
Preliminary Ecological Appraisal
Social Housing Bundle 4, Development
at Church of the Annunciation, Finglas
30 May 2024



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Executive Summary

This document has been prepared by NM Ecology Ltd on behalf of Dublin City Council regarding a proposed residential development at the site of the former (demolished) Church of the Annunciation in Finglas, Dublin 11. The aim of this document is to identify any important ecological features at the proposed development site (hereafter referred to as 'the Site'), as part of a broader due-diligence process.

The Site is not within or adjacent to any designated sites. There are four designated sites within 5 km of the Site, but none are connected by surface water (or other) pathways, so any risk of indirect impacts can be ruled out. A *Screening for Appropriate Assessment* report accompanies the application, in which it was concluded that the proposed development will not be likely to have a significant effect on any European sites.

Habitats within the proposed development site include buildings / artificial surfaces, recolonising bare ground, a treeline and dry meadow. All are considered to be of Negligible importance. The landscaping proposals for the Site include the planting of native trees, hedgerows, meadows and green roofs. When compared to the baseline environment, the proposed development is considered to provide a net gain in biodiversity.

The Site does not contain any suitable habitat for otters, badgers, hedgehogs or other mammals. A bat survey was carried out, and bat foraging / commuting activity was very low. Some common and widespread bird species were recorded at the Site, but no species of conservation importance. To avoid impacts on nesting birds it is recommended that site clearance works take place outside the nesting / breeding season, or that a pre-clearance survey is carried out.

As the Site is of low baseline ecological importance, and no ecological impacts are currently envisaged, it is not necessary to carry out an Ecological Impact Assessment. This Preliminary Ecological Appraisal may be included in the Part 8 application to demonstrate ecological due diligence. Screening for Appropriate Assessment is provided in a separate document.

Table of Contents

1	Introduction	1
1.1	Assessment brief	1
1.2	Statement of authority	1
2	Methods	1
2.1	Scoping	1
2.2	Data collection and walkover survey	2
2.3	Valuation of ecological features	2
3	The Receiving Environment.....	3
3.1	Environmental setting	3
3.2	Designated sites	4
3.3	Habitats and flora	6
3.4	Protected species	8
3.5	Potential limitations and information gaps.....	10
3.6	Identification of important ecological features	10
4	Evaluation and Recommendations	11
4.1	Protection of treeline and nesting birds	11
4.2	Precautionary measure for potential bat roosts in trees.....	11
4.3	Biodiversity Enhancement and Net Gain.....	11
5	Conclusion	12
6	References	13

1 Introduction

1.1 Assessment brief

NM Ecology Ltd was engaged to carry out a Preliminary Ecological Appraisal (PEA) of the site of the former Church of the Annunciation in Finglas, Dublin 11. The proposed development will involve the construction of a 4 – 5 storey building containing 110 apartments, community facilities, and associated works.

The aim of this assessment is to identify any important ecological features that could potentially be affected by future development, as part of a broader due-diligence process. It has been prepared in accordance with the *Guidelines for Preliminary Ecological Appraisal* (2017) published by the Chartered Institute of Ecology and Environmental Management (CIEEM).

The report concludes with a review of potential ecological considerations, and (if required) recommendations for further survey or assessment. If no ecological impacts are identified and no further surveys are required, the PEA can be submitted as part of a planning application to demonstrate due diligence. Where impacts are identified and / or further survey is required, the PEA can be adapted into an Ecological Impact Assessment.

1.2 Statement of authority

All surveying and reporting was carried out by Nick Marchant, the principal ecologist of NM Ecology Ltd. He has sixteen years of professional experience, including thirteen years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO in Indonesia. He provides ecological assessments for developments throughout Ireland and Northern Ireland, including wind farms, infrastructural projects (roads, water pipelines, greenways, etc.), and a range of residential and commercial developments.

He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast. He is a member of the Chartered Institute of Ecology and Environmental Management, and operates in accordance with their code of professional conduct.

2 Methods

2.1 Scoping

The aim of this assessment is to identify any ecological features that may be affected by the proposed development. It involves the following steps:

- Identification of designated sites within an appropriate zone of influence
- A walkover survey incorporating the following elements:

- Classification and mapping of habitats
- A search for rare or protected flora, and for any legally-restricted non-native plant species (e.g. Japanese Knotweed)
- A search for field signs of rare or protected fauna (e.g. badgers, bats), and habitat suitability assessments for species that are shy, nocturnal or seasonal
- Valuation of ecological features and review of legal considerations
- Identification of potential ecological impacts
- Recommendations for mitigation measures or follow-up surveys

2.2 Data collection and walkover survey

A desk-based scoping study was carried out using data from the following sources:

- Plans and specifications for the proposed development
- Bedrock, soil, subsoil, ground water and surface water maps from the Geological Survey of Ireland webmapping service, the National Biodiversity Data Centre, and the Environmental Protection Agency web viewer
- Maps and details of designated sites from www.npws.ie

The following resources were used for the walkover surveys:

- Habitat surveys were carried out in accordance with the *Best Practice Guidance for Habitat Survey and Mapping* (Smith et al 2011), and using the classification system of *A Guide to the Habitats of Ireland* (Fossitt 2000).
- Flora were identified using *New Flora of the British Isles, 3rd Edition* (Stace 2010), and *The Vegetative Key to the British Flora* (Poland & Clement 2009). Nomenclature follows the plant crib of the Botanical Society of the British Isles (BSBI 2007). The abundance and extent of species is described using the DAFOR scale (Dominant, Abundant, Frequent, Occasional, Rare)
- Fauna surveys followed the methods outlined in the *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA 2006), with reference to other species-specific methods as appropriate.

Desktop data from internet resources was accessed in January 2024, a multi-disciplinary survey was carried out on 6 July 2023, and a bat survey on 27 - 29 September 2023.

2.3 Valuation of ecological features

Based on the information collected during the desktop and walkover surveys, the ecologist assigns an ecological importance to each feature based on its conservation status at different geographical scales (Table 1). For example, a site may be of national ecological importance for a given species if it supports a significant proportion (e.g., 5%) of the total national population of that species, or if it is designated as a Natural Heritage Area.

It is accepted that any development will have an impact on the receiving environment, but the significance of the impact will depend on the importance of the ecological features that would be affected. The following is outlined in the CIEEM guidelines: *“one of the key challenges in an EclA is to decide which ecological features (habitats, species, ecosystems and their functions/processes) are important and should be subject to detailed assessment. Such ecological features will be those that are considered to be important and potentially affected by the project. It is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to impacts from the development, and that will remain viable and sustainable.”*

Table 1: The six-level ecological valuation scheme used in the CIEEM guidelines (2018)

Ecological importance	Geographical scale of importance
International	International or European scale
National	The Republic of Ireland or the island of Ireland
Regional	Leinster, and/or the east midlands of Ireland
County	County Dublin
Local	Suburban areas in Finglas
Negligible	None, the feature is common and widespread

For the purposes of this report, we pay greatest attention to ecological features that are of Local importance or higher, or those that receive legal protection. These features are termed ‘important ecological features’ and are listed in Section 3.6. Features of Negligible ecological importance (e.g., amenity grasslands) do not pose any constraint to development.

3 The Receiving Environment

3.1 Environmental setting

The proposed development site (hereafter referred to as ‘the Site’) is located on the grounds of the former Church of the Annunciation, which was demolished in 2021. The Site now consists of building rubble, a former car park, a field of overgrown grassland and some mature trees.

Cardiffsbridge Road lines the western boundary of the Site. A site immediately to the north of the Site currently consists of a disused car park, but has permission for the construction of a new pastoral centre building (planning reference 3023/19). Coláiste Eoin post-primary school is located to the east of the Site, and the Leisure Point sports facility to the south of the Site. The broader surroundings consist primarily of suburban housing estates, schools and small commercial developments.

Geology and soils

The underlying bedrock is limestone (subcategorised as ‘dark limestone and shale’ on the GSI database), which is a locally-important aquifer. Subsoils are limestone till, and soils are made ground.

Hydrology

The EPA database of rivers and streams does not show any watercourses within the Site or surrounding area, and none were observed during the site inspection.

The closest watercourse to the Site is the Scribblestown Stream, which is approx. 650 m south-west of the Site. A separate watercourse – Bachelor’s Stream – is located approx. 680 m north-east of the Site. Due to their distance from the Site and the presence of intervening roads and buildings, it can be concluded that the Site has no association with these or any other watercourses.

3.2 Designated sites

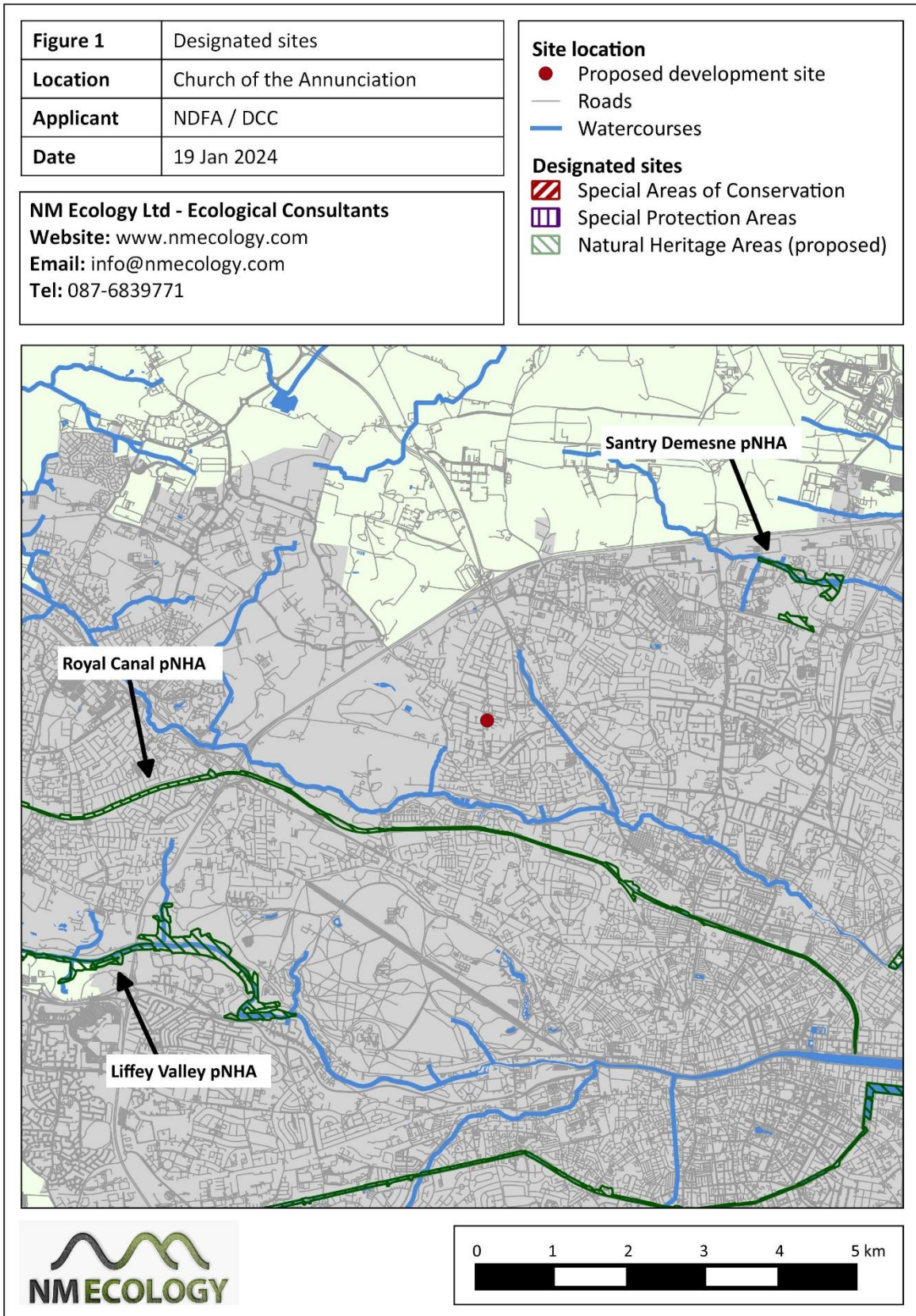
The Site is not located within or adjacent to any designated sites. A map of designated sites in the surrounding area is provided in Figure 1, and details of relevant sites are provided in Table 2.

Table 2: Designated sites shown in Figure 1

Site Name	Distance	Reasons for designation
Royal Canal pNHA (site code 2103)	0.9 km south	Diversity of habitats, ecological connectivity, and protected aquatic plant species (Opposite-leaved Pondweed <i>Groenlandia densa</i>)
Santry Demesne pNHA (178)	4.2 km north-east	Former demesne woodland and a protected species (Hairy St John’s-wort <i>Hypericum hirsutum</i>)

The Site is not within or near to any designated sites, so there is no possibility of direct effects.

It was established in Section 3.1 that the Site has no connection to any surface water features, so there are no surface water pathways to any designated sites. Due to the distances involved there is no risk of a pathway via groundwater, land or air. As there are no pathways linking the Site to any designated sites, there is no possibility of indirect effects.



3.3 Habitats and flora

Habitats recorded within the Site are discussed below, using the habitat classification system of *A Guide to Habitats in Ireland* (Fossitt 2000). A habitat map is not provided, because the distribution and extent of habitats can be readily discerned from aerial photography.



Figure 2: Aerial photograph of the Site showing the layout of habitats. The grey area in the centre of the Site is building rubble from the demolition of the Church of the Annunciation

3.3.1 Phase 1 habitat survey

The Site can be divided into four habitats, which are described below in order from west to east.

The western boundary of the Site includes the pavement on the eastern side of Cardiffsbridge Road (buildings and artificial surfaces, BL3), as well as a gravel-surfaced area formerly used as a car park for the church. The gravel has been recolonised by abundant sycamore *Acer pseudoplatanus* seedlings and nipplewort *Lapsana communis*, and frequent butterfly bush *Buddleja davidii* and American willowherb *Epilobium ciliatum*. Vegetation cover is approximately 50%, so it is classified as recolonising bare ground (ED3). These habitats are highly-modified and consist of common and widespread plants, so they are considered to be of Negligible ecological importance.

A treeline (WL2) is located to the east of the paved area. Trees are semi-mature, with trunk diameters of approx. 0.5 – 0.7 m. Sycamore and ash *Fraxinus excelsior* are most abundant, with smaller numbers of beech *Fagus sylvatica* and small-leaved lime *Tilia cordata*. The underlying ground may formerly have been managed as amenity grassland, but now supports dry meadow vegetation. Yorkshire-fog *Holcus lanatus* and perennial rye-grass *Lolium perenne* are abundant, while wall barley *Hordeum murinum*, wood avens *Geum urbanum* and nettles *Urtica dioica* are frequent. As the trees are predominantly non-native and there is no woodland ground flora, the habitat is considered to be of Negligible importance.

The former Church of the Annunciation was demolished in 2021. Building rubble has been levelled and compacted, forming a relatively flat surface. It is understood that the foundations of the church are still in place beneath the rubble. Some sycamore seedlings were observed on the rubble, but with this exception the area remains unvegetated. For these reasons it is classified as buildings and artificial surfaces (BL3), and of Negligible importance.

The eastern section of the Site consists of former amenity grassland that has not been mowed for several years and has now formed dry meadow (GS2). The dominant species are Yorkshire-fog and / or creeping bent *Agrostis stolonifera*. Creeping buttercup *Ranunculus repens* is abundant, while creeping cinquefoil *Potentilla reptans* and silverweed *Potentilla anserina* are locally frequent. Occasional species include perennial rye-grass, cock's-foot *Dactylis glomerata*, broad-leaved dock *Rumex obtusifolius*, ragwort *Senecio jacobaea* and creeping thistle *Cirsium repens*. All of these species are common and widespread in the surrounding area, notably the large undeveloped area to the south-east of the Site, so the habitat is considered to be of Negligible importance.

3.3.2 *Rare or protected flora*

No rare or protected plants were encountered.

3.3.3 *Invasive plant species*

No Japanese Knotweed *Fallopia japonica* or any other invasive plant species listed on the third schedule of the *European Communities (Birds and Natural Habitats) Regulations 2011* were recorded within the Site.

3.4 **Protected species**

3.4.1 *Terrestrial mammals*

No field signs of any mammals were observed during the site inspection. There are no waterbodies suitable for otters, no deep earth banks suitable for badgers, nor any ground cover suitable for hedgehogs or other small mammals. Therefore, the Site is of no importance for any of these species.

3.4.2 *Bats*

Bats are common and widespread in Ireland. During the day they roost in buildings, bridges and mature trees. At night they forage around wetlands (lakes, rivers, swamps), woodland and hedgerows. They typically avoid urban areas (particularly areas with artificial lighting) and large open areas such as grasslands.

Potential roost features

There are no buildings, bridges or other built structures within the Site. Buildings around the margins of the Site are modern and illuminated by streetlights, so they are considered unsuitable for roosting bats. No cavities, crevices or other potential roost features were identified on any of the mature trees. Therefore, the Site and its immediate surroundings are of Negligible importance for roosting bats.

Foraging / commuting habitat

A bat activity survey was carried out to determine whether the trees and other habitats were of importance for foraging or commuting bats. Due to the presence of rough sleepers on the site the surveyor elected to carry out the survey using static detectors rather than a handheld detector. Three Anabat Express detectors were left in suitable habitats for three nights from 26 – 28 September. Weather conditions were suitable for a bat survey, with sunset temperature of 10 – 15 °C, light winds and dry conditions.

The locations of detectors were as follows: Detector 1 was placed among trees in the car park to the north of the Site, Detector 2 was placed at the treeline in the west of the Site, and Detector 3 was placed in the dry meadow in the east of the Site. Common pipistrelles were recorded on each of the three nights at Detector 3. There was no clear temporal

pattern to the results: bats were recorded at dusk on some nights, the middle of the night on other occasions, and at dawn on other occasions; this suggests that bats were feeding within the Site rather than commuting to / from a nearby roost. No other species of bat were recorded at Detector 3, and no bats were recorded at Detectors 1 and 2.

The low levels of bat activity may be explained, in part, by the prevalence of artificial lighting in the surrounding area. Streetlights along Cardiffsbridge Road and Cappagh Road may have indirectly illuminated the vegetation surrounding Detectors 1 and 2, reducing its suitability for foraging bats. Widespread streetlighting in the surrounding area, as well as floodlighting of playing fields (e.g. the Leisure Point facility to the south of the Site) further reduces the suitability of the area for bats.

A bat activity survey during the recommended survey season and in ideal weather conditions recorded only occasional activity by common bat species within the Site. Therefore, the Site is considered to be of Negligible importance for foraging / commuting bats.

3.4.3 *Birds*

Habitats within the Site are unsuitable for brent geese or any other species associated with SPAs in Dublin Bay; these species are only recorded in amenity grassland that is regularly mowed.

The following species were recorded during the site inspection: blackbird, feral pigeon, woodpigeon, jackdaw, rook, magpie, wren and robin. Other common suburban birds (e.g. tits and finches) are likely to use the Site at other times, but it is unlikely to be used by any species of conservation importance. Therefore, the Site is of Negligible importance for bird species.

However, it is noted that birds and their nests are protected under the Wildlife Act 1976 (as amended). The treeline habitat would be suitable for nesting birds.

3.4.4 *Fish and aquatic fauna*

There are no waterbodies in the vicinity of the Site, so it is of no importance for fish or other aquatic fauna.

3.4.5 *Reptiles and amphibians*

No reptiles or amphibians were observed during the survey, nor any ponds or other permanent wetland features suitable for breeding. Therefore, the Site is of no importance for these taxa.

3.4.6 *Terrestrial invertebrates*

The habitats within the Site are common in rural / suburban landscapes in Ireland, so the site is considered to be of Negligible importance for invertebrates.

3.5 Potential limitations and information gaps

The multi-disciplinary site inspection was carried out in July 2023 and the bat survey in September 2023. These are ideal times for ecological surveys.

Bat activity surveys are typically carried out at dusk using handheld detectors. A tent used by rough sleepers was observed in the west of the Site in July 2023, and the surveyor had concerns about potential interactions with its occupants when surveying at night. Therefore, the bat activity survey was undertaken using static detectors, as this allowed the detectors to be deployed and collected during daylight. Static detectors provide a lower level of spatial accuracy than handheld detectors, but allow a substantially longer survey period (three full nights rather than a 1.5 hour dusk survey). For this reason, the use of static detectors is not considered to be a constraint of the assessment.

3.6 Identification of important ecological features

Table 3 provides a summary of all ecological features identified within the Site, including their importance and legal / conservation status. For the purposes of this impact assessment, any features that are of Local (or higher) ecological importance are considered to be 'Important Ecological Features'.

Table 3: Important ecological features within the Site

Ecological feature	Importance	Legal status	Important feature?
Designated sites	International	HR	No
Buildings and artificial surfaces (BL3)	Negligible	-	No
Recolonising bare ground (ED3)	Negligible	-	No
Treeline (WL1)	Negligible	-	Yes
Dry meadow (GS2)	Negligible	-	No
Rare / protected flora	N.A.	-	No
Invasive plant species	N.A.	-	No
Terrestrial mammals	Negligible	WA	No
Bats	Negligible	HR, WA	No
Birds (including nesting habitat)	Negligible	WA	Yes
Fish and aquatic fauna	N.A.	WA	No

Ecological feature	Importance	Legal status	Important feature?
Reptiles and amphibians	Negligible	-	No
Invertebrates	Negligible	-	No

* HR – European Communities (Birds and Natural Habitats) Regulations 2011 (as amended); WA - protected under Section 19 or 20 of the Wildlife Act 1976 (as amended)

4 Evaluation and Recommendations

The only Important Ecological Features identified in Table 3 is nesting birds. Impacts on nesting birds can be avoided using best practice mitigation; this is discussed in Section 4.1. All other ecological features discussed in Section 3 are considered to be of Negligible ecological importance, so they do not require further assessment.

Policy GI 16 of the Dublin City Development Plan requires that “opportunities should be taken as part of new development to provide a net gain in biodiversity and provide links to the wider Green Infrastructure network”. Ecological enhancement measures for the scheme are reviewed in Section 4.2, and potential net gain in biodiversity is considered.

4.1 Protection of treeline and nesting birds

Some mature trees suitable for nesting birds will be felled to accommodate the proposed development. The canopies of these trees could potentially be used by nesting birds. Under Section 22 of the *Wildlife Act 1976* (as amended), it is an offence to kill or injure a protected bird or to disturb their nests. If any of the trees will need to be felled or otherwise modified, it is recommended that it takes place between September and February (inclusive), i.e. outside the nesting season. If this is not possible, an ecologist will survey the affected areas in advance to assess whether any breeding birds or mammals are present. If any are encountered, vegetation clearance will be delayed until the breeding attempt has been completed, i.e. after chicks have fledged and a nest has been abandoned.

4.2 Precautionary measure for potential bat roosts in trees

No crevices or cavities suitable for roosting bats were observed in any of the trees on Site, so all are considered to have Negligible suitability for roosting bats. However, on a precautionary basis all trees will be re-assessed immediately prior to the commencement of construction works to assess any potential changes in their suitability for bats.

4.3 Biodiversity Enhancement and Net Gain

A total of 43 trees were identified in the tree survey that accompanies the application (Charles McCorkell Arboricultural Consultant), most of which are in the west of the Site. Some trees whose trunks are located outside the Site boundary were also included, as their

canopies and (estimated) root zone are within the Site. It will be necessary to remove 18 trees to accommodate the proposed development, but the remaining 25 trees will be retained.

The loss of baseline habitats will be compensated by biodiversity enhancements proposed as part of the landscaping scheme. The following measures will be implemented:

- Native trees will be planted in the west of the Site and the central courtyard
- Native hedgerows (hawthorn dominated) will be planted around the northern, eastern and western boundaries of the Site. Small emergent trees will be included in the hedgerow where there is sufficient space
- Reinforced grass is required to the south and east of the building to provide access for fire tenders. These areas will be managed as meadows, cut only once per year in late summer / autumn
- Bird boxes will be provided in public open space, including designs suitable for common garden birds (e.g. finches, tits, blackbirds). Swift nest boxes will be installed on the eastern side of the apartment building
- Small gaps (approx. 200 mm high and wide) will be provided in the eastern boundary to allow ground-dwelling fauna to move between the Site and the undeveloped land to the east of the Site.
- Intensive green / blue roofs (*Sedum* sp.) will be installed on the roofs of buildings, primarily as a surface water management measure, but with secondary value for biodiversity

These measures will compensate for the removal of existing habitats, notably the non-native trees in the west of the Site and the dry meadow in the east of the Site. They will also introduce some habitats / features that are not currently present at the Site, e.g. the hedgerow around the site boundary and the swift nest boxes. When compared to the baseline environment, the proposed development is considered to provide a net gain in biodiversity.

5 Conclusion

As the Site is of low baseline ecological importance and no ecological impacts are currently envisaged, it is not necessary to carry out an Ecological Impact Assessment. This Preliminary Ecological Appraisal may be included in the Part 8 application to demonstrate that ecological features have been considered. Screening for Appropriate Assessment is provided in a separate document.

As noted above, the proposed development is considered to provide a net gain in biodiversity, and thus complies with Policy GI 16 of the Dublin City Development Plan.

6 References

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