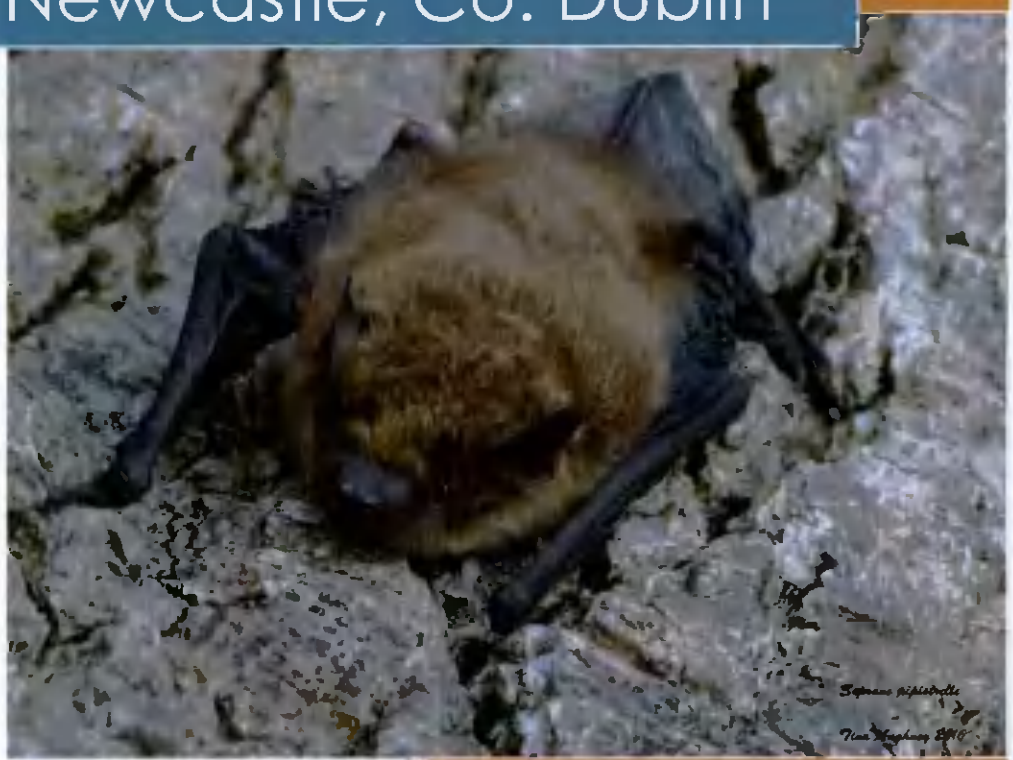
2021

LETTER: Bat Survey – Existing Dwelling, Main Street, Newcastle, Co. Dublin



Dr Tina Aughney

Bat Eco Services

Bat Eco Services, Ulex House, Drumheel, Lisduff, Virginia, Co. Cavan. A82 XW62.

Licenced Bat Specialist: Dr Tina Aughney (tina@batecoservices.com, 086 4049468)

NPWS licence C13/2020 (Licence to handle bats, expires 31st December 2022);
NPWS licence 08/2020 (Licence to photograph/film bats, expires 31st December 2022) ;
NPWS licence DER/BAT 2019-138 (Survey licence, expires 29th March 2022).

Statement of Authority: Dr Aughney has worked as a Bat Specialist since 2000 and has undertaken extensive survey work for all Irish bat species including large scale development projects, road schemes, residential developments, wind farm developments and smaller projects in relation to building renovation or habitat enhancement. She is a monitoring co-ordinator and trainer for Bat Conservation Ireland. She is a co-author of the 2014 publication *Irish Bats in the 21st Century*. This book received the 2015 CIEEM award for Information Sharing. Dr Aughney is a contributing author for the Atlas of Mammals in Ireland 2010-2015.

All analysis and reporting is completed by Dr Tina Aughney. Data collected and surveying is completed with the assistance of a trained field assistant.

Mr. Shaun Boyle (Field Assistant) NPWS licence DER/BAT 2021-19 (Survey licence, expires 15th March 2022).

1st September 2021

To whom it may concern:

Bat Eco Services was requested by Cairn Homes Properties Ltd. to undertake bat survey of an existing dwelling located at Main Street, Newcastle, Co. Dublin. The following is the proposal for this site:

"Cairn Homes Properties Limited intend to apply for full permission for the demolition of the existing derelict dwelling and the construction of a replacement, two-storey, four-bedroom detached dwelling (169.97sqm) together with all associated landscape, boundary, site, and development works at Main Street, Newcastle, Co Dublin."

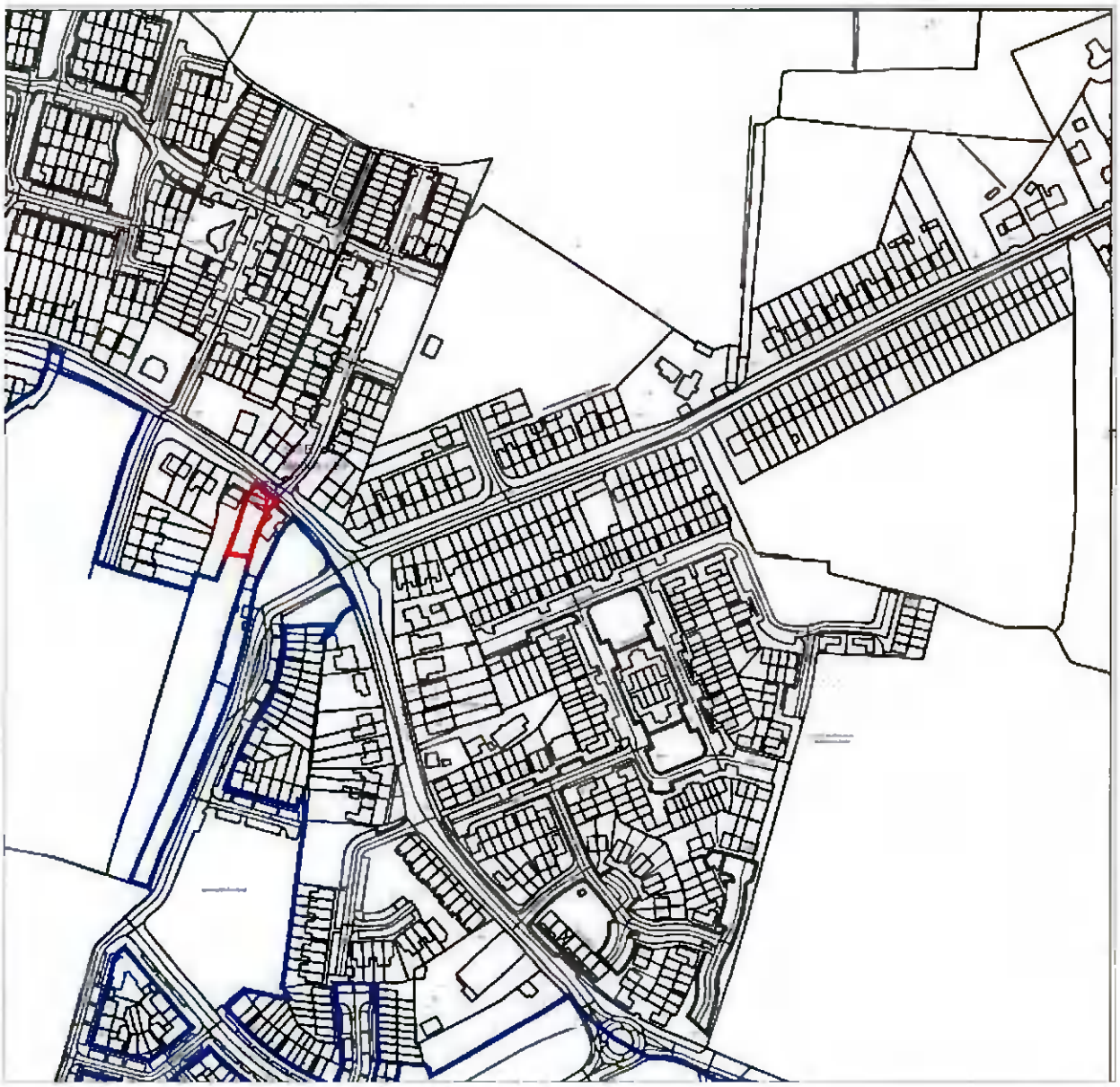


Figure 1a: Location of the proposed development site.

Figure 1b: Site layout for the proposed development.

SITE VISIT

The proposed development site was visited on 5th August 2021 when a daytime inspection of the existing dwelling was undertaken. This consisted of an internal and external examination of the structure, using a torch, to record any signs of bat activity or usage. No bat usage evidence was recorded. The structure is considered to have a Low value as a roosting site (according to Collins, 2016 – See Table 1 in Appendices). Therefore the survey effort required is a single dusk survey which is deemed sufficient to determine bat activity for this structure.

There are no trees within the survey site considered to be Potential Bat Roosts (PBRs). In addition, the existing vegetation within the survey site has a low value for foraging and commuting for local bat populations.

Plates 1 & 2: Front and rear view of dwelling located at Main Street, Newcastle, Co. Dublin.

DUSK SURVEY

A dusk survey was then undertaken (weather conditions: Full cloud cover, dry, calm and 16oC) from 21:06 hrs to 23:06 hrs. The surveyor completed the survey using an Elekon M2 Full Spectrum Bat Detector, and Petersson D200 Heterodyne Bat Detector.

All bat passes were recorded. Only one species of bat was recorded during the survey and this was a soprano pipistrelle *Pipistrellus pygmaeus* and the first individual was recorded at 21:45 hrs. This was not recorded emerging from the building but commuting past the proposed development site. During the remainder of the survey, occasional soprano pipistrelle bat passes were noted but overall the level of bat activity was low.

No bats were recorded foraging within the proposed development site, only commuting individuals.

Therefore it is deemed that the existing dwelling is not a bat roost.

BAT ASSESSMENT

One bat species was recorded: soprano pipistrelle and this is one of Ireland's common bat species. This species was also recorded in low bat activity levels. Therefore the survey site is not an important location for local bat populations for this species.

Soprano pipistrelle

- Soprano pipistrelle is an Annex IV bat species under the EU Habitats Directive. The status of this bat species is listed as Least Concern. The national soprano pipistrelle population is considered to be significantly increasing (Aughney *et al.,* 2021).
- The modelled Core Area for soprano pipistrelle is a relatively large area that covers much of the island of Ireland (62,020km^2). The Bat Conservation Ireland Irish Landscape Model indicated that the soprano pipistrelle selects areas with broadleaf woodland, riparian habitats and low density urbanisation (Roche *et al.,* 2014).

The survey results determined that the existing development is not a bat roost. Therefore the proposed demolition of the structure will not impact on local bat populations.

The proposed construction of a replacement dwelling together with all associated landscape, boundary, site and development works at the address listed above will not impact on local bat populations as this is an exiting housing site along the Main Street, Newcastle, Co. Dublin where similar existing structures are present and a low level of bat activity for one common Irish bat species was recorded.

Therefore it is considered that the proposed works will not have an impact on local bat populations.

Surveying was completed according to Collins, 2016.

RECOMMENDATIONS

The survey site is not an important location for local bat populations for soprano pipistrelles and therefore no bat mitigation measures are required. However, it is recommended that measures are put in place to ensure that any outdoor lighting has a minimum impact on nocturnal wildlife and that, where possible landscaping with due consideration for Irish wildlife is planted.

A) Lighting

Bats are light sensitive bats species, hence their nocturnal activities. The three bat species recorded commuting and foraging within the survey area are Light Tolerant or Semi-tolerant bat species. However, it is still important that strict lighting guidelines are required to reduce the potential impact of the proposed development on local bat populations as standard best practice.

Luminaire design is extremely important to achieve an appropriate lighting regime. Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires. This is taken from the most recent BCT Lighting Guidelines (BCT, 2018).

- 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 should be carefully considered to minimise light spill. The shortest column height allowed should be used where possible.
- 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. 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.

Any external lighting for the proposed development should strictly follow the above guidelines and these should be strictly implemented during construction and operation phase of the proposed development.

B) Landscaping

It is recommended that native tree, shrub and plant species are included in the landscaping plan. It is recommended that night-scented planting is also undertaken to encourage foraging areas for local bat populations.

1. Bibliography

Bat Conservation Trust (2018) Bats and artificial lighting in the UK: bats and the built environment series. Guidance Note 08/2019. BCT, London.

BTHK (2018) Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals. Exeter: Pelagic Publishing.

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.

Kelleher, C. & Marnell, F. (2006) Bat Mitigation Guidelines for Ireland. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Lundy, M.G., Montgomery, I.W., Roche, N. & Aughney, T. (2011). *Landscape Conservation for Irish Bats & Species Specific Roosting Characteristics* (Unpublished). Bat Conservation Ireland, Cavan, Ireland.

Lysaght, L. and Marnell, F. (eds) (2016) Atlas of Mammals in Ireland 2010-2015, National Biodiversity Data Centre, Waterford.

Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service. Department of the Culture, Heritage and the Gaeltacht. Dublin, Ireland.

McAney, K. (2006) 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, K. (2014). An overview of Rhinolophus hipposideros in Ireland (1994-2014). *Vespertilio* **17**, 115–125.

Roche, N., Aughney, T., Marnell, F. & Lundy, M. (2014). *Irish Bats in the 21st Century*. Bat Conservation Ireland, Cavan, Ireland.

2. Appendices

Table 1: Building Bat Roost Classification System & Survey Effort (Adapted from Collins, 2016 and Kelleher & Marnell, 2006).

Suitability Category	Description (examples of criteria)	Survey Effort (Timings)
Negligible	Building have no potential as a roost site Urban setting, heavily disturbed, building material unsuitable, building in poor condition etc.	No surveys required.
Low	Building has a low potential as a roost site. No evidence of bat usage (e.g. droppings)	One dusk or dawn survey.
Medium	Building with some suitable voids / crevices for roosting bats. Some evidence of bat usage Suitable foraging and commuting habitat present.	At least one survey in May to August, minimum of two surveys (one dusk and one dawn).
High	Building with many features deemed suitable for roosting bats. Evidence of bat usage. Largely undisturbed setting, rural, suitable foraging and commuting habitat, suitable roof void and building material.	At least two surveys in May to August, with a minimum of three surveys (at least one dusk survey and one dawn survey).