

# 34-41 Catherine Street Bat Report

November 2025

Prepared for:  
EKO Integrated Services



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## Contract

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This report describes work commissioned by Deirdre Keane of EKO Integrated Services, on behalf Thanos Securities Ltd., by an instruction dated 23/05/2025. The Client's representative for the contract was Deirdre Keane of EKO Integrated Services. Mia Heigh of JBA Consulting carried out this work.

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## Abbreviations

BCI	Bat Conservation Ireland
EC	European Communities
EU	European Union
NBDC	National Biodiversity Data Centre
NPWS	National Parks and Wildlife Service
NRA	National Road Authority
SAC	Special Area of Conservation
SPA	Special Protection Area

# 1 Introduction

## 1.1 Background

JBA Consulting was appointed by EKO Integrated Services to conduct bat emergence surveys and static bat monitoring of 34-41 Catherine Street, Limerick City. The work was commissioned in relation to the proposed planning applications for the partial demolition of existing buildings and construction of residential apartments.

This report summarises the findings of the survey at the site, as well as a desktop study of the proposed site identifying recent and historical records of bats roosting in the vicinity, as well as habitats that may be suitable as commuting and foraging features.

## 1.2 Proposed Project

The proposed development will comprise of:

- Construction of 76 no. apartments – 41 no. two-bedroom and 35 no. one-bedroom, across two to six storeys in height.
- Retention and refurbishment of protected structures at Nos.35-37 Catherine Street – providing 3 no. ground floor apartments and 3 no. duplex apartments.
- Retention and repair of the existing stone arch at No. 34 Catherine St. to form a new courtyard entrance.
- Replacement of the remaining structure at No. 34 with 2 no. one bedroom apartments.
- Demolition of the former pub and nightclub Nos. 38-41 Catherine St.
- Construction of basement level providing car parking spaces and secure bicycle storage.
- All required ancillary works, including new surface and foul water drainage systems utilising SuDS and connecting into Limerick City's existing drainage network.

## 1.3 Site Location

The proposed site of 34-41 Catherine Street (2050m<sup>2</sup>) is framed by Catherine Street, Mallow Street and Glentworth Street (Figure 1-1). The site is now derelict and unoccupied, but the previous uses of the area were a Bar/nightclub, apartments, newspaper printworks and surface car parking (Figure 1-2). The site is within an Architectural Conservation Area of Newtown Perry and is approximately 300m from the Lower River Shannon SAC and SPA.

The project will be undertaken in Limerick City. The site is located in a highly-urban area, close to residential buildings and amenities.

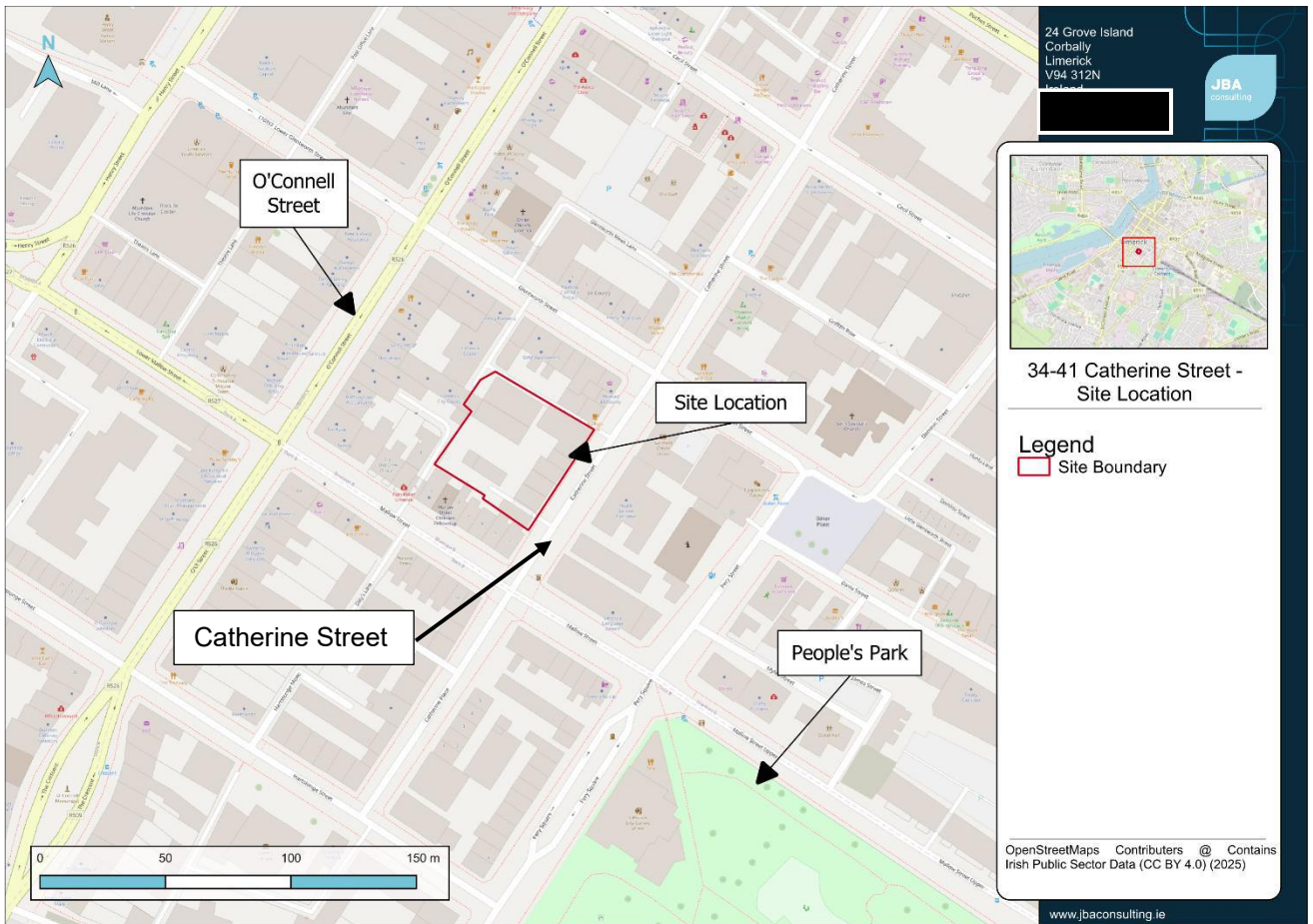


Figure 1-1: Site location.



Figure 1-2: Rear view of the buildings included in the site in red.

#### 1.4 Legislative Context

Bat surveys are required at this site as all bat species are protected under the Wildlife Act (1978-2021) and the Wildlife (Amendment) Act 2023 in Ireland and bats are likely to be present on-site. Under international legislation, bats are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) (European Communities 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) (European Communities 1983) was instigated to protect migrant species across all European Boundaries. The Irish government has ratified both these conventions. Also, the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) (European Commission 1992), seeks to protect rare species, including bats and their habitats and required that appropriate monitoring of populations be undertaken. All bat species are protected under Annex IV of the EU Habitats Directive, and the Lesser Horseshoe Bat *Rhinolophus hipposideros* is listed under Annex II (Table 1-1). Member

states are required to designate Special Areas of Conservation (SAC) for all species listed under Annex II in order to protect them.

Where bat roosts exist, application may be made to the National Parks and Wildlife Service (NPWS) for a derogation licence to permit actions affecting bats or their roosts that would normally be prohibited by law. The applicant must demonstrate that there is no satisfactory alternative and that the action will not adversely affect the favourable conservation status of the bat species. Each case is considered on its particular circumstances, and an application may be refused. Mitigation to reduce or compensate for any impact of development is generally a condition of the license and should be proportionate to the predicted impact. Mitigation measures may require particular timing of operations, protection of existing roosts or the creation of new roosting facilities to replace ones being lost. Monitoring of the effect of the mitigation is usually required (Marnell et al. 2022).

Table 1-1: Current status and legal protection of bat species known to occur in Ireland.

Species	Wildlife Act (1976) and amendments	Irish Red List Status	Habitats Directive	Bern & Bonn Conventions
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Yes	Least Concern	Annex IV	Appendix II
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	Yes	Least Concern	Annex IV	Appendix II
Nathusius' pipistrelle <i>Pipistrellus nathusius</i>	Yes	Least Concern	Annex IV	Appendix II
Leisler's bat / Lesser Noctule <i>Nyctalus leisleri</i>	Yes	Least Concern	Annex IV	Appendix II
Brown Long-eared bat <i>Plecotus auritus</i>	Yes	Least Concern	Annex IV	Appendix II
Lesser Horseshoe bat <i>Rhinolophus hipposideros</i>	Yes	Least Concern	Annex II Annex IV	Appendix II
Daubenton's bat <i>Myotis daubentonii</i>	Yes	Least Concern	Annex IV	Appendix II
Natterer's bat <i>Myotis nattereri</i>	Yes	Least Concern	Annex IV	Appendix II
Whiskered bat <i>Myotis mystacinus</i>	Yes	Least Concern	Annex IV	Appendix II

**NB:** Destruction, alteration or evacuation of a known bat roost is a notifiable action under current legislation and a derogation licence has to be obtained from the NPWS before works can begin.

## 1.5 Previous Surveys

A Preliminary Bat Roost assessment was undertaken by JBA at 34-41 Catherine Street, in January 2020. The assessment included a desktop review of existing bat records and aerial imagery, as well as an external ground-level inspection of the buildings and vegetation on site (Figure 1-3). Due to the unsafe condition of several structures, internal inspections were not possible, which limited the ability of confirm the presence or absence of bats.



Figure 1-3: Aerial view of the site January 2020.

The survey found that most of the buildings on site had negligible to low potential for bat roosting. No. 34 was deemed unsuitable due to a fire in 2018 that caused the roof and interior to collapse. Buildings No. 35 and 36 were also in poor condition, with collapsed roof and floors, offering limited roosting potential (Figure 1-4).



Figure 1-4: Images from the 2020 bat survey of No. 35 and 36.

No. 37 was inaccessible but appeared to be too exposed and well-lit to support roosting bats. However, the former pub and nightclub building (Nos. 38-41) was found to have moderate potential for roosting, particularly the second floor, due to its relatively intact structure and multiple access points such as broken windows and roof openings. This building could not be inspected internally, so the precautionary principle was applied in assigning suitability.

The courtyard area and remnants of the former printing factory were also assessed. While most vegetation had been cleared, some crevices and rubble piles remained, offering low potential for roosting. The site overall was considered to have low suitability for foraging and commuting bats.

Given these findings and limitations of the survey, it was recommended that further surveys be conducted. Depending on the results of these follow-up surveys, a derogation licence may be required to proceed with the development.

## 2 Methodology

### 2.1 Guidance Documents

This report provides details of the survey methodology used, the relevant guidelines followed and any relevant data. Conclusions were determined based on the above and on empirical evidence gained from the daytime bat roost search and the nighttime activity survey.

The following documents were references in support of the study:

- Bat Mitigation Guidelines for Ireland – V2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland (Marnell et al. 2022).
- Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (Collins 2024).
- A conservation plan for Irish vesper bats, Irish Wildlife Manual No. 20. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland (McAney 2006).
- The status of EU protected habitats and species in Ireland: Conservation status in Ireland of habitats and species listed in the European Council Directive on the Conservation of Habitats, Flora and Fauna 92/43/EEC. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government (NPWS 2019a).
- The status of EU protected habitats and species in Ireland. Species Assessment Volume 3 (NPWS 2019b).
- Bats and Appropriate Assessment Guidelines. Bat Conservation Ireland (Bat Conservation Ireland 2012); and
- Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes. National Road Authority (NRA 2018).

### 2.2 Methodology

#### 2.2.1 Desktop Study

Data on previous records of bats within the 2km and 10km grid of this area have been collected from a range of sources, including:

- National Parks and Wildlife Service website (NPWS, 2025).
- National Biodiversity Data Centre Biodiversity Maps (NBDC, 2025).

#### 2.2.2 Nighttime Emergence Survey

A dusk emergence survey was carried out on the evenings of 2<sup>nd</sup> and 31<sup>st</sup> July by JBA Ecologists Anne Mullen, Johanna Healy, Mia Heigh and Olly Lynch-Milner. Guidelines

were followed according to ‘Bat Surveys for Professional Ecologists – Good Practice Guidelines’ 4<sup>th</sup> edition (2024).

The weather was clear, calm, and warm, approximately 17°C and 14°C. The surveys began at sunset but before dusk (approx. 21:00), as per the recommended guidelines.

A list of equipment used is provided in Table 2-3.

Table 2-1: List of equipment used during surveys

Equipment used
Magenta Bat Detectors Mk5
Anabat Walkabout
X2 Titley Scientific Anabat Chorus Static Detector
Pulsar thermal imaging device Axion 2 XQ35 pro
X2 torches

### 2.2.3 Static Monitoring

Static bat monitoring was undertaken from the 9<sup>th</sup> to the 14<sup>th</sup> July 2025 using a Titley Scientific Chorus detector.

Recorded data was reviewed and analysed using Anabat Insight, with bat passes identified to species based on the echolocation call characteristics. Activity levels were quantified as passes per hour to assess species presence and habitat use.

## 2.3 Limitations and Constraints

The conclusion of this report necessarily relies on some assumptions, and it is inevitably subject to some limitations. These would not affect the conclusion, but the following points are recorded and taken into consideration during the assessment to ensure the basis of the assessment is clear:

- The unsafe condition of the buildings on site prevented internal inspections, limiting the ability to confirm the exact location, type, and extent of any bat roost.
- The assessment was based on emergence surveys and static acoustic monitoring. While these methods provide strong behavioural indicators, they cannot definitively confirm roost type or status.
- The surveys represent a snapshot in time during the active season. Bat activity can vary nightly due to weather, prey availability, and other environmental factors, and the results may not reflect year-round use.
- Static monitoring was conducted at one location, focused on the emergence point. This provided high-resolution data for that area but did not capture broader site-wide bat activity.

## 3 Desktop Study

### 3.1 Database Search for Bat Records

A search for bats recorded in the area of the project through the NBDC website revealed that there has been a number of bat species recorded in the area. Table 3-1 shows the records within a 2km buffer of the site.

Table 3-1: NBDC records of bats within 2km of the site.

Species	Record Count	Date of Last Record	Title of Dataset
Daubenton's bat <i>Myotis daubentonii</i>	5	23/09/2019	National Bat Database of Ireland
Lesser Noctule / Leisler's bat <i>Nyctalus leisleri</i>	45	07/08/2021	National Bat Database of Ireland
Common pipistrelle <i>Pipistrellus pipistrellus</i>	7	02/06/2021	National Bat Database of Ireland
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	6	23/09/2019	National Bat Database of Ireland
Brown Long-eared bat <i>Plecotus auritus</i>	2	04/08/2021	National Bat Database of Ireland
Lesser Horseshoe bat <i>Rhinolophus hipposideros</i>	4	27/01/2015	National Lesser Horseshoe Bat Database

### 3.2 Habitat Description

The habitats present on the site at 34–41 Catherine Street consist primarily of derelict built structures and a partially cleared courtyard area. The buildings vary in condition, with some severely dilapidated due to fire damage and structural collapse, while others remain largely intact but inaccessible. These structures include former residential and commercial buildings, a demolished printing factory, and a courtyard with remnants of outbuildings and a former car washing area.

Vegetation on site had largely been removed prior to the survey, including ivy and some topped trees.

## 4 Results of Survey

### 4.1 Results of Emergence Survey

The first emergence survey was conducted on 2<sup>nd</sup> July 2025, by JBA Ecologists. The weather conditions were mild and clear, with temperatures around 17°C, providing suitable conditions for bat activity (Figure 4-1).

Activity was recorded at the rear of No.35 Catherine Street, a redbrick building with a partial interior. Between 22:27 and 22:42, two to three Common pipistrelle individuals were observed flying close to the second-storey window of No.35, with repeated passes and brief foraging behaviour (Figure 4-2). Notably, one individual was seen re-entering the building via the same window, providing strong behavioural evidence of roosting.

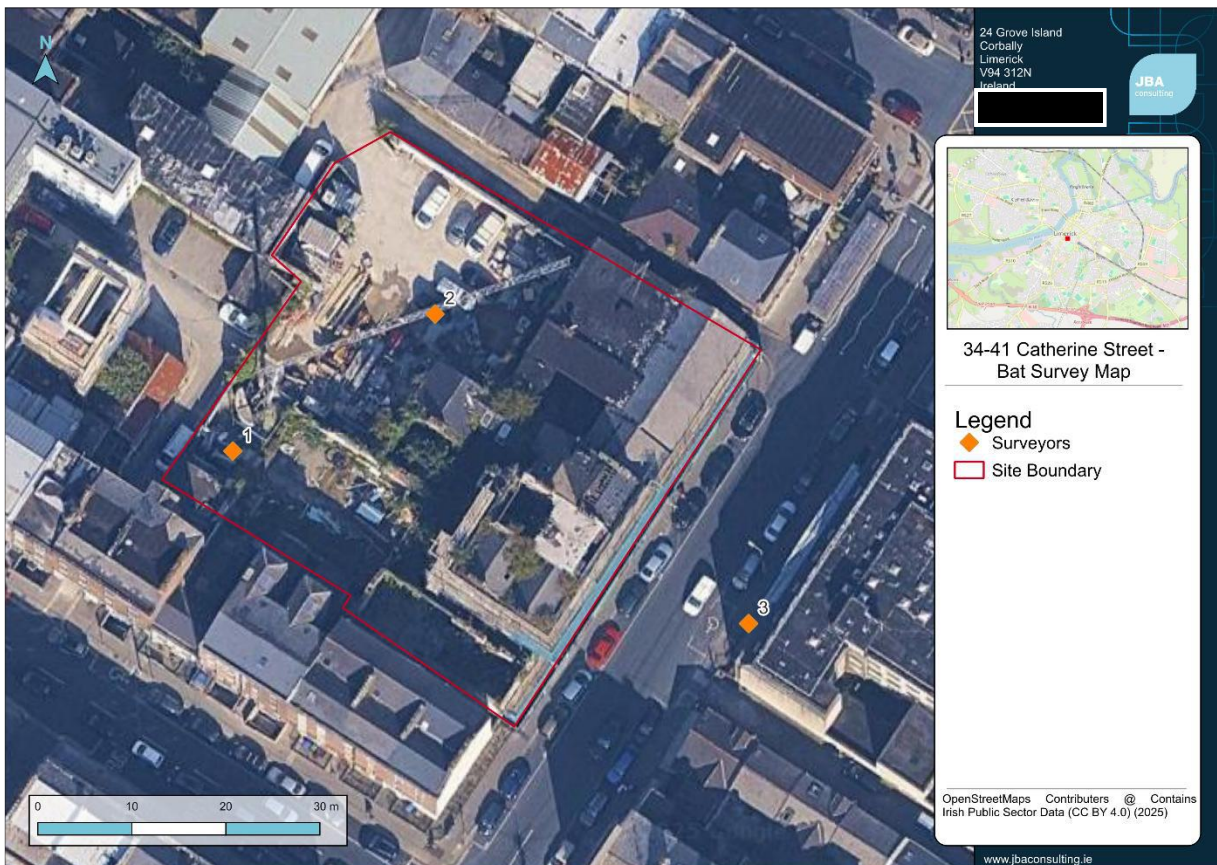


Figure 4-1: Map of surveyed areas on 2nd July with locations of surveyors indicated

Survey observations are as follows, displayed in Table 4-1.

Table 4-1: Summary of first emergence survey, 2nd July.

Time	Location	Species	Notes
22:27	No. 35 redbrick building - Rear	Common pipistrelle	2 to 3 individuals detected close to second-storey window of building
22:29	No. 35 redbrick building - Rear	Common pipistrelle	2 individuals heard not seen
22:30 – 22:40	No. 35 redbrick building – Rear	Common pipistrelle	Repeated passes and brief foraging behaviour by same individuals
22:42	No. 35 redbrick building – Rear second-storey window	Common pipistrelle	Single individual seen returning to the building, via second-storey window, suggesting possible roosting behaviour



Figure 4-2: No. 35 Catherine Street view from inside the site.

The second survey was conducted on 31<sup>st</sup> July 2025 and under similar conditions, with slightly cooler temperature of 14°C. The activity observed mirrored the first survey, with two Common pipistrelle emerging from the same second-storey window at 21:59, followed by repeated passes and foraging in adjacent vegetation and shaded

areas outside the site boundary. Echolocation calls were also recorded earlier in the evening, confirming presence prior to emergence.

A summary is provided in Table 4-2.

Table 4-2: Summary of survey, 31st July.

Time	Location	Species	Notes
21:47	No. 35 redbrick building - Rear	Common pipistrelle	Echolocation call, heard not seen
21:59	No. 35 redbrick building - Rear	Common pipistrelle	2 individuals emerge from the second storey window. Repeat of last survey's activity.
21:59 – 22:30	No. 35 redbrick building – Rear	Common pipistrelle	Activity appeared to involve the same individuals again, with repeated passes and brief foraging behaviour over the site's vegetation and in dark corners outside the site boundary.

Both surveys confirmed the presence of a small number of Common pipistrelles using the site, particularly No. 35 Catherine Street where the bats have been observed emerging from the second-storey window. The consistency in emergence location and timing across both surveys reinforces the assessment that the structure is likely used as a satellite roost, with the building providing suitable access points and microhabitat conditions for crevice-dwelling species. No other bat species were recorded during these surveys.

## 4.2 Results of Static Monitoring

Static monitoring was conducted between 9<sup>th</sup> to 14<sup>th</sup> July 2025 using static bat detectors to capture echolocation calls and assess species presence and activity levels. The detector itself was positioned on scaffolding in front of the second-storey window of No. 35 Catherine Street, where bat emergence had previously been recorded on 2<sup>nd</sup> July 2025.

A full table showing the results of the static monitoring of bat activity on the site is shown in Appendix A. On 14<sup>th</sup> July, the last night of the monitoring survey, the detector suffered an internal fault and only recorded the first half of the night.

The results demonstrated consistently elevated levels of activity from Common pipistrelle, with peak foraging passes occurring between 00:00 and 05:00, with repeat passes and return flight suggesting the presence of a roost feature within the building. Soprano pipistrelle was also regularly recorded, though in lower numbers, indicating occasional use of the site for commuting or opportunistic foraging. Leisler's bat *Nyctalus leisleri*, a species typically associated with fast, high-altitude flight, was detected intermittently, with a notable spike in activity on 13<sup>th</sup> July, which may reflect a

transient use of the site as part of a wider commuting corridor. The lack of data for 14<sup>th</sup> July does not make a difference to the overall survey results.

### 4.3 Summary of Survey Results

The observed repeat emergence of Common pipistrelle over two separate surveys, combined with the building's intact roof and room sections providing multiple access points for crevice dwelling bats like the Common and Soprano pipistrelle, supports the assessment of moderate roosting potential at No. 35 Catherine Street.

Due to the unsafe and structurally compromised condition of the building, a precautionary principal approach must also be adopted. In such cases, the presence of a roost should be inferred based on emergence behaviour, acoustic evidence, and the suitability of the structure rather than relying on physical confirmation of seeing a roost.

The limitation in access underscores the importance of robust mitigation planning, including the requirement of a derogation licence under the Wildlife Acts.

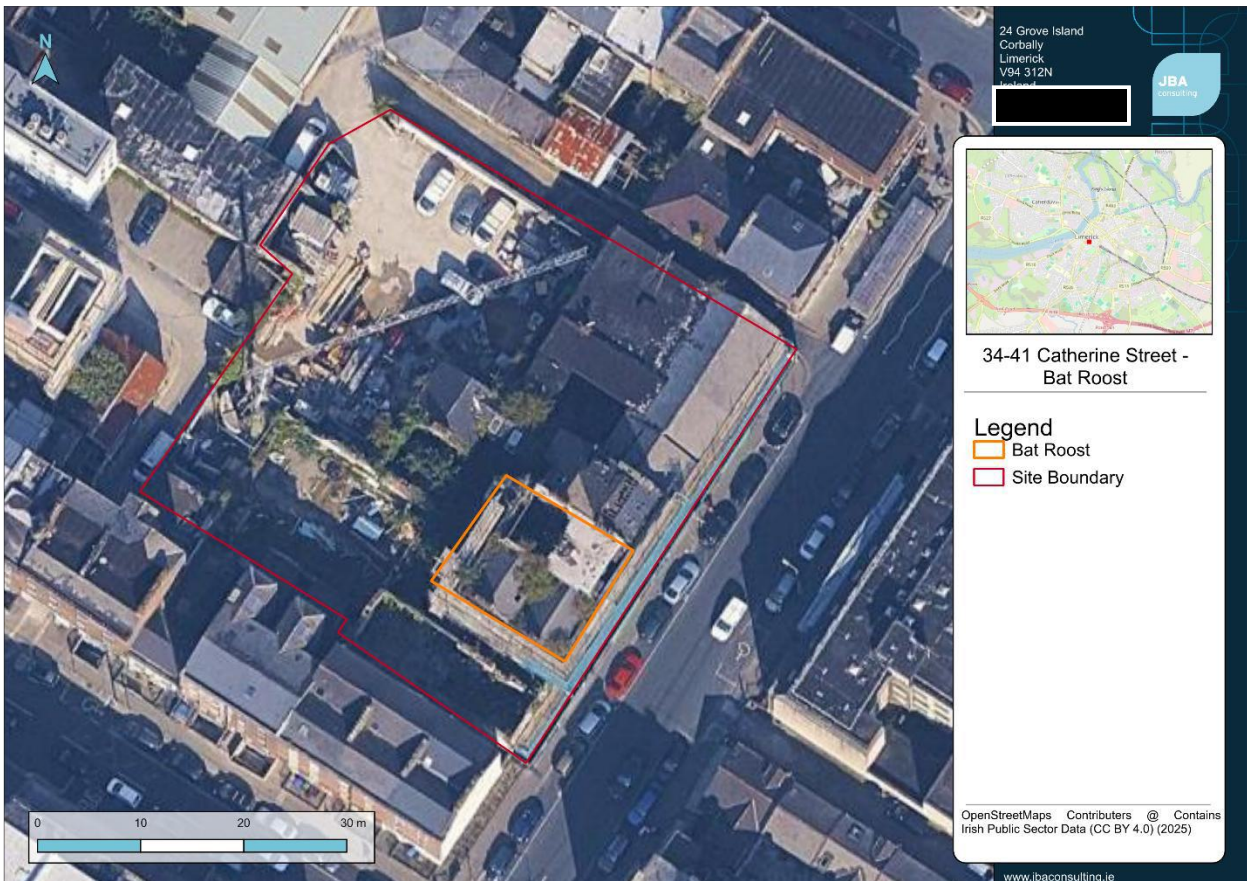


Figure 4-3: Map showing No.35 Catherine Street where bats are roosting.

## 5 Potential Impacts

The following section outlines the potential ecological impacts of the proposed development at 34-41 Catherine Street, with specific reference to the bat species identified during the survey effort. The assessment is based on a combination of emergence surveys and static acoustic monitoring, which together provide a robust dataset indicating regular bat activity and likely roosting behaviour within the site. Given the legal protection afforded to all bat species in Ireland, and the precautionary principle advised in cases where roosts cannot be directly confirmed due to access limitations, it is essential to consider both direct and indirect impacts that may arise from the proposed works. These impacts are discussed below in the context of current legislation, best practice guidance, and ecological risk.

### Roost Loss or Disturbance

The emergence surveys and static monitoring strongly suggest the presence of a small bat roost within No.35, most likely used by Common pipistrelle, with additional activity from Soprano pipistrelle and Leisler's bat. The repeated emergence and re-entry behaviour of Common pipistrelles, combined with concentrated acoustic activity, indicate that the second-storey window is a key access point to a roosting feature. However, due to inaccessible and structurally unsafe condition of the building, internal inspection was not possible, and the exact location and type of roost could not be confirmed. In line with best practice guidelines, this limitation necessitates a precautionary approach.

Any works involving demolition, structural alteration, or disturbance to No. 35 carry a high risk of direct roost loss or disturbance, which would constitute an offence under the Wildlife Acts (1976–2023) and the EU Habitats Directive, unless appropriately licensed. The potential presence of a hibernation roost cannot be ruled out, and therefore the nature of works must be carefully considered.

### Disturbance from Construction

In addition to direct impacts, the proposed development may result in indirect disturbance to bats through increased noise, vibration and artificial lighting during construction. These factors can alter bat behaviour, reduce roost suitability, and disrupt foraging and commuting patterns. Bats are particularly sensitive to light spill, which can deter emergence and reduce access to foraging areas. Given the proximity of the roost access point to the proposed works, even minor changes in the ambient environment could have significant ecological consequences.

### Loss of Foraging and Commuting Habitat

Although the site is highly urbanised, the static monitoring data indicate that it is used regularly for foraging and commuting, particularly by Common and Soprano pipistrelles. The removal of vegetation, changes to building structure, and increased human activity may reduce the availability and connectivity of suitable habitat features. The presence of Leisler's bat, a species known to commute over long distances, further highlights the importance of maintaining flight corridors and minimising disruption to nocturnal movement patterns.

### Licensing and Legal Considerations

Given the evidence of bat activity and the inferred presence of a roost, any works that may impact bats or their roosts will require a derogation licence from the National Parks and Wildlife Service (NPWS). The licence application must demonstrate that there is no satisfactory alternative, that the works will not adversely affect the favourable conservation status of the species, and that appropriate mitigation will be implemented. Failure to secure the necessary licence prior to works would constitute a breach of national and EU legislation.

## 6 Mitigation and Recommendations

### 6.1 Precautionary Approach and Roost Protection

Given the strong evidence of bat emergence and re-entry behaviour at No. 35, and the limitations imposed by the building's unsafe condition, a precautionary approach must be adopted in line with the Bat Mitigation Guidelines for Ireland – Volume 2 (Marnell et al. 2022). The structure should be treated as supporting a local-value roost, and all works affecting this building must be planned to avoid direct disturbance. Where possible, the roost access point (i.e. the second-storey window) should be retained or buffered from construction activities. If retention is not feasible, appropriate roost replacement measures must be implemented prior to any works commencing.

#### Derogation Licensing

A derogation licence from the National Parks and Wildlife Service (NPWS) will be required to permit any actions that may disturb or destroy a bat roost. The licence application must demonstrate that there is no satisfactory alternative, that the works will not adversely affect the favourable conservation status of the species, and that appropriate mitigation and monitoring will be implemented. The evidence gathered during this assessment provides sufficient justification for such an application, and the mitigation strategy outlined herein should form part of the supporting documentation.

#### Roost Replacement and Enhancement

Where roost features are to be lost, compensatory roosting habitat should be provided. This may include the installation of bat boxes or bat bricks integrated into the new structure, ideally located near the original emergence point and oriented to provide suitable microclimatic conditions. Roost replacements should be installed prior to the commencement of works and monitored post-construction to assess uptake and effectiveness.

#### Lighting Strategy

To avoid indirect impacts from artificial lighting, a bat-sensitive lighting plan should be developed. This should include the use of low-intensity, warm-spectrum lighting, directional fittings, and shielding to prevent light spill onto roost access points and commuting corridors. Lighting should be avoided altogether in areas identified as important for bat movement or foraging during the construction and operation phases of the project.

# A Static Monitoring Results

A: Static monitoring results between 9 and 14 July.

Date	Time	Species	Passes Count per Hour
09/07/2025	21:00-22:00	N/A	N/A
	22:00-23:00	Common Pipistrelle	156
		Leisler's Bat	2
	23:00-00:00	Common Pipistrelle	216
		Soprano Pipistrelle	48
	00:00-01:00	Common Pipistrelle	416
		Soprano Pipistrelle	14
	01:00-02:00	Common Pipistrelle	460
		Soprano Pipistrelle	68
		Leisler's Bat	2
	02:00-03:00	Common Pipistrelle	522
		Soprano Pipistrelle	4
	03:00-04:00	Common Pipistrelle	440
		Soprano Pipistrelle	2
04:00-05:00	Common Pipistrelle	678	
	Soprano Pipistrelle		
05:00-06:00	N/A	N/A	
	N/A	N/A	
10/07/2025	21:00-22:00	N/A	N/A
	22:00-23:00	Common Pipistrelle	190
		Soprano Pipistrelle	2
	23:00-00:00	Common Pipistrelle	428
		Soprano Pipistrelle	14
		Leisler's Bat	2
	00:00-01:00	Common Pipistrelle	434
		Soprano Pipistrelle	50
		Leisler's Bat	2
	01:00-02:00	Common Pipistrelle	466
		Soprano Pipistrelle	70
	02:00-03:00	Common Pipistrelle	556
		Soprano Pipistrelle	20
	03:00-04:00	Common Pipistrelle	672
		Soprano Pipistrelle	2
	04:00-05:00	Common Pipistrelle	606
		Soprano Pipistrelle	10
	05:00-06:00	N/A	N/A

Date	Time	Species	Passes Count per Hour
11/07/2025	21:00-22:00	N/A	N/A
	22:00-23:00	Common Pipistrelle	410
		Soprano Pipistrelle	4
	23:00-00:00	Common Pipistrelle	210
		Soprano Pipistrelle	14
	00:00-01:00	Common Pipistrelle	342
		Soprano Pipistrelle	26
	01:00-02:00	Common Pipistrelle	430
		Soprano Pipistrelle	28
	02:00-03:00	Common Pipistrelle	544
Soprano Pipistrelle		8	
03:00-04:00	Common Pipistrelle	468	
	Soprano Pipistrelle	6	
04:00-05:00	Common Pipistrelle	320	
	Soprano Pipistrelle	8	
12/07/2025	05:00-06:00	N/A	N/A
	21:00-22:00	N/A	N/A
	22:00-23:00	Common Pipistrelle	476
		Soprano Pipistrelle	310
	23:00-00:00	Soprano Pipistrelle	34
	00:00-01:00	Common Pipistrelle	162
		Soprano Pipistrelle	64
	01:00-02:00	Common Pipistrelle	50
		Soprano Pipistrelle	38
	02:00-03:00	Common Pipistrelle	286
Soprano Pipistrelle		10	
Leisler's Bat		2	
03:00-04:00	Common Pipistrelle	388	
04:00-05:00	Common Pipistrelle	458	
	Soprano Pipistrelle	10	
05:00-06:00	Common Pipistrelle	8	
	Soprano Pipistrelle	2	
13/07/2025	21:00-22:00	N/A	N/A
	22:00-23:00	Common Pipistrelle	282
		Soprano Pipistrelle	4
	23:00-00:00	Common Pipistrelle	690
00:00-01:00	Common Pipistrelle	490	
	Soprano Pipistrelle	18	

Date	Time	Species	Passes Count per Hour
		Leisler's Bat	2
	01:00-02:00	Common Pipistrelle	586
		Soprano Pipistrelle	12
	02:00-03:00	Common Pipistrelle	606
		Soprano Pipistrelle	26
	03:00-04:00	Common Pipistrelle	388
		Soprano Pipistrelle	10
	04:00-05:00	Common Pipistrelle	156
		Leisler's Bat	92
	05:00-06:00	Common Pipistrelle	32
		Soprano Pipistrelle	2
14/07/2025	21:00-22:00	Leisler's Bat	2
	22:00-23:00	Common Pipistrelle	276
		Soprano Pipistrelle	6
	23:00-00:00	Common Pipistrelle	38
		Soprano Pipistrelle	2
		Leisler's Bat	2
	00:00-01:00	Common Pipistrelle	6
		Soprano Pipistrelle	2

## References

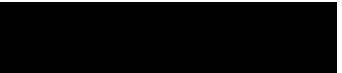
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