January 2026

Bat Report

In support of a Derogation Licence for Refurbishment Works

Ardsallagh House
Ardsallagh, Co. Tipperary

MALONE O'REGAN ENVIRONMENTAL

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01	19/01/26	Bat Report	Final	SL	DH	DH
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Bat Report

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Ardsallagh House

Ardsallagh, Co. Tipperary

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1 INTRODUCTION

This Bat Survey Report has been prepared by Malone O'Regan Environmental ('MOR Environmental') on behalf of Rachel and Jermey Browne ('the Clients'), to present the findings of bat surveys undertaken at the site at Ardsallagh House, Ardsallagh, Co. Tipperary ('the Site', OSI Reference ITM X 616609 Y 637576). Planning permission has been granted by Tipperary County Council ('TCC') for demolition and refurbishment works for Ardsallagh House (Planning Reference 25/60002). Bat surveys were undertaken on the Site as per the Preliminary Bat Roost Assessment Report (See Appendix A) prepared as part of the original planning application and as per Point 2 of the Grant of Planning; see Table 1-1 below and in Appendix B.

Table 1-1: Second Schedule – Grant of Planning from TCC (Planning Reference 25/60002)

Point	Condition
2.	*'Prior to commencement of development, the developer is required to carry out a full roost characteristic survey and presence/absence surveys as recommended in the 'Preliminary Bat Roost Assessment Report'. These surveys are to be undertaken by a suitably qualified bat specialist/ecologist and the results of same shall be submitted to the Planning Authority. The applicant is advised that all bat species are protected by the Wildlife Amendment Act 2000 (as amended) and are listed in Annex IV of the EU Habitats Directive. If any bat species are found to be roosting at the site, a derogation license must be obtained from the Wildlife Licensing Unit of the National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage prior to commencement of development.'*

As part of compliance with the grant of planning from TCC, bat surveys were determined to be required at two buildings on-site – the main house, comprising Ardsallagh house and the mid-20th century extension to the north (B1) and an outbuilding adjacent to the main house (B3).

1.1 Test 1 - Reason for the Derogation

This application qualifies under 54 & 54(A(2)(a-e) of the European Communities (Birds and Natural Habitats) Regulations. This application falls under reason 'c' –

> '*In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.*'

This derogation falls under this reason, as Ardsallagh House needs intervention to ensure the structural integrity of this protected structure, reference TRPS1098, and listed on the National Inventory of Architectural Heritage Register under reference 22206215 [1]. Planning permission for the refurbishment works has been granted by TCC.

Ardsallagh House has been derelict for a number of years and requires intervention to ensure the long-term protection of this historical building. A mid-20th century extension on the north side of the building has trapped groundwater in the basement of the house, causing structural stress to the walls of the house, endangering the structural integrity of the building.

The granted planning permission works associated with the refurbishment of Ardsallagh House will also ensure that this protected structure can be used as a family home for the foreseeable future, while providing short-term employment to local construction workers during the Construction Phase of the Proposed Development, and long-term employment to the caretaker who has been a permanent on-site resident for a number of years.

1.2 Test 2 – Absence of Alternative Solutions

Two alternative solutions were considered as part of this derogation – a do-nothing scenario, and the translocation of the roost to an alternative building on the Site.

In a do-nothing scenario, Ardsallagh House would continue to deteriorate in condition, endangering the structural integrity of the building and contravening legislation requiring that all protected structures be maintained in a favourable condition. In a do-nothing scenario, Ardsallagh House would also continue to face structural stress from trapped groundwater due to the construction of the mid-20th-century two-storey extension to the north of the house. This could cause the building to collapse, leading to the permanent loss of the available bat roosting space in Ardsallagh house. This led to this alternative solution being deemed 'unsatisfactory'.

The option of translocating the roost in Ardsallagh house to an alternative shed building was also considered. This alternative solution was also deemed 'unsatisfactory', as it would not provide a 'like-for-like' roost space for soprano pipistrelle roosting in the main house. It can also take a number of years for bats to relocate to a translocated roost, which could lead to a local short-term loss of this roost. There is also no guarantee that bats would move to this alternative roost, which could result in the permanent loss of the roost on-site. Translocation of a roost would also require longer-term monitoring.

1.3 Test 3 – Impact of a Derogation on Conservation Status

This bat report details how the project programme can be facilitated to ensure that all required Site works can take place during summer 2026, while ensuring that there are no significant impacts to the conservation status of the roosting bats in Ardsallagh house.

It should be noted that there are no anticipated impacts on a local or national scale to soprano pipistrelle based on the reasons and mitigation measures set out in this report. It should also be noted that the Article 17 report states that the range, population, habitat for the species, future prospects and overall assessment of conservation status for soprano pipistrelle is *'Favourable (FV)',* and the overall trend in conservation status for soprano pipistrelle is *'improving'.*

1.4 Granted Development and Site Context

The Site is located circa ('ca.') 3.8km northwest of Fethard and 5km northeast of Rosegreen. This house was constructed ca. 1780 and comprises the original house and a significant two-storey dwelling over the basement. The Site also includes a range of outbuildings and traditional farm buildings to the west, with walled gardens. A variety of mature trees and agricultural lands surround the Site.

Planning permission has been granted for the following works ('the Granted Development') on-site under TCC Planning Ref: 25/60002:

- *'Demolition of mid-20th century two-storey extension on north façade and single storey extension on west façade of the two-storey with attic over basement dwelling (main house), conservatory ruins on south façade and courtyard outbuildings;*
- *Construction of a new single storey extension and glass link to the west (rear) and a new single storey extension to the north (side) of the main house;*
- *Works to the main house including works to facades on all elevations including removal of existing cementitious render & full lime re-render, refurbishment of the limestone front door surround, cills, minor repairs & refurbishment of entrance railings, refurbishment of existing doors & windows to include slimline double glazing. The building will be altered internally on all levels including modifications to existing partition walls, provision of new lightweight internal stud partitions, partial opening up of existing external walls to rear, three. new window opes & repositioning of the stairwell windows on north facade, new staircase between basement and ground floor, lowering of windows & French doors to rear study, three new conservation rooflights & the enlargement of three existing rooflights, alterations to existing doors*

and windows; general restoration work including the repair of existing ceilings & plasterwork;

- *Landscaping works;*
- *A new wastewater treatment system and soil; and,*
- *Polishing filter and all ancillary and associated site development works.'*

The 'Architectural & Conservation Assessment and Observations on the Impact of the Proposed Works' report, prepared by DMVF Architects and submitted as part of the Granted Development, noted that *'The proposed works undertake to restore one of Ireland's Mid-Size Country Houses which has been in disrepair for some time.'*

1.5 Project Timelines and Justification

Works are scheduled to commence at Ardsallagh in early March 2026. The project programme has been designed to ensure that necessary works can occur during the summer months, while also aiming to ensure that there will not be any significant impacts to bats roosting on-site.

One of the first construction elements that will take place will be the demolition of the mid-20th-century two-storey extension on the north façade. This will take place **outside of the active bat season** (i.e., prior to 1st May 2026), and mitigation measures have been included to compensate for this temporary reduction in available roosting space for bats (see Section 4.2 below).

The requirement for the demolition of the mid-20th-century two-storey extension as soon as possible is primarily due to health and safety and architectural reasons. The house is a protected structure, constructed ca. 1765. Historically, the basement was surrounded by a moat along its full perimeter, which served as a drainage feature and prevented groundwater ingress into the interior.

When the two-storey extension was constructed at a later time, this moat was infilled beneath its footprint. As a result, groundwater has been trapped against the basement walls in this area for many years, leading to persistent and substantial water ingress. This prolonged exposure to moisture has caused ongoing deterioration of both the masonry and the historic internal plaster finishes. It is therefore necessary to remove the two-storey extension as soon as possible once works commence, in order to relieve the source of moisture and allow the historic walls to begin drying out. Delaying removal would continue to expose the protected structure to damage and further loss of historic fabric. There is also concern that the construction of the two-storey extension may be exerting structural stress on the original historic walls.

Additionally, the required groundworks involve the removal of a significant volume of soil around the line of the original moat. These works are best undertaken during the drier months of the summer. Heavy rainfall significantly increases excavation difficulty, poses stability risks and can exacerbate water ingress issues. Carrying out these works in dry conditions is therefore both practical and protective of the historic structure and the contractors undertaking this element of the works.

The project programme has also been planned so that roof works on the rest of Ardsallagh house will not occur until after the main bat season (1st September 2026) and thereby protecting the main roosting Site within the building.

1.6 Relevant Legislation

All Irish bat species are protected by law under the Wildlife Act 1976 and its subsequent amendments. They are afforded full protection under this act, which makes it a criminal offence for anyone without a licence to:

- Kill, injure or handle a bat;
- Possess a bat (whether alive or dead);
- Disturb a roosting bat; and,
- Damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

In addition to domestic legislation, bats are also protected under the EU Habitats Directive (92/43/EEC). All Irish bats are listed in Annex IV of the Habitats Directive, and the lesser horseshoe bat is further listed under Annex II, which makes it an offence to:

- Deliberately capture, injure or kill any bat; or,
- Deliberately disturb a bat, in particular any disturbance which is likely;
    (a) To impair their ability:
        (i) To survive, to breed or reproduce, or to rear or nurture their young; or,
        (ii) To hibernate or migrate.
    (b) To affect significantly the local distribution or abundance of the bat species; or,
- Damage or destroy a breeding site or resting place of a bat.

Therefore, the destruction, alteration or evacuation of a known bat roost is a notifiable action under current legislation, and a derogation licence must be obtained from the National Parks and Wildlife Service ('NPWS') before works can commence.

Furthermore, it should also be noted that any works interfering with bats and especially their roosts, including, for instance, the installation of lighting in the vicinity of the latter, may only be carried out under a licence to derogate from Regulation 23 of the Habitats Regulations 1997 (which transposed the EU Habitats Directive into Irish law) issued by NPWS.

1.7 Statement of Authority

The bat surveys and subsequent report were undertaken and prepared by the following MOR Environmental personnel: Ms Stephanie Lonergan and Mr. Dyfrig Hubble.

Stephanie Lonergan, Environmental Consultant, has a B.A. (Mod) (Hons) in Environmental Science. Stephanie is a qualifying member of the Chartered Institute of Ecology and Environmental Management ('CIEEM') with a particular interest in bat ecology and conservation. Stephanie has completed courses on bat ecology, identification, handling, biometrics and mitigation with CIEEM and Bat Conservation Ireland. Stephanie has undertaken training run by Wildlife Acoustics for analysis of bat calls in Kaleidoscope Pro Software and regularly uses this programme within her role at MOR Environmental. Stephanie also holds a certificate of Bat Acoustic Analysis from Batability. Stephanie has experience undertaking bat surveys and tree / building assessments and regularly attends events held by local bat groups.

This report was approved by Mr. Dyfrig Hubble, Associate Director – Ecologist. Dyfrig has a B.Sc. (Hons) in Tropical Environmental Science and an M.Sc. in Environmental Forestry. Dyfrig is a full member of the Chartered Institute of Ecology and Environmental Management.

Dyfrig has over 18 years' experience working in the ecological consultancy sector, including habitat appraisals and specialist species-specific surveys. Dyfrig has extensive experience in undertaking a variety of bat surveys, including dawn / dusk surveys, transects, static monitoring, harp trapping, Lesser Horseshoe roost counts. Dyfrig has also worked on numerous projects that have required supervision of building demolition and tree removal works under licence. These projects have included work both in the UK and Ireland.

1.8 Species Background

Bats in Ireland feed exclusively on insects, and in the summer months (May – September), they generally emerge from their roosts around sunset to feed. Bats are known to use a number of different foraging sites in the same night and move between them to locate areas of high insect concentrations. They are also known to exhibit site loyalty and will return to the same foraging sites night after night [2].

There are eleven recorded bat species in Ireland, nine of which are considered resident and two which are considered vagrants (Please see Table 1-2 below).

Table 1-2: Status of Irish Bat Species [3]

Bat Species	*Latin Name*	Irish status	European Status
Resident Bat Species			
Brown Long-eared Bat	*Plecotus auritus*	Least Concern	Least Concern
Common Pipistrelle	*Pipistrellus pipistrellus*	Least Concern	Least Concern
Daubenton's Bat	*Myotis daubentonii*	Least Concern	Least Concern
Leisler's Bat	*Nyctalus leisleri*	Least Concern	Least Concern
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	Least Concern	Near Threatened
Nathusius' Pipistrelle	*Pipistrellus nathusii*	Least Concern	Least Concern
Natterer's Bat	*Myotis nattereri*	Least Concern	Least Concern
Soprano Pipistrelle	*Pipistrellus pygmaeus*	Least Concern	Least Concern
Whiskered Bat	*Myotis mystacinus*	Least Concern	Least Concern
Vagrants			
Brandt's Bat	*Myotis brandtii*	Data Deficient	Least Concern
Greater Horseshoe Bat	*Rhinolophus ferrumequinum*	Data Deficient	Near Threatened

1.8.1 Types of Bat Roosts

Bats were originally cave and tree-dwelling animals, but many now use buildings to roost within. Buildings are highly important as roosting sites for all Irish bat species, as they use buildings for all roost types. Most significant in terms of roosts in buildings are maternity roosts, but cellars and attics can serve as hibernation sites for bats. Roosts within buildings can far exceed the numbers encountered in trees, bridges, caves or cliffs and roosts of over 1,000 bats have been recorded in buildings [4].

Bats are social animals, and most species congregate in large colonies during the later spring / summer. These colonies consist mostly of females, with some juvenile males from the

previous year. Male bats normally roost individually or in small groups, meeting up with the females in the late autumn, when it is time to mate. In summer, bats seek warm, dry buildings in which they can give birth and suckle their young. In winter, they seek out places with constant low temperatures and high humidity, where they can become torpid and hibernate during adverse weather. However, bats do not hibernate continuously during winter and will wake and hunt during mild nights when there are insects available, and it is energetically advantageous to forage [5].

One purpose of daytime tree or building inspections is to determine the potential of bat roosts within the survey area. Due to the transient nature of bats and their seasonal life cycle, there are a number of different types of bat roosts. Where possible, one of the objectives of the surveys is to be able to identify the types of roosts present, if any.

Table 1-3 below shows an excerpt of the definitions of the types of bat roosts taken from the Bat Conservation Trust's '*Bat Surveys for Professional Ecologists - Good Practice Guidelines* (4th ed.) [5]. It should be noted that there is no equivalent Irish guidance, and that this guidance is applicable to the bat roost types found in Ireland. Additionally, all bat species found within Ireland are also present in the UK, so Irish bat species have been fully assessed as part of this Bat Conservation Trust guidance.

Table 1-3: Bat Roost Types (definitions written by the Natural England Earned Recognition Project) [5]

Roost Type	Natural England Definition
Day Roost	A place where individual bats or small groups, rest or shelter in the day during the summer.
Night Roost	A place where bats rest or shelter in the night but are not found in the day. May be used by a single individual on occasion, or it could be used regularly by the whole colony.
Feeding Roost	A place where individual bats, or few individuals, rest or feed for short periods during the night but are not present by day.
Transitional Roost	A place used by a few individuals or occasionally small groups for generally short periods of time on waking from hibernation or in the period prior to hibernation.
Maternity Site	A place where female bats give birth and raise their young to independence. In some species males may also be present in the maternity roost.
Hibernation Site	A place where bats may be found individually or together during winter. They have a constant cool temperature and high humidity.
Satellite Roost	An alternative roost found in close proximity to the main nursery colony used by a few individuals to small groups of breeding females throughout the breeding season.

1.9 Purpose of Survey Work

The implication of these legislative policies is that the Granted Development needs to take into account the potential effects on bats. Survey work was necessary to establish whether the species are currently present in areas where suitable habitat exists and in areas where bats have previously been recorded. Survey work also enables appropriate mitigation measures to be incorporated into the project's design and ensures there are no adverse effects on the species' conservation status.

2 METHODOLOGY

The methodologies used to establish the presence / potential presence of bats are summarised below.

2.1 Desk-Based Studies

A desk-based study was undertaken to identify records of bats within the Site. The following sources of information were reviewed:

- The National Parks and Wildlife Service ('NPWS') website was consulted to obtain the most up-to-date details on conservation objectives for the European sites relevant to this assessment [6];
- Aerial mapping was reviewed to identify any habitats and features likely to be used by bats. Maps and images of the Study Area and general landscape were examined for suitable foraging or commuting habitats, including woodlands and forestry, hedgerows, treelines, and watercourses;
- The National Biodiversity Data Centre ('NBDC') website was consulted with regard to bat species distributions and bat habitat suitability index [7];
- The National Bat Database of Ireland dataset on the NBDC website was consulted to investigate the nearest known roosts within the vicinity of the Site [8]; and,
- A review of the Preliminary Bat Roost Assessment Report ('PRA') produced by MWP Engineering and Environmental Consultants in support of the planning application (see Appendix A and Section 2.2.1 below).

2.1.1 Review of Previous PRA

As part of the granted planning application, a PRA were prepared by MWP Engineering and Environmental Consultants. MWP undertook the following bat survey work on the Site:

- Preliminary roost assessment of all buildings, structures and trees onsite on 27th September 2024; and,
- Passive automated bat surveys in four monitoring locations on-site from 27th September – 6th October 2024.

2.2 Field-Based Studies

The survey design was informed by previous experience and the following publications:

- *Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes* [4];
- *A Conservation Plan for Irish Vesper Bats* Irish Wildlife Manual No. 20 [9];
- *UK Bat Mitigation Guidelines: A guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.2.* [10]*;*
- *Bat Mitigation Guidelines for Ireland – V2*. Irish Wildlife Manuals, No. 134 [11] a publication by the NPWS; and,
- *Bat Surveys for Professional Ecologists - Good Practice Guidelines* (4th ed.). London: The Bat Conservation Trust [5].

2.2.1 Dusk Emergence Surveys

As per the PRA and Condition 2 of the Grant of Planning, three dusk emergence surveys were undertaken at the Site on 7th and 19th August and 4th September 2025.

These surveys commenced 15 minutes before sunset and ended 2 hours after sunset, therefore encompassing the typical emergence times of Irish bat species. The emergence survey took place using night vision aids ('NVAs'), aided by surveyors at predetermined vantage points ('VPs') at the same locations as the NVAs. Six MOR Environmental surveyors used predetermined VPs to survey Ardsallagh House and one of the outbuildings adjacent to the main house (see Figure 2-1 below).

Figure 2-1: Bat Survey VPs and Viewsheds

Each surveyor used one HIKMICRO Lynx 2.0 Pro Thermal Monocular as a night vision aid during the emergence survey to aid in monitoring the trees within the Site for bat emergence. See Plates 2-1 to 2-6 below for the viewshed from VP1 – VP6 inclusive.

A combination of visual observation and listening to ultrasonic bat calls using an Echo Meter Touch2 Pro (Apple IOS) were used throughout the transect survey. Bat calls were recorded using this Echo Meter Touch2 Pro and stored on the EchoMeter App.

Plate 2-1: NVA Viewshed from VP1 – Main House (B1)

Plate 2-2: NVA Viewshed From VP2 – Main House (B1)

Plate 2-3: NVA Viewshed from VP3 – Main House (B1)

Plate 2-4: NVA Viewshed from VP4 - Main House (B1)

Plate 2-5: NVA Viewshed from VP5 – Outbuilding (B3)

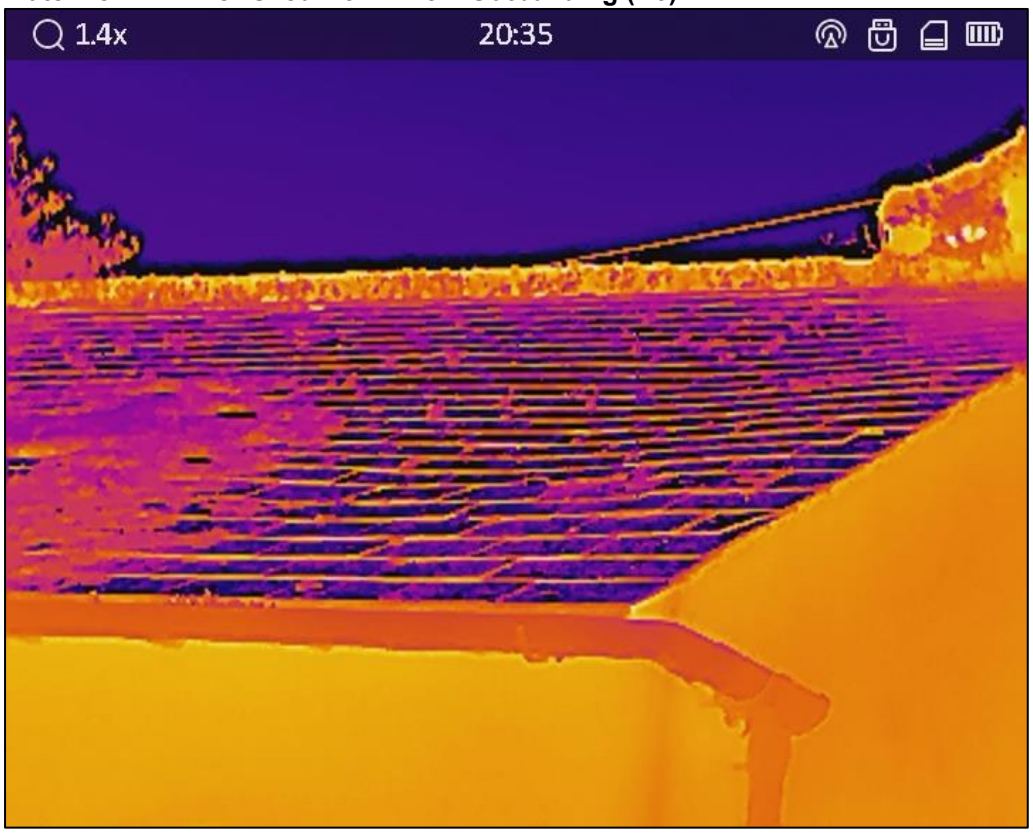
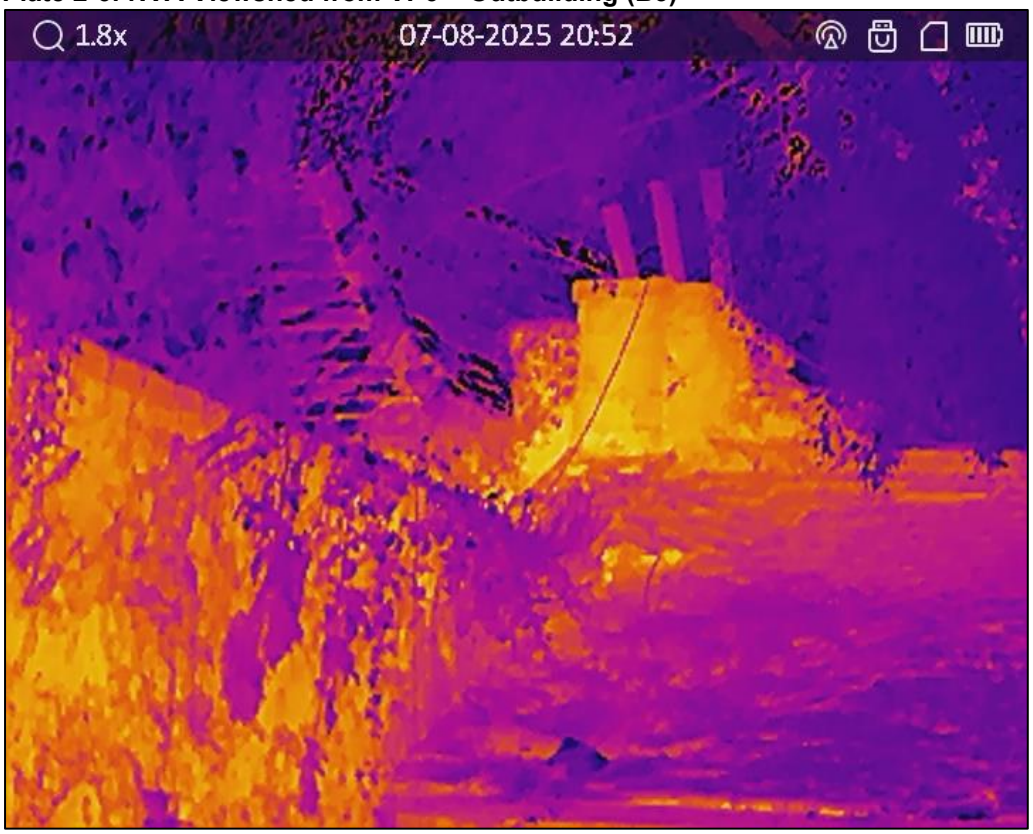


Plate 2-6: NVA Viewshed from VP6 – Outbuilding (B3)



2.2.2 Data Analysis

The bat recordings taken during the surveys were analysed using the software KaleidoscopePro to aid the identification of bat species present. A combination of the visual observations taken during the survey and the number of bat passes[1] identified on the recordings were used to determine bat activity levels within the area.

The footage recorded on the NVAs was reviewed using the Microsoft Clipchamp software. The video recordings were slowed down to 0.1 speed and scanned for any bat emergence / re-entry into the buildings surveyed.

2.3 Survey Limitations

Bat surveys are a snapshot of the bat activity within an area at the time of surveying. It is therefore important that bat surveys comprise a number of surveys designed to provide as much information as possible on the activity usage of the area. Hence, a combination of surveys was used to determine the importance of the survey area on local bat populations, in line with best practice guidelines.

All survey work was conducted in accordance with current best practice guidelines, which dictate that bat surveys should be undertaken when there is no rain or wind and the temperature is above 10°C. During the first dusk emergence survey on 7th August, there was light drizzle for the first ca. 15 minutes of the survey. This is not considered to be a significant survey limitation, as this rain occurred before sunset, and the optimum emergence period of bats from their roosts was still surveyed.

During the dusk bat surveys, temperatures were between 11°C -17°C (see Table 2-1 below).

Table 2-1: Bat Survey Metadata

Date	Survey Type	Sunset	Survey Times (Start-End)	Weather	Temperature (°C) Start - End
07/08/2025	Dusk Emergence	21:19	21:04 – 23:19	Dry, drizzle from 21:04 – 21:17, moderate breeze	13°C - 11°C
19/08/2025	Dusk Emergence	20:45	20:40 – 22:50	Dry, light breeze	17°C - 14°C
04/09/2025	Dusk Emergence	20:15	20:00 – 22:15	Dry, no breeze	14°C - 13°C

[1] It is important to acknowledge that bat calls provide a measure of bat activity rather than the number of individuals in a population. In practice, bat activity (as, for example, represented by 100 recordings) could be from 100 bats passing the detector or one bat passing 100 times [5].

3 RESULTS

3.1 Desk-Based Results

Prior to conducting the field surveys, a desk-based review of information sources was completed.

The NBDC did not hold any records of bat species within 2km of the Site for the past 10 years [7].

A review of the National Bat Database of Ireland shows that the nearest known roost to the Site was a brown long-eared bat roost in a building recorded in a 2km grid square, ca. 2.5km to the north of the Site [8].

Table 3-1 provides details of the habitat suitability index for the Site [7]. The habitat suitability index identifies the geographical areas that are suitable for individual species. The index ranges from 0 to 100, with 100 being the most favourable to bats. The index presented is for all species combined, in addition to the individual species indices within the Site.

From the indices, it can be established that the study area has an overall moderate habitat suitability index range of 21.3 – 28.1. The habitat suitability for bats within the Site and local area ranges from very low to moderate.

Table 3-1: Habitat Suitability Index

Bat Species	Suitability Index Range	Suitability Index Level
All Bat Species	21 - 28	Moderate
Soprano Pipistrelle *(Pipistrellus pygmaeus)*	31 - 38	Moderate
Brown Long-eared Bat (*Plecotus auritus)*	29 - 38	Moderate
Common Pipistrelle (*Pipistrellus pipistrellus)*	31- 38	Moderate
Daubenton's Bat *(Myotis daubentonii)*	22 - 29	Moderate
Leisler's bat *(Nyctalus leisleri)*	30 - 37	Moderate
Whiskered Bat *(Myotis mystacinus)*	10 - 20	Low
Nathusius' Pipistrelle *(Pipistrellus nathusii)*	6 - 15	Low
Natterer's Bat *(Myotis nattereri)*	14 - 26	Low
Lesser Horseshoe Bat (*Rhinolophus hipposideros)*	0 - 4	Very Low*

**It should be noted that the range of the lesser horseshoe bat is considered to be restricted to six western counties: Clare, Cork, Galway, Kerry, Limerick and Mayo. The Site is considered to be outside of the known range of this species in Ireland. Therefore, this species will not occur onsite.*

3.1.1 Review of Previous EcIA and PRA

The daytime bat walkover conducted by MWP concluded that the watercourses and woodland within the vicinity of the Site provided suitable foraging and commuting habitat for bats.

During the daytime roost suitability survey conducted by MWP, bat presence was confirmed in four of the 14 buildings on-site. Bat presence was confirmed due to the findings of bat droppings, dead bat specimens and feeding remains in buildings / attic spaces of buildings. It

was concluded that an additional two buildings, one structure and two trees on-site would provide suitable roosting features for bats.

3.1.2 Review of Previous Passive Automated Bat Survey

Common pipistrelle, soprano pipistrelle, brown long-eared bat, Leisler's bat and *Myotis* species were recorded during the 10 nights of monitoring in September and October 2024.

It was concluded that, as the passive automated bat surveys were undertaken towards the end of the bat season, this was not indicative of overall levels of bat activity at the buildings surveyed.

3.2 Field-Based Results

3.2.1 Dusk Emergence Survey Results

The surveyors identified bats emerging from / re-entering the roof of the main house (B1) during all three dusk emergence surveys undertaken onsite. Bats were also observed commuting towards the trees / woodland within the vicinity of the Site and foraging over the grassland on the Site.

The following bats and bat activity were recorded as a result of the dusk emergence surveys:

- Leisler's bat, soprano pipistrelle, brown long-eared bat, common pipistrelle and *Myotis* species (Daubenton's bat, Natterer's bat and whiskered bat) were observed foraging and commuting on the Site; and,
- A soprano pipistrelle roost was identified in the roof of the main house (B1).

3.2.1.1 Dusk Emergence 07/08/2025

Sunset was at 21:19.

VP1 (Southeast of Main House, B1)

A review of the NVA footage and surveyor notes from VP1 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 21:25 (roof tile – Plate 3-1, reference A);
- One soprano pipistrelle at 21:29 (roof tile/gutter – Plate 3-1, reference B);
- One soprano pipistrelle at 21:29 (roof tile – Plate 3-1, reference C);
- One soprano pipistrelle at 21:32 (roof tile – Plate 3-1, reference C); and,
- One soprano pipistrelle at 22:12 (roof tile – Plate 3-1, reference A).

In total, five soprano pipistrelles were observed emerging from three different points of the roof of B1 at VP1.

Soprano pipistrelle, common pipistrelle, *Myotis* species and Leisler's bat were recorded foraging and commuting at VP2.

Plate 3-1: Soprano pipistrelle emergence points from VP1 at B1 on 07/08/2025

VP2 (Northeast of Main House, B1)

A review of the NVA footage and surveyor notes from VP2 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 21:21 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:27 (roof tile – Plate 3-2, reference A);
- Two soprano pipistrelles at 21:28 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:29 (roof tile – Plate 3-2, reference A);
- Two soprano pipistrelles at 21:30 (roof tile – Plate 3-2, reference A);
- Two soprano pipistrelles at 21:31 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:33 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:36 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:45 (roof tile – Plate 3-2, reference A);
- One soprano pipistrelle at 21:47 (roof tile – Plate 3-2, reference B);
- One soprano pipistrelle at 21:49 (roof tile – Plate 3-2, reference B);
- One soprano pipistrelle at 21:53 (roof tile – Plate 3-2, reference C); and,
- One soprano pipistrelle at 22:00 (roof tile – Plate 3-2, reference D).

In total, 16 soprano pipistrelles were observed emerging from four different points of the roof of B1 at VP2.

Soprano pipistrelle, common pipistrelle, *Myotis* species and Leisler's bat were recorded foraging and commuting at VP2.

Plate 3-2: Soprano pipistrelle emergence points from VP2 at B1 on 07/08/2025

VP3 (South of Main House, B1)

The surveyor at VP3 observed one soprano pipistrelle emerge from a roof tile of the Main House at 21:34 (see Plate 3-3 below). No other emergence was observed from B1 at VP3. A review of the NVA footage from VP3 also confirmed no other bat emergence from B1 at VP3.

Soprano pipistrelle, common pipistrelle, *Myotis* species, brown long-eared bat and Leisler's bat were recorded foraging and commuting at VP3.

Plate 3-3: Soprano pipistrelle emergence point from VP3 at B1 on 07/08/2025

VP4 (West of Main House, B1)

No bat emergence was observed at VP4. A review of the NVA footage from VP4 also confirmed no bat emergence from B1 at VP4.

Soprano pipistrelle, common pipistrelle and Leisler's bat were recorded foraging and commuting at VP4.

VP5 (Northeast of Outbuilding, B3)

No bat emergence was observed at VP5. A review of the NVA footage from VP5 also confirmed no bat emergence from B3 at VP5.

Soprano pipistrelle, common pipistrelle and Leisler's bat were recorded foraging and commuting at VP5.

VP6 (Northwest of Outbuilding, B3)

No bat emergence was observed at VP6. A review of the NVA footage from VP6 also confirmed no bat emergence from B3 at VP6.

Soprano pipistrelle, common pipistrelle and Leisler's bat were recorded foraging and commuting at VP6.

3.2.1.2 Dusk Emergence 19/08/2025

Sunset was at 20:50.

VP1 (Southeast of Main House, B1)

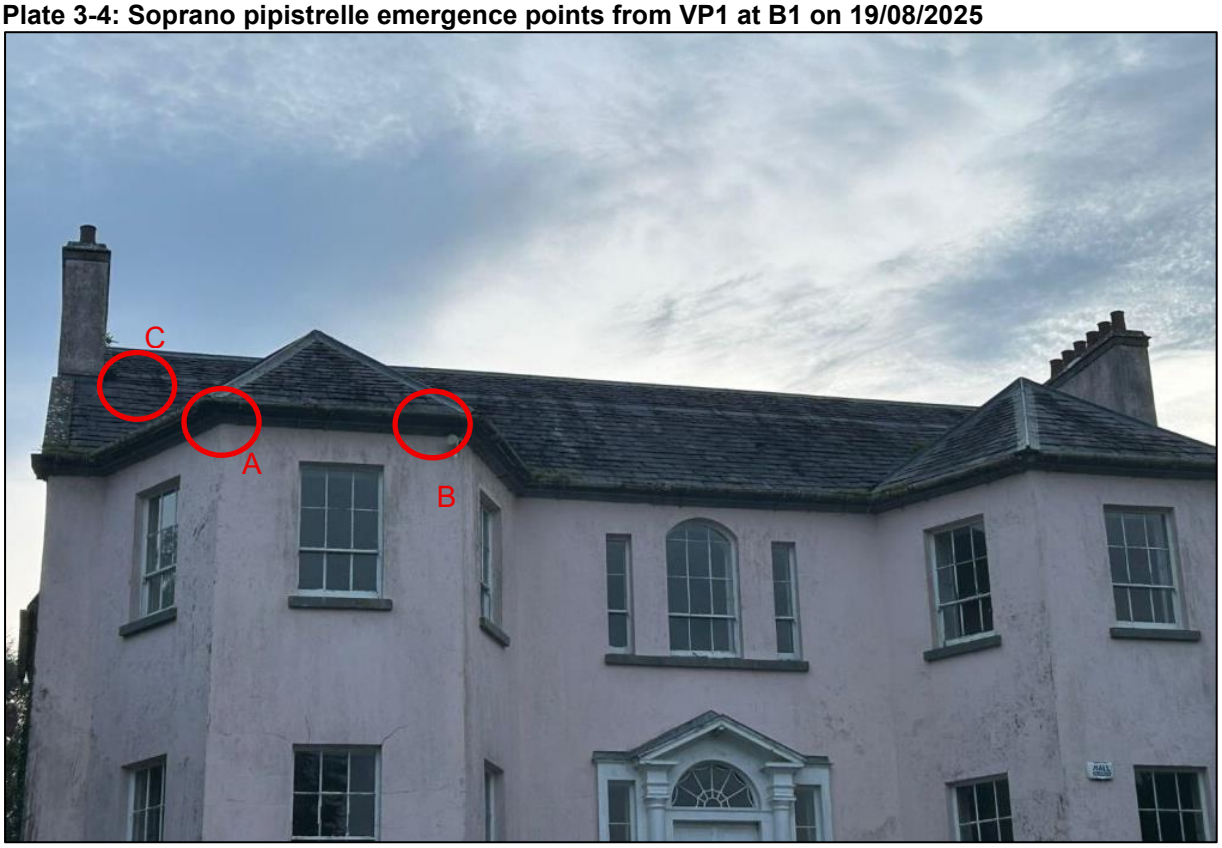
A review of the NVA footage and surveyor notes from VP1 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 21:09 (under gutter – Plate 3-4, reference A);
- Two soprano pipistrelles at 21:11 (under gutter – Plate 3-4, reference A);
- One soprano pipistrelle at 21:11 (under gutter to the north – Plate 3-4, reference B);
- One soprano pipistrelle at 21:12 (under gutter to the north – Plate 3-4, reference B);
- One soprano pipistrelle at 21:12 (under gutter – Plate 3-4, reference A);
- One soprano pipistrelle at 21:13 (under gutter – Plate 3-4, reference A);
- One soprano pipistrelle at 21:16 (under gutter – Plate 3-4, reference A);
- One soprano pipistrelle at 21:20 (under gutter to the north – Plate 3-4, reference B);
- One soprano pipistrelle at 21:21 (under gutter – Plate 3-4, reference A); and,
- One soprano pipistrelle at 21:21 (under a roof tile on the south – Plate 3-4, reference C).

In total, 11 soprano pipistrelles were observed emerging from the three different points of the roof of B1 at VP1.

Soprano pipistrelle, Leisler's bat, brown long-eared bat and *Myotis* species were recorded foraging and commuting at VP1.

Plate 3-4: Soprano pipistrelle emergence points from VP1 at B1 on 19/08/2025



VP2 (Northeast of Main House, B1)

A review of the NVA footage and surveyor notes from VP2 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 21:02 (roof tile – Plate 3-5, reference A);
- One soprano pipistrelle at 21:04 (roof tile – Plate 3-5, reference A);
- Two soprano pipistrelles at 21:05 (roof tile – Plate 3-5, reference B);
- One soprano pipistrelle at 21:09 (roof tile – Plate 3-5, reference A);
- One soprano pipistrelle at 21:19 (roof tile – Plate 3-5, reference A);
- One soprano pipistrelle at 21:22 (roof tile – Plate 3-5, reference A); and,
- One soprano pipistrelle was observed re-entering the roof at 22:06 (Plate 3-6, reference A).

In total, seven soprano pipistrelles were observed emerging from two different points of the roof of B1 at VP2 and one soprano pipistrelle was observed re-entering the roof of B1 at a different point.

Soprano pipistrelle, Leisler's bat, brown long-eared bat and *Myotis* species were recorded foraging and commuting at VP1.

Plate 3-5: Soprano pipistrelle emergence points from VP2 at B1 on 19/08/2025

Plate 3-6: Soprano pipistrelle re-entry points from VP2 at B1 on 19/08/2025

VP3 (South of Main House, B1)

The surveyor at VP3 observed one soprano pipistrelle emerge from a roof tile of the Main House at 21:07 (see Plate 3-7 below). No other emergence was observed from B1 at VP3. A review of the NVA footage from VP3 also confirmed no other bat emergence from B1 at VP3.

Soprano pipistrelle, common pipistrelle and *Myotis* species were recorded foraging and commuting at VP3.

Plate 3-7: Soprano pipistrelle emergence point from VP3 at B1 on 19/08/2025

VP4 (West of Main House, B1)

No bat emergence was observed at VP4. A review of the NVA footage from VP4 also confirmed no bat emergence from B1 at VP4.

Soprano pipistrelle, common pipistrelle and *Myotis* species were recorded foraging and commuting at VP4.

VP5 (Northeast of Outbuilding, B3)

No bat emergence was observed at VP5. A review of the NVA footage from VP5 also confirmed no bat emergence from B3 at VP5.

Soprano pipistrelle, common pipistrelle and *Myotis* species were recorded foraging and commuting at VP5.

VP6 (Northwest of Outbuilding, B3)

No bat emergence as observed at VP6. A review of the NVA footage from VP6 also confirmed no bat emergence from B3.

Soprano pipistrelle, common pipistrelle, *Myotis* species and Leisler's bat were recorded foraging and commuting at VP6.

3.2.1.3 Dusk Emergence 04/09/2025

Sunset was at 20:15.

VP1 (Southeast of Main House, B1)

A review of the NVA footage and surveyor notes from VP1 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 20:21 (roof tile – Plate 3-8, reference A);
- One soprano pipistrelle at 20:24 (under gutter – Plate 3-8, reference B);
- One soprano pipistrelle at 20:26 (roof tile – Plate 3-8, reference C);
- Two soprano pipistrelle at 20:32 (under gutter – Plate 3-8, reference D);
- One soprano pipistrelle at 20:36 (under gutter – Plate 3-8, reference D);
- One soprano pipistrelle at 20:39 (under gutter – Plate 3-8, reference B);
- One soprano pipistrelle at 20:45 (under gutter – Plate 3-8, reference D);
- One soprano pipistrelle at 20:48 (roof tile – Plate 3-8, reference A);
- One soprano pipistrelle at 21:04 (under gutter – Plate 3-8, reference E); and,
- One soprano pipistrelle at 21:11 (under gutter – Plate 3-8, reference E).

In total, 11 soprano pipistrelles were observed emerging from five different points of the roof of B1 at VP1.

Soprano pipistrelle, common pipistrelle, Leisler's bat and brown long-eared bat were recorded foraging and commuting at VP1.

Plate 3-8: Soprano pipistrelle emergence points from VP1 at B1 on 04/09//2025

VP2 (Northeast of Main House, B1)

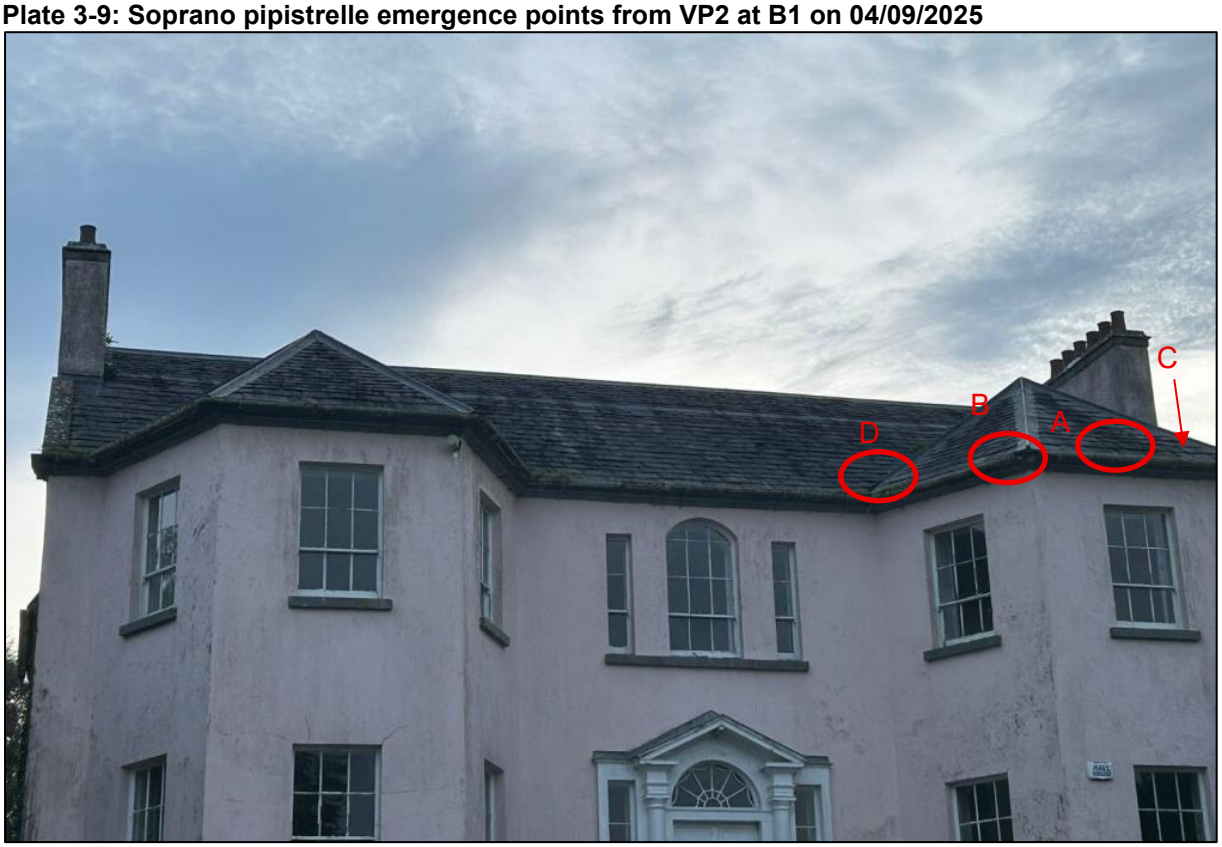
A review of the NVA footage and surveyor notes from VP2 observed the following bat emergence from the roof of the main house (B1):

- One soprano pipistrelle at 20:21 (roof tile – Plate 3-9, reference A);
- One soprano pipistrelle at 20:26 (under gable – Plate 3-9, reference B);
- One soprano pipistrelle at 20:29 (roof tile– Plate 3-9, reference A);
- One soprano pipistrelle at 20:30 (under gable– Plate 3-9, reference B);
- One soprano pipistrelle at 20:31 (roof tile– Plate 3-9, reference C – not visible in image);
- Two soprano pipistrelles at 20:35 (under gable – Plate 3-9, reference B);
- One soprano pipistrelle at 20:37 (under gable – Plate 3-9, reference B);
- One soprano pipistrelle at 20:38 (under gable – Plate 3-9, reference B);
- One soprano pipistrelle at 20:46 (under gable – Plate 3-9, reference B); and,
- One soprano pipistrelle at 20:48 (roof tile – Plate 3-9, reference D).

In total, 11 soprano pipistrelles were observed emerging from four different points of the roof of B1 at VP2.

Soprano pipistrelle, common pipistrelle, Leisler's bat and brown long-eared bat were recorded foraging and commuting at VP2.

Plate 3-9: Soprano pipistrelle emergence points from VP2 at B1 on 04/09/2025



VP3 (South of Main House, B1)

The following bat emergence was observed at VP3:

- One soprano pipistrelle at 20:25 (roof tile – Plate 3-10, reference A);
- Two soprano pipistrelles at 20:28 (under gutter – Plate 3-10, reference B);
- One soprano pipistrelle at 20:35 (under gutter – Plate 3-10, reference B); and,
- One soprano pipistrelle at 20:42 (under gutter – Plate 3-10, reference C).

In total, five soprano pipistrelles were observed emerging from three different points of the roof of B1 at VP2.

Soprano pipistrelle, common pipistrelle and Leisler's bat and *Myotis* species were recorded foraging and commuting at VP3.

Plate 3-10: Soprano pipistrelle emergence points from VP3 at B1 on 04/09/2025

VP4 (West of Main House, B1)

The following bat emergence was observed at VP4:

- One soprano pipistrelle at 20:41 (roof tile – Plate 3-11, reference A); and,
- One soprano pipistrelle at 20:42 (roof tile – Plate 3-11, reference B).

No other emergence was observed from B1 at VP4. A review of the NVA footage from VP4 also confirmed no other bat emergence from B1 at VP4.

Soprano pipistrelle, common pipistrelle, Leisler's bat and *Myotis* species were recorded foraging and commuting at VP4.

Plate 3-11: Soprano pipistrelle emergence points from VP4 at B1 on 04/09/2025

VP5 (Northeast of Outbuilding, B3)

No bat emergence was observed at VP5. A review of the NVA footage from VP5 also confirmed no bat emergence from B3 at VP5.

Soprano pipistrelle, common pipistrelle, Leisler's bat and *Myotis* species were recorded foraging and commuting at VP5.

VP6 (Northwest of Outbuilding, B3)

No bat emergence as observed at VP6. A review of the NVA footage from VP6 also confirmed no bat emergence from B3.

Soprano pipistrelle, common pipistrelle, *Myotis* species and Leisler's bat were recorded foraging and commuting at VP6.

3.2.2 Roost Type

The following activity was observed during the emergence surveys undertaken at the Site:

- A total of 22 soprano pipistrelles were observed emerging from the roof of B1 on 7th August 2025;
- A total of 19 soprano pipistrelles were observed emerging from the roof of B1 on 19th August 2025; and,
- A total of 29 soprano pipistrelle were observed emerging from the roof of B1 on 4th September 2025.

Soprano pipistrelle maternity roosts have been noted to typically consist of 20 to over 1000 individuals (with a median of 203) [5]. The surveys undertaken in August and September identified a maximum count of 29 (mean 23.3 and median 22). Given the time of the year the surveys were undertaken (considered to still be in the maternity roost season) and the number of bats emerging, it is considered possible that roost in B1 could be a soprano pipistrelle maternity roost.

Therefore, adopting a precautionary approach, the roost in the roof of B1 will be treated as a **maternity roost.**

4 IMPACT ASSESSMENT AND MITIGATION

Following the dusk emergence surveys carried out on the Site, the roost in the roof of B1 has been classified as a maternity roost. Due to the refurbishment and demolition works associated with the Granted Development, it is considered that, without appropriate mitigation measures, there will be a significant negative effect on this bat roost.

Any bats utilising B1 will be affected by the Construction Phase of the Granted Development.

4.1.1 Potential Impacts on Bats

The following potential impacts have been identified in relation to the Construction Phase of the Granted Development:

- The temporary loss of a soprano pipistrelle maternity roost during the Construction Phase of the Granted Development (undertaken outside of the maternity season for bats); and,
- Impacts on bats as a result of construction lighting.

These potential impacts will be further examined below, and appropriate mitigation measures will be implemented to compensate for this temporary disturbance.

4.1.2 Temporary loss of Soprano Pipistrelle Maternity Roost

Given that the Granted Development will result in the temporary loss of a soprano pipistrelle maternity roost, there is a requirement for a derogation licence to be obtained for the works to proceed to avoid contravention of wildlife legislation and negative impact on bat species. The mitigation detailed below will be followed during the Construction Phase of the Granted Development.

As per the '*Bat Mitigation Guidelines for Ireland'* prepared by the NPWS, the scale of impact for 'temporary disturbance outside breeding season' for a maternity roost is '*Low*' [11]. Additionally, as the roost status of the maternity roost in B1 is considered to be '*Maternity sites of common species',* the mitigation requirement is considered to be the following [11]:

- '*Timing constraints;*
- *More or less like-for-like replacement;*
- *Bats must not be left without a roost and must be given time to find the replacement; and,*
- *Monitoring for 2 years preferred.'*

As previously mentioned, all bat species in Ireland, including soprano pipistrelles, are protected under Annex IV of the Habitats Directive and the Wildlife Acts 1976. Therefore, the Granted Development requires a derogation licence from the NPWS to allow for works that would create a risk to bats and temporarily remove a maternity roost. Additionally, mitigation measures should also be proposed and meet the requirements for protecting bats within the vicinity of the Site.

4.2 Mitigation Measures for Roosting Bats during Demolishment Works for the Granted Development

As mentioned in Section 1.2 above, the current project programme plans for the demolition of the mid-20th-century two-storey extension on the north façade as one of the first construction works to take place on-site. Two bats were observed emerging from the roof of this extension

on one of the three bat surveys undertaken during 2025. Therefore, the following mitigation measures are proposed during the demolition of this structure:

- The two-storey extension will be demolished prior to the active bat survey season (1st May 2026);
- A suitably experienced bat ecologist will supervise the demolition works;
- The loss of the available bat roosting space in the roof of the two-storey extension will be compensated through the provision of alternative suitable roosting space throughout the Site (see Section 4.2.1 below).

4.2.1 Provision of Alternative Suitable Roosting Space

The two-storey extension will be demolished prior to the active bat season (1st May 2026) to facilitate the project programme, other extensive site works, and to ensure that there are safe working conditions for workers on-site. As two bats were observed roosting in the roof of this extension during one of the three surveys undertaken on-site in 2025, there will be a temporary reduction in the available roosting space on-site. To compensate for this, alternative roosting spaces will be provided in advance of 1st May 2026 and remain in place across the Site for the lifetime of the Granted Development. These alternative roosting spaces will comprise the following:

- 4 bat boxes erected on suitable mature trees within close proximity to the house (see Plate 4-1 below); and,
- 1 bat box erected on the rafters / beams of a stable building (B5), which had confirmed bat presence during the PRA conducted by MWP in 2024 (See Plate 4-2 below).

Plate 4-1: Example of Mature trees to the South of B1 where Bat Boxes will be erected

Plate 4-2: Image of Roof of B5 where a bat box will be erected

Figure 4-1 below shows suitable bat roost box examples including a Bat Box Schwegler (model 1FF) and Vivara Small Bat Box.

Figure 4-1: Suitable Bat Roost Boxes

4.3 Mitigation Measures for Roosting Bats during Refurbishment Works for the Granted Development

As mentioned in Section 1.2 above, the current project programme plans for all other roof works on B1 to take place after the active bat season (i.e. after 1st September 2026). Therefore, the roof space in the main house will be available as a bat roosting space for the 2026 bat season.

The following mitigation measures will be implemented during the roof works on B1:

- The aspects of the Granted Development that involve the removal of the roof of the B1 (the location of the bat roost) shall be supervised by a suitably experienced bat ecologist;
- Ridge tiles with traditional bitumastic hessian roofing felt should be used for the roof of B1. Breathable membranes should not be used, as these can entangle and trap bats in flight [11]. The location and number of these ridge tiles will be determined following the additional surveys by a suitably experienced bat ecologist;

- The optimum season for works carried out at summer roosting sites is 1st September to 1st May. Therefore, all roof works on B1 should be completed between 1st September 2026 and 1st May 2027, subject to the stipulations of the derogation licence [11];
- The new soprano pipistrelle roost space will be constructed and fully completed in advance of 1st May 2027, as per the design specifications of the granted licence;
- A suitable roof void space for soprano pipistrelles will be incorporated into the Granted Development that replicates the current features on the Site (see Plates 4-1 and 4-2 below). Bats will be able to access the roof space of B1 via bat-specific tiles (see Plates 4-3 and 4-4 for examples of suitable bat access tiles). Additional required design features to be implemented include:
    - Access into the roof via a 15-20mm gap. The Project Ecologist will visit the Site during construction works to ensure that the access point into B1 is still suitable for bat species;
    - Smooth plastic roof lining must be avoided as bats cannot hang freely from this; and,
    - Timber cladding mounted on 20-30mm counter battens with bat access at the bottom or sides [11].
- Only bat-safe compounds shall be used during the chemical treatment of roof timbers. Further details of this process can be found in '*The Bat Worker's Manual'* [12];
- No rodenticide usage will be permitted within the vicinity of the Site;
- In the event that any bats are identified during the Granted Development, the bat(s) will be captured and released at night into the woodlands surrounding the Site, or placed into bat boxes that have been erected within B5; and,
- All personnel involved in the Construction Phase will be made aware of the legal status of bat species in Ireland and the role of project ecologists.

Plate 4-3: Bat Roost Space in Attic of B1

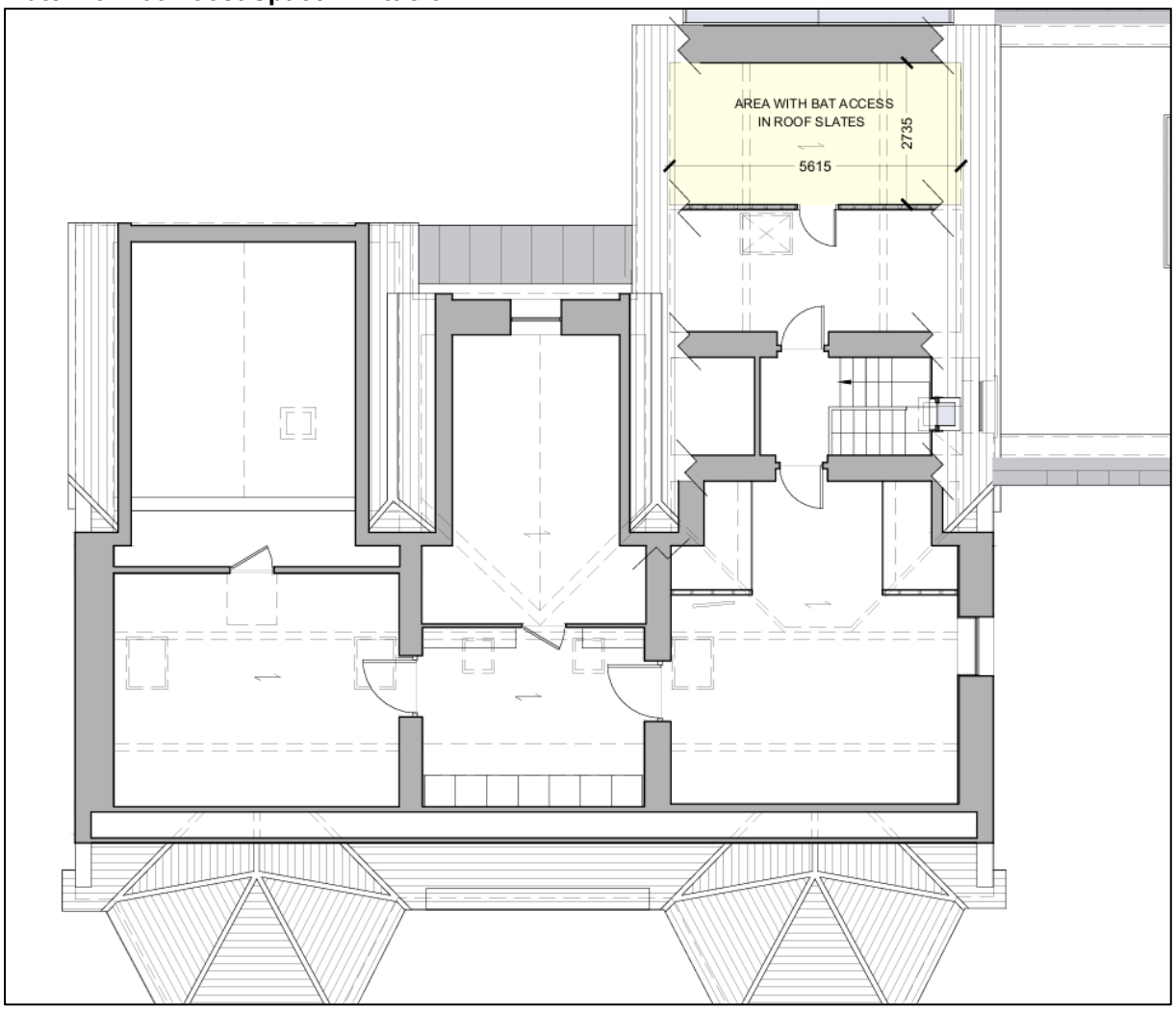


Plate 4-4: Bat Roost Space in Attic of B1

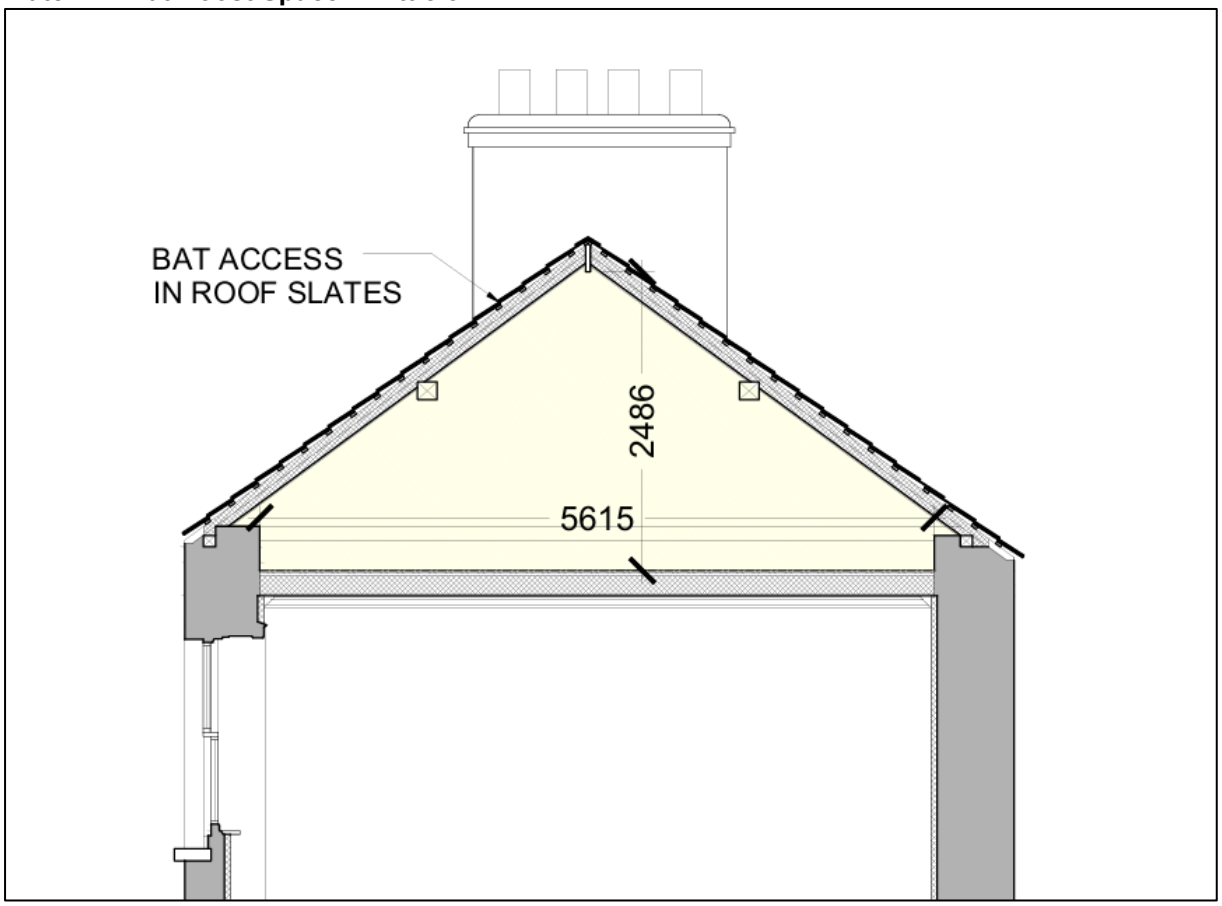


Plate 4-5: Example of a bat access ridge tile suitable for B1

Plate 4-6: Example of a bat access tile suitable for B1

There is also potential for bats to face temporary disturbance while they use the roof of Ardsallagh house as a roosting site during the summer, and other Site works are occurring. It should be noted that all construction works during the summer will take place during the daylight hours, before bats emerge from their roosts at night to forage. There will be no requirement for construction lighting during the summer.

The above mitigation measures in relation to the timing of the works are only applicable for the 2026/27 spring / winter season.

4.3.1 Lighting Plan

Bats are averse to excessive lighting; consequently, impacts may result from an inappropriate lighting strategy. All lighting installed as part of the Granted Development will be for safety and security purposes.

No permanent lighting is proposed as part of the Granted Development. Lighting may be required during construction works in the winter months when daylight hours are insufficient. It should be noted that as bats enter torpor and hibernate during the winter months, there are

unlikely to be any impacts associated with Construction Phase lighting on bats. However, on a precautionary basis, the following mitigation measures are proposed for lighting required during the Construction Phase:

- Avoidance of excessive lighting;
- Light Emitting Diodes ('LED's') will be used, and the brightness will be set as low as possible;
- Lighting will be aimed only where it is needed, with no upward lighting;
- Lighting should be turned down / off when not required;
- Accessories such as baffles, hoods or louvres can be used to reduce light spill and direct light only where it is needed; and,
- The height of lighting columns should be reduced as much as possible, as lighting at a low level further reduces ecological impact.

4.4 Monitoring

An Ecological Clerk of Works ('ECoW') will be appointed for the duration of the works and will undertake the necessary monitoring works as required to ensure the implementation of the ecological mitigation measures.

As mentioned in Sections 4.2 and 4.3 above, the aspects of the Granted Development that involve roof works on B1 shall be supervised and monitored by the ECoW, who will also be a suitably qualified bat ecologist. Additionally, the following monitoring works will take place to ensure that the works comply with the recommendations detailed in this report:

- In line with guidance from the NPWS, monitoring for at least 2 years will be undertaken at the Site [11]. Updated dusk bat surveys will be undertaken at the Site after the construction works have finished during the optimum survey season for bats to ensure that bats are still utilising B1 and the surrounding habitats; and,
- The findings of any additional surveys will be submitted to the NPWS.

5 CONCLUSIONS

Dusk emergence surveys were carried out at the Site at Ardsallagh House (B1) and an outbuilding (B3) as part of Condition 2 of the grant of planning from TCC (Planning Reference 25/60002).

A soprano pipistrelle roost was identified within the roof of Ardsallagh House (B1). Given the number of individuals emerging from this building and the time of year the surveys were carried out, it was considered that this roost could be a maternity roost.

No construction works that could potentially impact bats roosting on-site will take place during the active bat season (1st May – 1st September).

However, the Granted Development will result in the temporary loss of available roosting sites, as part of B1 will be demolished, and the rest of B1 will be re-roofed and undergo refurbishment. However, given the temporary loss of this roosting site, appropriate mitigation measures will be put in place.

Although it is considered that there will be a temporary loss of roosting habitat associated with the Granted Development, the long-term benefits of these works will ensure the protection of Ardsallagh House as a bat roost. It is considered that if the measures presented within this report are followed, the permanent or long-term potential impacts on bats will be negligible and the refurbishment of Ardsallagh House will ensure the long-term protection of the structure and the availability of suitable bat roosting habitat in the area.

6 REFERENCES

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APPENDICES

APPENDIX A

MWP

Preliminary Bat Roost Assessment

Proposed Refurbishment Works
Ardsallagh Estate, County Tipperary

Rachel Yurkowski & Jeremy Browne C/O DMVF Architects

December 2024

Contents

Tables

Figures

Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Status
25132	6002	A	12/12/2024	RB	HD	HD	FINAL

MWP, Engineering and Environmental Consultants
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1. Summary

- Bat surveys were conducted at the site of a proposed development at the Ardsallagh Estate, Co. Tipperry. Surveys comprised of a day-time bat walkover survey (DBW), preliminary roost assessment (PRA) and passive automated bat (PAB) surveys.
- The site consists of 14 buildings, a courtyard, a walled garden, woodland and scattered trees. The buildings consist of a mixture of dwellings, stables, barns, greenhouses, storage rooms and a garage. Structures found on site include three very small outbuildings, a horse walker and a number of stone-built walls.
- Bat presence was confirmed through bat droppings that were found in buildings B1 (main house), B3 (storage building), B5 (cottage and stables) and B6 (barn 1). In addition to bat droppings, four dead bat specimens were found in the loft space of B1, and some feeding remains were found in buildings B3 and B5. Features suitable for roosting and or entry and exit points were also found throughout these buildings. Buildings B1 and B5 were considered to have high roosting potential, B6 was considered to be of moderate roosting potential and B3 of low roosting potential.
- Potential roosting features were also observed in and or on buildings B4 (garage) and B8 (barn 2), structure S5 (stone walls) and trees T1 and T2.
- Both buildings B4 and B8 were considered to be of low potential for roosting bats, the stone-built walls (S5) were considered to be of moderate roosting potential, tree T1 was considered to be of high roosting potential and tree T2 was considered to be of moderate roosting potential.
- No other evidence of bats was found in any other building, structure or tree on site.
- The PAB surveys were carried out during later stages of the bat survey season of 2024. They were designed to collect baseline data on presence of bat species and passively sample and record bat activity at pre-selected sampling points (SP), where bat evidence had been gathered, and were carried out over consecutive nights in September and October 2024.
- Bat species recorded included common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long eared *Plecotus auritus*, *Myotis*.sp and Leisler's. Common pipistrelle, soprano pipistrelle, brown long eared and *Myotis*.sp were recorded at three of the four sampling point locations (Sampling point 1 (loft space of B1), Sampling point 3 (Internals of the stables section of B5) and Sampling point 4 (Internals of B6). Leisler's was recorded at sampling point 3 only. *Myotis*.sp was not recorded at sampling point 2.
- PAB surveys suggest that even in the later stages of the bat survey season, buildings B5 and B6 nightly and hourly activity levels were found to be medium to high, whilst for buildings B1 and B3 activity levels were found to be low.
- Further survey effort in the form of roost characterisation surveys will be required for buildings B1 and B3. It is currently understood that proposed plans at this stage do not include for buildings B5 and B6. Should plans change to include any works to this building and any other building, structure and or tree with roosting potential as identified in this report, further survey effort will be required (**see section 7 for details**).

2. Introduction

Malachy Walsh and Partners (MWP) Engineering and Environmental Consultants was commissioned by Rachel Yurkowski & Jeremy Browne C/O DMVF Architects, to undertake a Preliminary Roost Assessment (PRA) in support of a planning application for the proposed refurbishment works to the Ardsallagh Estate, Co. Tipperary (hereafter referred as the 'Proposed Development').

2.1 Purpose of Report

The aims of this document are:

- Report the survey methodology used and the results of the Preliminary Roost Assessment (PRA); and,
- Provide recommendations in relation to bats to facilitate the proposed refurbishment works to the Ardsallagh estate and detail any mitigation measures required to ensure compliance with nature conservation legislation pertaining to bats. Recommendations will ensure impacts are kept to a minimum and will seek to retain habitats wherever possible.

2.2 Statement of Competency

This report was authored by Rob Beer (BSC, MRSB). Rob is a Senior Ecologist with six years full-time experience, since graduating in 2017. Rob has recently joined MWP and had previously been working in the UK. Rob is experienced in a range of standard and complex ecological surveys in accordance with British standards, including, but not limited to, UK habitat classification surveys and JNCC[1] Phase 1 surveys, Biodiversity Net Gain (BNG) metric and reporting, bat surveys (stages 1 & 2), reptile surveys, badger surveys, & great crested newt (GCN) surveys. Rob is a holder of a Natural England bat license level 2, a holder of a Natural England GCN license level 1 and has a FISC[2] level 2 certificate. Rob has also recently acquired a National Parks and Wildlife Service (NPWS) bat survey license (License Number: DER/BAT 2024-112). Rob also has extensive experience with ecological clerk of works (ECoW) for a range of species across diverse project types, from small household projects to large infrastructure projects such as rail and road schemes. This includes conducting supervisions and overseeing licenced works in relation to bat, badger and GCN. Rob has extensive experience in bat-related work and historically volunteered with a number of different bat groups in the UK; this has enabled him to gain a vast amount of experience in all types of bat surveys and work. In addition to his experience with stage 1 and 2 bat surveys, he has participated in numerous hibernation roost surveys, and other roost counts/inspections where he is proficient in the use of endoscopes and hand netting, and the handling of bat species.

This report was reviewed by Hazel Dalton (BSc., BBus.). Hazel is a Senior Ecologist with over nine years' experience with MWP since graduating with a first-class Honours Degree in *Wildlife Biology* from Munster Technological University (MTU) in 2015. Hazel is experienced in ecological surveying and impact assessment for Appropriate Assessment (AA) and EIAR. She has authored and contributed to numerous screening reports for AA, Natura Impact Statements (NIS) and Ecological Impact Assessment (EcIA) reports. Hazel is an experienced field ecologist with a diverse ecological survey profile including habitats and flora, mammals, bats and birds. She has held/holds NPWS Licences for small mammal trapping, tape lure/endoscope bird surveys, Kerry slug (*Geomalacus maculosus*) surveys, disturbance of a bat roost to facilitate bridge works, photographing wild animals (badger and otter) at their resting/breeding places and bat surveys (DER/BAT 2024-51).

[1] Joint Nature Conservation Committee (JNCC) - Public body that advises the Government of the United Kingdom on UK-wide and international nature conservation.

[2] Field Identification Skills Certificate (FISC) from the Botanical Society of Britain and Ireland (BSBI)

2.3 Legislation and Guidance

All Irish bat species are protected under the Wildlife Acts 1976 to 2023[3] and the EU Habitats Directive[4] which protects designated animal and plant species, including bats, and their habitats. All Irish bat species are listed in Annex IV of the EU Habitats Directive as species protected across their entire natural range, while the lesser horseshoe bat (*Rhinolophus hipposideros*) is further listed under Annex II as a species for which core areas of their habitat must be protected within the Natura 2000 network of protected sites[5]. Under Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations 2011-2021, any person who carries out any of the following acts in regard to the animal species listed in Annex IV of the EU Habitats Directive shall be guilty of an offence:

- deliberately captures or kills any specimen of these species in the wild,
- deliberately disturbs these species particularly during the period of breeding, rearing, hibernation, and migration,
- deliberately takes or destroys eggs of those species from the wild,
- damages or destroys a breeding site or resting place of such an animal, or
- keeps, transports, sells, exchanges, offers for sale, or offers for exchange any specimen of these species taken in the wild, other than those taken legally as referred to in Article 12(2) of the Habitats Directive.

Any works interfering with bats and their roosts may only be carried out under a Derogation Licence granted via the NPWS pursuant to Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 (which transposed the EU Habitats Directive into Irish law).

Across Europe, bat species are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979) was instigated to protect all migrant species across all European boundaries. The Irish government has ratified both these conventions.

Under Article 11 of the EU Habitats Directive, each European Union (EU) member state is obliged to undertake surveillance of the conservation statuses of the natural habitats and species in the Annexes and, under Article 17, to report to the European Commission every six years on the statuses and the implementation of the measures taken under the Directive. In April 2019, Ireland submitted the third assessment of conservation status for 59 habitats and 60 species. The current Conservation Status assessments for bat species resident in Ireland are listed in Table 1 below; the trend in the Conservation Status for each is included.

[3] Collective citation for the following: Wildlife Act 1976 (no. 39 of 1976); Wildlife (Amendment) Act 2000 (no. 38 of 2000); Wildlife (Amendment) Act 2010 (no. 19 of 2010); Wildlife (Amendment) Act 2012 (no. 29 of 2012); Heritage Act 2018 (no. 15 of 2018), Part 3 and Planning, Heritage and Broadcasting (Amendment) Act 2021 (no.11 of 2021), Chapter 3.

[4] Council Directive 92/43/EEC

[5] Natura 2000 is a network of nature protection areas in the territory of the European Union. It is made up of Special Areas of Conservation and Special Protection Areas designated under the Habitats Directive and the Birds Directive, respectively. The network includes both terrestrial and Marine Protected Areas.

Table 1: Overall assessment of conservation status for bat species resident in Ireland (NPWS, 2019)

Species	Conservation Status	Overall Trend in Conservation Status
Brown long-eared bat *Plecotus auritus*	Favourable (FV)	Improving
Common pipistrelle *Pipistrellus pipistrellus*	Favourable (FV)	Improving
Daubenton's bat *Myotis daubentonii*	Favourable (FV)	Improving
Lesser horseshoe bat *Rhinolophus hipposideros*	Unfavourable-Inadequate (U1)	Deteriorating
Leisler's bat *Nyctalus leisleri*	Favourable (FV)	Improving
Nathusius' pipistrelle *Pipistrellus nathusii*	Unknown (X)	N/A
Natterer's bat *Myotis nattereri*	Favourable (FV)	Stable
Soprano pipistrelle *Pipistrellus pygmaeus*	Favourable (FV)	Improving
Whiskered bat *Myotis mystacinus*	Favourable (FV)	Stable

With regards bat species, the following guidance documents were referred to for survey design and recommendations in relation to the proposed arboricultural works.

- '*Bat surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*'. Bat Conservation Trust, London. (Collins, 2023).
- '*Bats and artificial lighting at night. Guidance Note 08/23*'. Bat Conservation Trust. (BCT, 2023)
- '*Bat mitigation guidelines for Ireland v2*'. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service. (Marnell, *et al*., 2022).
- '*Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes*'. (NRA, 2005)
- '*Guidelines for the Treatment of Bats During the Construction of National Road Schemes*'. (NRA, 2005b).

3. Site Location and Description

The proposed development site is located in the townland of Ardsallagh found within County Tipperary. The Ardsallagh estate is located approximately 5km northwest of the town of Fethard and is approximately 9km southeast of Cashel. The site is approximately 24.42 hectares (ha) in size and comprises of 14 buildings, a courtyard, gardens, woodland, pond and a small ornamental pond. The site is set within a rural landscape and is surrounded by pasture and arable land. The site is also found approximately 750m west from the River Clashawley (measurement taken from the centre of site to the riverbank).

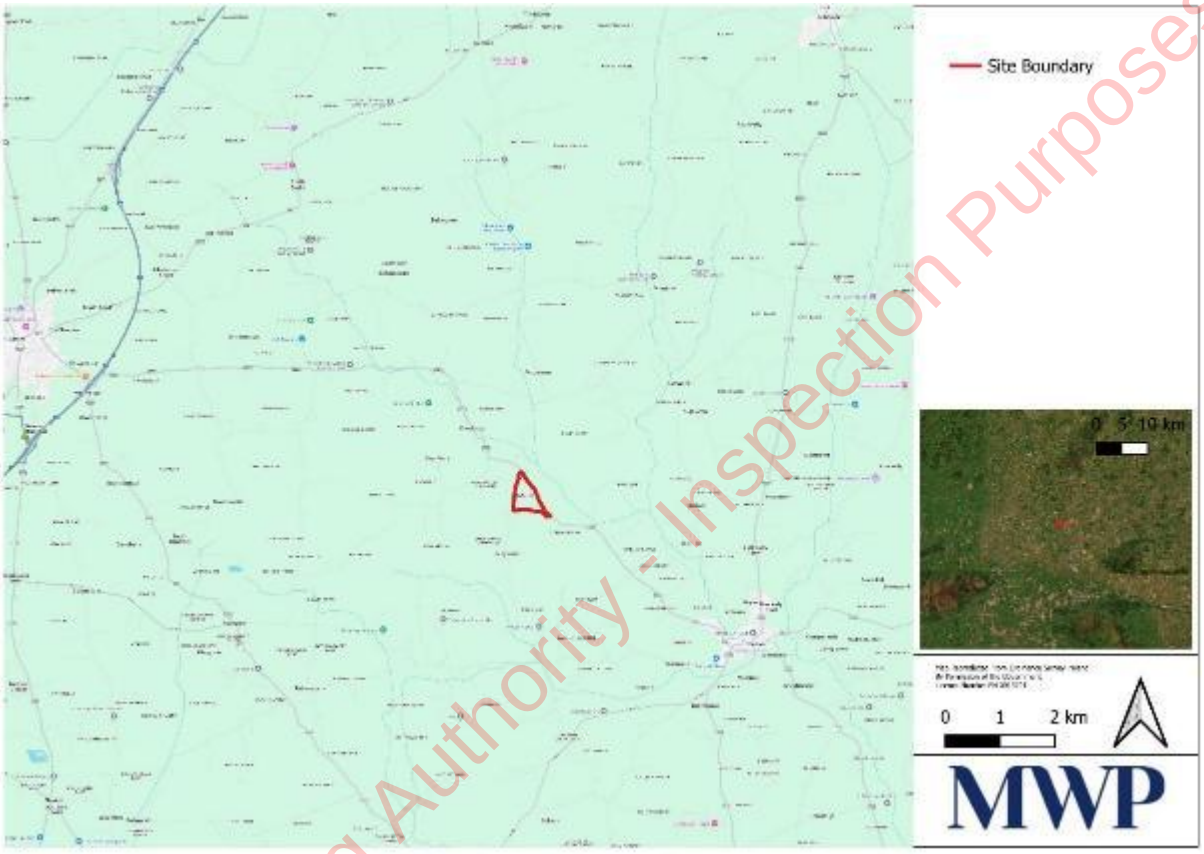


Figure 1: Location of proposed development site in Ardsallagh in County Tipperary.

4. Methodology

4.1 Desk Study

A desk study was carried out to collate available information on the bat species likely to be present in the study area. This comprised a review of the following publications, datasets, and on-line resources:

- OSI Aerial photography and 1:50,000 mapping.
- NPWS website, map-viewer and datasets available on-line.
- Bat Conservation Ireland (BCIreland) publications, and website.
- The Bat Conservation Trust (BCT) publications and website.
- National Biodiversity Data Centre (NBDC) (on-line map-viewer).
- Aerial imagery available at Google Earth, EPA Maps and Bing Maps.
- Other information sources and reports footnoted in the report.

4.2 Database searches

NPWS Database and NBDC Database

The on-line dataset record distribution for known lesser horseshoe bat roosts retained by NPWS was checked for records of lesser horseshoe bat roosts in the area[6]. In addition, the NBDC on-line database for all Irish bat species was checked for records within a 10 km radius of the site.

Bat Habitat Suitability Index

The desk study included a preliminary assessment of the availability of landscape features of importance to bats within the study area or within the geographical area extending away from it, based on the NBDC online mapping tool which includes a Bat Habitat Suitability Index (BHSI) layer[7]. This layer is derived from an analysis of the habitat and landscape associations of Irish bats compiled in Lundy *et al*. (2011). The index evaluation ratings range from 0 to 100 with 100 indicating areas considered to comprise most favourable bat habitats and 0 indicating areas considered to comprise least favourable habitats for bats. Index evaluations are available for individual species, while an overall rating is also available for a particular area for bats generally (all species combined). Ratings are mapped on the NBDC map viewer to a 2.5 km grid square resolution.

These ratings, while not predictive, provide meaningful metrics that characterise the probable value of an area to bats. They are an indicator as to the likelihood that different bat species are, or are not, likely to, typically, be a significant presence in an area. The BHSI ratings can, therefore, be used to indicate the probability that bats may use an area. The BHSI ratings for the area encompassing and extending away from the study area were reviewed. For results, please refer to Section 6.

[6]https://www.npws.ie/maps-and-data/habitat-and-species-data

[7] https://maps.biodiversityireland.ie/Map

4.3 Bat Foraging and Commuting Habitat Suitability Survey

As part of the initial site walkover, any linear habitat features, such as hedgerows and treelines, were described in terms of plant species occurring, overall condition and structure and degree of connectivity within the wider landscape, in relation to evaluating their potential suitability for foraging and commuting bats. Habitat features occurring were assigned a suitability rating ranging between 'negligible', 'low', 'moderate' or 'high', as per Colllins (2023).

4.4 Preliminary Roost Assessment

Preliminary survey of all buildings, structures and trees found on site was undertaken to identify any actual or potential bat roosts which could be either directly or indirectly impacted by the proposal. The Preliminary Roost Assessment (PRA) was conducted on the 27th of September 2024 by an experienced MWP bat surveyor (Irish bat license number: DER/BAT 2024-112; Natural England bat survey licence number 2022-10295-CL18-BAT). The survey involved an inspection of any buildings, structures and or trees found within the red line boundary to identify features that could support roosting bats, and/or identify any evidence of bat activity. Survey effort and timings were in line with those recommended in Collins (2023).

During the PRA survey, any buildings, structures and or trees were inspected for actual or potential bat entry/exit points e.g. openings, cracks and crevices, actual or potential bat roosting locations, live bats or dead specimens, or any other evidence of old or recent bat usage, such as droppings, staining, feeding remains, etc.

Buildings and or structures were evaluated in terms of structural integrity, degree of dampness, degree of shelter/protection, etc and potential as bat roosting habitat. This involved the surveyor visually inspecting both the interior using torches and the exterior from ground level using torches and binoculars. Trees were assessed in accordance with current bat survey guidance (Collins, 2023) and involved surveyors visually inspecting the exterior surface of the trees from ground level using torches and binoculars, as well as the areas of ground in the immediate vicinity.

On completion of the PRA, any building/structure/tree was categorised as having either 'negligible', 'low', 'moderate' or 'high' suitability for roosting bats, as per Collins (2023). The results of the PRAs determined whether additional survey effort was required.

The criteria set out in Table 2 were used to classify the potential of the building to support roosting bats.

Table 2: Classification criteria for bat roosting potential (Collins, 2023).

Category	Description
Confirmed	A building or structure with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey (such as droppings).
High	A building or structure with one or more potential roost features 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 habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classical cool/stable hibernation site.
Moderate	A building or structure with one or more potential roost features that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).

Low	A building or structure with one or more potential roost features that could be used by individual bats opportunistically at any time of year. However, these features 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 and not classic cool/stable hibernation site but could be used by individual hibernating 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.
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).

The search covered potential roosting features (PRFs) and areas where bat droppings may collect. Signs indicating possible use by bats include:

a. Scratches and staining around an entry point;

b. Bat droppings in, around or below an entry point;

c. Squeaking noises;

d. Flies around an entry point;

e. A distinctive smell of bats; and

f. Smoothing of surfaces around a cavity.

4.5 Passive Automated Bat Surveys (PABS)

Automatic activity surveys utilise static units (units deployed at fixed locations) to record bat actively remotely. In order to gather data on species presence within the buildings where bat evidence was found, static detectors were deployed in B1, B3, B5 and B6 (sampling locations (SPs)).

Surveys were undertaken using bio-acoustic units (static bat detectors) set up on site to record bat activity over extended periods. Static detectors were deployed at the pre-selected SPs to capture data on species presence and the level of bat activity at the site and its spatial and temporal distribution.

The bio-acoustic equipment used comprised Song Meter Mini Full Spectrum bio-acoustic recording units. Full Spectrum (FS) detectors continuously record all frequencies and retain details of the call structure. The sound recordings from these detectors are typically very high quality and are stored on the units for later analysis. Because FS detectors record sounds at the full frequency, i.e., ultrasonic sounds are not converted to a lower frequency to make them audible, they can capture, and record sound in real-time at a high level of detail. The resulting sound files are very large, so these detectors use a triggering system to ensure that recordings are made only when sounds detected are above certain frequency and amplitude thresholds.

The units deployed were programmed to begin recording half an hour before sunset each evening and to continue until half an hour after dawn the next morning, in line with Collins (2023). Before deployment, the latitude, longitude, and time zone for each survey location was inputted to each unit, after which units then automatically determined the dawn and dusk times, thereby reducing the likelihood of operator error. Each unit has an omnidirectional microphone that detects bat ultrasonic calls. Calls emitted by bats that passed within the detecting range of the units, during the period of activation, were recorded and sound files stored on internal SD cards for later analysis. All units were deployed and collected during daytime hours.

The static surveys were undertaken at the proposed development site from the 27th September to 6th October 2024, over 10 nights with consecutive optimum weather recorded.

Figure 2: Map of static detector locations.

4.6 Sonogram Analysis of data recorded during PABs

Post PAB surveys, the sound files were downloaded from the SD cards and converted using proprietary software[8] to produce sonograms (graphs of the sound recorded). As each species has a unique audio signature, the sonograms, or graphs, can be used to distinguish between one species and another. Using training and experience of sonogram analysis, a staff ecologist used the software to eliminate all data files that were not generated by bats e.g. background environmental noise such as bird song or rain. Once an individual call is identified the recording is automatically labelled using tools available in the specialised software. During an audit of all data, all non-*Pipistrellus* calls were manually verified in line with the Collins (2023) guidelines.

Not every call emitted by a bat is the echolocation call that is characteristic of the species in question. Many bat species use differently structured echolocation calls, adapted to their habitat structure or foraging situation (Miller & Degn, 1981; Fenton, 1987; Rydell, 1990; Kalko, Schnitzler & Schnitzler, 1993; Jones, 1995; all cited in Pfalzer *et al*., 2003). In addition to echolocation calls, bats use 'social' calls which are structurally different from echolocation calls. Pfalzer *et al*. (2003) categorises these into 4 types, as follows: squawk, trill (repeated), cheep

[8] Kaleidoscope Pro Analysis Software.

(curved), and song (complex). While these can readily be attributed to bats, they cannot be used to differentiate between species. Using the specialised software, any calls that match the parameters outlined in the preceding sentences are automatically designated as 'unidentified' and are reported as such in this report. Counts of sonograms of this category are shown in the various output tables in **Section 5** and in **Appendix 4** under the column heading 'NoID'.

4.7 Survey Limitations

This survey provides a snapshot of the proposed development site at the time of the survey(s) only. Bats are a highly mobile species, and they can and do turn-up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable within the context of the proposed development and survey data.

5. Results

The following section details the results of the desk study and field surveys (bat habitat suitability and preliminary roost assessment and PAB survey), and includes biological records, data and map/aerial photographic information. The results detail the building, structure or tree (numbered for reference) and provide a description of any evidence found and the habitat value if no evidence was located.

5.1 Desk Study

5.1.1 Bat Conservation Ireland dataset, NPWS Database & National Biodiversity Centre (NBDC) database

A review of data from Bat Conservation Ireland (BCI) include records for the following bat species within 10km of the site; common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, brown long-eared bat *Plecotus auritus*, lesser horseshoe bat *Rhinolophus hipposideros*, Leisler's bat *Nyctalus leisleri*, Nathusius's pipistrelle *Pipistrellus nathusii*, Daubenton's bat *Myotis daubentonii*, Natterer's bat *Myotis nattereri* and whiskered bat *Myotis mystacinus*. The nearest in-flight records include for Leisler's, common pipistrelle and soprano pipistrelle (4km west) and Daubenton's (2.8km west), with in-flight records also found for, brown long-eared and Nathusius's pipistrelle, all within 10km of the site. Roost records from BCI include for the following species: Natterer's, brown long-eared, soprano pipistrelle and common pipistrelle (closest roost record 6.3km northwest) and Leisler's bat (closest roost record 6.4km northwest).

Following a review of the NPWS database for records of lesser horseshoe bat (LHB) roosts in the area,[9] there are no known LHB roosts within 10 km of the development site with the closest found approximately 54km to the west. In addition, the NBDC on-line database for all Irish bat species was checked for records within a 10km radius of the proposed development site, with a summary of these results provided in Table 3 .

Table 3: Summary of data for all Irish bat species recorded at locations within a 10km radius of the proposed development site.

Species	Number of Records	Year (most recent)	Location (nearest)	Record type
Brown long-eared bat *Plecotus auritus*	6	2018	2.5km north	Roost and in-flight records
Common pipistrelle *Pipistrellus pipistrellus*	143	2019	4km southeast	In-flight
Daubenton's bat *Myotis daubentonii*	36	2018	4km southeast	In-flight
Leisler's bat *Nyctalus leisleri*	232	2019	4km southeast	In-flight
Nathusius's pipistrelle *Pipistrellus nathusii*	3	2013	7km northwest	In-flight
Natterer's bat *Myotis nattereri*	3	2006	6km northwest	In-flight

[9] https://www.npws.ie/maps-and-data/habitat-and-species-data Accessed: 22nd November 2024

Soprano pipistrelle *Pipistrellus pygmaeus*	135	2019	3km southeast	In-flight
Whiskered bat *Myotis mystacinus*	2	2010	4km northwest	In-flight

5.1.2 Bat Habitat Suitability Index (BHSI)

A review of the NBDC's Bat Habitat Suitability Index (BHSI)[10] available on-line determined that for the area encompassed within the proposed development site, and the lands extending away from it, the assigned BHSI rating for 'all bats' is 26 out of 100, based on the analysis of the habitat and landscape associations of Irish bats compiled in Lundy *et al.* (2011). The maximum rating given for any individual species is 42, with a minimum rating of 1 (see Table 4).

On the basis of the BHSI ratings assigned for all bats and for individual species, the proposed development site and surrounding lands are considered to be of low overall value for bats.

Table 4: BHSI Rating for 2.5 km grid square encompassing and extending away from the proposed development site (adapted from NBDC on-line)

Common name	Scientific name	BHSI Rating
All Bats	-	26
Brown long-eared bat	*Plecotus auritus*	40
Common pipistrelle	*Pipistrellus pipistrellus*	42
Daubenton's bat	*Myotis daubentonii*	26
Leisler's bat	*Nyctalus leisleri*	36
Lesser Horseshoe bat	*Rhinolophus hipposideros*	1
Nathusius's pipistrelle	*Pipistrellus nathusii*	4
Natterer's bat	*Myotis nattereri*	31
Soprano pipistrelle	*Pipistrellus pygmaeus*	38
Whiskered bat	*Myotis mystacinus*	16

[10] The BHSI consists of Geographical Information (GIS) layers that are a research outcome of a study by Lundy et al. (2011) examining the relative importance of landscape and habitat associations across Ireland. The study analysed data contained in the Irish National Bat Database, maintained by Bat Conservation Ireland and the National Lesser Horseshoe Bat database maintained by National Parks and Wildlife Service. The analysis was done for all bat species that commonly occur in Ireland.

5.2 Field Surveys

5.2.1 Bat Foraging and Commuting Habitat Suitability Survey

The site is located in a rural setting with the site's surrounds consisting of arable land and pasture with a large network of bordering hedgerows and treelines across the landscape, all of which provide high commuting and foraging potential. The River Clashawley is located approximately 750m east from the centre of site and approximately 500m east of the eastern boundary of site. This landscape feature provides high commuting and foraging potential with nearby hedgerows providing good commuting links to the site from the river.

Two small water bodies are found within the red line boundary, with no other water bodies found within a 1km radius of site. These small water bodies offer low foraging potential. In addition to the small area of woodland found on site, nearby areas of woodland are found scattered within a 700m radius of site, with small woodlands found approximately 400m southeast, 500m west, 550m northwest and 700m east. A large woodland is also found approximately 1km northeast. Some of these woodlands have good linkages to the wider landscape through adjoining or nearby hedgerows and/or treelines and the woodlands also offer good foraging habitat for local bat populations.

5.2.2 Preliminary Roost Assessment

5.2.2.1 Building, Tree or Other Structure

The site consists of 14 buildings, a courtyard, a walled garden, woodland and scattered trees. The buildings consist of a mixture of dwellings, stables, barns, greenhouses, storage rooms and a garage. Structures found on site include three very small outbuildings, a horse walker and a number of stone-built walls.

The following sections detail building, structure and tree references, and description (see **Figure 88** for site plan). Additional photos of each building's external and internal layout can be found in the appendices.

Building reference = B1 Main house, B2 Storage building 1, B3 Storage building 2, B4 garage, B5 Cottage and stables, B6 Barn 1, B7 Stables 1, B8 Barn 2, B9 Stables 2, B10 Stables 3, B11 Greenhouse 1, B12 Greenhouse 2, B13 Greenhouse 3, B14 Gate house.

Structure reference = S1 outbuilding 1, S2 outbuilding 2, S3 Horse walker, S4 outbuilding 3, S5 stone walls

Tree reference = T1 Dead tree (species unknown) and T2 Mature oak

5.2.2.2 Building 1 (B1)

B1 is rubble and stone built building with render with a complex roof design consisting of open gables and hipped roof sections. The roof is made of slate roof tile and the windows and doors are timber framed. There is a mixture of plastic and metal rainwater goods, and the building has three chimneys.

Internally B1 has a large loft space area as well as an underground cellar. The loft space consisted of areas that were vaulted as well as other areas where an attic roof truss beam structure was visible with the underside of the roof lined with bitumen felt. The whole floor was boarded with eaves also fully boarded. The underground cellar had a mixture of concrete and timber ceilings. A water tank and associated infrastructure was also present here.

Figure 3: East facing aspect of B1.

The following table details the results of the preliminary roost assessment survey for B1 –

Table 5: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	Four dead bats were found in the loft space of B1. These appeared to be two juveniles and two adult pipistrelle bats. It is unclear how old the specimens were, but it is suspected that these were no less than a year old due to their condition and lack of decomposition.  Figure i: Example of dead bat found in the loft space of B1.

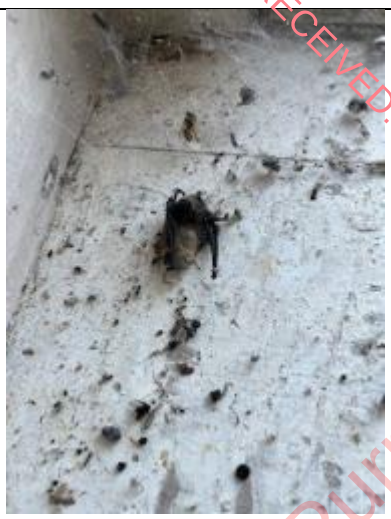
	 Figure ii: Example of dead bat found in the loft space of B1.  Figure iii: Example of dead bat found in the loft space of B1.
Evidence of bat use	In addition to the dead bats found in the loft space of B1, a number of bat droppings were also found to be present, age and species unknown.  Figure iv: Example of dropping evidence found in loft space of B1.

	 Figure v: Example of dropping evidence found in loft space of B1.  Figure vi: Example of dropping evidence found in loft space of B1.
Potential for bat use	**Level of likelihood of presence - Confirmed** In addition to the dead bats and dropping evidence found in the loft space, gaps were found between the slate roof tile, mostly to the front of the building. These could act as potential entry/exit points but could also provide roosting for crevice dwelling species. It should also be noted that a section of the roof to the rear of the building (southwestern gable) appeared to have new slate roof tile fitted. Within the loft space of this area two of the four dead bats were found here. Also, within this area, rubble and other debris from potential roof works were present. It is suspected that this area of the roof had had previously been repaired and it is suspected that these individuals could have become entombed after said suspected works to the roof. It should also be noted that some small sections of the rear of the roof (north and northeastern gables) could still have potential roosting and or entry/exit points but no suitable vantage point from ground level could confirm or deny this. Given the evidence that was found on the survey and the potential roosting

features and or entry/exit points, B1 is considered to have high roosting potential.

Figure vii: Gaps between slate roof tile at the front of B1's roof.

Figure viii: Gaps between slate roof tile at the front of B1's roof.

Figure ix: Gaps between slate roof tile at the front of B1's roof.

Figure x: southwestern gable with tight fitting newer slate roof tile.

	Figure xi: Zoomed in view of southwestern gable with tight fitting newer slate roof tile.  Figure xii: Example of suitable roosting feature along central beam found in the loft space of B1, which was commonly found through the eaves of the loft.

5.2.2.3 Building 2 (B2)

B2 is of modern construction (20th century) with a mono pitch roof design with slate roof tile present. Windows and doors are timber framed and there are also plastic rainwater goods present.

Internally B2 has no loft spaces or roof voids and no roof truss beam structure. The underside of the roof was lined with bitumen felt.

Figure 4: North facing aspect of B2.

The following table details the results of the preliminary roost assessment survey for B2 –

Table 6: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** In addition to providing no suitable roosting features internally, B2 did not provide any potential entry or exit points across the building and was mostly a well-maintained building.

5.2.2.4 Building 3 (B3)

B3 is concrete built and of modern construction (20th century) with a mono pitch roof design and slate roof tile. Windows and doors, where present, are timber framed and there are plastic rainwater goods present.

B3 has no loft spaces or roof voids and no roof truss beam structure. The underside of the roof was unlined, with the underside of the slate roof tile visible. The roof was also partially collapsed at the southern end of the building.

Figure 5: East facing aspect of B3.

The following table details the results of the preliminary roost assessment survey for B3 –

Table 7: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	A number of droppings were found internally in building B3 and in addition to the dropping evidence found, there were also a small number of feeding remains found in the form of butterfly wings.  Figure xiii: Example of droppings and feeding remains (butterfly wings) found in B3.  Figure xiv: Example of droppings and feeding remains (butterfly wings) found in B3.
Potential for bat use	**Level of likelihood of presence - Confirmed** In addition to the feeding remains and dropping evidence found open access to the building was found through a large gap in the roof where the roof had collapsed. With this some suitable crevices for

	roosting between roof tile had formed. Outside of this area the roof was heavily mossed and lacking in gaps. Internally roosting features were generally lacking, with very minor potential roosting along timber framework. Although evidence of bat use was found in the form of dropping and feeding remains, roosting features overall were low in number and therefore it is considered to be of low roosting potential.  Figure xv: Collapsed roof section on B3.  Figure xvi: Example of B3's heavily mossed roof.  Figure xvii: Further example of B3's heavily mossed roof.

5.2.2.5 Building 4 (B4)

B4 is a stone, rubble and brick-built mix with render and has a hipped roof design and slate roof tile. The two sliding doors to the front of building are timber built, and the single window is PVC framed. The building also has plastic rainwater goods.

B4 has no loft spaces or roof voids and a modified attic roof truss beam structure. The underside of the roof was unlined, with the underside of the slate roof tile visible. There was open access to the building via a partially open sliding timber door.

Figure 6: North facing aspect of B4.

The following table details the results of the preliminary roost assessment survey for B4 –

Table 8: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Low** A small number of gaps were found along ridgeline of the building's roof as well as a small amount of suitable roosting potential found along the central beam of the roof truss framework. Potential access could also be found through the open garage door as well as small gaps above the door itself. Given the buildings limited amount of roosting features it is considered to be of low potential.  Figure xviii: Example of gaps between roof tile along ridge.

5.2.2.6 Building 5 (B5)

B5 is a large 'L' shaped building. Its construction is a mixture of brick and stone built with partial rendering. The roof design is open gable to one end and a hipped roof to the other. Roof tile is of slate material and door and windows are timber framed. There are a total of four chimneys and there are plastic rainwater goods present.

Internally B5 can be split into two parts: the cottage section and the stables. The cottage area had two separate loft areas both of which were boarded to the floor and the underside of the roof lined with wooden sarking boards. Both loft areas had a king post roof truss beam structure, with one of the lofts also having a water tank

and associated infrastructure present. Within the stables section of B5 there were no loft spaces or roof voids and there is a king post roof truss beam structure. The underside of the roof in northwestern corner is lined with wooden sarking with the remainder of the roof in the north found to be unlined, with the underside of the roof tile exposed.

Figure 7: Southern and eastern facing aspects of B5.

The following table details the results of the preliminary roost assessment survey for B5 –

Table 9: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	
Potential for bat use	Level of likelihood of presence - Confirmed In addition to the feeding remains and dropping evidence found, a number of potential roosting features and entry/exit points were also found across the building but were mostly restricted to the northwestern corner and north of the building (the stables/storage sections). The roof tile of the southern section of the building (cottage) was mostly tight fitting and mossed over. However, gaps were still present along the roof's ridgeline and close to the soffits. Furthermore, cracks in external plaster along the cottage portion of the building also provide potential roosting features for crevice dwelling species of bat. Access points to the stables/storage portion of B5 can be found through gaps in the archway roof that lead directly into the stables section and through gaps in the stonework and through open/broken windows. Internally within the northern areas of B5, the timber frameworks provide suitable roosting features along the central beams.

Due to the evidence found and features mentioned B5 is considered to be of high roosting potential.

Figure xix: Examples of gaps in roof tile along roof ridge line and verge.

Figure xx: Access point in the archway leading into stable section of B5.

Figure xxi: Roosting potential along central roof ridge beam.

5.2.2.7 Building 6 (B6)

B6 is a stone-built building with an open gable roof design and slate roof tile. There are metal rainwater goods present, and doors are timber framed. Corrugated metal doors are also found to be present.

B6 has no loft spaces or roof voids with a queen post roof truss beam structure. The underside of the roof is unlined with the roof tile exposed.

Figure 8: Northern and eastern facing aspects of B6.

The following table details the results of the preliminary roost assessment survey for B6 –

Table 10: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	Two droppings were found in the internals of building B6.  Figure xxi: Dropping found in building B6.  Figure xxiii: Dropping found in building B6.
Potential for bat use	**Level of likelihood of presence - Confirmed** In addition to the dropping evidence found, open access can be found through window openings throughout the building and the large open entrance to the building. Internally, suitable roosting features included the central beam of the roof truss framework and cracks in the internal brick/stonework. Given the aforementioned features

and evidence found B6 is considered to be of moderate roosting potential.

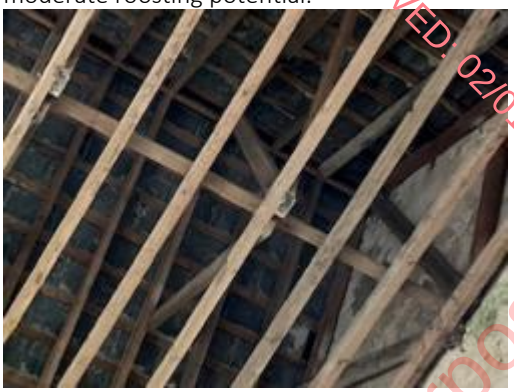


Figure xxiv: Roosting potential along central roof ridge beam.

Figure xxv: Entry and exit points internally in B6.

5.2.2.8 Building 7 (B7)

B7 is a simple lean-to building of modern construction with a mono-pitched roof design and is constructed from timber and corrugated metal.

B7 has no loft spaces or roof voids, the underside of the corrugated metal roof is unlined and visible. Structurally this building was in poor condition, with timber framing and roofing material buckled in several places.

Figure 9: Eastern and southern facing aspects of B7.

The following table details the results of the preliminary roost assessment survey for B7 –

Table 11: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** B7, although did have open access did not provide any suitable crevices in which roosting bats could utilize. Its open nature also exposed the internals to the elements and therefore did not provide adequate shelter.

5.2.2.9 Building 8 (B8)

B8 is of modern construction (20th century) and is a mixture of concrete, timber and stone built open barn building and has a curved roof with corrugated sheet metal roofing material. The building has metal rainwater goods and also has an adjoining mono-pitched lean-to section to the southern facing aspect. Here the roofing material is slate roof tile and windows and doors are timber framed.

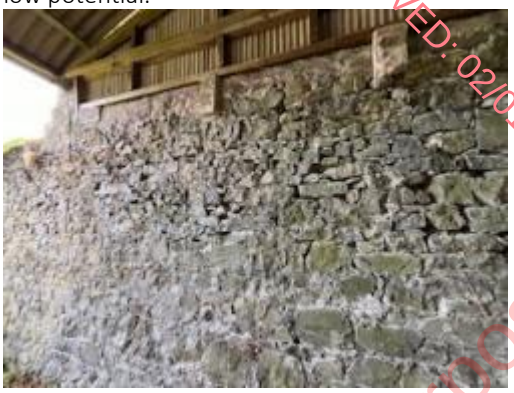
B8 has no loft spaces or roof voids and no roof truss beam structure. The underside of the roof was unlined however in the adjoining mono-pitched lean-to section to the southern facing aspect, some plastic sheet lining was found. This plastic sheeting was in poor condition with several holes and or tears visible.

Figure 10: Northern and western facing aspects of B8.

The following table details the results of the preliminary roost assessment survey for B8 –

Table 12: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Low** The majority of B8 was found to be unsuitable for roosting bats however the stonework to the internal southern wall provided a small number of suitable gaps and crevices in which roosting bats could utilize. Given the limited amount of potential roosting

	features that B8 presents it is considered to be of low potential.  Figure xxvi: Example of gaps found in stone work of the southern wall of B8.

5.2.2.10 Building 9 (B9)

B9 is of modern construction (20th century) and is a stone, concrete, and timber mix lean-to building, with a mono-pitched roof design. The roof of the building is completely missing and only the timber frame structure remains. Windows and doors are timber framed, and plastic rainwater goods are present.

B9 has no loft spaces or roof voids and no roof truss beam structure, the roof of this building was missing with only a simile timber frame remaining.

Figure 11: Southern and western facing aspects of B9.

The following table details the results of the preliminary roost assessment survey for B9 –

Table 13: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** There was open access to the internals, through the non-existing roof, but B9 lacked any suitable roosting

	features and appropriate shelter. Due to this B9 was considered to be of negligible potential.  Figure xxvii: Example of the internal space of B9.

5.2.2.11 Building 10 (B10)

B10 is of modern construction (20th century) and is a mixture of concrete, timber and stone built building and is used as storage and stables. It has a predominantly open gable roof design with a small portion consisting of a simple flat roof. Both sections of the roof have corrugated sheet metal roofing material present. Windows and doors are timber framed and there is also plastic rainwater goods found.

B10 has no loft spaces or roof voids and is an in-use stables and shed. Within the pitched roof section of the building a king post roof truss beam structure is present, and the underside of the roof is lined with wooden sarking. Inside the section of B10 with a flat roof the underside was unlined with the metal sheet roofing fully exposed.

Figure 12: Northern and western facing aspects of B10.

The following table details the results of the preliminary roost assessment survey for B10 –

Table 14: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** Open access was found to B10 through stable doors and its open design to the flat roofed section of the building. Within the pitched roof section of the building, there was no central beam for roosting bats

	to utilize, and a lack of any other potential roosting features. Due to this B10 was considered to be of negligible potential.  Figure xxvii: Internal space of pitched roof, with no central beam present.

5.2.2.12 Buildings 11 (B11), 12 (B12) & 13 (B13)

Buildings B11, B12 and B13 are all large greenhouses. They are concrete and glass built with open gable roof designs. Some sections of metal sheet roofing are found to be present on B11 and the majority of B13's roof is missing.

Buildings B11, B12 and B13 all were found to have no loft spaces or roof voids. A queen post roof truss beam structure was found internally in B11, and no roof truss beam structures were found in B12 and B13. B13 is totally overgrown with vegetation which hampered any internal access to the building.

Figure 13: Northern and eastern facing aspects of B11.

Figure 14: Northern and eastern facing aspects of B12.

Figure 15: Northern and eastern facing aspects of B13.

The following table details the results of the preliminary roost assessment survey for B11, B12 and B13 –

Table 15: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** Buildings B11, B12 and B13 all had open access but lacked any potential roosting features and were also considered to be negligible.

5.2.2.13 Building 14 (B14)

B14 is of modern construction (20th century) with render and has a hipped roof design with slate roof tile. A small adjoining section to the southern aspect of the building has a flat roof, with a mixture of bitumen felt roofing material and corrugated metal sheeting. There are two rendered chimneys, plastic rainwater goods and windows and doors are mix of timber and PVC framed.

B14 had one loft space which was fully boarded with an attic roof truss beam structure and vaulted ceiling. Through disrepair other sections of the roof were visible in places where the ceiling was missing. Here you could see that the underside of the roof was unlined and roof tile visible.

Figure 16: Northern and eastern facing aspects of B14.

The following table details the results of the preliminary roost assessment survey for B14 –

Table 16: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** B14 did not exhibit any suitable potential roosting features or any possible entry/exit points. The roof tile was tight fitting as was all the lead flashing. The building was in general externally well maintained and therefore due to a lack of potential features and or entry/exit points B14 was considered to be of negligible potential.

5.2.2.14 Structures 1 (S1), 2 (S2), 3 (S3) and 4 (S4)

S1 is a small structure and is used as storage space. It is of stone construction and has a mono pitched roof with metal sheet roofing material. Window and door are timber framed.

S2 is a stone-built structure with a mono pitched roof that has corrugated metal sheeting roofing. The single door is timber framed.

S3 is a mixture of concrete, timber and metal-built structure used as a horse walker. The roof is made of corrugated metal sheeting and has a conical roof design.

S4 is a stone-built structure with a mono pitched roof that has corrugated metal sheeting roofing. The single door and window are timber framed.

None of the outbuildings or horse walker had loft spaces or roof voids. All of these structures were simple built frames with no lining of the metal sheet roofing material.

Figure 17: Eastern and southern facing aspects of S1.

Figure 18: Southern and western facing aspects of S2.

Figure 19: Eastern facing aspect of S3.

Figure 20: Eastern and northern aspects of S4.

The following table details the results of the preliminary roost assessment survey for S1, S2, S3 and S4 –

Table 17: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Negligible.** No suitable roosting features were found to be present on and or in these structures. S1, S2 and S4 all exhibited small access points through either gaps in timber doors or general poor condition, internally none of these structures exhibited any suitable roosting features, the mono pitched roofs were of metal construction atop timber frames that provided no potential roosting. S3 had open access due to its design, but the conical roof was of metal construction on simple timber framing that provided no potential roosting features. Due to a general lack of suitable roosting materials and features these structures were considered of negligible potential.

5.2.2.15 Structure 5 (S5)

S5 relates to a number of stone-built walls found across on-site surrounding gardens and buildings.

Figure 21: Example of stone-built walls found on site (S5).

The following table details the results of the preliminary roost assessment survey for S5 –

Table 18: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Moderate.** Stone built walls that are found across the site exhibited varying degrees of gaps and crevices in which roosting bats could utilize. In most cases it was unclear how deep some suitable crevices were, and no evidence of usage was found at any point. Given these features, the stone walls (where identified in the PRA results map found in **Appendix 3)** are considered to be of moderate roosting potential.  Figure xxviii: Example of crevice in stone wall.  Figure xxix: Example of crevice in stone wall.

5.2.2.16 Tree 1 (T1)

T1 is a large dead tree found at grid reference S 16779 37685. This tree was located within a large field close to hedgerow and tree line.

Figure 22: Large dead tree (T1).

The following table details the results of the preliminary roost assessment survey for T1 –

Table 19: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	Level of likelihood of presence –High T1 exhibited a number of suitable potential roosting features between flaky bark and knot holes. Given these features and its proximity to suitable

	commuting and forging habitat T1 is considered to be of high roosting potential.  Figure xxx: Example of knot hole on T1.  Figure xxxi: Example of gaps under flaking bark on T1.

5.2.2.17 Tree 2 (T2)

T2 is a large mature oak tree found at grid reference S 16905 37405. This tree was located within a field near to the entrance of the site and within close distance to hedgerow.

Figure 23: Large oak tree (T2).

The following table details the results of the preliminary roost assessment survey for T2 –

Table 20: Results of PRA survey in context of bat specimens or other evidence of bat usage encountered or likelihood of bats being present.

Bats found	No bats were found at the time of survey.
Evidence of bat use	No evidence of bat use was found.
Potential for bat use	**Level of likelihood of presence – Moderate.** T2 exhibited potential roosting features in the form or knot holes and given its location in close proximity to suitable commuting and forging habitat T2 is considered to be of moderate roosting potential.  Figure xxxii: Example of knot hole on T2.  Figure xxxiii: : Example of knot hole on T2.

Figure 24: Site plan.

5.2.2.18 Passive Automated Bat Survey (PABS)

PAB results are broken down by sampling point locations. The species type and totals are not compared between locations; this is due to different roosting potential and the varying degree of evidence found between buildings. Results provide baseline information on species presence on site.

As outlined in **Section 4.4**, static units were deployed in late September and early October 2024 for 10 nights of consecutive optimum weather.

Common pipistrelle, soprano pipistrelle, brown long eared and *Myotis*.sp were recorded at three of the four sampling point locations (Sampling points 1, 3 and 4). Leisler's was recorded at sampling point 3 only. *Myotis*.sp was not recorded at sampling point 2.

At sampling point 1 (loft space of B1) soprano pipistrelle was the most recorded species at 54.65% (47 passes) of the total amount, with common pipistrelle next highest with 24.42% (21 passes) of all calls recorded. A small percentage of the total amount were also recorded for brown long eared (10.47% - 9 passes) and *Myotis*.sp (2.33% - 2 passes). Average nightly and hourly passes at sampling point 1 were all found to be low (less than 10 passes per night/hour).

At sampling point 2 (B3 internals) common pipistrelle was the most recorded species at 62.50% (10 passes) with soprano pipistrelle next highest with 31.25% (5 passes). A single pass was also recorded for brown long eared (6.25%). Average nightly and hourly passes at sampling point 2 were all found to be extremely low (less than 10 passes per night/hour).

At sampling point 3 (Stables section of B5) common pipistrelle was the most recorded species at 34.56% (403 passes) with brown long eared next highest with 27.44% (320 passes). *Myotis*.sp passes equated to 14.49% (169 passes) and 3.09% was attributed to soprano pipistrelle (36 passes). Average nightly and hourly passes at sampling point 3 for soprano pipistrelle were found to be low. Nightly averages for common pipistrelle, brown long eared and *Myotis*.sp were all found to be at a medium level (10-49 passes per night). However, hourly passes for the same species at the same sampling point were found to be low with passes per hour all below 5.

At sampling point 4 (B6 internals) common pipistrelle was the most recorded species at 82.84% (4,739 passes) with soprano pipistrelle next highest with 12.01% (687 passes). Brown long eared recorded 2.62% (150 passes), *Myotis*.sp recorded 2.27% (130 passes) and Leisler's recorded 0.26% (15 passes). Nightly averages for common and soprano pipistrelle were found to be high (more than 50), whilst nightly averages for brown long eared and *Myotis*.sp were found to be at medium level, with low levels recorded for Leisler's. Hourly average passes for common pipistrelle were medium with hourly passes for remaining species found to be low.

5.2.2.19 Supplementary Observations

During the internal inspection of the buildings and structures found on site, a dis-used birds' nest (suspected swallow *Hirundo rustica*) was found in structure S2 and although no nests were found in building B6 several pigeons were seen flying in and out of the building and perching on timber framework.

6. Conclusion

The following section details the conclusions, discussion, potential impacts and recommendations in the context of the proposed works.

6.1 Discussion

The proposed development will involve extensive refurbishment works predominantly to the main house (B1) and walled courtyard to the rear of this building (this would include buildings B2 and B3). It is currently understood that B3 will be demolished as part of the proposed refurbishment works. At present, current plans do not include for any other works to any other building, structure or tree. It should also be stated that minor landscaping works to the garden areas on site is also proposed with the remainder of landscape left unaffected by proposals.

Bat presence was confirmed through bat droppings that were found in buildings B1 (main house), B3 (storage building), B5 (cottage and stables) and B6 (barn 1). In addition to bat droppings, four dead bat specimens were found in the loft space of B1, and some feeding remains were found in buildings B3 and B5. Features suitable for roosting and or entry and exit points were also found throughout these buildings. Due to the time of year and the evidence found in B1, B3, B5 and B6, static bat detectors were placed internally in each of the buildings to collect baseline data on presence of bat species at these locations. Bat species recorded included common pipistrelle, soprano pipistrelle, brown long eared, *Myotis*.sp and Leisler's. Common pipistrelle, soprano pipistrelle, brown long eared and *Myotis*.sp were recorded at three of the four sampling point locations (Sampling point 1 (loft space of B1), Sampling point 3 (Internals of the stables section of B5) and Sampling point 4 (Internals of B6). Leisler's was recorded at sampling point 3 only. *Myotis*.sp was not recorded at sampling point 2.

Total passes recorded at sampling point 1 were 86, which is relatively low, however given the time of year (towards the end of bat active season) this tally is not indictive of overall levels bat activity. It should also be considered that B1 did not provide as many entry and exit points, roosting opportunities and feeding opportunities as some of the other buildings. Average nightly and hourly passes at sampling point 1 were all found to be low (less than 10 passes per night/hour).

Total passes recorded at sampling point 2 were 16, which is extremely low, but this building provided very little in the way of potential roosting features and access points. Average nightly and hourly passes at sampling point 2 were all found to be extremely low (less than 10 passes per night/hour).

Total passes recorded at sampling point 3 were 1,166, which potentially is more reflective of relatively higher availability of good access points, and more roosting and feeding opportunities. Nightly averages for common pipistrelle (40.3 per night across 10 nights), brown long eared (32 per night across 10 nights) and *Myotis*.sp (16.9 per night across 10 nights) were all found to be at a medium level. Both the average nightly and hourly passes for soprano pipistrelle were found to be low. Hourly passes for common pipistrelle (4 per hour), brown long eared (3 per hour) and *Myotis*.sp (1 per hour) were all found to be at a low level.

Total passes recorded at sampling point 4 were 5,721, which potentially is more reflective of the building's open access and feeding opportunities. The building has a large barn opening and open windows. The detector was placed on a windowsill and therefore there is potential for more bat passes that were external to the building to have been recorded. Nightly averages for common and soprano pipistrelle were found to be high with 473.9 (common) and 68.7 (soprano) passes per night over the 10 nights. Nightly averages for brown long eared (15 per night), and *Myotis*.sp (13 per night) were at a medium level and only 1.5 pass per night were recorded for Leisler's (low level). Hourly passes of 47 per hour were recorded for common pipistrelle which is classed as medium with low average hourly passes recorded for soprano pipistrelle (7 per hour), brown long eared (1 per hour), *Myotis*.sp (1 per hour) and Leisler's 0.15 per hour).

Other than species presence results, the PAB surveys would suggest that even in the later stages of the bat survey season for buildings B5 and B6 nightly and hourly activity levels were found to be medium to high. Further survey work would be required to provide a greater insight into the results from this PAB survey.

No other evidence of bats was found in any other building, structure or tree on site. However potential roosting features were observed in and or on buildings B4 and B8, structure S5 and trees T1 and T2.

Both buildings B4 and B8 were considered to be of low potential for roosting bats. A small number of gaps were found along ridgeline B4's roof as well as a small amount of suitable roosting potential found along the central beam of the roof truss framework. Potential access could also be found through the open garage door as well as small gaps above the door itself. Most of building B8 was found to be unsuitable for roosting bats however the stonework to the internal southern wall provided a small number of suitable gaps and crevices in which roosting bats could utilize.

The stone-built walls (S5) that are found across the site exhibited varying degrees of gaps and crevices which roosting bats could utilize and as such was considered to be of moderate roosting potential.

Tree T1 was considered to be of high roosting potential as it exhibited a number of suitable potential roosting features between flaky bark and knot holes. Tree T2 was considered to be of moderate roosting potential due to various knot holes with roosting suitability. Both tees were also located in close proximity to suitable commuting and forging habitat in the from of hedgerows and or tree lines.

In addition to bat evidence found, a single dis-used birds' nest was found structure S2, and bird activity was observed in building B6.

6.2 Potential Impact

Impact assessments must be proportionate to the scale of the development (CIEEM, 2019) and **Table 21** details a proportionate impact assessment based on current information.

Table 21: Assessment of impact to bats of the proposed development.

Impact	**B1 & B3** - A bat roost will be lost in the development.
Characterisation of unmitigated impact on the feature	**B1 & B3** - A low value roost will be lost at the local level, should no mitigation or compensation be added to the development.
Effect without mitigation	Bats could be killed, injured or entombed within the works.
Mitigation	See **Section 7**, below
Significance of effects of residual impacts (after mitigation is applied)	Assuming all mitigation and compensation is installed under licence the impact would be minor and an increase in roosting features would occur.

7. Recommendations and Mitigation

7.1 Further Survey

Full roost characterisation surveys will be required for buildings B1 and B3. It is currently understood that proposed plans at this stage do not include for buildings B5 and B6. Should plans change to include any works to this building then the same requirement in terms of further survey effort would be required.

These surveys will consist of three dusk surveys a minimum of three weeks apart, during the season of May to September, inclusive. Four experienced surveyors will be required to cover all elevations of building B1, with two experienced surveyors required to cover all elevations of B3. No development will occur until the roost characterisation surveys have been undertaken in the appropriate survey season May to September (Mid-May to August optimal).

Should any of the areas of the stone walls (S5) highlighted in the PRA results map found in **Appendix 3**, be included in any future proposals these specific areas will be subject to presence/likely absence surveys. These surveys will consist of two dusk surveys a minimum of three weeks apart, during the season of May to September, inclusive. One to two experienced surveyors will be required to conduct these surveys to ensure all areas of designated walls are covered. Should bats be found to be roosting, then one further dusk survey, per section of wall as required, a minimum of three weeks apart, will be required to adhere to guidance during the season of May to September.

As mentioned, the proposed development will involve extensive refurbishment works predominantly to the main house (B1) and walled courtyard to the rear of this building (this would include buildings B2 and B3). It is currently understood that proposed plans do not include for any other works to any other building, structure or tree. However, should plans change the following should be adhered to ensure compliance with guidance and legislation.

Presence/likely absence surveys would be required for buildings B4 and B8. These would consist of a single dusk survey per building, during the season of May to September, inclusive. Two experienced surveyors would be required to cover all elevations of building B4, and two experienced surveyors would be required to cover all elevations of building B8. Should bats be found to be roosting, then two further dusk surveys a minimum of three weeks apart, will be required to adhere to guidance during the season of May to September.

Presence/likely absence surveys would be required for tree T1. These surveys will consist of three dusk surveys a minimum of three weeks apart, during the season of May to September, inclusive. Two experienced surveyors would be required to cover all elevations of the tree.

Presence/likely absence surveys would be required for tree T2. These surveys will consist of two dusk surveys a minimum of three weeks apart, during the season of May to September, inclusive. Should bats be found to be roosting, then one further dusk survey, per section of wall as required, a minimum of three weeks apart, will be required to adhere to guidance during the season of May to September.

No further survey effort would be required for buildings **B2, B7, B9, B10, B11, B12, B13, B14 and structures S1, S2, S3 & S4.**

No further survey is required for birds, but it is recommended that clearance and demolition should ideally be undertaken outside the main breeding season (March to August inclusive). If this is not possible, pre-clearance nesting checks would be required no more than 48 hours prior to the start of clearance and demolition works. Should an occupied nest be found, a buffer zone would need to be created until the nest is no longer in use.

7.2 Mitigation

Demolition of suitable bat roosting features e.g. roof/wall plates etc. will require the supervision of a bat-licensed ecologist. The suitable bat roosting features e.g. roof tile/wall plates etc. will be stripped by hand only. All areas across the roof/wall tops etc. will be checked for bats using an endoscope (where possible) and via destructive search. If bats are found, they will be removed by hand (Ecologist only) and placed in bat boxes that will be in place before works begin.

Bat boxes will be made of woodcrete material. There are many benefits to this material, such as providing thermal stability and insulation and rough surfaces which enable bats to grip easily. They're also self-cleaning and cost effective due to their durability (meaning they are replaced less often).

There are trees on site that can be used for this purpose, the aim of any bat box placement as mitigation should be to provide roosting as close to the original roost as possible and as such, if possible, the bat boxes can be either built into the building(s) or mounted to an external surface of the building(s). These boxes will be no less than 3m above ground level and away from any neighbouring ledge to prevent predation by local cats.

A minimum of four Schwegler Woodcrete bat boxes or similar will be placed on suitable trees or built into or fitted on to the building(s) and or placed on poles/posts at a minimum of 3m from ground level and facing south/south-westerly. These boxes are known to be used by crevice and void dwelling species.

Bat lofts are only considered necessary if a maternity roost of brown long eared bat (BLEB) is found. Currently the evidence found to date does not suggest that this is the case, however this may change following full survey.

Two (2) No. bat access tile will be installed into the building's roof along or near to the ridge therefore allowing bats access into the space between tiles and/or sarking boards. Should a bitumen felt be required, it must be of type 1F only.

7.2.1 Lighting

Specific measures to avoid unnecessary light spill from the proposed development are recommended to reduce any potential impacts to any roosting, foraging and commuting bats. The following guidelines, taken from the Bat Conservation Trust 2023 'Guidance Note 08/23' are recommended.

- LED luminaires to be used due to the fact that they are highly directional, and have asharp cut-off, lower intensity, good colour rendition and dimming capability.
- All luminaires should lack UV elements to reduce impact. Metal halide, compact fluorescent sources should not be used.
- A warm white light source (<2700 Kelvins) is to be adopted to reduce the blue light component).
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.

- Internal luminaires can be recessed (as opposed to using a pendant fitting) where they are installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges.
- Column heights will be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards. The shortest column height allowed will be used where possible.
- Only luminaires with a negligible or zero upward light ratio and with good optical control will be used.
- Luminaires should always be mounted horizontally with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1- or 2-minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output and increased upward light scatter from surfaces. Therefore, they should only be considered in specific cases where these issues can be resolved.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing and fine cut-off control of the beam inherent in modern LED luminaires, the mitigating effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

7.2.2 Timing

Under Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations, 2011 it is an offence to;

- Deliberately capture or kill a bat in the wild;
- Deliberately disturb a bat particularly during the period of breeding, rearing, hibernation and migration;
- Damage or destroy a bat's breeding site or resting place, or;
- Keep, transport, sell, exchange, offer for sale or offer for exchange any bat taken in the wild, other than those taken legally before the Habitats Directive before the Habitats Directive was implemented

Any development with the potential to impact bats/roosts first require the granting of a derogation licence before they can proceed lawfully. A derogation license can be applied for under Regulation 54 of the 2011 Regulations, but only if the following three criteria are met.

First a derogation licence can only be granted for one of the following specified reasons listed in Regulation 54;

- In the interests of protecting wild fauna and flora and conserving natural habitats;
- To prevent serious damage, in particular to crops, livestock, forests, fisheries and water and other types of property;
- In the interests of public health and public safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and the beneficial consequences of primary importance for the environment;

- For the purpose of research and education, of repopulating and introducing these species and for the breeding operations necessary for these purposes, including the artificial propagation of plats, or;
- To allow, under strictly supervised conditions, on a selective basis and to a limited extent, the taking or keeping of bats.

Second, a derogation license can only be issued if there is no alternative to carrying out the prohibited activity. The mitigation hierarchy must be followed (avoidance, mitigation, compensation), and the initial aim should be to avoid any potential impact of a proposed development on bats and their breeding and resting places. All alternatives should be explored including redesigning a development. Alternative solutions should not be deemed unsatisfactory purely because it would cause inconvenience or require a change in behaviour and solutions should be based off science and data gathered and how to stringently protect the bats in light of the development.

Once a derogation licence is obtained, works can occur during the designated timeframe, although it is best to avoid the maternity (mid–May to August, inclusive) and hibernation (December to March, inclusive) seasons. Works will be timed so as to take advantage of mild weather conditions. Several consecutive nights with temperatures no lower than 7°C to avoid disturbing potentially hibernating bats. Ideally the demolition will occur when bats are active and can be moved to alternative roosts in the area e.g. Autumn when bats are moving away from summer roosts to mating roosts.

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9. Appendices

Appendix 1

Irish bat species profiles

All are bats species found in Ireland are insectivores that feed on insects, and all use a seasonal feeding strategy to help build fat reserves during the summer and autumn, before their hibernation during winter - a time, generally, when insects are not available. Most hunt flying prey, but some species, e.g., lesser horseshoe bat or Daubenton's bat, glean their prey from surfaces of leaves or water on which the prey have alighted.

All species hibernate during winter and typically become active in late spring and early summer. As the days and nights warm up each species flies out to forage for insects, for progressively longer periods, at night. Around late June or early July, pregnant females give birth to a single offspring which feeds on its mother's milk for 6-7 weeks at which point it can fly and learns to echolocate and to catch its own prey. Mating takes place from August onwards; the female retains the sperm throughout the winter but does not ovulate and become pregnant until spring the following year. The onset of hibernation, which takes place from October/November onwards, begins once temperatures drop and insect prey abundance drops.

Common pipistrelle (*Pipistrellus pipistrellus*) – Peak call frequency 45kHz

The common pipistrelle is one of Irelands smallest and most common bat. Like all bat species found in Ireland they are nocturnal feeding on midges, moths and other flying insects that they find in the dark by using echolocation and can be found in both rural and urban areas. A single pipistrelle (weighing approximately 5-6 grams, the weight of a 1-euro coin) can consume as many as 3,000 of these insects in one night (BCI, 2024)[11], providing an ecosystem service as nature's pest control. Common pipistrelles emerge around 20 minutes after sunset and are fast flying species and tend to zig-zag whilst flying which helps them to catch their insect prey (UOB, 2024)[12] and usually fly approximately 5 to 10 meters from the ground (Russ, 1999)[13]. The common pipistrelle's distribution is widespread and is found throughout the island of Ireland (NBDC, 2024)[14]. The common pipistrelle frequents a large range of different habitats for foraging and roosting such as urban areas (often feeding around streetlights that their insect prey can be attracted to), woodlands, farmland, gardens, lakes, rivers, hedgerows and tree lines. Using the latter linear features to commute across the landscape. Common pipistrelles are known to be crevice dwellers and can fit through openings between 15mm and 20mm and are known to use new and old buildings in gaps and crevices between roof tile, brick work, behind panelling, shutters and eaves as well as roosting in bat boxes and trees throughout spring and summer (UOB, 2024). Maternity roosts tend to be found in close proximity to good foraging and commuting habitat such as improved grassland, built-up areas and close to water and hedgerows/tree lines. During the winter months whilst in

[11] Bat Conservation Ireland (BCI), 2024, *Common and Soprano Pipistrelle*, available from https://www.batconservationireland.org/irish-bats/species/common-and-soprano-pipistrelle accessed March 2024.

[12] University of Bristol (UOB), 2024, *Common Pipistrelle Pipistrellus pipistrellus biology,* available from https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/commonpipi.htm accessed March 2024

[13] Jon Russ, 1999, *The bats of Britain and Ireland echolocation calls, sound analysis and species identification*

[14] National Biodiversity Data Centre (NBDC), 2024, *Common Pipistrelle Pipistrellus pipistrellus profile*, available from https://species.biodiversityireland.ie/profile.php?taxonId=119762#Taxonomy accessed March 2024.

hibernation common pipistrelles can be found to be roosting in trees and buildings, but rarely underground. The common pipistrelle's conservation status is currently found to be favourable and improving (NPWS, 2019)[15].

Soprano pipistrelle (*Pipistrellus pygmaeus*) Peak call frequency 55kHz

The soprano pipistrelle is also one of Irelands most common and smallest bat species and shares many traits with the common pipistrelle. The soprano pipistrelle's distribution is also widespread and is found throughout the island of Ireland (NBDC, 2024)[16]. The soprano pipistrelle is slightly smaller than the common pipistrelle, and its fur is reddish and is one colour from the roots to the tip and its skin is pale pink as opposed to the common pipistrelle's black skin, found on the ears and face (NBDC, 2024)[17]. A post-calcarial lobe is present on the tail membrane but a ridge between the nostrils distinguishes the Soprano from the Common pipistrelle, as well as a difference in the pattern of the elastic fibres within the wing membranes (BCI, 2024)[18]. Soprano pipistrelles also emerge around 20 minutes after sunset and too are a fast flying species. There is also overlap between the soprano and common pipistrelle is that they can be found in similar habitats with soprano pipistrelle's preferring lakes, rivers and riparian habitats (Vaughan et al., 1997)[19]. Soprano pipistrelles have overlap with the common pipistrelle in regards to roosting preferences. Soprano pipistrelles are also known to be crevice dwellers will roost in new and old buildings in gaps and crevices between roof tile, brick work, behind panelling, shutters and eaves as well as roosting in bat boxes and trees throughout spring and summer (UOB, 2024)[20]. Winter roosting preferences are also the same as common pipistrelle with roosting in trees and buildings and rarely underground. The soprano pipistrelle's conservation status is currently found to be favourable and improving (NPWS 2019).

Nathusius pipistrelle (*Pipistrellus nathusii*) Peak call frequency 38kHz (36-40khz)

The Nathusius pipistrelle is much rarer in Ireland than the common and soprano pipistrelles, its distribution is scarce and scattered across the island of Ireland but is potentially more widespread than the data would suggest, as this species could be easily be confused with the other two resident species of pipistrelle (NBDC, 2024)[21]. Since its discovery in Ireland (circa 1996-1997), roosts of this species have recorded in Armagh, Derry, Down and Fermanagh and species records have been recorded in Cavan, Cork, Dublin, Kerry, Laois, Longford, Mayo, Meath, Waterford and Wicklow (NBDC, 2024). Nathusius pipistrelles emerge at early dusk, are fast flying

[15] National Parks and Wildlife Service (NWPS), 2019, *The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.*

[16]

[17] National Biodiversity Data Centre (NBDC), 2024, *Soprano Pipistrelle Pipistrellus pygmaeus profile*, available from https://species.biodiversityireland.ie/profile.php?taxonId=119441&taxonGroupName=terrestrial%20mammal&taxonDesignationId=2#Taxonomy accessed March 2024

[18] Bat Conservation Ireland (BCI), 2024, *Common and Soprano Pipistrelle*, available from https://www.batconservationireland.org/irish-bats/species/common-and-soprano-pipistrelle accessed March 2024.

[19] Vaughan, N., Jones, G., & Harris, S. (1997). Habitat Use by Bats (Chiroptera) Assessed by Means of a Broad-Band Acoustic Method. *Journal of Applied Ecology*, *34*(3), 716–730.

[20] University of Bristol (UOB), 2024, *Soprano Pipistrelle Pipistrellus pygmaeus biology* https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/sopranopipi.htm accessed March 2024

[21] National Biodiversity Data Centre (NBDC), 2024, *Nathusius Pipistrelle Pipistrellus nathusii profile*, available from https://species.biodiversityireland.ie/profile.php?taxonId=119466#Taxonomy accessed March 2024.

species, and fly with deep wing beats (UOB, 2024)[22] and usually fly approximately 4 to 15 meters from the ground (Russ, 1999). Nathusius pipistrelles are mainly associated with woodland habitats from moist deciduous woodlands to dry coniferous forests (CI, 2024)[23]. Nathusius pipistrelles are also associated with wetlands, rivers and waterbodies (BCT, 2024)[24] but are known to forage within parks, farmland and woodland edges too (CI, 2024) and are found less often than the common and soprano pipistrelles in urban areas (UOB, 2024). They are known to roost in old buildings under soffit boards and roof tile, fissures in rocks and tree hollows and bat boxes (BCT, 2024). During the winter months Nathusius pipistrelles will roost in cracks in walls, trees, caves and sheltered cliff crevices (NBDC, 2024). The Nathusius pipistrelle's conservation status is currently unknown (NPWS 2019).

Brown long-eared bat (*Plecotus auritus*) Peak call frequency 35kHz (25-50khz)

The brown long eared bat (BLE) is medium sized bat and has distinctive long ears which can be up to three quarters of the size of its total head and body length (2.5cm) (CI, 2024)[25]. These large ears enable this species of bat to have extraordinary hearing abilities which help them to hunt especially when gleaning their prey from foliage (BCT, 2024)[26]. BLE are late emergers and prefer to leave their roosts in complete darkness and therefore emergence times can be up to an hour after sunset (Russ, 1999). As a void dwelling species of bat these bats can often be active and make short flights within a roosting area such as a loft before emergence, as agile flyers they are equipped to using confined spaces to fly in. Their flight is slow and fluttering often likened to that of a butterfly and fly low, usually close to vegetation (UOB, 2024)[27]. The BLE's distribution is widespread and can be found throughout the island of Ireland (NBDC, 2024)[28]. BLE prefer sheltered habitats such as valleys, parks and gardens and are also known to forage open deciduous and coniferous woodland and orchards (BCT, 2024). As mentioned, bats are typically void dwelling and will roost in older buildings, in lofts, barns, stables and tend to cluster along the central ridge beam or next to a chimney. Ble will also also make use of trees and bat boxes (BCI, 2024)[29]. During the winter BLE can be found roosting in caves, tunnels, mines, ice houses and occasionally deep hollows of mature trees and buildings (BCT, 2024). The brown long eared bat's conservation status is currently found to be favourable and improving (NPWS 2019).

Daubenton's bat (Myotis daubentonii) Call frequency ranges from 35 to 85kHz (loudest at 45 to 50kHz)

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[22] University of Bristol (UOB), 2024, *Nathusius Pipistrelle Pipistrellus nathusii biology* available from https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/nathusiuspipi.htm accessed March 2024.

[23] *Conserve Ireland (CI), 2024, Nathusius pipistrelle profile, available at https://www.conserveireland.com/mammals/nathusius_pipistrelle.php accessed March 2024*

[24] Bat Conservation Trust (BCT), 2024, *UK Bats: Nathusius Pipestrelle* available at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/nathusius-pipistrelle accessed March 2024.

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[27] University of Bristol (UOB), 2024, *Brown long-eared bat Plecotus auritus biology* available from https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/brownlongeared.htm accessed March 2024

[28] National Biodiversity Data Centre (NBDC), 2024, *Brown long-eared bat Plecotus auritus profile*, available from https://species.biodiversityireland.ie/profile.php?taxonId=119441&taxonGroupName=terrestrial%20mammal&taxonDesignationId=2#Taxonomy accessed March 2024

[29] Bat Conservation Ireland (BCI), 2024, *Brown long eared bat,* available from https://www.batconservationireland.org/irish-bats/species/brown-long-eared-bat accessed March 2024.

Daubenton's bat is medium sized bat and is widely known as the water bat due to its strong association with water bodes and rivers (PTES, 2024)[30]. These bats are low and fast flying, and typically skim the waters surface to catch their prey and are known to use their ventral fur to collect water to drink (UOB, 2024)[31]. Emergence times of this species of bats ranges and there are even difference between times in males and females (Andrews Ecology, 2017)[32] with data suggesting that some females leave the roost earlier than the males. On average the emergence time for this species is 84 minutes after sunset (UOB, 2024). Daubenton's bat distribution is widespread and can be found throughout the island of Ireland (NBDC, 2024)[33]. Although this species is heavily associated with water ways and water bodies, preferring to feed on its prey over calm slow-moving water they are often also found foraging along woodland rides and edges and are less common in urban areas. Roosting preferences include caves, mines, tunnels, trees, ice houses but rarely new building types (BCT, 2024)[34]. These species are often recorded as sharing roosting habitats with other species of bats such as natterers, pipistrelles and brown long eared (UOB, 2024). Daubenton's bat roosting preferences differ very little over the year regardless of season (BCT, 2024). Daubenton's bat conservation status is currently found to be favourable and improving (NPWS 2019).

Leisler's bat (Nyctalus leisleri) Peak call frequency 25kHz (15 to 45kHz)

The Leisler's bat is Irelands biggest species with a combined head and body of approximately 54-64mm (NBDC, 2024)[35]. The Leisler's is a high-flying species (10-70m from ground level (Russ, 1999) and also one of the earliest to emerge from its roosts. Typically emerging at sunset or even before it, their activity is closely linked to temperature (Russ at al, 2002)[36]. Although rarer in Britian and the rest of Europe Leisler's are widely distributed across Ireland (BCI, 2024)[37]. Leisler's bats are primarily a woodland species but will occupy parklands and urban areas that can provide all of their habitat requirements (CI, 2024)[38]. Preferring open habitats, rivers lakes and woodlands, and unlike other bat species do not need to use linear features to navigate the landscape (UOB,

[30] People's Trust for Endangered Species (PTES), 2024, *Daubenton's Bat: Facts and Figures* https://ptes.org/get-informed/facts-figures/daubentons-bat/ accessed March 2024

[31] University of Bristol (UOB), 2024, *Daubenton's bat Myotis daubentonii biology* available from https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/daubentons.htm accessed March 2024

[32] Andrews ecology Ltd, (2019), *A review of empirical data in respect of emergence and return times reported for the UK's 17 Native Bat Species*, available from http://battreehabitatkey.co.uk/wp-content/uploads/2017/06/AEcol-REVIEW-OF-EMERGENCE-AND-RETURN-EMPIRICAL-DATA-2017-Ver.-4.pdf accessed March 2024.

[33] National Biodiversity Data Centre (NBDC), 2024, *Daubenton's bat Myotis daubentonii profile*, available from https://maps.biodiversityireland.ie/Dataset/128/Survey/268 accessed March 2024

[34] Bat Conservation Ireland (BCI), 2024, *Daubenton's bat,* available from https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/daubentons-bat accessed March 2024

[35] National Biodiversity Data Centre (NBDC), 2024, *Leisler's bat Nyctalus leisleri profile*, available from https://species.biodiversityireland.ie/profile.php?taxonId=119464 accessed March 2024.

[36] Russ et al., (2003), *Seasonal patterns in activity and habitat use by bats (Pipistrellus spp. and Nyctalus leisleri) in Northern Ireland, determined using a driven transect*, Journal of Zoology 259. 289-299.

[37] Bat Conservation Ireland (BCI), 2024, *Leisler's bat* https://www.batconservationireland.org/irish-bats/species/leislers-bat accessed March 2024.

[38] Conserve Ireland (CI), 2024, *Leisler's bat profile*, available at https://www.conserveireland.com/mammals/leislers_bat.php accessed March 2024.

2024)[39]. Often associated with woodlands they can be found to roost within tree holes and deep cavities and sometimes bat boxes. The Leisler's bat is also known to roost in buildings, both old and new, within lofts, between tiles and underfelt, under ridge tiles, above large soffit boards, behind hanging tiles, behind window shutters and in disused chimneys (UOB, 2024). During the winter months they can be found roosting within deep hollows of mature trees and crevice's in buildings (BCT, 2024)[40]. Leisler's bat conservation status is currently found to be favourable and improving (NPWS 2019).

Lesser horseshoe bat (Rhinolophus hipposideros) Peak call frequency 110kHz (109-115khz)

The lesser horseshoe bat (LHB) is one of Ireland's smallest bat species with a combined head and body of approximately 35-44mm (CI, 2024)[41]. Its name comes from its unique and complex noseleaf shape which resembles a horseshoe shape and helps this species of bat to echolocate (BCT, 2024)[42] and is distinguished from the greater horseshoe by size, as the lesser horseshoe is smaller and has a smaller forearm length (UOB, 2024)[43]. The LHB emerges anywhere from 30 minutes to 60 minutes after sunset (UOB, 2024) and generally flies low and is extremely agile (Russ, 1999) meaning it can hunt for prey between vegetation and or hedgerows (CI, 2024) but are an extremely light sensitive species and is not typically found in well-lit areas. The lesser horseshoe is restricted in its distribution to the west of Ireland and is mainly found in Mayo, Galway, Clare, Limerick, Kerry and Cork (BCI,2024)[44] . LHB are associated with foraging in habitats such as sheltered valleys, woodland edge, pasture and wetlands, mixed woodlands and hedgerows (UOB, 2024). LHB were originally cave dwellers and will still use this sort of habitat along with tunnels, mines, and cellars for roosting when hibernating during the winter months (BCT, 2024). They can be found roosting within the warmer months in old buildings, rural buildings such as barns and stables and outhouses (BCI,2024). The lesser horseshoe bat's conservation status is currently found to be Inadequate and declining (NPWS 2019).

Natterer's bat (Myotis nattereri) Peak call frequency 50kHz (35-80khz)

The Natterer's bat is a medium sized bat with moderately long ears (NBDC, 2024)[45]. Its broad wings allow for agile, low and slow flight (UOB, 2024)[46] which gives them the ability to hover and also enables them to hunt their prey whilst in flight and by gleaning them from vegetation and are even able to catch spiders from their

[39] University of Bristol (UOB), 2024, *Leisler's bat Nyctalus leisleri* available at https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/leislers.htm accessed accessed March 2024.

[40] Bat Conservation Trust (BCT), 2024, *UK Bats: Leisler's bat,* available at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/leislers-bat accessed March 2024.

[41] Conserve Ireland (CI), 2024, *Lesser Horseshoe bat profile*, available at https://www.conserveireland.com/mammals/lesser_horseshoe_bat.php accessed March 2024

[42] Bat Conservation Trust (BCT), 2024, *UK Bats: Lesser Horseshoe bat,* available at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/lesser-horsehoe accessed March 2024

[43] University of Bristol (UOB), 2024, *Lesser Horseshoe bat Rhinolophus hipposideros*, available at https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/lesserhorseshoe.htm accessed March 2024.

[44] Bat Conservation Ireland (BCI), 2024, *Lesser Horseshoe Bat*, available at https://www.batconservationireland.org/irish-bats/species/lesser-horseshoe-bat accessed March 2024.

[45] National Biodiversity Data Centre (NBDC), 2024, Natterer's bat Myotis nattereri: profile, available at https://species.biodiversityireland.ie/profile.php?taxonId=119463 accessed March 2024.

[46] University of Bristol (UOB), 2024, *Natterer's bat Myotis nattereri* available at https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/leislers.htm accessed March 2024.

webs (BCI, 2024)[47]. Natterer's tend to be late emerger with an average emergence time of 75 minutes after sunset (Duvergé, P. L, et al., 2000)[48]. Natterer's are slightly rarer in Ireland than Britian and the rest of Europe but can still be found across the island of Ireland with fewer recorded in the south west than the rest of the isle (NBDC, 2024). A study in the early nineties showed that in the west of Ireland this species typically gleaned its prey from vegetation rather than catching it in flight due to the type of insects available to this species of bat in that part of the country (Sheil et al.,1991)[49]. The Natterer's bat is associated with woodland habitats both deciduous and coniferous and will use tree lines and hedgerow as a way of commuting (BCT, 2024)[50]. This species of bat will also hunt low over open water and but typically hunts higher than the Daubenton's Bat (NBDC, 2024). These bats can also be found to forage in urban areas, parkland, and over agricultural land (CI, 2024)[51]. Natterers will roost in trees, bat boxes, old stone buildings like barns and churches as well as structures such as tunnels, caves, mines and under bridges (BCT, 2024). During the winter months they can be found hibernating in underground structures like tunnels, mines and caves, and are also know to share their roosting spaces with other species of bat such as the brown long eared and Daubenton's (NBDC, 2024). Natterer's bat conservation status is currently found to be favourable and stable (NPWS 2019).

Whiskered bat (Myotis mystacinus) Call frequency ranges from 32 to 89kHz (loudest at 45kHz)

The whiskered bat is a small bat and is found to be rarer in Ireland's, although widespread across Britian and the rest of Europe (BCT,2024)[52]. The whiskered bat is also Europe's smallest myotis bat species and is related to the other myotis species found in Ireland; the Daubenton's bat and the Natterer's bat (BCI, 2024). As mentioned, this species is not common although can be found across Ireland, its distribution is disjointed (NPWS 2019). This could also be a reflection of the difficulty of separating their echolocation calls from other myotis species as typically identification in-hand ultimately confirms the species type (BCT,2024). The whiskered bat will on average emerge from the roost within 30 minutes of sunset (Jones & Rydell, 1994)[53]. The whiskered bat is a medium to fast, agile flyer and usually flies approximately 20m above ground level (UOB, 2024)[54]. The whiskered bat can be found foraging in habitats such as open meadows and woodland that are often found in close proximity to waterbodies (BCI, 2024).[55] Summer roosting habitat includes buildings, within loft spaces and

[47] Bat Conservation Ireland (BCI), 2024, *Natterer's bat* https://www.batconservationireland.org/irish-bats/species/natterers-bat accessed March 2024.

[48] Duvergé, P. L., Jones, G., Rydell, J., & Ransome, R. D. (2000). *Functional Significance of Emergence Timing in Bats*. Ecography, *23*(1), 32–40.

[49] Sheil. C. B., McAney. C. M., & Fairley. J. S, (1991), *Analysis of the diet of Natterer's bat Myotis nattereri and the common long-eared bat Plecotus auritus in the West of Ireland*, 223(2), 299-305. Justor

[50] Bat Conservation Trust (BCT), 2024, *UK Bats: Natterer's bat,* available at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/natterers-bat accessed March 2024.

[51] Conserve Ireland (CI), 2024, *Natterer's bat profile*, available at https://www.conserveireland.com/mammals/natterers_bat.php accessed March 2024.

[52] Bat Conservation Trust (BCT), 2024, *UK Bats: Whiskered bat Myotis mystacinus*, available at https://www.bats.org.uk/about-bats/what-are-bats/uk-bats/whiskered-bat accessed March 2024.

[53] Jones, G., & Rydell, J. (1994). *Foraging strategy and predation risk as factors influencing emergence time in echolocating bats*, 346(1318), The Royal Society

[54] University of Bristol (UOB), 2024, *Whiskered bat Myotis mystacinus* available at https://www.bio.bris.ac.uk/research/bats/britishbats/batpages/whiskered.htm accessed March 2024.

[55] Bat Conservation Ireland (BCI), 2024, *Whiskered bat,* available at https://www.batconservationireland.org/irish-bats/species/whiskered-bat accessed March 2024.

eaves, between roof tile and hanging tiles and soffits, under bridges and hollows within mature trees (BCT,2024). Winter hibernation sites will include underground structures, such as caves, mines and tunnels (CI, 2024)[56] The whiskered bat conservation status is currently found to be favourable and stable (NPWS 2019).

[56] Conserve Ireland (CI), 2024, *Whiskered bat profile*, available at https://www.conserveireland.com/mammals/whiskered_bat.php accessed March 2024.

Appendix 2

Site photos

South facing aspect of B1.

West facing aspect of B1.

Western and southern facing aspects of B1.

Eastern and southern facing aspects of B3

Western facing aspect of B4.

Southern and eastern facing aspects of B5.

Eastern and southern facing aspects of B5.

Southern facing aspect of B5.

Eastern facing aspect of B5.

Eastern facing aspect of B5.

Western facing aspect of B5.

Western facing aspect of B5.

Western facing aspect of B5.

Western facing aspect of B5.

Northern facing aspect of B5.

Northern facing aspect of B5.

Northern and western facing aspects of B6.

Western and southern facing aspects of B6.

Eastern and southern facing aspects of B6.

Eastern and southern facing aspects of B7.

Eastern facing aspect of B8.

Southern and eastern facing aspect of B8.

Western and southern facing aspects of B10.

Northern and western facing aspects of B14.

Eastern facing aspect of B14.

Southern facing aspect of B14.

Eastern and northern facing aspects of S2.

Northern facing aspect of S3.

Example of walls found on site (S5).

Example of walls found on site (S5).

Example of loft space inside B1.

Example of loft space inside B1.

Example of loft space inside B1.

Example of loft space inside B1.

Example of loft space inside B1.

Example of underground cellar in B1.

Example of underground cellar in B1.

Example of underground cellar in B1.

Example of B2's internal roof structure.

Example of B3's internal roof structure

Example of B3's internal roof structure.

Example of B4's internal roof structure.

Example of B4's internal roof structure.

Example of loft space within the cottage section of B5.

Example of loft space within the cottage section of B5.

Example of internal roof structure within the stables section of B5.

Example of internal roof structure within the stables section of B5.

Example of internal roof structure within the stables section of B5.

Example of B6's internal roof structure.

Example of B7's internal roof structure.

Example of B8's internal roof structure.

Example of B8's internal roof structure.

Example internal roof structure of lean-to section of B8.

Internals of B11.

Internals of B12.

Example of B14's loft space.

Exposed underside of B14s roof through gaps from missing ceiling material.

Example of S1's internals.

Example of S2's internals.

Example of S4's internals.

Appendix 3

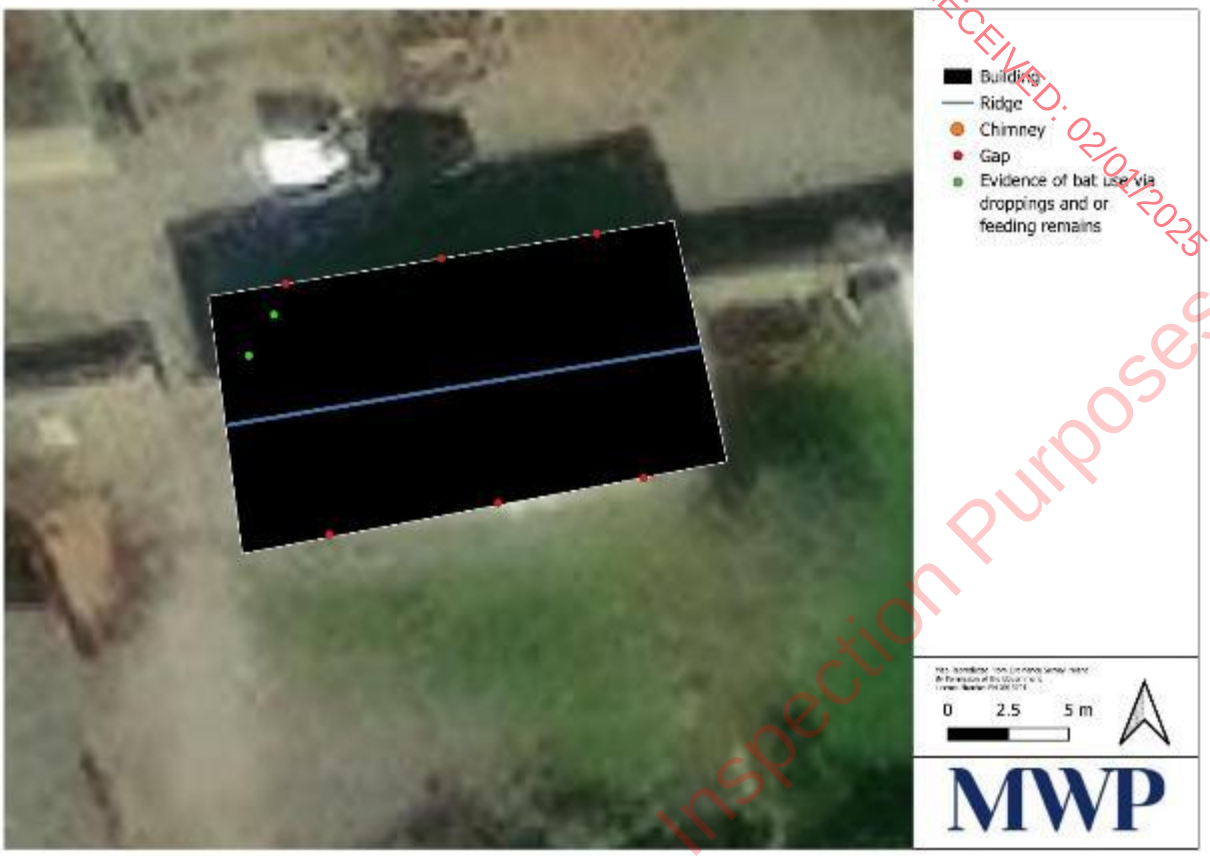
PRA results maps

B1

B3

B4

B5



B6

B8

S5

Appendix 4

PAB Data Tables

SP	Myotis.spp	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	NoID	Total	%
1 Attic	9	21	47	2	7	86	100.00
TOTAL	9	21	47	2	7	86	
%	10.47	24.42	54.65	2.33	8.14		

SP	Myotis.spp	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	NoID	Total	%
2 Outbuilding	0	10	5	1	0	16	100.00
TOTAL	0	10	5	1	0	16	
%	0.00	62.50	31.25	6.25	0.00		

SP	Myotis.spp	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	NoID	Total	%
3 Stables	169	403	36	320	238	1166	100.00
TOTAL	169	403	36	320	238	1166	
%	14.49	34.56	3.09	27.44	20.41		

SP	Myotis.spp	Leisler's bat	Common pipistrelle	Soprano pipistrelle	Brown long-eared bat	NoID	Total	%
4 Barn	130	15	4739	687	150	0	5721	100.00
TOTAL	130	15	4739	687	150	0	5721	
%	2.27	0.26	82.84	12.01	2.62	0.00		

Nightly and hourly average passes per species

- Low = <10 bat passes per night/hour;
- Medium = 10 – 49 bat passes per night/hour and,
- High = ≥50 bat passes per night/hour.

SP1 Attic

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pipi-strelle	Brown long-eared bat	Lesser horseshoe	NoID
	9	0	0	21	47	2	0	7
Average over 10 nights	0.9	0	0	2.1	4.7	0.2	0	0.7

SP2 Outbuilding

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pipi-strelle	Brown long-eared bat	Lesser horseshoe	NoID
	0	0	0	10	5	1	0	0
Average over 10 nights	0	0	0	1	0.5	0.1	0	0

SP3 Stables

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pipi-strelle	Brown long-eared bat	Lesser horseshoe	NoID
	169	0	0	403	36	320	0	238
Average over 10 nights	16.9	0	0	40.3	3.6	32	0	23.8

SP4 Barn

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pipi-strelle	Brown long-eared bat	Lesser horseshoe	NoID
	130	15	0	4739	687	150	0	0
Average over 10 nights	13	1.5	0	473.9	68.7	15	0	0

SP1 Attic

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pip-istrelle	Brown long-eared bat	Lesser horseshoe	NoID
	0.9	0	0	2.1	4.7	0.2	0	0.7
Average over 10 nights	0.09	0	0	0.21	0.47	0.02	0	0.07

SP2 Outbuild-ing

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pip-istrelle	Brown long-eared bat	Lesser horseshoe	NoID
	0	0	0	1	0.5	0.1	0	0
Average over 10 nights	0	0	0	0.1	0.05	0.01	0	0

SP3 Stables

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pip-istrelle	Brown long-eared bat	Lesser horseshoe	NoID
	16.9	0	0	40.3	3.6	32	0	23.8
Average over 10 nights	1.69	0	0	4.03	0.36	3.2	0	2.38

SP4 Barn

	Myotis.spp	Leisler's bat	PIPNAT	Common pipistrelle	Soprano pip-istrelle	Brown long-eared bat	Lesser horseshoe	NoID
	13	1.5	0	473.9	68.7	15	0	0
Average over 10 nights	1.3	0.15	0	47.39	6.87	1.5	0	0

APPENDIX B

Comhairle Contae Thiobraid Árann
Tipperary County Council

Comhairle Contae Thiobraid Árann, Oifigí Cathartha, Cluain Meala, Co. Thiobraid Árann
Tipperary County Council, Civic Offices, Clonmel, Co. Tipperary
E91 N512

Comhairle Contae Thiobraid Árann, Oifigí Cathartha, An tAonach, Co. Thiobraid Árann
Tipperary County Council, Civic Offices, Nenagh, Co. Tipperary
E45 A099

t 0818 06 5000
e customerservice@tipperarycoco.ie
tipperarycoco.ie

Ref. No. 2560002

TO: Jeremy & Rachel Browne
Lisa Mc Veigh
DMVF Architects
278 Lower Rathmines Road
Dublin 6
D06 E3X8

Application Received: 02/01/2025

Re: Notification of decision to grant PERMISSION with conditions under Planning & Development Act 2000 (as amended)

A Chara,

In pursuance of the powers conferred upon them by the above mentioned Acts, Tipperary County Council has by Order dated **25/02/2025** decided to grant you PERMISSION for development of land namely:-(a) demolition of mid 20th century 2-storey extension on north facade & single storey extensions on west facade of the two-storey with attic over basement dwelling (main house), conservatory ruins on south facade and courtyard outbuildings. (b) construction of a new single storey extension & glass link to the west (rear) and a new single storey extension to the north (side) of main house. (c) works to the main house including works to facades on all elevations including removal of existing cementitious render & full lime re-render, refurbishment of the limestone front door surround, cills, minor repairs & refurbishment of entrance railings, refurbishment of existing doors & windows to include slimline double glazing. The building will be altered internally on all levels including modifications to existing partition walls, provision of new lightweight internal stud partitions, partial opening up of existing external walls to rear, 3no. new window opes & repositioning of the stairwell windows on north facade, new staircase between basement and ground floor, lowering of windows & french doors to rear study, 3no. new conservation rooflights & the enlargement of 3no. existing rooflights, alterations to existing doors and windows; general restoration work including the repair of existing ceilings & plasterwork, (d) landscaping works (e) a new waste water treatment system and soil polishing filter and all ancillary and associated site development works. The building is a Protected Structure (Ref. No. S082) at Ardsallagh House, Ardsallagh Estate, Fethard, Co. Tipperary, E91FX20.

Tipperary County Council Schedule of conditions 2560002

For the reason(s) stated in schedule 1 and subject to the condition(s) stated on schedule 2 (1 to 11, pages 1 to 3).

If there is no appeal against the said decision, a Grant of PERMISSION in accordance with the Decision shall be issued as soon as maybe, but not earlier than 3 working days after the expiration of the period within which an appeal may be made to An Bord Pleanala. (See Footnote at end of document). It should be noted that until a Grant of a Permission has been issued the development in question is not authorised. The applicant is advised that unless the development described above is carried out within five (5) years from the date of Grant of PERMISSION, planning permission will cease to have effect. See Section 40 of the Planning and Development Act, 2000.

Signed on behalf of
Director of Services Geraldine Quinn **Date:** **25th February, 2025**

Tipperary County Council Schedule of conditions 2560002

SCHEDULE ONE

It is considered that the proposed development complies with the policies and objectives of the Tipperary County Development Plan 2022-2028, and the proposed development does not have an adverse impact upon the character of the area or the amenities of adjoining properties in the vicinity of the site and would therefore be in accordance with proper planning and sustainable development of the area.

SCHEDULE TWO

1. Save where modified by the following conditions, the development shall be carried out and completed and accordance with the plans and particulars including the Architectural Heritage Impact Assessment and Conservation Report submitted with the planning application received by the Planning Authority on 02/01/2025.
   REASON: To clarify the terms of the permission and in the interest of proper planning and sustainable development.

2. Prior to commencement of development, the developer is required to carry out a full roost characteristic survey and presence/absence surveys as recommended in the 'Preliminary Bat Roost Assessment Report'. These surveys are to be undertaken by a suitably qualified bat specialist/ecologist and the results of same shall be submitted to the Planning Authority. The applicant is advised that all bat species are protected by the Wildlife Amendment Act 2000 (as amended) and are listed in Annex IV of the EU Habitats Directive. If any bat species are found to be roosting at the site, a derogation license must be obtained from the Wildlife Licensing Unit of the National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage prior to commencement of development.
   REASON: To protect the natural heritage of the area.

3. All surface water runoff from roofs, driveways and paved areas shall be collected and disposed of within the curtilage of the site by means of soak pits designed in accordance with BRE 365 standards. Surface water runoff shall not be allowed to discharge onto the public road or adjoining properties.
   REASON: To avoid interference with other properties and to prevent damage to the public road with consequent traffic hazard.

4. (a)The extended dwelling shall discharge to a secondary treatment system and sand polishing filter (DWWTS) prior to occupation. The DWWTS shall be designed, located and constructed in accordance with the requirements of 'EPA Code of Practice 2021 - Domestic Wastewater Treatment Systems'.

   (b) Location, construction and commissioning of the DWWTS shall be supervised by a Civil Engineer or appropriately qualified individual, who upon completion of works/commissioning shall submit to the Planning Authority certification (to include photographs) that the system has been laid out and constructed in accordance with the ''EPA Code of Practice 2021 - Domestic Wastewater Treatment Systems', within three months of installation.
   (c)The owners/occupiers of the subject site shall be responsible for the maintenance of their DWWTS and shall undertake regular sampling of the effluent to ensure the effluent quality adheres to the manufacturer's guidelines.
   REASON: In the interests of public health.

5. **Protected Structure**
   (a) All works on the Protected Structure, its curtilage, and within its setting shall be supervised on an ongoing basis by a Conservation Architect accredited by the

Royal Institute of the Architects of Ireland or as an alternative and where appropriate subject to the written agreement of the Planning Authority prior to the commencement of development, a Conservation Accredited Registered Engineer or Chartered Surveyor.

(b) All works shall be undertaken in accordance with the Conservation Principles contained in Architectural Heritage Protection Guidelines for Planning Authorities October 2011 and have regard to the Built Heritage Advice Series (Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs).

(c) A final works record prepared by the conservation professional under item (a) shall be submitted to the Planning Authority on completion of the project, along with certification that all works to the protected structure were carried out in accordance with conservation best practice.

REASON: To protect the architectural heritage in the interests of the common good and the proper planning and development of the area.

6. Prior to commencement of any works on site, method statements detailing the full schedule of works to complete the following key tasks in accordance with conservation best practice shall be submitted and agreed in writing with the Planning Authority:

i. A schedule of items of historic ironwork to be conserved on the site and a specific conservation method statement from the appointed specialist detailing the proposed cleaning, any necessary repairs and protective coating of historic ironwork.
ii. A schedule of historic timber windows being retained on site and those existing modern replacement windows which are to be replaced with historically-referenced new timber windows manufactured in an appropriate hardwood.
iii. Manufacturing drawings showing dimensions and detail of mouldings (referencing surviving historic windows on site) on proposed replacement timber windows to be installed on the protected structure will be approved by the planning authority prior to instructing the chosen window manufacturer to commence work.

REASON: To protect the architectural heritage in the interests of the common good and the proper planning and development of the area.

7. Replacement of intact, historic glass within surviving historic timber windows with double glazed units shall not be permitted. Slim (<14mm) double-glazed units may be incorporated in new, historically-referenced timber windows designed to replace existing modern frame subject to the written agreement of the Planning Authority.
REASON: To protect the architectural heritage in the interests of the common good and the proper planning and development of the area.

8. (a)The use of mastic or other moisture-impermeable sealants to the junction between historic timber windows and rendered reveals shall not be used. Extending reveal render into a track routed in the timber outer lining of historic windows or an appropriate, similar method that ensures adequate ventilation around vulnerable timber elements may be used to minimise water ingress around window frames.

(b)All existing historic features including original fire surrounds, moulded joinery, plaster detail, internal doors and the main timber staircase will all be protected adequately to prevent accidental damage during construction works and will be retained in situ with necessary repairs undertaken by suitably experienced conservation specialists.

REASON: To protect the architectural heritage in the interests of the common good and the proper planning and development of the area.

9. (a)The developer shall ensure that all demolition/construction works on site are carried out in a manner such that noise and dust emissions do not result in significant impairment of, or significant interference with, amenities or the environment beyond the site boundary.

(b)The developer shall ensure that material from the site is not spread or deposited on the public roadway and shall maintain the roadway in a clean, tidy and safe condition. Any damage to or interference with the roadside drainage shall be made good without delay at the developer's expense, to the satisfaction of the Local Authority.

(c)No construction or demolition activity giving rise to noise audible from the nearest habitable dwelling shall be carried out on Sundays, Bank Holidays or Public Holidays.

(d)Monday to Friday, all construction and demolition activity giving rise to noise audible from the nearest habitable dwelling shall be restricted to the hours between 8.00a.m. and 6.00p.m. (inclusive) and to the hours between 8.00a.m. and 2.00p.m. (inclusive) on Saturdays (excluding Sundays and Bank/Public Holidays).
REASON: To prevent a noise nuisance or traffic hazard arising from the implementation of the permission.

10. All trees and hedgerow shall be maintained and retained in site expect where removal is required to facilitate the proposed development.
REASON: In the interests of visual amenities of the area and the historic landscaping on the site.

11. All service cables associated with the proposed development (such as electrical, communal television, telephone and street lighting cables) shall be run in underground ducts where practicable.
REASON: In the interests of orderly development and of the visual amenities of the area.

Advice Notes
This document, and all other documents pertinent to this Notification of Decision to grant permission with/without conditions, shall be brought to the notice of all contractors and sub-contractors engaged to work on the Protected Structure.

All contractors and sub-contractors engaged to work on the project should be fully briefed on the significance of the structure and the Conservation Approach outlined in the documentation submitted in support of the Planning Application and the Conditions attaching to the Grant of Planning Permission.

Note that all works to historic fabric should be undertaken by suitably experienced contractors in accordance with conservation best practice as outlined in the guidelines and the Advice Series published by the Department of Housing, Local Government and Heritage

Footnote:

An appeal against a decision of a Planning Authority under the Planning and Development Act 2000 (as amended) may be made to An Bord Pleanala, 64 Marlborough Street, Dublin 1, D01 V902. (Tel. (01) 8588100) during office hours.

1. You have four weeks beginning on the date the planning authority makes its decision which was (25/02/2025). This is a strict time limit.

2. You must put your appeal in writing (either typed or handwritten).

3. You must clearly state your own name and address. If someone is acting for you, like a planning agent they must clearly state their own name and address as well as your name and address.

4. You must give enough details to allow An Bord Pleanala to identify the application you wish to appeal.

5. You must provide your planning grounds of appeal (reasons and arguments) for your appeal and any items you wish to support your grounds of appeal.

6. If you are a third party, you must include the written acknowledgement given to you by the planning authority to confirm it received your submission at planning application stage.

7. You must pay the correct fee.

For more information on how to make an appeal see www.pleanala.ie