



ROAVR | GROUP

Project: 25_PEA_BNG_03_58
Site: Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ
Client: Sam Shepphard



[Supplementary Document - Survey Methodology PRA.](#)

[Supplementary Document - Potential Roosting Features.](#)

Project Number:	25_PEA_BNG_03_58
Report Type:	Preliminary Ecological Appraisal Report (PEAR)
Site Address:	Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ

Role:	Name:	Date:
Instructing Party	Aidan Crawshaw	N/A
Customer	Sam Sheppard	N/A
Surveyor	Max Shaw	03/04/25
Consultant	Gwennan Butler	27/03/25

Revision History		
Date:	Version number:	Summary of changes:
24/04/25	1.0	First Review (Internal)
24/04/25	1.0	First Issue
31/10/25	2.0	Second Issue - Updated BNG section and metric
13/11/25	3.0	Third Issue - Updated BNG section and metric after further consultation with client

Summary:	
Report Number	25_PEA_BNG_03_58
Site Surveyed	Land at Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ National Grid Reference: TL 2629 4255
Purpose & Brief	Preliminary ecological appraisal commissioned by Aidan Crawshaw
Development Proposals	The proposed development involves the demolition and conversion of a series of existing agricultural buildings to facilitate the construction of eight residential dwellings. This will include the retention of some structural elements where feasible, with associated landscaping and access improvements incorporated into the site design.
Methods	Desk Study UK Habitat Classification (UKHab) survey of the site. Assessment of likely significant effects as far as can be reasonably and proportionally known
Confirmed Ecological Constraints	Badger Sett Barn Owl
Potential Ecological Constraints	Roosting bats Nesting birds
Recommendations For Further Survey Works	Bat presence / absence surveys Pre-works nesting bird check Production of wildlife sensitive lighting scheme
Opportunities For Ecological Enhancements	Bat boxes Bird boxes Native species planting

With the assumption that the existing conditions on-site remain unchanged. The results of this report are likely to remain valid for 12-months inline with the guidance published by CIEEM and the Bat Conservation Trust.

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Appendix 1: Site Location and Assessment Boundary

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Acknowledgements:

Data referred to within this report was sourced from Natural England Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) database and through direct consultation with Herts Environmental Records Centre (HERC).

Client Documents:

This report has been completed on the assumption that the plans provided by the client at the time of issue of this report remain the same. A list of the documents provided by the client can be found in the table below.

Table: Documents provided by the client as of February 2025

Plans provided by the client as of 13/02/25
164 OS 00 LOCATION PLAN.pdf
164 PP ALL AS PROPOSED.pdf
164 INFO ALL VISUALISATIONS.pdf

1 Introduction

- 1.1 ROAVR Group were commissioned to undertake a Preliminary Ecological Appraisal Report (PEAR) at Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ.
- 1.2 The survey was comprised of a desktop study, which was undertaken in March 2025 and a site survey, which was carried out by Max Shaw on the 3rd April 2025.
- 1.3 The methodology and results are outlined within the report. Where applicable, recommendations for suitable mitigation and ecological enhancements are provided.
- 1.4 The report is to be submitted to support a planning application. Full details of the proposals can be found on the planning portal.
- 1.5 The information and recommendations within this report have been prepared and provided in accordance with CIEEM's Code of Professional Conduct (CIEEM, 2022).

SITE DESCRIPTION

- 1.6 The survey site covers an area of approximately 0.56 hectares and is centred on grid reference 'TL 2629 4255'.
- 1.7 The site is situated in a rural area in the North Hertfordshire District Council control area. The site is located to the west of Steeple Morden and is accessed off of Northfield Road.
- 1.8 The site is located at Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ, and comprises a cluster of former agricultural buildings set within a predominantly hardstanding curtilage. The principal structures include Building 1 (B1), a large, N-shaped brick-built barn with a degrading corrugated iron roof and open plan interior, and Building 2 (B2), a concrete and iron-clad structure situated to the east of the plot, noted to be in significant disrepair with multiple openings. Both buildings exhibit structural deterioration and are accessible to local wildlife, providing potential roosting and nesting opportunities for protected species, as evidenced by the confirmed presence of a nesting barn owl (*Tyto alba*) within the northwestern corner of B1 (TN1).

The remainder of the site is largely dominated by sealed surfaces, comprised of extensive areas of concrete and bare ground associated with previous agricultural use. Pockets of other neutral grassland are present at the northern and eastern margins, although these were identified as being in poor condition (Habitat Condition Score 2/5). Heavy vehicle access has

created additional areas of compacted bare ground in the north-eastern corner (Condition Score 1/3). A single-storey brick outbuilding (B4), almost entirely covered by mature grapevine vegetation (*Vitis vinifera*), is also present, along with B3, a long, low-profile brick and iron building with slate roof tiles, many of which are missing or slipped. The surrounding landscape includes nearby woodland to the east, which supports an active badger sett (TN2), and a wider rural setting typical of arable Hertfordshire countryside.

DEVELOPMENT PROPOSALS

- 1.9 The proposed development involves the demolition and conversion of a series of existing agricultural buildings to facilitate the construction of eight residential dwellings. This will include the retention of some structural elements where feasible, with associated landscaping and access improvements incorporated into the site design.

SCOPE OF WORKS

- 1.10 The aims of this assessment were to:
- identify the likely ecological constraints associated with the proposed development;
 - identify suitable mitigation measures (if required);
 - determine whether further surveys are necessary;
 - identify opportunities for ecological enhancement;

2 Methodology

DESKTOP STUDY

- 2.1 Site-specific information in relation to land designations, protected species and protected habitats within a 2km search area was sourced from DEFRA MAGIC.
- 2.2 In order to ensure that ecological data searches were up to date, species data was screened and all data records pre-2012 was omitted from the results.
- 2.3 Results of the desktop study should be considered to be indicative only.

UKHAB SURVEY

- 2.4 A Preliminary Ecological Appraisal, comprised of a site walkover and mapping was undertaken by Max Shaw on 03/04/2025. The PEA was undertaken in line with CIEEM's 'Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017)'. Max Shaw has been completing preliminary ecological appraisals for over five years and regularly undertakes surveys of this scale. They have received professional training in all aspects covered in this report.

2.5 The survey was conducted from the ground. Habitats and features of importance were mapped using a GPS enabled handset.

2.6 A Site Habitat Map was produced in accordance with the UK Habitat Classification Manual (Butcher et al., 2020). (Appendix 3).

PRELIMINARY BAT ROOST ASSESSMENT (PRA)

2.7 A Preliminary Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken during the site survey on 03/04/2025. The PRA was undertaken in line with the Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

2.8 The survey included an active search for evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.10.1. PRFs of built structures are listed in Table 2.8.1. The lists are not exhaustive but show examples of the most commonly used roosting features of built structures and trees.

Table 2.8.1: Potential roosting features (PRFs) in built structures listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

Potential roosting features (PRFs) in built structures	
External	Internal
- Access/egress through windowsills, window panes and walls; - Behind peeling paintwork or lifted rendering; - Behind hanging tiles; - Weatherboarding; - Eaves; - Soffit boxes; - Fascias; - Lead flashing; - Gaps under felt (even including those of flats roofs); - Under tiles/slates; - Existing bat boxes; - Gaps in brickwork or stonework which provide access/egress to cavity or rubble-filled walls	- Behind wooden panelling; - In lintels above doors and windows; - Behind window shutters and curtains; - Behind pictures, posters, furniture, peeling paintwork, peeling wallpaper, lifted plaster and boarded windows; - Inside cupboards and in chimneys accessible from fireplaces; - Within attic roof voids; - The top of gable end or dividing walls; - The top of chimney breasts; - Ridge and hip beams and other roof beams; - Mortise and tenon joints; - All beams; - The junction of roof timbers, especially where ridge and hip beams meet; - Behind purlins; - Between tiles and the roof lining; - Under flat felt roofs

GROUND LEVEL TREE ASSESSMENT (GLTA)

- 2.9 A Preliminary Bat Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken by Max Shaw during the site survey on 03/04/2025. The GLTA was undertaken in line with the Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).
- 2.10 The survey included an active search for evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.10.1. The lists are not exhaustive but show examples of the most commonly used roosting features of trees.

Table 2.10.1: Potential roosting features (PRFs) in trees listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) Table 6.6.

Table 2.10.1. PRF types that can be exploited by bats and how they form (adapted from Bat Roosts in Trees, BTHK, 2018) reproduced from Table 6.6. (Collins, 2023.)		
PRFs formed by disease and decay	PRFs formed by damage	PRFs formed by association
• Woodpecker holes • Squirrel holes • Knot holes • Pruning cuts • Tear outs • Wounds • Cankers • Compression forks • Butt rots	• Lighting strikes • Hazard beams • Subsidence • Cracks • Shearing cracks • Transverse snaps • Welds • Lifting bark • Desiccation • Fissures • Frost cracks	• Fluting • Ivy

Table 2.10.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.reproduced from Table 6.6. (Collins, 2023.)	
Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

- 2.11 A Site PRF Map was produced to show the location of built structures, trees and potential roosting features (PRFs). Habitats and features of importance were mapped using a GPS enabled handset.

SUITABILITY ASSESSMENT

- 2.12 The likelihood of occurrence of protected ecological features and species was ranked in accordance with the criteria listed in Tables 2.12.1 and 2.12.2. Likelihood of occurrence was assessed using data collected during the desk study and after evaluation of the habitats on-site (during the site survey) as to their likelihood to provide suitability for protected species (i.e. presence of breeding, nesting, roosting, foraging, commuting and/or refuge habitat for example).

Table 2.12.1: Criteria used to assess the likelihood of occurrence for protected ecological features and species on-site (excl. bats).

Likelihood of occurrence	Criteria
Present	Confirmed as present during the site survey or by confirmed historical records.
High	Species are known to be present within close proximity to the site (records present). Habitats on-site are of high quality for the species and/or likely to support a large population. The site is well connected to good quality habitat within the local area.
Moderate	Species are known to be present within the local area (records present). Habitats on-site are of moderate quality for the species and/or likely to support a moderate population. The site and connected habitats provide all of the ecological requirements of the species. Suitability of habitats on-site may be limited due to disconnectivity to the wider landscape, poor to moderate habitat available within the wider locality, and/or due to the presence of only a small area of suitable habitat.
Low	Few or no records of the species within the local area. Habitats on-site are of poor quality for the species and/or likely to support just a few individuals. The suitability of habitats may be limited due to disturbance, isolation and/or poor quality habitat available within the wider locality. However, species presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats (if all required ecological requirements for the species are present).
Negligible	While presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species. Connected habitats do not fulfil the ecological requirements of the species. There are no local records and/or the site is outside the known national range of the species.

Table 2.12.2: Criteria used to assess the likelihood of occurrence (site's suitability) for bats, from Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) (Table 4.1.)

Potential suitability	Description	
	Roosting bats	Potential flight-paths and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e a complete absence of crevices / suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available for foraging bats).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats but isolated (i.e. not very well connected to the surrounding landscape by other habitat). Suitable, but isolated habitat that could be used by small numbers of bats for foraging such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, appropriate conditions and/or suitable surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - with respect to roost type only).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees or linked back gardens. Habitat that is connected to the wider landscape that could be used for bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation sites.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats. Site is close to and connected to known roosts.

ECOLOGICAL CONSTRAINTS AND MITIGATION

- 2.13 An evaluation of the potential ecological constraints to the proposed development and appropriate mitigation strategies was made following CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).

LIMITATIONS

- 2.14 Only one site visit was undertaken, therefore, a full evaluation of species present throughout the year could not be made. Therefore, there were seasonal constraints to species identification. However, the data collected during the site survey was sufficient to make an appropriate assessment of the site.
- 2.15 The site maps shown in Appendix 3 were produced from an Ordnance Survey Tile purchased from our mapping supplier. A site walkover with a GPS enabled handset was used to inform the location and extent of existing habitats shown on the appended mapping and is as accurate as possible but some error must be allowed for without a full topographical survey.

3 Policy and Legislative Context

- 3.1 This section includes the legislative context of those protected species or other notable species that are recorded on-site, or have the potential to be present on-site. Details on specific legislation for other protected or notable species that have not been identified as being present, or having the potential to be present, are not included below.

NATIONAL PLANNING POLICY

- 3.2 The introduction of the National Planning Policy Framework (NPPF) in March 2012 sets out the Government's planning policies for England and how these are expected to be applied in the presumption in favour of sustainable development. It sets out the Government's requirements for the planning system, only to the extent that it is relevant, proportionate and necessary to do so and is a material consideration for local planning authorities in determining applications.
- 3.3 Planning Practise Guidance is relevant covering the Natural Environment alongside the NPPF. Therefore features of ecological value should be considered in the context of conserving and enhancing the natural environment.
- 3.4 The Government's objectives for planning are to promote sustainable development, to conserve, enhance and restore the diversity of England's wildlife and geology and to contribute to rural renewal and urban renaissance.

LOCAL PLANNING POLICY

- 3.5 This report has been commissioned in order to comply with the North Hertfordshire Local Plan 2011-2031 and the policies SP11 'Natural Resources and Sustainability' and SP12 'Green Infrastructure, Landscape and Biodiversity'.

<https://www.north-herts.gov.uk/north-herts-local-plan-2011-2031>

NATIONAL AND INTERNATIONAL LEGISLATION

- 3.6 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1982)
- 3.7 Convention on the Conservation of Migratory Species of Wild Animals (1983)
- 3.8 Countryside and Rights of Way Act (2000)
- 3.9 National Parks and Access to the Countryside Act (1949)
- 3.10 Natural Environment and Rural Communities Act (2006)
- 3.11 Protection of Badgers Act (1992)
- 3.12 The Conservation of Habitats and Species Regulations (2017)
- 3.13 The Convention of International Trade in Endangered Species of Wild Fauna and Flora (1975)
- 3.14 The Hedgerows Regulations (1997)
- 3.15 UK Biodiversity Action Plan (1994)
- 3.16 Wildlife and Countryside Act (1981)
- 3.17 Wild Mammals (Protection) Act (1996)

4 Desktop Study

SITE DESIGNATIONS

- 4.1 There are no designated sites within the 2km search area. This site falls within an SSSI Impact Risk Zone.

No local wildlife sites are recorded within a 2km radius of the survey site.

LOCAL HABITAT

- 4.2 There were more than ten priority habitats that were formerly mapped within the 2km search area.

Table 4.2.1: Priority habitats formerly mapped within a 2km radius of the survey site.

Habitat	Approx. Closest Distance from Site (km)
Priority Habitat Inventory - Deciduous Woodland (England)	0.8 km NW
Priority Habitat Inventory - Deciduous Woodland (England)	1.1 km SW

*Data from DEFRA MAGIC

- 4.3 There were no standing water bodies situated within a 500m radius of the survey site.

HISTORICAL SPECIES RECORDS

- 4.4 Protected species records relating to the site and 2km search area were obtained from the LERC as part of the desktop study. The data search contains confidential information that is not suitable for public release. Therefore, the data has not been included in the report.
- 4.5 A full list of identified species recorded within the 2km search area can be requested from LERC.
- 4.6 The absence of identified records does not discount the presence of a species. An absence of identified records is primarily a result of a lack of survey or the non-submission of records. Furthermore, historical records of species do not confirm their current presence within an area.
- 4.7 There were 25 records of water vole (*Arvicola amphibius*) and one record of otter (*Lutra lutra*) recorded within 2km of the site. No records of other aquatic species including white-clawed crayfish (*Austropotamobius pallipes*) were found.

- 4.8 The search found 3 records of bats within 2km of the site, including Pipistrelle (*Pipistrellus* spp.). A search of DEFRA MAGIC showed no previous protected species licences for bats within 2km of the site.
- 4.9 The data search found five records of badger (*Meles meles*) and two records hedgehog (*Erinaceus europaeus*) were found within 2km of the site. There was no records of Hazel dormouse (*Muscardinus avellanarius*) within 2km of the site.
- 4.10 There is one record of grass snake (*Natrix helvetica*) within a 2km radius of the site. No other reptile species have been recorded.
- 4.11 There was one record of common toad (*Bufo bufo*) within 2km of the site. No other records of amphibians were found within 2km of the site. A search of DEFRA MAGIC showed no previous protected species licences for great crested newts within 2km of the site.

5 Site Survey

5.1 The site survey was undertaken on 03/04/2025. The weather conditions were considered to be appropriate to survey (Table 5.1.1).

Table 5.1.1: Weather conditions at the time of survey.

Date of site survey: 03/04/2025	
Weather Conditions:	Weather conditions during the survey were recorded as 14°C with a moderate easterly breeze. The day was sunny with no precipitation.

*Data from BBC Weather.

UK HABITAT SURVEY

5.2 Site and building description:

The site is located at Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ, and comprises a cluster of former agricultural buildings set within a predominantly hardstanding curtilage. The principal structures include Building 1 (B1), a large, N-shaped brick-built barn with a degrading corrugated iron roof and open plan interior, and Building 2 (B2), a concrete and iron-clad structure situated to the east of the plot, noted to be in significant disrepair with multiple openings. Both buildings exhibit structural deterioration and are accessible to local wildlife, providing potential roosting and nesting opportunities for protected species, as evidenced by the confirmed presence of a nesting barn owl (*Tyto alba*) within the northwestern corner of B1 (TN1).

The remainder of the site is largely dominated by sealed surfaces, comprised of extensive areas of concrete and bare ground associated with previous agricultural use. Pockets of other neutral grassland are present at the northern and eastern margins, although these were identified as being in poor condition (Habitat Condition Score 2/5). Heavy vehicle access has created additional areas of compacted bare ground in the north-eastern corner (Condition Score 1/3). A single-storey brick outbuilding (B4), almost entirely covered by mature grapevine vegetation (*Vitis vinifera*), is also present, along with B3, a long, low-profile brick and iron building with slate roof tiles, many of which are missing or slipped. The surrounding landscape includes nearby woodland to the east, which supports an active badger sett (TN2), and a wider rural setting typical of arable Hertfordshire countryside.

The northern elevation of Building 1 (B1) consists of aged red brickwork with multiple structural gaps and minor wall cavities, indicative of weathering and degradation over time. The elevation is largely open-fronted, providing easy access for avifauna and potential roosting bats. Vegetation is sparse against this elevation, but the availability of crevices and ledges offers suitable nesting opportunities for species such as barn owl (*Tyto alba*), which has been confirmed actively nesting in the northwest corner (TN1). Supporting imagery clearly illustrates these access points and open loft design, both of which enhance the building's ecological value as a nesting and roosting site.

The eastern elevation is notably exposed and heavily degraded, featuring a combination of large open access points, partially collapsed brickwork, and broken structural panels. These gaps provide flight access for birds and bat species, with the open interiors potentially functioning as night roosts. Its orientation also offers some protection from prevailing westerly weather, further increasing its suitability for barn owl and other commensal species. The photos provided demonstrate substantial

access opportunities and the extent of disrepair conducive to faunal activity.

The southern elevation of B1 is broadly enclosed but retains openings under the eaves and between brick courses, particularly where mortar has deteriorated. Although it offers fewer expansive entry points, these smaller voids retain potential for roosting by crevice-dwelling bats such as common pipistrelle (*Pipistrellus pipistrellus*). No direct evidence was observed during the survey, but the structural conditions suggest suitable habitat may be present and merits further targeted bat emergence work should works proceed.

The western elevation contains the main access points into the structure and, like the northern face, is partially open-sided with substantive structural degradation. High levels of light and human disturbance may reduce the likelihood of species occupancy along this elevation, though upper wall cavities and internal timber beams could still offer some potential roost or nest features. Photos clearly capture the light-permeable nature of this side of the building, along with structural faults beneficial to certain protected species.

The roof of B1 is composed of corrugated iron sheets, many of which are rusted or missing, resulting in a patchwork of roof openings. No intact loft void was noted, and the internal space is open-plan with a high, exposed roof structure. This design limits the loft-roost potential for bats but maximises suitability for species such as barn owls, which prefer open, undisturbed interior voids. The confirmed nesting owl suggests the internal structure is already functionally important for this Schedule 1 species under the Wildlife and Countryside Act 1981 (as amended), and therefore must be considered a high-sensitivity feature with clear constraints to demolition until nesting has concluded and appropriate mitigation is in place.

The northern elevation of Building 2 (B2) is constructed from precast concrete panels interspersed with sections of rusted corrugated iron, with multiple open or broken sections allowing unrestricted access to the interior. The extent of decay and large entry points provide suitable ingress for bat species, particularly for use as a night roost or transitional habitat, while also offering potential nesting spots for swallow (*Hirundo rustica*) or wren (*Troglodytes troglodytes*), both known to utilise similar agricultural structures. Photographic evidence confirms the presence of open access along the wall and the internal light exposure conducive to such usage.

The eastern elevation is highly exposed and in a disturbed condition, with missing panels and large structural voids created through material failure. These features further increase the building's permeability and allow potential foraging or nesting use by birds and small mammals. However, its openness and structural instability may limit suitability for sustained bat roosts,

though opportunistic use cannot be ruled out without further activity surveys. The adjoining open landscape and nearby woodland edge enhance the likelihood of foraging activity in the vicinity.

The southern elevation contains extensive rusted panelling and solid concrete bays, many of which exhibit cracking and delamination. Isolated gaps at height are evident, particularly around the roofline, offering potential access points for crevice-dwelling bats. The ground floor area is more enclosed, but there are breaks in the wall structure potentially leading into partially sheltered interior sections. The presence of such defects aligns with typical features used by pipistrelle species and warrants further inspection to assess roost suitability.

The western elevation forms the primary façade and is similar in construction to the eastern side, with degraded iron and concrete panels and intermittent large voids. These features collectively create a sheltered but accessible environment suitable for nesting birds such as feral pigeon (*Columba livia domestica*) or robin (*Erithacus rubecula*), along with possible bat access. The edge of this elevation also interfaces with adjacent hardstanding, providing a transitional zone between the structure and the wider landscape.

The roof is comprised of a sloped corrugated iron design, much of which is visibly degraded with several sections entirely missing or collapsed. There is no enclosed loft space present; instead, the interior is exposed and open to the external environment. The lack of enclosed voids limits its suitability for typical roof-dwelling bat species but enhances the building's value for barn owls and farmland birds that prefer light-permeable, open-plan structures. Given the absence of a roof void but presence of suitable access points and lack of disturbance, precautionary measures should be adopted to ensure that any potential use by bats or birds is adequately assessed prior to any works.

5.3 A description of habitat present along with target notes is shown in Table 5.3.1. The location of habitats is shown in the Site Habitat Map, Appendix 3.

Table 5.3.1: Description of habitats present on-site (please also see the Site Habitat Map, Appendix 3).

Habitats and Target Notes	Description	Supporting Photo
Habitat 1 - U1b: Developed land – sealed surface	This habitat encompasses the majority of the site footprint, including extensive areas of hardstanding and all existing buildings. Surfaces are predominantly comprised of concrete, with some localised sections of tarmac and compacted hardcore evident across the central and southern portions of the plot. The substrate is impermeable and largely devoid of vegetation, consistent with prolonged agricultural and vehicular use. Small accumulations of debris and organic matter along wall bases and cracks support limited pioneer species such as dandelion (<i>Taraxacum officinale</i>), annual meadow-grass (<i>Poa annua</i>), and mosses (<i>Bryophyta</i> spp.), though cover is minimal and discontinuous. The buildings within this habitat are vacant and in varying states of structural degradation, with substantial ecological function confined primarily to bat and bird access opportunities within structural voids rather than within the hard surfaces themselves. The habitat provides negligible ecological value in terms of floristic diversity or invertebrate interest, though it may offer functional connectivity and foraging space for edge-dwelling species such as pied wagtail (<i>Motacilla alba</i>) or small mammals. As a habitat type, its condition is assessed as Poor due to absence of vegetation cover, lack of substrate permeability, and zero capacity to support	 Photo 1

hydrological or soil-based ecosystem functions.



Photo 2



Photo 3

		 Photo 4
Habitat 2 - g3c: Other neutral grassland	This habitat is restricted to narrow marginal strips along the northern and eastern boundaries of the site, forming a transitional zone between the sealed surface areas and adjacent hedgerows or tree lines. The sward is uneven and unmanaged, indicative of sporadic disturbance and low-intensity use, consistent with a poor condition classification under UK Habitat Condition Assessment criteria (Score: 2/5). Species composition is limited but typical of nutrient-enriched soils, dominated by perennial ryegrass (<i>Lolium perenne</i>), creeping buttercup (<i>Ranunculus repens</i>), and broad-leaved dock (<i>Rumex obtusifolius</i>). Occasional individuals of common nettle (<i>Urtica dioica</i>), ribwort plantain (<i>Plantago lanceolata</i>), and cow parsley (<i>Anthriscus sylvestris</i>) were also noted. Floral diversity is low, with cover dominated by competitive grasses and ruderal species, and there is minimal evidence of structured zonation	 Photo 5

	or indicator species associated with higher-quality neutral grassland. The habitat presents limited ecological function but may offer incidental nectar resources for generalist pollinators such as buff-tailed bumblebee (<i>Bombus terrestris</i>) and additional cover for small mammals. No notable invertebrate or botanical interest was identified, and there is no evidence of management to enhance sward condition. The current structure and limited floristic value confirm a degraded state consistent with low ecological importance in the context of local habitat networks.	
Habitat 3 - u1c: Artificial unvegetated, unsealed surface	This habitat occupies the northeastern corner of the site, where historical agricultural activity and repeated vehicle movements have compacted the underlying substrate, resulting in areas of bare ground and crushed stone. The surface is largely unsealed, with localised patches of colonising ruderal species occurring in less trafficked sections. Vegetation is sparse and patchy, comprising hardy, disturbance-tolerant species including shepherd's-purse (<i>Capsella bursa-pastoris</i>), knotgrass (<i>Polygonum aviculare</i>), and common chickweed (<i>Stellaria media</i>). Occasional mosses (<i>Bryophyta</i> spp.) are present in shaded or retained moisture zones. Due to ongoing physical disturbance and absence of structured floral communities, the habitat supports minimal ecological function and is considered of negligible importance for botanical or invertebrate biodiversity. Its structure may, however, contribute to habitat connectivity for ground-foraging birds such as blackbird (<i>Turdus merula</i>) and robin (<i>Erithacus rubecula</i>), and provides intermittent basking potential for common lizard (<i>Zootoca vivipara</i>)	

	where basking substrates are exposed and well-oriented.	
Target Notes	Two target notes (TN1 and TN2) were recorded during the site survey. These features represent confirmed presence of protected species within or immediately adjacent to the development area boundary and must be considered as sensitive ecological receptors under relevant wildlife legislation. TN1 – An active barn owl (<i>Tyto alba</i>) nest was observed in the northwestern corner of Building 1 (B1). The adult owl was visibly confirmed during the daytime survey, occupying an elevated internal beam within an open-plan area of the structure. Evidence of nesting, including whitewash, cast pellets, and feather remains, was present beneath the roost site. Barn owls are protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), making it an offence to disturb individuals or their breeding sites during the nesting season. Works within or adjacent to B1 will therefore require exclusion zones, appropriate seasonal timing, and the provision of suitable mitigation, including bespoke nesting features to be incorporated into the proposed development. The existing roost represents a high-sensitivity ecological constraint. TN2 – An active badger (<i>Meles meles</i>) sett was identified approximately 50 metres east of the site boundary, located within a broadleaved woodland copse. The sett includes a main entrance with evidence of recent activity, including fresh spoil heaps, bedding material, and well-worn paths radiating into surrounding habitat. Badgers are protected under the	 Photo 6

Protection of Badgers Act 1992, which makes it an offence to interfere with a sett or disturb badgers while they occupy a sett. While the sett lies outside the red line boundary of the proposed development, potential indirect impacts such as construction disturbance, light spill, and habitat severance must be considered. A precautionary buffer and mitigation measures during groundworks will be required to minimise potential disturbance.



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17

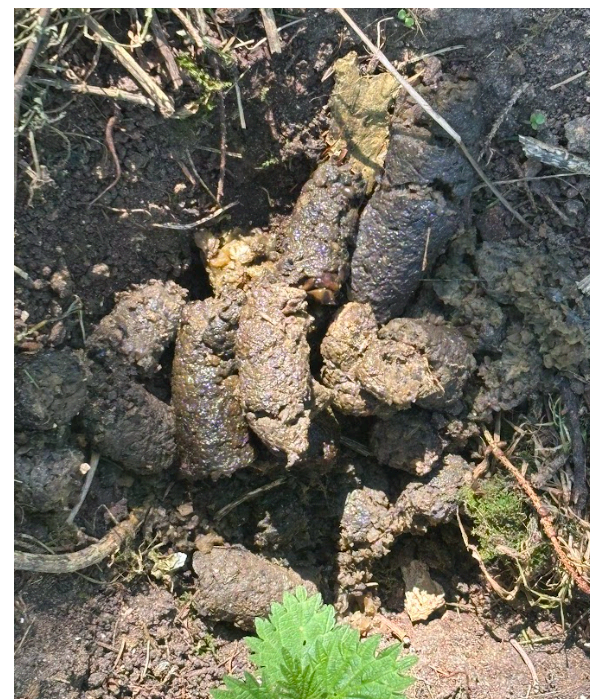


Photo 18

6 Evaluation and Assessment

- 6.1 Results from the desktop study and site survey were evaluated to assess the likelihood of occurrence for protected ecological features and species potential (as per Table 2.12.1). An evaluation of the potential impacts due to the proposed development and recommendations for appropriate mitigation measures are provided in Table 6.1.1.

Protected Species Likelihood:

Protected feature or species: Bats (roosting)

Likelihood of occurrence or suitability: High

Comments and justifications: Structural features within Buildings B1 and B2, including missing roof tiles, broken wall panels, and internal crevices, offer suitable roosting opportunities. Site lies within suitable bat foraging landscape.

Impacts due to the proposed development: High risk of disturbance/destruction of day or night roosts during demolition works.

Required mitigation measures: Bat activity surveys and preliminary roost assessments (PRA) required. If roosts confirmed, licence from Natural England must be secured. Works should follow best-practice timing and include provision of replacement roosting features (e.g. bat boxes/integrated bat tiles).

Protected feature or species: Bats (foraging)

Likelihood of occurrence or suitability: Moderate

Comments and justifications: Woodland edge, grassland strips, and boundary hedgerows within landscape provide moderate-quality foraging habitat typical for pipistrelle species.

Impacts due to the proposed development: Potential degradation of foraging quality due to vegetation clearance, lighting, and boundary modification.

Required mitigation measures: Minimise light spill onto boundary habitats. Include bat-friendly lighting design and establish retained or enhanced hedgerow connectivity.

Protected feature or species: Badger (*Meles meles*)

Likelihood of occurrence or suitability: High

Comments and justifications: Confirmed active sett located ~50m east of site in adjacent woodland (TN2), with foraging potential within semi-natural site margins.

Impacts due to the proposed development: Possible disturbance during construction, severance of foraging routes, and risk of sett interference if boundary is poorly managed.

Required mitigation measures: Retain and respect 30m buffer where feasible. Toolbox talk for workers, badger-sensitive fencing, and working method statement to avoid risk during site clearance.

Protected feature or species: Hedgehog (*Erinaceus europaeus*)

Likelihood of occurrence or suitability: Moderate

Comments and justifications: Marginal grassland and unsealed substrate offer sub-optimal but suitable commuting and daytime cover opportunities. Species widely recorded in Hertfordshire.

Impacts due to the proposed development: Risk of injury or entrapment during clearance or groundworks. Loss of low-quality foraging

habitat.

Required mitigation measures: Vegetation clearance under ecological supervision. Creation of habitat corridors and hedgehog holes in fencing to maintain landscape permeability.

Protected feature or species: Amphibians

Likelihood of occurrence or suitability: Low

Comments and justifications: No waterbodies or aquatic breeding habitat on or adjacent to site. Substrate is largely sealed or compacted.

Impacts due to the proposed development: Negligible to minor if present; unlikely to impact breeding due to lack of suitable habitat.

Required mitigation measures: No requirement for targeted survey work. Maintain general good practice in site clearance.

Protected feature or species: Reptiles

Likelihood of occurrence or suitability: Low

Comments and justifications: Unsealed substrate in HAB 3 offers poor-quality basking habitat; grassland (HAB 2) highly disturbed. Local records exist for common species in rural surrounds.

Impacts due to the proposed development: Minor risk of injury during clearance of marginal areas.

Required mitigation measures: Precautionary clearance methods. Habitat suitability survey may be considered post-planning if undisturbed margins are to be impacted.

Protected feature or species: Otter (*Lutra lutra*)

Likelihood of occurrence or suitability: Negligible

Comments and justifications: No aquatic features on or near site. Not known to occur in this part of north Hertfordshire.

Impacts due to the proposed development: None anticipated.

Required mitigation measures: None required.

Protected feature or species: Water vole (*Arvicola amphibius*)

Likelihood of occurrence or suitability: Negligible

Comments and justifications: No ditches, streams, or riparian habitat on site or within near proximity.

Impacts due to the proposed development: None.

Required mitigation measures: None required.

Protected feature or species: Dormouse (*Muscardinus avellanarius*)

Likelihood of occurrence or suitability: Negligible

Comments and justifications: Outside current UK dormouse range (not recorded in Hertfordshire). No suitable woodland or hedgerow connectivity on site.

Impacts due to the proposed development: None.

Required mitigation measures: None required.

Protected feature or species: Breeding birds

Likelihood of occurrence or suitability: High

Comments and justifications: Nesting bird activity confirmed in B1 (barn owl), with potential for nesting swallows, pigeons, and wrens in B2 and surrounding vegetation.

Impacts due to the proposed development: High if works undertaken during breeding season, potential destruction of active nests.

Required mitigation measures: Avoid clearance/demolition during nesting season (March–August). If not possible, undertake checks by qualified ecologist within 48 hours of works. Provide replacement nesting features.

Protected feature or species: Invertebrates

Likelihood of occurrence or suitability: Low to Moderate

Comments and justifications: Limited floristic diversity across site; however, ruderal species and open ground offer low-quality resources for generalist invertebrates.

Impacts due to the proposed development: Minor loss of low-quality nectar and foraging resources.

Required mitigation measures: Incorporate pollinator-friendly planting in landscape design. Retain some exposed ground and flowering margins.

Protected feature or species: Invasive Non-Native Species

Likelihood of occurrence or suitability: Negligible

Comments and justifications: No evidence of Schedule 9 invasive plant (e.g. Japanese knotweed or Himalayan balsam) within current site boundary.

Impacts due to the proposed development: None anticipated.

Required mitigation measures: Continue vigilance during site clearance. Biosecurity to include checking and cleaning machinery if new habitats are encountered.

Protected feature or species: Terrestrial mammals (general)

Likelihood of occurrence or suitability: Moderate

Comments and justifications: Site offers limited cover but may support small mammals like field vole (*Microtus agrestis*) and wood mouse (*Apodemus sylvaticus*) in margins.

Impacts due to the proposed development: Minor displacement of individuals; habitat loss.

Required mitigation measures: Soft-strip vegetation pre-works. Landscape scheme to enhance structural cover (e.g. dense planting, log piles).

Protected feature or species: *Common and widespread mammals*

Likelihood of occurrence or suitability: *High*

Comments and justifications: *Rural location likely supports brown hare (*Lepus europaeus*), fox (*Vulpes vulpes*), and Muntjac deer (*Muntiacus reevesi*) in the wider landscape.*

Impacts due to the proposed development: *Temporary disturbance likely.*

Required mitigation measures: *Sensitive site fencing to allow continued movement. Avoid fencing-off existing movement corridors.*

Potential Impacts & Mitigation Recommendations:

Based on the site survey findings, desk study data, and photographic evidence, the proposed development has potential to impact a range of ecological receptors, including legally protected species and habitats of local conservation interest. The site supports active barn owl nesting, confirmed badger activity within close proximity, and offers moderate potential for roosting and foraging bats. In line with the Wildlife and Countryside Act 1981 (as amended), the Protection of Badgers Act 1992, and best-practice guidance set out by CIEEM (2017, updated 2022), the proposed development must incorporate a suite of appropriate mitigation measures aimed at preserving biodiversity and meeting the requirements of the National Planning Policy Framework (NPPF) and local planning policy on protected species and biodiversity net gain.

- *Demolition of B1 and B2 must be preceded by a bat activity survey and preliminary roost assessment, with a Natural England mitigation licence sought if roosts are present.*
- *Works affecting B1 must be scheduled outside of the barn owl breeding season (March to August inclusive) and incorporate a compensatory nesting structure at a suitable distance from the original roost site.*
- *A 30m exclusion buffer across the eastern site boundary must be adopted to avoid disturbance to the adjacent active badger sett, with working method statements and tool-box talks implemented during site clearance.*
- *Vegetation clearance across marginal habitats should be conducted under ecological supervision using a two-stage cut during the active season for amphibians, reptiles, and hedgehogs.*
- *Perimeter hedgerows and strips of semi-improved grassland (g3c) should be retained and enhanced where possible to contribute to habitat connectivity and general biodiversity value.*
- *Artificial lighting designs must follow Institution of Lighting Professionals (ILP) Guidance Note 08/18 to ensure bat-sensitive lighting across site perimeters and corridors.*

- *Soft landscaping elements should include native, pollinator-beneficial species to offset loss of ecological function associated with ruderal habitats on site.*
- *All works must follow the CIEEM Code of Professional Conduct, including appropriate consideration of seasonality, species ecology, and long-term habitat viability in mitigation design.*
- *Habitat enhancements should be proportionate to anticipated impacts and contribute to measurable Biodiversity Net Gain, in accordance with local authority and DEFRA metric guidance.*
- *Erection of bird and bat boxes, along with hedgehog access features in boundary fencing, should be included in final design to support widespread species and urban-edge biodiversity.*

Table 6.1.1: Likelihood of occurrence of protected ecological features and species on-site, potential impacts due to the proposed development and recommendations for appropriate mitigation measures.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
Protected sites	Negligible.	The site is not situated within, or adjacent to, any known protected sites. The site is not considered to be well connected to any known protected sites.	None.	None required.
Protected habitats	Negligible.	There were no protected habitats on, or adjacent to, the site. Habitats on-site were not considered to be unique or of high quality within the wider locality.	None.	None required.
Protected plant species	Low.	There are records of protected plant species within 2km of the site. However, no protected plant species were observed during the site survey. Habitats on-site are not considered to be unique or of high quality to support protected plant species. However, their presence cannot be entirely discounted.	The site does not appear to support protected plant species, thus, the proposed development is unlikely to impact upon protected plant species.	None required.
Invasive plant species	Low.	No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were found during the survey. As	Invasive plant species have the potential to impact protected species and habitats	If invasive plant species are found, it is recommended to consider appropriate methods of removal.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
		there were seasonal constraints to plant identification, it is possible that invasive plant species are present and have yet to be identified.		

7 Biodiversity Enhancements

- 7.1 The development should be used as an opportunity for biodiversity net gain, by creating new opportunities for wildlife.

BATS

- 7.2 It is recommended to install two bat boxes on-site. Bat boxes should be positioned in areas of low human disturbance, in spaces that are unshaded for most of the day.
- 7.3 Chambered bat boxes should be positioned 3-5 metres above ground level, orientated southwards. There should be a clear path between the entrance and suitable habitat.
- 7.4 A crevice bat box is suitable for smaller bat species. These boxes should also be positioned 3-5 metres above ground level, orientated southwards.

BIRDS

- 7.5 It is recommended to place new bird boxes on-site.
- 7.6 A traditional nest box should be placed 3 metres above ground level in an area of low disturbance. The box should be sheltered away from prevalent weather conditions, commonly associated within the UK, such as strong sunlight, prevailing winds and rain.
- 7.7 An open-box/balcony nest box is preferred by larger bird species. As these nest boxes are more susceptible to predation, it is recommended that open-nest boxes be placed in areas of low/tolerable human disturbance, which will deter predators.

INVERTEBRATES

- 7.8 It is recommended to install invertebrate boxes on-site. The boxes should be suitable for solitary bees.
- 7.9 Nectar-rich wildflowers should be planted within close proximity to the bee bricks/invertebrates boxes to create new opportunities for pollinators.
- 7.10 Fruit trees make ideal habitat for many invertebrate species. Thus, it is recommended to plant new garden ornamental fruit trees on-site. For example, Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*) and Common Pear (*Pyrus communis*).

TERRESTRIAL MAMMALS

- 7.11 It is recommended to plant native species-rich hedgerows on-site, which will enhance connectivity and provide refuge for small mammals. Suitable species would include Common Beech (*Fagus sylvatica*), Common Hawthorn (*Crataegus monogyna*), Rowan (*Sorbus aucuparia*) and Crab Apple (*Malus sylvestris*) for example.

TREES

- 7.12 New tree planting would be a welcomed addition to development. New tree planting should be considered carefully, with consideration to species, location and future management. New trees should be robust and of high quality. Where possible, native species should be used. However, considerations should be given to climate change and potential pathogens.

8 Conclusions

- 8.1 The site at Kirby Manor Barns, Northfield Road, Ashwell, SG7 5JQ is to be redeveloped with the demolition and conversion of a series of existing agricultural buildings to facilitate the construction of eight residential dwellings. This will include the retention of some structural elements where feasible, with associated landscaping and access improvements incorporated into the site design.
- 8.2 The development will result in alternations and the partial demolition of existing buildings, and the removal of areas of artificial unvegetated, unsealed surface, other neutral grassland and developed land; sealed surface.

ECOLOGICAL CONSTRAINTS

- 8.3 Development proposals must have regard for protected species identified as potentially occurring on, or near to, the site (e.g., amphibians, birds, terrestrial mammals, and reptiles). Mitigation measures to protect these species have been produced within this report to ensure that the proposed works comply with relevant UK legislation.
- 8.4 Buildings B1 and B2 were considered to have high potential for roosting bats due to the presence of several PRFs which may be suitable for individual crevice dwelling bat species to utilise opportunistically (including missing roof tiles, broken wall panels, and internal crevices). The proposed works will result in the loss of PRFs, thus, further bat surveys will be required to determine bat presence/absence and inform on suitable mitigation measures.
- 8.5 Further mitigation measures have been outlined within the report to ensure that protected species are not impacted by the development.

MITIGATION STRATEGIES

- 8.6 Three bat presence/absence surveys of B1 and B2 are to be carried out between May and August. The survey should consist of either one dusk emergence survey or one dawn re-entry survey. The survey must be undertaken by a suitably qualified ecologist. The survey report must outline bat presence/absence and suitable mitigation measures (if required). Further surveys may be required if bat presence/absence cannot be determined during the initial site visit.
- 8.7 An active badger (*Meles meles*) sett was identified approximately 50 metres east of the site boundary, located within a broadleaved woodland copse. A precautionary buffer and mitigation measures during groundworks will be required to minimise potential disturbance.
- 8.8 Tree works (if required) should take place outside the breeding season (typically March-October) or once a suitably qualified ecologist has inspected the trees for breeding birds and confirmed that there are no active nests.
- 8.9 A tool box talk should be given to all relevant personnel by a suitable qualified ecologist before any works commence on-site to outline ecological constraints and the required mitigation measures.
- 8.10 Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.
- 8.11 Any trenches or other excavations left open overnight should be well covered to deter Badgers from entering. If this is not possible, any trenches or other excavations left open overnight should either be provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls in to escape.
- 8.12 During hibernation season (October to March), piles of leaf litter and logs should be retained to ensure hibernating hedgehogs are not harmed. If removal is unavoidable, the piles must be carefully checked before burning.
- 8.13 Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.
- 8.14 Any newly built boundary features should incorporate 'wildlife gaps' (comprising a 13x13cm gap at the base of the feature), to allow wildlife to pass through.

- 8.15 A new bat roost should be created on-site to offset the loss of PRFs. It is recommended that the roost be suitable for crevice dwelling species which are most likely to utilise the existing structures. Where possible, bat roosts should be incorporated into the proposed built footprint to ensure that permanent features are created.

BIODIVERSITY NET GAIN

- 8.16 The project is to be used as an opportunity for biodiversity net gain by creating new opportunities for wildlife. New habitat creation is to be implemented on-site and should be included within the final project design.
- 8.17 The baseline habitat units on site total 0.37, with habitats comprising primarily other neutral grassland, artificial unvegetated unsealed surfaces, and developed land (sealed surface). The baseline hedgerow units on site amount to 0.01, consisting of two small sections of hawthorn hedgerow.

Post-development, the proposed plans will deliver a biodiversity net gain of 0.98 habitat units (+265.43%) and a net gain of 1.10 hedgerow units (+9183.58%). These gains result from the creation of extensive vegetated garden areas, and the planting of individual trees and new hedgerow. Although the development provides significant new habitat creation, the biodiversity trading rules are not fully met due to the loss of other neutral grassland. To satisfy the trading rules, the client will need to purchase 0.55 A1 habitat units.

Following discussions with the client, it has been agreed that the 0.55 A1 habitat units will be purchased through an approved habitat bank, ensuring that all outstanding units are offset in accordance with recognised biodiversity net gain standards and that the development achieves full compliance with the trading requirements.

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10 Limitations

- 10.1 ROAVR Group has prepared this Report for the sole use of the above named Client/Agent in accordance with our terms of business, under which our services were performed. No other warranty, expressed or implied, is made as to the professional advice included in this Report or any other services provided by us.
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Should you require any further information, please do not hesitate to contact us at any time.

Gwennan Butler
Ecological Consultant

Gwennan Butler



Prepared by: Gwennan Butler BSc (Hons), MSc
Checked by: Antony Aslam MSci QCIEEM
Surveyor: Max Shaw

Appendix 1: Site Location and Assessment Boundary

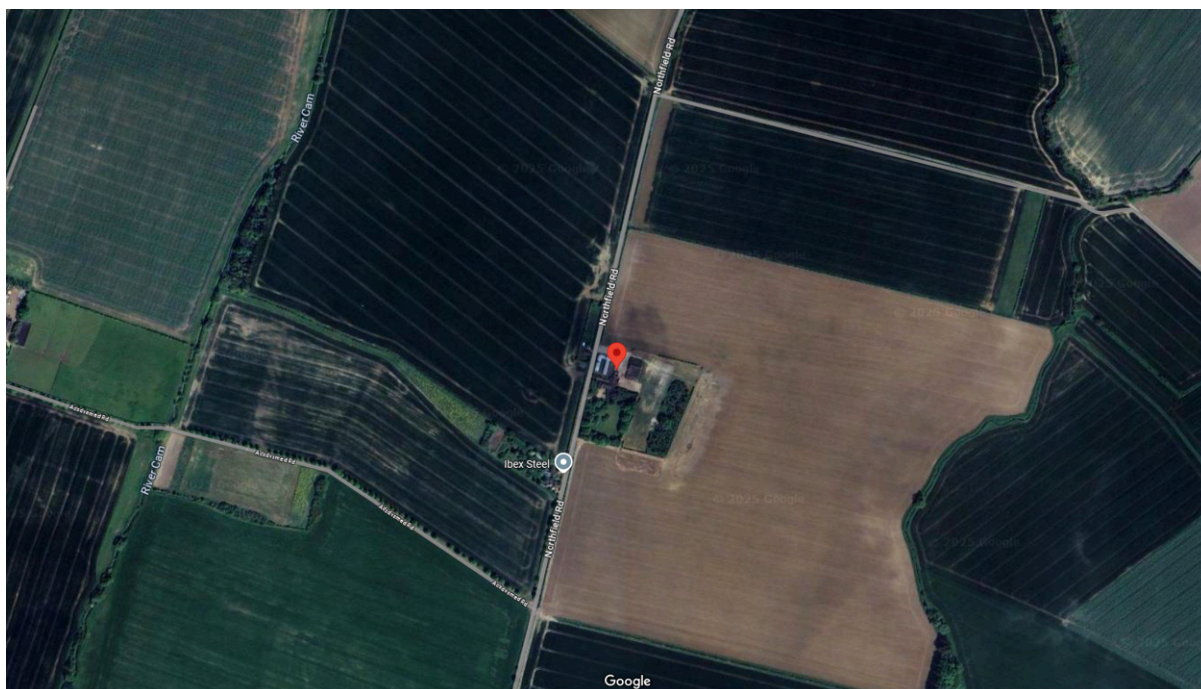


Figure A1.1: Extract from Google Maps showing the site location. (Google, 2025)

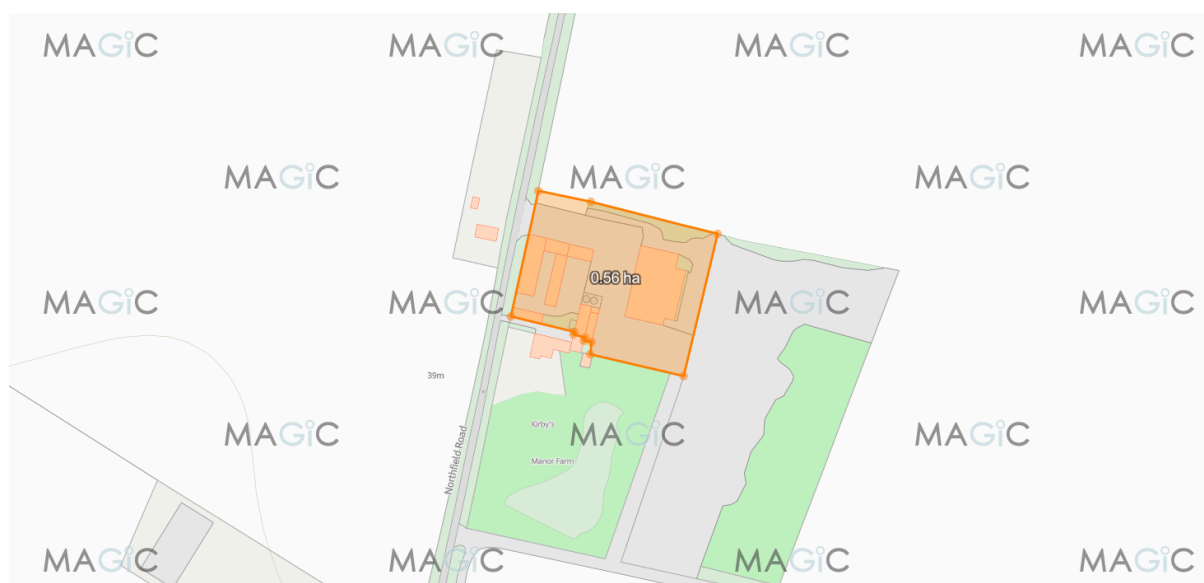


Figure A1.2: Extract from DEFRA MAGIC showing the assessment boundary. (MAGiC, 2025)

Appendix 2: Desktop Study

*Data from DEFRA.

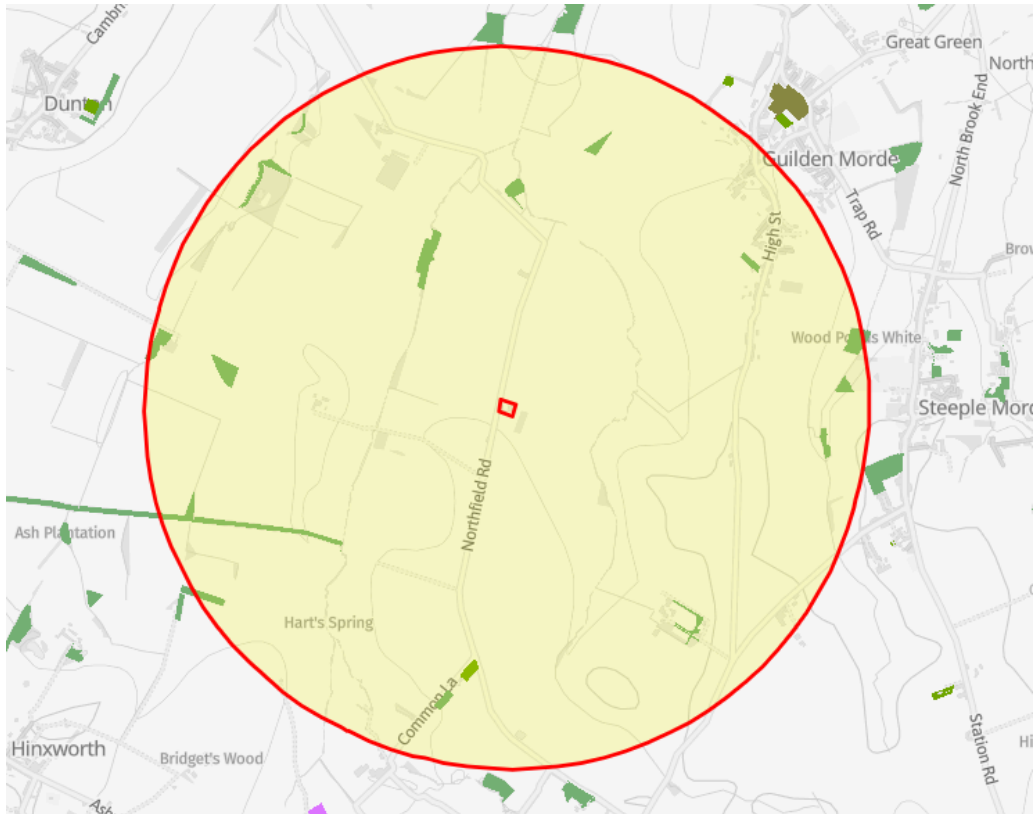


Figure A2.2: Priority habitats formerly mapped within a 2km search radius of the site..

Appendix 3: Site Maps

A3.1 The Site Habitat Map was produced in accordance with the UK Habitat Classification Manual (Butcher et al., 2020).



