



Land at Old London Road, Copdock

Preliminary Ecological Appraisal

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Appendix 1: Proposed Site Layout

Figure 1A: Site Location Plan

Figure 1B: Survey Boundary and Site Boundary



1.0 SUMMARY

- 1.1 The site (located at NGR: TM11234108) was found to comprise an area of closely mown and / or grazed, species poor grassland surrounded in part by mixed native hedging. Outline planning permission is being sought to build four residential dwellings on the land.
- 1.2 The hedgerows provide suitable habitat for nesting birds. Ideally removal of, or works to, potential nesting habitat would commence during October 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.
- 1.3 The site is not deemed suitable for any other protected species.
- 1.4 The enhancement measures detailed in section 6.0 can be secured via a planning condition, and should result in a minor overall enhancement for nesting house sparrow and roosting bats at the site scale.



2.0 INTRODUCTION

Instruction

- 2.1 This report has been prepared by Liz Lord following instruction by Mr. J. Tanner of Hollins Architects and Surveyors to carry out an ecological appraisal of land west of Old London Road, Copdock, Ipswich, Suffolk IP8 3JD.

Site Proposals

- 2.2 Planning permission is being sought to develop the site for four residential dwellings. It is understood that the north western boundary hedgerow will be retained as part of the proposals.

Site Description

- 2.3 The site lies to the south of the village of Copdock, approximately 3km to the south west of Ipswich, and is located close to the middle of London Road, immediately to the southwest of a hotel complex. To the east are further small areas of short, species poor pasture, with a collection of residential dwellings offsite to the south east and the London Road dual carriageway immediately beyond. An arable field adjoins the site to the south west, and grazed pasture to the north west. Immediately adjacent to the north eastern site boundary is a small area of semi-mature native broadleaved woodland, in the grounds of the adjacent hotel.
- 2.4 The wider landscape to the south and west of the site is dominated by open arable fields with hedgerow boundaries of variable quality. There is little woodland cover to the north, south west or west; however significant areas of woodland are present both to the east and south east. These woodlands are isolated from the site by the A12 dual carriageway, although there is good connectivity from the site to the wider landscape in all other directions.
- 2.5 Aerial site location plans are provided overleaf.



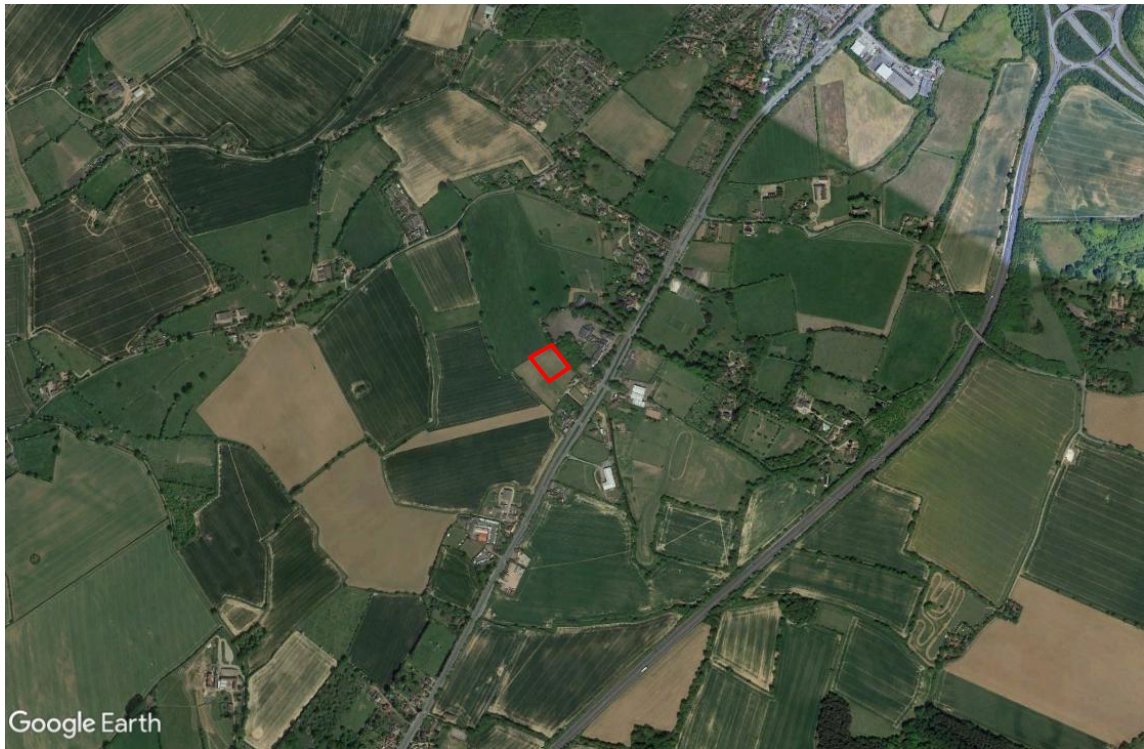


Fig 1A: Site location, with approximate site boundary highlighted red. Aerial photograph taken from Google Earth Pro, image dated 9/5/2020



Fig 1B: Wider survey boundary outlined blue. Proposed site boundary and site access route highlighted red. Aerial photograph taken from Google Earth Pro, image dated 9/5/2020



Objectives

- 2.6 This report has been written broadly in accordance with the report writing guidelines 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:
- 2.6.1 Where possible, identify and describe all potentially significant ecological effects on protected and notable species / sites associated with the proposals;
 - 2.6.2 Where possible, set out the mitigation measures required to ensure compliance with nature conservation legislation and address any potentially significant ecological effects;
 - 2.6.3 Identify how mitigation measures will / could be secured;
 - 2.6.4 Provide an assessment of the significance of any residual effects;
 - 2.6.5 Identify appropriate enhancement measures; and
 - 2.6.6 Where deemed necessary, set out the requirements for post construction monitoring.
- 2.7 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

- 2.8 The construction period is expected to be around 12-36 months following the granting of relevant permissions.
- 2.9 This report is valid for a period of 18 months from the date of survey. Beyond this time, changes to vegetation may have occurred which could require re-assessment and potentially further survey to re-determine the presence / likely absence of protected species.

Relevant Documents

- 2.10 The site assessment was based upon drawing number 21-031-100-C dated March 2021 by Hollins Architects, as shown in Appendix 1. Note that any minor amendments to the overall scheme are unlikely to alter the conclusions and recommendations of this report.
- 2.11 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 (MAGIC) website was consulted on 18th March 2021 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. 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 October 2020); and data from Natural England great crested newt Class Survey Licence returns within a 5km radius of the site (last updated May 2020).
- 3.3 A records search was carried out in March 2021 with the Suffolk Biodiversity Information Service (SBIS) for County Wildlife Sites and protected and notable species within a 2km radius of the site.

Site Survey

- 3.4 A daytime site survey was carried out on 26th February 2021. 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 encompassed all land within the blue line boundary as shown in Figure 1B, plus land immediately adjacent to the site, where accessible or visible. Note that the proposed development boundary is limited to the red line boundary shown in Figures 1A and 1B, and Appendix 1.
- 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 practice guidelines, this report provides ecological justification for such changes.

Tree Survey

- 3.9 Where necessary trees were surveyed from ground level with a powerful torch and a pair of Nikon 12 x 50 binoculars for potential roost features (e.g. splits, cavities, lifted bark, woodpecker holes), and assessed in accordance with criteria outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, J. 2016).

Surveyors

- 3.10 The survey was 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.
- 3.11 The weather at the time of the survey was sunny with a moderate breeze (BF3-4) and a temperature of 9°C.

Zone of Influence

- 3.12 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.
- 3.13 The Zone of Influence will vary for different habitats and species depending on their 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.
- 3.14 An assessment of the Zone of Influence has been made based on the site boundaries shown in Figure 1, and where necessary recommendations to avoid any significant adverse impacts beyond the site boundaries have been provided in section 5.0.



Limitations

- 3.15 The conclusions in this report are based on the best information available during the reported period of survey.
- 3.16 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.
- 3.17 The survey was undertaken at a time of year when some plant species are not present above ground, or are simply not easily recorded; however an overall assessment of the flora communities present at the time of survey has been used to assess the likelihood of the unrecorded presence of any plant species of conservation importance.
- 3.18 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.

Geographic Context

- 3.19 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

- 3.20 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



- 3.21 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 EclA assessment process to be 'important'.
- 3.22 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 ones.
- 3.23 The results of the surveys have been used to identify any potentially significant impacts in the absence of any avoidance, mitigation or compensation measures. Any such appropriate measures have then been proposed where necessary.

Characterisation of Ecological Impacts

- 3.24 When considering ecological impacts and effects, the following characteristics have been considered:
- positive or negative
 - extent
 - magnitude
 - duration
 - frequency and timing
 - reversibility
- 3.25 Where various characteristics have not been specifically referred to in this report, they have been considered insignificant or irrelevant to that specific feature.
- 3.26 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."*
- 3.27 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.



- 3.28 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."*
- 3.29 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 with respect to avoidance / mitigation / compensation / enhancement as necessary, and an assessment of the residual impacts after such measures has been made.

Mitigation Hierarchy

- 3.30 In order to minimise the likelihood of any significant negative residual effects on environmental features, this assessment has followed the mitigation hierarchy (listed below in order of preference):
- Avoidance – 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;
 - Enhancement – 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

- 3.31 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.
- 3.32 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 Species 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.



3.33 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 an open area of closely grazed and / or mown pasture, surrounded on two sides by a native hedgerow, and on one of these sides by an area of offsite semi-mature broadleaved woodland.

Desk Study: Statutory Designated Sites

- 4.2 Natural England's MAGIC website indicates that there are no UK statutory designated sites of national importance located within 2km of the site boundary.
- 4.3 The internationally designated Stour and Orwell Estuaries SPA and Ramsar site is located approximately 5.5km to the east and 7.8km to the south of the site. The reasons for designation are summarised in Table 1 below.

Table 1: Statutory designated sites within applicable search radii

| Site | Designation | Distance from site | Citation |
|----------------------------|--------------|--------------------------|---|
| Stour and Orwell Estuaries | SPA | 5.5km east & 7.8km south | <p>Qualification under Article 4.1 of the Birds Directive for internationally important populations of Annex 1 bird species:</p> <p>Breeding Avocet <i>Recurvirostra avosetta</i></p> <p>Qualification under Article 4.2 of the Birds Directive for internationally important numbers of migratory species not listed in Annex 1:</p> <p>Over-wintering Pintail <i>Anas acuta</i>, Dark bellied brent goose <i>Branta bernicla bernicla</i>, Grey Plover <i>Pluvialis squatarola</i>, Dunlin <i>Calidris alpina alpina</i>, Red knot <i>Calidris canutus</i>, Black-tailed Godwit <i>Limosa limosa islandica</i> and Redshank <i>Tringa tetanus</i>.</p> <p>Common redshank on passage.</p> <p>Qualification under Article 4.2 of the Birds Directive as an internationally important assemblage of birds: The SPA regularly supports over 20,000 waterfowl</p> |
| Stour and Orwell Estuaries | Ramsar, SSSI | 5.5km east & 7.8km south | <p>A complexity of estuarine habitats and coastal grazing marsh.</p> <p>Qualified under Ramsar Criterion 2, 5 and 6:</p> <p>2) Invertebrate fauna, including at least five British Red Data Book species and seven nationally scarce plants</p> <p>5) Bird assemblages (overwintering) of international importance</p> <p>6) Bird species / populations at levels of international importance</p> |



- 4.4 The MAGIC IRZ search tool identified 'Any residential development of 50 houses outside existing settlements / urban areas' as requiring consultation with Natural England. This is not applicable to the proposals, which comprise four residential dwellings. The search tool also highlighted that 'For new residential development in this area financial contributions are required towards the emerging Suffolk Recreational Disturbance Avoidance and Mitigation Strategy (RAMS).'

Desk Study: Non-Statutory Designated Sites

- 4.5 There are no County Wildlife Sites located within influencing distance of the site.

Habitats

Invasive species

- 4.6 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

- 4.7 No water bodies are present on site. Aerial photographs and Ordnance Survey maps at 1:10,000 scale highlighted the presence of two water bodies within 250m of the site boundaries: at 190m to the south east, separated from the site by a dual carriageway; and at approximately 135m to the north east of the site.

Improved grassland

- 4.8 The site comprises an open area of closely grazed and / or mown species poor grassland. Vegetation is dominated by ryegrass *Lolium sp.*, with some cocksfoot *Dactylis glomerata*, moss, and occasional creeping buttercup *Ranunculus repens* and common mouse ear *Cerastium fontanum*.

Native hedgerow

- 4.9 The north western site boundary is marked by a native 10-15 year old hedgerow, supporting hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, field maple *Acer campestre* and hazel *Corylus avellana*. The hedge appears to be regularly managed to approximately 2.5m height. A combination of rabbit fencing and post and barbed wire fencing is present at the base of the hedge, beyond which is further short grass pasture. There is no understorey vegetation present, with the grassland grazed and / or mown up to the base of the hedge.
- 4.10 Offsite to the south west an adjoining boundary hedge grows on a slightly raised bank, with a similar species mix of hawthorn, blackthorn, field maple and hazel as well as the addition of occasional rose *Rosa sp.* and holly *Ilex aquifolium*. Limited understorey vegetation cover is present, including cleavers *Galium aparine* and lords and ladies *Arum maculatum*.



- 4.11 The north eastern boundary is marked by recently installed close board fencing with a newly planted beech hedge at the base. Immediately beyond the fencing is a small area of semi-mature offsite woodland, and a small number of the trees in this woodland protrude through the fence and overhang the grass field.

Trees

- 4.12 There is one tree present within the site boundaries, a young oak *Quercus robur* tree growing against the fence of the north western site boundary.
- 4.13 A mature oak tree is present close to the northern corner of the site, located in an immediately adjoining hedgerow.

Hard standing

- 4.14 Access to the site is currently from the south east, via a driveway of compacted hard core adjoined on one side by close board fencing with mature conifers beyond, and on the other by short species poor grassland.



Photo 1: Western half of site, viewed from centre of site. Offsite semi-mature ash visible within the offsite south western hedge



Photo 2: Eastern half of site, viewed from centre. Offsite woodland visible beyond boundary



Photo 3: Hedgerow along north western site boundary



Photo 4: Offsite hedgerow along south western site boundary





Photo 5: Existing hard standing site access



Photo 6: Offsite mature oak tree in northern corner of site

Bats

- 4.15 The records search returned 20 records of bats within 2km of the site, including records of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, noctule *Nyctalus noctula* and serotine *Eptesicus serotinus* all c.250m to the south west of the site. One additional species - brown long-eared bat *Plecotus auritus* – was recorded within 1km of the site.
- 4.16 The desk study identified four bat EPSM licences within 5km of the site. One is at 2.7km north west (2014), and another at 4.4km south west (2017) for a non-breeding roost of brown long-eared bat and a non-breeding roost of brown long-eared bat, barbastelle *Barbastellus barbastella* and common pipistrelle respectively. A third EPSM licence dating from 2012 was identified c.1km to the north east of the site, to affect a non-breeding roost of brown long-eared bat and common pipistrelle, and a fourth at 4.7km north east for a non-breeding roost of brown long-eared bat, natterer's bat *Myotis nattereri*, soprano pipistrelle and common pipistrelle, also dating from 2012.

Bats - roosting

- 4.17 There are no buildings present on site, and with a wide margin of trees and / or grassland between the site and offsite existing dwellings to the south and north east, no nearby buildings are likely to be affected by the proposals.
- 4.18 The semi-mature ash tree present along the offsite south western boundary did not have any features with potential to support roosting bats. The mature oak tree immediately adjacent to the northern corner of the site was not noted to support any potential roosting features, but could not be viewed from all aspects.



- 4.19 The semi-mature trees in offsite woodland adjoining the north eastern boundary did not appear to support any potential roosting features, but again full access for inspection was not possible. No offsite trees will be directly affected by the proposals. Whilst the proposed site layout is unlikely to impact upon the root protection zones of these trees, it is recommended that the root protection zones are adequately fenced during construction to prevent access by large machinery or storage of heavy materials, fuel etc within these areas.

Bats – commuting / foraging

- 4.20 The site provides small corridors of low to moderate quality potential bat foraging habitat associated with the woodland edge and the relatively young boundary hedgerow. The vast majority of the site is of limited value to both foraging and commuting bats. All boundary features may serve as commuting routes, however these hedgerows are not the only feature providing connectivity into the wider landscape from the site.

Reptiles

- 4.21 The site provides negligible potential reptile habitat, with the insufficient vegetation cover to support reptiles. There is no potential reptile habitat adjoining the site.

Amphibians

- 4.22 The MAGIC search did not highlight any great crested newt (GCN) EPSM licences within 5km of the site; however both MAGIC and the data search returned one GCN class survey licence record at 1.5km to the west of the site, dating from 2015.
- 4.23 The majority of the site consists of improved grassland which appears to be regularly grazed and / or mown, and provides low quality potential terrestrial habitat for GCN.
- 4.24 Two water bodies were identified within 250m of the site boundaries, one of which is situated 190m to the south east, and is separated from the site by a dual carriageway. This is very likely to serve as a barrier to the potential dispersal of amphibians in the direction of the site, and this pond is therefore unlikely to be of relevance to the potential for GCN presence on site. It is not considered further as part of this assessment.
- 4.25 A second water body is located in the grounds of the adjacent hotel, approximately 135m to the north east of the site. This pond is surrounded by high quality terrestrial habitat (broadleaved woodland), with a large hotel complex and car park located between the pond and the proposed development site preventing direct GCN migration towards the majority of the site boundary. The close board fencing and gravel board along the north eastern site boundary provides a further (semi-permeable) barrier to GCN in the direction of the site.



- 4.26 The quality of the habitat onsite for GCN is so low in comparison to over 1ha of broadleaved woodland present around the hotel complex, the likelihood of GCN being present on site is negligible. Further, there are no known ponds beyond the site to the south or west to which GCN may commute across the site.

Birds

- 4.27 The boundary hedgerows and trees provide opportunities for nesting birds, with the grassland likely to be too short and uniform to be used by ground nesting birds. A number of nests were noted in the north western boundary hedge.

Badger

- 4.28 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 as far as could be observed, however it was not possible to view the woodland adjoining the site to the north east.

Water Vole and Otter

- 4.29 Whilst five records of water vole and nine of otter were returned within 2km of the site, there are no features on or immediately adjacent the site which provide suitable habitat for either species.

Dormice

- 4.30 The records search returned 21 records of dormice within 2km of the site dating between 2002 and 2017. All are over 1.5km from the site, are located on the opposite side of the A12 dual carriageway, and are not of significant relevance to the proposed development site.
- 4.31 Whilst the hedgerows provide low to moderate quality potential habitat for dormice, the site and immediate surroundings do not support any habitat of sufficient extent to support this species, nor are they connected to any such habitats.

Invertebrates

- 4.32 The site is considered likely to support common and widespread invertebrate species typical of the habitats present. The site does not provide any deadwood habitats suitable for stag beetle *Lucanus cervus*.

Other Legally Protected Species

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



Species of Principal Importance

- 4.34 The site provides some potential foraging opportunities for hedgehog *Erinaceus europaeus*, starling *Sturnus vulgaris* and dunnock *Prunella modularis*.



5.0 CONCLUSIONS AND RECOMMENDATIONS

Designated Sites

- 5.1 The proposals are not considered to be detrimental to any CWS. No further survey or mitigation is recommended.
- 5.2 There no statutory designated sites of national importance within 2km of the site, and the small scale proposals are unlikely to have any adverse impact upon any sites beyond a 2km distance. No further works are necessary in this regard.
- 5.3 Whilst the proposals are very unlikely to have any direct adverse impact upon any national or international statutory designated sites, the application site lies within the 'zone of influence' for the Stour and Orwell Estuaries SPA and Ramsar site, as set out in the Suffolk Recreational Disturbance Avoidance and Mitigation Strategy (RAMS).
- 5.4 All internationally designated sites are fully protected by the Conservation of Habitats and Species Regulations 2017 (as amended). Any new development must avoid having a significant adverse effect on the ecological features for which an SPA/SAC/Ramsar site was designated. Any such effect must be considered in combination with potential effects from other developments within influencing distance of the designated sites. Due to the local topography, small scale of the development, surrounding habitats and distance from the Stour and Orwell Estuaries, this development proposal is very unlikely to have a direct significant adverse effect upon this site. It is however, likely to contribute to cumulative impacts associated with increased visitor pressure.
- 5.5 A financial contribution to the emerging Suffolk RAMS is required in order to ensure that there will be 'no likely significant effect' on the Stour and Orwell Estuaries. A per house tariff has been adopted, and this should be secured via the necessary means (Section 106 Agreement, Unilateral Undertaking etc) as an adequate mitigation measure.
- 5.6 The RAMS will work towards a range of locally appropriate and effective mitigation measures to ensure that increased visitor numbers will not have an adverse impact upon any European designated site within the immediate region.

Amphibians

- 5.7 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).
- 5.8 Potential effects: negligible.
- 5.9 Mitigation measures: none.



5.10 Residual effects: negligible.

Reptiles

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

5.12 Potential effects: negligible.

5.13 Mitigation measures: none.

5.14 Residual effects: negligible.

Birds

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

5.16 Potential effects: the hedge and trees provide potential nesting habitat and the disturbance and destruction of an active nest could have a negative effect on some bird species at the site level. There will be some loss of low quality grassland foraging habitat potentially used by species such as starling, although the impacts are unlikely to be significant in the context of the surrounding environment. Effects upon nesting and foraging birds will be minimised with the retention of the north western hedgerow.

5.17 Mitigation measures: ideally works to any hedges or trees would commence during October 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.

5.18 Residual effects: following implementation of the mitigation and enhancement measures detailed in section 6.0 – the retention of existing hedgerows, the planting of new species rich boundary hedgerows, the provision of three woodstone nest boxes for house sparrows *Passer domesticus*, two long-lasting woodstone nest boxes for general small bird species, and one long-lasting woodstone nest box for starlings *Sturnus vulgaris* - overall no significant adverse effect is predicted on bird species at any level in the medium to long term, and a minor enhancement for house sparrows and starlings may result.

Bats

5.19 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).



- 5.20 Potential effects on roosting bats: negligible.
- 5.21 Mitigation measures for roosting bats: none.
- 5.22 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 very small areas of potential foraging habitat, however the effects on some bat species – particularly brown long-eared bats – using the site boundaries could be greater where inappropriate lighting is installed on site.
- 5.23 Mitigation measures for commuting / foraging bats: a bat friendly lighting scheme should be implemented to avoid lighting the site boundaries or any enhancement features at night. Lighting within the new development should be minimal – ideally limited to small front porch 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.
- 5.24 Residual effects: a minor enhancement of the site for roosting bats could be achieved via the installation of two artificial roosting features built into houses and / or outbuildings, as detailed in Section 6.0.

Badger

- 5.25 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. Badgers are, however, a common and widespread species not of conservation concern.
- 5.26 Potential effects: none. No evidence of badgers was found on site or immediately adjacent, as far as could be viewed; however it was not possible to fully view the woodland offsite to the north east.
- 5.27 Mitigation measures: none, due to the lack of evidence of the presence of badgers. As a precaution immediately prior to commencement of works on site, efforts should be made to access and survey the woodland immediately adjacent to the north eastern site boundary. In the event of badger presence within potential influencing distance of the site, construction techniques and timings may need to be altered to ensure badgers are not subject to harm or disturbance whilst occupying a sett. However, it is noted that the proposed dwellings and road are likely to be located outside the potential zone of influence for any badger sett present in the adjacent woodland.
- 5.28 Residual effects: negligible.



Otters

- 5.29 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).
- 5.30 Potential effects: none.
- 5.31 Mitigation measures: none.
- 5.32 Residual effects: none.

Water Voles

- 5.33 Water voles and their habitats are fully protected by the Wildlife and Countryside Act 1981 (as amended).
- 5.34 Potential effects: none.
- 5.35 Mitigation measures: none.
- 5.36 Residual effects: none.

Dormice

- 5.37 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).
- 5.38 Potential effects: negligible.
- 5.39 Mitigation measures: none.
- 5.40 Residual effects: negligible.

Invertebrates

- 5.41 Potential effects: negligible.
- 5.42 Mitigation measures: none.
- 5.43 Residual effects: negligible.

Other Legally Protected or Notable Species

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



- 5.45 Mitigation and enhancement measures will provide artificial nesting features suitable for house sparrow and starling (Species of Principal Importance in England), wren and robin, and roosting features for a range of crevice dwelling bats, many of which are also SPIE.
- 5.46 The measures detailed in section 6.0 can be secured via planning condition.



6.0 ENHANCEMENT MEASURES

- 6.1 Three long lasting woodstone bird boxes targeting house sparrow should be provided on the new buildings – garage walls are preferable where possible. The boxes should be located on separate garages, at a height of at least 2m, ideally immediately beneath the eaves, and face between north and east. The recommended box type is shown below. (NB. Any alternative boxes to all those shown in Section 6.0 should be agreed with an ecologist).



Woodstone Estella House Sparrow Box

Made of long lasting woodstone; can be built-in or fixed externally

Available from CJ Wildlife

Dimensions 29 x 16 x 21cm, weight 6kg

- 6.2 Two open fronted long lasting woodstone bird boxes suitable for wrens and robins should be provided in the retained north western hedgerow. The boxes should be located at a height of 1-2m, and face between north and east. The recommended box type is shown below, and can be fixed with a nail or a strap.



Woodstone Alicante Nest Box

Made of long lasting woodstone; can be fixed with a nail, screw or narrow tree strap

Available from CJ Wildlife

Dimensions 22.5 x 15 x 26cm

- 6.3 The south eastern and south western site boundaries should be delineated with native hedging, which could be set against garden fencing where preferred. A species rich mix of at least five of the following should be used - hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, dogwood *Cornus sanguinea*, field maple *Acer campestre*, hazel *Corylus avellana*, guelder rose *Viburnum opulus*, holly *Ilex aquifolium* and spindle *Euonymus europaeus* – planted in double staggered rows and mulched with 75mm of woodchip.
- 6.4 Where close boarded or similar garden fencing is used around the gardens, small (130mm x 130mm) gaps in fencing should be provided to aid hedgehog access into and through gardens which may not otherwise be accessible. One hole in the boundary of each property should be provided. Purpose built hedgehog gravel boards are now available, or can be cut as required.



- 6.5 Enhancement features for roosting bats should be provided on or built in to two of the new houses or outbuildings OR the offsite mature ash tree where permissions allow. The box types should be taken from those detailed below. The boxes should be located at least 3m high, with a 1-2m clear drop beneath the box entrance i.e. clear of all wires, branches etc. They should be located well away from all external lighting features. Where located on buildings, a position close to the eaves is preferable, facing in any direction.

The designs below provide well insulated, long lasting roosting opportunities for a range of crevice dwelling bats. Any other designs should be agreed with an ecologist.



Beaumaris woodstone bat box midi – for installation on building walls or large tree trunks



Chillon woodstone bat box – for building walls or large tree trunks



Habibat Bat Box – to be built in to wall and rendered or weather boarded. Also available faced in red brick



Segovia build-in bat tube – to be built in to wall and the top section boarded or bricked over



7.0 REFERENCES

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Oldham, R.S., Keeble, J., Swan, M.J.S. & Jeffcote, M., (2000). Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal*, 10, pp. 143-155.



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) will soon become the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019). These regulations will 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 and 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 any 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, policies 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 pursue opportunities for securing measureable 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 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;'



Appendix 1:

Proposed Site Layout





No. Date Revisions

HOLLINS

Architects, Surveyors &
Planning Consultants

The Guildhall
Framlingham
Suffolk
IP13 9BD

Telephone 01728 723959
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Client
Mr G Bridges

Site
Land to the Rear of
Brook House
Copdock IP8 3JD
Project
Residential Development

Details
Proposed Block Plan

Option A

Scale 1:500 @A1 or 1:1000 @A3

Date March 2021

Drawn by RMF

| Job Reference | Drawing no. | Revision |
|---------------|-------------|----------|
| 21-031-100-C | | |

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Liz Lord Ecology

