

Bat Fauna Impact Assessment for a proposed development at Newcomen Bank, Dame St., Co. Dublin.



10th August 2023

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Dublin City Council.

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Document Control Sheet			
Client	Dublin City Council		
Project	Bat fauna impact assessment for a proposed development at Newcomen Bank, Dame St., Co. Dublin.		
Report	Bat Fauna Impact Assessment		
Date	10 th August 2023		
Version	Author	Reviewed	Date
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SUMMARY

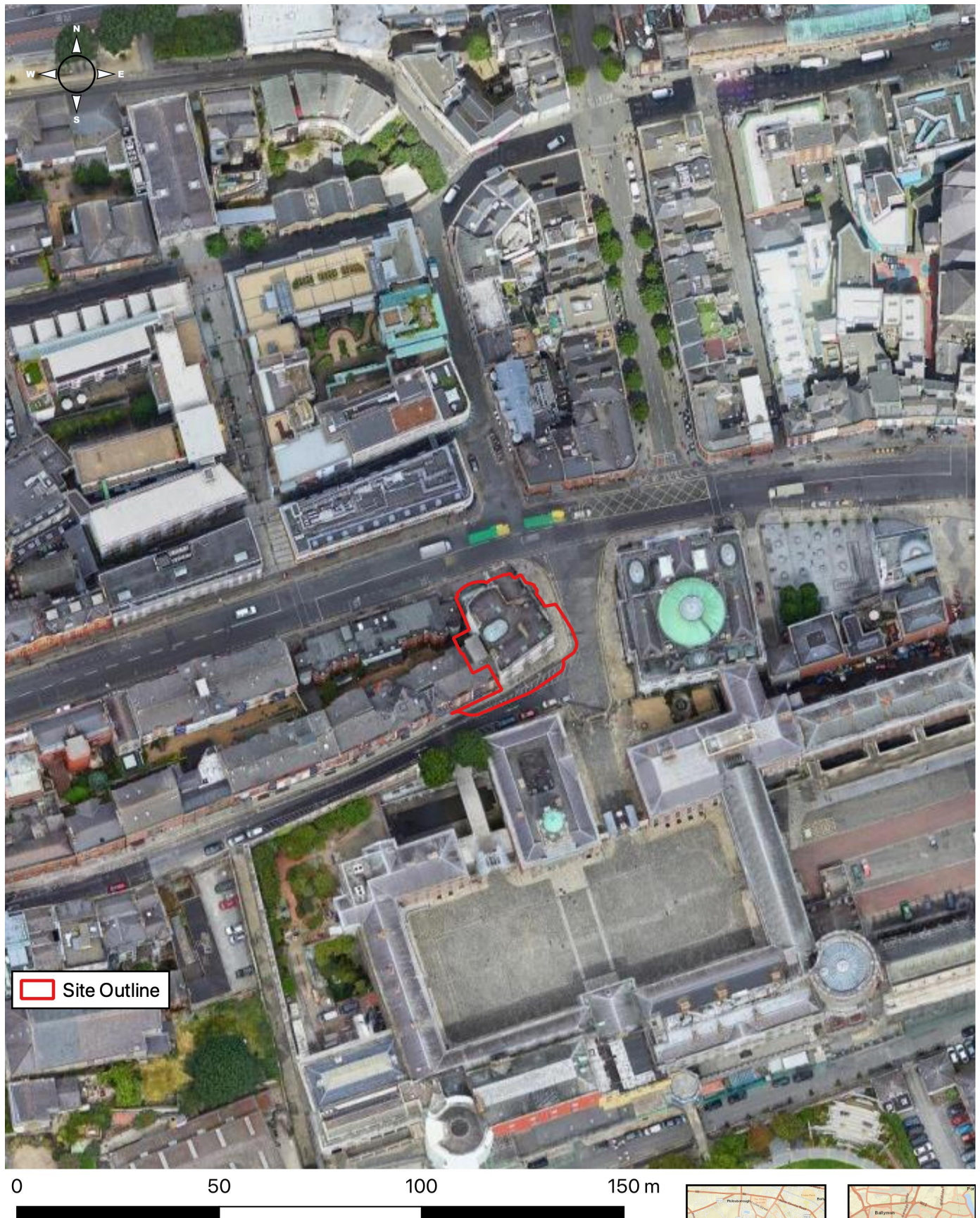
Structure:	The site is currently occupied by the existing Newcomen Bank.
Location:	Newcomen Bank, Dame Street, Co. Dublin.
Bat species present:	No bats or evidence of bats on site.
Proposed work:	Refurbishment works.
Impact on bats:	No confirmed bat roosts will be lost. No trees of bat roosting potential are noted on site. The proposed development will change the local environment as the existing structure is to be remodified. No bat roosts or potential bat roosts will be lost due to this development. The proposed development will have a neutral long term impact on bat populations.
Survey by:	Bryan Deegan MCIEEM
Survey date:	9 th August 2023

Receiving Environment

The Dublin City Council development will consist of –

- A. Refurbishment of Newcomen Bank which is a Protected Structure (Ref. No. 2050), to provide multi-purpose spaces, visitor and staff facilities, and offices for Dublin City Council and future tenants. Works will include conservation and repair of existing historic fabric, and general upgrades to meet fire safety and accessibility requirements.
- B. Demolition of the existing four storey lift and stair structure to the west façade of Newcomen Bank.
- C. Construction of a new five storey lift and stair structure to the west façade of Newcomen Bank, which will provide access to the basement.
- D. Installation of new stone steps and ramped access to the Castle Street entrance for universal access.

The proposed site outline, location, and site layout plan are demonstrated in Figures 1 & 2.



Project: Newcomen Bank
 Location: Dame Street, Co. Dublin
 Date: 23rd June 2023
 Drawn By: Bryan Deegan (Altamar)

ALTEMAR
 Marine & Environmental Consultancy



Figure 1. Proposed site outline

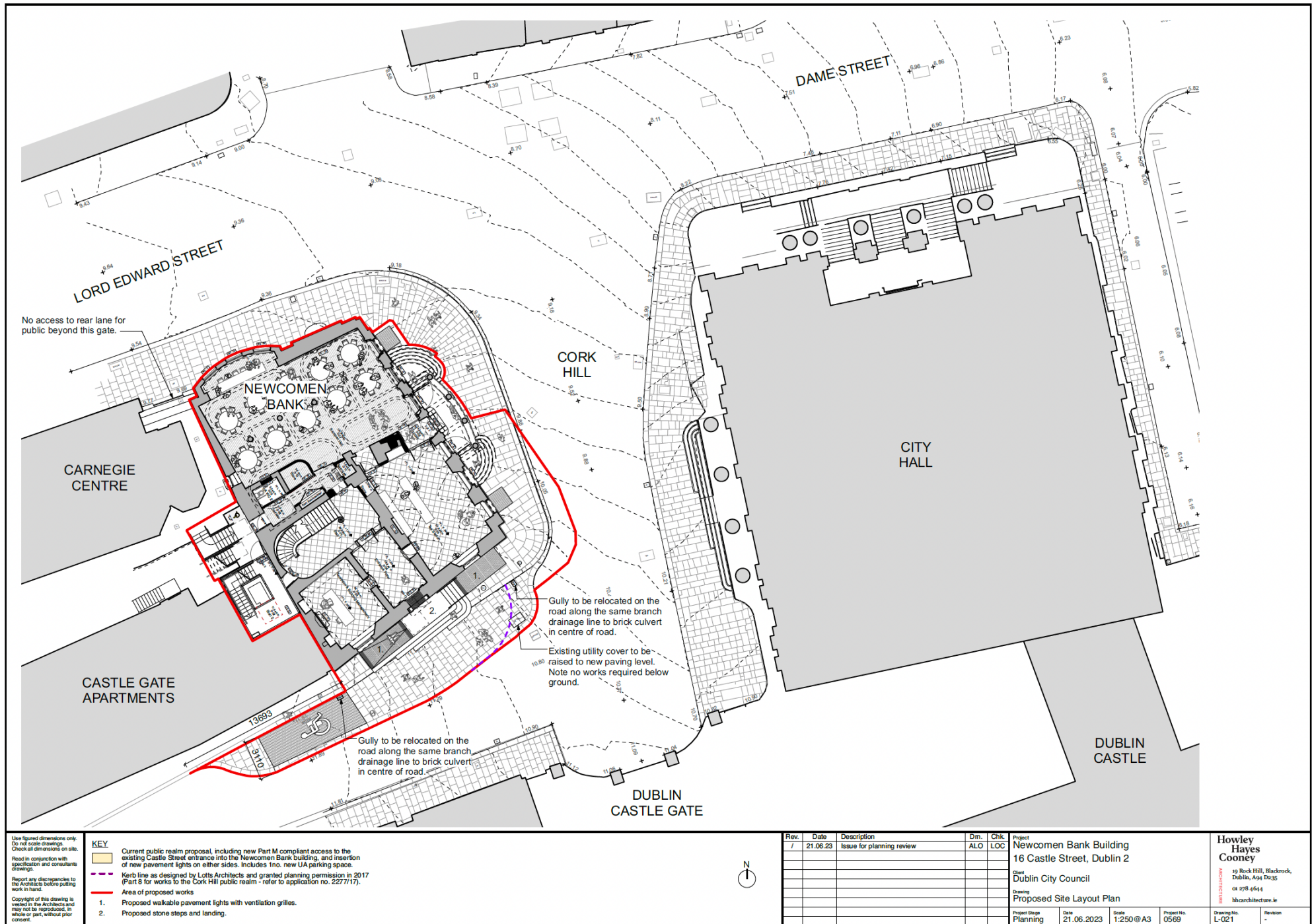


Figure 2. Proposed site layout plan

Competency of Assessor

This report has been prepared by Bryan Deegan MSc, BSc (MCIEEM). Bryan has over 28 years of experience providing ecological consultancy services in Ireland. He has extensive experience in carrying out a wide range of bat surveys including dusk emergence, dawn re-entry and static detector surveys. He also has extensive experience reducing the potential impact of projects that involve external lighting on Bats. Bryan trained with Conor Kelleher author of the Bat Mitigation Guidelines for Ireland (Kelleher and Marnell (2022)) and Bryan is currently providing bat ecology (impact assessment and enhancement) services to Dun Laoghaire Rathdown County Council primarily on the Shanganagh Park Masterplan. The desk and field surveys were carried out having regard to the guidance: Bat Surveys for Professional Ecologists – Good Practice Guidelines 3rd Edition (Collins, J. (Ed.) 2016) and Marnell, Kelleher and Mullen (2022), Bat Mitigation Guidelines for Ireland V2 (which update and replace the Bat Mitigation Guidelines for Ireland published in 2006).

Legislative Context

Wildlife Act 1976 (as amended by, inter alia, the Wildlife (Amendment) Act 2000).

Bats in Ireland are protected by the Wildlife (Amendment) Act 2000. Based on this legislation it is an offence to wilfully interfere with or destroy the breeding or resting place of any species of bat. Under this legislation it is an offence to *“Intentionally kill, injure or take a bat, possess or control any live or dead specimen or anything derived from a bat, wilfully interfere with any structure or place used for breeding or resting by a bat, wilfully interfere with a bat while it is occupying a structure or place which it uses for that purpose.”*

Habitats Directive- Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora has been transposed into Irish Law, including, via, *inter alia*, the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). See Art.73 of the 2011 Regulations which revokes the 1997 Regulations.

Annex II of the Council Directive 92/43/EEC 1992 on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) lists animal and plant species of Community interest, the conservation of which requires the designation of Special Areas of Conservation (SACs); Annex IV lists animal and plant species of Community interest in need of strict protection. All bat species in Ireland are listed on Annex IV of the Directive, while the Lesser Horseshoe Bat (*Rhinolophus hipposideros*) is protected under Annex II which related to the designation of Special Areas of Conservation for a species.

Under the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), all bat species are listed under the First Schedule and, pursuant to, *inter alia*, Part 6 and Regulation 51, it is an offence to:

- Deliberately capture or kill a bat;
- Deliberately disturb a bat particularly during the period of breeding, hibernating or migrating;
- Damage or destroy a breeding site or resting place of a bat;
- Keep, sell, transport, exchange, offer for sale or offer for exchange any bat taken in the wild.

Bat survey

This report presents the results of site visit by Bryan Deegan (MCIEEM) on the 9th August 2022. An internal and external inspection of buildings was carried out. This included an examination of the basement within the building. A bat emergent and detector survey was also carried out.

Survey methodology

As outlined in Marnell et al. 2022 *'The presence of a large maternity roost can normally be determined on a single visit at any time of year, provided that the entire structure is accessible and that any signs of bats have not been removed by others. However, most roosts are less obvious. A visit during the summer or autumn has the advantage that bats may be seen or heard. Buildings (which for this definition exclude cellars and other underground structures) are rarely used for hibernation alone, so droppings deposited by active bats provide the best clues. Roosts of species which habitually enter roof voids are probably the easiest to detect as the droppings will normally be readily visible. Roosts of crevice-dwelling species may require careful searching and, in some situations, the opening up of otherwise inaccessible areas. If this is not possible, best judgement might have to be used and a precautionary approach adopted. Roosts used by a small number of bats, as opposed to large maternity sites, can be particularly difficult to detect and may require extensive searching backed up by bat detector surveys (including static detectors) or emergence counts.'* In relation to the factors influencing survey results the guidelines outlines the following *'During the winter, bats will move around to find sites that present the optimum environmental conditions for their age, sex and bodyweight and some species will only be found in underground sites when the weather is particularly cold. During the summer, bats may be reluctant to leave their roost during heavy rain or when the temperature is unseasonably low, so exit counts should record the conditions under which they were made. Similarly, there may be times when females with young do not emerge at all or emerge only briefly and return while other bats are still emerging thus confusing the count. Within roosts, bats will move around according to the temperature and may or may not be visible on any particular visit. Bats also react to disturbance, so a survey the day after a disturbance event, may give a misleading picture of roost usage.'*

The survey involved the methodologies outlined in Collins (2016) which included the roost inspection methodologies i.e. external methodology outlined in section 5.2.4.1 and the internal survey outlines in section 5.2.4.2 of the guidelines. In addition, the methodologies for Presence absence surveys (Section 7) was carried out for dust emergent surveys.'

As outlined in Collins (2016) 'The bat active period is generally considered to be between April and October inclusive (although the season is likely to be shorter in northern latitudes). However, because bats wake up during mild conditions, bat activity can also be recorded during winter months.'

Survey Results

Trees as potential bat roosts.

There are no trees of bat roosting potential present on site.

Buildings as potential bat roosts.

No evidence of bat or bats roosting on site was noted.

Emergent/detector surveys.

An emergent/detector survey was carried out by Bryan Deegan (MCIEEM) on the 9th August 2022.

The detector survey was undertaken within the active bat season and the transects covered the entire site multiple times during the night. Weather conditions were good with mild temperatures of warmer than 10°C after sunset. Winds were light and there was no rainfall. Insects were observed in flight during both surveys.

As outlined in Collins (2016) in relation to weather conditions *'The aim should be to carry out surveys in conditions that are close to optimal (sunset temperature 10°C or above, no rain or strong wind.), particularly when only one survey is planned.... Where surveys are carried out when the temperature at sunset is below 10°C should be justified by the ecologist and the effect on bat behaviour considered.'* There were no constraints in relation to the surveys carried out. All areas of the site were accessible and weather conditions were optimal for bat assessments.

At dusk, bat detector surveys were carried out onsite using an *Echo meter touch 2 Pro (2022)* detector to determine bat activity. Bats are identified by their ultrasonic calls coupled with behavioural and flight observations. No bats were noted on-site. No bats were noted foraging on site.

Bat Assessment Findings

Review of local bat records

The review of existing bat records (sourced from Bat Conservation Ireland's National Bat Records Database) within a 2km² grid (Reference grid O13L) encompassing the study area reveals that three of the nine known Irish species have been observed locally (Table 1). The National Biodiversity Data Centre's online viewer was consulted in order to determine whether there have been recorded bat sightings in the wider area. The following species were noted in the wider area: Brown Long-eared Bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Natterer's Bat (*Myotis nattereri*), Whiskered Bat (*Myotis mystacinus*), Lesser Noctule (*Nyctalus leisleri*), Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), and Nathusius' Pipistrelle (*Pipistrellus nathusii*) (Figures 3-6).

Table 1: Status of bat species within a 2km² grid encompassing the subject site (Reference no. O13L)

Species name	Record count	Date of last record
Lesser Noctule (<i>Nyctalus leisleri</i>)	4	31/05/2009
Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	3	31/05/2005
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	7	30/09/2009



Figure 3. Brown Long-eared Bat (*Plecotus auritus*) (purple), Daubenton's Bat (*Myotis daubentonii*) (yellow), and both Brown Long-eared Bat and Daubenton's Bat (orange) (Source: NBDC) (Site – red circle)

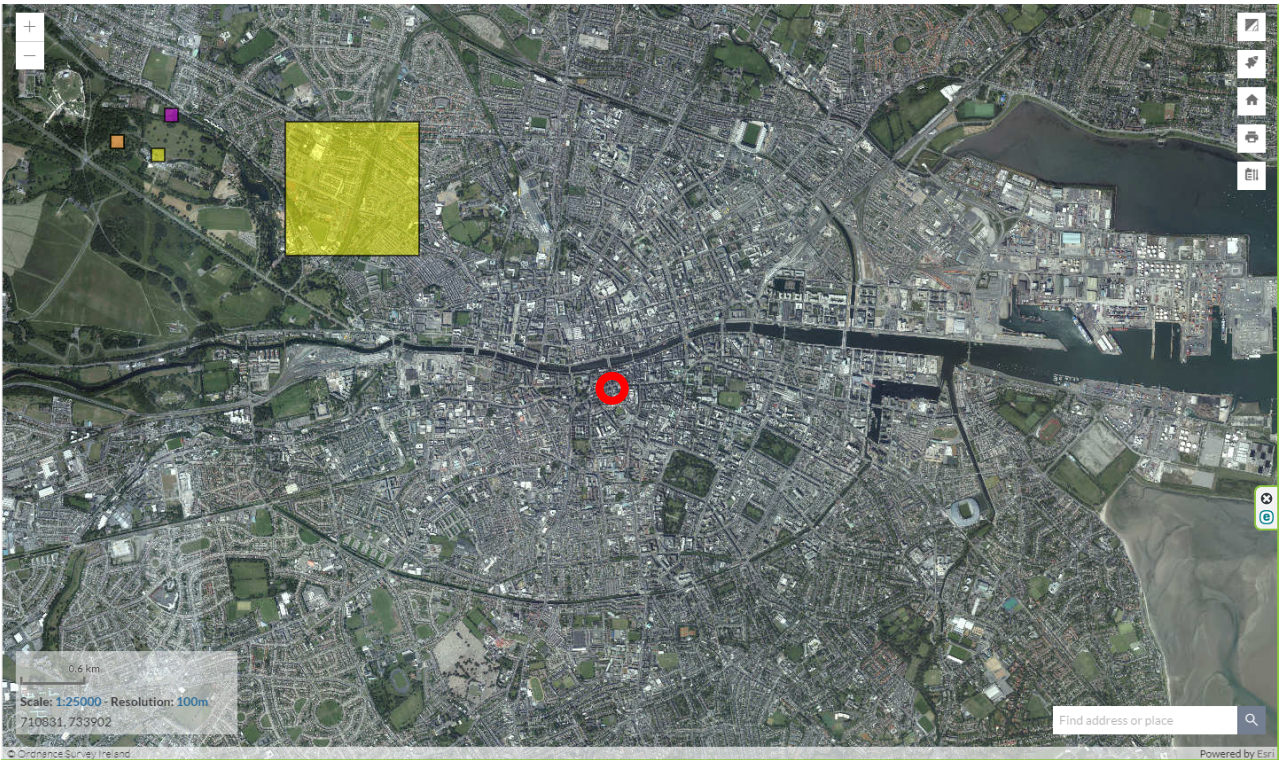


Figure 4. Whiskered Bat (*Myotis mystacinus*) (yellow), Natterer's Bat (*Myotis nattereri*) (purple), and both Whiskered Bat and Natterer's Bat (orange) (Source NBDC) (Site – red circle)



Figure 5. Common Pipistrelle (*Pipistrellus pipistrellus*) (yellow), Lesser Noctule (*Nyctalus leisleri*) (purple), and both Common Pipistrelle and Lesser Noctule (orange) (Source NBDC) (Site – red circle)

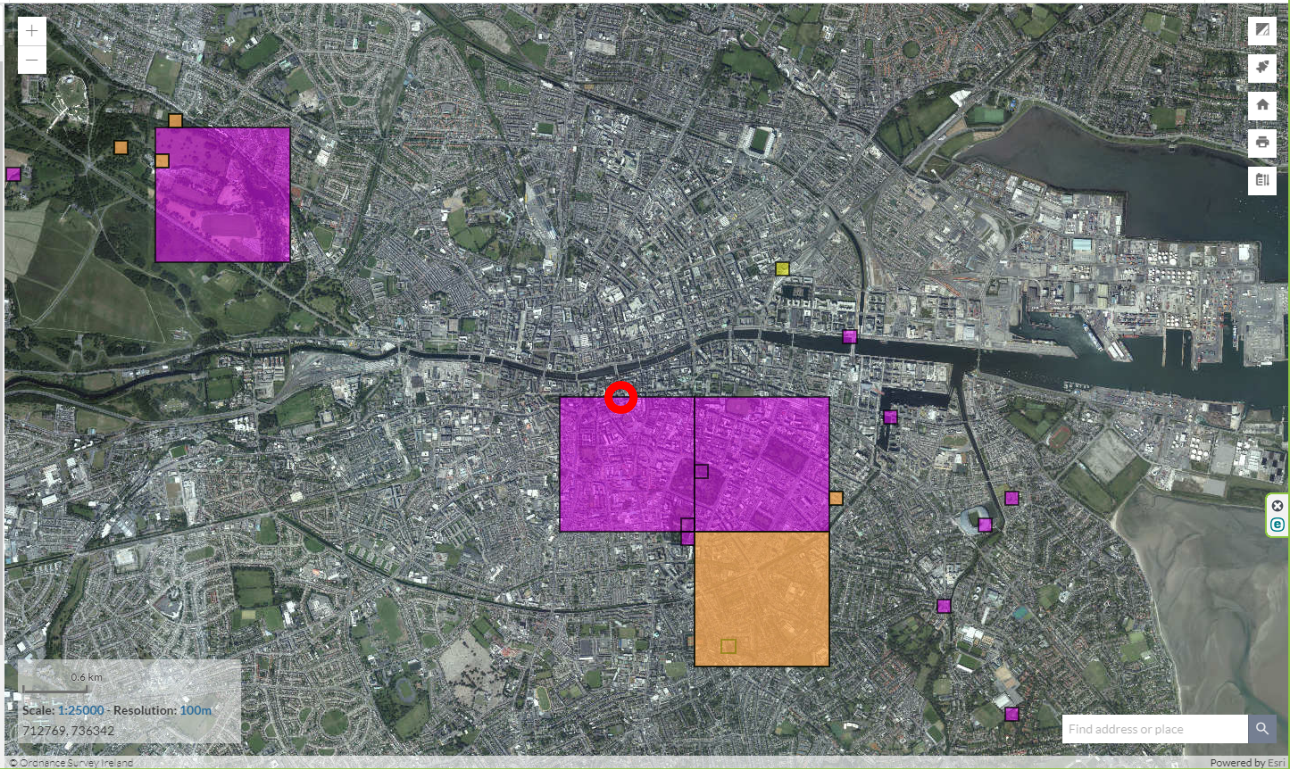


Figure 6. Soprano Pipistrelle (*Pipistrellus pygmaeus*) (purple), Nathusius's Pipistrelle (*Pipistrellus nathusii*) (yellow), and both Soprano Pipistrelle and Nathusius's Pipistrelle (orange) (Source NBDC) (Site – red circle)

Specifically, NBDC records show sightings of bat species in locations that are in close proximity to the subject site:

1. Lesser Noctule (*Nyctalus leisleri*) in grid reference O1533. Recorded on 23/10/1997 and located within a grid reference that encompasses the subject site.
2. Lesser Noctule (*Nyctalus leisleri*) in grid reference O1533. Recorded on 16/06/2008 and located within a grid reference that encompasses the subject site.
3. Soprano Pipistrelle (*Pipistrellus pygmaeus*) in grid reference O1533. Recorded on 16/06/2008 and located within a grid reference that encompasses the subject site.

Evaluation of Results

The bat surveys comply with bat survey guidance documentation including Marnell et al (2022) and Collins (2016). No bats were observed emerging from buildings on site. There are no trees on-site of bat roosting potential. No evidence of bats roosting in buildings was noted. Images of the building are seen in Plates 1-5.



Plate 1. Basement



Plate 2. Interior.



Plate 3. External lighting from Dublin Castle



Plate 4. Roof



Plate 5. Roof with potential areas for bats.

Potential Impact of the development on Bats

No bat species was noted foraging on site during the site visit. No bats were noted roosting on site. No trees of bat roosting potential are noted on site. The proposed development will change the local environment as demolition works are proposed and new structures are to be erected. No bat roosts or potential bat roosts will be lost due to this development.

Mitigation Measures

As outlined in Marnell et al. (2022) *“Mitigation should be proportionate. The level of mitigation required depends on the size and type of impact, and the importance of the population affected.”* In addition, as outlined in Marnell et. al (2022) *‘Mitigation for bats normally comprises the following elements:*

- *Avoidance of deliberate, killing, injury or disturbance – taking all reasonable steps to ensure works do not harm individuals by altering working methods or timing to avoid bats. The seasonal occupation of most roosts provides good opportunities for this*
- *Roost creation, restoration or enhancement – to provide appropriate replacements for roosts to be lost or damaged*
- *Long-term habitat management and maintenance – to ensure the population will persist*
- *Post-development population monitoring – to assess the success of the scheme and to inform management or remedial operations.’*

However, no bats were noted roosting on site. No trees of bat roosting potential are noted on site. If works are to take place more than one year after the survey date, prior to works commencing a pre works inspection will be carried out to assess if bats have inhabited the derelict building since this survey was carried out. If bats are found during the inspection a derogation licence will be applied for and works will not commence without consultation and approval of the NPWS.

Predicted Residual Impact of Planned Development on Bats

The site is within an existing brightly lit urban area. The surveys found no evidence of roosting bats on site. The proposed development will not result in the loss of any bat roost as no bats are roosting onsite. The proposed development will change the local environment as demolition works are

proposed and new structures are to be erected. In the medium-long term, no significant effect would be foreseen. The proposed development will not impact on flightlines.

Potential Impacts in the absence of mitigation: Neutral / Not significant / long-term

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