



PROPOSED MIX-USE DEVELOPMENT ON THE MURROUGH, WICKLOW, CO.
WICKLOW

Bat Survey Report for Derogation Licence Application

Pathway Homes Limited

Report no.: 01, Rev. 01

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1 INTRODUCTION

DNV was commissioned by Robert Keran Consulting on behalf of Pathway Homes Limited to undertake three bat emergence surveys on the Site of the proposed mixed-use development (the 'Proposed Development') in Wicklow City, Co. Wicklow. This Proposed Development has been granted planning permission by Wicklow County Council. The Site is zoned 'WZ – Waterfront' in the Draft Wicklow Rathnew Local Area Plan 2025. One of the objectives of this zoning is to facilitate the provision of high quality new residential developments at appropriate high densities with excellent layout and design, well linked to the existing town centre, community facilities, and water amenities.

The scope of works includes the preparation of a report detailing the results of these three bat emergence surveys, which were undertaken after a previous bat emergence survey in 2022 identified two active bat roosts in two buildings on Site (Neo Environmental, 2022). The three additional emergence surveys were undertaken to assess if roosting bats were still present on the Site, and if so, classify the roost and inform further action (if required).

1.1 Quality Assurance and Competence

DNV is a multi-disciplinary consultancy specialising in the areas of Environment, Waste Management and Planning. All consultants have scientific or technical qualifications and have a wealth of experience working within the Environmental Consultancy sectors, having undergone extensive training, and continued professional development. Professional memberships include the Chartered Institution of Wastes Management (CIWM), and Chartered Institute of Ecology and Environmental Management (CIEEM).

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. KM undertook the desktop research, authored this report, and undertook field surveys for this report. HON and AD also undertook field surveys for this report.

HON has a B.A. in Zoology from Trinity College Dublin, and has experience in desktop research, report writing, as well as practical field experience, including detailed habitat surveys, terrestrial mammal surveys, and ornithology surveys. HON has prepared several Stage I and Stage II Appropriate Assessment (AA) Reports and Ecological Impact Assessments (EclA). Additionally, HON has authored and supported the preparations of a number of Biodiversity Chapters for Environmental Impact Assessment Reports (EIAR).

KM is a Graduate Ecologist with DNV and has a B.Sc (Hons) in Environmental Biology from University College Dublin. KM has a range of fieldwork experience including mammal, bird, and amphibian surveys in addition to freshwater ecology research. Her deskwork experience includes bat call analysis, habitat mapping, and report writing. KM has contributed to the preparation of several Stage 1 AA Screenings, Stage 2 Natura Impact Statements (NIS), and Preliminary Ecological Assessment reports.

AD is an Intern Ecologist with a B.Sc. (Hons) in Geoscience from Trinity College Dublin, and a MSc in Applied Environmental Science from University College Dublin. AD's experience includes both geological and ecological field and laboratory work, molecular biomarker analysis, GIS and ecological report preparation. AD is also a student member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.2 Site Location and Description

The Site is located in the Murrrough area just east of Wicklow City, Co. Wicklow. The site consists of multiple derelict warehouses and one abandoned two storey garda station. The Site is accessed from the southeast via The Murrrough road. The surrounding landscape is highly urbanised; north and south of the Site are industrial areas. The transitional waterbody Broad Lough (IE_EA_130_0100) lies just west of the Site, and to the east is the Irish Sea.

The Site comprises primarily Buildings and Artificial Surfaces (BL3) habitat. The southern boundary is composed of a treeline (WL2) which extends along the western boundary. The remaining western boundary is dry meadow and grassy verge (GS2), as is the eastern boundary. There is a section of scrub (WS1) to the north of the Site. The Site location and habitats are shown in Figure 1 below for context.

1.3 Proposed Development Description

The Proposed Project consists of a development at a 3.1 hectare site comprising of:

1. Demolition of all existing buildings on the site.
2. Construction of a mixed use development comprising of the following uses:
 - (a) A 116 no. bedroom hotel of circa 5,214 sq.m gross with a height of five storeys plus rooftop plant, and including ancillary hotel facilities including bar, restaurant and business centre.
 - (b) 107 no. residential units in a mix of houses (28 no.), townhouses (60 no.) and duplexes (19 no.) with a total residential floorspace of 12,492 sq.m gross. The overall residential mix is: 12 no. one beds, 5 no. 2 beds, 78 no. 3 beds and 12 no. four beds. There will be 16 no. three bed and 12 no. four bed houses, 60 no. three bed townhouses, and 12 no. one beds, 5 no. two beds, and 2 no. three bed apartment duplexes. House Type 1, Townhouse Type 1, Townhouse Type 2, and Duplex Type 2 are three storeys in height. House Type 2 and Duplex Type 1 are two storeys in height.
 - (c) The provision of own door offices of circa 223 sq.m and a shop/café of circa 160 sq.m in a single block of 2 storeys in height.
 - (d) A creche of circa 454 sq.m in a two storey building.
3. A total of 217 no. surface car parking spaces (including visitor, accessible and EV charging spaces), comprising of: 6 no. spaces for the creche, 3 no. spaces for the shop/café, 3 no. spaces for the own door offices, 66 no. spaces for the hotel, and 138 no. spaces for residential.
4. A total of 72 no. bicycle parking comprising of:
 - (a) 28 no. spaces for the duplex units;
 - (b) 28 no. spaces visitor/public in sheltered bicycle storage;
 - (c) 6 no. spaces for the hotel.
 - (d) 4 no. spaces for the office use
 - (e) 2 no. spaces for the shop/café
 - (f) 4 no. spaces for the creche
5. Open space comprising of:
 - (a) 4,200 sq.m public open space including pocket parks and playgrounds;
 - (b) 598 sqm of communal open space to serve the duplex units.
6. 2 no. new vehicular access The Murrrough Road, 1 no. for the hotel and 1 no. for the residential units.

7. Infrastructure works to serve the proposed development to include the internal road network, ESB substations/switchrooms, PV panels, green roofs, lighting, site drainage works including pumping station, hard and soft landscaping, boundary treatment, and all ancillary site services and development works above and below ground.

All Construction works will comply with best practice construction guidelines, which includes but is not limited to:

1. CIRIA, (2001), Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors;
2. Construction Industry Research and Information Association (CIRIA) Environmental Good Practice on Site (C650), 2005;
3. BPGCS005, Oil Storage Guidelines;
4. CIRIA 697, The SUDS Manual, 2007;
5. UK Pollution Prevention Guidelines (PPG) UK Environment Agency, 2004;
6. Construction Industry Research and Information Association CIRIA C648: Control of water pollution from linear construction projects: Technical guidance (Murnane et al. 2006);
7. CIRIA C648: Control of water pollution from linear construction projects: Site guide (Murnane et al. 2006);
8. Inland Fisheries Ireland (2016). Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters.



FIGURE 1. SITE LOCATION AND HABITATS AT THE SITE.

2 RELEVANT LEGISLATION

In view of their sensitive status across Europe, all species of bat have been listed on Annex IV of the EC 'Habitats and Species Directive', while the Lesser-Horseshoe bat is given further protection and listed on Annex II of the Directive. The Habitats Directive was transposed into Irish law as the European Communities (Natural Habitats) Regulations, 1997, and combined with the Wildlife Acts 1976 (as amended), which ensures that individual bats, their breeding sites and resting places are fully protected in Irish law. This has important implications for those who own or manage sites where bats occur.

All bat species are protected under the Wildlife Acts 1976 as amended, which make it an offence to wilfully interfere with or destroy the breeding or resting place of these species however, the Acts permit limited exemptions for certain kinds of development which would require a derogation licence to be obtained from the NPWS with input from a qualified Bat Specialist. All species of bats in Ireland are listed on Schedule 5 of the 1976 Act, and are therefore subject to the provisions of Section 23, which make it an offence to:

1. Intentionally kill, injure or take a bat,
2. Possess or control any live or dead specimen or anything derived from a bat,
3. Wilfully interfere with any structure or place used for breeding or resting by a bat,
4. Wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose.

3 METHODOLOGY

3.1 Desk Study

A desk-based review of all relevant available information concerning bats was undertaken in October 2025. Information contained on the websites of the National Parks and Wildlife Service (NPWS) and the National Biodiversity Data Centre (NBDC) was also reviewed, along with the bat activity report written by Neo Environmental for the Site (Neo Environmental, 2022). The following guidance documents were also reviewed and consulted to inform the compilation of this report:

- Bat Conservation Ireland (BCI) website. Available at : <https://www.batconservationireland.org/irish-bats>
- Bat Conservation Trust (BCT) (2018) *Bats and artificial lighting in the UK*. Bats and the Built Environment series.
- Kelleher, C. & Marnell, F. (2022) *Bat Mitigation Guidelines for Ireland*, Version 2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Collins, J. (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.
- BCI (2010) *Bats & Lighting Guidance Notes for: Planners, engineers, architects, and developers*.
- Russ, J. (2012) *British Bat Calls – A Guide to Species Identification*. Pelagic Publishing

Additionally, the NBDC website (www.nbdc.ie) was also interrogated for historical records of bats within the T39 10km grid square. According to Collins (2023), Irish bats typically have a Core Sustainment Zone (CSZ) of under 5km. A CSZ is defined as “the area surrounding a communal bat roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost”. A study by Sheil *et al.*, (1999) found Leisler’s bats (*Nyctalus leisleri*) had a maximum foraging range of 13.4km. A similar study by Waters *et al.*, (1999) found Leisler’s bats flew a mean maximum distance of 4.2 km from the roost. The NBDC database offers a maximum search range of 10km. Therefore, this distance was chosen as the most suitable range to assess the likely impacts on bat foraging and commuting.

3.1.1 Landscape Suitability

The National Biodiversity Data Centre (NBDC) website contains a map viewer based on research by Lundy *et al.*, (2011). The Bat Conservation Ireland Landscape Suitability Model (Lundy *et al.*, 2011) utilises Maximum Entropy Models to give a Bat Habitat Suitability Index (BHSI) to examine the relative importance of bat landscape and habitat associations in Ireland. The model divides the country into 1 km grid squares and ranks the habitat within the squares according to its suitability for various bat species. The index ranges from 0 to 100, with 0 being the least favourable (green) and 100 being the most favourable for bats (red). The scores are divided into five qualitative categories of suitability, namely:

- 0.000000 - 13.000000: Low
- 13.000001 - 21.333300: Low – Medium
- 21.333301 - 28.111099: Medium
- 28.111100 - 36.444401: Medium – High

- 36.444402 - 58.555599: High

The BHSI rating for the area containing the Proposed Development was checked using the NBDC website and is included in the results section.

3.2 Field Surveys

3.2.1 Preliminary Bat Roost and Habitat Suitability Assessment

A daytime inspection of the Site was undertaken on the 25th of November 2024. The aim of the inspection was to search for indication of the presence of roosting bats, and to assess the habitat for its ability to support commuting and foraging bats. Any structures (buildings, bridges, ruins etc.) and trees on Site were visually assessed with the aid of a torch and binoculars.

Daytime inspections were undertaken of all buildings within the survey area, in order to determine whether or not they were suitable to support roosting bats. External inspections were undertaken visually, from the ground, with the aid of a strong torch beam. Buildings within the survey area were assessed for Potential Roost Features (PRFs) which were used to determine assign valuation to the buildings, according to the guidance outlined in Bat Conservations Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023). Evidence of bat usage includes observations of bats (visible or audible), bat droppings, urine staining, grease marks (oily secretions from glands present on stonework), claw marks and feeding signs. In addition, the presence of bat fly pupae (bat parasite) also can indicate that bat usage of a crevice, for example, has occurred in the past.

A structure with roosting potential can be further divided into one of five sub-categories as presented in Table 4.1 (Collins, 2023):

- None – No habitat features on site likely to be used by any roosting bats at any time of the year;
- Negligible – No obvious features observed, however, a small element of uncertainty remains;
- Low – A structure with one or more roost features as used by individual bats opportunistically at any time of year;
- Moderate – A structure with one or more potential roost sites 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; and
- High – A structure with one or more roost features that are obviously suitable for use by a larger number of bats on a regular basis, and potentially for longer periods of time. These features have the potential to support high conservation status roosts.

Collins (2023) recommends that structures and trees are assessed for their ability to support roosting bats under separate categorizations using professional judgement. A tree with roosting potential can be further divided into one of three sub-categories as presented in Table 4.2 (Collins, 2023):

- None – Either no PRFS in the tree or highly unlikely to be any.
- Far – Further assessment required to establish if PRFs are present in the tree.
- PRF – A tree with at least one PRF present.

A Bat Habitat Suitability Assessment was carried out in conjunction with the roost assessment on the 25th of November 2024. This assessment evaluated the habitats present on Site and in the wider area for bat foraging and commuting suitability. Habitat suitability is assessed qualitatively from None to High as per Collins (2023):

- None - No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats)
- Negligible – No obvious habitat features on site likely to be used as flightpaths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
- Low – Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
- Moderate – Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.
- High – Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flightpaths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland. Site is close to and connected to known roosts).

All survey methodologies will follow those of the Bat Conservation Trust *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023). Any further recommended bat survey work (e.g. inspection of bat boxes) will be undertaken within the recommended survey period of May to September inclusive and as per best practice guidelines.

3.2.2 Dusk Roost Emergence Surveys

Three roost emergence bat surveys were carried out at the Site on the 11th, 22nd, and 29th of September 2025 by DNV surveyors, equipped with Elekon full spectrum bat loggers (M1 and M2), Nightfox Whisker IR cameras, and head torches. The surveys were conducted by experienced surveyors who were situated in locations that gave the best possible views of the PRFs identified within the Site. The methodology of the emergence surveys followed best practice guidelines (Collins, 2023 and Marnell et al., 2022) with dusk surveys commencing 15 minutes before sunset and lasting until approximately 2 hours after sunset. Details of the date, times and weather conditions are presented below in Table 1.

TABLE 1. BAT EMERGENCE SURVEY EFFORT AT THE SITE

| Start Time | Sunset Time | Finish Time | Temperature (°C) | Wind Speed (Beaufort) | Cloud Cover | Rainfall |
|-----------------------------|-------------|-------------|------------------|-----------------------|-------------|----------|
| Survey 1: 11/09/2025 | | | | | | |
| 19:34 | 19:49 | 21:34 | 13 | F5 | 50% | None |
| Survey 2: 22/09/2025 | | | | | | |
| 19:07 | 19:22 | 21:07 | 12 | F1 | 5% | None |
| Survey 3: 29/09/2025 | | | | | | |
| 18:50 | 19:05 | 20:50 | 13 | F1 | 100% | None |

3.3 Analysis

The bat data collected by the bat detectors were analysed using BatExplorer software (Version 2.2.6.0), and species assigned to each record with reference to species identification guides such as Russ (2012). Each record i.e., a sequence of bat calls/pulses, is noted as a bat pass; to indicate the level of bat activity for each species



recorded. Each bat pass does not correlate to an individual bat but is representative of bat activity levels. Some bats such as pipistrelle species (e.g. common pipistrelle (*Pipistrellus pipistrellus*)) may continuously fly around a habitat or feature, therefore, it is possible that a series of bat passes within a similar time frame is representative of an individual bat. On the other hand, Leisler's bats (*Nyctalus leisleri*) tend to travel through an area quickly, and as such, an individual sequence or bat pass is more likely to be indicative of individual bats.

4 RESULTS

4.1 Desk Study Results

4.1.1 Historical Records from NBDC

A desktop review was carried out to identify previous records of bat species from within the vicinity of the Site in question. The website the NBDC (www.nbdc.ie) was interrogated for historical records of bats within the T39 grid square within which the Site is situated. A minimum of four bat species have been historically recorded within this grid square. The results are summarised in Table 2.

TABLE 2. HISTORICAL BAT RECORDS FROM THE 10KM² GRID SQUARE T39 (NBDC).

| Species | Date of last record | Database | Designation |
|---|---------------------|----------------------------------|--|
| Brown Long-eared Bat (<i>Plecotus auritus</i>) | 26/10/2021 | National Bat Database of Ireland | <ul style="list-style-type: none"> • EU Habitats Directive - Annex IV • Wildlife Act 1976 (as amended) |
| Leisler's Bat (<i>Nyctalus leisleri</i>) | 13/07/2004 | National Bat Database of Ireland | <ul style="list-style-type: none"> • EU Habitats Directive - Annex IV • Wildlife Act 1976 (as amended) |
| Common Pipistrelle (<i>Pipistrellus pipistrellus</i>) | 07/08/2008 | National Bat Database of Ireland | <ul style="list-style-type: none"> • EU Habitats Directive - Annex IV • Wildlife Act 1976 (as amended) |
| Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>) | 07/08/2008 | National Bat Database of Ireland | <ul style="list-style-type: none"> • EU Habitats Directive - Annex IV • Wildlife Act 1976 (as amended) |

4.1.2 Landscape Suitability

According to the NBDC's bat suitability index (Lundy et al., 2011), which provides a visual map of the broad scale geographic patterns of occurrence and local roosting habitat requirements for Irish bat species, the Site is located in an area with an overall 'High (40.44)' suitability for bats in general. The suitability index for specific bat species is presented in Table 3, while the overall suitability of the Site for bat species is illustrated in Figure 2 below.

The landscape suitability index is high for six bat species listed below, medium-high for one species, and low for two species.

TABLE 3. SUITABILITY OF THE T39 10KM GRID SQUARE FOR THE BAT SPECIES FOUND IN THE VICINITY OF THE SITE.

| Bat Species | Suitability Index | Suitability |
|--|-------------------|-------------|
| Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>) | 51 | High |
| Brown Longed-eared bat (<i>Plecotus auritus</i>) | 58 | High |
| Common pipistrelle (<i>Pipistrellus pipistrellus</i>) | 60 | High |
| Lesser horseshoe bat (<i>Rhinolophus hipposideros</i>) | 1 | Low |
| Leisler's bat (<i>Nyctalus leisleri</i>) | 57 | High |
| Whiskered bat (<i>Myotis mystacinus</i>) | 37 | High |
| Daubenton's bat (<i>Myotis daubentonii</i>) | 31 | Medium-High |
| Nathusius' pipistrelle (<i>Pipistrellus nathusii</i>) | 16 | Low |
| Natterer's bat (<i>Myotis nattereri</i>) | 58 | High |

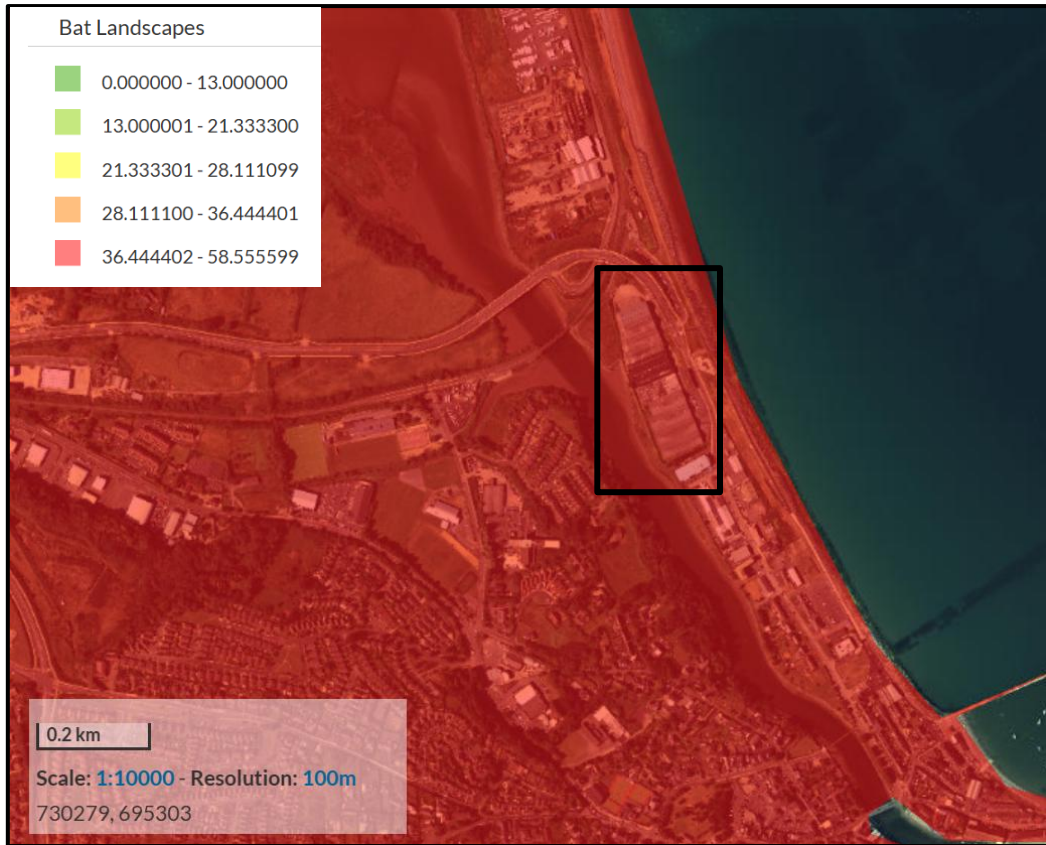


FIGURE 2. NBDC BAT LANDSCAPE SUITABILITY MAP WITH A BLACK BOX TO INDICATE THE SITE LOCATION.

4.2 Potential Bat Roost and Habitat Assessment

The bat roost assessment assessed the trees and buildings on Site for potential to support roosting bats. All trees and several of the buildings were deemed unsuitable: Trees were immature without notable crevices, lifting bark or ivy lattice. Several buildings had no obvious broken bricks, gaps in the guttering and were open to the light/air. Internal inspection of the buildings was not possible due to the presence of asbestos.

The previous emergence survey conducted in 2022 recorded emergences from two roosts (Neo Environmental, 2022). The first roost was a broken brick located on the western side of the abandoned garda station as shown in Figure 5, from which three common pipistrelles were recorded emerging (Neo Environmental, 2022). The second roost was located within a single-story brick building with multiple broken windows as shown in Figure 6, one common pipistrelle was observed emerging through a broken window during the 2022 survey. Both roost features were still present during the preliminary walkover conducted by DNV in November, 2024. Given that the previous survey confirmed small numbers of bats emerging from the broken brick on the garda station, this building was considered as having a 'moderate' roosting potential (defined as "A structure with one or more potential roost sites 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." (Collins, 2023)). However as only one bat was recorded emerging through the broken window from the single-story brick building, this building was considered to have a 'low' roosting potential (defined as "A structure with one or more roost features as used by individual bats opportunistically at any time of year." (Collins, 2023)). It was concluded that three emergence surveys of these previously confirmed roosts were required to determine presence/absence, and roost status, where applicable.

There is little vegetation on the Site, and it comprises primarily man-made structures in an area with high noise and visual disturbance (Wicklow City). Given these conditions, the foraging and commuting potential was assigned as 'Low', (defined as, "*Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.*" (Collins, 2023)). It was determined from the habitat suitability assessment that no further bat activity surveys were required at the Site.

Site photographs are attached in Appendix I of this Report.

4.3 Bat Roost Emergence Surveys

Three emergence surveys were conducted at the Site, on the 11th, 22nd, 29th of September 2025. These surveys focused on the two roosts previously confirmed by the Neo Environmental survey in 2022.

No emergences were observed from either roost during the first survey. Two emergences from the garda station were observed during the second survey. The bats did not emerge from the broken brick as observed during the 2022 survey, but instead from a small gap between the window frame and brick wall in the west facing side of the building, as shown in **Figure 5**. One emergence was observed during the third survey from the same roost feature. All emergences were from common pipistrelle bats. Bat survey results are summarised below in Table 4 and activity across both surveys is illustrated in Figure 3.

DNV ecologists generally classify activity levels from low to high, with low activity comprising less than 10 bat passes per hour, medium is equal to or greater than 10 bat passes per hour, and anything above 50 bat passes per hour is considered high. Common pipistrelle occurrences were generally high, with detector one capturing high numbers of passes on the first and third survey, and detectors two and three capturing medium numbers of passes during the second and third survey. Leisler's bat generally appeared in low abundances, with the exception of the second survey where a high number of passes were recorded by both detector 1 and 2. The soprano pipistrelle occurred in very low numbers during all surveys.

The majority of bat activity during the survey was recorded in the middle and northern area of the Site and was mostly attributed to common pipistrelle activity. Surveyors noted that although the number of bat passes appeared to be high, passes could be attributed to a small number of bats passing through repeatedly. No other bat species were recorded at the Site. Common pipistrelle, soprano pipistrelle and Leisler's bat are the three most widespread and common bat species in Ireland as per the NBDC distribution map for these species (NBDC).

TABLE 4. BAT EMERGENCE SURVEY RESULTS (GREEN INDICATES LOW BAT ACTIVITY, ORANGE INDICATES MEDIUM BAT ACTIVITY AND RED INDICATES HIGH BAT ACTIVITY)

| Common Name | Latin Name | Total no. bat passes (Detector 1) | Bat passes per hour (bph) (Detector 1) | Total no. bat passes (Detector 2) | Bat passes per hour (bph) (Detector 2) | Total no. bat passes (Detector 3) | Bat passes per hour (bph) (Detector 3) |
|------------------------------|----------------------------------|-----------------------------------|--|-----------------------------------|--|-----------------------------------|--|
| Survey 1 – 11.09.2025 | | | | | | | |
| Common pipistrelle | <i>Pipistrellus pipistrellus</i> | 103 | 51.5 | 13 | 6.5 | N/A | N/A |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i> | 2 | 1 | 1 | 0.5 | N/A | N/A |
| Leisler's bat | <i>Nyctalus leisleri</i> | 3 | 1.5 | 0 | 0 | N/A | N/A |
| Survey 2 – 22.09.2025 | | | | | | | |

| | | | | | | | |
|------------------------------|----------------------------------|-----|-------|-----|------|----|------|
| Common pipistrelle | <i>Pipistrellus pipistrellus</i> | 65 | 32.5 | 65 | 32.5 | 65 | 32.5 |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i> | 6 | 3 | 0 | 0 | 0 | 0 |
| Leisler's bat | <i>Nyctalus leisleri</i> | 111 | 55.5 | 124 | 62 | 15 | 7.5 |
| Survey 3 – 29.09.2025 | | | | | | | |
| Common pipistrelle | <i>Pipistrellus pipistrellus</i> | 287 | 143.5 | 51 | 25.5 | 43 | 21.5 |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i> | 2 | 1 | 5 | 2.5 | 0 | 0 |
| Leisler's bat | <i>Nyctalus leisleri</i> | 16 | 8 | 18 | 9 | 32 | 16 |

Based on the two emergences observed on the second night, the one emergence observed on the third night, and guidance outlined in Collins (2023), the roost in the garda station is presumed likely to be a common pipistrelle transitional roost, comprising a minimum of one bat and a maximum of two bats. This roost is not considered to be a roost of high conservation significance, such as “*maternity and hibernation sites of Annex II species, very large traditional maternity colonies of any species, hibernation sites used by significant numbers of bats of any species, Regionally and Nationally important roosts of any species, and sites meeting nationally and internationally designated site status*”¹.

4.4 Limitations

Every effort has been made to confirm the absence/present of roosting bats on Site; however, the following specific limitations apply to this assessment:

All three emergence surveys were undertaken in September. This does not follow the guidelines presented in Table 7.1 (Collins, 2023), which outlines the recommended timings for presence/absence surveys of structures to give confidence in a negative result. These guidelines state that, “it is recommended that surveys are spaced at least three weeks apart,” and “September surveys are likely to miss maternity roosts due to dispersal before this time, but may pick up mating roosts.”

However, this is not viewed as a serious limitation as bats were confirmed roosting on Site in two of the three 2025 surveys. Furthermore, it is highly unlikely that either roost on Site is a maternity roost due to the low numbers of individual bats recorded emerging during the 2022 survey which was undertaken in August, (Neo Environmental, 2022). Pipistrelle maternity roosts have been recorded to support a minimum of 20 individuals, which far exceeds the 3 individuals recorded emerging from the garda station roost, and the sole individual recorded emerging from the single-storey brick building (Speakman et al., 1999) (Neo Environmental, 2022).

¹ CIEEM Roost Significance: <https://cieem.net/wp-content/uploads/2020/11/2.-Earned-Recognition-Accreditation-Levels.pdf>

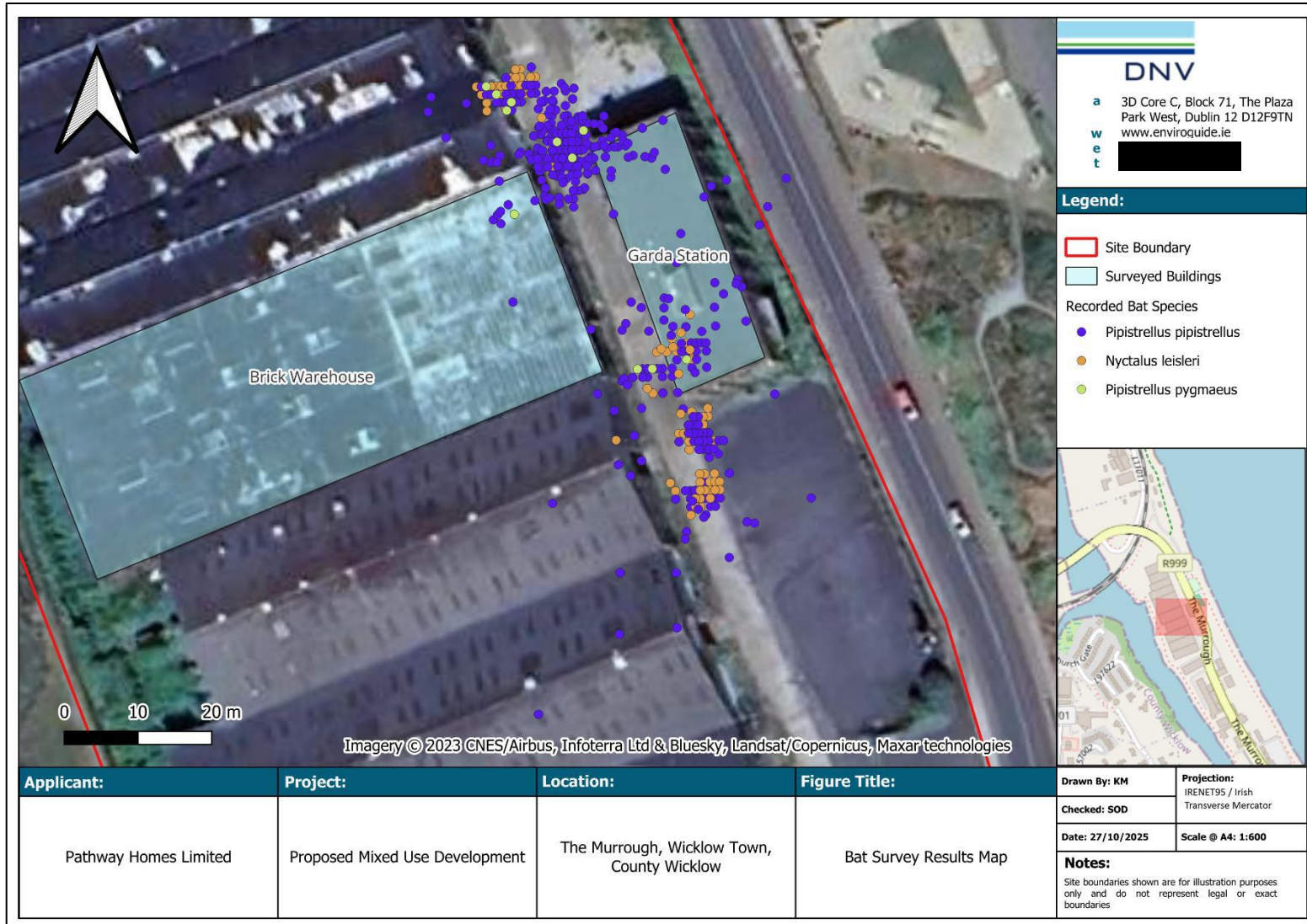


FIGURE 3. BAT SURVEY RESULTS ACROSS THE THREE EMERGENCE SURVEYS (SPECIES POINTS INDICATE BAT PASSES AND NOT NECESSARILY INDIVIDUAL BATS).

5 POTENTIAL IMPACTS

5.1 Construction Phase

The majority of the Site is composed man-made artificial habitat as seen in Figure 1. Limited areas of scrub and dry meadows and grassy verges are present, however these habitats provide limited foraging value to bats due to their overall low quality. These habitats do not serve as ecological links between other, more important, habitats and as such are considered to be of 'Local Importance (lower value)'. There will be negligible disruption to the normal foraging/commuting behaviours of bats using the Site as a result of habitat removal/fragmentation during the construction phase.

Light-related disturbance in the absence of mitigation would constitute a negative, short-term impact, of slight significance on the local bat population, given the low suitability of the Site to provide foraging/commuting habitats for bats.

Bats have been confirmed roosting in the derelict garda station in 2025. It is possible that a small number of common pipistrelle individuals could be using this roost as a hibernation roost and be present on site when demolition and construction activities begin. The garda station is scheduled to be demolished at a later date to the other buildings (minimum of 6 months after other demolition activities commence) and in the meantime will be used as a site office. There is a possibility for bats roosting in this building to be disturbed by the construction activities and change of building use. In this absence of mitigation this could constitute a negative, temporary, significant impact on the local common pipistrelle bat population.

In the absence of mitigation there is the potential for local bats to be killed or injured should they be present in the buildings during the commencement of demolition works. Furthermore, the removal of two bat roosts (one active and one previously used) through demolition in the absence of mitigation could constitute a negative, permanent, significant impact on the local common pipistrelle bat population.

5.2 Operational Phase

There is also potential for increased Operational Phase night-time lighting to impact local bat populations by degrading the quality of or limiting the use of known commuting routes should inappropriate levels of light be directed towards commuting routes or roost entrances. In the absence of mitigation this could constitute a negative, long-term, slight impact.

6 DEROGATION TESTS 1 AND 2

6.1 Test 1: Reason for Derogation

This derogation licence application is being made under Regulation 54(2)(a-e) of the European communities (Birds and Natural Habitats) Regulations. It was submitted for option C (ii) which states, "*other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.*"

The application site is zoned 'WZ – Waterfront' in the Draft Wicklow Rathnew Local Area Plan 2025. One of the objectives of this zoning is to facilitate the provision of high quality new residential developments at appropriate high densities with excellent layout and design, well linked to the existing town centre, community facilities and water amenities. The proposed development will deliver directly on this zoning objective and benefit the local community.

However, both existing buildings containing roosts sit on a key desire line from east to west between the seafront and riverside, with a key component of the planning permission being east-west pedestrian and cyclist linkages to ensure connectivity and permeability between the waterfront to the east and the riverside to the west.

Furthermore, the demolition of the buildings containing the roosts is necessary for the construction of new dwellings due to the physical site layout. It can be seen from the side by side of the existing layout and permitted layout, that buildings containing the roosts centrally on the site and their removal is integral to any co-ordinated development on the site, and the construction of new residential developments, as shown in Figure 4.

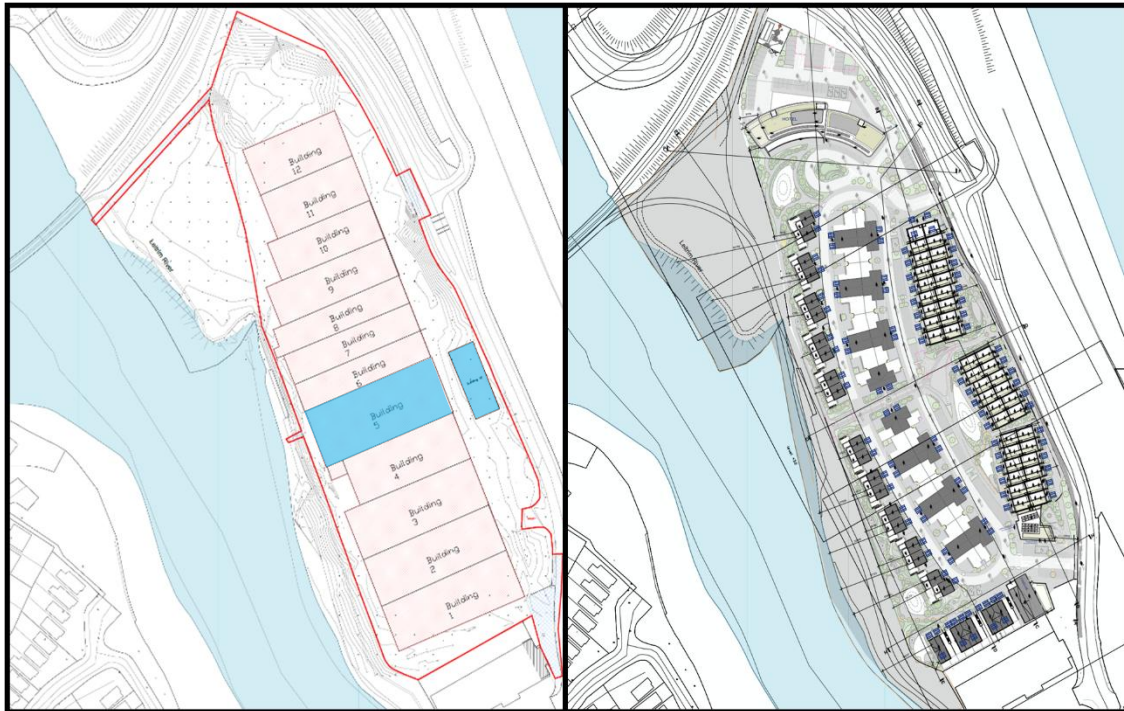


FIGURE 4: EXISTING SITE LAYOUT (RIGHT IMAGE) COMPARED WITH PROPOSED SITE LAYOUT (LEFT IMAGE). THE TWO BUILDINGS CONTAINING ROOSTS ARE HIGHLIGHTED IN BLUE.

6.2 Test 2: Absence of Alternative Solutions

The following alternatives to the proposed activity were considered and found to be unsatisfactory:

6.2.1 Do nothing.

The do nothing option prevents the loss of roosting habitat and disturbance to common pipistrelles using the site. However, it is not a satisfactory option as the objectives of redeveloping and improving this region cannot be achieved without the demolition of these buildings. Furthermore, both buildings include asbestos containing materials and as such are not suitable for use/occupation. There is also a risk of these harmful materials being released into the surrounding area, creating a potential health hazard, if the derelict buildings are allowed to persist and continue deteriorating.

6.2.2 Retain the buildings containing the roosts.

This option prevents the loss of roosting habitat for the common pipistrelle. However it does not prevent disturbance to bats potentially roosting on site during the construction phase. This option is also unsatisfactory due to the central position of both buildings on site, as seen in Figure 4, their retention is not possible to integrate into the proposed development plan. Both buildings must be demolished if east-west pedestrian and cyclist linkages to ensure connectivity and permeability between the waterfront to the east and the riverside to the west are to be created. The presence of asbestos materials within these buildings also prevents their use in permanent commercial or residential occupation.



6.2.3 Use a different building as a site office.

The garda station is the only suitable structure on site that can be used as a temporary site office during the demolition/construction period. This is due to the condition and layout of the other buildings on site. All other buildings on the site are physically connected to each other, which makes them unsuitable for occupation during demolition activities. In addition to this, many are large deteriorating warehouses unsuitable for office use. Therefore the separated garda station is the only satisfactory option for a site office during the demolition/construction period.

7 MITIGATION MEASURES

7.1 Bat Roost Removal

The buildings currently support two common pipistrelle bat roosts (one active and one previously used) and derogation from the protection afforded by the Wildlife Act 1976 (as amended) and the habitat directive must be acquired to authorize their removal. This requires application to the NPWS and a conservation plan to ensure that bats will not be adversely affected (individually or by physical harm as a species) by the loss of the roost. The following measures will be implemented to ensure that bats are not killed or injured during the demolition works, however, these may be subject to alteration in adherence to the derogation license terms:

- A licensed Bat Ecologist will be instructed to advise on and supervise the demolition of all buildings. **No demolition works will take place until the Bat Ecologist is available to supervise the works.**
- The Bat Ecologist will assess the structures in question prior to commencement and advise on the best approach to ensure their careful demolition; to minimise the impacts to roosting bats.
- During the week prior to the commencement of works, a bat survey may be carried out of the buildings to confirm bat presence/absence. The Bat Ecologist will inspect the buildings for the presence of bats by utilizing several methods and specialist equipment.
- Where there is any doubt whether bats may be present, a follow-up inspection of the structure must be undertaken. This may require access from a hoist or other mobile elevated work platform (MEWP). This should avail of a thermal imagery camera or scope, and an endoscope.
- If pre-commencement surveys or works reveal anything that significantly alters the findings of this Report, the NPWS will be informed prior to commencement of works and consulted.
- If necessary, exclusion of bats from the roosting features within the structures using one way valve devices may be installed by a bat specialist.
- The demolition of the structures will be carried out between October and March to minimise any harm to bats present. Demolition is possible during other times of year subject to a licenced bat handler being present. As the Site contains at least one confirmed roost, bat boxes will be erected on Site, prior to any work commencing. Details on bat boxes are provided in Section 7.2.
- Roofing materials including soffits, eaves, tiles, and any other protective sheeting will be removed manually using handheld tools where the Bat Ecologist deems it necessary. This will enable bats, if present, to escape unharmed. Buildings containing previously confirmed roosts will not be demolished using a mechanical excavator.
- Works within the vicinity of the roost will not occur after sunset or prior to dawn to further reduce the potential disturbance to commuting or foraging bats.
- If bats are encountered, they should be safely retained by a licenced bat handler in an escape-proof container until nightfall and then released on Site.

7.2 Compensatory Roosting Habitat

A minimum of 2 no. common pipistrelles were confirmed roosting within the derelict garda station during the emergence surveys conducted at the Site on the 22nd and 29th of September 2025. In the previous 2022 survey, a minimum of 3 no. common pipistrelles were confirmed roosting within the garda station, and 1 no. common pipistrelle was recorded roosting within the adjacent brick building.

A structure that has the potential to accommodate a larger number of bats than the 4 no. historically confirmed roosting common pipistrelles will be erected on Site in advance of any works commencing. It is recommended that **4 no. Schwegler**

1FW bat boxes are to be erected at the Site as soon as possible. The bat boxes should be erected as close to the original roosts as is possible, without compromising the integrity of the roost by exposing it to areas of light spill or disturbance from the demolition and construction works. The final positioning of the bat boxes will be decided by the Bat Ecologist. These bat boxes will provide ample replacement roosting habitat.

An alternative bat box or number of boxes may be installed instead of the recommended make and models above, upon approval by the NPWS and in line with any approved derogation licence conditions. There will be no light directed towards the area of the proposed location of any bat box. Any proposed movement to a bat box in future will require inspection by a suitably qualified Bat Ecologist. If bats are confirmed to be roosting in a bat box, a derogation licence will be required from the NPWS prior to any movement or disturbance to the structure.

7.3 Night-time Lighting

To minimise potential disturbance to local bats due to lighting during the Construction Phase, construction works will be carried out during normal daylight working hours as follows:

- Monday to Friday: 08:00 and 19:00;
- Saturdays: 08:00 to 14:00
- No Sunday work will generally be permitted.

Where night-time lighting cannot be avoided due to health and safety concerns, the lighting within the Proposed Development will be designed and installed to minimise the impact on local wildlife and in accordance with the Bat Conservation Trust guidelines on artificial lighting and bats (ILP, 2023):

- Light spill along the western boundary (by Broad Lough) will be limited to approximately 1 LUX. There will be no light spill to the other boundary habitats.
- All luminaires used will lack UV/IR elements to reduce impact.
- LED luminaires will be used due to the fact that they are highly directional, lower intensity, good colour rendition and dimming capability.
- A warm white spectrum (<2700 Kelvins will be used to reduce the blue light component of the LED spectrum).
- Luminaires will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- Column heights will be under 8m.
- Only luminaires with an upward light ratio of 0% and with good optical control will be used.
- Luminaires will be mounted on the horizontal, i.e., with no upward tilt.
- Any external security lighting will be set on motion-sensors and short (1min) timers.
- As a last resort, accessories such as baffles, hoods or louvres will be used to reduce light spill and direct it only to where it is needed.

8 MONITORING

8.1 Bat Boxes

The bat boxes will be inspected by a bat specialist within one year of their installation, to confirm their appropriate installation and potential uptake. The bat box scheme will be registered with Bat Conservation Ireland for a minimum of 2 years. The uptake of the bat boxes will also be assessed via a suite of bat activity surveys in line with the latest best practice guidance (Collins, 2023) throughout the bat activity season (April to September) and once the Proposed Development construction has been completed (including any soft landscaping), however this may be revised under guidance from a suitably qualified bat specialist and any updated guidance published in the intervening time.

9 CONCLUSIONS

The three species recorded at the Site comprised common pipistrelle, soprano pipistrelle and Leisler's bat, the three most common and widespread species in Ireland (NBDC). The Site is primarily utilised by common pipistrelles and Leisler's bats, with a few, very infrequent passes from soprano pipistrelles. 2 no. common pipistrelle were observed emerging from the roost during the second emergence survey, and 1 no. common pipistrelle was observed emerging during the third emergence survey.

Appropriate mitigation and monitoring measures have been suggested above to ensure that neither the Construction Phase nor the Operational Phase will impact upon roosting, foraging or commuting bats, including derogation licence application, ECoW supervision, appropriate lighting and replacement roost habitat for the affected common pipistrelle bats.

The national population estimates for the affected species are listed below:

- **Common Pipistrelle** - population in Ireland is increasing, and is estimated to comprise 1-2 million mature individuals (Aughney et al., 2018)

Given the negligible proportion of the national population of this species (2 – 4 no. individuals) which is likely to be effected by the Proposed Development coupled with Construction and Operational Phase mitigation measures, it can be concluded that the Proposed Development will not be detrimental to the maintenance of the populations of this species to which the Habitats Directive relates at a favourable conservation status in their natural range as is required under Section 54(2) of the European Communities (Birds and Natural Habitats) Regulations.

Upon the implementation of the above recommended mitigation and monitoring measures appropriate to the potential bat roost status at the Site, the impacts on the local bat population **will not be significant.**

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APPENDIX I – SITE PHOTOGRAPHS



Figure 5: Active roost present on the western wall of the derelict garda station. Bats were observed emerging from the gap between the window frame and brick wall. This area is highlighted by the red circle. Photo taken on the 29th of September 2025



Figure 6: Potential roost features (broken windows) on single storey brick building. No emergences from this building were recorded during the 2025 survey period. However, one emergence was recorded in the 2022 survey. Photo taken on the 22nd of September 2025



Figure 7: The western side of the derelict garda station. Photo taken on the 22nd of September 2025.



Figure 8: Example of BL3 and GS2 habitats present on site around the surveyed buildings. Photo taken on the 22nd of September 2025.





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