

Preliminary Ecological Appraisal

Proposed Development at:

Grange Paddock, Ickleton Road

Elmdon, Essex

OS 2369-22-Doc 1 Rvs A

December 2022

Open Spaces
Landscape Architects
LANDSCAPE ARCHITECTURE – TREES – ECOLOGY

Preliminary Ecological Assessment

for

Proposed Development at:



Grange Paddock

Ickleton Road

Elmdon


Essex

CB11 4GR

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Date	7 th July 2022 Rvs A: 20 th December 2022	Date	7 th July 2022 Rvs A: 20 th December 2022

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EXECUTIVE SUMMARY

In summary, the site comprises horse grazing/exercise location bounding arable and residential land uses in village edge location. As such, the site and surrounds are/have been subject to management/disturbance as would be reasonably expected in such a land use context.

The desktop search identified that the site is not situated within, nor bounds a statutory or non-statutory designated location. It is concluded that proposals would not be considered likely to have any adverse impact upon statutory or non-statutory designated locations.

No trees with bat roosting potential above a 'Low' level would be lost to the proposal. Whilst no further surveys are recommended, any future tree works should be undertaken in accordance with appropriate due-diligence as identified in section 4.2.

It is possible that bats would commute and forage in the area. Therefore, it is advised that a bat considerate lighting scheme be utilised during construction and completed phases of the proposal. In addition, it is recommended that very significant additional planting be undertaken to reinforce existing boundary hedges and tree lines, replace trees lost to the proposal and plant new tree buffer zones and hedgerows where there are currently no such features. In addition to retained/replacement planting, it is advised that structurally integral bat boxes are installed on each building, with tree mounted bat boxes also installed.

Provided the above actions are undertaken to maintain and enhance existing habitats, it is not considered that bats would be adversely affected by the proposal.

Ecological enhancements are provided in section 4.2.

No evidence of active/inactive setts/badger was identified on site. However, given the constrained survey of the proposed access area in December 22 due to heavy snow cover, a precautionary re-visit has been advised.

Appropriate precautions in respect of transitory mammals have been advised for the construction phase.

The proposal would not have any adverse impact upon reptile or great crested newt. No further surveys have been advised.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 4.2 of the report. All ecological enhancements should be detailed by way of a Biodiversity Management Plan (BMP) secured by way of an appropriately worded condition.

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1.0 INTRODUCTION

1.1 Phase 1 Brief

Open Spaces Landscape & Arboricultural Consultants Ltd (**Open Spaces**) was commissioned by Rocol Estates Ltd. to undertake an ecological assessment Grange Paddock, Ickleton Road, Elmdon, Essex, CB11 4GR (Grid Ref: TL 46586 39896).

This report contains the findings of a Preliminary Ecological Assessment (**PEA**). The purpose of a PEA is to identify the potential for presence of protected species on a site, in line with UK law and the requirements of The National Planning Policy Framework (NPPF)(2021). 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.

1.2 Development Proposals & Planning Context

Proposals are for the construction of up to 18 residential dwellings. A proposal plan by BRD Tech has been viewed as part of the assessment.

Given availability of proposal plans and descriptions, it was possible to undertake an assessment of any potential impacts resultant from the proposal and recommend further works/appropriate mitigation as appropriate in section 4.2 of this report.

It should be noted that tree/group number references used within this report correspond with those used within the Open Spaces Arboricultural Report.

1.3 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 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 analysis.

This report has a maximum validity of 18 months from the date which the survey was undertaken. Beyond 18 months, it is unsuitable for use in planning and should be rejected by the Local Planning Authority.

1.4 Copyright

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2.0 METHODOLOGY

2.1 Survey Methodology

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) December 2017.

A site plan is included as Appendix 4. Photographs are included within Appendix 3.

2.1.1 Survey Details

The PEA was undertaken by Consultant Ecologist Peter Harris BSc (Hons) MCIEEM on the 15th June 2022. The weather at the time of the survey was dry, <5% cloud cover and an ambient air temperature of 21°C.

Given revisions to proposed access location, a further visit was undertaken by the same surveyor on 14th December 2022. The weather at the time of the survey was dry, 100% cloud cover and an ambient air temperature of -7°C and snow cover across the ground.

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 licensed 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**).

2.2 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:

2.2.1 Biological Records

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.

In addition, the Natural England Open Data Portal was accessed for information in respect of protected amphibian species and Great Crested Newt District Licencing Zones.

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

2.2.2 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**). A wider search radius up to 10km has also been considered where appropriate in the context of the site.

2.2.3 Additional Information

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

2.2.4 Preliminary Roost Assessment – Trees

Preliminary Roosting Assessment (PRA) from ground level was made of any trees/hedgerow where removal is required to implement the proposal, in accordance with Bat Conservation Trust Guidelines (2016), section 6.2:

A preliminary ground level roost assessment of a tree comprises a detailed inspection of the exterior of the tree from ground level to look for features that bats could use for roosting. The aim of this survey is to determine the actual or potential presence of bats and the need for further survey and/or mitigation. As part of the inspection, trees are graded in terms of their roosting suitability (High, Moderate and Low/No potential). Where suitable roosting habitat (moderate or high suitability) or evidence of bats is found during a preliminary ground level roost assessment then further surveys (such as further inspection surveys, presence/absence surveys or roost characterisation surveys are likely to be necessary if impacts on the roosting habitat or the bats using it are predicted.

If no or low suitability for bats are found then further surveys are not necessary. Where there is low suitability, precautionary measures may be appropriate during felling or pruning activities

Equipment utilised comprised close focus binoculars. No intrusive methods (i.e. Torch/Endoscope) were used nor considered appropriate in the survey. A preliminary ground level roost assessment of trees is unlikely to result in disturbance to bats unless the ecologist intends to investigate with a torch or endoscope. If disturbance to bats is a possibility, then a survey licence is required.

It should be noted that tree/group number references used within this report correspond with those within the Open Spaces Arboricultural Report.

3.0 RESULTS & ANALYSIS

3.1 Description of Site and Immediate Surrounds

The site is located in the north eastern edge of Elmdon. It is approximately 2ha in size, broadly rectangular in shape and situated in a south west to north east delineation.

To the north, the site is bounded by arable, agricultural field. Ickleton Road is situated along the southern perimeter, with dwellings situated on the opposing side of the road. Townsend Plantation and gardens/grounds of a residential dwelling are situated in the southeast/east respectively. The proposed access would enter the site from the south east through the plantation area. Farm Drive, a young tree planation shelter belt and dwellings/gardens are situated to the west.

The site is entered via an existing access road linking to Farm Drive and Ickleton Road in the south west. Within the site survey boundary, the site is primarily in use for equine grazing and exercise purposes.

The site is broadly divided in to 3 paddocks, with a smaller paddock forming the west of the site, with two roughly equal sized paddocks in the centre and east. The western paddock is separated by a young, managed hawthorn dominated hedge running north/south (Hedge H7), with the two larger paddocks separated by stock fencing. Hedge H7 (and identical H6, H8 & H9) are young and would not be classified as 'Important' under the Hedgerows Regulations 1997.

At the time of survey in June 2022, the paddocks were in use for horse grazing. They comprise short sward, grazed improved grassland. The use of the two larger paddocks appears intensive, with disturbed bare soil present as a result of poaching (overgrazing and compaction). As a result, the sward length is short, worn and even across the main body of the site, with some grass re-colonisation in bare soil patches. The smaller western paddock appears to be less intensively used.

A small wooden stable of standard type construction is situated in the north east of the site, with a small row of native planted trees situated in the centre of the eastern paddock (G22).

The northern and western boundaries of the site are defined by a young, managed hawthorn dominant hedgerows (H6, H8 & H9). As stated, a young plantation shelter belt comprising mixed species trees is situated to the west of the site boundary (P1 & P2). The southern boundary is defined by a further managed hedgerow/staggered individual trees(H10), with Townsend Plantation situated in the south east, comprising a mix of species including ash, cherry plum, oak and sycamore. The proposed access would enter through this location.

In summary, the site comprises horse grazing/exercise location bounding arable and residential land uses in village edge location. As such, the site and surrounds are/have been subject to management/disturbance as would be reasonably expected in such a land use context.

3.2 Potential for Protected Species Impact with Proposals

The site was assessed for the potential presence of protected/priority 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:

3.2.1 Bats

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

Buildings

The small wooden stable located in the north east of the site is a standard type construction building. It has no potential as a roosting place. Further surveys are neither necessary nor appropriate.

Trees/Commuting/Foraging

From analysis of the proposal available at the time of writing, tree/vegetation loss would be as follows:

T1, G1, G2, T2, T3, G6, T6, T7, T8, T9, T10, T11, T12, T13, T14, G11 (partial removal), T19, T34, G22 & H7

Ground up inspection identified that with the exception of T9 and T34, the above listed trees and hedgerow sections/groups were not considered to be of an age, size or condition that would be considered reasonably likely to provide potential roosting habitat and therefore offer 'No' roosting potential.

In respect of T9 and T34, these were considered to provide low level potential roosting opportunities and therefore are considered to provide a 'Low' level of protection. Therefore, whilst no further surveys have been recommended, in line with BCT guidelines, tree works should be undertaken in accordance with due diligence, as identified in section 4.2. Photographs are provided in Appendix 4.

As stated in section 3.0, it is not considered that the hedgerows on site would be considered as 'Important' under the 1997 Hedgerows Regulations.

It is considered reasonably likely that bats would commute and forage in the area.

Impact Assessment

No trees with bat roosting potential above a 'Low' level would be lost to the proposal. Whilst no further surveys are recommended, any future tree works should be undertaken in accordance with appropriate due-diligence as identified in section 4.2.

It is possible that bats would commute and forage in the area. Therefore, it is advised that a bat considerate lighting scheme be utilised during construction and completed phases of the proposal. In addition, it is recommended that very significant additional planting be undertaken to reinforce existing boundary hedges and tree lines, replace trees lost to the proposal and plant new tree buffer zones and hedgerows where there are currently no such features. In addition to retained/replacement planting, it is advised that structurally integral bat boxes are installed on each building, with tree mounted bat boxes also installed.

Provided the above actions are undertaken to maintain and enhance existing habitats, it is not considered that bats would be adversely affected by the proposal.

Ecological enhancements are provided in section 4.2.

3.2.2 Badgers/Transitory Mammal

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

No evidence of any badger activity (active or inactive setts, droppings or latrines) was identified during the survey of the proposed development site/surroundings (accessible areas within a 30m radius) in June 2022.

An inspection of the proposed access route to the south east was undertaken in December 2022. Whilst no evidence was identified, it should be noted that the survey was partially constrained by the presence of snow obscuring the ground.

A transitory presence is considered possible in such a location in addition to other transitory species such as brown hare, fox, deer and hedgehog.

Impact Assessment

No evidence of active/inactive setts/badger was identified on site. Based on what could be viewed at the time of June 22 and December 22 surveys, the proposed development of the site is not considered likely to have potential impact upon badger setts (active or inactive) given lack of any evidence on site. However, as stated, given the constrained survey of the proposed access area in December 22 due to snow, a re-visit should be undertaken and an addendum letter produced to inform accordingly.

Given the possibility of a transitory presence of badger and other transitory mammals, appropriate general guidance in respect of the construction phase is provided in section 4.2.

To enable wildlife to use the development area post development, it is advised that garden boundaries remain relatively open such that all 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.

3.2.3 Nesting Birds

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

Given the intense grazing/exercise across the site, the main body of the site is of negligible potential value for nesting. Boundary trees/hedgerows will present some potential for nesting opportunities.

As part of general best practice guidance, activities such as tree maintenance works/clearance should be avoided during the bird breeding season if possible. If this is not possible a precautionary search should be undertaken to confirm presence/absence of nesting prior to works being undertaken.

Impact Assessment

Any works to vegetation/demolition should ideally be avoided during the bird breeding season which is from March to September if possible. If this is not possible, a search should be undertaken to confirm presence/absence of nesting prior to works being undertaken.

In addition to the scope of proposed/recommended tree retention and replacement/new planting, to enhance the nesting resource on site, it is recommended that new opportunities for nesting birds be provided through provision of nesting boxes on/within new buildings (integral). Recommendations have been provided in section 4.2

3.2.4 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 within section 4.1 the main body of the development site comprises large expanses of used grazing/exercise paddock. Given the land uses and associated condition, the site does not provide potentially suitable habitat. It is not considered reasonably likely that reptile species would be present, nor adversely affected by development proposals.

Impact Assessment

Based upon the evidence above, it is not considered reasonably likely that reptile species are present on site given low potential suitability of habitat across most of the site, existing land uses and lack of connectivity to potentially suitable offsite habitat. 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 negligible. No further surveys are necessary in respect of reptile species.

3.2.5 Great Crested Newt

Great crested newt is strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (European Habitat Regulations). The site is not situated within a Natural England District Level Licencing (DLL) Amber Zone.

No ponds or waterbodies are situated within the proposed development area, nor would be affected by the proposal. Given the condition of the site at the time of survey as described, the site neither contains nor is likely to form part of a wider terrestrial dispersal habitat.

Distance from a potentially suitable water body and intervening land use is a critical factor in determining suitability for the species. As such, a search using mapping data was undertaken to identify ponds within a 250m radius. The nearest pond is situated approximately 200m to the north west within a private dwelling. As such, no inspection could be made. However, given intervening land uses/management in addition to condition of the site as described, ecological connectivity is not considered a reasonable likelihood.

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 Nature¹ (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.

It is acknowledged that there is no way of identifying whether there are small ponds that may be hidden within any nearby field margins/private gardens. None were immediately visible from site/analysis of mapping data. Identification of such ponds located on private property cannot be reasonably expected as part of this survey/desk study.

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.

3.2.6 Hazel Dormouse

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

The site does not have connectivity to locations where the species has been previously recorded.

Impact Assessment

No further surveys are considered necessary or appropriate and the proposal would not have any impact upon the species.

3.2.7 Invertebrates/Plant-life

Given existing the existing condition/land use of the site in addition to surrounding land uses, the site is considered unlikely to be of invertebrate or plant life interest. Furthermore, the presence of notable or rare species is also unlikely.

Impact Assessment

Taking into account the above, no further consideration in respect of invertebrates is considered necessary nor appropriate. Along with retention of existing tree features as previously described, it is considered that the site could be significantly improved for invertebrates through provision of appropriate planting and where appropriate within the context of the proposal.

The inclusion of nectar rich plants in the landscaping design, coupled with the installation of 'insect hotels/bugs boxes,' would provide good 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.

All ecological enhancements should be detailed by way of a Biodiversity Management Plan (BMP) secured by way of an appropriately worded condition.

3.2.9 Priority Species & Wider Biodiversity

It is acknowledged that the wider site and development area may be utilised by a range of wildlife species.

Impact Assessment

As part of appropriate due diligence, it is advised that the full range of recommendations identified in section 4.2 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 use the development area post development, it is advised that garden boundaries remain relatively open such that all 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.

All ecological enhancements should be detailed by way of a Biodiversity Management Plan (BMP) secured by way of an appropriately worded condition.

3.3 Desk study Results

Record searches are by no means exhaustive, and certain species including reptiles and great crested newt are under recorded nationally. In addition, many of the records can be considered too old or may be unverified. However, the records provide an indication of the species of note historically found within the search radius.

3.3.1 Biological Records

The full 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 is provided below:

Terrestrial Mammal

Bats

Name	No.	Distance (closest)	Year
Common Pip	13	0.4km	2009 - 2017
Soprano Pip	5	0.4km	2014 – 2015
Pipistrelle sp.	6	0.2km	2012-2015
Serotine	3	0.2km	2007 - 2016
Brn Long eared	15	0.4km	2008 - 2015
W. Barbastelle	2	0.5km	2014-2015
Noctule	1	0.3km	2012

Badger

No records were identified within the search radius.

Hazel Dormouse

No records were identified within the search radius.

Amphibian/Reptile

Warty Newt/Great Crested Newt

The search identified 2 records dated from 2005, recorded approximately 0.6km from site.

Reptile

No records were identified within the search radius.

3.3.2 Designations

Designations-Statutory

The site is not situated within nor bounding any statutory designated locations. There are no statutory designated locations situated within a 5km radius of the site.

Impact Assessment

It is not considered reasonably likely that the proposal would result in adverse impacts upon statutory designated locations.

Designations-Non-Statutory

Non-statutory Local Wildlife Site (LoWS) designations are used in the planning system to protect areas that have substantive nature conservation value at a local level.

The site is not situated within a nor bounding a LoWS location. There are no such designations within a 500m radius of the site.

Impact Assessment

The site is not situated within, nor bounding any non-statutory designated locations. It is not considered reasonably likely that the proposal would have any adverse impact upon offsite non-statutory designated locations.

4.0 CONCLUSION & RECOMMENDATIONS

4.1 Conclusion

In summary, the site comprises horse grazing/exercise location bounding arable and residential land uses in village edge location. As such, the site and surrounds are/have been subject to management/disturbance as would be reasonably expected in such a land use context.

The desktop search identified that the site is not situated within, nor bounds a statutory or non-statutory designated location. It is concluded that proposals would not be considered likely to have any adverse impact upon statutory or non-statutory designated locations.

No trees with bat roosting potential above a 'Low' level would be lost to the proposal. Whilst no further surveys are recommended, any future tree works should be undertaken in accordance with appropriate due-diligence as identified in section 4.2.

It is possible that bats would commute and forage in the area. Therefore, it is advised that a bat considerate lighting scheme be utilised during construction and completed phases of the proposal. In addition, it is recommended that very significant additional planting be undertaken to reinforce existing boundary hedges and tree lines, replace trees lost to the proposal and plant new tree buffer zones and hedgerows where there are currently no such features. In addition to retained/replacement planting, it is advised that structurally integral bat boxes are installed on each building, with tree mounted bat boxes also installed.

Provided the above actions are undertaken to maintain and enhance existing habitats, it is not considered that bats would be adversely affected by the proposal.

Ecological enhancements are provided in section 4.2.

No evidence of active/inactive setts/badger was identified on site. However, given the constrained survey of the proposed access area in December 22 due to heavy snow cover, a precautionary re-visit has been advised.

Appropriate precautions in respect of transitory mammals have been advised for the construction phase.

The proposal would not have any adverse impact upon reptile or great crested newt. No further surveys have been advised.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 4.2 of the report. All ecological enhancements should be detailed by way of a Biodiversity Management Plan (BMP) secured by way of an appropriately worded condition.

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 4.2 are fully adhered to. Where necessary, appropriately worded conditions should be placed upon any consent granted in order to ensure appropriate measures are followed.

4.2 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 (3.2.1 – 3.2.8).

Badger & Proposed Access Route

- No evidence of active/inactive setts/badger was identified on site. However, given the constrained survey of the proposed access area in December 22 due to snow cover, a re-visit should be undertaken prior to any works commencing, and addendum letter produced to inform accordingly.

Construction Phase & Precautions

- Prior to any tree works being undertaken, tree workers should be made aware of the protection afforded to bats. Should evidence of bats be suspected/identified during tree works, works should cease immediately and an ecologist contacted to advise upon appropriate course of action/surveys as may be necessary.
- 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.
- Service pipes stored on site will be checked for sheltering mammals prior to installation.
- Given the location, there is a small risk of presence of hares on site and surrounding areas. As such, the methods outlined in point 1 would present sufficient reasonable precaution to reduce risk to the species. However, given the highly transient nature of this species (and in particular, young leverets) during the works (installation/storage and maintenance) a precautionary approach should be taken with regards this priority species. Should an individual be identified, works should cease immediately, and the animal permitted to safely disperse away from the works area.

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 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.

Nesting Birds

- As a general point, it should be noted that the main bird breeding season is between the months of March to September inclusive. Vegetation clearance/tree operations should ideally be avoided during the bird breeding season if possible. If this is not possible a search should be undertaken to confirm presence/absence of nesting prior to works being undertaken.

Enhancements

- The following ecological enhancements will be provided within the development as a minimum:
 - 1 integral bird per box dwelling;
 - 1 integral bat box per dwelling;
 - Installation of 6 tree mounted bat boxes;
 - Installation of 6 tree mounted bird boxes;
 - Installation of 1 x invertebrate box per dwelling;
 - New and replacement tree and hedgerow planting as appropriate;
 - Creation of long grass meadow areas;
 - Production of site-specific Biodiversity Management Plan (BMP);
 - Low impact lighting solution - no lighting of boundary tree lines; and
 - Inclusion of native/wildlife friendly planting in landscape scheme.
- It is advised that garden boundaries remain relatively open such that all 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.

Appendix 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 July 2021 is 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.

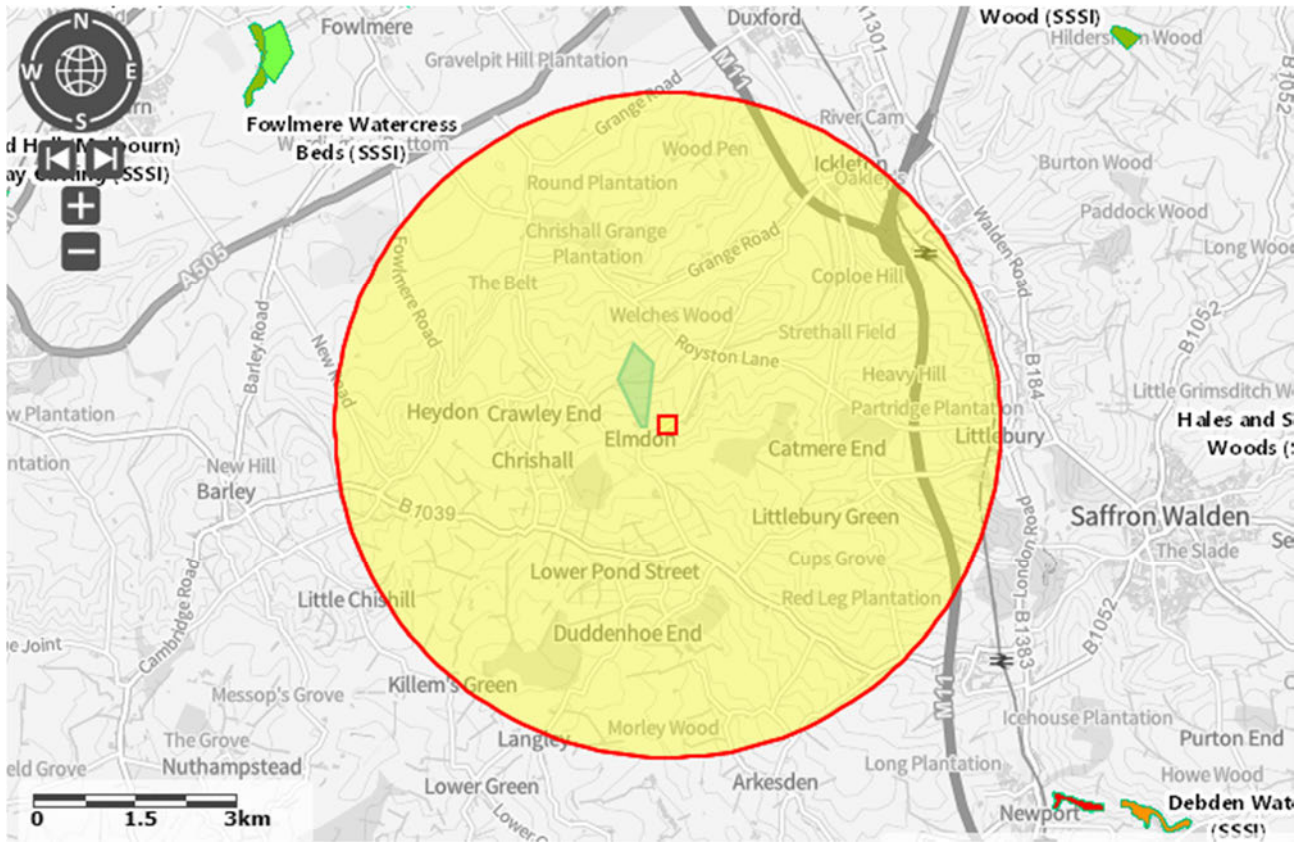
1.6 Local Development Plans

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.

Appendix 2 – Desk Study Maps



Appendix 3 – Photographs

June 2022



Western boundary looking south



Western boundary looking north



Southern boundary looking east



Western paddock looking north east



Central paddock looking north



Central Paddock looking north east



Southern boundary hedge looking east



Eastern paddock looking north



Wooden stable in north east of site



Hedge along northern boundary



Eastern boundary with Townsend Plantation looking south



View across site looking west



Small trees in the eastern paddock to be removed (G22)



Managed hedge situated between western and central paddock to be removed (H7)



Southern extent of plantation located to west of site



Entrance into site from Lodge Lane



Entrance into site from Ickleton Road



Arable field bounding site to north

Dec 22



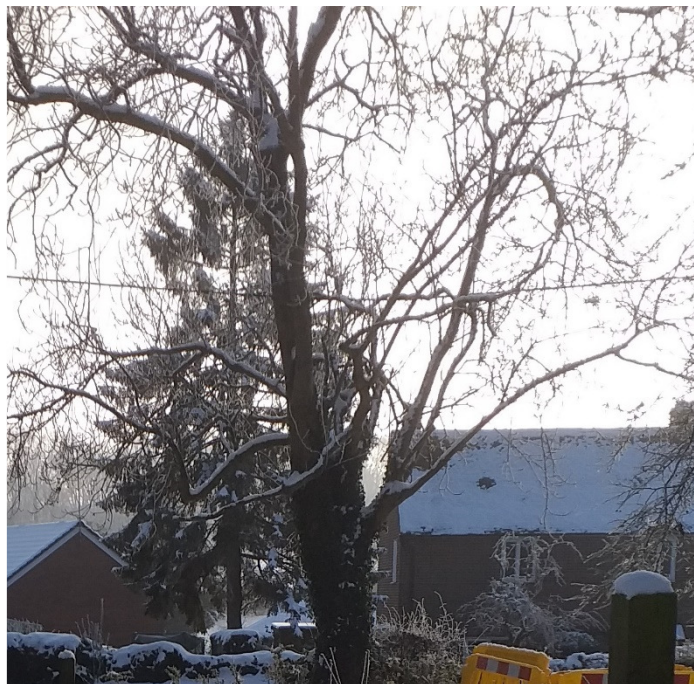
Proposed access route looking south



Proposed access route looking north west, and trees to be removed to implement



Tree T9 – Low Bat Roosting Potential

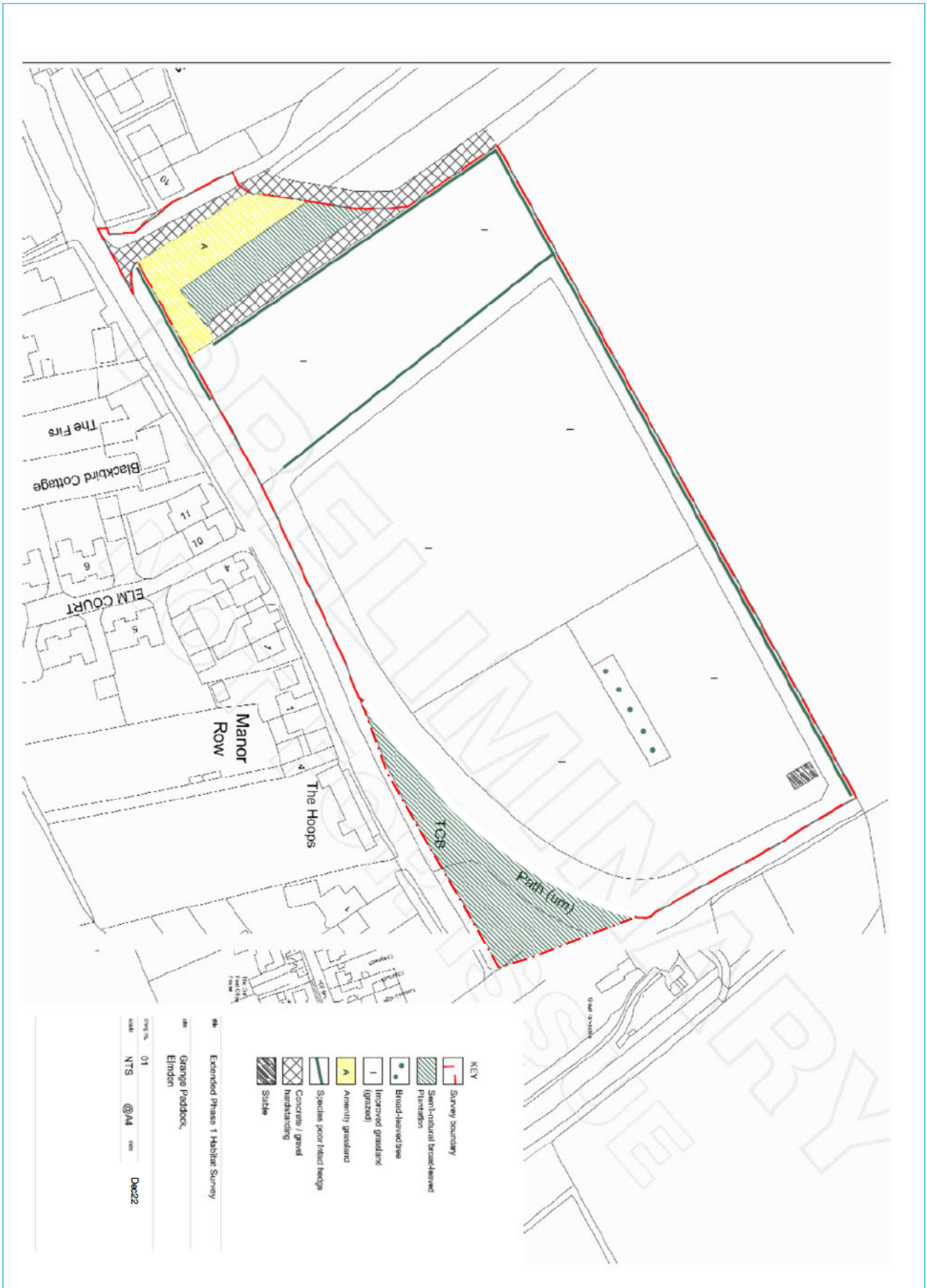


T34 – Low Bat Roosting Potential



Main body of site looking north west

Appendix 4 - Habitat Plan



Appendix 5 - Enhancement Recommendations

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.*
- Lavander *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 *vetalba*
- 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 Rhoeads*
- Wild Thyme *Thymus Serpyllum*
- Quaking Grass *Brizia 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:

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

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Habitat Boxes.

The use of bird and bat boxes has been recommended. 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.



Terracotta swallow nesting bowl – RSPB Shop