



Preliminary Ecological Appraisal

The Barn, Heywood

Survey Date: 3rd March 2026

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1. Introduction

1.1 Report rationale

This report has been prepared at the request of Dr Malik. Eco 360 were commissioned to undertake a Preliminary Ecological Appraisal (PEA) at The Barn, Primrose Hill Farm, Heywood OL10 1RL (OS grid reference: SD 87123 11532) The assessment comprised a desktop study and a field-based Preliminary Roost Assessment (PRA).

The purpose of this appraisal is to identify the broad habitats present on site, assess the potential for protected species, and evaluate any ecological constraints associated with the proposed development. The survey was undertaken on 3rd March by Mr Nathan O'Shea BSc (Hons), Ecologist (Accredited Agent on a Natural England Bat License, details can be provided on request).

1.2 Site description and works

The site is located at The Barn, Primrose Hill Farm and comprises a small complex of disused agricultural buildings and associated hardstanding. The buildings consist of a main barn (B1) and two stable structures (B2 and B3). One former structure located on the north-western side of the site has already been demolished, with a newly laid concrete slab remaining in its place.

The courtyard area between the buildings is largely composed of unsealed surfaces, with scattered rubble and construction materials present across parts of the site. A mound of earth is also present within the courtyard area. These features may provide opportunities for small terrestrial fauna to utilise the site for shelter.

A small area of modified grassland is located within the north-western corner of the site where a single tree is present. Beyond the immediate site boundary the surrounding landscape is characterised by agricultural land, scattered trees, hedgerows and rural infrastructure, which provide suitable commuting and foraging habitat for local bat and bird populations.

Given its location within a semi-rural landscape and the presence of surrounding vegetation and open land, the site provides habitat features that could support local wildlife species including bats and birds. Photographs of the site are found within **Appendix C**.

1.3 Proposals

The proposal involves the conversion of the barn into a dwelling. Site plans can be found in **Appendix A**.

1.4 Survey Limitations

There were no survey limitations.

Figure 1: An aerial map showing the red line boundary of the site and the buildings present on site.



Figure 2: An aerial map showing the location of the site (yellow star) in relation to some of the local landscape.



2. Survey Methodology

2.1 Desktop Survey

A variety of resources were independently consulted to assess the known local records within the nearby area and the importance of the site within the local landscape from an ecological perspective. The resources used were the Local Records Centre, www.naturalengland.org.uk, www.ordnancesurvey.co.uk, Google Maps, Google Earth and Bing Maps. A search of other relevant nature conservation information was made through the use of the Multi-Agency Geographic Information for the Countryside (MAGIC) database.

The local records centre was contacted to provide data on all protected species and designated sites within a 2km radius of the proposed development site.

2.2 Field Survey

A Preliminary Ecological Appraisal (previously referred to as an Extended Phase 1 Habitat Survey) was carried out using the method outlined in the JNCC Handbook for *Phase 1 Habitat Survey: a technique for environmental audit (2010)*. This method aims to map and describe the broad habitat types and notable features present on the surveyed site.

As part of the field survey, the floral species will be identified and noted down. This will consider the dominant, abundant, frequent, occasional and rare (DAFOR) species within each habitat on the survey site. The impacts of the proposed development scheme will be assessed by this report.

Each habitat will be assessed for the presence and/or the potential presence of protected species. The impacts of the proposed scheme of works on all potential protected species on site will be assessed. From this, either remedial action or recommended phase 2 presence/absence surveys will be devised.

Some of the classification codes and colours listed within the JNCC handbook may have been slightly modified for this project.

Habitat Surveys can be carried out at any time of the year, with the optimal time period falling between the months of April through until September. Eco 360 feels confident that the majority of the floral species located on the site were competently identified during the survey effort. In addition to this, Eco 360 feels confident that this report reflects an accurate representation of the sites suitability for protected species to be present.

All sites surveyed by Eco 360 will be run against the relevant Local Wildlife Site Criteria to assess whether or not they meet the required standards.

3. Desktop Survey Results

3.1 Sites

The MAGIC database search revealed no statutory designated sites within 1 km of the property boundary. One non-statutory designation, the Pennine Edge Forest Community Forest, is located within 1 km of the site. All proposed works are contained within the existing residential curtilage; therefore, no impacts on designated sites are anticipated.

3.2 Species Records

3.2.1 Amphibians

Within the ecological data search, two amphibian species were detected within the 1 km search radius, including Common Frog (*Rana temporaria*) and Common Toad (*Bufo bufo*).

3.2.2 Birds

Within the ecological data search, several notable bird species were detected within the 1 km search radius, including House Sparrow (*Passer domesticus*), Starling (*Sturnus vulgaris*), and Song Thrush (*Turdus philomelos*).

3.2.3 Crustaceans

Within the ecological data search, no species of protected or notable crustaceans were revealed within the 1 km search radius.

3.2.4 Fish

Within the ecological data search, no species of protected or rare fish species were revealed within the 1 km search radius.

3.2.5 Flora

Within the ecological data search, Ground Pine (*Ajuga chamaepitys*) was recorded approximately 10 km from the site.

3.2.6 Fungi

Within the ecological data search, no fungal species were revealed within the 1 km search radius.

3.2.7 Invertebrates

Within the ecological data search, one invertebrate species was detected within the 1 km search radius: Stag Beetle (*Lucanus cervus*).

3.2.8 Mammals

Within the ecological data search, several notable mammal species were detected within the 1 km search radius, including Pipistrelle Bats (*Pipistrellus* sp.), Chiroptera, and Vespertilionidae family species.

3.2.9 Molluscs

Within the ecological data search, no mollusc species were revealed within the 1 km search radius.

3.2.10 Reptiles

Within the ecological data search, one reptile species was detected within the 1 km search radius: Slow Worm (*Anguis fragilis*).

4. Field Survey

4.1 Habitats

The preliminary ecological appraisal revealed several habitats on site. The phase 1 habitat map, habitat codes and target notes for the site are located within **Appendix C**. The following habitats were recorded on site (in habitat code order):

4.1.1 Developed land; sealed surface – UKHab: Developed land; sealed surface (u1a)

Areas of developed land are present throughout the site and consist primarily of buildings, hardstanding and sealed surfaces associated with the former agricultural use of the site. The buildings present include a main barn (B1) and two stable structures (B2 and B3) arranged around a courtyard area.

A detailed inspection of the buildings within the site was undertaken to identify any features that may support roosting bats or nesting birds.

B1 – Main Barn

External

Externally, the barn walls exhibit numerous cracks, crevices and gaps within the brickwork. Some areas, particularly on the south-western elevation, contain missing bricks which create larger cavities that could provide potential roosting opportunities for bats.

The roof appeared largely intact during the external inspection, with no obvious lifted or missing tiles observed. Overall, while the roof covering appears in generally good condition, the masonry features provide a number of potential access points and crevices that may be utilised by roosting bats.

Internal

Internally, the barn has undergone partial construction works, with several breeze block walls erected to create separate rooms. The original brickwork remains visible in places and contains numerous cracks, crevices and small gaps which could provide potential roosting features (PRFs) and possible access points.

Several windows within the building have been boarded; however, gaps are present around the edges of the boarding which could allow access for bats or birds. The roof structure is lined with roofing membrane and appears sealed, limiting access into the roof void itself.

No bat droppings or other evidence of bat activity were identified during the inspection. However, a substantial amount of bird droppings and feathers were recorded on the first floor, indicating previous or ongoing bird use of the structure. In addition, a swift nest was recorded on the ground floor of the barn located behind a filament light fitting.

B2 – Southwestern Stables

External

Externally, the structure exhibits numerous lifted and missing roof tiles which could allow bats or birds access into the roof space. Crevices were also recorded within the masonry, particularly along the north-western elevation.

Internal

The internal inspection identified small gaps within the roof structure that could allow access for wildlife. A swift nest was recorded within the rafters of the building. No bat droppings or other evidence of bat activity were identified during the survey.

B3 – Northeastern Stable

External

Externally, the building exhibits similar characteristics to B2, with gaps within the roof covering and crevices present within the masonry that could potentially allow wildlife access.

Internal

Internally, relatively large gaps were present within the roof structure, leaving parts of the building exposed to external conditions. No bird nests, bat droppings or other evidence of protected species were recorded during the inspection.

In addition to the buildings, areas of hardstanding occur throughout the courtyard and access areas. One structure previously located on the north-western side of the site has already been demolished, leaving a newly laid concrete slab in its place. These areas provide very limited ecological value due to the absence of vegetation and limited structural diversity.

4.1.2 Artificial unvegetated; unsealed surface – UKHab: Artificial unvegetated; unsealed surface (u1c)

Large areas of the courtyard consist of unsealed ground composed of compacted substrate, rubble and loose material typical of agricultural yard areas. A mound of earth was also present within the courtyard.

These habitats are largely disturbed and of low ecological value. However, loose rubble and debris may provide limited refuge opportunities for small terrestrial fauna. Overall, these habitats are considered to provide low ecological value.

4.1.3 Modified grassland – UKHab: Modified grassland (g4)

A small patch of modified grassland is located within the north-western corner of the site. The grassland is relatively species-poor and appears to be subject to regular disturbance and management.

This habitat provides limited ecological value, although it may offer minor foraging opportunities for invertebrates and birds.

4.1.4 Individual Trees – UKHab: Individual trees (g5)

A single small tree is present within the patch of grassland located at the north-western corner of the site. The tree is relatively small and immature and does not contain features typically associated with bat roosting such as cavities, splits, rot holes or lifted bark.

The tree therefore offers negligible potential for roosting bats, although it may provide minor foraging or perching opportunities for common bird species.

4.2 Species

The preliminary ecological appraisal survey revealed that the habitats and buildings within the proposed development area contain some protected species potential. The following assessment has also taken into account adjacent habitats and connectivity to the wider landscape.

4.2.1 Amphibians

No ponds, ditches or other aquatic habitats are present within the site boundary. The site predominantly comprises buildings, hardstanding and unsealed surfaces, which provide limited suitability for amphibians.

Due to the absence of aquatic habitat and limited suitable terrestrial habitat, amphibian potential (including Great Crested Newt) is assessed as negligible.

4.2.2 Badgers

No evidence of badger activity (including setts, latrines, snuffle holes, paths or guard hairs) was recorded during the site visit.

The site largely comprises buildings, hardstanding and disturbed ground within a courtyard environment. The surrounding landscape offers limited connectivity to suitable badger habitat. Badger presence is therefore considered negligible.

4.2.3 Bats

The buildings on site were inspected for evidence of bats and potential roosting features.

Several potential roosting features were identified including cracks and crevices within brickwork, missing bricks and lifted or missing roof tiles, particularly on the

stable buildings. In addition, small gaps around boarded windows and openings within roof coverings may allow bats to access internal roof spaces.

Internally, the buildings contained some gaps within roof structures, although parts of the main barn roof have been lined with membrane which reduces suitability for roosting bats. No bat droppings, feeding remains or staining were recorded during the survey.

Due to the presence of potential roosting features within the buildings and suitable foraging and commuting habitat within the wider landscape, bat roost potential is considered moderate.

4.2.4 Birds

Evidence of bird activity was recorded during the survey. Bird droppings and feathers were observed within the buildings and two swift nests were identified, one within the main barn (B1) and one within the southwestern stable (B2).

The buildings therefore provide suitable nesting opportunities for birds. Development works may impact nesting birds if works are undertaken during the nesting season.

Bird nesting potential is therefore considered high.

4.2.5 Hazel Dormouse

The site comprises buildings, hardstanding and small areas of grassland and lacks connectivity to suitable woodland or species-rich hedgerow habitat. Hazel dormouse potential is therefore assessed as negligible.

4.2.6 Invertebrates

The habitats present on site consist primarily of buildings, hardstanding, disturbed ground and small areas of grassland. These habitats may support common invertebrate species, although the absence of specialist habitats and limited structural diversity mean the site is considered to be of negligible ecological value for notable or priority invertebrate species.

4.2.7 Reptiles

The site contains areas of rubble, disturbed substrate and a mound of earth within the courtyard area which may provide limited refuge opportunities for reptiles.

However, the site is largely composed of buildings and hardstanding and the surrounding landscape offers limited suitable habitat connectivity. Reptile potential is therefore assessed as negligible.

4.2.8 Water Voles

No watercourses, ditches or aquatic habitats are present within or adjacent to the site. Presence is assessed as negligible.

4.2.9 White-clawed Crayfish

There are no waterbodies within or adjacent to the site. Presence is considered negligible.

4.3 Potential impacts of the works

Based upon the results from the desktop survey, field survey and using a degree of academic supposition, the uncompensated development impacts have been summarised as follows:

- Amphibians – **Negligible**
- Badgers – **Negligible**
- Bats – **Moderate**
- Birds – **High**
- Flora – **Negligible**
- Hazel Dormouse – **Negligible**
- Invertebrates – **Negligible**
- Reptiles – **Negligible**
- Water Voles - **Negligible**
- White-clawed crayfish – **Negligible**

5. Recommendations

5.1 Designated Sites

The MAGIC database search revealed no statutory designated sites within 1 km of the property boundary. One non-statutory designation, the Pennine Edge Forest Community Forest, is located within 1 km of the site. All proposed works are contained within the existing residential curtilage; therefore, no impacts on designated sites are anticipated.

5.2 Habitats

No habitats of conservation concern were located on the site itself. Therefore, the proposed scheme of works will not impact upon any rare or valuable habitats.

5.3 Species

The site was found to contain limited potential to support some protected and/or rare species. Therefore, the following recommendations are required for the site:

5.3.1 Bats

Due to the moderate potential of the building for roosting bats a minimum of two bat emergence surveys are required for the buildings B1, B2 and B3. These surveys should be conducted during the bat activity season which spans from May to September with at least one survey undertaken between June and August. The surveys will determine the presence or absence of bats and the use of the site by foraging individuals.

5.3.2 Birds

As a precautionary measure it is recommended that any tree removal is undertaken outside of the bird breeding season (the bird breeding season runs from March to August inclusive). If these features are required to be altered during the bird breeding season then a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences is necessary. This is to ensure that no active nest site is illegally destroyed due to the protection afforded to all active bird nests under the Wildlife and Countryside Act 1981. If an active nest is found by a site inspection an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest.

5.4 **Site Enhancements**

For the proposed development works, the following site enhancement measures could be incorporated into the site post-development. These measures are optional but are bespoke to the site surveyed for the enhancement of biodiversity.

5.5.1 Flora

At present, the site is not considered to have a diverse range of flora. Therefore, it is recommended that a small section of the site is converted into a 'wild meadow' that uses native wildflower seed mixes. A variety of these can be found on the Meadowmania or Wildflower Turf webpages.

5.5.2 Invertebrates

At present, the site is not considered to be of any importance to local invertebrate populations. In conjunction with the wildflower planting, it is recommended that one Bumblebee Box are incorporated into the scheme, along with one Bug Hotel. This will enhance the site for the local invertebrate populations, which will thus attract species further up in the trophic level.

5.5.3 Hedgehogs

The site could be enhanced for the local Hedgehog (*Erinaceus europaeus*) population by installing Eco Hedgehog Nest Boxes around this area. This will create more opportunities for hedgehogs within the local landscape.

6. References

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7. Appendices

Appendix A: Site Plans

Appendix B: Phase 1 Habitat Map

Appendix C: Site Photographs

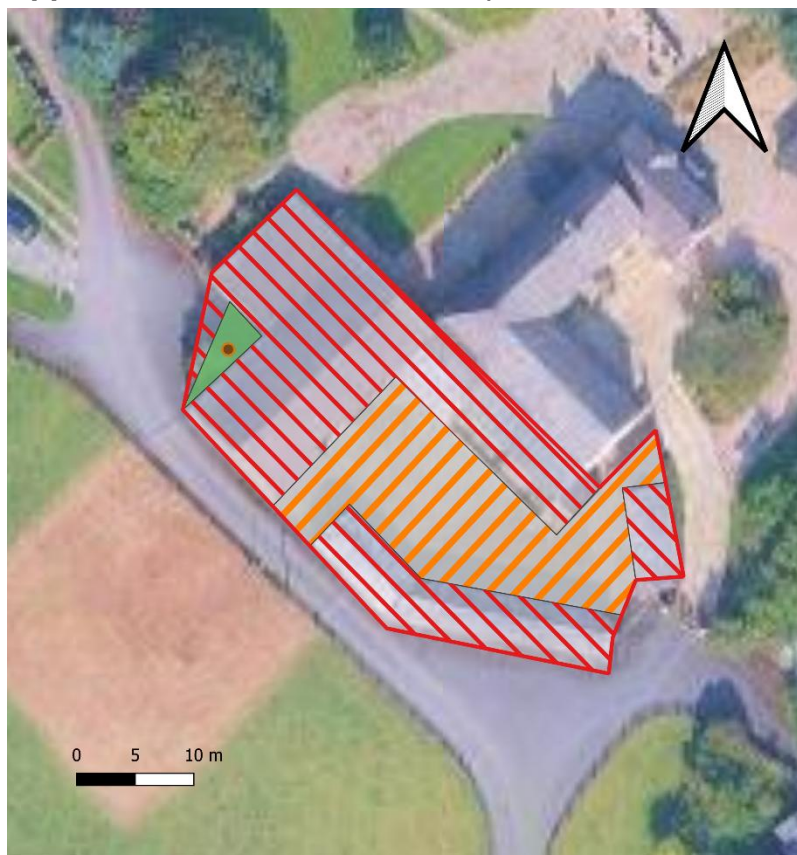
Appendix D: Biodiversity Legislation and Policy

Appendix E: Bats and Artificial Light

Appendix A: Site Plans



Appendix B: Phase 1 Habitat Map



Key:

- Site Boundary
- U1b - Developed Land; Sealed Surface
- Individual Trees
- G4 - Modified Grassland
- U1c - Artificial Unvegetated; Unsealed Surface

Satellite only

OpenStreetMap

**The Barn
Primrose Hill Farm
Heywood
OL10 1RL**

Appendix C: Site Photographs



Plate 1: External view of B2.



Plate 2: External view of B2.



Plate 3: View of hardstanding areas.



Plate 4: View of buildings on site.



Plate 5: External view of B2.



Plate 6: View of buildings on site.



Plate 7: Close-up of roof tiles.

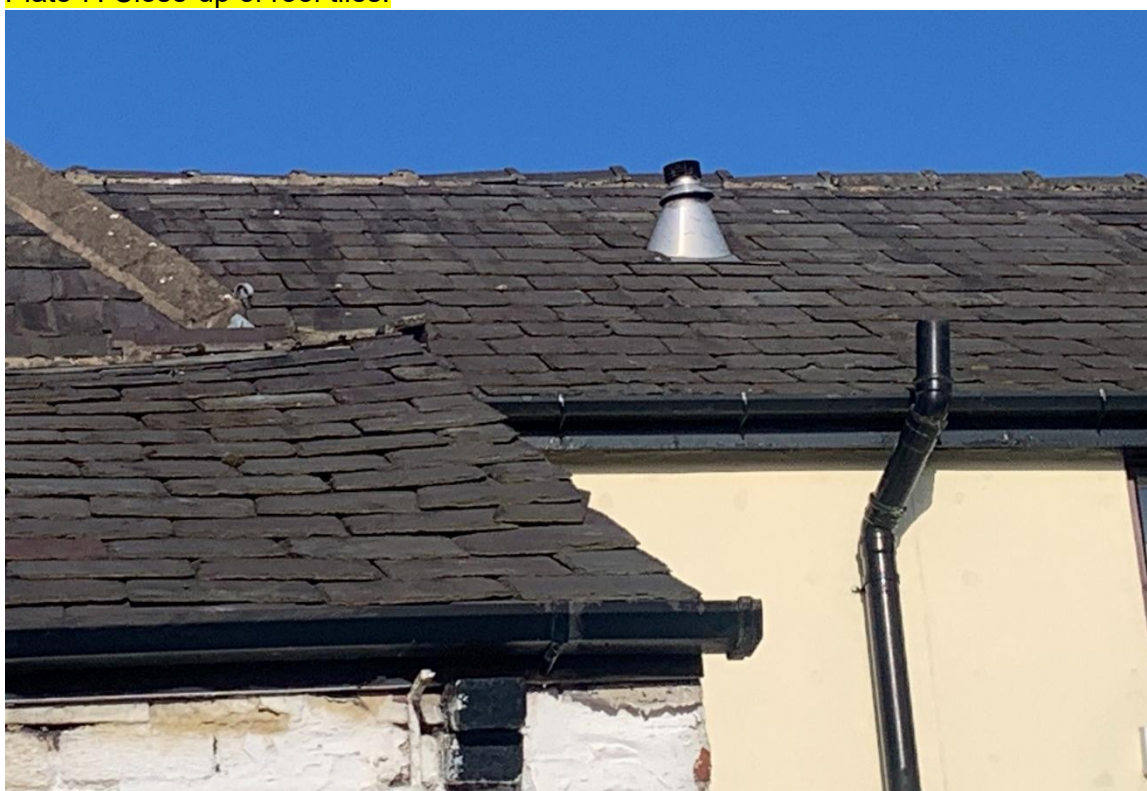


Plate 8: Close-up of roof tiles.



Plate 9: Close-up of roof tiles.



Plate 10: Several dislodged roof tiles are apparent.



Plate 11: Gaps around door.



Plate 12: Internal view of structure.

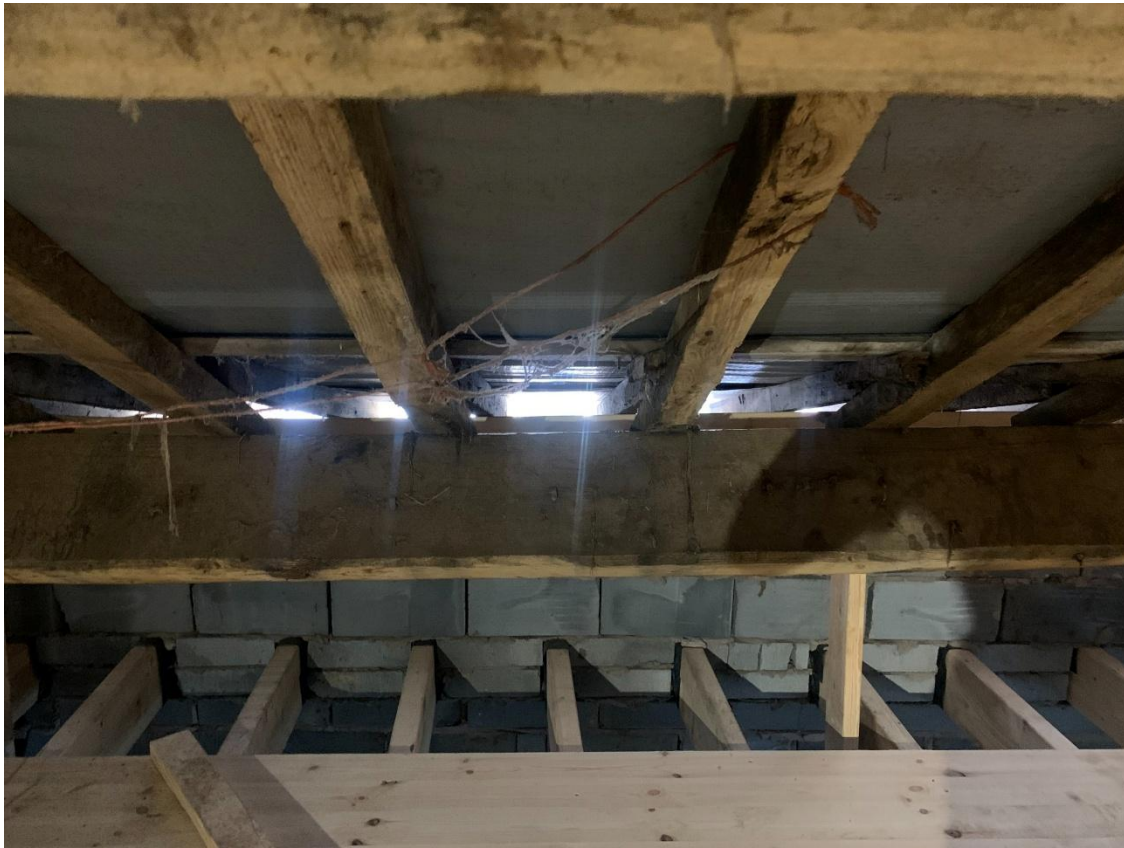


Plate 13: Daylight ingress into structure.



Plate 14: Bird droppings in B1.



Plate 15: View of gaps in roof tiles.



Plate 16: View of gaps in roof tiles and missing door (B3).



Plate 17: View of gaps suitable for bat access.



Plate 18: Gaps in roof.



Plate 19: Gaps in roof.



Plate 20: Internal view of structure.



Plate 21: Gaps in brickwork.



Plate 22: External elevations.



Plate 23: Internal view of structure.



Plate 24: Gaps at roof edge.



Plate 25: External view of B2.



Plate 26: External view of B2.



Plate 27: Dislodged and missing roof tiles.



Plate 28: Site boundary.



Plate 29: View of surrounding landscape.



Plate 30: View of gaps in brickwork.

Appendix D: Biodiversity Legislation and Policy

General Legislation and Policy:

The framework of legislation and policy which underpins nature conservation in England. This is a material consideration in the planning process in England.

Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2010 as amended)

The Conservation of Habitats and Species Regulations 2017 consolidate and update the Conservation Regulations 1994 and the conservation of habitats and species regulations 2010 (and all their amendments). The Conservation of Habitats and Species Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Conservation of Habitats and Species Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Conservation of Habitats and Species Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (As amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats. & c.) Regulations 1994 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Biodiversity Action Plan

The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. Lists of Broad and Local habitats are also included. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP requires that conservation of biodiversity is addressed at a County level through the production of Local BAPs. These are complementary to the UKBAP, however are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. UKBAP and Local BAP targets with regard to species and habitats are a material consideration in the planning process.

Planning Policy (England) and National Planning Policy Framework

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives. The latest National Planning Policy Framework was updated in February 2019, with the section in relation to conserving the natural environment being located within section 15.

Section 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

Species Specific Legislation

This section contains a summary of legislation with relation to the species present or potentially present in the survey area. The reader should refer to the original legislation for definitive interpretation.

Nesting and Nest Building Birds

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties.

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

'Reckless' offences with regard to the disturbance of nesting wild birds included in Schedule 1 of the Wildlife and Countryside Act were added by the Countryside and Rights of Way Act 2000.

The Natural Environment and Rural Communities (NERC) Act 2006 places a duty on Government Departments to have regard for the conservation of biodiversity and maintains lists of species and habitats which are of principal importance for the purposes of conserving biodiversity in England and Wales. These lists include a number of bird species.

The reader is referred to the original legislation for the definitive interpretation.

Badger

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to:

- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- possess a dead badger or any part of a badger;
- cruelly ill-treat a badger;
- use badger tongs in the course of killing, taking or attempting to kill a badger;
- dig for a badger;
- sell or offer for sale or control any live badger;
- mark, tag or ring a badger; and
- interfere with a badger sett by:
 - damaging a sett or any part thereof;
 - destroying a sett;
 - obstructing access to a sett;
 - causing a dog to enter a sett; and
 - disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger".

Bats

All species of bat are fully protected under a variety of domestic, European and international legislation and conventions. These include:

- Bern Convention (Appendix II)
- Bonn Convention (Appendix II)
- Conservation Regulations (Northern Ireland) 1995
- Conservation of Habitats and Species Regulations 2010
- Countryside Rights of Way Act 2000
- Eurobats Agreement
- Habitats Directive (Annexes IV and II)
- Habitats Regulations 1994 (as amended) Scotland
- NERC Act 2006
- Wildlife and Countryside Act 1981 (as amended)
- Wild Mammals Protection Act

In addition to this, some species have additional protection by being listed on the UK Biodiversity Action Plan (UKBAP).

The legislation afforded to bats makes it illegal to possess or control any live or dead specimens, to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a bat while it is occupying a structure or place which it uses for that purpose.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which protects birds, nests, eggs and nestlings from harm. In addition to this, some rarer species, such as barn owls are afforded extra protection.

National Planning Policy Framework, Section 15:

The published framework in 2018 replaces the previous Planning Policy Statement 9 and National Planning Policy (dated 2012).

Section 15: Conserving and enhancing the natural environment reaffirms the government's commitment to maintaining green belt protections and preventing urban sprawl, retains the protection of designated sites and preserves wildlife. It also aims to improve the quality of the natural environment and halt declines in species and habitats, protects and enhances biodiversity and promotes wildlife corridors.

Biodiversity 2020:

This sets out to halt overall biodiversity loss and support healthy well-functioning ecosystems by establishing coherent ecological networks, with more and better places for nature, to the benefit of wildlife and people. The government's policy is aimed at individuals, communities, local authorities, charities, business and government, which all have a role to play in delivering Biodiversity 2020.

Freshwater White-clawed Crayfish

The white-clawed crayfish is partially protected under Wildlife and Countryside Act 1981 (as amended). It is listed on schedule 5 and therefore afforded protection under Section 9 (1 and 5). Therefore, it is an offence to take white-clawed crayfish and to sell, or attempt to sell, any part of the species, alive or dead, or intend to buy or sell.

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under a variety of legislation and conventions. These include:

- Bern Convention (Appendix II)
- Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)
- Conservation of Habitats and Species Regulations 2010
- EU Habitats Directive (Annex II and IV)
- Nature Conservation (Scotland) Act 2004
- NERC Act 2006 (Section 41 England; Section 42 Wales)
- Wildlife and Countryside Act 1981 (as amended)

In addition to this, the great crested newt has been listed as a priority species on the UK Biodiversity Action Plan (UKBAP).

This legislation covers all aspects of newt life stages (eggs, efts and adult newts) and makes it illegal to damage, destroy or obstruct access to any structure or place used for shelter, protection or breeding, and to intentionally disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Licenses can be obtained from Natural England (DEFRA) under the Conservation (Natural Habitats etc.) Regulations 1994, to permit activities for the purposes of:

- Regulation 44(2)(e): Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment, or
- Regulation 44(2)(f): Preventing the spread of disease
- Regulation 44(2)(g): Preventing serious damage to any form of property or fisheries

Or

- If there is no satisfactory alternative.

The above regulations allow people to carry out activities which would otherwise be illegal.

Hazel Dormouse

Hazel Dormouse and their habitats are protected by:

- Wildlife and Countryside Act 1981 (as amended)
- Countryside Rights of Way (CROW) 2000
- The Natural Environment and Rural Communities Act 2006
- Conservation of Habitat and Species Regulations 2010

These make it an offence to:

- Capture, injure or kill a Hazel Dormouse
- Disturb a Hazel Dormouse
- Damage or destroy breeding or nesting sites in use by Hazel Dormice
- Disturb a Dormouse whilst it is occupying a structure or place that they use for shelter or protection
- Obstruct access to any structure or place that the Dormouse uses for shelter and protection.
- To possess or control any live or dead specimens.

Otter

Otters are fully protected by the European Habitats Directive (92/43/EEC) by being incorporated in annex II of the legislation. In addition to this, otters are listed on schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take an otter.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by otters.
- To intentionally or recklessly disturb an otter whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell otters.

Reptiles

All six native reptiles within Great Britain are legally protected, with the extent of protection varying dependent upon their rarity and conservation importance.

Those that receive full protection under the Wildlife and Countryside Act 1981 (as amended) are the rare sand lizard and smooth snake. These species also receive protection under the Conservation (Natural Habitats &c.) Regulations 1994 (also referred to as the Habitats Directive). This means that they are protected from deliberate disturbance, killing, injury or capture and the habitat in which they live is also fully protected against damage or destruction. Any activity involving disturbance or damage to habitats utilised by sand lizards or smooth snakes would require a licence issued by the Department of the Environment, Food and Rural Affairs (DEFRA) following consultation with the statutory nature conservation organisation (Natural England).

The remaining four reptile species are 'partially protected' under the Wildlife and Countryside Act 1981 (as amended), with these species being slow-worm, common lizard, grass snake and adder. This means that these species are protected against intentional killing, injuring and against sale, but their habitat is not protected. In planning terms this means that the presence of these species is a material consideration and there is a requirement to ensure that any reptile interest is safeguarded. If a proposed development is likely to have an impact on these reptiles, then the statutory nature conservation organisation must be notified, particularly if capture and translocation is being proposed. In some parts of the UK, sites that support common reptile species such as common lizards and slow-worms can qualify as County Wildlife Sites. Sites of this designation may receive protection in planning policy.

Water Voles

Water Voles are fully protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- To intentionally kill, injure or take a water vole.
- To possess or control any live or dead specimens.
- To intentionally or recklessly damage, destroy or obstruct access to any structure, feature or place of shelter in use by water voles.
- To intentionally or recklessly disturb a water vole whilst it is in occupation of a feature or structure.
- To sell, possess or transport for the purpose of sale or publicly declare the desire to buy or sell water voles.

Non-Native Floral Species

It is an offence under schedule 9 of the Wildlife and Countryside Act 1981 (as amended) to plant or otherwise cause non-native flora to grow in the wild. This includes the transportation of earth that has previously had non-native species growing and includes the spread of the species.

All stands of non-native floral species need to be disposed of safely at a licenced landfill site according to the Environmental Protection Act (Duty of Care) Regulations 1991.

Appendix E: Bats and Artificial Light

Artificial lighting is known to affect bat's roosting and foraging behaviour, with lighting resulting in a range of impacts that includes roost desertion (BCT, 2009), delayed emergence of roosting bats (Downs et al., 2003), increased activity of some bat species and decreased activity by others (Stone et al., 2012).

An experimental approach using LED units, demonstrated that relatively fast-flying bat species, including the common pipistrelle, showed no significant impacts as a result of new artificial lighting, even when lighting was set at relatively high levels close to 50 lux.

In contrast, slow flying bats such as the myotis bats (*Myotis* spp.) showed sharp reductions in presence, even at low light levels of 3.6 lux (Stone et al., 2012).

Current recommendations for all bat species specifies that no bat roost should be directly illuminated.

Due to the impacts of lighting, mitigation and sensitive lighting design schemes are required for projects where bats are present. These should include bat friendly lighting plans that should aim to avoid lighting wherever possible. If this is not possible, then the minimisation of any lighting impacts is required by adopting the following measures:

➤ **To introduce lighting curfews or use of PIR sensors.**

Lighting curfews can be an effective way of avoiding impacts on bats. These curfews may involve either turning off lighting or dimming light units at specific times of the night, dimming units at key times of the year, providing the luminaire allows for this option via a control unit. Lighting to be triggered by PIR sensors can be expected to be illuminated only when required and for a low proportion of time.

➤ **To consider no lighting solutions where possible.**

Options such as white lining, good signage and LED cat's eyes should be considered as preferable. Reflective fittings may help make use of headlights to provide any necessary illumination in some areas.

➤ **To use only high pressure sodium or warm white LED lamps where possible.**

High pressure sodium and warm white LED lamps emit lower proportions of insect attracting UV light than mercury, metal halide lamps and white LED lighting. Generally, lamps should have a lower proportion of white or blue wavelengths, with a colour temperature <4200 kelvin recommended (BCT, 2014).

➤ **To minimise the spread of light.**

The light spread should be kept at or near horizontal to ensure that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Baffles, hoods, louvres and shields should be used where necessary to reduce light spill.

➤ **To consider the height of the lighting column.**

While downward facing bollard lighting is often preferable, it should be noted that a lower mounting height does not automatically reduce impacts to bats as bollard lighting can often be designed to provide up-lighting. Where bollard lighting is considered to be the most appropriate system, bollard spacing or unit density should be kept to a minimum and units should be fitted with the appropriate hoods/deflectors to reduce any up-lighting.

➤ **To avoid reflective surfaces below lights.**

The polarisation of light by shiny surfaces attracts insects increasing bat activity (BCT, 2012). Consequently, surface materials around lighting require consideration.

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