

BAT IMPACT ASSESSMENT

**for the proposed redevelopment of the
Áras Phádraig Site, Lewis Road, Killarney, Co. Kerry**



September 2023

Environmental Assessment Unit
Kerry County Council
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1. Introduction

Kerry County Council undertook a pre-construction bat survey of the existing building and lands adjacent to the Áras Phádraig Site, Lewis Road, Killarney, Co. Kerry (see Figure 1). The purpose of the survey was to establish the presence of bat species on the site and if identified, propose mitigation measures to ensure their continued protection on the site during site redevelopment.

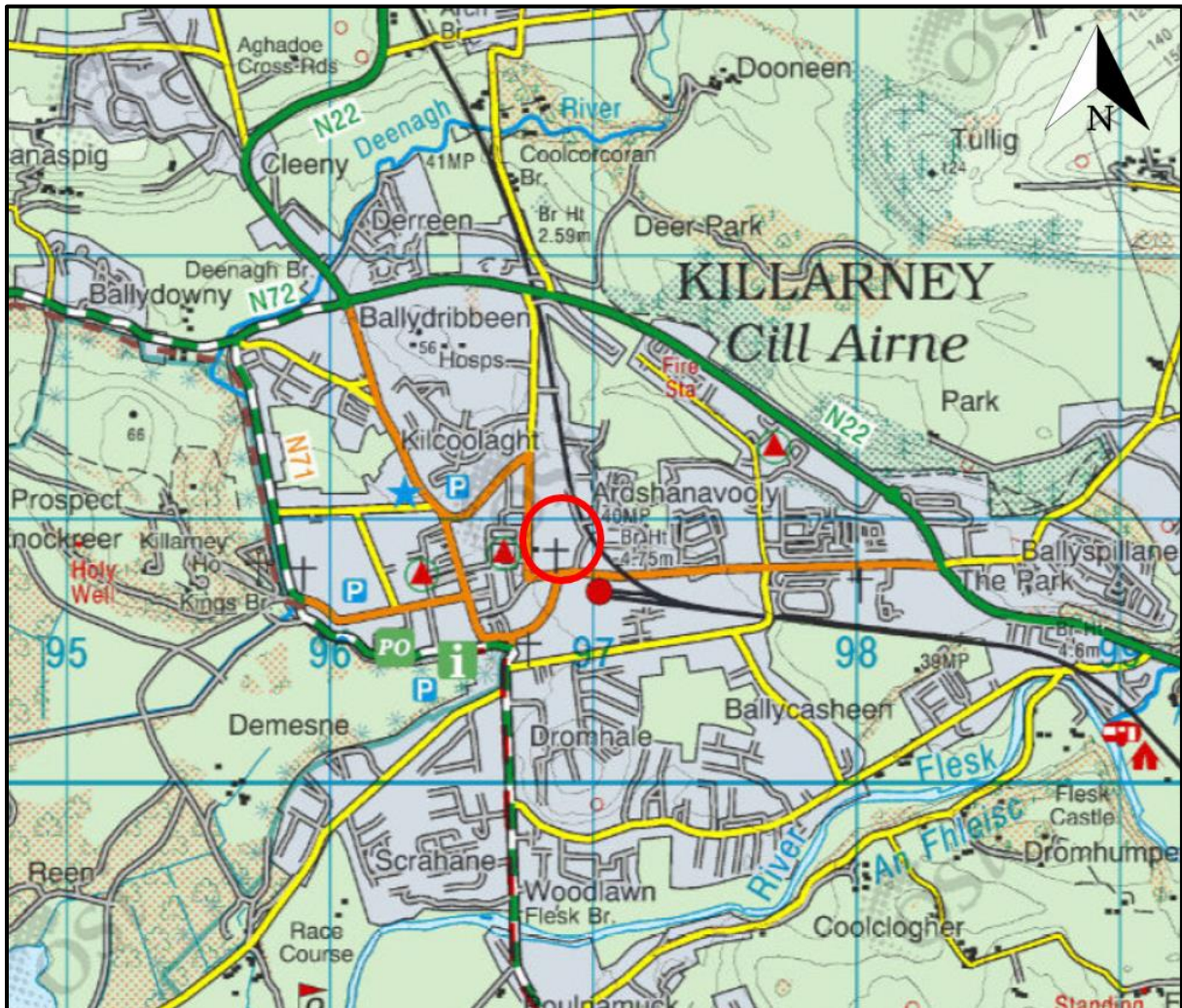


Figure 1. Map showing proposed development site location (circled in Red).

Ireland has nine resident bat species, all of which are on Ireland's Red List (No. 12 Terrestrial Mammals). They receive protection under the Wildlife Act (1976 & 2000) and Annex IV of the EU Habitats Directive, under which it is an offense to intentionally disturb, kill, or injure a bat or its resting place. This protection encompasses the protection of bat habitats and includes roost sites such as cavities in trees, cracks, and crevices in buildings, both derelict and in use.

A visual survey of the site was undertaken on the 20th of September 2023. All possible roosting sites that might have been used by Irish bats were investigated. In addition, an emergence

survey was undertaken at sunset on the same evening to see if bats were using the existing building.

1.1 Proposed Project

Kerry County Council has prepared plans to redevelop the Áras Phádraig site on Lewis Road, Killarney. This includes the following:

- Demolish the existing Áras Phádraig building;
- Construct a new Theatre and Community building;
- Construct a new Public Plaza;
- Construct a new Primary Care Centre;
- Ancillary services to support these developments.



Figure 2. Aerial image showing the structure to be demolished (Red).

1.2 Bat Survey Aims

The aims of the bat survey at the proposed project site are as follows:

- Collect data following good practice guidelines to allow an assessment of the potential impacts of the proposed project;

- Provide baseline information with which the results of post-construction monitoring surveys can be compared, where appropriate;
- Provide information to enable NPWS and local authorities to reach robust decisions with definitive required outcomes;
- Facilitate the conservation of local bat populations.

2. Bat Survey Methodology

The landscape Conservation for Irish Bats dataset was accessed via the online National Biodiversity Data Centre live mapping interface on 19/09/2023 (<https://maps.biodiversityireland.ie/Map>) to obtain background information on the suitability of the area for Irish bat species.

The basic methodology used was that described by Marnell, et al. (2022) and Collins (2016).

2.1 Daytime Inspections

This involves the identification of potential roost sites, such as spaces and cavities, along with stains, scratch marks around entrances and exit sites, and the presence of droppings under possible roosts. Sites identified as potential roosts are then each examined individually to determine whether bats are present.

2.2 Night-Time Bat Detector Surveys

Dusk surveys are carried out from 10 minutes before sunset to at least 120 minutes post-sunset. If the focus of the survey is to determine whether a structure is a bat roost (i.e., an emergence survey), the surveyor then positions themselves adjacent to the building/structure to be surveyed to determine if bats are roosting within, the location of the roost, number of bats, bat species, etc. Surveying is completed for 100 minutes, starting 10 minutes before sunset.

2.3 Timing

Bats are generally active between April and October, but surveys are location and weather-dependent. Surveys should be carried out during mild and dry weather conditions with air temperatures of 8°C or higher.

3. Desktop Assessment

An ecological desktop assessment was undertaken on the 19th of September 2023. The aim of this was to research existing documentation and data containing information on previous bat sightings, protected sites for bat species, and the Bat Habitat Suitability Index. Information was sourced from several online sources which included:

- National Parks and Wildlife Services Maps & Databases (www.npws.ie);
- National Biodiversity Data Centre (<https://maps.biodiversityireland.ie/>);
- Bat Habitat Suitability Index Maps (Lundy et al., 2011);
- Aerial photography and 1:50000 mapping.

The Bat Habitat Suitability Index provides maps that detail the suitability of habitats in Ireland for bats. It helps to predict where bat species might occur (Lundy et al., 2011). The maps are created using 5km grid squares from the OSI National Grid and these grid squares are given a Bat Habitat Suitability Index. This index ranges from 0 - least suitable to 100 – most suitable for bat species.

The area around the proposed development at Áras Phádraig, Lewis Road, Killarney, Co. Kerry has an overall Bat Habitat Suitability Index of 44.78 for all bat species. This score indicates a high suitability for bat species in the general area. It should be noted that the proposed development is located in a residential/commercial area but a portion of the 5km grid square is located within the Killarney National Park, Macgillycuddy's Reeks and Caragh River Catchment SAC.

Common name	Scientific name	Habitat Suitability Index
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	42
Brown long-eared bat	<i>Plecotus auritus</i>	59
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	40
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	60
Leisler's bat	<i>Nyctalus leisleri</i>	42
Whiskered bat	<i>Myotis mystacinus</i>	44
Daubenton's bat	<i>Myotis daubentonii</i>	34
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	38
Natterer's bat	<i>Myotis nattereri</i>	44

In addition, records from the National Biodiversity Data Centre were assessed for the 1km & 2km grid squares that contain the proposed development site. This search revealed that there were Lesser horseshoe bats recorded within the 1km & 2km grid squares.

4. Bat Survey Results

The Landscape Conservation for Irish Bats database (accessed 19/09/2023) indicated that the area around the proposed development site was of high favourability to most of our resident bat species. The area was considered generally favourable for Brown long-eared and Lesser horseshoe bats.

The bat survey was carried out on the 20th of September (weather conditions: dry, 30% cloud cover, very light breeze, and 13°C).

The survey site consisted of an existing derelict theatre building with single-story units to its rear. On the northern boundary of the proposed site, there was a laurel hedge running east/west and 2 large trees (a Monterey Cypress & Monterey Pine) located. It is proposed to remove this hedge and both trees as part of the site development.

The survey site was located within an area surrounded by both commercial and residential developments. There was a significant amount of artificial lighting within the survey area and immediately adjacent consistent with a highly urbanised area.

4.1 Daytime Survey

A daytime site visit took place prior to the emergence survey. This consisted of a search for roost sites, such as spaces and cavities, along with stains, scratch marks around entrances and exit sites, and the presence of droppings under possible roosts both inside and outside of the building. No roost sites were identified, and no evidence of previous occupancy was also identified. The hedgerow was also surveyed for potential bat roost sites, however on inspection the trees within the hedgerow were not of a suitable age or size to provide suitable roosting habitat. Additionally, the Monterey Cypress & Monterey Pine located within the development site did not have suitable bat roosting habitats.

4.2 Emergence Survey

The first bat encounter was a common pipistrelle at 20:08 and this individual was detected foraging along the hedgerow to the north of the site. At 20:26 and 20.44 a common pipistrelle was again detected foraging along the hedgerow. However, no bat species was identified emerging from the building during the emergence survey.

An internal check of the building was carried out after 100 minutes but again no bat species was detected.

5. Conclusion & Recommendations

This Bat Impact Assessment was undertaken to establish whether bats were using the Áras Phádraig Site and to identify and implement measures to ensure that bats are not disturbed if identified as using the structure. It is proposed to demolish the existing building on the site and redevelop the area.

A detailed pre-construction Bat Survey was undertaken on 20/09/2023 to look for potential roosting opportunities and any evidence of bats. The site was investigated for all possible roosting sites for all bat species, but no currently occupied roosts were discovered. Furthermore, no potential sites showed indications of previous occupation.

It was noted during both the daytime and dusk surveys that there is a significant amount of disturbance in terms of noise from businesses, traffic, and pedestrians within the surrounding area, aligned with the large amount of exterior lighting in the area the proposed development site would not be considered to be suitable bat roosting habitat.

Additionally, a bat emergence survey was undertaken at dusk on 20/09/2023. No bats were detected emerging from the building.

While there was no evidence of bat roosts found during the site visit, within the Áras Phádraig building or bats seen exiting from the building, it is recommended that the development proceeds with caution. When the building is being demolished care must be taken and if a bat is identified or observed flying from the building all works must stop and the National Parks and Wildlife Services (NPWS) should be called immediately.

Several bats were observed commuting and foraging along hedgerows adjacent to the proposed development. To provide additional bat habitat in this location it is recommended that bat boxes should be erected on the southern wall of the newly rebuilt building.

Signed:



Brendan O'Connor (Ecologist)

Environmental Assessment Unit (EAU)

Date:

22/09/2023