local populations. However, amphibians (e.g., during spring migration to breeding ponds) and occasional e.g., grass snakes could make contact with caustic materials and moving vehicles, resulting in entrapment and mortality. The removal of scrub habitat could impact upon individuals that are seeking refuge within these areas.

If any site drainage is to be installed, the use of gulley pots or similar as part of a surface water drainage system can result in the entrapment of amphibians (Muir, 2012).

In combination the above impacts would potentially be a significant negative effect upon a small number of animals at the Local level.

b) Mitigation

The following measures will be implemented:

- Vegetation in the arable field should be kept short during the period February to October inclusive (when amphibians and reptiles are active).
- Clearance of any taller vegetation should be undertaken sensitively during the months of April to September inclusive. Hand tools (e.g. strimmers and hedge trimmers) should be used to take taller vegetation down to ground level using a 2-stage cut as follows:
  - ❖ A first cut to be taken to 150mm above ground level with brash raked prior to being removed from site.
  - ❖ After at least 1 hour (preferably overnight), a second cut to ground level.
  - ❖ Maintained near to ground level until works commence.
- During the construction phase, trenches should ideally be filled on the same day as excavation where possible if excavated during February (if mild) to October inclusive.
- Trenches left overnight when amphibians and reptiles are active should either be covered with ply/OSB sheets and any gaps filled with damp sharp sand or access ramps installed on corners to allow animals to escape.
- Trenches should be inspected prior to filling with concrete.
- Footings and concrete slabs will be poured during the morning to ensure they have hardened off prior to evening to reduce the risk of animals encountering wet concrete.
- Any hand mixing of mortar or concrete will be on ply boarding over a tarpaulin which is folded over the boarding at the end of each day to prevent animals coming into contact..
- Any excess cement/concrete will be poured into a concrete skip, so it can then set and prevent animals coming into contact.
- All building materials will be stored on bare ground or hard standing or stored off the ground on pallets.
- Any waste or spoil stored on site temporarily will be stored on bare/hard ground or in skips to prevent amphibians or reptiles from seeking refuge.
- Should any animals be encountered, they should be allowed to displace into retained habitat or carefully relocated.
- If any GCNs (Appendix A3) are encountered works must stop immediately and a qualified ecologist be contacted for advice on how to proceed.
- **Gully pots should be avoided where possible and permeable paving used so amphibians don't become trapped in silt traps/attenuation crates.**
- **Any surface water drainage should preferably discharge without impediment (e.g. no silt traps) via a pipe straight into a ditch.**
- **If gully pots are required a wildlife-kerb[9] should be installed adjacent to each gully pot; OR an amphibian ladder[10] should be placed into each gully pot.**

c) Residual effects

With mitigation implemented direct impacts upon animals will be avoided with no significant residual effect.

5.7 BATS

a) Potential impacts

i) Roosting bats

No impacts anticipated as a result of building demolition and/or tree removal.

[9] e.g. https://www.aco.co.uk/products/wildlife-kerb

[10] https://www.thebhs.org/the-bhs-amphibian-gully-pot-ladder

ii) Foraging and commuting habitat

The loss of scrub habitat and ruderal vegetation will result in a small reduction in local foraging and commuting opportunities available.

iii) Light disturbance

Lighting (e.g., security lighting during the construction phase, and lighting when the homes are built and occupied) can impact bat commuting and foraging behaviour and increase the risk of predation, which could affect foraging success and population recruitment and is considered a potential significant effect at the Local level.

iv) Roofing membranes

Research has shown bats can become entangled in modern breathable roofing membranes if used under clay pantiles or peg/plain tiles (Waring *et al*., 2013) or behind weatherboarding. Without mitigation, the impacts above could result in significant effects at a local scale.

b) Mitigation

i) Roosting bats

None required.

ii) Foraging habitat

Protection of boundary habitats as per section 5.5.

iii) Light disturbance

Exterior lighting (as well as temporary/permanent security lighting) design must minimise lighting impacts upon retained natural habitats, and should follow current guidance as necessary[11,12]:

- *Type of lamp (light source)*: Light levels should be as low as possible as required to fulfil the lighting need. Lamps should have a maximum of 7.5 to 10 lux and LED lights should be used using the warm white spectrum, with peak wavelengths >550nm (2700°K) and no UV component; and
- *Lighting design*: Lighting should be directed to where it is needed, with minimal horizontal spillage towards retained boundary habitats including boundary hedgerows and trees. This can be achieved by restricting the height of the lighting columns/fixtures and the design of the luminaire, including the following measure:
  - ❖ Light columns/fixtures in general should be as short as possible as light at a low level reduces the ecological impact.
  - ❖ Luminaires with an upward light ratio of 0% should be mounted on the horizontal i.e., with no upward tilt.
  - ❖ If taller lights are required, and as a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill; and
  - ❖ PIR movement sensors and timers should be used to minimise the 'lit time'.

v) Roofing membranes

The new dwellings should use bat friendly roofing felt (e.g., Type 1F bitumastic felt) if handmade clay pantile or plain tiles are to be used and behind weatherboarding. If tight fitting tiles (e.g., interlocking pantiles or machine-made plain tiles) or slates or concrete weatherboarding are used, BRM can be used if gaps are less than 5mm, to

[11] https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting

[12] www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

ensure bats cannot come into contact with the BRM. The proposals suggest that a mixture of slates, pantiles and weatherboarding will be used.

c) Residual effects

The above mitigation measures will ensure impacts on bats are avoided.

Opportunities exist to enhance the sites value for foraging and commuting bats once landscaping has matured. The provision of roosting niches could be incorporated into the design of the new dwellings.

5.8 NESTING BIRDS

a) Potential impacts

Vegetation clearance (e.g., trees, ruderal vegetation and scrub), building demolition and accidental damage to or trees (e.g., via movement of machinery and vehicles) during the nesting season (1st March to 31st August) may result in the injury or death of nesting birds and damage to active nests and eggs, whilst increased noise levels during the operational phase could affect the ability of birds to hold territories during the breeding season. The destruction of active nests would constitute a negative effect at a Local level (as an offence under wildlife legislation).

During the operational phase the introduction of increased numbers of cats could result in increased predation (e.g. Thomas *et al.*, 2012) with the potential to cause a significant negative effect at the Local level.

b) Mitigation

As per section 5.5, temporary fencing and RPAs should be used to protect trees. The builders site compound should be located away from retained trees.

Building demolition, and tree and scrub clearance should be undertaken outside of the breeding bird season (March to August inclusive). If for any reason this is not feasible, a suitably experienced ecologist or Ecological Clerk of Works (ECoW) must check for breeding and nesting birds prior to the commencement of these works. If birds' nests are found, then 5m exclusion zones will be put in place and works in these locations will only recommence once any young have fledged the nest.

c) Residual effects

With implementation of prescribed mitigation impacts upon nesting birds will be avoided. Due to the loss of areas of scrub and the demolition of the former agricultural barn, there will be a loss of bird nesting and roosting habitat which requires compensation (see section 5.10)

5.9 OTHER S. 41 LIST SPECIES

a) Potential impacts

Vegetation clearance, ground-breaking and construction activities will result in the permanent loss of areas of foraging and refuge habitat for hedgehogs (e.g., scrub and grassland) and brown hares (e.g., arable field and grassland). Hedgehogs and brown hare could potentially fall into excavations or open trenches; be hit by moving vehicles and hedgehogs may take shelter in building materials on site during the construction phase, resulting in injury or death.

Erection of ecological barriers (e.g., rabbit and/or security and/or close board fencing) could affect foraging access for animals through habitat fragmentation.

In combination such impacts would be considered to result in a negative ecological effect at the Local level.

b) Mitigation

Removal of any tall ruderal vegetation and scrub should take place in early autumn to avoid impacts upon nesting hedgehog. If clearance is required in the spring to avoid nesting bird issues, vegetation should be retained to no lower than 300mm above ground level to avoid injury or harm to hibernating hedgehog until temperatures are regularly (six consecutive days/nights) maintained above 6°C.

Trenches should be covered overnight, or ramps provided, and water levels kept to a minimum. any animals encountered be relocated out of the works area.
Habitat mitigation as per 5.5.

The use of close board fencing should be avoided, with native species-rich hedgerows preferable where boundary features are required (between the new properties). If close board fencing were to be installed, then at least one hedgehog highway[13] should be provided at an end of each fencing run with signage.[14]

c) Residual effects

Impacts upon foraging and nesting hedgehogs and foraging brown hare during vegetation clearance and construction phases will be avoided. The proposed new boundary hedgerow planting would deliver a positive effect, providing refuge habitat with potential to support S. 41 list invertebrate species (once mature).

5.10 COMPENSATION

Significant residual negative effects upon habitats and species are mainly restricted to the loss of arable land, immature trees, scrub and grassland containing ruderal vegetation with potential impacts upon nesting birds, hedgehogs, brown hare, foraging bats, reptiles and amphibians.

The losses of native trees and scrub will be compensated by the proposed landscaping including the planting of a native hedgerow and tree planting around the site boundaries into a suitable Landscaped Design Strategy (LDS) and the loss of bird nesting habitat should be compensated via the provision of bird boxes within the new dwellings including 4x robin/wren boxes[15].

A kestrel box[16] should be erected on a mature tree retained off site, but local to the barn which is currently used by kestrel's for roosting.

To compensate for the loss of habitat suitable for S. 41 list mammal and invertebrate species, native species rich hedgerows have been proposed on the landscaping proposals. It is recommended that wildflower lawns are established within the gardens

[13] https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/
[14] https://ptes.org/shop/just-in/hedgehog-highway/
[15] https://shopping.rspb.org.uk/garden-bird-nest-boxes/rspb-robin-and-wren-diamond-nestboxs
[16] https://thewildlifecommunity.co.uk/products/kestrel-box

of the new dwellings to compensate for the loss of grassland with access provided into all the gardens with gates raised by a minimum of 130mm above ground level.

The above recommendations are detailed in Table 5.1, the additional enhancement measures that are recommended should be followed to maximise the biodiversity benefit of proposed habitat creation and to ensure a biodiversity gain is achieved, consistent with planning policy. Additional habitat enhancement could be delivered through suggested enhancement measures.

5.11 CUMULATIVE EFFECTS

The Mid Suffolk District Council planning website was searched on 27 February 2024 with a 1km buffer dating back a minimum of two years. Refused and withdrawn applications were not considered in relation to cumulative ecological effects. The search returned several householder applications for alterations or extensions to existing dwellings. More significant applications are detailed below:

Several applications (including discharge of conditions) for industrial/commercial developments at Red House Farm, Rectory Road, Bacton, Stowmarket, Suffolk, IP14 4LE were returned. These included two applications (DC/22/05189 and DC/22/03042) seeking to obtain a Lawful Development Certificate (LDC), and an application (DC/21/02068) to erect a replacement livestock unit building with associated infrastructure (accompanied by an EIA Statement and ecology report). A full planning application (DC/23/01506) for the change of use of land from agricultural to use for the storage of containers, portable cabins and similar Items, and equipment used for the maintenance and conversion of such items, construction of an earth bund and landscaping, was submitted with multiple ecology reports, including a BNG metric. The most recent application is currently awaiting a decision.

A Full Application (DC/23/01942) for the erection of a detached dwelling (renewal of extant permission DC/20/02099) at Camping Site and Premises to The North Of Mill Road, Wyverstone, Suffolk, IP14 4SE, was submitted with ecology and GCN survey reports. Permission was granted with the conditions that a BES be provided and that works be supervised by an ECoW. A GCN licence has since been submitted. An additional application (DC/23/01617), relating to the same site, for the erection of building to provide toilet facilities for campsite (retention of), is currently awaiting a decision.

There is no indication from the above applications that there will be any significant cumulative impact with the current application.

5.12 ENHANCEMENT OPPORTUNITIES

Subject to the recommended mitigation and compensation measures, the proposed scheme will avoid causing significant negative ecological effects. With appropriate design and landscape planting, the scheme can deliver a biodiversity gain in compliance with local and national planning policies and legislation.

Quantitative assessments of habitat losses and gains using the Defra Small Sites Metric (MHE Consulting Ltd, 2024) has been assessed and the development will deliver a 10.54% BNG in area habitats, whilst the native hedgerow planting will deliver a significant increase with no hedgerows currently present on site.

Tree planting (x10 trees) is proposed to offset the loss of some small trees adjacent to the barn that is to be demolished. A small area of woodland/scrub is proposed to compensate for the loss of an area of scrub to the north of the barn, whilst an area of pollen and nectar mix is proposed to the south of the proposed boundary hedgerow in order to retain arable farmland (e.g. agri-environmental schemes such as Countryside Stewardship have pollen and nectar mixes as options).

Species enhancements

In addition to habitat enhancements that will be delivered as part of the development As a minimum, it is recommended that 5 of the 8 options listed in Table 5.1 are implemented, any additional measures implemented will provide further net gains and benefit for biodiversity. Planting specifications should be included on detailed landscaping proposals when produced.

Table 5.1 Enhancement opportunities

Feature	Guidance
Hedgerow planting	1. The proposed native hedgerow planting must comprise a minimum of 6 species per 30m that provide autumn colour as well as seasonal sources of nuts, fruit and berries for birds and mammals. Thorny species such as hawthorn or bird cherry (*Prunus cerasifera*) should form c. 50% of any planting scheme, with additional species selected from the following list: • Common dogwood (*Cornus sanguinea*). • Crab apple (*Malus sylvestris*). • Field maple. • Guelder rose (*Viburnum opulus*). • Hazel (*Corylus avellana*). • Holly (*Ilex aquifolium*). • Hornbeam (*Carpinus betulus*). • Spindle (*Euonymus europeaus*). • Dog rose (*Rosa canina*). • Wild privet (*Ligustrum vulgare*).
Wildflower lawns	2. Wildflower lawns should be established within the proposed gardens using a native, species-rich seed mix[17] or laying an equivalent turf[18] if preferred. The wildflower lawns will provide botanical diversity and foraging opportunities for pollinators and other invertebrates, mammals (e.g., hedgehogs and badger) and hunting habitat for raptors (e.g., barn ow and kestrel).
Bird boxes	3. Swift boxes (e.g. Manthorpe swift brick) could be installed into or fixed to the brick walls (minimum of 4 boxes per property: NE gable of unit 1, SE gable of unit 2, SW gable of unit 4). A speaker connected to an MP3 player should

[17] https://wildseed.co.uk/product/mixtures/complete-mixtures/general-purpose-meadow-mixtures/special-general-purpose-meadow-mixture/ or https://www.bostonseeds.com/products/wildflowers-seed/wildflower-seed-mixtures-20/bs1m-traditional-wildflower-meadow-seeds.html

[18] https://www.wildflowerlawnsandmeadows.com/wild-flower-turf/wild-flower-meadow-turf-with-wild-orchid-seed/

Feature	Guidance
	be fitted in one of the 6 boxes erected on each of the gable ends and swift return calls must be played during May and early June as they will attract swifts returning to the UK and prospecting for potential nest sites. (https://peakboxes.co.uk/knowledge-learning-blog/2019/10/13/attracting-swifts-sound-systems)
Bat boxes	4. Three bat boxes (Appendix A5) could be erected on suitable mature trees along the site boundaries and on the walls of the new dwellings (exact locations to be agreed with a suitably experienced ecologist).
Trees	5. Suffolk varieties of heritage fruit trees on dwarf rooting stock should be planted in the gardens and at the boundaries, within the hedgerows. They can be sourced from the apples and orchards website: https://www.applesandorchards.org.uk/
Invertebrates	6. Bug houses could be erected on the new homes. 7. Native honeysuckle (*Lonicera periclymenum*) could be planted within the proposed native boundary hedgerow, whilst ornamental climbers could be planted to grow along fence lines to provide a nectar source for pollinating invertebrates.
Amphibians and reptiles	8. A herptile hibernacula (Appendix A6) could be constructed in a suitable location within the rough grassland to the north of the existing barn.

Peat based composts will not be used for any planting or landscaping to preserve existing carbon stores and avoid damage to sensitive habitats.

5.13 CONCLUSIONS

Ecological impacts resulting from the proposed design have where possible been avoided or minimised through design, mitigation, and compensation measures. To maximise potential biodiversity benefits the measures proposed should be secured through detailed design and appropriate planning conditions, scheme specific and/or as per the British Standard (BS 42020:2013).

Relevant planning conditions could include:

- BS 42020:2013 D.2.1 to provide a Biodiversity Method Statement to detail mitigation.
- A Biodiversity Enhancement Strategy to detail enhancement measures, to be reflected in the detailed landscaping proposals and site plans for the scheme.
- BS 42020:2013 D.3.2.1. nesting bird check (by suitably experienced ecologist) prior to shrub/scrub clearance.
- BS 42020:2013 D.3.5 to limit lighting design impacts upon bats.
- BS 42020:2013 D.3.7 to ensure mitigation, compensation and enhancement measures are successfully implemented.

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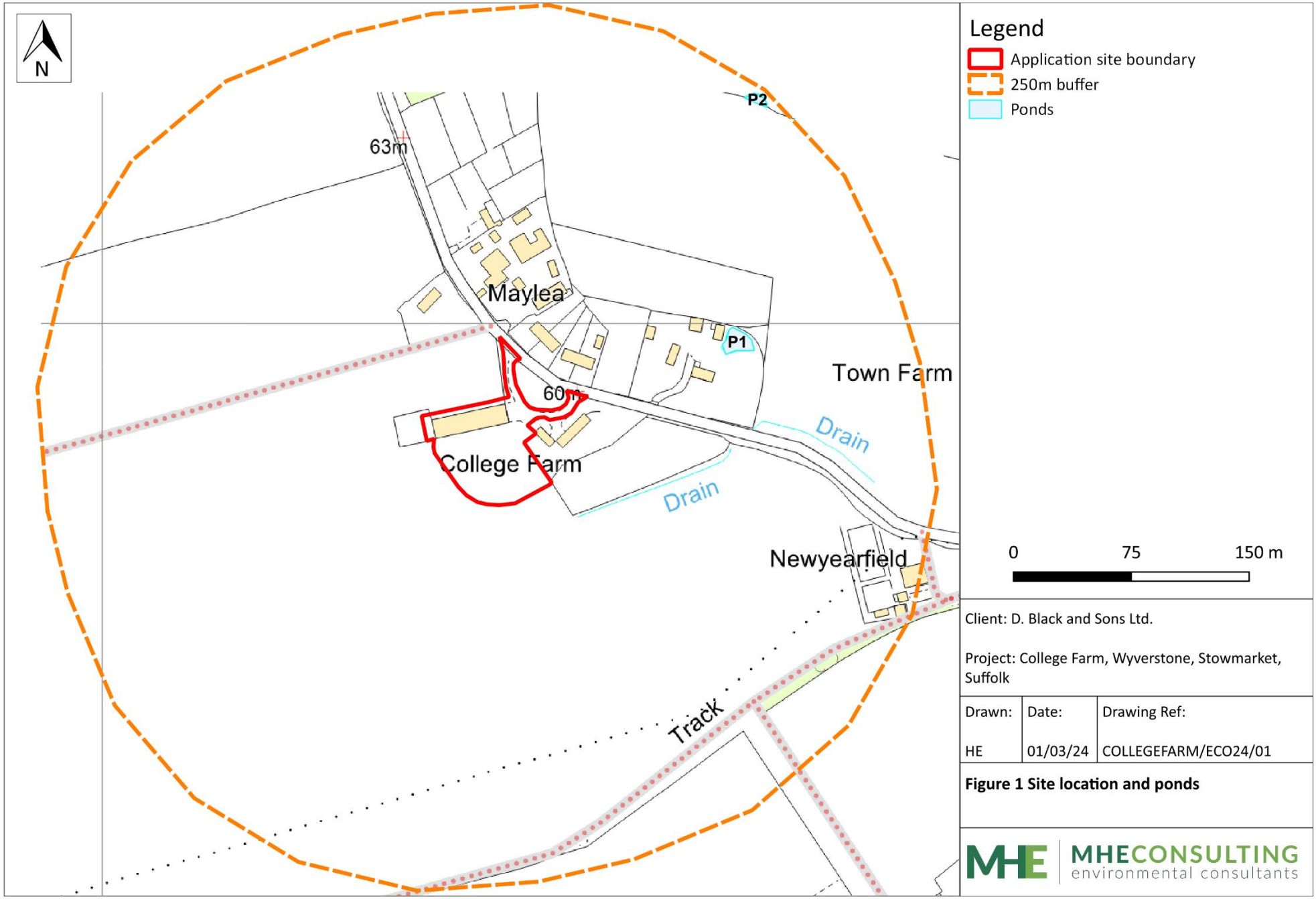
Figures



Client: D. Black and Sons Ltd.

Project: College Farm, Wyverstone, Stowmarket, Suffolk

Drawn:	Date:	Drawing Ref:
HE	01/03/24	COLLEGEFARM/ECO24/01

Figure 1 Site location and ponds

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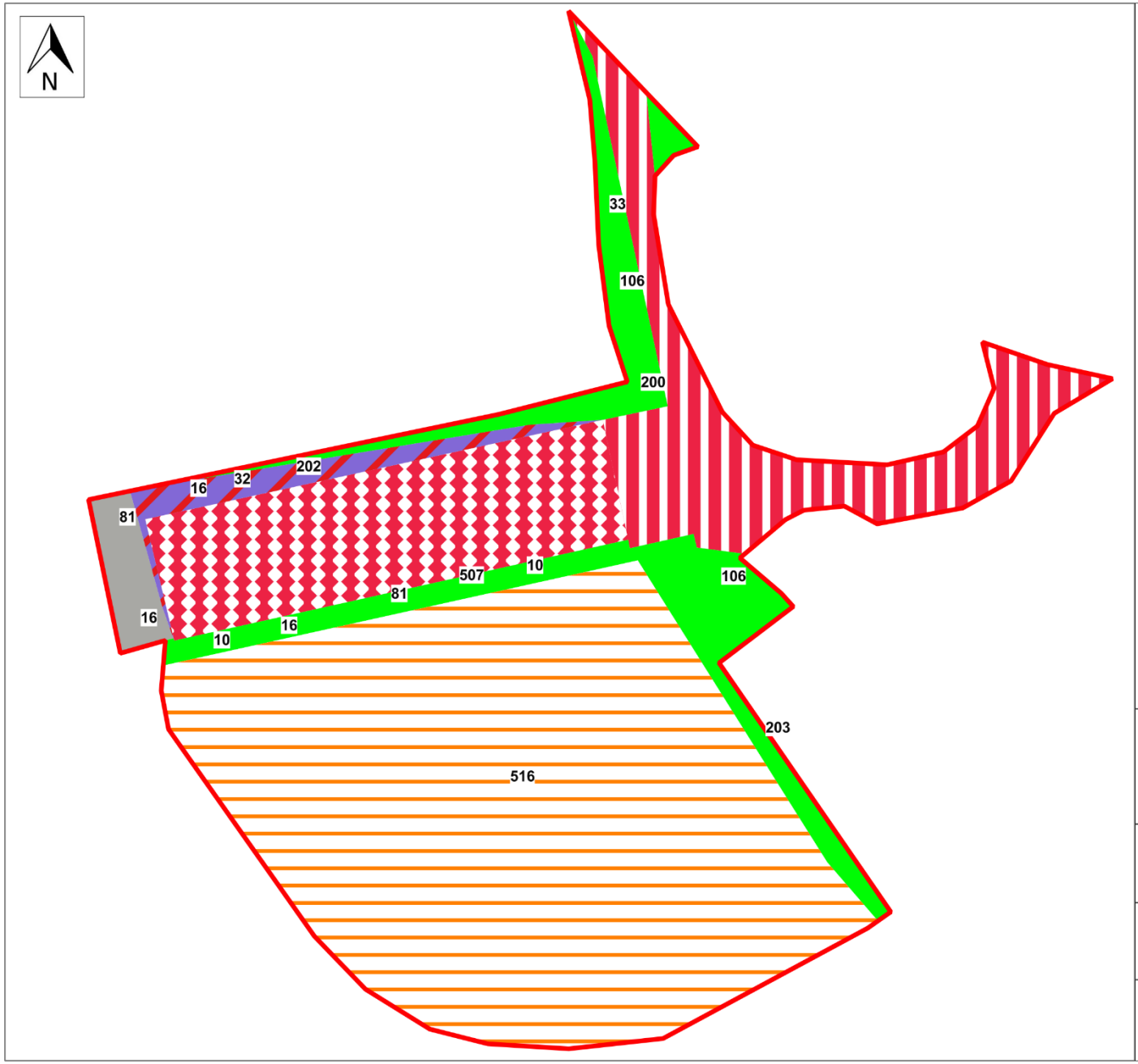

Legend

Habitats

- g4 - modified grassland
- h3 - dense scrub
- c1c - cereal crops
- u1b - developed land, sealed surface
- u1b6 - other developed land
- u1f - sparsely vegetated urban land

Secondary codes:

10 - Scattered scrub
16 - Tall forbs
32 - Scattered trees
33 - Line of trees
81 - Ruderal or ephemeral
106 - Mown
200 - Tree
202 - Young trees - selfset
203 - Mature tee
507 - Nutrient enriched substrate
516 - Active management

0 15 30 m

Client: D. Black and Sons Ltd.

Project: College Farm, Wyverstone, Stowmarket, Suffolk

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HE	01/03/24	COLLEGEFARM/ECO24/02

Figure 2 UKHab habitats plan

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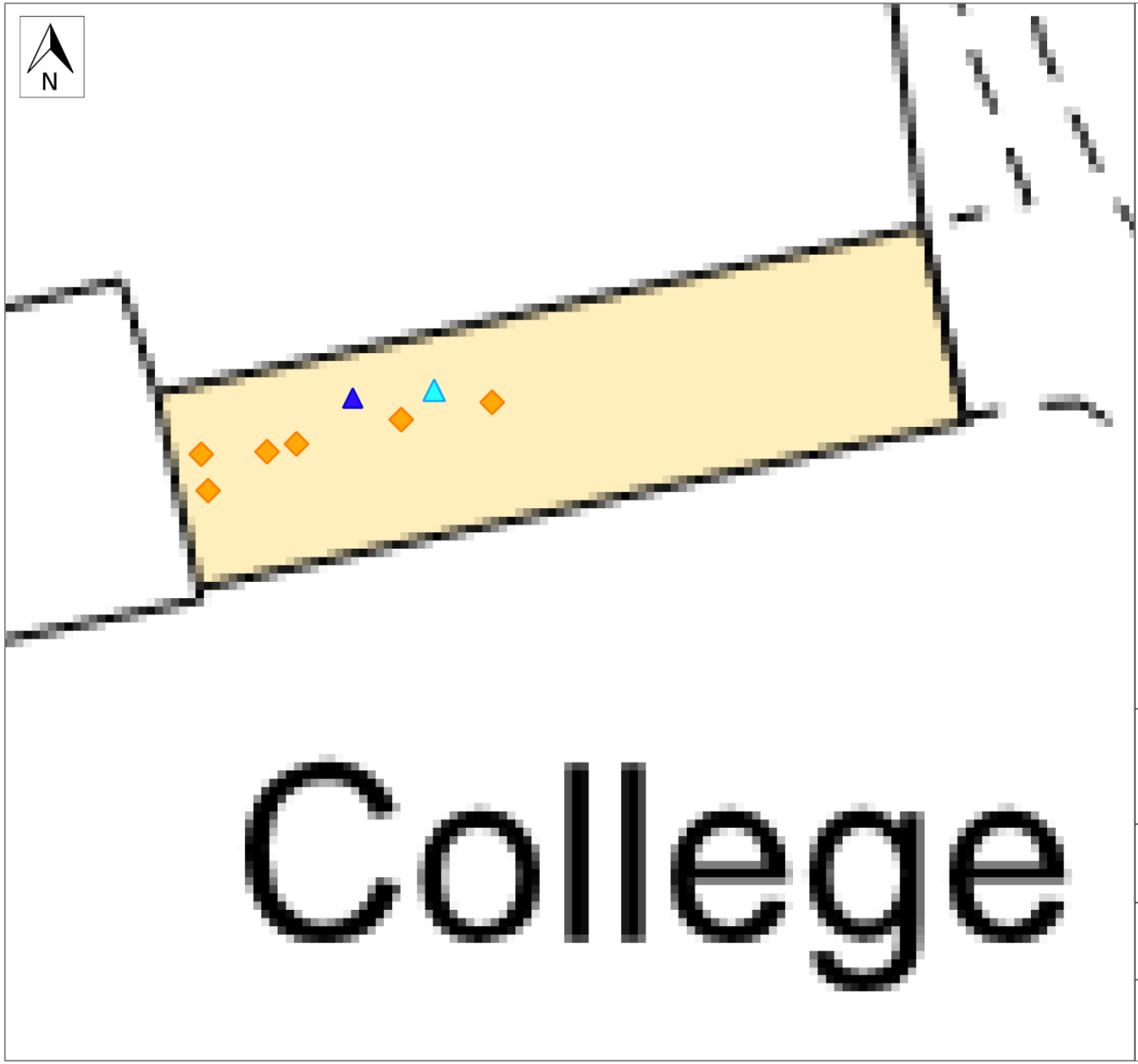

Legend

- Kestrel pellets
- Robins nest
- Pheasant remains

0 10 20 m

Client: D. Black and Sons Ltd.

Project: College Farm, Wyverstone, Stowmarket, Suffolk

Drawn:	Date:	Drawing Ref:
HE	01/03/24	COLLEGEFARM/ECO24/03

Figure 3 Building inspection results (04/04/23)

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Appendices

Appendix A1 Photos

Photo 1 A view of the eastern elevation of the existing farm building, with hardstanding off the road access.

Photo 2 The western elevation of the building, with tall vegetation, scrub and the arable field to the south.

Photo 3 Vegetated hardstanding to the west of the building, looking towards an arable field to the northwest.

Photo 4 The arable field to the south of the building, looking towards the southeast corner of the site.

Photo 5 Ruderal vegetation and scrub along the southern elevation of the building, towards the eastern boundary.

Photo 6 A view of the ruderal vegetation, scrub, and trees along the northern elevation of the existing building.

Photo 7 Strip of modified grassland to the SE of the building.

Photo 8 Strip of modified grassland and trees to the NE of the existing building, looking towards the S.

Photo 9 The N elevation of the building, rough grassland and the site viewed from the N

Photo 10 Pond P1, within a residential garden

Photo 11 Refuse pile and trees along the Nboundary of the rough grassland, looking E

Photo 12 The interior of the existing building

Photo 13 A kestrel pellet below the ridge line inside the existing barn

Photo 14 A kestrel pellet in the interior of the existing building

Appendix A2 EcIA criteria

A2.1 General criteria for geographic context/value

Designation	Example
International	• SPA, SAC and Ramsar sites and the features that they have been designated for. • A sustainable area of habitat listed in Annex I of the Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of a larger whole. • A sustainable population of an internationally important species e.g. UK Red Data Book (RDB) species or European Protected Species (EPS) of unfavourable conservation status in Europe (e.g. Annex II species: bats, GCNs etc.), of uncertain conservation status or of global conservation concern in the UK BAP.
National	• SSSI or a discrete area that meets the selection criteria for designation. • A sustainable area of priority habitat identified included on the S. 41 NERC Act list or smaller areas of such habitat that are essential to maintain the viability of a larger whole. • A sustainable population of priority species (listed under S. 41 of the NERC Act 2006). • A sustainable population of a nationally important species i.e. RDB species not included in above category but which is listed on Schedules 5 or 8 of the WCA 1981 (as amended). Also, sites supporting a breeding population of such species or supplying a critical element of their habitat requirements. • A sustainable population of uncommon or threatened Annex IV EPS species at a UK level. • A nationally scarce species (occurs in 30-100 10km squares in the UK) that has its main UK population within the district.
County	• A viable area of habitat identified in the county BAP. • A County Wildlife Site. • A sustainable population of common or non-threatened Annex IV EPS species at a UK level. • A Nationally Scarce species that does not have its main population within the county. • A sustainable population of a BAP species not included in the 'national' category above for which a county Action Plan exists.
Local	• Individual members of local populations of priority or other nationally/internationally important species which are not in themselves key for maintaining a sustainable population (e.g. individual dog otter passing through area with no holts or resting sites). • Other habitats and species not in the above categories but are considered to have some value at the district/borough level.

Appendix A3 GCN identification postage

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ADDRESS | Mill House, Homersfield, Harleston, Suffolk IP20 0ET
TELEPHONE | 01986 788791
EMAIL | millhouseecology@gmail.com

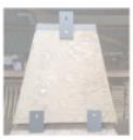
Great Crested Newt

If seen by any employee, works must cease immediately and an ecologist be contacted for advice

It is an offence to intentionally or recklessly disturb, injure or kill great crested newts

Further information can be found at www.arguk.org

Appendix A4 Bird boxes



Barn Owl Nest Box for a Tree – Hanging Kit Included

£184.00 inc. vat

Lead Time – Up to 3 weeks

Our outdoor Barn Owl box is an incredibly safe home for owlets due to its 460mm (18") drop between the entrance-hole and inside floor. Designed for fixing to an exposed tree trunk, this Barn Owl Nest Box can also be positioned in a fork provided that the entrance is visible to birds flying past.

Made from sustainable FSC-approved, pressure treated 9mm plywood and torch-on roofing felt. Sealed joints throughout.

Approximate size – 740mm x 710mm x 500mm (WxHxD)

Approximate weight – 20.1kg

Nest box hanging kit included

More about Barn Owl nestboxes for trees.
Where's the best place for your Barn Owl box?

See **Delivery Information** below as courier charges vary!

1 ADD TO BASKET

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Open Fronted Nest Box

£25.00

For birds such as robin and pied wagtail. Open fronted but with a generous canopy to screen from aerial predators. Place in good cover not in the open.

43 in stock

- 1 + Add to basket

Category: bird and bat boxes

Description Additional information Reviews (0)

Description

Height tbc
Width
Depth

BARK BOXES
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Home

You are here: Home / Home / bird and bat boxes / Willow Tit/Tree Creeper

Willow Tit/Tree Creeper

£35.00

A new improved box designed for fitting to smaller willow/birch trees, low to the ground, to encourage willow tit. Filled internally with damp sawdust/shavings/rotting wood as this species likes to excavate their own holes. The narrowing top crevice is designed to be suitable for roosting bats. Also suitable for tree creeper without the sawdust infill.

11 in stock

- 1 +

link | Pay faster

— OR —

Add to basket

Category: bird and bat boxes

Description

Additional information

Reviews (0)

Description

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Print

Woodcrete by Schwegler 32mm nestbox

Product ID: R405151

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SAVE £2 WHEN YOU BUY TWO PROMOTIONAL NEST BOXES!

- Add two promotional nest boxes to your basket to save £2
- Offer ends 4 January 2023 and is subject to availability
- Loyalty points can be collected/redeemed as usual
- Not available in conjunction with any other offer

Qty

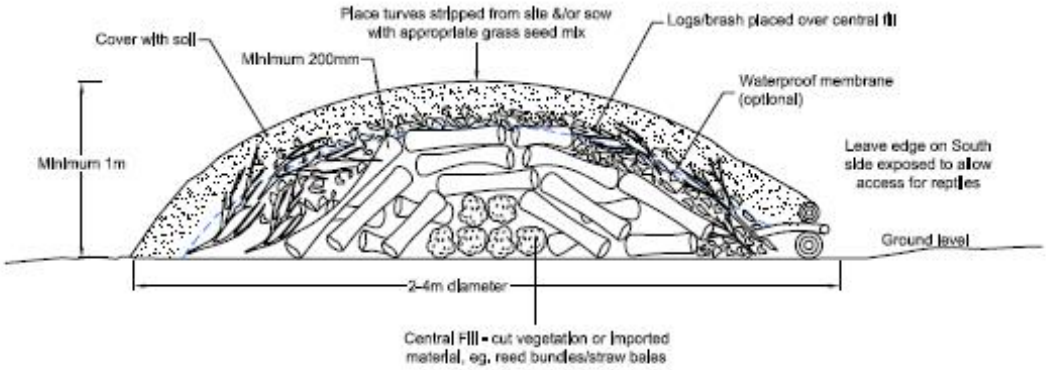
In stock

Appendix A5 Bat boxes

Kent bat box

Vincent Pro Box

Appendix A6 Reptile hibernacula



SECTION THROUGH REPTILE HIBERNACULUM

PHOTOGRAPH 1 - CENTRAL CORE PLACED OF REED BUNDLES AND RUSH BALES

PHOTOGRAPH 2 - LOGS PLACED OVER CENTRAL CORE

PHOTOGRAPH 3 - BRASH PLACED OVER REED BUNDLES AND LARGE TIMBERS

PHOTOGRAPH 4 - EXPOSING OF TIMBERS ON SOUTH FACE

PHOTOGRAPH 5 - ENTRY POINT ALONG SOUTH FACING BANK

PHOTOGRAPH 6 - COMPLETED HIBERNACULA BANK

Drawing Title

AMPHIBIAN/REPTILE HIBERNACULUM DESIGN