Liz Lord Ecology

Hill House Farm, Stradbroke, Eye, Suffolk

Ecological Impact Assessment

Client: Mr R Lawson

Author: Liz Lord BSc (Hons) MCIEEM

Date: 8th June 2023

Ref: 1704

Issue: FINAL

[redacted]

CONTENTS

1.0 SUMMARY

1.1 The site (located at NGR: TM 22601 75437) was found to comprise two small outbuildings associated with Hill House Farmhouse and currently used for storage. Planning permission is being sought to demolish the buildings and construct a new garage, store and games room, accessed via the existing gravel driveway.

1.2 One of the buildings lacked both potential roosting crevices and evidence of the presence of bats, and was assessed as being of negligible suitability for roosting bats. The second building was deemed to be of moderate suitability for roosting bats, despite the lack of any evidence of the presence bats. This building was subject to two emergence surveys during May and June 2023 to determine the presence / likely absence of roosting bats. The combined results of the building inspection and emergence surveys indicate that bats are unlikely to be using the building to roost.

1.3 Both buildings provide opportunities for nesting birds, and old nests were recorded in the dense ivy covering of the Building 2. Where possible demolition works should commence during September to February inclusive to avoid the bird nesting season; but if this is not possible, immediately prior to commencement of works a check for nesting birds should be undertaken by a suitably experienced ecologist. Any active nests will need to be left in situ until the young have left the nest.

1.4 Despite the close proximity of WB1 and WB2 to the site, due to the relatively low potential for GCN to be present in WB1 or WB2, and due to the very low quality of the habitats across the site, there is negligible potential for GCN to be present on site or adversely affected by the proposals. There is no requirement for licensable trapping and translocation of GCN from the grassland, because due to the short height of the vegetation it is possible to be certain of GCN absence (thereby ruling out potential for harm or disturbance). There is also very low potential for GCN to be present in the ornamental shrub beds which are sparsely vegetated at ground level, and since these areas measure less than 100m², in accordance with current guidance their loss is very unlikely to result in an offence under the relevant legislation.

1.5 Measures to further avoid any harm of, or disturbance to GCN will be taken as follows:

The grass will continue to be closely mown until the point of construction

The implementation of a detailed Precautionary Method Statement for the duration of construction. A PMS is provided in Appendix 4.

1.6 The site is not deemed suitable for any other protected species.

1.7 The mitigation and enhancement measures detailed in section 6.0 should result in an overall enhancement of the site for nesting house sparrow and starling.

2.0 INTRODUCTION

Instruction

2.1 This report has been prepared by Liz Lord following instruction by Mr R Lawson to carry out an ecological appraisal and follow-up dusk emergence surveys of outbuildings at Hill House Farm, Stradbroke, Eye, Suffolk IP21 5NB.

Site Proposals

2.2 Planning permission is being sought to demolish the buildings and construct a new garage, store and games room, accessed via the existing gravel driveway.

Site Description

2.3 The site lies less than 1km to the north of the village of Stradbroke, Suffolk and immediately to the north east of Hill House farmhouse. The gardens surrounding the house are tidy and well maintained, and the site consists of two small outbuildings surrounded by closely mown amenity grassland, gravel, paving and small shrub beds. The site is surrounded on two sides by a moat, beyond which is a mosaic of mown grassland, rough grass, new woodland planting, and mature copses and groups of trees.

2.4 The wider landscape is dominated by arable fields of varying size with associated mature hedgerows and tree lines of variable quality. A small number of copses are present within 3km of the site, but otherwise woodland cover is generally low. A site location plan is provided below.

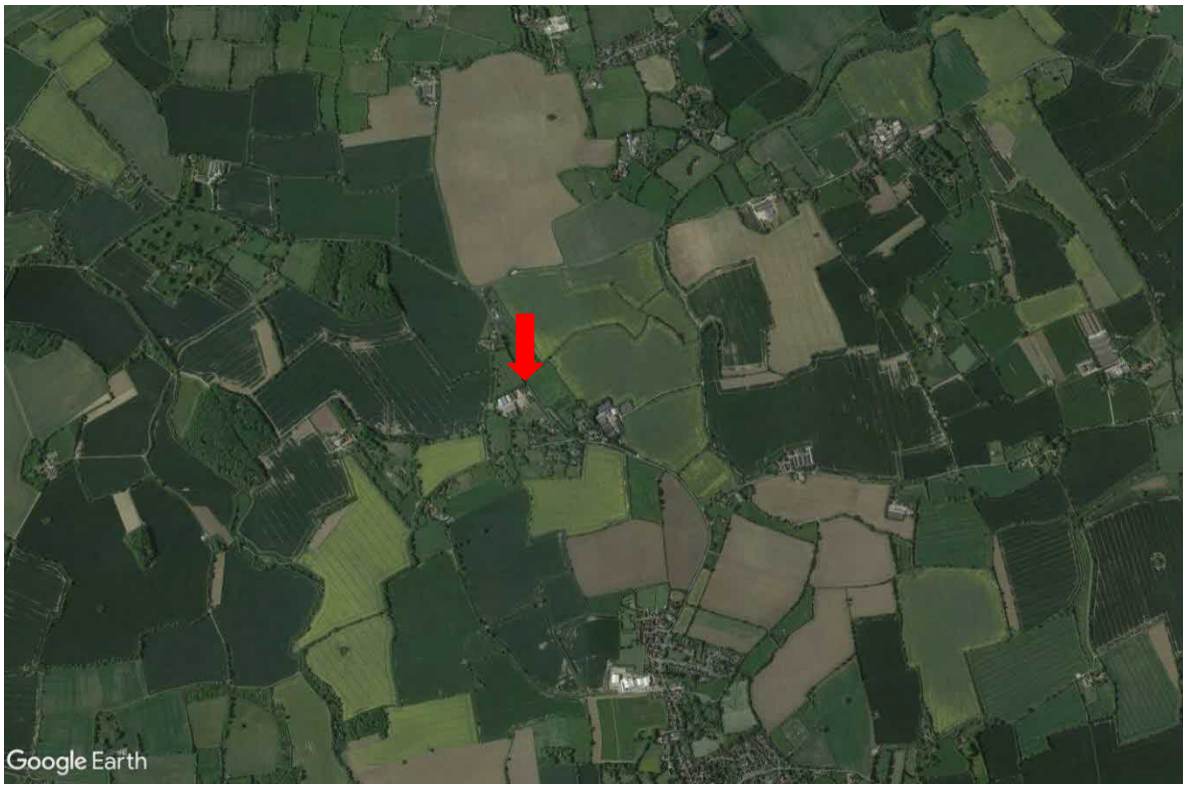


Fig 1A: Site location, with site location indicated beneath red arrow. Aerial photograph sourced from Google Earth Pro

Fig 1B: Aerial plan, with approximate survey boundary outlined in red. Aerial photograph sourced from Google Earth Pro

Objectives

2.5 This report has been written broadly in accordance with the report writing guideline produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) (CIEEM 2018, 2017a, 2017b). In accordance with the client brief, this survey and report aims to:

2.5.1 Identify and describe all potentially significant ecological effects on protected a notable species / sites associated with the proposals;

2.5.2 Set out the mitigation measures required to ensure compliance with nature conservation legislation and address any potentially significant ecological effects;

2.5.3 Identify how mitigation measures will / could be secured;

2.5.4 Provide an assessment of the significance of any residual effects;

2.5.5 Identify appropriate enhancement measures; and

2.5.6 Where deemed necessary, set out the requirements for post construction monitoring.

2.6 This survey and report is intended to inform, as necessary, the layout and design of the proposals, future landscape design and management on site, and where required the methodology and timing of development works.

Timescales

2.7 The total works period is expected to be around 6-12 months following the granting of relevant permissions.

2.8 This report is valid for a period of 18 months from the date of survey. Beyond this time, changes to the vegetation, ponds and buildings and / or use of the buildings may have occurred which could require re-assessment and potentially further survey to re-determine the presence / likely absence of protected species.

Relevant Documents

2.9 The site assessment was based upon drawing number 20-070-199 dated November 2021 by Hollins Architects, as shown in Appendix 1. Generally, any minor amendments to the overall building scheme are unlikely to alter the conclusions and recommendations of this report, however any significant proposed changes to the shrub beds beyond the immediate proximity of the buildings will require reassessment with respect to potential impacts upon great crested newts.

2.10 Recommendations included within this report are the professional opinion of an experienced ecologist based on the client's proposals for the site, the site surveys, the results of the desk study, and features present in the surrounding environment.

3.0 METHODOLOGY

Desk Study

3.1 The Multi Agency Geographic Information for the Countryside consulted on 18th December 2022 to determine the presence of any nationally and internationally designated sites such as Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within influencing distance of the proposals.

3.2 The MAGIC website was also used to search for any records of European Protected Species Mitigation (EPSM) licences that have been approved by Natural England within a 5km radius of the application site since late 2008 (last updated January 2022). The website was checked for any data from Natural England's great crested newt eDNA Habitat Suitability Index pond surveys for District Level Licensing 2017-2019 (last updated August 2022); and data from Natural England great crested newt Class Survey Licence returns within a 5km radius of the site (last updated August 2022).

3.3 Due to the very small scale of the proposals, and the limited potential for notable protected species to be present on site, a records search with the Suffolk Biodiversity Information Service (SBIS) was not carried out. This is not considered to be a significant constraint to the conclusions and recommendations of the report.

Site Survey

3.4 A daytime building inspection and site survey was carried out on 13th December 2022. The survey was based upon the standard methodology for Extended Phase 1 Habitat Surveys (JNCC 2010), with habitats classified according to the abundance of plant species present. Any evidence of invasive species such as Japanese knotweed was noted.

3.5 The survey area was limited to the buildings and immediately surrounding land as highlighted in Figure 1B and Appendix 1, plus land within the potential Zone of Influence.

3.6 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act 2006. Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (Collins, J. 2016) and Habitat Suitability Index for Great Crested Newt (Oldham *et al*, 2000).

3.7 Using criteria provided in best practice guidelines, habitats have been assessed for their potential to support protected species; notably bats, barn owls *Tyto alba,* badgers *Meles meles*; great crested newts *Triturus cristatus*; reptiles, water voles *Arvicola amphibius*; dormice *Muscardinus avellanarius* and otters *Lutra lutra*.

3.8 Where methodologies, classification or recommendations deviate from best practic guidelines, this report provides ecological justification for such changes.

Building Inspection

3.9 The buildings were surveyed and assessed in accordance with criteria outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2016).

3.10 The internal and external inspections of the buildings were carried out using – as necessary – a powerful torch, a ladder, a pair of Nikon 12 x 50 binoculars and an Easyview 8mm digital recording endoscope to inspect gaps and crevices for bats and evidence of bats.

3.11 Floors, walls and storage surfaces beneath all possible access points or crevices which may be used for roosting were checked for droppings, scratching and urine or fur staining, and particular attention was paid to the areas beneath tie beams from which bats may hang or rest.

3.12 The ridge boards, tie beams, barge boards and door / window frames of the buildings were specifically checked for scratching and staining, as well as roosting bats. Particular attention was paid to any gaps in and around timbers, roofs and walls; and the walls, ledges and ground area below.

3.13 Floor surfaces generally comprised relatively clean concrete or bare ground, and a variety of stored items. At the time of the building inspection the floors did not appear to have been recently swept.

Habitat Suitability Index (HSI) assessment

3.14 Where relevant, for each water body located within potential influencing distance of the construction zone boundary (100m in this case), a Habitat Suitability Index (HSI) assessment was undertaken, following standard methods described in Oldham R.S. *et al*, (2000).

3.15 Features such as shading, water quality, terrestrial habitat, fish and fowl presence were noted during the survey. These features were used in the HSI to assess the potential of the ponds to support great crested newts.

3.16 Following the survey, the HSI field scores are inserted into a table to calculate a score for each pond, with pond suitability for great crested newts assessed on the following scale:

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Surveyors

3.17 The building inspection and emergence surveys were carried out by Liz Lord. Liz has been a professional ecologist since 2005, and holds current Natural England licences to survey bats- Class Licence Reg. No. 2015-13305-CLS-CLS; great crested newts- Class Licence Reg. No. 2020-44816-CLS-CLS; and barn owls - Class Licence Reg. No. CL29/00160. Liz is a full member of CIEEM.

3.18 The weather at the time of the building inspection was sunny with no wind (BF0) and a temperature of -3˚C. Weather conditions during the emergence surveys are provided in Table 1, provided later in this report.

Emergence surveys

3.19 The emergence surveys followed standard survey methodology recommended by the Bat Conservation Trust (BCT) in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2016) and the Interim Guidance Note issued by BCT in May 2022 on the '*Use of night vision aids for bat emergence surveys and further comment on dawn surveys*'.

3.20 In accordance with the results of the building inspection, Building 1 was subject to two dusk emergence surveys on 22nd May and 6th June 2023. Weather conditions are detailed in Table 1, below.

3.21 The dusk emergence surveys were carried out by Liz Lord, accompanied by three infra-red cameras and LED floodlights to record bat activity on all aspects of the building. The recorded videoscould be both viewed in real time on the SANNCE 10.1" screen and played back for later review, replay and speed reduction in order to identify any bats that may have been missed during the surveys. All Nightfox Whisker videos were reviewed following the survey.

3.22 Two of the survey positions were accompanied by an Echo Meter Touch (EMT) 2 Pro connected to an iPad Mini 5 or an iPhone to allow otherwise unseen bats to be detected and recorded, and to allow analysis of bat calls with Kaleidoscope Lite v5.4.8. All of the cameras and ipad recordings were time-synced.

3.23 Two cameras comprised KKMoon 1080P infrared cameras with 2.8-12mm manual zoom, accompanied by a 96 LED 850nm flood light, both linked to a four channel SANNCE CCTV 1080P recording unit. One camera was a Nightfox Whisker – night vision binoculars with video recording and an inbuilt 850nm 3 watt infrared LED light.

3.24 Liz Lord and the three infra-red cameras were positioned to provide a clear a view as possible of any bats exiting or entering the building. The field of view and the quality of each of the camera recordings (taken 1-1.5 hours after sunset) are shown in Appendix 3.

3.25 The locations of the surveyor, detector and camera positions during each of the dusk surveys are indicated in Figure 3, provided later in this report.

3.26 The emergence surveys commenced c.15-30 minutes before sunset, and concluded 1.5-2 hours after sunset. Sunset times were taken from www.sunrisesunsetmap.com.

Table 1: Weather results

Date	Sunset / Sunrise Time	Start Time	End Time	Temperature (°C)		Wind (Beaufort)	Rain
				Max	Min		
22nd May 2023	20:47	20:20	22:17	14	10	2-3	None
6th June 2023	21:09	20:45	22:40	12	10	2-3	None

Zone of Influence

3.27 The potential impacts of a development are not always limited to the boundaries of the site concerned, such as where there are ecological or hydrological links beyond the site boundaries. In order for the proposed works to have an impact on habitats and species outside of the site boundaries, there needs to be a source of impact, a pathway and a receptor for that impact.

3.28 The Zone of Influence will vary for different habitats and species depending on th sensitivity to predicted impacts, the distribution and status of the relevant species, whether a species is mobile, migratory, and whether its presence and activity varies according to the seasons.

3.29 An assessment of the Zone of Influence has been made based on the site layout shown in Appendix 1, and where necessary recommendations to avoid any significant adverse impacts beyond the site boundaries have been provided in section 5.0.

Limitations

3.30 The conclusions in this report are based on the best information available during th reported period of survey.

3.31 Ecological surveys provide only a 'snapshot' of the site in time, and many species, such as bats and badgers, are capable of colonising a site in a very short space of time. Lack of evidence of a species at the time of survey can only allow conclusion of the *likely* absence of this species, since no level of survey effort is capable of proving absence beyond doubt.

3.32 Whilst best efforts have been made to identify all water bodies within 250m of the site, it is not always possible to record all garden ponds using Ordnance Survey maps and aerial photography. Additional search effort with respect to garden ponds is likely to be disproportionate, as many garden ponds have limited suitability for great crested newts, and it is a common constraint associated with all Ecological Assessments.

3.1 Only dusk surveys of the building were undertaken, contrary to the current BCT (2016) guidance of one dusk and one dawn. However, the interim guidance of use of night vision aids (NVA's) (BCT, 2022) acknowledges recent research by Henry Andrews (BTHK 2018), which concludes that bat re-entry times are widely variable, with re-entry times for almost half of the bat species studied frequently recorded a significant period before a typica dawn survey would commence. This is in contrast to the reported emergence times, which are well within the guideline dusk timings. Updated survey guidance will therefore be moving away from the standard use of dawn surveys, in favour of dusk surveys supported by NVA's (BCT, 2022). Due to the high quality of the infra-red recordings, across all facades of the building, the lack of a dawn survey is very unlikely to be a constraint to the conclusions and recommendations of this report.

3.2 Only one surveyor was used during each survey, located to directly oversee two of the recording cameras and floodlights and one of the detectors, on the south western corner of the building. One infrared camera was also used to record bat activity on the eastern gable end of Building 1, accompanied by a time synced bat detector located on the north eastern corner of the building. The interim NVA guidelines state that whether cameras can replace surveyors '*depends on each individual scenario and the equipment used*'. In this case, recorded views of the building by both the KKMoon cameras and the Nightfox Whisker are very clear, as is shown in Appendix 3, and this approach allows for repeated playback of potential emergences which would not otherwise be possible if a surveyor alone were used in this location. The two cameras linked to the SANNCE CCTV unit allowed for both single and multiple screen playback, to provide easy and direct real-time comparison of bat activity on the southern, western and northern facades of the building, accompanied by time-synced bat detectors and ipads for identification of any bats recorded.

3.3 The cameras provided an excellent view of the building which did through the evening as human vision does in low light. The cameras are therefore a better substitute than a surveyor alone, and the use of a surveyor in conjunction with the cameras would not have increased the extent or quality of the information gathered. The use of unmanned cameras in this situation is therefore considered to produce more reliable results than a surveyor alone, and is not a constraint to the conclusions and recommendations of this report.

Geographic Context

3.4 Where applicable, the importance of each ecological feature has been considered in a geographic context as follows:

International and European

National

Regional

Metropolitan, County, vice-county or other local authority-wide area

River Basin District

Estuarine system/Coastal cell

Local (further categorized into District, Borough or Parish)

Site

Assessment of Impacts and Effects

3.5 The following definitions are used for the terms 'impact' and 'effect' in accordance with CIEEM (2018) guidelines:

Impact – actions resulting in changes to an ecological feature

Effect – outcome to an ecological feature from an impact

3.6 The importance of any ecological feature has been determined via the site surveys detailed in this report. Note that species and habitats afforded legal protection are, by default, always considered within the EcIA assessment process to be 'important'.

3.7 Potential impacts of the proposals on any such features have been assessed based on the client proposals for the site, and following a review of all phases of the project. Impacts are assessed through consideration of the extent, magnitude, duration, reversibility, timing and frequency of works which may result in likely 'significant' impacts to any ecological features present. The route through which impacts may occur (direct, indirect, secondary or cumulative) has also been considered. Positive impacts are assessed as well as negative.

3.8 The results of the surveys have been used to identify any potentially si
the absence of any avoidance, mitigation or compensation measures. Any
appropriate measures have then been proposed where necessary.

Characterisation of Ecological Impacts

3.9 When considering ecological impacts and effects, the following characteristics have been
considered:

positive or negative
extent
magnitude
duration
frequency and timing
reversibility

3.10 Where various characteristics have not been specifically referred to in this report, they have been considered insignificant or irrelevant to that specific feature.

3.11 A 'significant effect' is defined within the current CIEEM guidelines (2018) as: "*an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.*"

3.12 Where a significant effect is predicted, this requires assessment and reporting in order to provide the decision maker with sufficient information to determine the environmental consequences of a project. A significant effect can be either positive or negative, and its extent will determine the requirement of conditions, restrictions or monitoring works.

3.13 The current CIEEM guidelines (2018) also state that: *"After assessing the impacts of the proposal, all attempts should be made to avoid and mitigate ecological impacts. Once measures to avoid and mitigate ecological impacts have been finalised, assessment of the residual impacts should be undertaken to determine the significance of their effects on ecological features. Any residual impacts that will result in effects that are significant, and the proposed compensatory measures, will be the factors considered against ecological objectives (legislation and policy) in determining the outcome of the application."*

3.14 This report has taken into account the factors detailed above for each important ecological feature in the absence of mitigation. Recommendations have then been made w
respect to avoidance / mitigation / compensation / enhancement as necessary, and an assessment of the residual impacts after such measures has been made.

Mitigation Hierarchy

3.15 In order to minimise the likelihood of any significant negative residual effe environmental features, this assessment has followed the mitigation hierarchy (listed below in order of preference):

Avoidanc e – measures that avoid harm to ecological features, both spatially and temporally;

Mitigation – avoidance or minimisation of negative effects through appropriate timing of works, or the provision of mitigation measures within the scheme design which can be guaranteed by condition or similar;

Compensation – measures taken to offset residual effects which result in the loss of, or permanent damage to, ecological features despite mitigation;

Enhanc ement – measures to provide net benefits for biodiversity, either by improved management of existing features, or the provision of new features, and over and above that which is required to mitigate / compensate for an impact. Delivery should be secured via planning condition or similar.

Legislation and Policy

3.16 Specific reference has been made to the individual legal protection of the species detailed within this report, however additional information with respect to other relevant legislation and planning policy is provided in section 8.0.

3.17 The legislation of particular relevance within the body of this report is the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). The former confers legal protection to 'European' Protected Spec ies against both disturbance and harm, and extends to the full protection of their habitats. This legislation also provides legal protection for a number of internationally designated sites within the UK, and remains in place following Brexit.

3.18 The Wildlife and Countryside Act 1981 (as amended) is UK specific, and generally only provides protection against direct harm to individuals of a species.

4.0 RESULTS (*Baseline Conditions*)

Site Summary

4.1 The site comprises two small outbuildings associated with Hill House Farm, currently used for storage. They are surrounded by closely mown amenity grassland, paving slabs, a gravel driveway, and small areas of formal shrub beds.

Desk Study: Statutory Designated Sites

4.2 Natural England's MAGIC website indicates that there are no UK statutory designated sites located within a 2km radius of the site boundaries, and no statutory designated sites of international importance located within a 5km radius.

4.3 The MAGIC data search results indicate that the proposals are not located within the Zone of Influence for any internationally designated sites.

Desk Study: Non-Statutory Designated Sites

4.4 The site is located within a private, well-tended garden and it is very unlikely that there are any County Wildlife Sites located within influencing distance of the site.

Habitats

Invasive species

4.5 No aerial evidence of Japanese knotweed *Fallopia japonica* was recorded within the site or the immediately adjacent areas at the time of survey.

Water bodies

4.6 No water bodies are present on site, however a large moat is located immediately to the north and east of the site. Ordnance Survey maps at 1:10,000 scale highlighted the presence of a further two water bodies within 100m of the site boundaries, and an additional four within 100-250m of the site boundaries, as detailed in Table 1, overleaf.

4.7 Due to the limited extent of the proposals, and the very low suitability of the vast majority of the site for amphibians, only those water bodies within 100m of the proposals and considered to be of potential relevance were subject to HSI assessments, with the results summarised in Table 1 and the full assessment results provided in Appendix 2.

Table 1: Ponds within 250m of site boundaries

Water body	Location & distance from site	HSI score	Suitability for GCN	Notes
WB1	Moat surrounding the site, 2m to the north and east	0.54	Below average	Moat containing large numbers of fish including orfe and carp (Lawson, R. pers.comm). Ducks also present
WB2	Second moat surrounding a formal lawn, 20m north	0.57	Below average	Moat containing large numbers of fish including orfe and carp (Lawson, R. pers.comm). Ducks also present
WB3	45m south west of site boundary	N/A	Unknown	Separated from the site by garden walls and large farmhouse, creating a barrier dispersal of newts in direct of site. Surrounded by high quality woodland habitats
WB4	185m west of site boundary	N/A	Unknown	Not accessed. Pond surrounded by significa areas of moderate quality pasture and quality woodland habitat
WB5	190m south west of site boundary	N/A	Unknown	Not accessed. Pond surrounded by significa areas of moderate quality pasture and quality woodland habitat
WB6	155m south west of site boundary	N/A	Unknown	Not accessed. Pond surrounded by / dire connected to significant areas of moderate high quality pasture and scrub habitats
WB7	135m south east of site boundary	N/A	Unknown	Not accessed. Pond surrounded by a notat area of high quality woodland habitat

4.8 WB3 has been scoped out of the assessment due to a lack of connectivity to the site, with brick walls and a large farmhouse situated between the site and the pond. Water bodies WB4-WB7 have also been scoped out of this assessment, and are not considered further as part of this report beyond inclusion within Table 1. This is due to a combination of the very low quality amphibian terrestrial habitats present on site; the very small scale of the proposals; the relatively large distance of these ponds from the site; the habitats surrounding these offsite ponds i.e. moderate to high quality terrestrial habitats capable of supporting newts throughout their terrestrial phase; and also in some cases the presence of some significant barriers to the dispersal of amphibians in the direction of the site such as groups of large buildings. It is considered that the likelihood of any great crested newts (GCN) in WB3 – WB7 also being present on site is negligible.

Amenity grassland

4.9 A small area of closely mown lawn extends to the south east of the buildings, bounded to the east by a mature ornamental shrub bed. Species present across the grass include Yorkshire fog *Holcus lanata* and rough meadow grass *Poa trivialis* with patches of ground ivy *Glechoma hederacea,* white clover *Trifolium repens*, mosses and creeping buttercup *Ranunculus repens*.

Hard standing

4.10 One of the brick buildings is surrounded by block paving, which adjoins the existing gravel driveway to the south. The second building is adjoined by gravel to the west.

Ornamental shrubbery

4.11 Two small ornamental shrub beds are present along the base of Building 1, with a mix of low shrubs to the west, and lavender shrubs to the south. Dense ivy covers the southern and western walls of Building 2, with large ivy stems present at ground level on both these facades.

Buildings

4.12 Figure 2, below, illustrates the current building layout. The buildings are described and pictured below, including references to bat roosting potential. No evidence of the presence of roosting bats was recorded in either building.

4.13 Both buildings are single storey and constructed of brick.

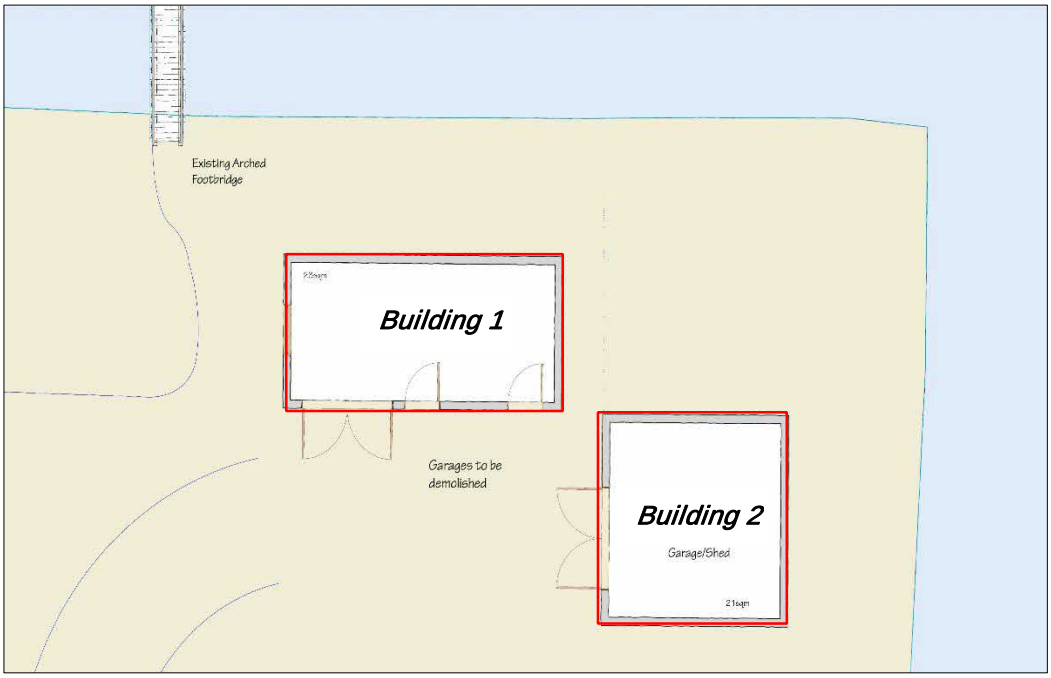


Fig 2: Building layout, taken from drawing number 20-070-002-A dated May 2020 provided by Hollins Architects

Building 1

4.14 A garage / shed currently used for storage, with a pitched roof covered with clay pantiles and lined with traditional bitumen felt. No gaps were noted beneath the cemented ridge tiles, however a number of gaps were present beneath loosely fitting pantiles on both the southern and northern facades. The brick walls are single skinned, and are in good condition, with no cracks or crevices greater than 1-2mm wide. Three wooden door frames are present on the southern façade, with c.5mm wide gaps between the frame and surrounding brick work. Most were filled with cobwebs and debris, however some clear areas were recorded.

4.15 Internally the building is divided into three sections by breeze block walls to eave height, with an open and continuous roof space above here. The roof is supported by timbe trusses. Occasional holes were noted in the felt underlining.

4.16 Large wooden soffits are present on the northern and southern facades, however these allow access to the eaves of the roof only, with no access to a cavity wall. Holes permitting access into the soffit boxes were recorded on the south western and north western corners, created by poorly fitting woodwork. A hole in the south eastern corner appears to have been created by a gnawing rodent.

4.17 No evidence of the presence of bats or barn owls was recorded in Building 1. An old swallow *Hirundo rustica* nest was recorded, however this appeared to be semi-derelict and was not associated with any recent droppings.

Building 2

4.18 A brick building supporting unlined corrugated fibreboards on modern wooden beams. A metal sliding door is present on the western façade. Ivy covers the vast majority of the southern and western facades, as well as the majority of the roof, and has entered the internal roof space of the building.

Photo 1: Southern façade of B1 and ivy cover western façade of B2

Photo 2: Southern facades of B1 and B2, adjoinec by amenity grassland and gravel

Photo 3: Building 1, south western facades

Photo 4: Building 1, north eastern facades

Photo 5: Bank of moat immediately to nortl Building 1

Photo 6: Internal view of Building 1

Photo 7: Gnawed hole in south eastern so Building 1

Photo 8: Gap around soffit on north western cor of Building 1

Photo 9: Mown grass bank between moa eastern wall of Building 2

Photo 10: Internal view of Building 2

Animals

Bats

4.19 The desk study highlighted one bat EPSM licence within 5km of the site, at 3.7km south west for a non-breeding roost of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus* and brown long-eared bats *Plecotus auritus* dating from 2018.

Bats - roosting

4.20 No evidence of the presence of roosting bats was recorded in either of the buildings, and no potential roosting crevices were recorded in Building 2, which is deemed to be 'negligible' suitability for roosting bats.

4.21 Whilst no evidence of the presence of roosting bats was recorded in Building 1, a number of potential roosting features were noted beneath lifted tiles on both the southern and northern facades of the roof. The holes in the soffits provide access to a relatively open space within the soffit, and no cavity wall, and so are likely to provide suboptimal conditions for roosting bats. The potential roost features present are most likely to be used by small numbers of non-breeding bats, and the building is deemed to be of 'moderate' suitability for roosting bats.

4.22 Two dusk emergence surveys using infra-red cameras on all facades of the building were undertaken in summer 2023 to determine the presence / likely absence of roosting bats.

4.23 The results of the surveys and the number and location of the surveyor, cameras and detectors is indicated in the various Tables and Figures below.

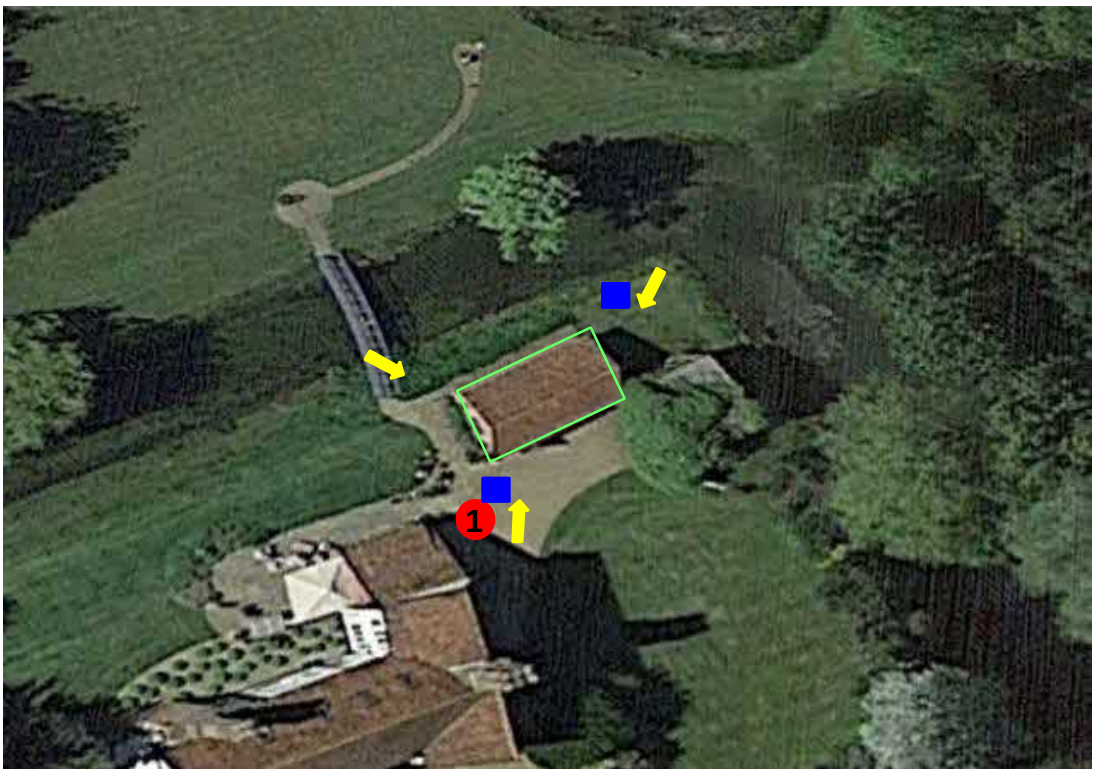


Fig 3: Surveyed building outlined in green. Surveyor location indicated by red circle; camera - yellow arrows, detectors - blue squares.

Table 2: Summary of Bat Survey Results – 22nd May

Date	Survey Position	Summary
Dusk 22nd May	Position 1: South western aspect	21:35 – 1 x common pipistrelle foraging over moat to north west 21:44 to survey end – up to 2 x common pipistrelles foraging around buildings and moat to north, particularly around ivy covering of Building 2 **No bats recorded emerging.**
	Position 2: North eastern aspect	21:25 – 1 x common pipistrelle pass, unseen, followed by regular single common pipistrelle passes to survey end. Some passes infront of building in both directions. Occasional soprano pipistrelle passes, unseen but close to camera at 21:30, 21:36, 21:37 and 21:48. Bats could be seen by Position 1 to be regularly passing along moat immediately offsite to north east. **No bats recorded emerging.**

Table 3: Summary of Bat Survey Results – 6th June

Date	Survey Position	Summary
Dusk 6th June	Position 1: South western aspect	21:50 – 2 x common pipistrelles foraging along moat to north of building 21:56 – up to 3 x common pipistrelles foraging along moat to north, and around building, constantly until survey end. **No bats recorded emerging.**
	Position 2: North eastern aspect	21:25 – 1 x common pipistrelle, unseen 21:37 & 21:41 – 1 x common pipistrelle pass infront of building 21:41 – constant common pipistrelle activity in close proximity to detector, with regular passes round / infront of building. Occasional single soprano pipistrelle passes every 2-3 minutes from 22:02 to survey end, unseen. Bats could be seen by Position 1 to be regularly passing along moat immediately offsite to north east. **No bats recorded emerging.**

4.24 The results of the emergence surveys indicate that bats are unlikely to be using Building 1 to roost.

Bats – commuting / foraging

4.25 Up to three common pipistrelle bats were recorded using the nearby moat and the ivy covering of Building 2 to forage.

Invertebrates

4.26 The site is considered likely to support common and widespread invertebrate species typical of the habitats present.

Amphibians

4.27 The MAGIC search highlighted eight great crested newt (GCN) class licence returns within 5km of the site – one at 3.2km west, one at 3.5km north east and a cluster of six records at 1.km north of the site.

4.28 Both of the nearby moats (WB1 and WB2) were assessed as being of 'below average' suitability for GCN, primarily due to the presence of large numbers of fish, some ducks and the poor quality of the habitats immediately surrounding WB1 (closely mown lawn). Whilst the presence of fish cannot rule out the presence of GCN, it greatly reduces the likelihood due to the effects of fish predation on newt larvae. This, combined with the very poor suitability of the habitats on site for GCN suggests that GCN are very unlikely to be present within the proposed construction zone.

4.29 Very small areas of low to moderate quality potential GCN habitat are present on site consisting of 15-20m² of formal shrub beds and the base of ivy stems surrounding Building 2. These areas amount to significantly less than 100m², and Natural England's rapid risk assessment tool indicates that the loss / damage of up to 0.01ha (100m²) of potential GCN habitat within 100m of a GCN breeding pond would be unlikely to result in an offence under the relevant legislation i.e. the notional probability of an offence is Green i.e. 'unlikely'.

4.30 The proposals as detailed above are therefore considered to be of the scale and nature that an adverse effect on the Favourable Conservation Status of any local GCN population is very unlikely, in the event of their presence in the nearby moats. The potential for disturbance or harm of individual GCN is also extremely low, and could be further reduced with appropriate timing and methods of construction.

Reptiles

4.31 The site does not provide any suitable habitat for reptiles, and has limited connectivity to areas of potential offsite reptile habitat.

Birds

4.32 The buildings provide opportunities for nesting birds, with old swallow nests recorded in both buildings, and a likely blackbird *Turdus merula* nest in the ivy covering Building 2. Two wooden nest boxes with 32mm diameter holes are also present on the western façade of Building 1, however the shrubs at this end of the building have limited suitability for nesting birds.

4.33 No evidence of, or potential for, breeding barn owls was recorded in either building.

4.34 With the exception of the dense ivy, the habitats surrounding the buildings generally provide limited opportunities for foraging birds.

Badger

4.35 Badgers are a common and widespread species, not of conservation concern.

4.36 No evidence of badger was recorded on or within 30m of the site. No setts, footprints, hairs, latrines, snuffle holes or scratching indicative of the presence of badgers was recorded.

Otter

4.37 There are no waterbodies on, adjacent or connected to the site which have potential to support otters.

Water vole

4.38 The moat immediately offsite to the north and east has no direct connectivity to offsite ditches or similar water bodies which have potential to support water voles. Whilst the potential for water vole presence around the moats cannot be entirely ruled out, the moat banks immediately surrounding the buildings consist of closely mown amenity grass, and directly adjoin the patio of the farmhouse and the paving surrounding the buildings. They are variably steep, but provide little by way of food source. Offsite to the south is an area of mature ornamental shrubs which adjoin the moat, however it is understood that both the moat banks and these areas of shrubs will be unaffected by the works.

4.39 Whilst it is recognised that mid-December is a sub-optimal time of year for water vole surveys, an inspection of the moat banks within 5m of the proposed works did not identify ar potential water vole burrows. A re-inspection of these banks during the May and June bat surveys did not identify any potential water vole burrows. The potential for water voles to be adversely affected by the proposals via destruction of burrows or disturbance of individual mammals is therefore extremely low.

Dormice

4.40 No habitats with potential to support dormice are present on site.

Species of Principal Importance

4.41 The buildings provide some potential nesting opportunities for house sparrow *Passer domesticus* and starling *Sturnus vulgaris*, neither of which were recorded on site at the time of survey. The dense ivy may support nesting dunnock and may be used by foraging, sheltering and commuting hedgehog *Erinaceus europaeus* and toad *Bufo bufo*. The site contains very little other habitat suitable to support Species of Principal Importance in England (SPIE).

Other Legally Protected Species

4.42 Due to a lack of suitable habitats the site is not considered likely to support any other legally protected species.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Designated Sites

5.1 The proposals are not considered to be detrimental to any CWS, and are very unlikely to have any direct adverse impact upon any national or international statutory designated sites. No further survey or mitigation is recommended in this regard.

Amphibians

5.2 Great crested newts (GCNs) and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.3 Potential effects: despite the close proximity of WB1 and WB2 to the site, due to the low potential for GCN to be present in WB1 or WB2, and due to the very low quality of the habitats across the site, there is negligible potential for GCN to be present on site or adversely affected by the proposals. There is no requirement for licensable trapping and translocation of GCN from the grassland, because due to the short height of the vegetation it is possible to be certain of GCN absence (thereby ruling out potential for harm or disturbance). There is also very low potential for GCN to be present in the ornamental shrub beds which are sparsely vegetated at ground level, and since these areas measure less than 100m², in accordance with current guidance their loss is very unlikely to result in an offence under the relevant legislation.

5.4 Measures to further avoid any harm of, or disturbance to GCN will be taken as follows:

The grass will continue to be closely mown until the point of construction

The implementation of a detailed Precautionary Method Statement for the dura construction. A PMS is provided in Appendix 4.

5.5 In the above circumstances, further survey and potentially an EPSM licence is considered to be disproportionate and unnecessary given no offence will be committed.

5.6 Mitigation measures: none necessary.

5.7 Residual effects: negligible.

Reptiles

5.8 All Suffolk reptile species are protected against harm under the Wildlife and Countryside Act 1981 (as amended).

5.9 Potential effects: negligible.

5.10 Mitigation measures: none.

5.11 Residual effects: negligible.

Birds

5.12 Breeding birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended).

5.13 Potential effects: both of the buildings provide confirmed nesting habitat for common bird species, and the dense ivy of Building 2 provides further nesting opportunities. The disturbance and destruction of an active nest could have a negative effect on some bird species at the site level. There will negligible loss of foraging habitat in the context of the surrounding environment.

5.14 Mitigation measures: ideally ivy removal and building demolition would commence during September to February inclusive to avoid the bird nesting season. If this is not possible, immediately prior to commencement of works a check for nesting birds should be undertaken by a suitably experienced ecologist. Any active nests will need to be left in situ until the young have left the nest. The bird boxes currently fixed to the western elevation of Building 1 should be relocated to buildings or trees within the wider surroundings during September to February, and ideally be positioned to face north or east.

5.15 Whilst it is acknowledged that the site has in the past provided nesting habitat for swallows, the old nests recorded did not appear to have been in recent use, with no associated droppings beneath, and with no swallows reported to have been using the buildings to nest in 2022 (Lawson, R. pers.comm). Anecdotal evidence from villages and farms across Essex and Suffolk is that abundance of swallows is not currently limited by availability of nesting habitat, as indicated by the relatively recent absence of swallows from former nests on this site and others surveyed in 2020-22. The BTO (BTO, 2021) do not list availability of nesting sites as a potential cause of recent swallow population decline, and consider changes weather and availability of insects throughout the year to be the most significant factors influencing swallow abundance. A relatively basic study by Robinson *et. al.* (2003) also found that there was no relationship between swallow numbers and availability of nest sites. The provision of replacement swallow nesting habitat is therefore not recommended in this instance, with alternative nesting opportunities reported to be present across the adjacent farmyard (Lawson, R. pers.comm).

5.16 Residual effects: following implementation of the mitigation and enhancement measures detailed in section 6.0 – the provision of three grouped nest boxes for house sparrows, and one nest box for starlings – overall no significant adverse effect is predicted on bird species at any level and a minor enhancement for house sparrow and starling may result.

Bats

5.17 All species of bat are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended). In summary, this makes it an offence to harm or disturb a bat; damage or destroy a roost; and obstruct access to a roost (whether or not bats are present at the time).

5.18 Potential effects on roosting bats: negligible. However, due to the large number of potential roosting crevices present beneath the existing roof tiles of Building 1, it is recommended that all tiles are to be removed with care, and lifted vertically to avoid potential harm to bats which could be roosting beneath. Both sides of the tiles and the roof lining beneath are to be checked for the presence of bats before discarding. In the event that a bat is discovered at any point, all works must cease and an ecologist contacted for furth advice.

5.19 Mitigation measures for roosting bats: none required.

5.20 Potential effects on commuting / foraging bats: in the absence of mitigation negligible impacts are predicted with respect to foraging and commuting bats as the site provides a small area of such habitat all of which – with the exception of the ivy covered of Building 2 – is to be retained. However the effects on small numbers of commuting bats – particularly brown long-eared bats – could be greater where inappropriate lighting is installed on site.

5.21 Mitigation measures for commuting / foraging bats: any external lighting features must avoid illuminating the surrounding moat at night. Lighting on the new building should be minimal – ideally limited to small, downward facing lights and located as close to the ground as possible. Any additional external lighting should be motion sensitive and use hoods, cowls, louvres and shields to direct light to the ground.

5.22 Residual effects: negligible.

Badger

5.23 Badgers and their setts are afforded protection under the Protection of Badgers Act 1992 (as amended). This legislation includes protection against damage to badger setts and against interference and disturbance of badgers whilst they are occupying a sett.

5.24 Potential effects: negligible. No evidence of badgers was found on site or immediately adjacent, and there is no indication that badgers are likely to colonise the site in the near future.

5.25 Mitigation measures: none.

5.26 Residual effects: negligible.

Otters

5.27 Otters and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.28 Potential effects: negligible.

5.29 Mitigation measures: none.

5.30 Residual effects: negligible.

Water Voles

5.31 Water voles and their habitats are fully protected by the Wildlife and Countryside Act 1981 (as amended).

5.32 Potential effects: negligible.

5.33 Mitigation measures: none, however in the event that an animal burrow is recorded in the banks of the moat within 5m of the development proposals, all works must cease and an ecologist contacted to verify the nature of the burrow. Further survey may be necessary to determine the presence / likely absence of water voles, with licensing necessary in the event of their confirmed presence.

5.34 Residual effects: negligible.

Dormice

5.35 Dormice and their habitats are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and by the Wildlife and Countryside Act 1981 (as amended).

5.36 Potential effects: negligible.

5.37 Mitigation measures: none.

5.38 Residual effects: negligible.

Invertebrates

5.39 Potential effects: negligible.

5.40 Mitigation measures: none.

5.41 Residual effects: negligible.

Other Legally Protected or Notable Species

5.42 The proposed development is not anticipated to impact on any other legally protected species, therefore no mitigation measures are recommended.

5.43 Mitigation and enhancement measures will provide artificial nesting features suitable for house sparrow and starling (both SPIE).

5.44 The measures detailed in section 6.0 can be secured via planning condition.

6.0 MITIGATION & ENHANCEMENT MEASURES

6.1 **3 no. nest boxes with 32mm diameter entrances** for house sparrows will be provided on the eastern façade of the new building. The boxes will be located immediately beneath the eaves, with all three boxes situated within 3-500mm of one another. Wooden nest boxes with 32mm diameter entrance holes are widely available from garden centres. Alternatively a more discrete built-in box could be provided, as shown below.

Habibat House Sparrow Terrace Box

Made of concrete, to be integrated into buildings during construction. Can be sup with various brick facings, or without brick facings for incorporation into a ren weatherboarded wall.

440 x 215 x 150mm

Available from habibat.co.uk

6.2 **One long lasting woodcrete starling box** will be fixed to a mature tree located within the wider garden of Hill Farm House. The box will be located at a height of 3-6m, and face between north and east. The recommended box type is shown below and can be fixed with a nail or a strap.

Woodstone Starling Nest Box

Made of long lasting woodstone; can be to trees with a nail or screw

Available from CJ Wildlife

Dimensions 22 x 21.5 x 38.5cm, weight 7.4kg

7.0 REFERENCES

Bat Conservation Trust (May 2022). Interim Guidance Note: *Use of night vision aids for bat emergence surveys and further comment on dawn surveys*

British Trust for Ornithology swallow webpages (2021) (accessed 12th October 2021) https://app.bto.org/birdtrends/species.jsp?year=2019&s=swall

BTHK (2018) *Bat Roosts in Trees– A Guide to Identification and Assessment for Tree-Care and Ecology Professionals.* Exeter: Pelagic Publishing

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* Version 1.1. Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2017a) *Guidelines for Preliminary Ecological Appraisal, 2nd edition.* Chartered Institute for Ecology and Environmental Management, Winchester.

CIEEM (2017b) *Guidelines for Ecological Report Writing.* Chartered Institute for Ecology and Environmental Management, Winchester.

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

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Revised print, JNCC, Peterborough.

Miles et al. (2018) *Bats and Artificial Lighting in the UK*. Institution of Lighting Professionals and Bat Conservation Trust.

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

Multi-agency Geographic Information for the Countryside (MAGIC) Interactive Map. Department for Environment, Food and Rural Affairs.

Natural England (2015) *Template for Method Statement to support application under Regulation 53(2)e of The Conservation of Habitats and Species Regulations 2010 (as amended) in respect of great crested newts Triturus cristatus. Form WML-A14-2* (Version December 2015)

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, pp. 143-155.

Robinson, R.A., Crick, H.Q.P & Peach W.J. (2003) *Population trends of Swallows Hirundo rustica breeding in Britain*. Bird Study 50:1-7. Doi: 10.1080/00063650309461283

8.0 LEGISLATION

The Conservation of Habitats and Species Regulations 2017 (as amended)

8.1 The Conservation of Habitats and Species Regulations 2017 (as amended) continue to provide safeguards for European Protected Sites and Species as listed in the Habitats Directive. As a result, the same provisions remain in place for European protected species, licensing requirements and protected areas after Brexit.

8.2 Species protected by the former European legislation includes great crested newt, all UK bat species, dormice and otter. A number of other plant and animal species are also included such as sand lizard, smooth snake and natterjack toad, however these additional species are rare, with restricted geographical ranges and specific habitat types.

8.3 Under The Conservation of Habitats and Species Regulations 2017 (as amended) it is an offence to:

Damage, destroy or obstruct access to an EPS breeding or resting place;

Deliberately capture, injure or kill an EPS (including their eggs);

Deliberately disturb an EPS, in particular any actions which may impair an animals ability to survive, breed or nurture their young; or their ability to hibernate or migrate; or which may significantly affect the local distribution or abundance of the species to which they belong.

8.4 The legislation applies to all stages of amphibian life cycles (eggs, larvae and adult), and to active bat roosts even when they are not occupied at that particular time of year.

8.5 Natural England can, under certain circumstances, grant a licence to permit actions which would otherwise be unlawful, subject to the species concerned being maintained at a Favourable Conservation Status and there being a true need for the proposed works to take place.

8.6 Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are also afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended). Ramsar sites, which are designated under the Convention on Wetlands of International Importance (1971), are afforded the same level of protection as SPAs and SACs via national planning policy.

The Wildlife and Countryside Act 1981 (as amended)

8.7 The Wildlife and Countryside Act 1981 (as amended) provides varied levels of protection for a range of species including those already listed above. Water vole are one of the species not listed under the Conservation of Habitats and Species Regulations 2017 (as amended), but are afforded the highest level of protection under the Wildlife and Countryside Act 1981 (as amended).

8.8 It is an offence to intentionally kill, injure or take a water vole, to intentionally or recklessly damage or destroy a structure or place used for shelter and/or protection, to disturb a water vole whilst occupying a structure and/or place used for shelter and protection, or to obstruct access to any structure and/or place used for shelter or protection.

8.9 Other species, such as common lizard, slow worm, adder and grass snake, are afforded less protection. For these species it is an offence to intentionally or recklessly kill or injure animals.

8.10 All active bird nests, eggs and young are protected against intentional destruction. Schedule 1 listed birds e.g. barn owls, kingfishers, are further protected from intentional and reckless disturbance whilst breeding.

8.11 Schedule 9 of The Wildlife and Countryside Act lists plant species for which it is an offence for a person to plant, or otherwise cause to grow in the wild. This includes Japanese Knotweed which, under the Environment Protection Act 1990 (as amended) is classed as 'controlled waste'. If any parts of the plant including stems, leaves and rhizomes are taken off-site they must be disposed of safely at a landfill site licensed to deal with such contaminated waste.

8.12 Sites of Species Scientific Interest (SSSI) are afforded protection by the Wildlife ar Countryside Act 1981 (as amended).

The Protection of Badgers Act 1992 (as amended)

8.13 The Protection of Badgers Act (1992) makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, and to intentionally or recklessly interfere with a sett.

The Protection of Mammals Act 1996 (as amended)

8.14 The Act protects all wild mammals against actions which have the intention of causing unnecessary suffering, including crushing and asphyxiation.

The Natural Environment and Rural Communities Act 2006 (as amended)

8.15 Under sections 40 and 41 of the Natural Environment and Rural Communities Act (NERC) 2006 local authorities have an obligation to have regard to the purpose of conserving biodiversity in carrying out their duties. The majority of UK legally protected species are listed under Section 41 the NERC Act.

8.16 Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act (2006) also requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity' in England (Species of Principal Importance in England – SPIE). The S41 list is used to guide decision-makers, including local and regional authorities, in implementing their duty under Section 40 of the act to have regard to the conservation of biodiversity in England when carrying out their normal functions.

Statutory Designated Sites

8.17 Under the National Parks and Access to the Countryside Act 1949 (as amended), statutory conservation agencies were able to establish National Nature Reserves (NNRs), with provisions for these areas strengthened by the Wildlife and Countryside Act 1981 (as amended). They are managed to conserve their habitats or to provide special opportunities for scientific study of the habitats communities and species represented within them.

8.18 Local Nature Reserves (LNRs) can be declared by local authorities after consultation with the relevant statutory nature conservation agency under the National Parks and Access to the Countryside Act 1949 (as amended). LNRs are not subject to legal protection, but are afforded protection against damaging operations via byelaws, and against development via local planning policies.

Non-Statutory Designated Sites

8.19 Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINCs), Sites of Nature Conservation Importance (SNCIs) and County Wildlife Sites (CWS) are often designated by the local Wildlife Trust. They are not usually afforded ay legal protection, but are recognised in the planning system and given some protection through planning policy.

National Planning Policy Framework (NPPF)

8.20 The National Planning Policy Framework (2019) sets out the Government's planning policies for England and how these should be applied. The NPPF must be taken into account when preparing a Local Authority's development plan, and is also a material consideration in planning decisions.

8.21 As well as highlighting the importance of protecting ecologically valuable sites and habitats, the NPPF highlights the duty of local planning authorities (LPA's) to deliver net gains for biodiversity within the planning system. Planning policies and decisions should, as per Paragraph 170d, contribute to and enhance the natural and local environment by:

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'

8.22 To protect and enhance biodiversity, polices and plans should, as per Paragraph 174b:

b) 'promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursu opportunities for securing measurable net gains for biodiversity.'

8.23 When determining planning applications, LPA's should apply principles which avoid an adverse effect on natural environments and notable species:

d) 'if significant harm to biodiversity resulting from a development cannot be avoide (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;'

Appendix 1:

Proposed Layout Plans

No. Date Revisions
Revisions

HOLLINS

Architects, Surveyors & Planning Consultants

The Guildhall
Framlingham
Suffolk
IP13 9BD

Telephone 01728 723959

E mail all@hollins.co.uk
Website www.hollins.co.uk

Client
Mr R Lawson

Site
Hill House Farm
Stradbroke

Project
New Cartlodge & Games Room

Details
Proposed Block plan

Scale 1:100 @ A1 or 1:200 @ A3

Date Nov 21

Drawn by RMF

Job Reference Drawing no.
20-070-199

Appendix 2:

HSI Assessment Results

HSI Assessment results

Table 2: WB1

Habitat Suitability Index				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	irregular	
		length (m)		
		width (m)		
		OR estimate (m^2) if irregular	1830	
		area (m^2) =	1830	0.82
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never	0.90
SI4.	Water quality	**good/moderate/poor/bad**	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	20	1.00
SI6.	Waterfowl	**absent/major/minor**	minor	0.67
SI7.	Fish population	**absent/possible/minor/major**	major	0.01
SI8.	Pond density	number of ponds within 1km	3.8	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	moderate	0.67
SI10.	Macrophyte cover	%	30	0.61
			HSI =	**0.54**
Use provisional HSI value if above 0.75			provisional HSI =	0.50
			Date undertaken	13.12.22

Table 3: WB2

Habitat Suitability Index				SI value
SI1.	Map location	**A/B/C**	A	1.00
SI2.	Surface area	**rectangle/ellipse/irregular**	irregular	
		length (m)		
		width (m)		
		OR estimate (m^2) if irregular	930	
		area (m^2) =	930	0.96
SI3.	Dessication rate	**never/rarely/sometimes/frequently**	never	0.90
SI4.	Water quality	**good/moderate/poor/bad**	good	1.00
SI5.	Shade	% of margin shaded 1m from bank	50	1.00
SI6.	Waterfowl	**absent/major/minor**	minor	0.67
SI7.	Fish population	**absent/possible/minor/major**	major	0.01
SI8.	Pond density	number of ponds within 1km	3.8	1.00
SI9.	Terrestrial habitat	**good/moderate/poor/isolated**	good	1.00
SI10.	Macrophyte cover	%	30	0.61
			HSI =	**0.57**
Use provisional HSI value if above 0.75			provisional HSI =	0.53
			Date undertaken	13.12.22

Appendix 3:

Infra-red Camera Images

Photo 11: SANNCE IR camera view of south western façade of Building 1

Photo 12 SANNCE IR camera view of north western façade of Building 1

Photo 13: Screen shot from laptop review of Nightfox Whisker IR camera footage of eastern façade of Building 1

NOTE: all of the above photographs of the SANNCE CCTV screen were taken of the video screen at the time of survey, and are not direct screen shots. The screen provides a clearer image than those shown abov .

Appendix 4:

Great Crested Newt Non-Licensed Precautionary Method Statement

Non-Licensed Precautionary Method Statement

1.0 Timing of Works

Works to the very small areas of potential great crested newt (GCN) habitat (formal shrub beds, ivy) and to lift paving slabs will be carried out between mid-March and end-October inclusive to avoid the amphibian hibernation period. No such works will take place during temperatures of below 5˚C, and no works will take place at night.

2.0 Toolbox Talk

Every contractor and site worker will be briefed by an experienced ecologist in possession of Natural England GCN Survey Licence prior to commencement of works. They will be made aware of the legal protection of GCN, the reasons for this Method Statement, how to identify a GCN, and what to do if a GCN is found during works.

All site contractors will be provided with a copy of this Method Statement, which includes an ID sheet for reference purposes.

3.0 Vegetation and Top Soil Removal

Hand tools will be used to cut the shrubs and ivy to c.150mm height and remove from site. The remaining low vegetation, any areas of leaf litter and the margins around the base of Building 2 will be subject to a staged fingertip search by the licensed ecologist. Upon completion of each stage, all vegetation, debris and topsoil will be slowly and carefully stripped as necessary - either mechanically or using hand tools. Arisings will be removed from the working area or stored in skips.

4.0 Construction Methodology

During works the following measures will be followed at all times:

No building materials (rubble, wood, tiles etc) or excavated material (rubble, unconsolidated spoil) will be stored on site unless entirely inaccessible to GCN, to avoid use of the piles by sheltering GCN. All such materials will be removed from site, stored in skips or on raised pallets, or stored in an area entirely impenetrable to newts e.g. walled garden or courtyard;

Wherever possible trenches or similar ground works will not be left open overnight. Any trenches which are left open overnight will contain an angled plank of wood to ensure any GCN which may use the site do not fall in and become trapped. The trenches will always be checked the following morning for GCN. As little time as possible will be left between the digging of ground works and infilling with hard core / concrete etc – ideally no more than 24 hours. Wet concrete will be covered overnight to prevent GCN access.

5.0 Delays to Works

Wherever possible, works will proceed quickly and without delay, to minimise the duration of ground disturbance. If any delay is predicted following commencement of works, the site will always be left in a condition that is unsuitable for GCN i.e. following the measures detailed in section 4.0.

6.0 Discovery of GCN during works

If a GCN is found on site at any point during construction, all works will cease. An ecologist will be contacted for further advice, if not already present on site. Natural England will be informed, and works will not re-commence until a development (EPSM) licence or Low Impact licence has been secured or other provisions have been agreed with Natural England.

7.0 Great Crested Newt ID

Great crested newts these newts are **noticeably black to very dark brown** in colour, with a warty texture to their skin. Some of the warts are white, accentuating the warty and slightly speckled appearance. In spring male newts have a white stripe along the centre of their tail, and female have an orange stripe at the end of their tail. The bright orange-yellow belly colouring extends fully to join with the dark upper skin tone.

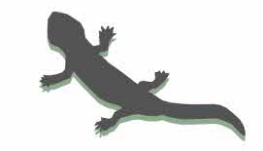
By contrast, *common or palmate newts* are a lighter brown-green colour and are significantly smaller (up to 9cm in length, whilst great crested newts may be up to 15cm in length). **Both common and great crested newts have an orange-yellow belly with black spots**; however the orange colouring fades towards the edges of the belly of common newts. Both males have crests in the spring.

Female Great Crested Newt

Female Common New

Female Great Crested Newt & Smooth Ne

Male Great Crested Newt



Liz Lord Ecology