

# **T4 ECOLOGY LTD**

ECOLOGY CONSULTANCY SERVICES, MALDON, ESSEX



## **Preliminary Ecological Appraisal Incorporating Bat Survey Inspection**

Little Oaks

Abridge Road

Abridge

Essex

RM4 1TX

**Prepared for:**

Mr & Mrs Aston

**December 2020**

## **T4ecology Ltd**

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### **Report Reference MH1227 Version 1-Dated 14/12/20**

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## **1. Survey Finding and Recommendations Summary**

In summary, the proposed development area comprises a managed, maintained residential dwelling and associated garage. The site is a managed, maintained occupied residential location, and the site is bounded by large arable fields and a main road. The site and surrounds are therefore subject to management and disturbance as would be reasonably expected in such a land use context.

The designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory or non-statutory designated locations. It is not considered reasonably likely that the proposal would have any adverse impact upon statutory/non-statutory designated locations.

The buildings are, following inspection, considered to provide a negligible level of bat roosting potential. No evidence of bats was identified further surveys are neither necessary nor appropriate. No trees with roosting potential would be lost to the proposal. Given the nature of the proposal in being constructed broadly on an identical footprint to the existing buildings, trees would be retained.

It is possible that small numbers of bats may commute and forage along the boundaries of the site given presence of trees/managed hedgerows in the context of a garden location. However, given surrounding large arable fields, the site is relatively isolated, which may have a limiting factor to bat activity in the area. Nonetheless, existing features will be retained, and as such, it is concluded that bat activities would be unaffected by the proposal.

As an appropriate precaution/enhancement, it is advised that a bat considerate lighting scheme be employed during the demolition, construction and completed phases. Further details have been provided in section 5.2.

In addition, integral and tree mounted bat boxes should be installed in the new building, along with new planting as applicable in the context of this scheme. Enhancement recommendations have been provided in section 5.2.

It is not considered reasonably likely that reptile or great crested newt species would be adversely affected by the development proposals.

No active or inactive badger setts were found, with no evidence of badger activity identified. No surveys have been advised. General appropriate precautionary measures for the construction phases have been advised in section 5.2.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section 5.2 are fully adhered to. Where necessary, appropriately worded conditions should

be placed upon any consent granted in order to ensure appropriate measures are followed.

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## **2. Introduction**

### **2.1. Phase 1 Brief**

T4 Ecology Ltd was commissioned by Mr & Mrs Aston to undertake an ecological assessment at Little Oaks, Abridge Road, Abridge, Essex.

This report contains the findings of a Preliminary Ecological Appraisal-PEA. The purpose of a PEA is to identify the potential for presence of protected species on a site, in line with European legislation, UK law and the requirements of The National Planning Policy Framework (NPPF)(2019). The brief of the ecological survey was to assess the habitats found on site and identify the potential for presence on site of protected species.

The site-based element is supported by a desktop study undertaken to identify presence of Statutory/National/Local designations or protected species within the vicinity (up to a 5KM radius) of the site. The final part of the project brief was to identify and make recommendations as appropriate for any further surveys required to determine presence/absence of protected species on site if the survey determined that presence of a protected species on site was considered to be reasonably likely.

### **2.2. Bat Survey Brief**

In addition, this report also contains the results of a Preliminary Roost Assessment (PRA) undertaken at the same time as the PEA, comprising an internal/external inspection of the existing building/s. Bats are a strictly protected species under European Legislation. In this regard, given presence of buildings where demolition/alteration works are proposed, the inspection was undertaken in order to meet the specific requirements of the legislation to inform design, mitigation and if appropriate, European Protected Species License Applications.

### **2.3. Development Proposals & Planning Context**

Proposals are for the demolition of the existing dwelling/garage and construction of a replacement dwelling.

The following plans have been viewed as part of this assessment:

- 2322-Proposed Plans – MP Architects

Given availability of proposal plans, it was possible to undertake an assessment of any potential impacts resultant from the proposal and recommend further works/appropriate mitigation/enhancements for inclusion at reserved matters stage as appropriate in section 5.2 of this report.

## **2.4. Scope of Survey**

The purpose of this report is to provide an independent opinion of the likely presence of protected species on a site to inform the client of their obligations, and to assist the Local Planning Authority (LPA) in their determination of a planning application.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. This PEA does not constitute a full botanical survey or a Phase 2 preconstruction survey for Japanese Knotweed. In this regard, this survey provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. Additional surveys may be required if it is considered reasonably likely a protected species may be present.

The survey presents a snapshot in time, and therefore makes an assessment purely of what was seen at the time the survey was undertaken. The PEA does not therefore make any retrospective analyses.



### **3. Methodology**

#### **3.1. Survey**

Habitats on site were recorded in accordance with the general principles and methods provided in the Handbook for Phase 1 Habitat Survey, JNCC 1993. The survey methodology involves undertaking a site visit to gain an understanding of the site ecology and surrounding characteristics. During the site visit the recording and mapping of habitat types and ecological features present on site is undertaken, including the identification of the main species present. The potential for presence of protected species is assessed as part of the overall methodology, and further advice/surveys recommended as considered appropriate based on the evidence obtained.

The survey works were undertaken in accordance with Guidelines for Preliminary Ecological Appraisal produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) in December 2017.

Methods are also in accordance to the general principles contained within British Standards Institute (BSI) BS42020 – Biodiversity-Code of Practice for Planning & Development.

A habitat plan is included as Annex 3. Photographs are included within Annex 2.

##### **3.1.1. Survey Timings and Conditions**

The survey was undertaken by Consultant Ecologist Peter Harris BSc (hons) MCIEEM FRGS on the 7<sup>th</sup> December 2020. Weather conditions were dry with <10% cloud cover, and an ambient air temperature of 5°C.

Peter Harris is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM) and a Fellow of The Royal Geographical Society (FRGS). The surveyor is licenced by Natural England for surveying great crested newts. The surveyor is an ecologist with over 14 years of experience, and has been involved in a wide range of projects from single dwelling developments to large strategic urban renewal schemes subject to full Environmental Impact Assessment (EIA).

As an ecologist for over 14 years, Peter has obtained significant experience in respect of a wide range of protected and priority species. Species worked with include reptiles (surveys/mitigation), great crested newt (surveys/mitigation), badger (surveys/mitigation/licencing), dormouse (surveys) and bat, encompassing a wide range of survey and monitoring techniques. These include internal/external inspections/Preliminary Roost Assessment (PRA), in addition to involvement with successful bat mitigation license applications working in conjunction with specialist organisations.

## **3.2. Desktop Study & Records Search**

To gain an understanding of any designations on/around the site in addition to the historical presence of protected species, desktop data has been obtained from the following sources:

### **3.2.1. Historical Protected Species Data**

Records were requested from the Essex Field Club (EFC) Essex Recorders Partnership data search service. The information supplied by EFC is compiled using county records held by the County Recorders of the Essex Field Club, Butterfly Conservation, Essex Amphibian & Reptile Group, Essex Bat Group and provide information upon the records that were available at the time the search was undertaken. Therefore, a protected species records data search was undertaken for records of protected species for a minimum of 1km and a maximum of a 2km radius of the site grid reference, in addition to any other pertinent information relevant to the site.

Use of data is in accordance with CIEEM Guidelines for Accessing & Using Biodiversity Data, March 2016.

### **3.2.2. Designations**

A desktop study was undertaken through MAGIC (Multi-Agency Geographic Information System for Countryside). The search looked to identify the presence of statutory designated sites within a 5km radius (e.g. Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR).

### **3.2.3 Additional Information**

Freely available on-line mapping information and Ordnance Survey Maps were consulted as part of the background assessment.

## **3.3. Bat Survey Methodology**

The PRA was undertaken employing methods based on the guidance described in the Bat Workers' Manual, English Nature's Bat Mitigation Guidelines and updated Bat Conservation Trust Bat Surveys Guidelines for Professional Ecologists (2016).

However, the first page of all three editions includes the following: *The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.*

Surveyors are expected to make judgements in respect of methodology appropriate to the survey conditions/evidence noted, and make conclusions based upon experience.

### **3.3.1 External/Internal Inspection**

The first section of the survey involved an external inspection of the external surfaces of the buildings to identify any features that could be potentially be utilised by bats for roosting purposes. Such features may include small gaps and openings in brick work/roof structure, broken or missing tiles, or gaps in the soffits. During the external

inspection, the buildings were also examined for key indicators of bat activity, such as droppings/staining in areas such as window ledges, walls other suitable external structural features.

The second section of the survey involved an inspection of internal areas of the buildings where safe access was possible. The purpose of the inspections was to identify whether there is any evidence of bat activity/roosting. Again, indicators of evidence such as droppings, fur deposits, scratching and staining were searched for, in addition to features such as insect remains that may have been brought into a building by a bat. In addition, issues such as structural integrity of the buildings, and whether the building has structural features such as enclosed/hidden roof spaces are taken into account.

An assessment of any vegetation potentially affected by the development proposals was also undertaken where appropriate.

## 4. Results

### 4.1. Desk study Results.

#### Site Details

- The site is located at Central Grid Reference: TQ 46396 97448
- Postcode: RM4 1TX

#### **4.1.1. Magic-Statutory Designations**

The following statutory designated locations are situated within a 5km radius of the site:

- Epping Forest Special Area of Conservation (SAC) & Site of Special Scientific Interest (SSSI) – Approx. 3.5km north west.
- Roding Valley Meadows SSSI – Approx. 3.0km south west.
- Hainault Forest SSSI – Approx. 4.0km south east.
- Home Mead Local Nature Reserve (LNR) – Approx. 3.5km north west.
- Roding Valley Meadows LNR – Approx. 3.5km south west.
- Chigwell Row Wood LNR – Approx. 4.0km south.

#### Impact Assessment

Whilst it is acknowledged that there are important designations within 5km radius of the site, the site is neither situated within nor bounding a statutory designated location. The proposal relates to the replacement of an existing house/garage set entirely within the curtilage of an existing managed, maintained residential dwelling (see section 4.2). Consequently, it is not considered reasonably likely the proposal would result in any adverse direct impact upon statutory designated locations.

However, it should be noted that the site is situated within the 6.2km Zone of Influence of Epping Forest Special Area of Conservation (SAC), and as such, leisure related impacts and district wide cumulative air quality impacts upon the SAC would be addressed in accordance with published Epping Forest District Council (EFDC) guidance as part of the determination process.

Ecological enhancement recommendations for inclusion within the development have been provided in section 5.2.

#### **4.1.2. Local Wildlife Sites-Non-Statutory Designations**

Local Wildlife Sites (LWS) are used in the planning system to protect areas that have substantive nature conservation value at a local level.

The site is neither situated within, nor bounding any LWS locations. There are no LWS locations within a 2km radius of the site.

#### Impact Assessment

The site is neither situated within nor bounding a non-statutory designated location. There are no non-statutory designated locations within a 2km radius of the site. The proposal relates to the replacement of existing house situated entirely within the curtilage of an existing managed, maintained residential location (see section 4.2). Consequently, it is not considered reasonably likely the proposal would result in any adverse impact upon non-statutory designated locations.

#### **4.1.3. Biological Records**

The records have been analysed as part of the desk research and considered as part of the conclusions and subsequent recommendations of this report. A summary of records pertinent to the site is provided below:

#### Terrestrial Mammal

##### Bats

<b>Species</b>	<b>No. of Records</b>	<b>Date Range</b>	<b>Distance</b>
Serotine	1	2014	0.7km
Natterer's	1	1999	1.7km
Leisler's/lesser Noctule	1	2006	1.2km
Common pip	4	2002 – 2010	0.3 km – 2km
Brown Long Eared	1	2017	2km

##### Northern Water Vole

The search identified 2 records dating from 1998 & 2005 at a distance of approximately 1.1km – 1.5km from site.

##### Fallow Deer

The Search identified 1 record dated 2003 reported at a distance of approximately 1.5 km of site.

##### Western Hedgehog

The search identified 1 record dating from 1994 at an approximate distance of 0.3km to site.

### Grey Squirrel

The search identified 1 record from 1996 at an approximate distance of 0.5km to site.

### **Amphibian/Reptile**

No records identified.

### **Birds**

Species noted include: Sparrow hawk, Skylark, Meadow Pipit, Tree creeper, Kingfisher, Red Legged Partridge, Mallard, Mandarin Duck, Swift, Buzzard, Little Owl, Waxwing, Stock Dove, Ringed Plover, Little Owl, Lesser Redpoll, Tufted Duck, Kestrel, Pintail, Teal, Great Spotted Woodpecker, Dove, Carrion Crow, Black Headed Gull, Mute Swan, Woodpigeon and varieties of wagtail. A large variety of more commonly spotted garden birds were also noted.

## **4.2. Survey Results & Analysis**

### **4.2.1 Site & Surroundings Description & Habitats**

Little Oaks is situated approximately 0.6km to the north of Abridge.

To the north, west and south, the site is bounded by large arable, agricultural fields. Abridge Road runs alongside the eastern boundary, with further arable fields situated on the opposing side of the road.

The site is entered from the west via an entrance driveway leading to Abridge Road. The site comprises an occupied, managed, maintained residential dwelling and an associated garden.

The existing house is situated in the approximate centre north of the site, with the garage located to the south of the house. Both would be subject to demolition, with the new house constructed broadly on an identical footprint. To the east of the house and garage is the hardstanding parking and driveway, beyond which is a short mown, managed lawn. Oak and sycamore trees in addition to managed cypress and cherry laurel shrubs are situated to the east of the house within the garden.

To the west of the house and garage is a large hard standing patio, beyond which is a further managed, maintained garden lawn. The boundaries of the garden are defined by fencing and managed cypress hedge with some scattered shrub planting. No significant tree loss is anticipated given that the proposal would be situated on identical footprint to existing buildings/hardstanding areas on site.

In summary, the proposed development area comprises a managed, maintained residential dwelling and associated garage. The site is a managed, maintained occupied residential location, and the site is bounded by large arable fields and a main road. The site and surrounds are therefore subject to management and disturbance as would be reasonably expected in such a land use context.

### **4.3. Potential for Protected Species Impact with Proposals**

The site was assessed for the potential presence of protected species that may have a material impact upon the development proposals.

The ecological value of the site in respect of the potential presence of and impact upon protected species is considered further in the following sections:

#### **4.3.1. Bats & Internal/External Inspections**

All bat species are strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

The locations of buildings described are illustrated on the plan contained within Annex 3.

##### House & Garage

The house is situated in a north east to south west delineation and comprises a brick building with apex tiled roof and a gable roof end located on the north eastern elevation. The building has a sloping tiled porch on the north eastern elevation and a flat roof extension on the north western side. The upper storey of the north eastern, north western and south eastern elevations has hanging tile finish.

Externally, the building presents in a maintained condition, with the soffit forming a tight seal around the building. Upvc windows and doors are also tightly sealed against external render, which itself is consistently intact.

Roof tiles, hanging tiles and associated flashing seals were also intact, with no significant lifting or obvious opportunities for bats to utilise. Inspection of the hanging tiles identified presence of external cobwebs, indicative that bats had not been present. Additionally, no droppings were identified on the render wall ground floor sections located beneath the hanging tile elevations. Any such evidence would have been clearly visible given the light-coloured render/paint finish.

Internally, the building has an enclosed roof void, accessible by way of hatch. The void had been boarded. No evidence of bats was present.

The garage comprises a single storey block construction with render, paint and hanging tiles on the north eastern elevation to match the house. A shed with slate tiled roof adjoins the garage at the south western elevation. Externally the garage presents in identical condition to the house with intact roof and hanging tiles, without obvious opportunities nor evidence of bats. Internally, the garage has no enclosed void and the cluttered truss roof constructed of sawn timbers offers no potential as a roosting place. Similarly, the adjoining shed has tight intact tiles and no enclosed void.

In summary, no evidence of bats was identified inside or outside of the buildings, which present as sealed, maintained structures. As such, following inspection, the buildings are considered to provide a negligible level of potential roosting opportunities. Further surveys are considered to be neither necessary nor appropriate.



### Vegetation/Foraging/Commuting

No trees with bat roosting potential would be lost to the proposal.

It is possible that small numbers of bats may commute and forage along the boundaries of the site given presence of trees/managed hedgerows in the context of a garden location. However, given surrounding large arable fields, the site is relatively isolated, which may have a limiting factor to bat activity in the area.

### Impact Assessment

The buildings are, following inspection, considered to provide a negligible level of bat roosting potential. No evidence of bats was identified further surveys are neither necessary nor appropriate. No trees with roosting potential are situated on site nor would be lost to the proposal. Given the nature of the proposal in being constructed broadly on an identical footprint to the existing buildings, trees would be retained.

It is possible that small numbers of bats may commute and forage along the boundaries of the site given presence of trees/managed hedgerows in the context of a garden location. However, given surrounding large arable fields, the site is relatively isolated, which may have a limiting factor to bat activity in the area. Nonetheless, existing features will be retained, and as such, it is concluded that bat activities would be unaffected by the proposal.

As an appropriate precaution/enhancement, it is advised that a bat considerate lighting scheme be employed during the demolition, construction and completed phases. Further details have been provided in section 5.2.

In addition, integral and tree mounted bat boxes should be installed in the new building, along with new planting as applicable in the context of this scheme. Enhancement recommendations have been provided in section 5.2.

#### **4.3.2. Badgers**

Badgers and active setts are afforded protection under the Protection of Badgers Act 1992.

No evidence of badger activity including active or inactive setts, latrines or footprints was identified in the proposed development area, or wider areas bounding site. However, it is reasonably likely that the species would be present in the wider area on a transitory basis.

### Impact Assessment/Transitory Mammal

No active or inactive setts were found, with no evidence of badger activity identified in any location.

No further surveys are considered necessary or appropriate. However, general best practice precautions in respect of the demolition and construction phases have been provided in section 5.2 given the possibility of transitory presence of the species/all transitory mammal species.

#### **4.3.3. Nesting Birds**

Nesting birds and their eggs are protected under the Wildlife & Countryside Act 1981.

As general guidance prior to future works/maintenance, the bird breeding season is from March to September. If works to buildings/vegetation is proposed during the season, a check should be made for nests prior to works commencing. If nests are present, they should be left intact and undisturbed until the young have fledged.

##### Impact Assessment

Provided works are undertaken during appropriate seasonality/due diligence as recommended above, the proposals would not have any direct impact upon nesting birds.

New opportunities for nesting birds will be provided through provision of nesting boxes integrally within the fabric of the new buildings and externally mounted onto trees.

Enhancement recommendations have been included in section 5.2.

#### **4.3.4. Reptiles**

Reptiles are afforded protection under the Wildlife & Countryside Act 1981, with smooth snake and sand lizard afforded full protection under the same act and the Conservation Regulations (Habitat Regulations).

As described in section 4.1, the application area comprises buildings, hardstanding and lawn situated within a wider managed residential garden dwelling. As such, the proposed development site does not provide potentially suitable habitat for the species. Given the surrounding arable dominated land use and adjoining main road, the site does not have connectivity to habitat where colonisation of the species would be a reasonable likelihood.

##### Impact Assessment

As identified above, the proposed development area is not considered to provide potentially suitable reptile habitat. Based upon the evidence above, it is not considered reasonably likely that reptile species are present on site given lack of suitable habitat on site. Therefore, the risk of potential impact of the proposals upon the conservation status of reptile is negligible. The risk of potential impact of the proposals upon individual reptiles is also considered to be low. No further surveys are necessary in respect of reptile species.

#### **4.3.5. Great Crested Newt**

Great crested newt is strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

No ponds or water bodies are situated on site nor would be lost to the development proposal. In addition, given the mowing/management and general residential/garden land use of the site, it is unlikely to provide potential terrestrial dispersal habitat for the species.

Distance from a potentially suitable water body and intervening land use is a critical factor in determining suitability for the species. The nearest pond is situated approximately 190m to the north east of the site. However, Abridge Road is situated between the site and pond, presenting a significant barrier to potential terrestrial dispersal, which in addition to the managed condition of the site, rules out potential connectivity. No other ponds with reasonable potential for connectivity to the site were identified in the search radius. It is acknowledged that there is no way of identifying whether there are other small ponds that may be hidden within any nearby dwellings/field margins/private land or gardens and not shown on maps. None were immediately visible from site/analysis of mapping data. Identification of such ponds located on private property and not shown on maps cannot be reasonably expected as part of this survey/desk study.

Whilst it is acknowledged that small numbers of GCN have been known to range significant distances (1km) to colonise new ponds, sometimes over a number of years if connective habitat is suitable, research undertaken by English Nature<sup>1</sup> (now Natural England) indicates that it is most common to encounter them within 50m of a breeding pond, with few moving further than 100m unless significant linear features or suitable terrestrial habitat is involved, when great crested newts can be encountered at distances of between 150m – 200m. At distances greater than 200-250m great crested newts are hardly ever encountered. This valuation of habitats according to distance from great crested newt breeding ponds has also been adopted as part of Natural England's European Protected Species application form, with specific reference to the guidance provided by Natural England in WMLa14-2.

#### Impact Assessment

Based upon the evidence above, it is not considered reasonably likely that great crested newt would be affected by or at risk from the development proposals. Risk of harm to the species is not considered a reasonable likelihood. Consequently, it is considered that the risk of potential impact of the proposals upon the conservation status of great crested newt is negligible. The risk of potential impact of the proposals upon great crested newt is also negligible. No further surveys are considered necessary or appropriate in respect of this species at this site.

#### **4.3.6 Hazel Dormouse**

Hazel dormouse is strictly protected under the European Habitat Regulations and the Wildlife and Countryside Act 1981.

The does not contain, nor have connectivity to suitable habitat or locations where the species has been previously recorded.

#### Impact Assessment

It is not considered reasonably likely that a proposal of such small scale would result in adverse impact upon the species. No further surveys are considered necessary or appropriate and the proposal would not have any impact upon the species.

#### **4.3.7 Invertebrates/Plant life**

Given the existing and surrounding land uses, the site is not considered to provide habitat for protected, priority or notable species. No further surveys are considered to be necessary or appropriate.

However, in addition to tree retention, installation of new landscape planting within the future proposal would provide invertebrate habitat on the site post-development. Night scented plant species such as evening primrose, honeysuckle and jasmine would also attract moths in the evening, which would in turn attract foraging bats.

Recommended general enhancements are identified in section 5.2.

#### **4.3.8 Other Species**

The site is not situated in a location, nor provides potentially suitable habitat where other protected species such as, water vole and otter would be considered at risk. No further surveys/precautions are considered necessary or appropriate.

#### **4.3.9 General Wildlife & Biodiversity**

It is acknowledged that the wider site and development area may be utilised by a range of transitory wildlife species including deer, fox, hedgehog etc.

#### Impact Assessment

As part of appropriate due diligence, it is advised that the full range of recommendations identified in section 5.2 be fully implemented, and all reasonable enhancements incorporated into a development proposal such that biodiversity is maximised as part of the development.

In addition, to enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open as per the current situation such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

## **5. Conclusion & Recommendations**

### **5.1 Conclusion**

In summary, the proposed development area comprises a managed, maintained residential dwelling and associated garage. The site is a managed, maintained occupied residential location, and the site is bounded by large arable fields and a main road. The site and surrounds are therefore subject to management and disturbance as would be reasonably expected in such a land use context.

The designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory or non-statutory designated locations. It is not considered reasonably likely that the proposal would have any adverse impact upon statutory/non-statutory designated locations.

The buildings are, following inspection, considered to provide a negligible level of bat roosting potential. No evidence of bats was identified further surveys are neither necessary nor appropriate. No trees with roosting potential would be lost to the proposal. Given the nature of the proposal in being constructed broadly on an identical footprint to the existing buildings, trees would be retained.

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As an appropriate precaution/enhancement, it is advised that a bat considerate lighting scheme be employed during the demolition, construction and completed phases. Further details have been provided in section 5.2.

In addition, integral and tree mounted bat boxes should be installed in the new building, along with new planting as applicable in the context of this scheme. Enhancement recommendations have been provided in section 5.2.

It is not considered reasonably likely that reptile or great crested newt species would be adversely affected by the development proposals.

No active or inactive badger setts were found, with no evidence of badger activity identified. No surveys have been advised. General appropriate precautionary measures for the construction phases have been advised in section 5.2.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section 5.2 are fully adhered to. Where necessary, appropriately worded conditions should

be placed upon any consent granted in order to ensure appropriate measures are followed.

## **5.2 Recommendations and Further Action**

Following the survey, the following recommendations have been made to ensure obligations in respect of protected species are met/the site is enhanced for the benefit of biodiversity if developed. The recommendations are considered to be appropriate and in context with the size of the proposals, and based upon the findings of the impact assessment section of the report (4.3.1 – 4.3.9).

### Construction Phase & General Precautions

- To protect any radiating mammals, it is recommended that any trenches be covered over with wooden sheeting at night and fencing off the demolition/construction zone and associated compounds would be advisable during the demolition/construction phase.

### Nesting Birds

- As general guidance, the bird breeding season is from March to September. If works to buildings/vegetation are proposed during the season, a check should be made for nests prior to works commencing. If nests are present, they should be left intact and undisturbed until the young have fledged.

### Bats & Lighting

- In order to minimise risk of disturbance to potential features that may provide bat commuting and foraging habitat during the construction phase and as part of the completed development, a low impact lighting scheme is advised:
  - a) Brightness of lights should be as low as possible, and in accordance with British Standard Institute (BSI) and Bat Conservation Trust (BCT) guidance. Where possible, low pressure sodium lights are advised.
  - b) Lighting should not be directed at features that may be utilised by bats such as woodland, tree lines, hedgerows and water bodies/water courses.
  - c) Directional lighting and/or fittings with hoods and cowls should be utilised.
  - d) Where possible, security lighting should be motion sensitive and timers to minimise the amount of time that lights are on.
  - e) Where possible, directional low impact solar bollard lighting should be used to illuminate roads, paths and parking areas.

## Enhancements

- The following ecological enhancements are recommended:
  - 1 x integral bird box in the new building;
  - 1 x integral bat box in the new building;
  - 3x tree mounted bird and bat boxes on site;
  - Suggested habitat boxes/plant species are provided within Annex 4.
- To enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

# **1. Annex 1 – Legislation & Planning Policy**

## **1.1. Habitat Regulations**

The Conservation of Habitats and Species Regulations transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

## **1.2. Wildlife & Countryside Act**

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CROW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, (which includes Cirl Bunting) or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

## **1.3. Natural Environment & Rural Communities Act**

The NERC 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

## **1.4. National Planning Policy Framework (NPPF)**

The NPPF February 2019 (Paragraphs 170-183) are specific in respect of conservation and biodiversity. ODPM 06/2005 remains in place. NPPF places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications, with a focus upon sustainable development and biodiversity net-gain.

## **1.5. Biodiversity Action Plans**

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of



national priority species and habitats has been produced with all listed species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels.

### **1.6. Local Development Plans**

County, District and Local Councils have Development Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

### **1.7. Natural England Standing Advice**

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

### **1.8. Bats**

All species of bat found in the UK are protected by law and are designated as a protected species. Paragraph 98 of Circular 06/2005 states that *'the presence of a protected species is a **material consideration** when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

Bats are protected under UK legislation under The Wildlife and Countryside Act 1981 through inclusion on Schedule 5 -Protected bat species in Britain. On a European basis, bats are subject to protection under the Conservation (Natural Habitats &c.) Regulations.

The November 2017 the Conservation (Natural Habitats &c.) Regulations make it an offence to:

- Intentionally or deliberately kill, injure or capture (take) bats.
- Intentionally or recklessly damage or destroy bat roosts or disturb bats.

A bat roost is defined as 'any structure or place which is used for shelter or protection', whether or not the bats are utilising the roost at the time. European protected animal species and their breeding sites or resting places are protected by the Habitat Regulations.

In this regard, it is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their young/eggs as applicable. It is also an offence to damage or destroy a breeding or resting place of a European Protected Species and it is an offence to possess a European Protected Species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit

an offence only if he deliberately disturbs such animals in a way as to be likely to significantly affect:

- The ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or;
- The local distribution of abundance of that species.

The existing offences such as obstruction of a bat roost, low-level disturbance, and sale which cover European Protected Species under the Wildlife and Countryside Act (1981) continue to apply.

## 2. Annex 2 – Photographs



Front elevation



South eastern elevation



South western elevation



North eastern elevation





Indicative section of hanging tiles. Note absence of lift and cobwebs



Indicative section of hanging tiles. Note absence of lift and cobwebs



Seal between render wall sections and tiles.



Tight seal on house soffit



Roof void of house.



Roof void of house





Front (north eastern) garage elevation



Rear elevation & adjoining shed





Front garden and driveway



Rear Garden



Section of arable field west of site

3. Annex 3 – Habitat Plan



## **4. Annex 4 – Recommended Enhancements**

The following hedgerows/shrub and smaller tree species could be utilised accordingly:

- Hawthorn *Crataegus monogyna*
- Ash *Fraxinus excelsior*
- English Elm *Ulmus procera*
- Field Maple *Acer campestre*
- Hazel *Corylus avellana*
- Dog Rose *Rosa canina*
- Elderberry *Sambucus nigra*
- Holly *Illex aquifolium*
- Blackthorn *Prunus spinosa*
- Rowan *Sorbus aucuparia*
- Guelder Rose *Viburnum opulus*
- Silver Birch *Betula pendula*
- Alder *Alnus glutinosa*
- Cotoneaster spp.
- Spindle *Euonymus europaeus*

The following species could also be considered within the landscaping scheme as appropriate, given their wildlife friendly/native characteristics:

- *Viburnum* sp.
- Californian Lilac *Ceanothus* sp.
- Lavender *Lavandula angustifolia*
- Hebe Sp.
- Privet *Ligustrum vulgare*
- Dogwood *Cornus sanguinea*

In addition, vertical areas on sides of buildings and/or boundary fences could be utilised to provide additional habitat. Suitable species to grow on vertical habitats could include:

- Ivy *Hedera helix*
- Clematis *vitalba*
- Honeysuckle *Lonicera periclymenum*

Bulbs and small, wildlife friendly annuals and biennials can also be utilised within wildlife friendly and garden planting where considered appropriate by the landscape architect. Suitable species could include:

- *Hypericum perforatum*



- Wood Anemone *nemorosa*
- Tustan *Hypericum androsaemum*
- Foxglove *Digitalis grandiflora*
- Bluebell *Hyacinthoides non-scripta*

Dependant on soil condition, British Seed House RE1 mix (or similar product) is recommended for installation of the species rich grass areas where required. Alternatively, turf already seeded with wild flower seed could be utilised.

Recommend species are likely to include:

- Slender Creeping Red Fescue *Festuca rubra ssp litoralis*
- Crested Dogs Tail *Cynosurus cristatus*
- Common Bent *Agrostis capillaris*
- Cocksfoot *Dactylis glomerata*
- Meadow Fescue *Festuca pratensis*
- Golden Oat Grass *Trisetum Flavascence*
- Sweet Vernal Grass *Anthoxanthum odoratum*
- Ribwort Plantain *Plantago lanceolata*
- Yarrow *Achillea millefolium*
- Common Knapweed *Centaurea nigra*
- Meadow Sweet *Filipendula ulmaria*
- Lady's Bedstraw *Galium verum*
- Ox eye daisy *Leucanthemum vulgare*
- Self Heal *Prunella vulgaris*
- Meadow Buttercup *Ranunculus acris*
- Bulbous Buttercup *Ranunculus bulbosus*
- Agrimony *Agrimonia eupatorium*
- Rough Hawkbit *Leontodon hispidus*
- Yellow Rattle *Rhinanthus minor*
- Common Birdsfoot Trefoil *Lotus corniculatus*
- Salad Burnett *Sanguisorba minor*
- Harebell *Campanula rotundifolia*
- Cowslip *Primula deorum*
- Field Poppy *Papaver Rhoeas*
- Wild Thyme *Thymus Serpyllum*
- Quaking Grass *Briza Media*
- Pignut *Conopodium majus*

## **Using Seeds**

### Seed Bed Preparation

Whilst seeds can be sown at any time, the best time to prepare the meadow bed is summer. The top grass, and top inch of top soil should be removed if possible. The most important factor is to ensure that the seed bed is weed free, and level using roller/rake. Also, remove stones in areas of seedbed, Wildflower meadows from seed are most successful when soil fertility is low and weeds can be less vigorous.

### Sowing Seed

The best time to sow the seeds is in spring or early autumn. Spread seeds in a sand mix using a spreader for even distribution at a density of approx. 4 grams per sq. metre.

## **Using Plugs**

Use of wildflower plugs is generally more reliable, and gives quicker results than using seed. However, over large areas, density of plugs can be reduced, with 1 or 2 plugs per square metre. Generally, plugs can be installed at any time but spring/autumn are optimum months.

## **Using Turf Impregnated with seeds**

Use of turf less dependent on soil conditions as the seed are already in place. This enables more variety of species. However, to be successful, it should be installed in free draining areas that do not become water logged.

Wildflower Plugs and seeds are available from a number of online suppliers:

[www.wigglywigglers.co.uk](http://www.wigglywigglers.co.uk)

[www.bostonseeds.co.uk](http://www.bostonseeds.co.uk)

[www.wildflowershop.co.uk](http://www.wildflowershop.co.uk)

[www.reallywildflowers.co.uk](http://www.reallywildflowers.co.uk)

[www.wildflower.org.uk](http://www.wildflower.org.uk)

[www.meadowmania.co.uk](http://www.meadowmania.co.uk)

Sections of turf already seeded are also available from the following suppliers:

[www.meadowmat.co.uk](http://www.meadowmat.co.uk)

[www.wildflowerturf.co.uk](http://www.wildflowerturf.co.uk)

[www.wigglywigglers.co.uk](http://www.wigglywigglers.co.uk)

## Habitat Boxes.

The use of bird and bat boxes has been recommend. Suitable products include:



Standard Bird Box-Suitable for a wide variety of species.  
Can be installed in trees and buildings.



Schwegler 2F Bat box. Suitable for attachment to trees.



### **Buildings-Integral Bat Boxes**

The construction of new buildings presents the opportunity for integral bat boxes, installed during the construction phase.

Products such as the Ibstock Range ([www.ibstock.com](http://www.ibstock.com)) would be appropriate for installation in the eaves of the new dwellings, as installed as illustrated below:



*Ibstock Integral Bat Box*

### **Aftercare**

Bats are a protected species, and any object they utilise for roosting is therefore also protected. Therefore, following installation the bat boxes should not be disturbed, as disturbance may result in an offence under the Wildlife and Countryside Act (1981) and the European Habitat Regulations (2010). Bat boxes are very robust and will not require maintenance, and therefore are at their most effective if left undisturbed.

### **Buildings-Integral Bird Boxes**

Integral bird boxes could be installed on the north/east facing eaves. A system such as the Bird Brick House ([www.birdbrickhouses.co.uk](http://www.birdbrickhouses.co.uk)) as illustrated below is recommended, installed in accordance with the manufacturers specific recommendations.



*Bird Brick House System*

### **Installation**

The following should be taken into account in consideration during the installation of bird boxes suitable for a wide variety of common garden species.

- These should be placed away from cats, and at least 2m from ground level.
- These should where possible be located away from direct sunlight, ideally facing between north and east (not south), away from cats, and at 2-5m height.
- They should also be out of reach of windows when placed upon buildings.