7.0 BIODIVERSITY

7.1 INTRODUCTION

This section of the EIAR was carried out by Altemar Ltd. It assesses the biodiversity value of the proposed development area and the potential impacts of the development on the ecology of the surrounding area and within the potential zone of influence (ZOI).

The programme of work in relation to biodiversity aspects of the EIAR has been designed to identify and describe the existing ecology of the proposed development site and outline the habitats or species of conservation interest that may be present on site. It also assesses the significance of the likely impacts of the scheme on the biodiversity elements including designated conservation sites and designs mitigation measures to alleviate identified impacts. Mitigation measures and the phasing of the project are contained in the accompanying Outline Construction Environmental Management Plan (oCEMP), which has been prepared by Cronin & Sutton Consulting Engineers.

A separate Natura Impact Statement, in accordance with the requirements of Article 6(3) of the EU Habitats Directive, has been produced to identify potential impacts of the development on Natura 2000 sites, Annex species or Annex habitats. It concludes that '*Following the implementation of the mitigation measures outlined, the proposed development would not be deemed to have a significant impact on the River Liffey which is seen as a direct pathway to four Natura 2000 sites. No significant impacts are likely on Natura 2000 sites, alone in combination with other plans and projects based on the implementation of mitigation measures*.'
Standard construction and operational phase control measures, in addition to monitoring measures will be carried out to minimise potential impacts and to improve the biodiversity potential of the proposed development site.

7.1.1 Statement of Authority

This report has been prepared by Bryan Deegan (MCIEEM) of Altemar Ltd. Bryan is an environmental scientist and marine biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture).

Jack Doyle (MSc) (Full time ecologist with Altemar Limited) has carried out a wide range of flora and fauna surveys and produced ecological assessments on numerous residential, commercial, and infrastructure projects in Ireland. These include breeding ornithological surveys, roving and static acoustic bat surveys, terrestrial non-avian mammal surveys, and habitat identification. Jack is skilled in bat detection through static detector surveys, dusk emergence, and dawn re-entry surveys.

The 2024 wintering bird surveys were carried out by Frank Spellman (BSc, MSc) (Full time ecologist with Altemar Limited). Frank has extensive experience in carrying out a wide range of fauna surveys as both a sub-contractor and employee for environmental consultancies and organisations in Ireland and the US. These include both roving and static acoustic bat surveys, terrestrial non-avian mammal surveys, breeding/wintering bird surveys, and freshwater ecology surveys. Frank has been lead ornithologist on numerous development projects within Ireland carrying out full wintering bird and breeding bird assessments. Hugh Delaney is an ecologist (ornithologist primarily) having completed work on numerous sites with ecological consultancies over 10+ years. Hugh is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with the bird life and its ecology in the environs going back over 30 years.

7.2 STUDY METHODOLOGY

This chapter has been prepared having regard to the following guidelines:

- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning & Local Government, 2018)

- Guidelines for Ecological Impact Assessment in the UK and Ireland, (Chartered Institute of Ecology and Environmental Management) (CIEEM, 2018),

- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017)

- Guide to Habitats in Ireland (Fossitt, 2000).

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022)

- Guidelines for Assessment of Ecological Impacts of National Roads Schemes: Revision 2 (National Roads Authority, 2009).

- Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016).

- Bat Mitigation Guidelines for Ireland (Marnell, Kelleher & Mullen, 2022).

- Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).

A pre-survey biodiversity data search was carried out in May 2021 and updated in June 2022 & December 2024. This included examining records and data from the National Parks and Wildlife Service (NPWS), National Biological Data Centre (NBDC) and the Environmental Protection Agency (EPA), in addition to aerial, 6-inch maps and satellite imagery.

Habitat, flora, bat and wintering bird surveys were undertaken within the appropriate seasonal timeframes and incompliance with relevant guidelines. Field surveys were carried out as outlined in Table 6.1. All appropriate surveys were carried out in the appropriate seasons (Smith et al., 2011).

Table 7.1. Field Surveys

Survey Type	Surveyors	Survey Dates
Field Survey (habitat, floral)	Bryan Deegan & Jack Doyle (Altemar)	9th & 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024
Bat Survey	Bryan Deegan & Jack Doyle (Altemar)	9th & 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024
Wintering Bird and Flightline Assessment	Hugh Delaney (ornithologist) Frank Spellman (Altemar)	14th and 27th December2021 6th and 11th November 2024

Desk studies were carried out to obtain relevant existing biodiversity information within the Zone of Influence (ZOI). As outlined in Office of the Planning Regulator (2021) "*The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km).*" The proposed development site is a brownfield site located within the city centre of Dublin, 15m from the River Liffey. After consultation with CS Consulting Engineers, it was outlined that, after attenuation on-site, all surface water outfalls are to the existing combined public sewer on City Quay. This public network ultimately outfalls to Ringsend Wastewater Treatment Plant (WwTP) for treatment. Foul wastewater drainage will also be discharged to this combined sewer.

As a result, there is an indirect hydrological pathway from the proposed development to designated conservation sites located within the marine environment at Dublin Bay. Additionally, given that demolition, excavation, and construction works are proposed in close proximity (min. 15m) to the River Liffey, there is the potential for dust and contaminated surface water to enter the proximate watercourse and impact on downstream conservation sites and aquatic biodiversity. In this case, the potential ZOI extends beyond the site, with the potential for downstream impacts to extend beyond the proposed development area via the proposed construction works and the surface water/foul water networks. Details of the proposed development are seen in Chapter 2 of this EIAR. The proposed project construction methodology, layout, drainage strategy, Construction Management Plan, Site Investigations, design and landscape design were reviewed to inform this assessment. Further, the other chapters within the EIAR were assessed.

7.2.1 Proximity to designation conservation sites and habitats or species conservation interest

The designated conservation sites within 15km of the proposed combined development site were examined for potential effect using the Source-Pathway-Receptor model (OPR,2021). Sites beyond 15km have no direct or indirect

pathways or are across the marine environment where dilution, mixing and settlement would occur and given the scale of the proposed development and dilution/mixing in the marine environment, effects on sites beyond 15km would be at negligible levels. This assessment included sites of international importance; Natura 2000 sites (Special Areas of Conservation (SAC), Special Protection Areas (SPA)) and Ramsar sites and sites of National importance ((Natural Heritage Areas (NHA), proposed Natural Heritage Areas (pNHA). Up to date GIS data (NPWS data shapefiles) were acquired and plotted against 1, 5, 10 and 15km buffers from the proposed development site. GIS data of rare and threatened species within proximity of the site was provided by NPWS. Additional information on rare and threatened species was researched through the National Biodiversity Data Centre maps.

7.2.2 Terrestrial Ecology

A pre-survey data search was carried out in August 2021. This included a literature review to identify and collate relevant published information and ecological studies previously conducted and comprised of information from the following sources: the National Parks and Wildlife Service, NPWS Rare and Protected Species Database, National Biodiversity Data Centre, EPA WMS watercourses data, in addition to aerial, 6 inch, satellite imagery. Following the desktop study, walk-over assessments of the site were carried out on the 9th & 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024. Surveys were carried out by means of a thorough search within the potential ZOI. The presence of mammals is indicated principally by their signs, such as resting areas, feeding signs or droppings - though direct observations are also occasionally made.

Habitat mapping was carried out according to Fossitt's Guide to Habitats in Ireland (Fossitt (2000)) using AcrGIS 10.5 and displayed on Bing satellite imagery or street mapping based on 30th September 2024 site visit. Any rare or protected species or habitats were noted. As part of the fieldwork an invasive species assessment was also carried out.

7.2.3 Bat Fauna

Onsite buildings were inspected for bats and/or their signs using a powerful torch (141 Lumens) – Petzl MYO RXP. The site surveys were supplemented by a review of Bat Conservation Ireland's (BCIreland) National Bat Records Database. A bat detector and emergent survey that covered the entire application site was carried out on the 9th & 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024 within optimal conditions. An internal building inspection was carried out on 21st September 2021, 10th August 2022 & 30th September 2024. The results of the bat assessment are seen in Appendix 6.1.

7.2.4 Avian Ecology

Birds noted on site were classified based on the Birds of Conservation Concern in Ireland classification of red, amber and green, which is based on an assessment of the conservation status of all regularly occurring birds on the island of Ireland. In addition, a wintering bird/flightline assessments were carried out on the 14th and 27th December 2021 and updated on the 6th and 11th November 2024.

In 2024, Frank Spellman (Altemar) conducted the wintering bird/flightline assessments on the 6th and 11th of November. Each survey was carried out across three hours. Weather conditions were optimal on each occasion. Flightlines of species of interest (qualifying interests of nearby SPAs, amber/red birds of conservation concern in Ireland (BoCCI), wintering bird species etc.) in the vicinity of the proposed site were mapped and their height estimated by comparison to nearby structures/features. Views were restricted due to the built-up environment of the surrounding area. Two vantage points to the north and southwest of the proposed site were utilised to provide the best views of the study area. The proposed site was also circumnavigated on each occasion to utilise all possible viewpoints surrounding the proposed site.

The results of this assessment are seen in Appendix 6.2 and the Habitats & Species section below.

7.2.5 Rating of Effects

The terminology for rating impacts is derived from the EPA Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022), as detailed in Chapter 1.

7.2.6 Difficulties Encountered

No difficulties were encountered in relation to the preparation of the Biodiversity report. The bat surveys were undertaken within the active bat period (April to September inclusive) and a detector survey was possible. However, conditions were optimal, and insects were observed in flight during the bat survey. Full access to all areas of the site was possible and the fact that the mammal survey was towards the end of the season is not seen as a constraint as all areas of the site were fully accessible and there is very limited vegetation on site. No difficulties were encountered in the preparation of the biodiversity chapter.

7.3 THE EXISTING RECEIVING ENVIRONMENT (BASELINE SCENARIO)

7.3.1 Zone of Influence

As outlined in CIEEM (2018) 'The '*zone of influence' for a project is the area over which* ecological *features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries*.' In line with best practice guidance an initial zone of influence be set at a radius of 2km for non-linear projects (IEA, 1995).

The potential ZOI of the project in the absence of mitigation was deemed to be; within the site outline, and nearby sensitive receptors including the River Liffey and designated sites downstream of the proposed works. Given the extent of the demolition and site clearance works, and the proximity of the River Liffey to the subject site (15m), in the absence of mitigation there is the potential for dust and surface water runoff to enter the proximate watercourse. As a result, out of an abundance of caution, the ZOI of the proposed works site is extended to the River Liffey and downstream designated conservation sites located within Dublin Bay.

Foul wastewater and surface water drainage will also be discharged to the combined sewer via separate foul and surface water systems. As a result, there is an indirect hydrological pathway from the proposed development to designated conservation sites located within the marine environment at Dublin Bay. In the case of the proposed development, the potential ZOI extends beyond the site, with the potential for downstream impacts to extend beyond the proposed development area via the proposed construction works and the surface water/foul water networks during construction and operation. The application site outline is shown in Figure 6.1. An AA Screening and NIS have been submitted with this EIAR. The NIS concludes that "Following the implementation of the mitigation measures outlined, the demolition, construction works and operation of the proposed development would not be deemed to have a significant impact on the River Liffey which is seen as a direct pathway to four Natura 2000 sites. No significant adverse effects are likely on Natura 2000 sites, alone in combination with other plans and projects based on the implementation of mitigation measures."

7.3.2 Designated Sites

As can be seen from Figures 6.2 (SAC's within 15km), 6.3 (SPA's within 15km), 6.4 (NHA and pNHA within 15km), and 6.5 (Ramsar sites within 15km), there are four Natura 2000 sites within 5km, five National conservation sites within five kilometres of the proposed development site, and two Ramsar sites within 15km of the proposed development site. The distance and details of the conservation sites within 15km of the proposed development are seen in Table 6.2a and Table 6.2b. Given the extent of the proposed works, it is considered that there is an indirect pathway to designated sites located within Dublin Bay. Figures 6.6 – 6.9 demonstrate watercourses proximate to the subject site and designated conservation sites with the potential for a hydrological pathway. In addition, foul water and surface water drainage (during operation) is treated in the Ringsend WwTP which is operating within capacity[1].

Table 7.2. Natura 2000 sites within 15km of the subject site

	Name	Distance (km)
SAC		
000210	South Dublin Bay SAC	2.8km
000206	North Dublin Bay SAC	4.8 km
000199	Baldoyle Bay SAC	9.8 km
000202	Howth Head SAC	10.5 km

[1] https://www.water.ie/__uuid/eed266bd-5646-4b6a-bf9d-6ddb57049930/2020-IW-WWCR-Web-Version_Dublins.pdf

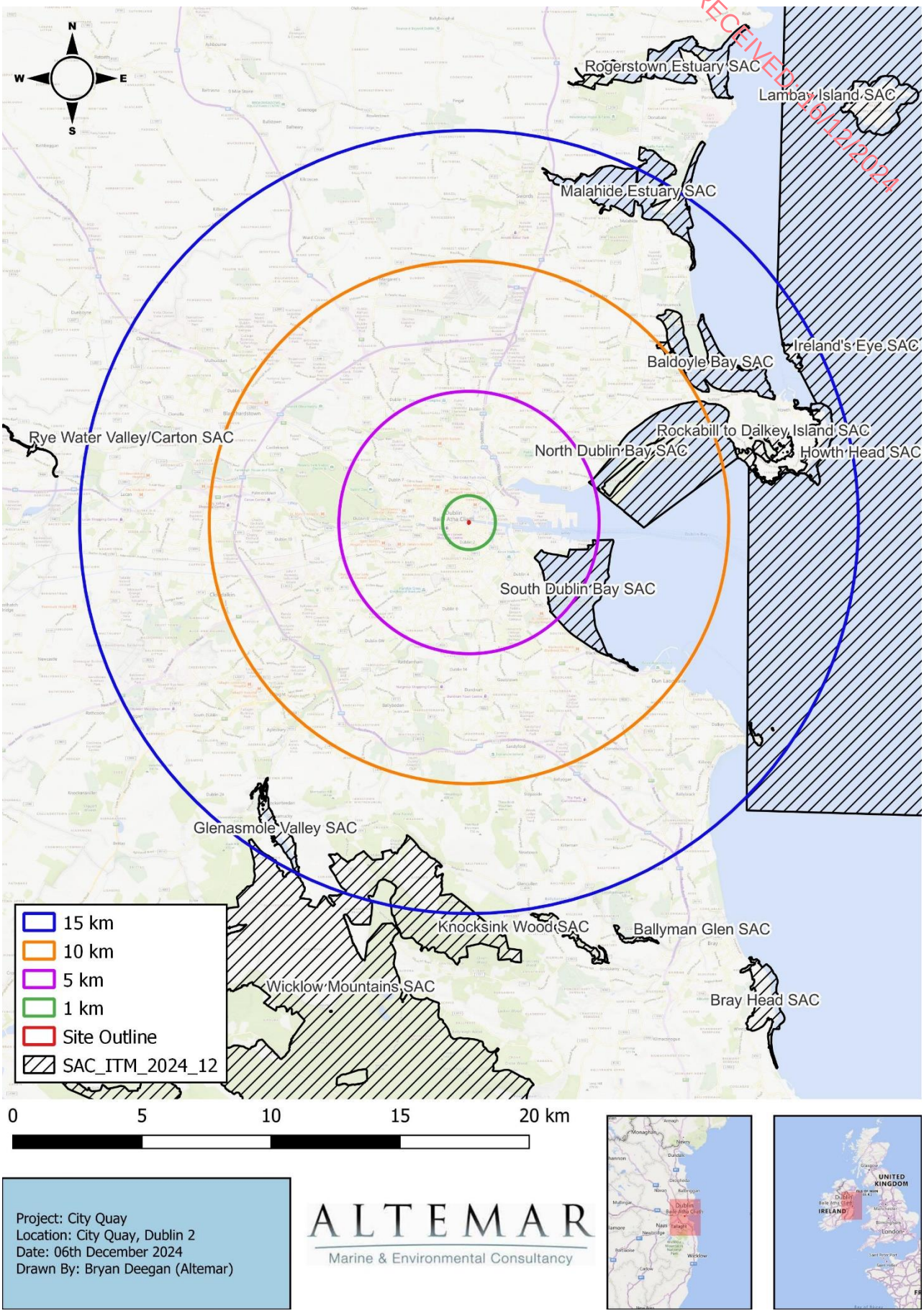
	Name	Distance (km)
003000	Rockabill to Dalkey Island SAC	10.7 km
002122	Wicklow Mountains SAC	12.1 km
001209	Glenasmole Valley SAC	12.4 km
000205	Malahide Estuary SAC	12.8 km
002193	Ireland's Eye SAC	13.7 km
SPA		
004024	South Dublin Bay and River Tolka Estuary SPA	1.9 km
004006	North Bull Island SPA	4.8 km
004236	North-West Irish Sea SPA	6.8 km
004016	Baldoyle Bay SPA	10 km
004040	Wicklow Mountains SPA	12.4 km
004025	Malahide Estuary SPA	12.8 km
004172	Dalkey Islands SPA	12.8 km
004117	Ireland's Eye SPA	13.5 km
004113	Howth Head Coast SPA	13.7 km

Table 7.3. pNHAs and Ramsar sites within 15km of the subject site

	Name	Distance (km)
pNHA		
1	Royal Canal	0.7 km
2	Grand Canal	0.9 km
3	North Dublin Bay	1.6 km
4	South Dublin Bay	2.8 km
5	Dolphins, Dublin Docks	3.6 km
6	Booterstown Marsh	5.1 km
7	Santry Demesne	5.6 km
8	Liffey Valley	6.6 km
9	Dodder Valley	8.2 km
10	Fitzsimon's Wood	8.6 km
11	Baldoyle Bay	9.8 km
12	Dalkey Coastal Zone And Killiney Hill	10.1 km
13	Howth Head	10.3 km
14	Feltrim Hill	10.3 km
15	Sluice River Marsh	10.6 km
16	Glenasmole Valley	12.4 km
17	Dingle Glen	12.5 km
18	Malahide Estuary	12.8 km
19	Lugmore Glen	13.3 km
20	Loughlinstown Woods	13.6 km
21	Ireland's Eye	13.7 km
22	Ballybetagh Bog	13.8 km
Ramsar		
1	Sandymount Strand / Tolka Estuary	2.9 km
2	North Bull Island	5.0 km
3	Baldoyle Bay	10.1 km
4	Broadmeadow Estuary	13.1 km

Figure 7.1. Proposed site outline and location

Figure 7.2. Special Areas of Conservation (SACs) within 15km of the proposed development



Project: City Quay
Location: City Quay, Dublin 2
Date: 06th December 2024
Drawn By: Bryan Deegan (Altemar)

ALTEMAR
Marine & Environmental Consultancy

Figure 7.3. Special Protection Areas (SPAs) within 15km of the proposed development

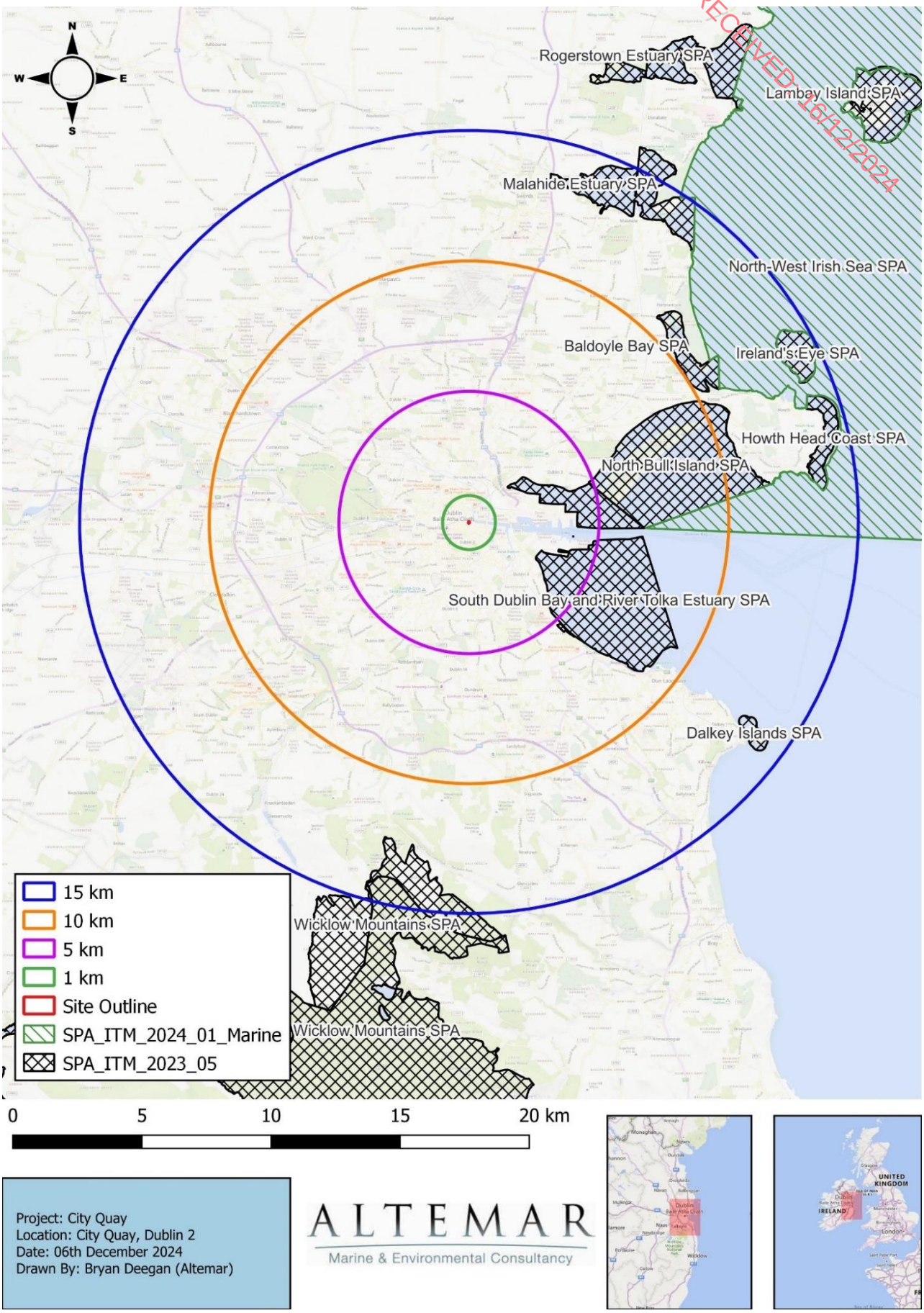


Figure 7.4. Proposed Natural Heritage Areas (pNHAs) within 15km of the proposed development

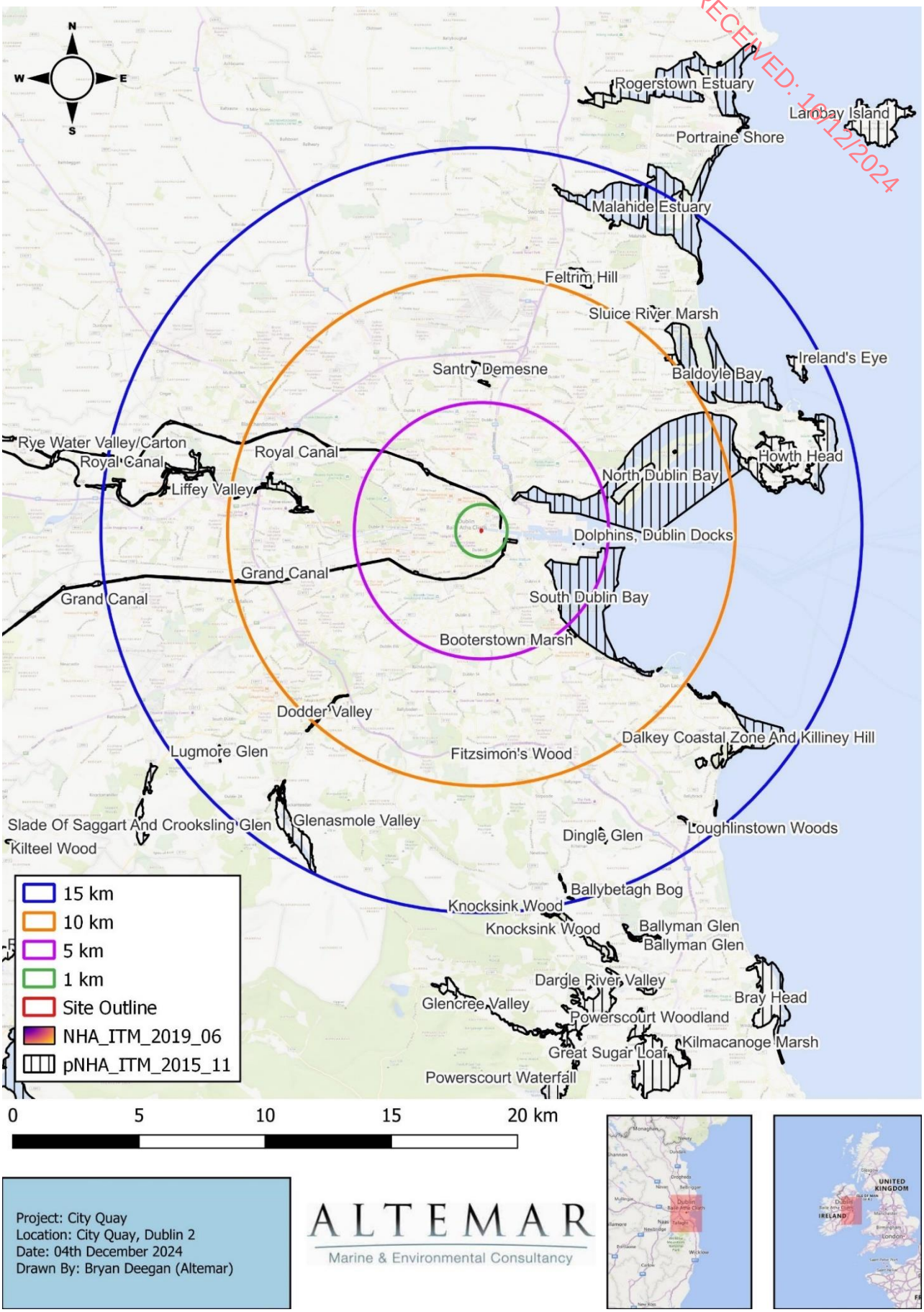


Figure 7.5. Ramsar sites within 15km of the proposed development site

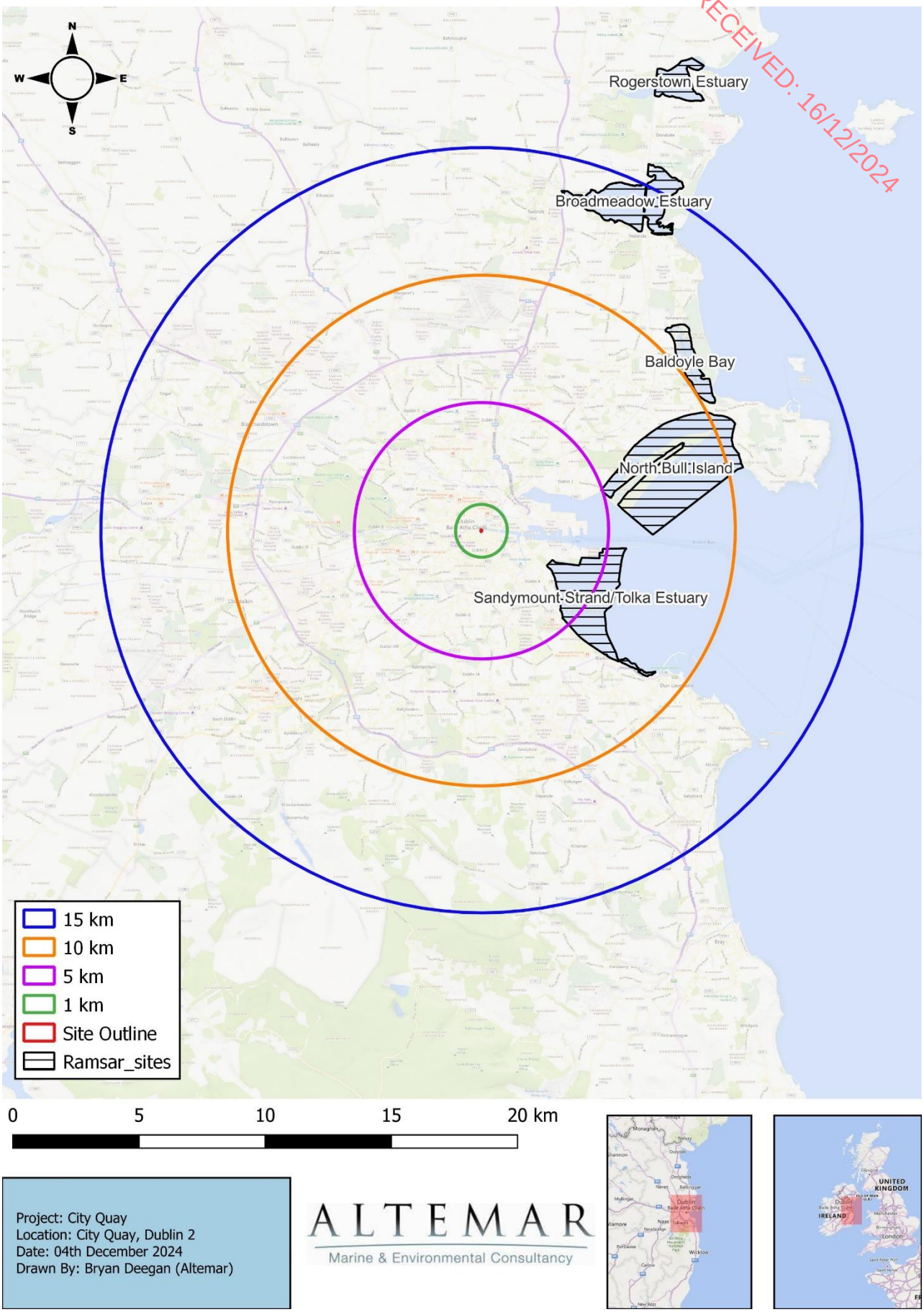


Figure 7.6. Waterbodies proximate to the proposed development site

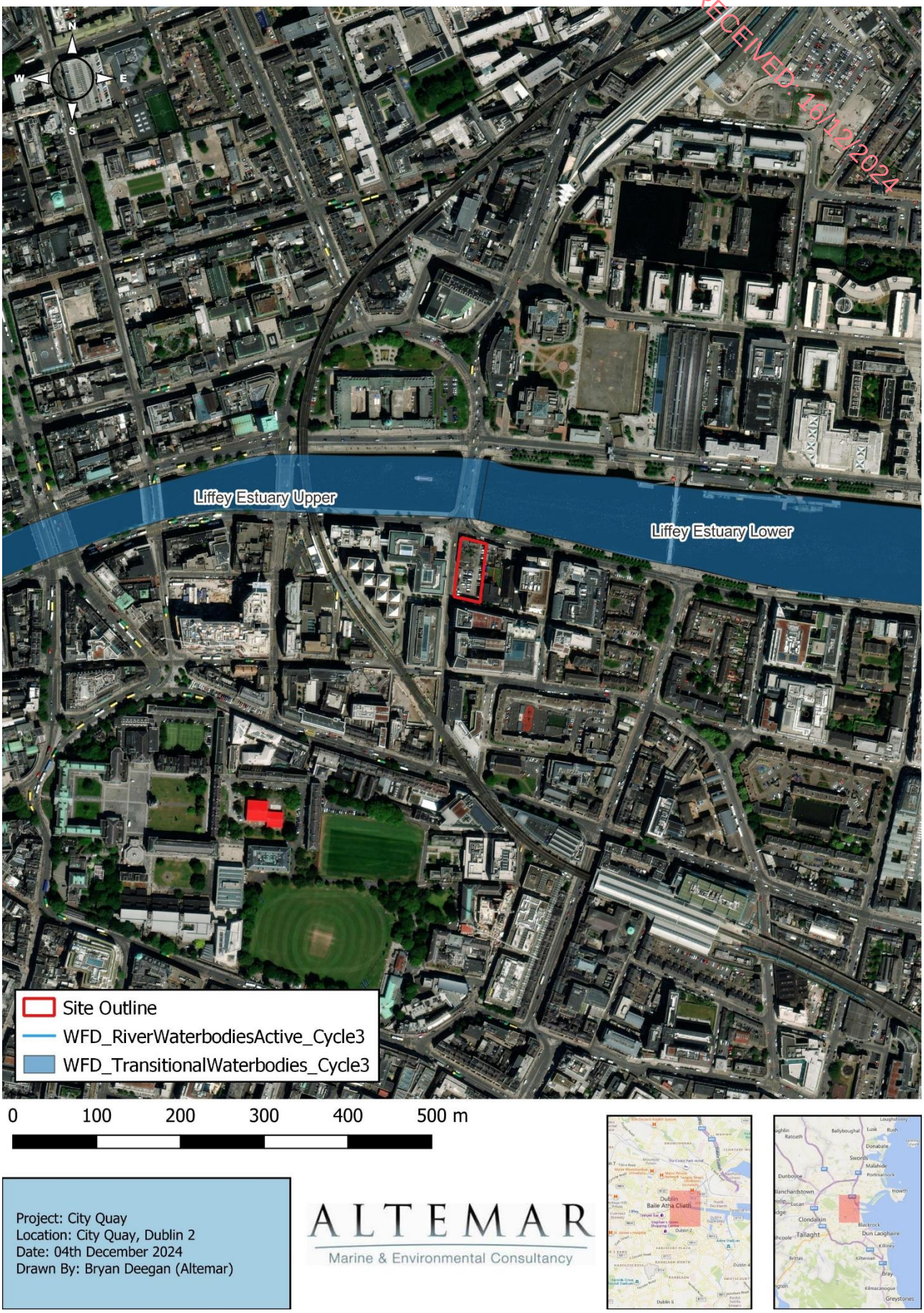


Figure 7.7. Waterbodies and SACs proximate to the proposed development site

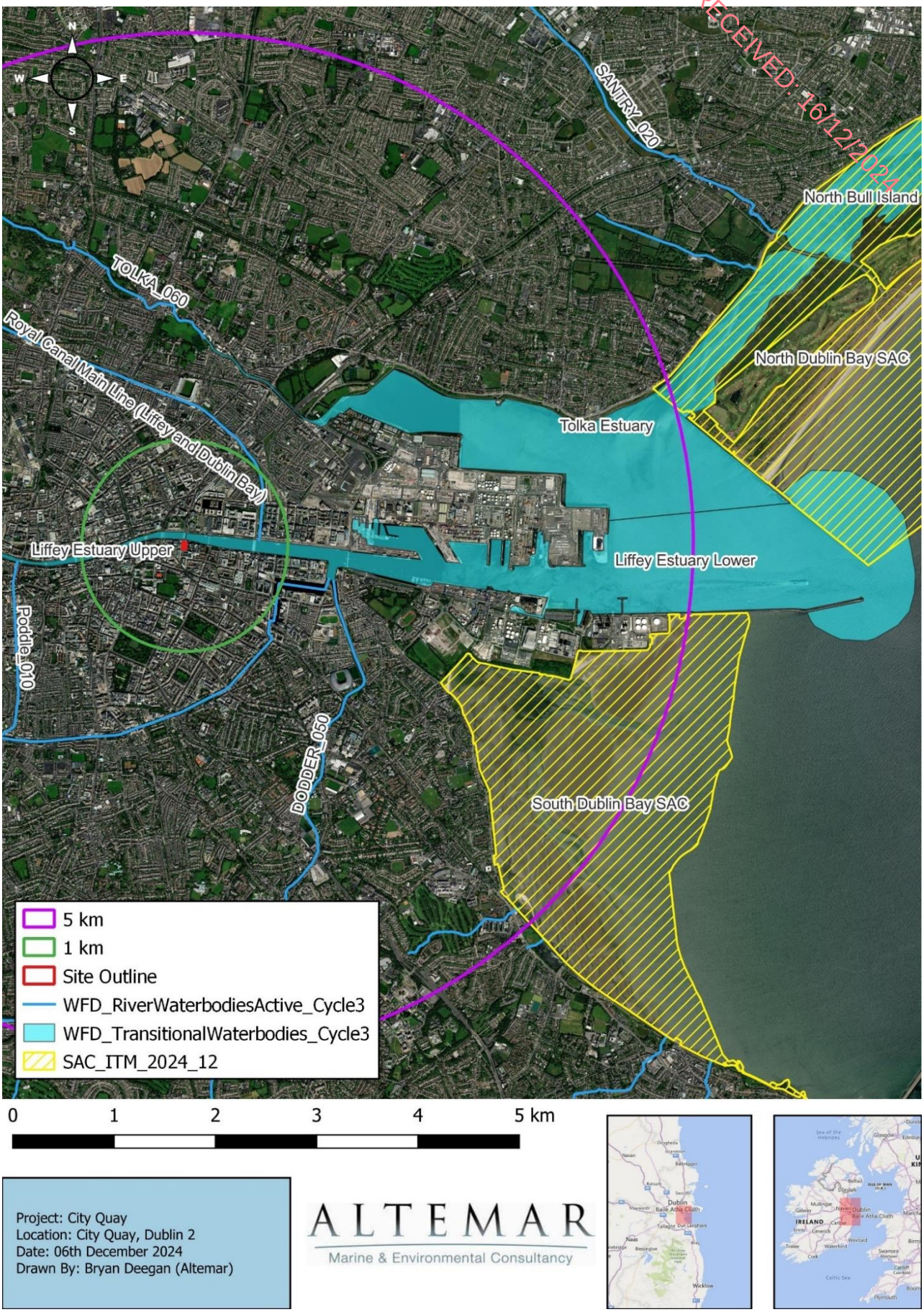


Figure 7.8. Waterbodies and SPAs proximate to the proposed development site

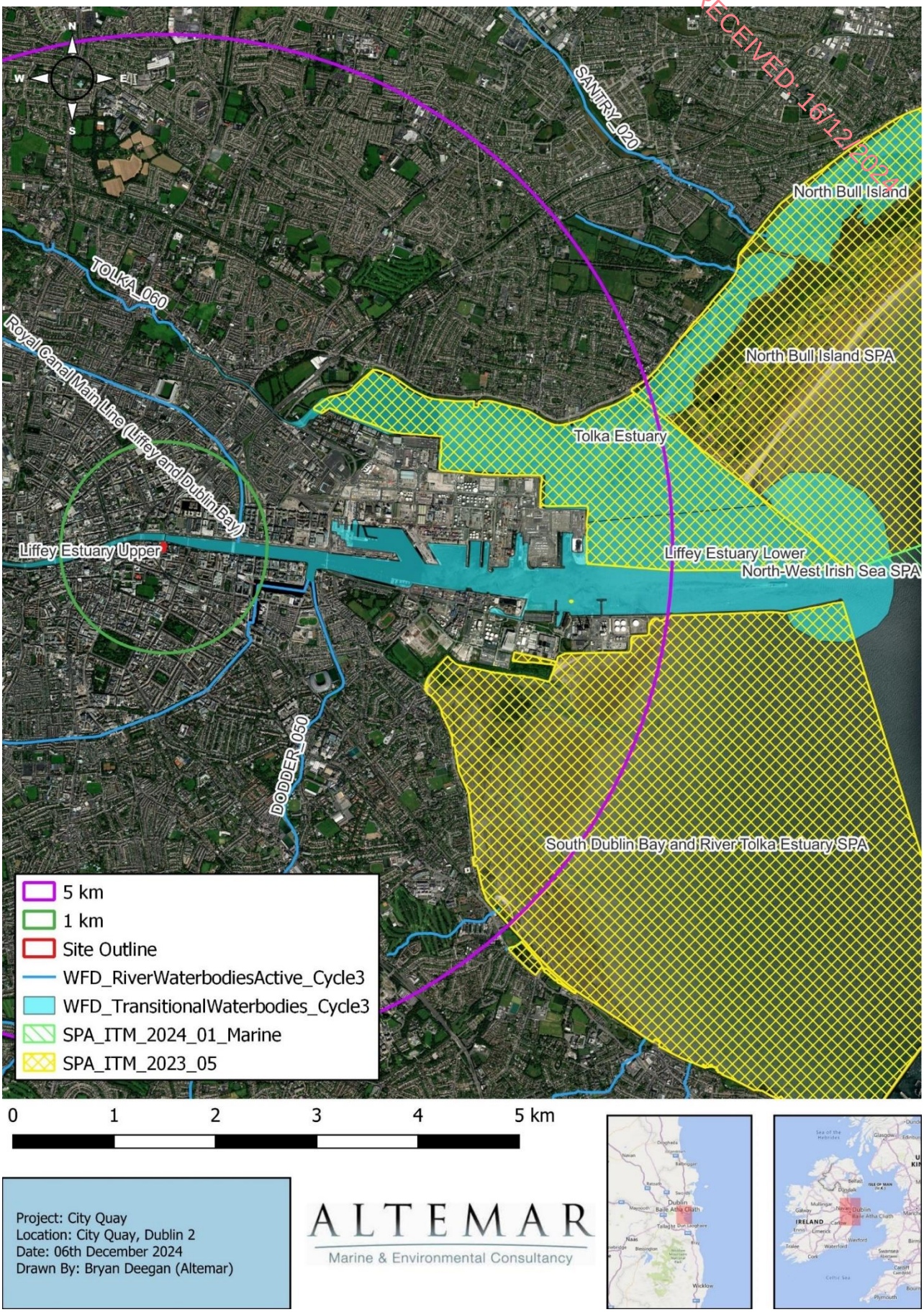


Figure 7.9. Waterbodies and pNHAs proximate to the proposed development site

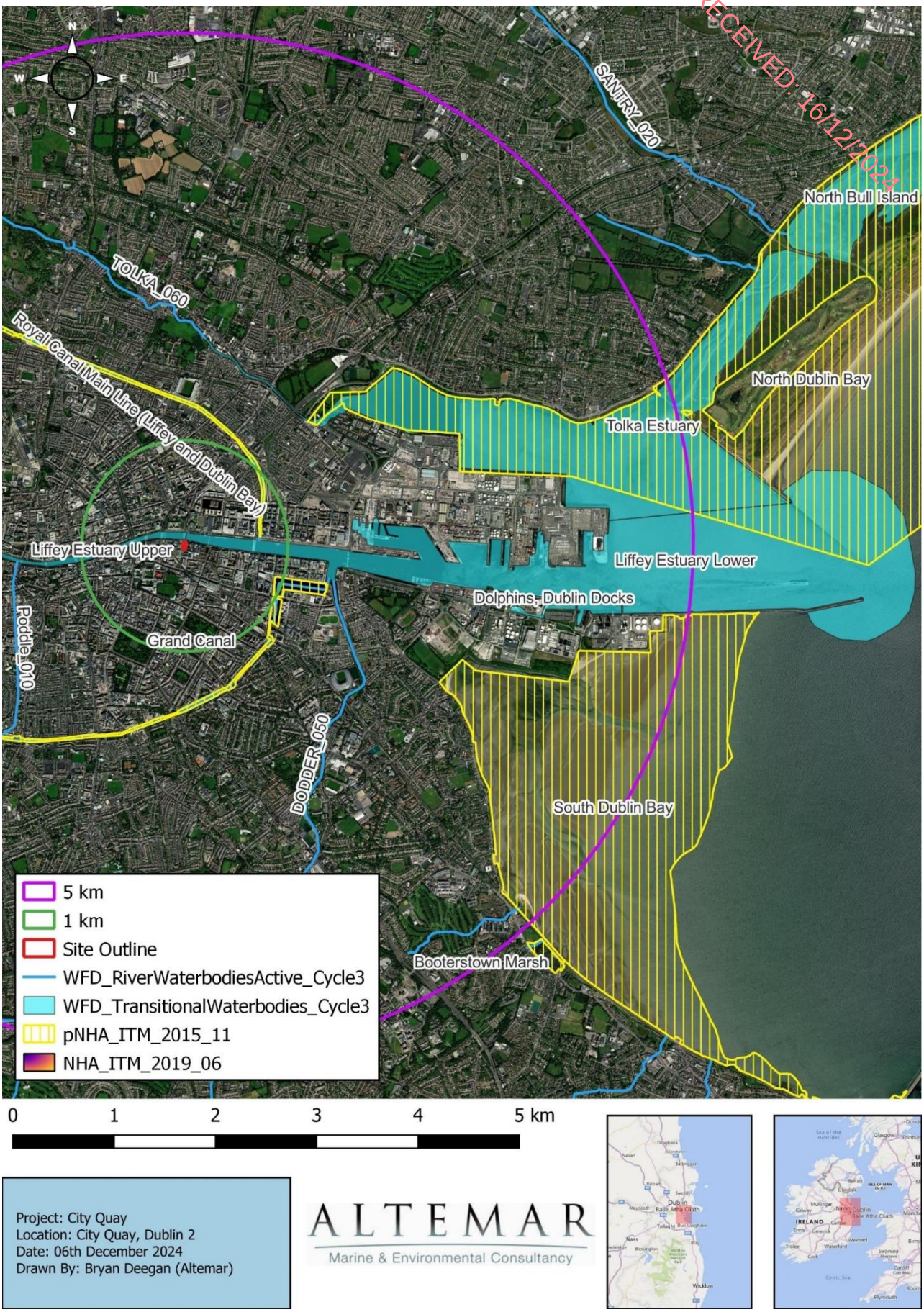
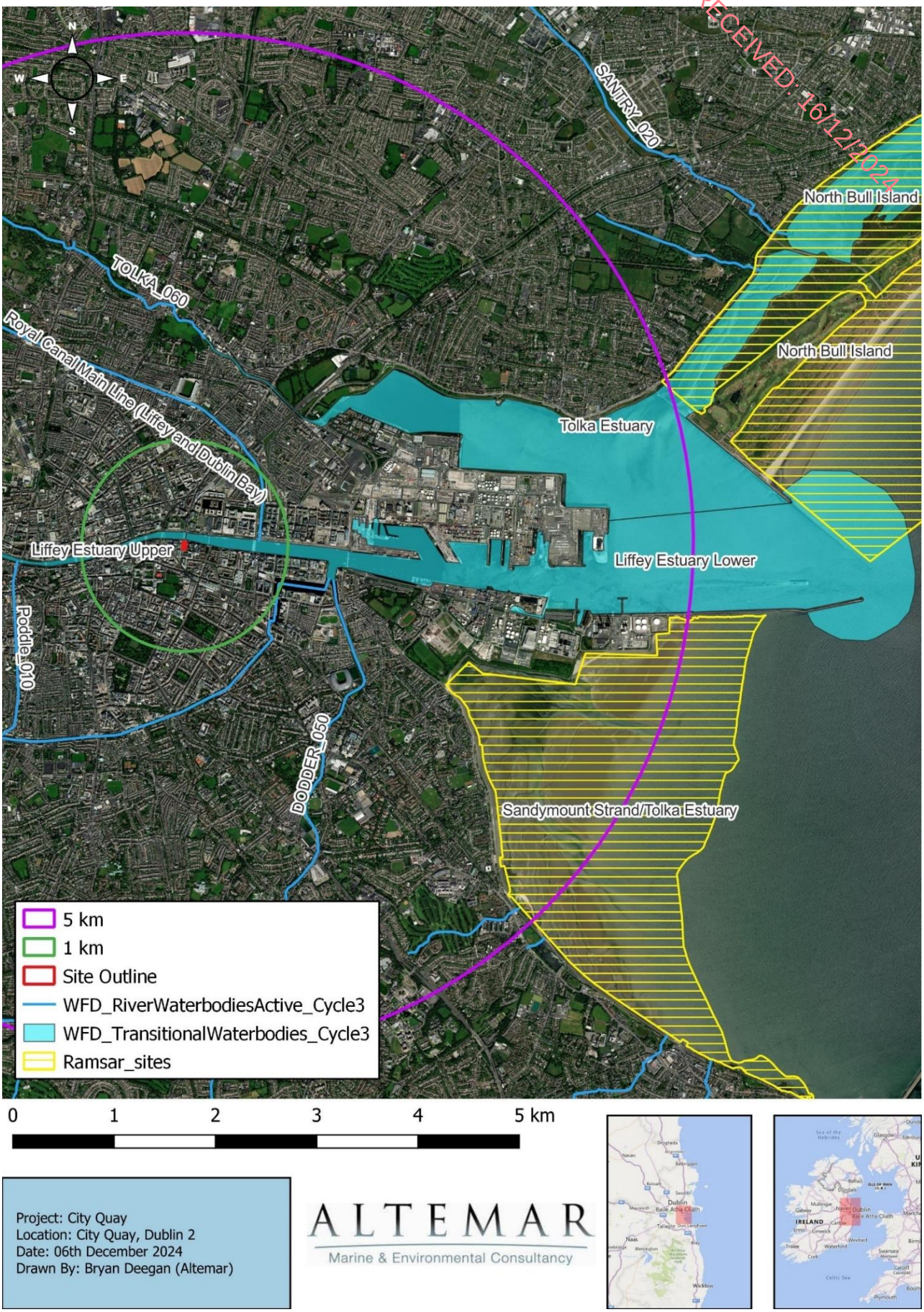


Figure 7.10. Waterbodies and Ramsar sites proximate to the proposed development site



7.3.3 Species Data

It should be noted that no species of conservation importance were noted on site, based on NPWS and NBDC records at fine resolution.

Figure 7.11. Species recorded within the 2km2 grid (O13S) are seen in Table 7.2

Date of last record	Species Name	Designation
28/06/2020	Common Frog (*Rana temporaria)*	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex V || Protected Species: Wildlife Acts
05/06/2016	Black Guillemot (*Cepphus grylle)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
17/10/2014	Black-headed Gull (*Larus ridibundus*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	Black-legged Kittiwake (*Rissa tridactyla*)	Protected Species: Wildlife Acts || Threatened Species: OSPAR Convention || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
01/01/2017	Brent Goose (*Branta bernicla)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
02/08/2016	Common Kingfisher (*Alcedo atthis*)	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Linnet (*Carduelis cannabina*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Common Starling (*Sturnus vulgaris*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
18/06/2017	Common Tern (*Sterna hirundo)*	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
13/02/2013	Common Wood Pigeon (*Columba palumbus*)	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
31/12/2011	Great Cormorant (*Phalacrocorax carbo*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
06/06/2017	Herring Gull (*Larus argentatus)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
31/12/2011	House Sparrow (*Passer domesticus)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
31/12/2011	Lesser Black-backed Gull (*Larus fuscus)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
02/08/2016	Little Egret (*Egretta garzetta)*	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex I Bird Species

Date of last record	Species Name	Designation
04/06/2016	Mallard (*Anas platyrhynchos)*	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
31/12/2011	Mew Gull (*Larus canus*)	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
01/01/2017	Mute Swan (*Cygnus olor)*	Protected Species: Wildlife Acts || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
30/12/2016	Rock Pigeon (*Columba livia)*	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
31/12/2011	Tufted Duck (*Aythya fuligula)*	Protected Species: Wildlife Acts || Protected Species: EU Birds Directive || Protected Species: EU Birds Directive >> Annex II, Section I Bird Species || Protected Species: EU Birds Directive >> Annex III, Section II Bird Species || Threatened Species: Birds of Conservation Concern || Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
26/04/2020	Butterfly-bush (*Buddleja davidi*i)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
22/05/2013	Cherry Laurel (*Prunus laurocerasus)*	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species
18/09/2012	Giant Hogweed (*Heracleum mantegazzianum*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
31/07/2009	Indian Balsam (*Impatiens glandulifera*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
07/06/2018	Japanese Knotweed (*Fallopia japonica*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
10/09/2019	Narrow-leaved Ragwort (*Senecio inaequidens*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
26/04/2020	Sycamore (Acer pseudoplatanus)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
22/05/2013	Three-cornered Garlic (*Allium triquetrum*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
22/05/2013	Traveller's-joy (*Clematis vitalba*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> Medium Impact Invasive Species
09/08/2021	Harlequin Ladybird (*Harmonia axyridis*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
03/04/2008	Andrena (*Melandrena) nigroaenea*	Threatened Species: Vulnerable
06/07/2020	Large Red Tailed Bumble Bee (*Bombus (Melanobombus) lapidarius)*	Threatened Species: Near threatened
15/07/1977	Megachile (*Delomegachile) willughbiella*	Threatened Species: Near threatened

Date of last record	Species Name	Designation
06/07/1977	Megachile (*Megachile*) centuncularis	Threatened Species: Near threatened
04/05/2020	Moss Carder-bee (*Bombus (Thoracombus) muscorum*)	Threatened Species: Near threatened
28/11/2018	Common Dolphin (*Delphinus delphis*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
24/01/2001	Striped Dolphin (*Stenella coeruleoalba*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
26/05/2013	Eastern Grey Squirrel (*Sciurus carolinensis*)	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species || Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 || Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
04/05/1980	European Otter *(Lutra lutra)*	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex II || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
25/04/2015	House Mouse (*Mus musculus)*	Invasive Species: Invasive Species || Invasive Species: Invasive Species >> High Impact Invasive Species
15/09/2010	Lesser Noctule (*Nyctalus leisleri*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
15/09/2010	Nathusius's Pipistrelle (*Pipistrellus nathusii*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
15/09/2010	Pipistrelle (*Pipistrellus pipistrellus sensu lato*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
18/05/2006	Soprano Pipistrelle (*Pipistrellus pygmaeus*)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts
01/06/2020	West European Hedgehog (*Erinaceus europaeus)*	Protected Species: Wildlife Acts

An assessment of files received from the NPWS (Code No. 2022_120) which contain records of rare and protected species and grid references for sightings of these species was carried out as part of this assessment. The following table provides a summary of the species identified, the year of identification, survey name and Grid Reference.

Figure 7.12. Recorded species within NPWS Records proximate to the site

Sample ID	Species	Survey Name	Sample Year
5031	Twaite Shad (*Alosa fallax*)	Shad records Central Fisheries Board	N/A
9330	Common Frog (*Rana temporaria*)	Frog – National Frog Survey 2011 additional records	2011

7.4 HABITATS & SPECIES

The field surveys were carried out by Bryan Deegan (MCIEEM) on the 9th & 21st September 2021, 10th August 2022, 26th September 2023 and Jack Doyle (Altemar) on the 30th September 2024. Habitats within the proposed development site were classified according to Fossitt (2000) (Figure 7.11) and the species noted within each habitat are described. Wintering bird and flightline assessments were carried out by Hugh Delaney (ornithologist) on the 14th and 27th December 2021 and Frank Spellman (Altemar) on the 6th and 11th November 2024. Bat surveys, that included an internal and external examination of the buildings on site were carried out on the 9th & 21st September 2021, 10th August 2022, and 30th September 2024 September 2021 and 30th September 2024. An emergent survey was also carried out on 26th September 2023. Habitats within the proposed site outline were classified according to Fossitt (2000) (Figure 7.11).

BL3- Buildings and artificial surfaces

A derelict building with a single small outbuilding is present on site. In addition, there is a large car park to the rear which consists of hard standing and is in active use. As is seen in Appendix 7.1 a bat emergent survey was carried out in the vicinity of these buildings and no bats were observed within or emerging from buildings on site. No species of conservation importance were noted associated with the buildings and artificial surfaces.

Species on site included thistles (*Cirsium arvense, C. vulgare*), creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum spp*.), docks (Rumex spp.), daisy (*Bellis perennis*), clover (*Trifolium repens*), plantains (*Plantago spp*.), nettle (*Urtica dioica*), ivy (*Hedera helix*), red valerian (*Centranthus ruber*), bramble (*Rubus fruticosus*), butterfly-bush (*Buddleja davidii*) and rosebay willowherb (*Chamaenerion angustifolium*). No species of conservation importance or invasive species were noted.

Figure 7.13. Fossitt Habitats on site (See habitat descriptions for the explanation to the Fossitt codes)

Project: City Quay
Location: City Quay, Dublin 2
Date: 06th December 2024
Drawn By: Bryan Deegan (Altemar)

ALTEMAR
Marine & Environmental Consultancy

7.4.1 Evaluation of Habitats

The proposed development site is on built land. No habitats of conservation significance were noted within the site outline.

7.4.1.1 Plant Species

The plant species encountered at the various locations on site are detailed above. No rare or plant species of conservation value were noted during the field assessment. Records of rare and threatened species from NBDC and NPWS were examined. No rare or threatened plant species were recorded in the vicinity of the proposed site.

Invasive Plant species

No invasive plant species that could hinder removal of soil from the site during groundworks, such as Japanese knotweed, giant rhubarb, Himalayan balsam or giant hogweed were noted on site.

7.4.1.2 Bats

As outlined in Appendix 7.1 “There is no evidence of a current or past bat roost in the structures on site, therefore no significant negative impacts on the roosting of these animals are expected to result from the proposed development. Foraging activity was not present.”

7.4.1.3 Fauna

Amphibians/Reptiles

The common frog (*Rana temporaria*) was not observed on site. The common lizard (*Zootoca vivipara*) or smooth newt (*Lissotriton vulgaris*) were not recorded on site. There are no features within the site boundary that could be important to Amphibians/Reptiles.

Terrestrial Mammals

The proposed development site is on built land. No badgers or badger activity was noted on site. No hedgehogs were seen during the site visit. No rare or threatened faunal species were recorded within the proposed development site based on NBDC records.

Birds

The site is not seen as an important wintering bird site due it consisting entirely of built land. As outlined in the 2021 wintering bird/flightline assessment in Appendix 7.2: “*11 bird species were recorded from observations made at the City Quay site. Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA’s). Results also suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, from the observers experience of regular commuting through this part of the city centre these species are not frequently encountered passing through this area. The birds move primarily from roost sites (in the case of Brent Geese for example - the North Bull) on the coast and travel west and northwest further north and east from Dublin city centre. A nearby site being surveyed in Fairview concurrently in the same period that these surveys were conducted found Brent Geese were following the Tolka river from the coast as a route to negotiate towards feeding grounds inland. This would appear to be the closest flight path to the city centre identified and some distance from this site.*’

Furthermore, a flightline/wintering bird assessment was conducted in November 2024 by Frank Spellman (Altemar). Flightlines of species recorded across the two surveys are demonstrated in 7.12-7.14. Species recorded which are considered to be conservation interests in general and specifically for sites in the vicinity of the proposed site were herring gull, black-headed gull and cormorant.

Herring gull was the dominant species observed. 65 observations of 90 individuals were recorded overall. Flight path estimates averaged 36m and ranged from 10 – 120m. The main pattern observed by flight path mapping was the tendency of this species to utilise the quay-side of the buildings along the banks of the Liffey to navigate. This was reflective of observations during surveys. A large proportion of birds flying from west to east and vice versa which crossed of the proposed site appeared to do so due to the significantly lower height of structures in the north of the proposed site while flying along the quays. A significant proportion of birds which cross over the site in a general

north-south direction appeared to do so for the same reason, as the existing structures in the north of the proposed site are multiple storeys lower than buildings along the south quays in the vicinity of the proposed site.

Two observations of black-headed gull were recorded of two individuals flying at an estimated 30m and 60m each. These individuals flew in an east direction along the south Quays to the north of the proposed site, similarly to a large proportion of herring gull observations.

One observation of cormorant was made of an individual flying east along the River Liffey at an estimated 20m height. The river is likely used as foraging habitat for cormorant, as well as navigating to and from foraging areas upstream and downstream towards Dublin Bay.

Flight paths over the proposed site were generally taken by birds crossing over the northern, lower portion of the site while navigating along the quayside of buildings along the river before continuing on along the quay side of buildings. Flights over the main body of the site appeared to be taken due to the lower nature of the on-site structures in the north compared to the surrounding area. It is likely that in the presence of structures on the proposed site of the same or higher altitude of adjacent buildings, alternative routes within the vicinity of the proposed site would be taken will minimal diversion and energetic expenditure.

Figure 7.14. Herring Gull flightlines

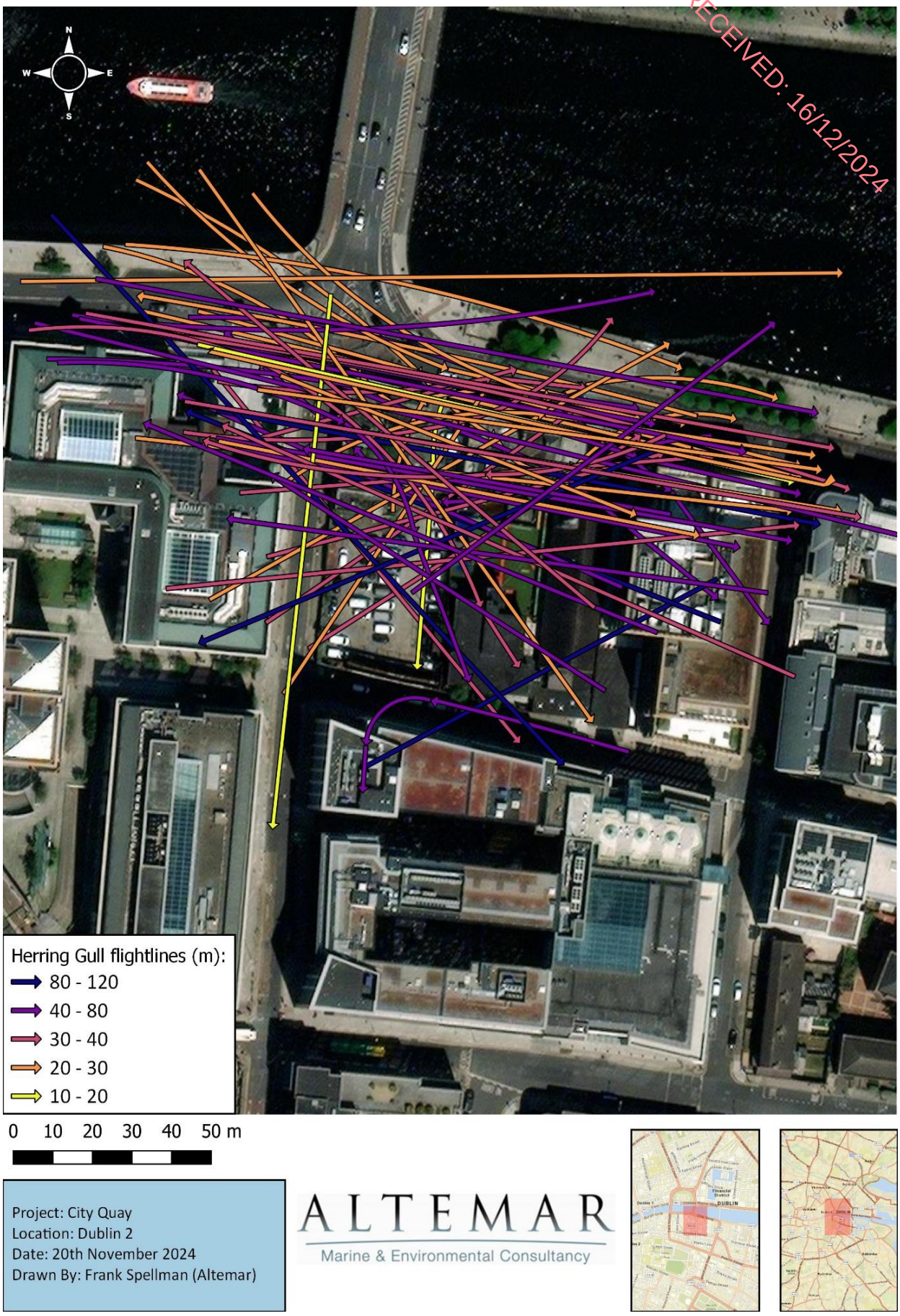


Figure 7.15. Black-headed Gull flightlines

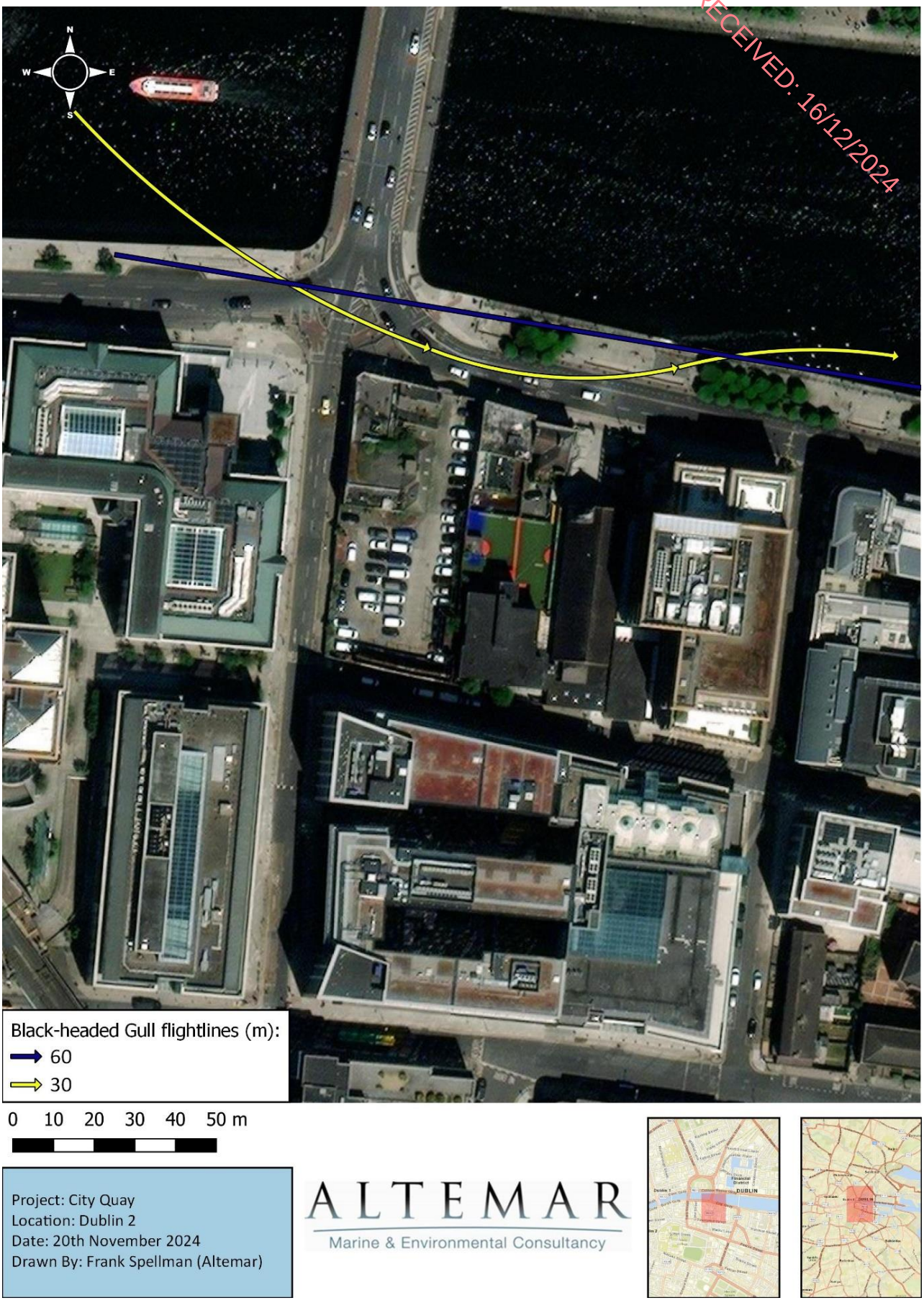
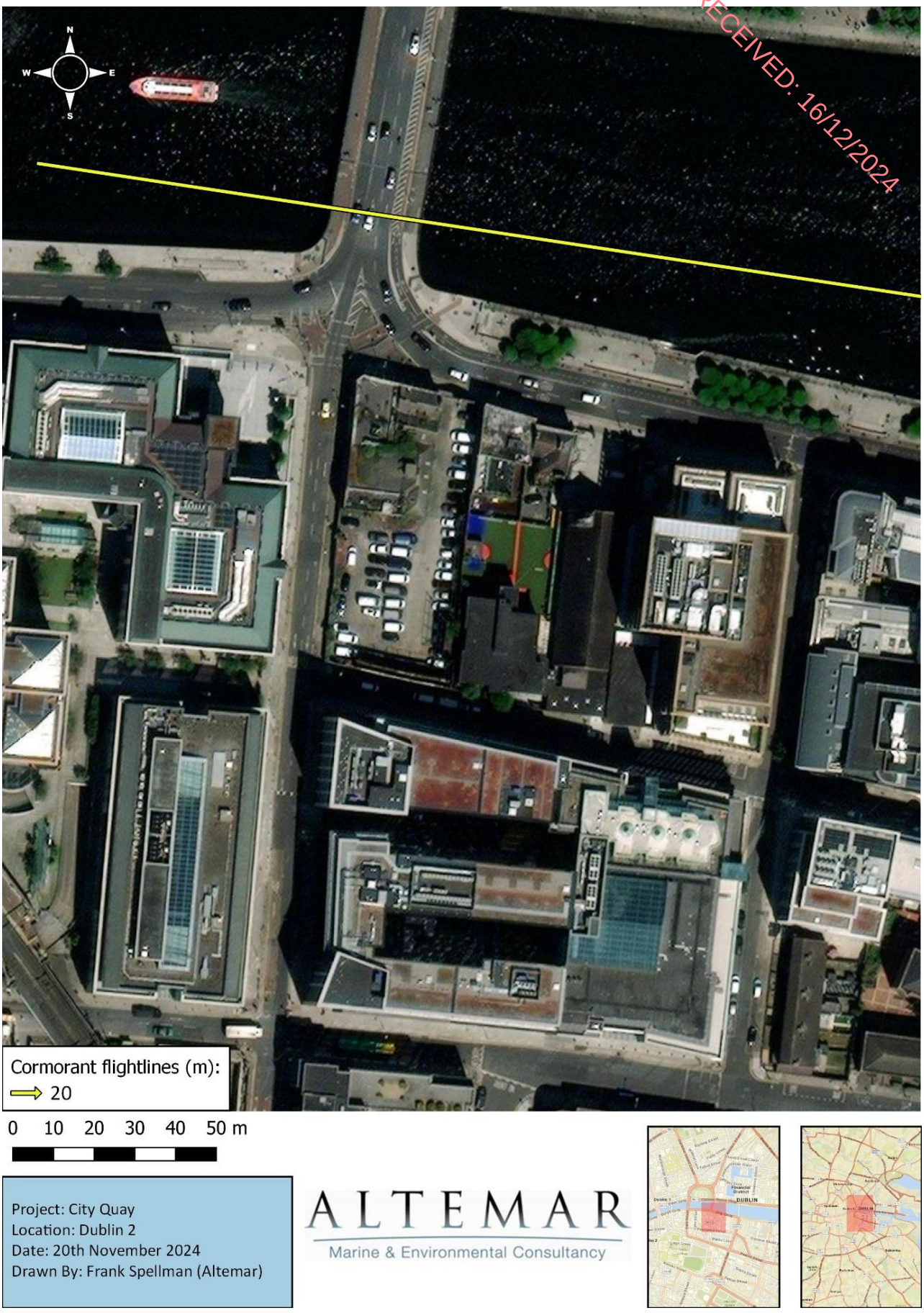


Figure 7.16. Cormorant flightlines



7.5 DO NOTHING SCENARIO

Should the proposed development not take place it would be expected that the buildings on site would continue to deteriorate and that the biodiversity value of the site could improve.

7.6 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

A description of the project is included in Chapter 2 Description of the Proposed Development.

Existing buildings are located and are proposed to be demolished as part of the initial stages of the works. Excavations are also proposed to allow for 2 basement levels and foundations.

The proposed building extends to 14 floors above ground floor and also contains 2 basement levels.

The Proposed Development is described in further detail in Chapter 2 (Description of the Proposed Development). The characteristics of the proposed development with regard to hydrology environment are outlined below.

7.6.1 Foul Sewage

The foul drainage has been designed in accordance with Industry standards - the Building Regulations and in accordance with the recommendations contained in the Technical Guidance Documents, Section H and will be laid strictly in accordance with Irish Water's requirements for taking in charge.

The foul discharge from the proposed development was determined to be 12.94 l/s (DWF[2]). This will be discharged to the combined sewer proximal to the site which ultimately discharges to Ringsend WwTP for treatment. Irish Water recently completed work on an €80 million, 400,000 population equivalent upgrade to the Ringsend Wastewater Treatment Plant. These upgrades to the WWTP were scheduled to be completed in the first quarter of 2021 and were completed in Q4 2021. Ringsend is the largest wastewater treatment plant in Ireland and was built to treat the wastewater for the equivalent of 1.64 million people. Currently the plant services over 40% of the national population and is treating wastewater for the equivalent of 1.9 million people.

This newly completed upgrade will accommodate the current demand, support planned housing in the Dublin Region and will improve the quality of the treated wastewater discharged to the Liffey estuary.
This capacity upgrade is one part of an overall investment of €400 million by Irish Water in the Ringsend Wastewater Treatment Plant Upgrade Project. Subject to planning permission, the overall upgrade project will enable full treatment of wastewater for the equivalent of 2.4 million people, meeting all foreseeable development needs to at least 2025.

7.6.2 Surface Water Drainage

7.6.2.1 Construction

The key civil engineering works which will have a potential biodiversity including the hydrological environment during construction of the proposed development are summarised below.

- Demolition of existing buildings on site.
- Excavations are required for foundations of the proposed buildings and installation of associated services included within the development.
- Excavations for the two (2) no. basement levels.
- Possible discharge of collected rainwater during excavation works and groundworks (the extent of which is dependent on the time of year development works are carried out);
- Construction activities will necessitate storage of cement and concrete materials, temporary oils, and fuels on site. Small localised accidental releases of contaminating substances including hydrocarbons have the potential to occur from construction traffic and vehicles operating on site.

[2] *Dry Weather Flow - the average daily flow to a waste water treatment works (WWTW) during a period without rain*

- Localised excavations (cuts) and infill (build-up) as part of the designed elevation changes across the proposed development site.

7.6.2.2 Operation

The proposed surface water network design has been designed in accordance with The Greater Dublin Regional Code of Practice for Drainage Works. The Greater Dublin Strategic Drainage Study (2005) identified issues of urban expansion leading to an increased risk of flooding in the city and a deterioration of water quality. This arises where soil and natural vegetation, which is permeable to rainwater and slows its flow, is replaced with impermeable hard surfaces. The proposed surface water network design has been designed in accordance with The Greater Dublin Regional Code of Practice for Drainage Works.

The proposed development will attenuate the surface water on site before discharging to the combined public sewers in either City Quay, Moss Street or Gloucester Street. There will be no increase in impermeable area arising from this proposed development application and therefore the previously permitted surface water drainage proposals including Sustainable urban Drainage Systems (SuDS) will remain as current.

Although the existing site is brownfield in nature, the proposed development will limit storm water discharge to 2l/s, in accordance with the Greater Dublin Regional Code of Practice for drainage works. The discharge will be restricted using a flow control device - Hydrobrake, located at the first chamber upstream of the connection to the discharge pipe exiting the site to the existing Irish Water combined sewer system.

The proposed development design incorporates SuDS, Green Blue Roofs and Control of Paving / Grassed areas respectively.

Refer to Engineer's Report (CS Consulting Engineers, 2024) submitted as part of this planning application which details the proposed separate foul and surface water drainage system.

The proposed development consists of a building 14 stories in height. This is within the built-up urban environment of Dublin City.

7.7 POTENTIAL IMPACTS/EFFECTS OF THE PROPOSED DEVELOPMENT

The proposed development will involve the removal of the existing terrestrial habitats on site and considerable re-profiling and excavations, in addition to the construction of a 14-storey building. It should be noted that a Construction Environmental Management Plan (CEMP) and an AA Screening/NIS accompany this EIAR. The quality, magnitude and duration of potential effects of the proposed development are defined as per EPA Guidance (EPA, 2022) seen in Table 1.2 of Chapter 1.

7.7.1 Demolition/Construction Phase

The proposed development will involve the removal of the existing terrestrial habitats on site and considerable re-profiling and excavations, in addition to the construction of a 24-storey building. It should be noted that a Construction Environmental Management Plan (CEMP) and an AA Screening/NIS accompany this EIAR. The quality, magnitude and duration of potential effects of the proposed development are defined as per EPA Guidance (EPA, 2022) seen in Table 1.2 of Chapter 1.

In the absence of mitigation measures the overall development of the site is likely to have direct negative impacts upon the existing habitats, fauna and flora within the site. Direct negative effects will be manifested in terms of the removal of the site's internal and perimeter habitats. The removal of these habitats will result in a loss of species of low biodiversity importance. The area is not deemed to be an important foraging area for terrestrial mammals or birds. The potential impacts of the proposed demolition/construction of the development are outlined below:

7.7.1.1 Designated Conservation sites within 15km

The proposed development is not within a designated conservation site. It should be noted that the proposed development site is located 15m from the River Liffey and the nearest Natura 2000 site is South Dublin Bay and Tolka Estuary SPA, located 1.9 km downstream of the proposed demolition and construction site. The nearest pNHA

is Royal Canal pNHA (located 0.7 km from the subject site) and the nearest Ramsar site is Sandymount Strand/Tolka Estuary (located 2.9 km downstream).

Given the nature of the demolition and construction works and the subject site's proximity to the River Liffey (15m), due to the risk of surface water and dust entering the River Liffey directly, out of an abundance of caution it is considered that there is a direct hydrological pathway to designated conservation sites located within Dublin Bay, downstream of the River Liffey, namely, South Dublin Bay (SAC & pNHA), South Dublin Bay and River Tolka Estuary SPA, Sandymount Strand/Tolka Estuary Ramsar site, North Dublin Bay (SAC & pNHA), North Bull Island SPA & North-West Irish Sea SPA.

In the absence of mitigation measures surface water runoff and dust during site demolition and clearance works could potentially impact on the River Liffey and downstream conservation sites, with water quality or downstream/upstream impacts, due to the tidal nature of the River Liffey proximate to the site. Ensuring water quality and compliance with Inland Fisheries Ireland "*Guidelines on the Protection of Fisheries during construction works in and adjacent to waters*"[3] and the Water Pollution Acts would be seen as the primary method of ensuring no significant impact on designated conservation sites. There will be no discharge to the River Liffey or drainage networks. Standard construction phase mitigation in relation to onsite, works, will be in place and no impact is foreseen in relation to designated conservation sites.

Effects: Low adverse / International / Negative Impact / Not significant / short term. Mitigation is needed to limit the potential impact from contaminated surface water and dust.

7.7.1.2 Biodiversity

The impact of the development during construction phase will be a loss of existing habitats and species on site. It would be expected that the flora and fauna associated with these habitats would also be displaced.

Terrestrial mammalian species

No protected terrestrial mammals were noted on site. Loss of habitat and habitat fragmentation may affect some common mammalian species.

Effects: Slight effects / site / reversible effects/ negative effect / not significant / short term/likely.

Flora

No protected flora was noted on site. Site clearance will remove the flora species on site.
Effects: Slight effects / site / reversible effects/ negative effect / not significant / short term/likely.

Bat Fauna

No bats were noted roosting on site. No bats were noted emerging from buildings on site. No significant impacts on bats are foreseen.

Effects: Slight effects / site / reversible effects/ Negative effect / Not significant / short term/likely. Mitigation is needed in the form of a pre-construction survey.

Aquatic Biodiversity

In the absence of any mitigation on site, due to the proximity of the estuarine element of the River Liffey and the potential for dust during demolition, surface water runoff during the removal of material off site into road drainage and pumping of unmitigated surface/ground water from excavations to the watercourse, there is potential for downstream/upstream impacts on biodiversity from contaminated runoff, silt, dust and petrochemicals.

Effects: Moderate adverse / national / Negative Impact / reversible/ short term/likely/not significant. Mitigation is needed in the form of control of silt and petrochemical and dust during construction.

[3] https://www.fisheriesireland.ie/sites/default/files/migrated/docman/2016/Guidelines%20Report%202016.pdf

Bird Fauna

No birds of conservation importance were nesting on site. Herring gull were not nesting on site but there is potential that herring gull could potentially nest on site.

Effects: Slight effects / site / reversible effects/ Negative effect / Not significant / short term/likely. Mitigation is needed in the form of a pre-construction survey in relation to nesting birds if constructed during nesting season.

7.7.1.3 Operational Phase

Once constructed, the site would be seen as a stable ecological environment. However, in the absence of mitigation, appropriate measures should be taken to prevent surface water run-off into adjacent habitats and in particular the River Liffey.

7.7.1.4 Designated Conservation sites within 15km

There is potential for silt laden surface water to exit the site and enter surface water networks and the River Liffey.

Effects: Slight effects / site / reversible effects/ Negative effect / Not significant / long term/likely. Standard mitigation is required in relation to discharges off site.

7.7.1.5 Biodiversity

Terrestrial mammalian species

No protected terrestrial mammals were noted on site. The site will be cleared during the construction phase.

Effects: Neutral / site / Not significant / long term/likely.

Flora

No protected flora was noted on site. The site will be cleared during the construction phase.

Effects: Neutral / site / Not significant / long term/likely.

Bat Fauna

The proposed development will change the local environment as new structures are to be erected and some of the existing vegetation will be removed. No bat roosts will be lost due to this development. As the site will have been cleared no potential roosting habitats will be on site.

Effects: Neutral / site / Not significant / long term/likely.

Aquatic Biodiversity

Due to the proximity to the estuarine element of the River Liffey and the hydrological pathway to designated sites, there is potential for downstream impacts on biodiversity from silt.

Effects: Slight effects / site / reversible effects/ Negative effect / Not significant / long term/likely. Standard mitigation is required in relation to discharges off site.

Bird Fauna

Results of the 2021 flightline assessment (Appendix 7.2) suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, and that these species are not frequently encountered passing through this area. As outlined in the 2024 flightline assessment survey '*Flight paths over the proposed site were generally taken by birds crossing over the northern, lower portion of the site while navigating along the quay-side of buildings along the river before continuing on along the quay side of buildings. Flights over the main body of the site appeared to be taken due to the lower nature of the on-site structures in the north compared to the surrounding area. It is likely that in the presence of structures on the proposed site of the same or higher*

altitude of adjacent buildings, alternative routes within the vicinity of the proposed site would be taken will minimal diversion and energetic expenditure. Following mitigation measures, it is not anticipated that the construction or operation of the proposed development will result in negative impacts on flights by species listed as Qualifying Interests of nearby SPAs or on the BoCCI status of bird species present in the surrounding area.'

Impacts: Low adverse / site / Negative Impact / Not significant / long term. Mitigation is required in the form ceramic fritted coating on the 12th and 13th floor corner windows at the quayside of the building to prevent bird strikes.

7.7.2 'Worst Case' Scenario

7.7.2.1 Impacts of Fire

Following construction of the development, fire would be seen as the main potential risk to the biodiversity, with potential downstream impacts. Runoff will discharge to the public combined sewer which discharges to Ringsend WWTP.

7.8 AVOIDANCE, REMEDIAL AND MITIGATION MEASURES

7.8.1.1 Demolition/Construction Phase

A project ecologist will be appointed and consulted in relation to all onsite drainage during works. Consultation with the project ecologist will not involve the formulation of new mitigation measures for the purposes of protecting any European Site and relate only to the implementation of those mitigation measures already stated in the submission or the formulation of mitigation for other purposes.

All demolition and site clearance works methodologies will have prior approval of a project ecologist.

Staging of project will be carried out to reduce risks of onsite drainage to the River Liffey and subject to the approval of a project ecologist.

Upon lifting of the concrete slab/hard standing and removal the building on site, the soils will be assessed for contamination prior to any site discharge.

Local drainage connections, gullies and watercourses will be protected from dust, silt and surface water throughout the works.

All onsite drainage network connections will be blanked off and sealed at the first phase of the demolition works.

There will be no entry of solids or petrochemicals to the drainage network during the works

The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.

Spill containment equipment shall be available for use in the event of an emergency. The spill containment equipment shall be replenished if used and shall be checked on a scheduled basis.

Demolition works should be carried outside of bird nesting season (March 1st-31st August). Should this not be possible, a pre-works check by a qualified ecologist should be undertaken to ensure nesting birds are absent. This would include nesting gulls on buildings if present.

Pre-Construction survey for bats. If bats are found roosting on site a derogation licence will be required from the NPWS prior to demolition.

7.8.1.2 Operational Phase

Standard operational mitigation measures as outlined in the engineering report will be in place to protect surface water networks from pollution.

Mitigation measures to address potential risk of bird strikes will involve the installation of ceramic fritted glass on the corner windows of the twelfth and thirteenth floors at the quay-side of the building.

7.9 PREDICTED IMPACTS OF PROPOSED DEVELOPMENT

7.9.1 Demolition/ Construction Phase

Based on the successful implementation of the construction phase controls and the works to be carried out in accordance with this EIAR and the accompanying AA Screening/NIS, it is likely that there will be no significant ecological impact arising from demolition or construction works proposed for the proposed project. Designated conservation sites will not be impacted by the proposed development during construction.

A robust series of standard construction phase control measures have been outlined to ensure that the proposed project does not impact on species or habitats of conservation importance, conservation areas or watercourses during construction. It is essential that these measures are complied with to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the River Liffey, which is potentially the primary vector of impacts from the site, is not impacted during demolition and operational phases of the proposed development.

No significant environmental impacts are likely in relation to the construction of the proposed development.

Effects: Slight effects / site / Negative effect / Not significant /short term/likely. Standard mitigation will be in place on site.

7.9.2 Operational Phase

Based on the successful implementation of the operational phase controls and the works to be carried out in accordance with this EIAR and the accompanying AA Screening/NIS, it is likely that there will be no significant ecological impact arising from operation of the proposed project. Designated conservation sites will not be impacted by the proposed development.

Standard operational phase control measures have been outlined to ensure that the proposed project does not impact on species or habitats of conservation importance, conservation areas or watercourses. It is essential that these measures are complied with, to ensure that the proposed works do not have downstream environmental impacts. These measures are to protect the River Liffey, which is potentially the primary vector of impacts from the site, is not impacted during operational phases of the proposed development.

No significant environmental impacts are likely in relation to the operation of the proposed development.

Effects: Slight effects / site / Negative effect / Not significant / long term/likely. Standard mitigation will be in place on site.

7.10 MONITORING

7.10.1 Construction Phase

A project ecologist will be appointed to oversee demolition and construction works on site.

7.10.2 Operational Phase

No operational monitoring/reinstatement is required.

7.11 REINSTATEMENT

7.11.1 Demolition/Construction Phase

A project ecologist will be appointed to oversee demolition and construction works on site.

7.11.2 Operational Phase

No operational monitoring/reinstatement is required.

7.12 CUMULATIVE IMPACTS OF THE PROPOSED DEVELOPMENT

A full description of relevant cumulative developments is included in Chapter 2. No terrestrial habitats, fauna or flora of significant conservation importance were found on site. However, the site is located 15m from the River Liffey, which has the potential to carry silt and pollutants downstream to designated conservation sites.

There are several proposed developments located in the area immediately surrounding the subject site. The following is a list of planning applications in close proximity to the subject site as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal[4],:

Ref. No.	Location	Development
3176/23	Block B, George's Quay, Dublin 2, D02 VR98	Permission for amendments to permitted development Reg. Ref. 2532/20 on a site of 0.1483ha. at Block B, George's Quay, Dublin 2, D02 VR98. The site is bound by George's Quay to the north, George's Quay Plaza to the south, 1GQ to the east and Tara Street Station / Railway bridge to the west. Luke Street runs through the site in a north / south direction with the existing building bridging across Luke Street from 1st floor level. The proposed development comprises of the following: (i) provision of an external roof terrace to the north and east elevations with glass balustrade and accompanying stairs and lift; (ii) reduction of stone parapet height at 5th floor level and introduction of glass balustrade; (iii) removal of mezzanine floor at ground floor level, including associated stairs to provide for a double height space; (iv) demolition of the existing portico located between the subject building and 1GQ to the east; (v) enlarged emergency exit door at ground floor level on eastern facade of ground floor west; (vi) provision of additional door and service hatch at ground floor level on the western facade; (vii) relocation of door at ground floor level on eastern facade; (viii) relocation of PV panels and adjustments to plant at roof level; (ix) provision of 2 no. antennas at roof level; (x) adjustment to plant screen to enclose extended stair/lift core at roof level; (xi) increase in the height of the glazed guarding of the 6th floor terrace; (xii) internal core revisions; (xiii) all associated site development works. The proposed development will result in a reduction in gross floor area from 7,791 sq.m. to 7,683 sq.m.
4532/23	24-26 City Quay, Dublin Docklands, Dublin 2, D02 NY19	RETENTION : the proposed retention development consists of an extension to the permitted plant area by c. 23 sqm, to allow for installation of new air handling equipment for the premises and associated ducting at roof level. There will be no increase to the permitted scale or overall height of the building. There is also no increase in the permitted floor area as a result of this application.
4647/23	Custom House, Custom Quay, Dublin 1, D01 W6X0	PROTECTED STRUCTURE: The development will consist of proposed six non-permanent signs to railings of Custom House, which is a Protected Structure
2877/21	(0.2695 ha) located at Brunswick Villas, Shaw Street, Townsend Street and Spring Garden Lane, Dublin 2	Planning permission for amendments to a permitted development under Reg. Ref.: 4778/19 at a site (0.2695 ha). The permitted development includes construction over the rail line which traverses the site and also within the vaulted foundations supporting the rail line. The proposed development consists of the following: i. Amendments to the footprint of the basement and layout of the ground floor level. There is also a slight reduction in the floor area from 1st – 8th floor due to the proposed amendments. ii. The basement level in Plot A will increase by 235.3 sqm to provide a total overall basement gross floor area of 1,340 sqm providing retail and office uses. iii. The basement floor level in Plot B will be lowered from -4.2 to -5.25m. iv. The amendments at ground floor level include general layout changes, new revolving door and glazed screen to office reception on Townsend Street; change of use of permitted office unit (355 sqm) at ground floor level fronting Brunswick Villas retail/café/restaurant use; the provision of a new entrance lobby to access basement level and associated elevational changes; revisions to bicycle parking and refuse area to provide additional retail floor space and; minor

[4] https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de

Ref. No.	Location	Development
		elevational changes to ESB substation fronting Garden Lane. v. Proposed revisions to Shaw Street elevation at 6th floor and the provision of an additional terrace access door. vi. Additional plant at roof level over 8th floor providing for a slight increase of 1.75m to the overall building height. vii. The proposed amendments result in an additional 969.6 sqm of retail/café/restaurant space and a minor increase in overall development GFA by 285.3 sqm to a total 15,400 sqm. viii. And all ancillary and associated works, including elevational works.
4359/22	Site of 0.064 hectares on lands formerly including No. 1 and No. 3 Prince's Court, at the junction of Gloucester Street South and Prince's Street South, Dublin 2	Permission for development of 5 no. illuminated external signs and building facade lighting. This external signage and lighting application relates to a previously permitted development (Dublin City Council reg. ref. 4805/19, which has been amended by Dublin City Council reg. ref. 3088/20) currently under construction on a site of 0.064 hectares on lands formerly including No. 1 and No. 3 Prince's Court, at the junction of Gloucester Street South and Prince's Street South, Dublin 2. The proposed development consists of the erecting of (a) 2 no. high level internally illuminated signs, 1 no. on the southern elevation (8.533 sq m) and 1 no. on the northern elevations (4.053 sq m) and (b) 3 no. low level internally illuminated signs, 1 no. on the western elevation (0.611 sq m) and 2 no. double-sided projecting roundels on the western and northern elevation each (0.566 sq m each), and the provision of building facade lighting on the western and northern elevations.
2976/21	44-53 Townsend Street, 33-39 Moss Street, 31-33 Gloucester Street South, and including Bracken's Lane, Dublin 2.	RETENTION: Retention permission to amend a mixed use development permitted under ABP Ref. PL 29S.249415; DCC Reg. Ref. 2711/17 (as amended by DCC Reg. Refs. 3265/20 and 3995/20) located on a site of c. 0.4 hectares. The development to be retained consists of: an increase in basement floor area of 86 sqm; minor increases to internal floor areas at upper levels totalling 41.5 sqm; reconfiguration of internal layouts; amendments to external elevations including revised glazing and façade treatments and arrangements, a reduction in parapet height levels, revisions to the roof level including revised access, vent and plant arrangement, and all ancillary site development works above and below ground.
3194/20	Church Of The Immaculate Heart of Mary, 10-12 City Quay, Dublin 2.	PROTECTED STRUCTURE: Permission for development at the The Church of The Immaculate Heart of Mary, a protected structure, RPS No. 1864 at City Quay, Dublin 2. The development will consist of the following: 1. External works to the existing church building to include pointing and stone repair to the south elevation and campanile; -new lead capping to the external buttress wall at the south east corner; -insertion of 6 no. slate vents into the east and west church roof; 2. Works to main entrance area to include a new short access ramp, adjustment to existing door for accessibility purposes, new matwell and tiled floor finish; relocation of 2 no. holy water fonts; relocation Shrine to Our Lady, demolition of existing timber lobby screen and doors and replacement with new glazed screen and doors, additional light and wiring to new routes; 3. Works to the western annex to include the removal of 1 no. existing confessional boxes, installation of an accessible WC and installation of new fire escape doors in eastern elevation. 4. Works to the main body of the church to include redecoration, renewal of flooring and selected joinery, relocation of 4 no. shorter pews from the rear to the front of the main aisle to allow for new wheelchair spaces, new Olea Sacra to the western nave, new floor finish, repair work to stained glass window in the north facade, repair works to the window above the altar as well as various repairs to the windows on east and west facades, replacement of cover plates to the donation boxes; Insertion of a new Olea Sacra cabinet on the narthex adjacent to the existing baptismal font; 5. Works to the altar area to include commissioning of a new altar and steps to the pulpit; 6. Refurbishment of stained glass windows including repair work to stained glass window in North facade, repair work to the window above the altar, as well as various repairs to the windows in the east and west facades; 7. Works to the sacristy area; 8. New brass guardrail to choir area;

Ref. No.	Location	Development
		9. Upgrading of mechanical and electrical services throughout the building including the addition of new lighting and wiring routes, installation of new destratification fans suspended from the roof.
3088/20	Lands (c.0.064ha) including 1 and 3, Prince's Court at the junction of Gloucester Street South and Prince's Street South, Dublin 2.	Planning Permission for amendments to previously permitted hotel development (Reg. Ref. 4805/19) on lands (c. 0.064ha) including No. 1 and No. 3 Prince's Court, at the junction of Gloucester Street South and Prince's Street, South, Dublin 2. The proposed amendments comprise of the following: - Provision of 5 no. additional hotel rooms, increasing the number of rooms from 108 no. permitted to 113 no. - Infill of permitted set back on the 6th floor level to the west elevation with set back now occurring at 8th floor and part 7th floor level. - Infill of permitted set back at 6th floor level on the south elevation with the set back now occurring on the 7th floor level. - Infill of permitted set back at 7th floor on the south east elevation with the set back now occurring at 8th floor level. - Minor modifications to the permitted entrance door detail. - Internal reconfiguration of the permitted 6th and 7th floor hotel layout. The overall development will result in a minor increase the total floor area from GFA of c. 4,655.2 sq.m previously permitted under Reg. Ref. 4805/19 to c. 4,795.7 sq.m GFA.
4805/19	Lands (c.0.064ha) including 1 and 3, Prince's Court at the junction of Gloucester Street South and Prince's Street South, Dublin 2.	Planning permission for demolition of existing 2 no. storey building and the construction of a 10 no. storey hotel development on lands (c.0.064ha) including no 1 and no 3 Prince's Court at the junction of Gloucester Streeet South and Prince's Street South. The proposed development comprises of the following: • Demolition of existing 2 no. storey building (c.803.6sqm) • Construction of a 10 no. storey (c.31.9 metres) hotel development of GFA of c. 4,661.9 sqm in total, comprising of 108 no. bedrooms at 1st floor level to 9th floor level inclusive and public bar/restaurant/reception area (c.199.2 sqm) with related back of house/service areas at ground floor level, over part basement level (c. 304.5 sqm). • A number of set backs will be provided including: at 9th floor level on south elevation; at 6th floor level on the south and west elevations; at 7th floor level on the rear portion of the south elevation; at 1st floor level from the boundary of the south eastern corner of the site. • Provision of ancillary hotel services including public bar, seating area, restaurant, reception area and back of house areas at ground floor level; • The proposed development also includes the provision of; part basement level to accommodate ancillary back of house services, plant, attenuation and 12 no. bicycle spaces; provision of a new entrance at the corner of Gloucester Street South and Prince's Street South; a secondary entrance/exit to Gloucester Street South; a secondary entrance/exit to Prince's Street South accessing ground floor level back of house areas including refuse store and linen store; provision of ESB substation and associated switchroom at ground floor level fronting Gloucester Street South, provision of green roof, provision of plant, PV panels and AOV at roof level, and all other ancillary and enabling works necessary to facilitate the proposed development.
2711/17	44-53 Townsend Street, 33-39 Moss Street, 31-33 Gloucester Street South, and including Bracken's Lane, Dublin 2.	Site of c.0.4 ha. The proposed development will consist of the demolition of all building and structures on site (c.4,065sqm gross floor area (GFA) and the development of an 8 storey (with partial 7th floor level setback for balconies) hotel of c. 10,688 sqm GFA (comprising 393 no. bedrooms and related hotel facilities including reception area, lounge, kitchen, bin store, switch room and ESB substation) over basement plant level (157sqm); an 8 storey (with partial 7th floor level setback for balconies) aparthotel of c. 5,412 sqm GFA (comprising 136 no. studios/suites and related aparthotel facilities including reception area, bin store, switch room and ESB substation) over basement plant level (63 sqm); an 8 storey

Ref. No.	Location	Development
		(with 7th floor level setback for balconies) aparthotel of c. 2875 sqm GFA (comprising 66 No. studios/suites and lobby area) over ground floor restaurant unit (482 sqm) and basement plant level (136 sqm); an 8 storey apartment block of c. 2,068 sqm GFA comprising 21 no. apartment units in a mix of 14 no. 1 bed and 7 no. 2 bed units (with associated enclosed bicycle parking, bin store at ground floor) and ground floor retail unit (110sqm); plant room and screened plant at roof level. The development will also include: vehicular and pedestrian access via Moss Street (onto Bracken's Lane) and Gloucester Street South and pedestrian access via Townsend Street; cycle parking, associated lighting; associated signage; associated site servicing (foul and surface water drainage and water supply); solar panels; the provision of SuDS measures (including attenuation tank below ground and sedum roofs). The scheme also includes: all hard and soft landscaping; boundary treatments; changes in level; and all other associated site excavation and site development works above and below ground.
4054/19	2-16 Tara Street	2.7 Jan 2020 planning permission was granted for amendments to previously permitted development, Reg. Ref. 3794/18 / ABP Ref.302980-18 at site of 0.2 ha bound by Georges Quay to the north, Tara Street to the west, Poolbeg Street to the south and Tara Street Station to the east. The site includes lands of the former Tara House, 2-16 Tara Street, Dublin 2, D02 W597 and existing Tara Street Station concourse accessed from Georges Quay. Kennedy's Public House (The Workshop) at no. 10 Georges Quay is contiguous but does not form part of the site or the application. No. 10 George's Quay (Licensed Premises) is a Protected Structure RPS 3175. 2.8 The amendments comprise of the following: • Internal reconfiguration of the permitted hotel development within the podium element to provide for 1 no. additional hotel floor and a mezzanine level between ground and first floor within the permitted building envelope increasing the number of hotel bedrooms from 107 no. to 157 no. • The revised hotel layout will increase the overall floor area from 16,557 sq.m to 17,992 sq.m comprising of c. 5,784 sq.m of hotel accommodation, c. 9,670 sq.m. gross floor area of office accommodation and c. 361 sq. metres gross floor area of restaurant accommodation. • The additional floor will increase the permitted podium element from 4 no. floor levels to 5 no. floor levels plus mezzanine level within the permitted building envelope increasing the number of floors from 22 no. to 23 no. plus mezzanine level. There will be no change to the overall permitted height of the building at 88m or the permitted height of the podium at 22.7m. • Minor modifications to the façade detail as a result of the additional floor level. • Minor modifications to the permitted colonnade along Tara Street. • Minor modifications to basement level B2 to reduce the number of car parking spaces from 16 no. to 15 no.
3560/19	Nos. 5, 6 & 7 George's Quay, Nos. 1A, 1, 3, 5, 7, 9, 11 and 13 and 15 Tara Street and No. 11 Poolbeg Street, Dublin 2.	Granted Oct 2019, The Tara Building mixed use proposed development consists of the demolition of existing structures at the following addresses: Nos. 5, 6 & 7 George's Quay, Nos. 1A, 1, 3, 5, 7, 9, 11. 13 and 15 Tara Street and No. 11 Poolbeg Street and the construction of a mixed-use development ranging in height from three to eight storeys, including rooftop plant. The total gross floor area above ground on this building will be circa 4740 square metres and the gross floor area including basement is 5284 square metres. The site area is 0.799 Ha. The ground floor includes a hotel reception/bar/restaurant totalling 150 square metres, a co-working reception and cafe totalling 163 square metres and a cafe/restaurant/retail unit totalling 74 square metres. The first floor comprises a co-working office space with circa 490 square metres of nett office space. The second to seventh floor levels inclusive comprise of hotel use with a total of 116 hotel bedrooms. A breakfast room/bar associated with the hotel is located on the sixth floor opening onto a roof terrace. Three private roof terraces will be provided to hotel bedrooms: one located at fourth floor to the North elevation and two to the South elevation located at third and sixth floors. One basement level, floor area 540 square metres provides ancillary uses to the hotel and retail uses of the

Ref. No.	Location	Development
		building, including plant, bicycle storage, staff amenities and a commercial kitchen. The gross floor area including basement is 5,284 square metres. The proposed development also includes for provision of hotel/retail/cafe/restaurant signage, associated site servicing (foul and surface water drainage, water supply and electricity supply), and all other associated site excavation and site development works above and below ground. The site is bounded by George's Quay to the North, Poolbeg Street to the South and Tara Street to the East. All located at the following addresses: Nos. 5, 6 & 7 George's Quay, Nos. 1A, 1, 3, 5, 7, 9, 11 and 13 and 15 Tara Street and No. 11 Poolbeg Street, Dublin 2.
2532/20	Block B, Georges Quay, Dublin 2, D02 VR98	Granted final permission Dec 2020, planning permission for development on a site of 0.14ha at Block B, Georges Quay, Dublin 2, D02 VR98. The site is bound by Georges Quay to the north, Georges Quay Plaza to the south, 1GQ to the east and Tara Street Station/Railway bridge to the west. Luke Street runs through the site in a north/south direction with the existing building bridging across Luke Street from 1st floor level. The proposed development comprises of the following: • Refurbishment of the existing 5 no. storey building to provide for a new façade treatment to all elevations. • Extension of existing 5th storey set back level in line with the main façade along the northern elevation. • Provision of 2 no. additional floors (2,627 sq.m), set back from the north, east and west elevations. • Provision of a café unit (302 sq.m.) to the west side of the building fronting Georges Quay and Luke Street to the east at ground at mezzanine level • Amendments to the ground floor layout to provide for a new entrance lobby to the office to the east of the building. • Amendments to basement level to provide for a reconfiguration of the car parking spaces, 80 no. cycle parking spaces, 3 no. motorbike spaces, new shower and locker rooms, staff amenities, bin store, managers office and plant room. Access to basement will remain unchanged. • Alterations to the hard and soft landscaping, SUDs drainage provision of plant at basement and roof level, 2 no. accessible terraces at 5th and 6th floor to the north, east and west, green roofs and all other associates site development works necessary to facilitate the development works necessary to facilitate the development.
4826/19	No. 2 Brunswick Villas	Granted Dec 2020 for the demolition of existing property known as No. 2 Brunswick Villas, including existing boundary walls and gateway entrance to Shaw Street and the construction of a new 12 No. apartment development comprising of; 11 No. 1 bedroom units and 1 No. 2 bedroom unit in a mixture of three and six storey buildings. The development will include internal courtyard to rear, new gateway to the existing Brunswick Villas laneway and entrance lobby, plant rooms and bicycle storage areas at ground floor level. All apartments will include balconies to street elevations from first to fifth floors, with setback balconies and balustrades included to fifth floor apartment area. The proposed works are to include all associated site works, ancillary accommodation and drainage at the site.

In relation to the Planning Ref. **4805/19,** A Screening Report for Appropriate Assessment was prepared by OPENFIELD Ecological Services to accompany this planning application. This report concludes with the following: 'This project has been screened for AA under the appropriate methodology. It has found that significant effects are not likely to arise, either alone or in combination with other plans or projects that will result in significant effects to any Natura 2000 area.

A full Appropriate Assessment of this project is therefore not required.'

As part of the assessment of the impact of the proposed development, account has also been taken of cumulative projects, i.e. developments that are currently permitted or under construction within the surrounding area, but whose environmental impact are not yet fully realised within the existing environmental baseline. Following a review of

projects located in proximity to the proposed development it was determined that no significant projects are proposed or currently under construction that could potentially cause in combination effects on designated conservation sites.

Given this, it is considered that in combination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on designated conservation sites will be seen as a result of the proposed development alone or in combination with other projects.

An AA screening/NIS was also carried out for this development. It concluded that 'No projects in the vicinity of the proposed development would be seen to have a significant in combination effect on Natura 2000 sites.'

No significant effects are likely from in combination effects

7.13 INTERACTIONS

The biodiversity elements of this EIAR have involved consultation with a wide section of the Project Team particularly in relation to the Construction Management, design, drainage, lighting and landscape elements of the proposed Project. There are numerous inter-related environmental topics described in detail throughout this EIAR document which are of relevance to the biodiversity chapter. The biodiversity chapter of the EIAR involves interactions with the Land, Soils, Geology and Hydrogeology, Hydrology, Air Quality and Climate, Noise and Vibration, Traffic and Transport, and Waste Management. Following the implementation of mitigation measures outlined in the EIAR the following interactions are noted.

7.13.1 Land, Soils, Geology & Hydrogeology

During the construction phase, excavated soil and subsoil (c. 25,000 m^3) will be generated from the excavations required to facilitate site levelling and construction of the new foundations. It is envisaged to stockpile suitable excavated material for reuse as fill where possible. Where material has to be taken off-site, it will be taken for reuse or recovery, where practical, with disposal as a last resort. As such, there is the potential for impacts on local biodiversity via the proposed excavation and re-profiling works, but this is not expected to impact significantly on surrounding areas Following the implementation of mitigation measures outlined in Chapter 5 and Chapter 7, the predicted effects on biodiversity are ***short to long term, imperceptible,*** and ***neutral.*** The biodiversity of the subject site is likely to improve following the completion of landscaping works.

7.13.2 Hydrology

During the construction and operational phases of development, there is the potential for downstream impacts on the River Liffey and designated conservation sites via contaminated surface water runoff. Following the implementation of mitigation measures outlined in Chapter 6 and Chapter 7, the predicted effects on biodiversity are ***short term, imperceptible,*** and ***neutral.***

7.13.3 Air Quality & Climate

During the construction phase of development, given the nature and scale of the proposed works, there is the potential for dust and materials to enter the proximate watercourses (River Liffey) during site clearance and re-profiling works with the potential for downstream impacts on biodiversity and designated conservation sites. Following the implementation of mitigation measures outlined in Chapter 7 and Chapter 8, the predicted effects on biodiversity are ***short term, imperceptible,*** and ***neutral.***

7.13.4 Noise and Vibration

During the operational phase of the development, there will be an increase in disturbance including noise and vibration that could potentially impact on birds in the vicinity of the works. Following the implementation of mitigation measures outlined in Chapter 7 and Chapter 9, the predicted effects are ***short term, slight imperceptible,*** and ***neutral*** *outside the proposed development site.*

7.13.5 Traffic and Transport

During the construction phase of development, heightened traffic within and immediately surrounding the subject site (resulting from the transport of construction materials and the commuting of workers to the site) has the potential to

impact on local biodiversity through increased disturbance. However, given the location of the development in a densely populated urban environment, with high volumes of traffic, the impacts are not expected to be significant. Following the implementation of mitigation measures outlined in Chapter 7 and Chapter 11, the predicted effects on biodiversity are ***short and long term, imperceptible,*** and ***neutral.***

7.13.6 Waste Management

There is the potential for impacts on local biodiversity and the potential for downstream impacts on proximate watercourses and designated sites via the storage and transportation of waste and pollution from the subject site during the construction phase of development. Following the implementation of mitigation measures designed to reduce the amount of waste produced, manage the wastes generated responsibly and handle the waste in such a manner as to minimise the effects on the environment as outlined in Chapter 7 and Chapter 12, the predicted effects on biodiversity are ***short long term, imperceptible,*** and ***neutral.***

7.13.7 Interactions- Overall

There is potential for interaction between the biodiversity and other chapters outlined in the EIAR, during construction and operation. The mitigation measures that will be put in place for the proposed development will ensure that the impact on biodiversity would be negligible following the implementation of mitigation measures.

7.14 DIFFICULTIES ENCOUNTERED WHEN COMPILING

No difficulties were encountered in the preparation of the Biodiversity Chapter of this EIAR.

7.15 REFERENCES

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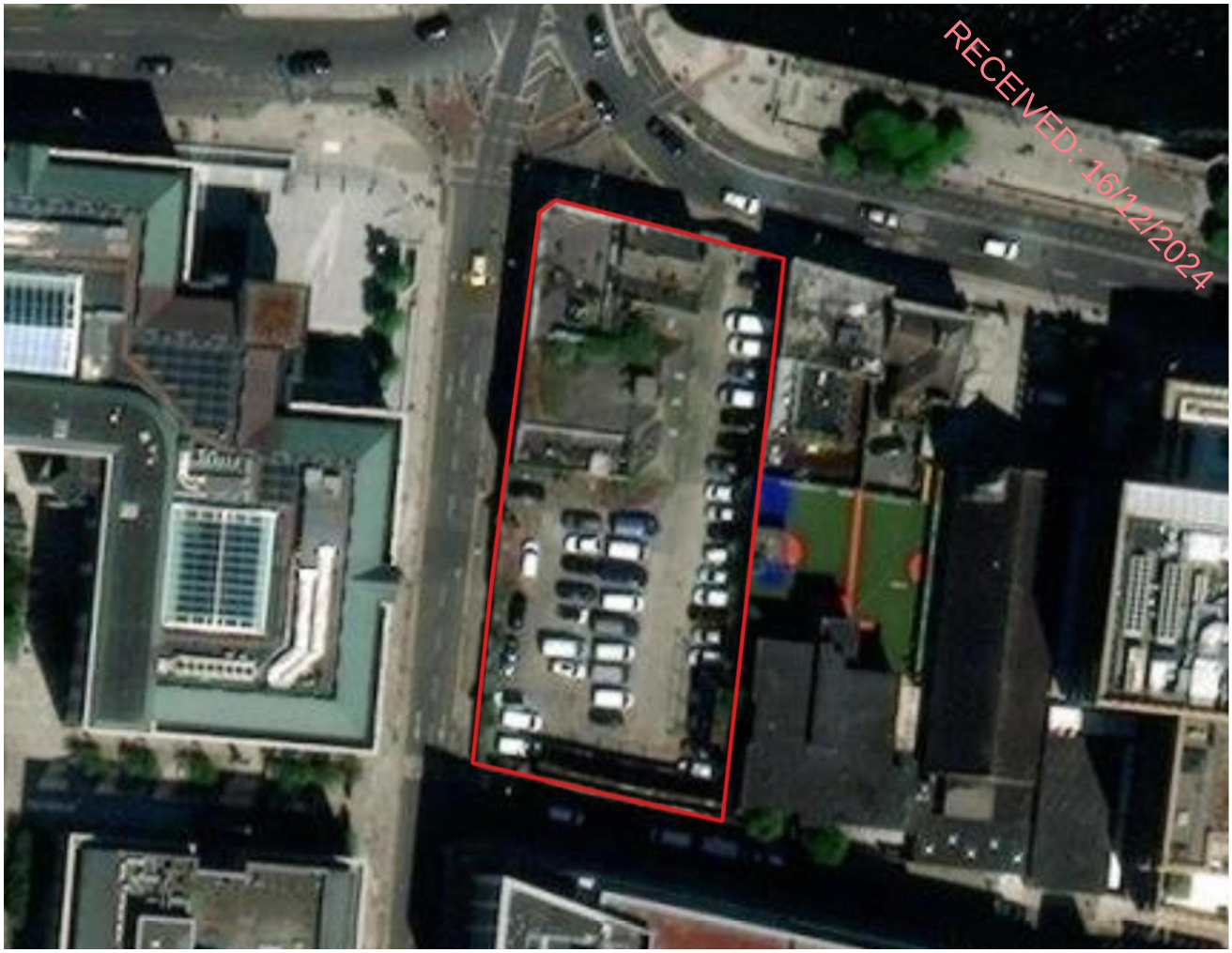
APPENDIX 7.1

BAT FAUNA ASSESSMENT



6th December 2024

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: Ventaway Limited

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Document Control Sheet			
Client	Ventaway Limited		
Project	Bat Fauna Assessment for proposed development at 1-6 City Quay, Dublin 2.		
Report	Bat Fauna Assessment		
Date	6th December 2024		
Version	Author	Reviewed	Date
Planning	Bryan Deegan	Jack Doyle	6th December 2024

SUMMARY

Structure:	Existing derelict building on site.
Location:	1-6 City Quay, Dublin 2.
Bat species present:	None Roosting. No foraging or bats observed emerging from buildings
Proposed work:	Demolition of existing buildings and clearance of site, construction of 14 storey office development.
Impact on bats:	No impacts on roosting bats. No impacts on foraging areas. A derogation licence for the removal of roosting bats is not required.
Survey by:	Bryan Deegan MCIEEM & Jack Doyle (Altemar)
Survey date:	9th & 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024

SITE LOCATION

The proposed works site is located at 1-6 City Quay, Dublin 2. The proposed site outline and location is demonstrated in Figure 1.

PROPOSED DEVELOPMENT

Ventaway Limited intend to apply for a 10-year planning permission for development at a site bound by City Quay to the north, Moss Street to the west and Gloucester Street South to the south, Dublin 2. The site includes 1-4 City Quay (D02 KT32), 5 City Quay (D02 PC03), and 23-25 Moss Street (D02 F854).

The proposed development comprises:

- Demolition of the existing buildings and structures (it is noted the structures or part thereof may be demolished in compliance with a Dangerous Buildings Notice prior to a decision being made);

- Construction of a building up to 14 storeys in height (61.05 metres above ground) over a double basement including office use, arts centre and café, auditorium, and ancillary uses;

- The arts centre is contained at ground and lower ground floor levels;

- The offices are proposed from ground to 13th floor (14th storey) with terraces to all elevations;

- The double basement provides for 11 car parking spaces, 314 bicycle spaces, and 3 motorcycle parking spaces;

- The overall gross floor area of the development comprises 28,569 sq.m. including 910 sq.m. arts centre and 23,501 sq.m. offices;

All ancillary and associated works and development including plant, temporary construction works, public realm, landscaping, telecommunications infrastructure, utilities connections and infrastructure.

The proposed site outline, location, and site survey are demonstrated in Figures 1-3.

Figure 1. *Site outline and location context*

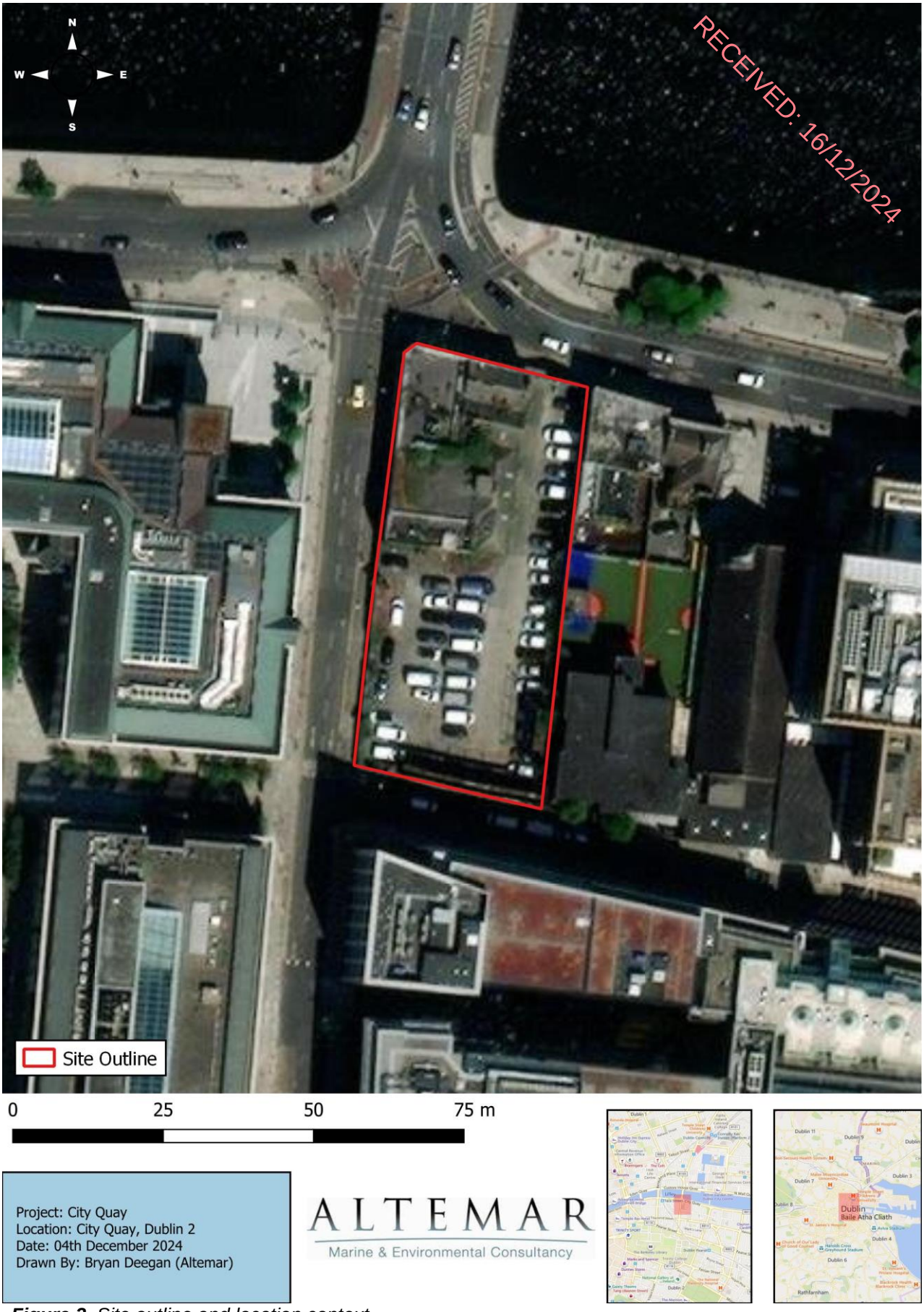


Figure 2. *Site outline and location context*

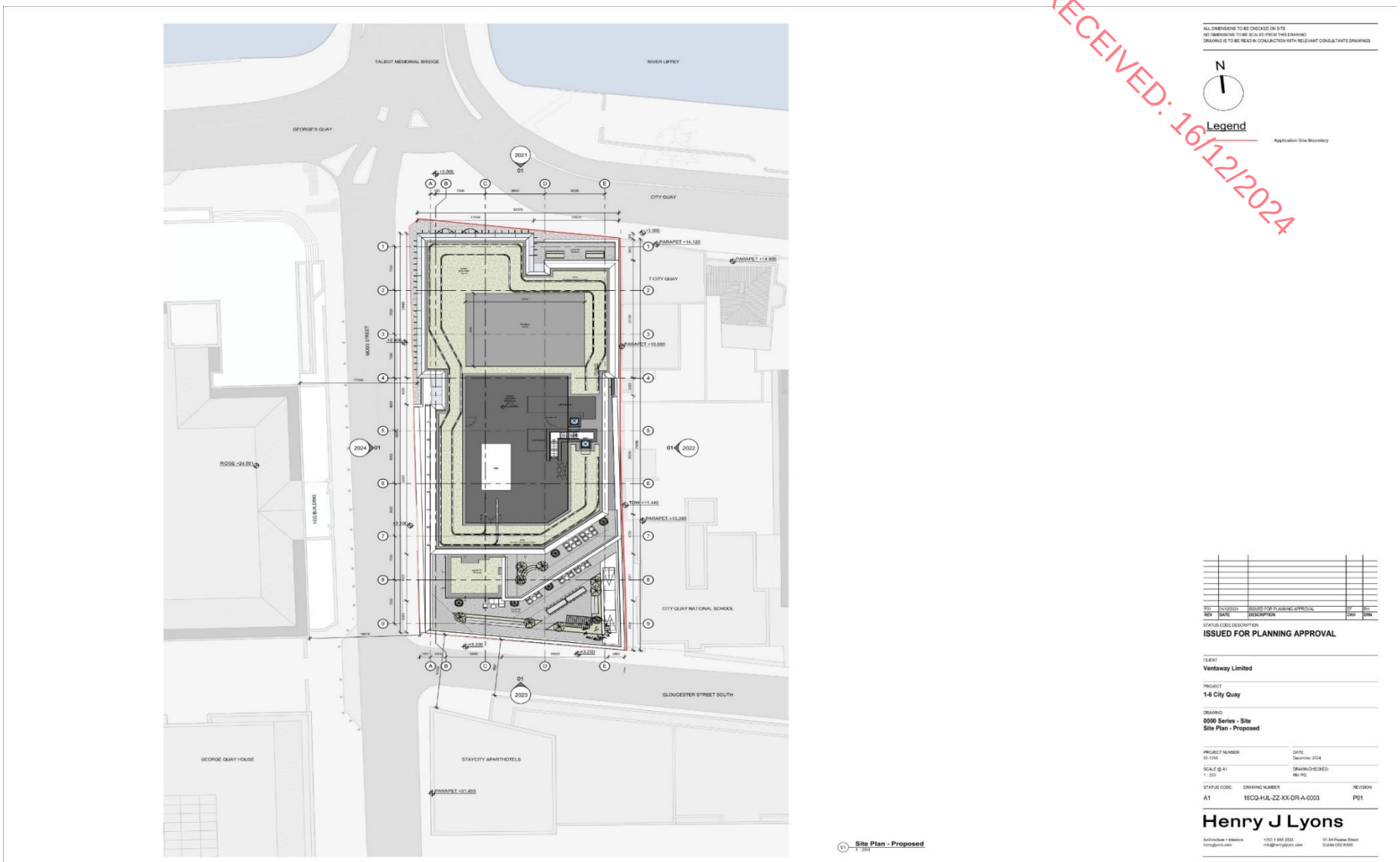


Figure 3. *Proposed site plan*

LIGHTING

A lighting report has been prepared by Penston MEP Consulting to accompany this planning application. The report outlines the following:

- *The proposed lighting installation for the City Quay Development achieves the following:*
- *The luminaire selection adds to the ambience of the main entrance of the building and the communal open space roof terrace areas.*
- *The lighting scheme creates a pleasant environment for the occupants of the open space roof terrace areas.*
- *The lighting scheme creates a save environment for the pedestrians along the walkway of the building.*
- *Luminaire selection limits upward light spill.*
- *The lighting scheme achieves the recommended lux levels in accordance with current regulations and standards.*
- *The lighting scheme achieves good uniformity throughout the varies areas to ensure good visibility at night and is designed in collaboration with the project ecologist.*
- *Co-ordination with the landscape developers will ensure light positions do not clash with planter positions, limiting light obstruction and future maintenance costs.'*

Demonstrated below is the LED Strip lights 'S1' proposed for the external fins of the development

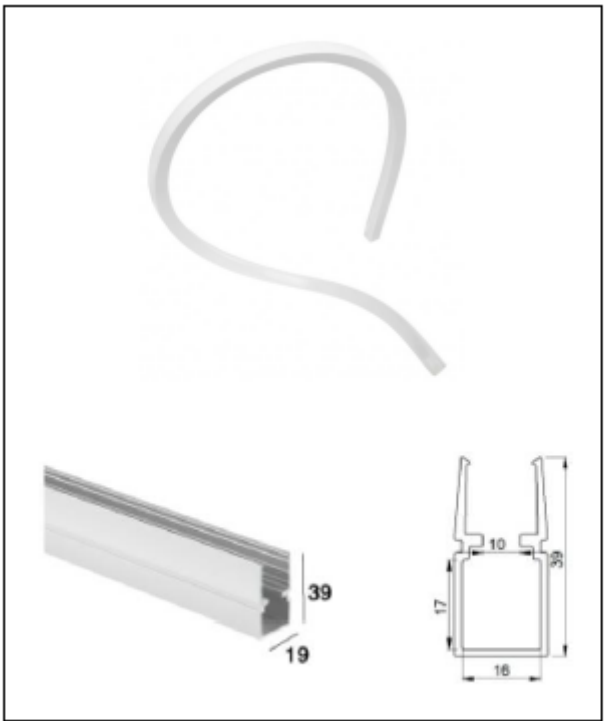


Fig 5. Linealight – Rubber 3D - LED Strip | 112 topLED 10 W DC 24 V, 10 W/m 1096 Lm/m, CRI >90, Dimmable (LED strip – S1, S2 & S4)

Lighting is compliant with bat lighting guidelines and is set to 3000k. The lighting layout is demonstrated in figure 4.

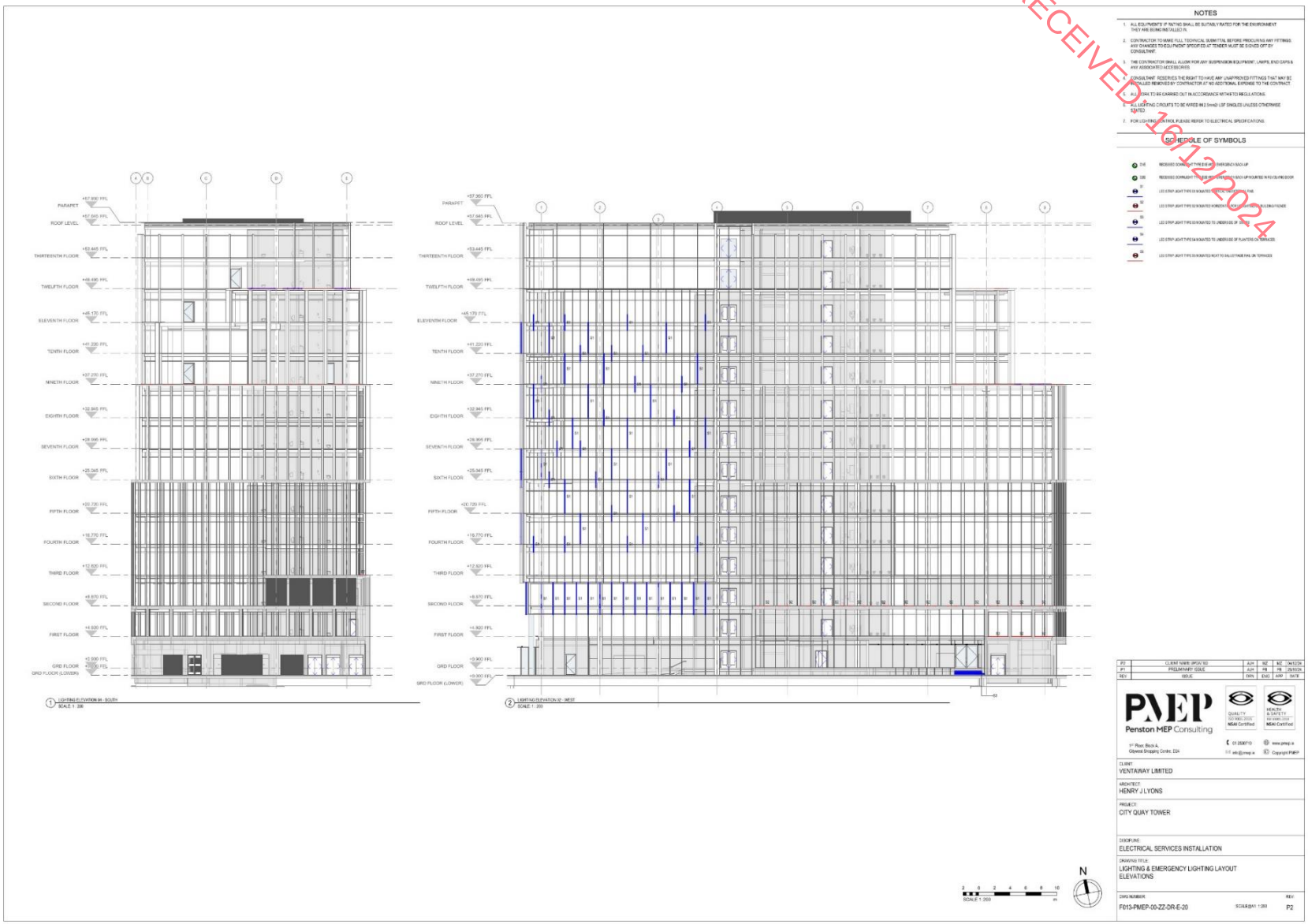


Figure 4. *Proposed elevations and lighting layout*

BAT SURVEY

This report presents the results of site visit by Bryan Deegan (MCIEEM) on the 9th and 21st September 2021, 10th August 2022, and Jack Doyle (Altemar) on the 30th September 2024, during which all buildings were inspected for signs of bat use or presence. A bat emergent/detector was carried out on the 9th and 21st September 2021, 10th August 2022, 26th September 2023 and 30th September 2024. A building inspection survey was carried out on the 21st September 2021, 10th August 2022 and 30th September 2024.

COMPETENCY OF ASSESSOR

This report has been prepared by Bryan Deegan MSc, BSc (MCIEEM). Bryan has over 30 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).

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) were 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*.'

The presence of bats is assessed with reference to their signs; principally staining, droppings, feeding signs such as invertebrate prey remains and the presence of bat fly *Nycteribiidae* pupae, although direct observations are also occasionally made. The nature and type of habitats present onsite are also indicative of the species likely to be present. The exterior and interior of the buildings were inspected for bat presence/access and an emergent survey carried out.

At dusk, a bat detector survey was carried out onsite using an *echo meter touch 2* bat detector to determine bat activity. Bats were identified by their ultrasonic calls coupled with behavioural and flight observations.

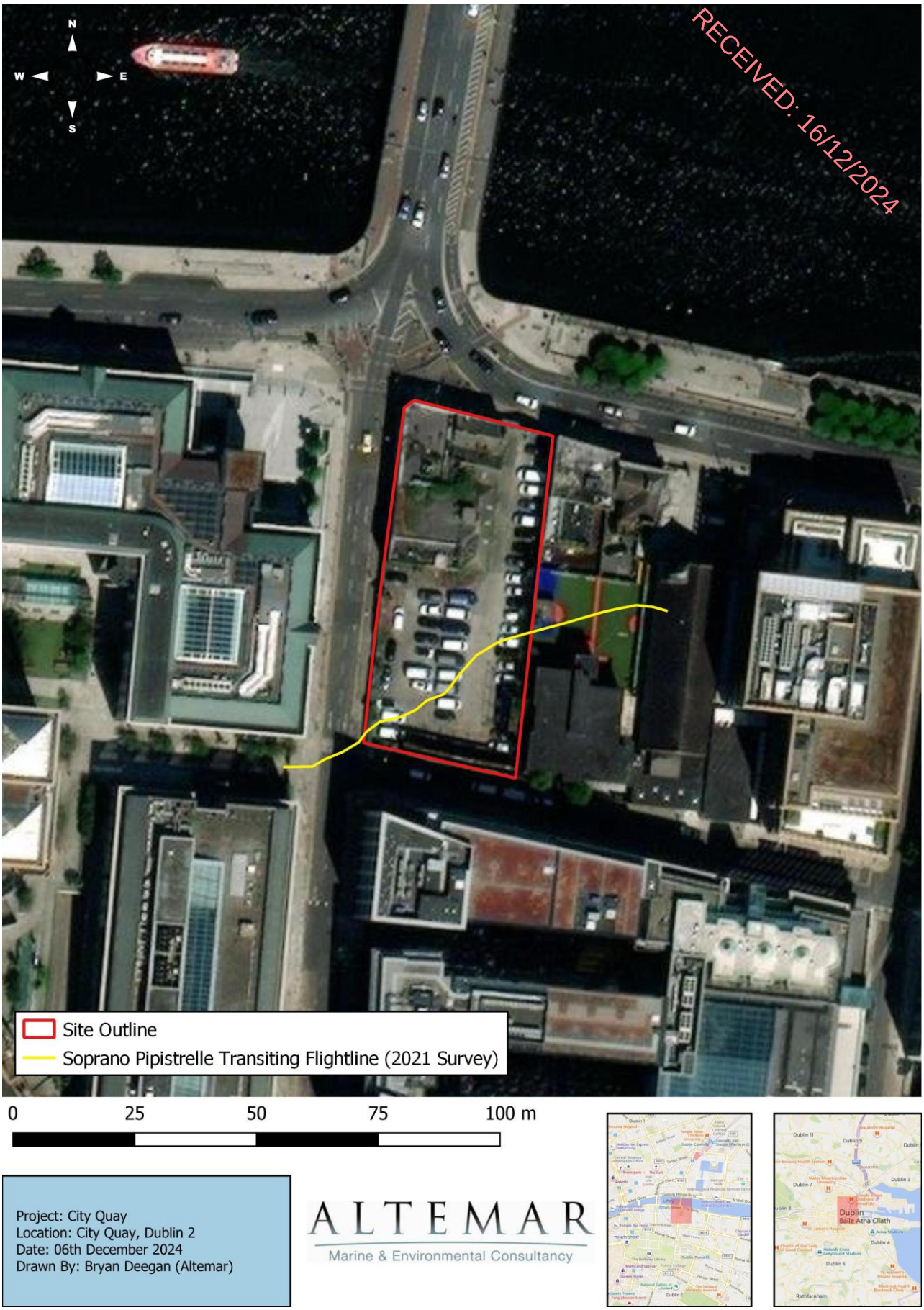


Figure 5. *Map demonstrating bat activity during surveys – Soprano pipistrelle (yellow) (2021)*

SURVEY CONSTRAINTS

The detector surveys were undertaken during the active bat season. Weather conditions were good with mild temperatures greater than 10oC after sunset. Winds were light and there was no rainfall. Insects were observed in flight during all surveys.

REVIEW OF LOCAL BAT RECORDS

The review of existing bat records (sourced from *Bat Conservation Ireland's* National Bat Records Database) within a 2km^2 grid (Reference grid O13S) encompassing the study area reveals that four 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. This is visually represented in Figures 2 - 5. The following species were noted in the wider area: Brown Long-eared Bat (*Plecotus auritus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Whiskered Bat (*Myotis nattereri*), Daubenton's Bat (*Myotis daubentonii),* Natterer's Bat (*Myotis nattereri*), Nathusius's Pipistrelle (*Pipistrellus nathusii*), and Pipistrelle (*Pipistrellus pipstrellus sensu lato*) (Figures 2 - 5).

Table 1: *Status of bat species within 2km^2 grid encompassing the subject site (Reference no. O13S)*

Species name	Record count	Date of last record	Note
Lesser Noctule (*Nyctalus leisleri*)	3	15/09/2010	National Bat Database of Ireland
Nathusius's Pipistrelle (*Pipistrellus nathusii*)	1	15/09/2010	National Bat Database of Ireland
Pipistrelle (*Pipistrellus pipistrellus sensu lato*)	2	15/09/2010	National Bat Database of Ireland
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	1	18/05/2006	National Bat Database of Ireland

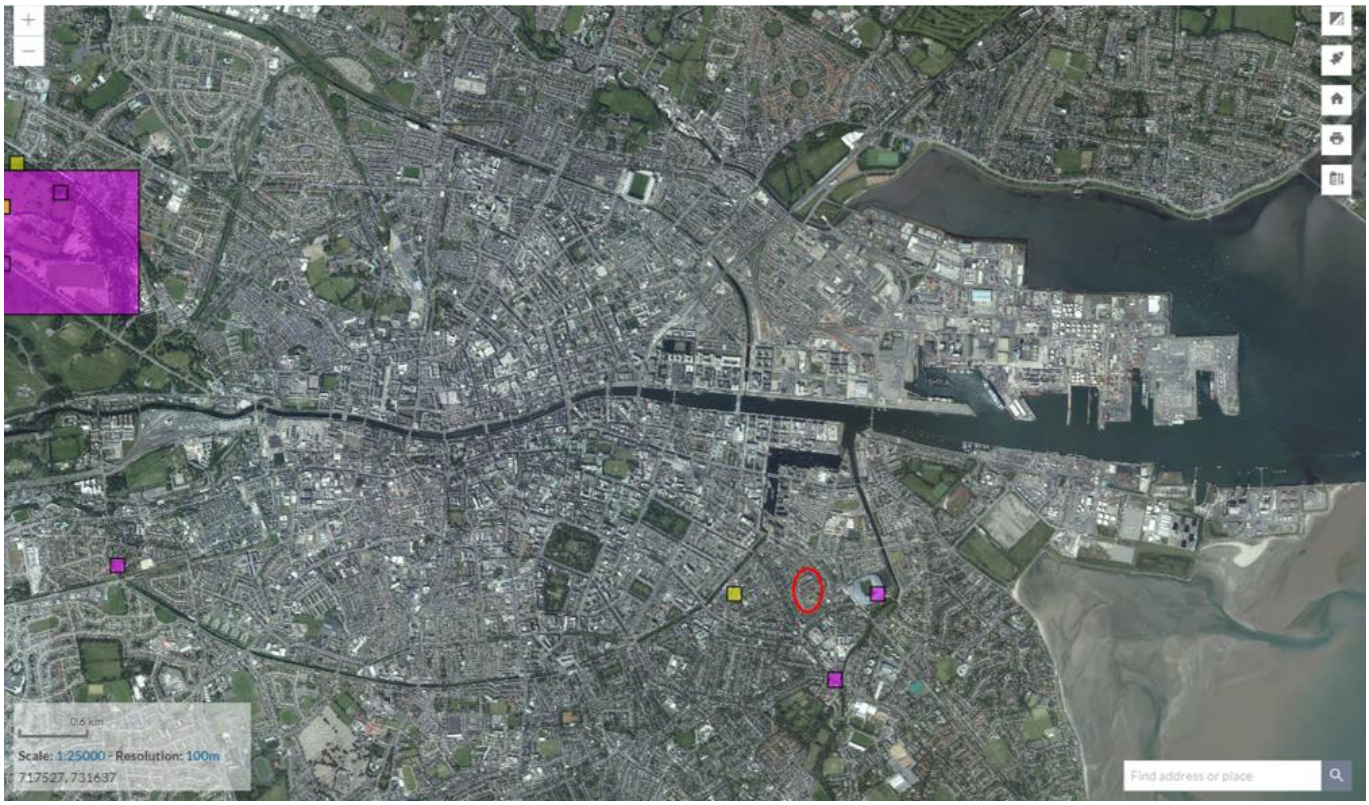


Figure 6. Brown Long-eared Bat (*Plecotus auritus*) (yellow), Daubenton's Bat (*Myotis daubentonii*) (purple), and both Brown Long-eared Bat and Daubenton's Bat (orange) (Source NBDC) (Site – red circle)

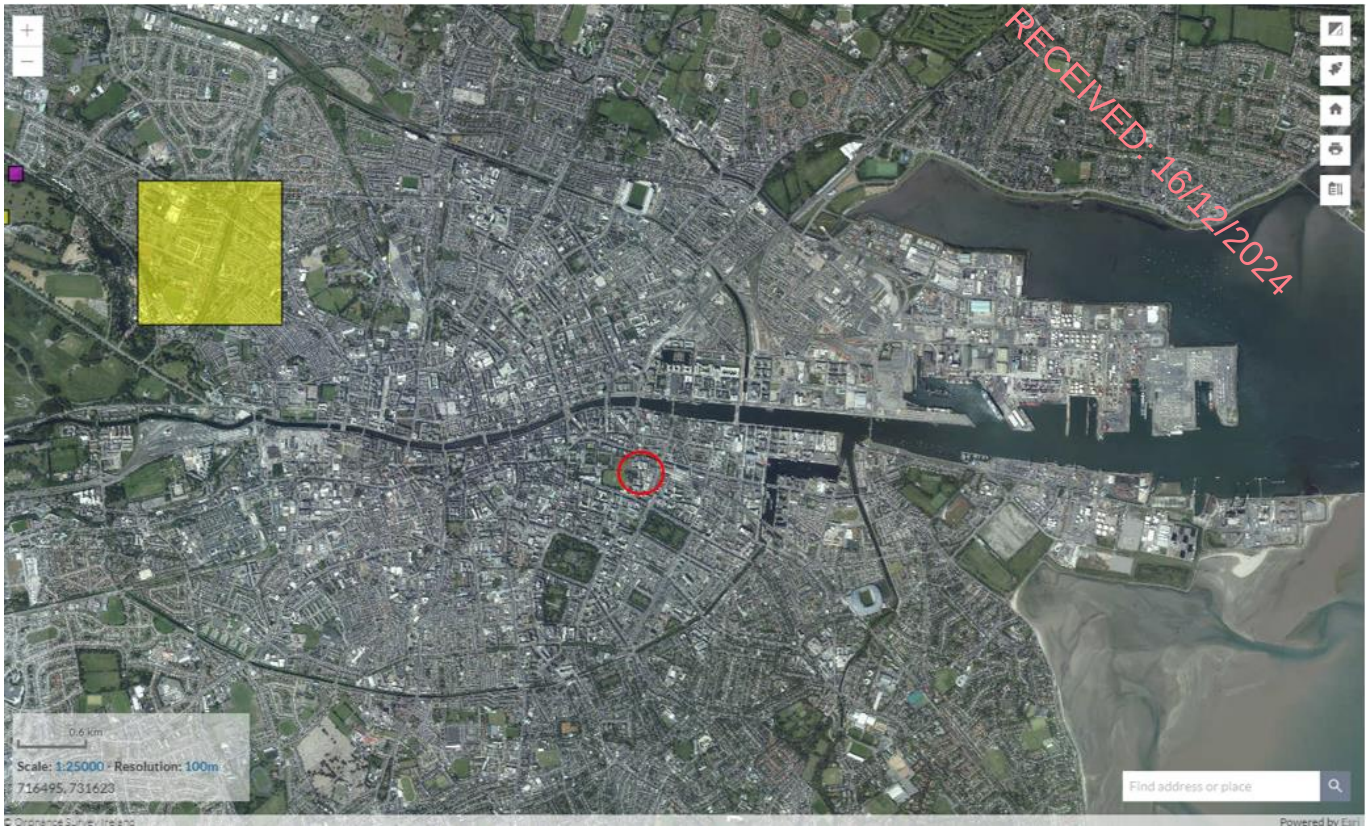


Figure 7. Natterer's Bat (*Myotis natterer* (purple), Whiskered Bat (*Myotis mystacinus*) (yellow), and both Natterer's Bat and Whiskered Bat (orange) (Source NBDC) (Site – red circle)

Figure 8. Nathusius's Pipistrelle (*Pipistrellus nathusii*) (purple), Pipistrelle (*Pipistrellus pipistrellus sensu lato*) (species aggregate) (yellow), and both Nathusius's Pipistrelle and Pipistrelle (orange) (Source NBDC) (Site – red circle

Figure 9. Soprano Pipistrelle (*Pipistrellus pygmaeus*) (purple) (Source NBDC) (Site – red circle)

POTENTIAL ROOST SURVEY

The site comprised of a main building and a small outbuilding and a car park. No trees of bat roosting potential were on site. At dusk a survey was carried out by the detector to assess if bats emerged from the buildings. An internal inspection of the buildings was carried out. No bats were observed emerging from onsite buildings. No evidence of bat presence or activity was noted internally within the buildings on site in 2021, 2022 and 2024.

Plate 1. Proposed development site (main building)

Plate 2. Building view from carpark

Plate 3. Existing lighting on site.

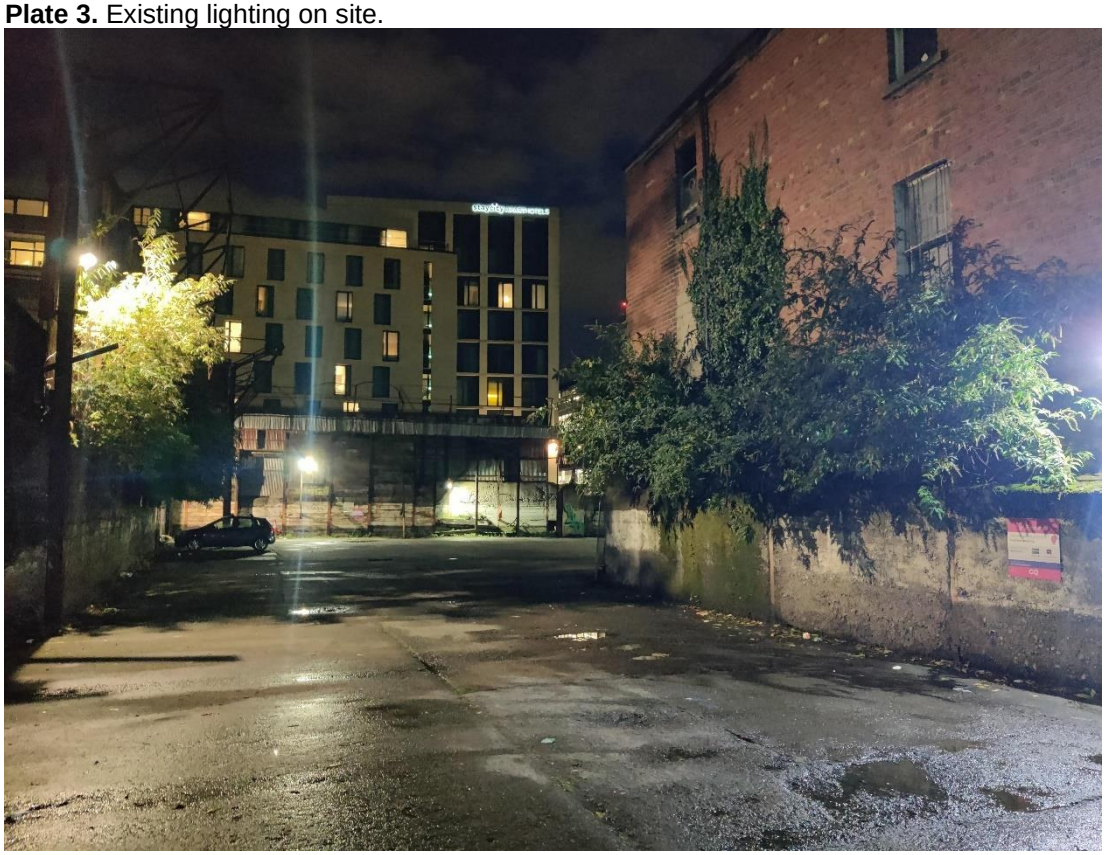
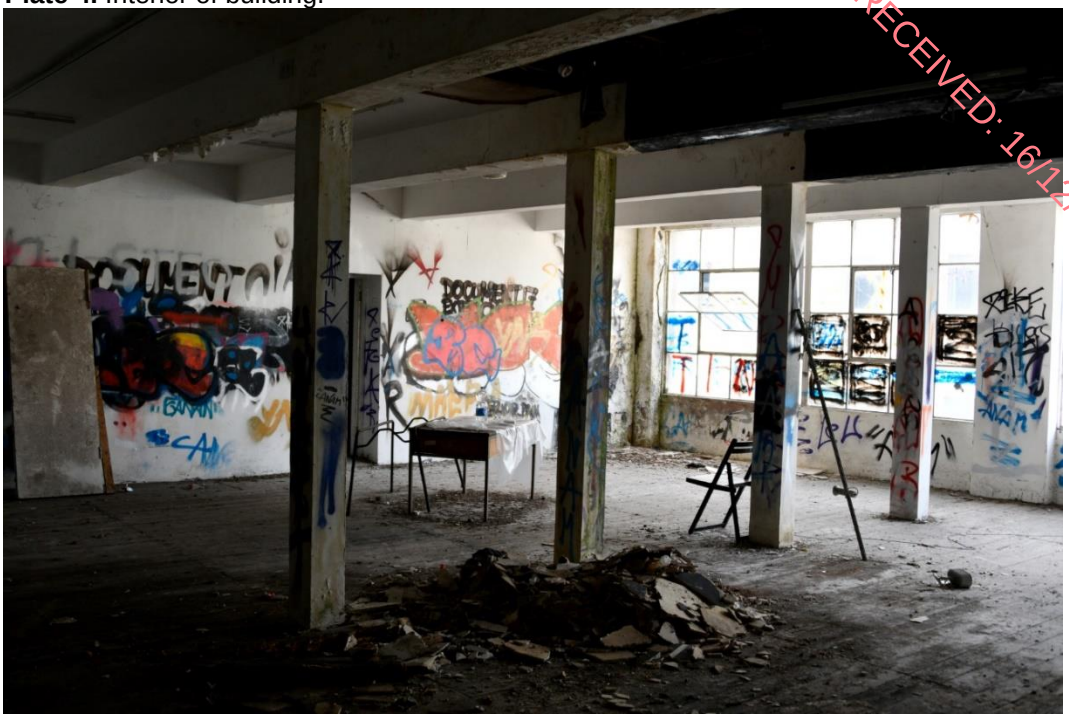


Plate 4. Interior of building.



Detector survey

A bat emergent survey was carried out in optimal conditions within the bat survey season. No bats were observed foraging on site. No bats were detected emerging from any of the onsite buildings. In 2021, a single soprano pipistrelle bat was noted transiting the site but did not emerge from buildings on site. No bat activity was noted on site during 2024 survey.

Potential impacts of proposed redevelopment on bats

No roosts or bats emerging onsite buildings were observed. The demolition of the buildings on site would not result in a loss of bat roosts or bat foraging.

Mitigation measures

As no evidence of a bat roost or roosting activity was noted onsite, no mitigation measures in regard to the roosting of these animals are needed during the proposed works. There is also no requirement for a *National Parks and Wildlife Service* derogation licence application to allow the planned works. However, as bats may inhabit a site between the original survey and the commencement of works on site, a pre-construction inspection should be carried out prior to demolition commencing.

- The proposed external lighting layout will comply with bat lighting guidelines and is set to 3000k.
- A post-construction light spill assessment will be carried out. The proposed external lighting includes dimmable feature, allowing the lights to be dimmed. A post construction light spill assessment will be carried out in consultation with a project ecologist to optimise lighting on site in relation to bat foraging.

Predicted and residual impact of the proposal

There is no evidence of a current or past bat roost in the structures on site, therefore no significant negative impacts on the roosting of these animals are expected to result from the proposed development.

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APPENDIX 7.2

WINTER BIRD SURVEYS & FLIGHTLINE ASSESSMENTS 2021

Introduction

In December 2021 two winter bird surveys were conducted at City Quay, in Dublin City Centre, by Hugh Delaney, a freelance ecologist (Birds primarily) with an experienced background in bird surveying on numerous sites with ecological consultancies over 10+ years. Hugh, a lifelong birder, is local to the Dun Laoghaire-Rathdown area in Dublin and is especially familiar with bird life and its ecology in the environs going back over 30 years.

Winter Bird Survey Methodology

The surveys at City Quay were conducted specifically to ascertain if the site was on the path of flightlines of species moving over the site as birds transition from one site to another, in a Dublin context the species concerned would be Brent Geese and wader species like Curlew, Oystercatcher and Black-tailed Godwit. Winter bird surveys are conducted from soon after sunrise until late in the afternoon before sunset, the site is monitored throughout the day and all bird species utilizing the site recorded, including species flying through overhead. Checks are also made on suitable habitat nearby or adjacent to the site for comparative purposes and to monitor any interchange of birds between sites. Target species (species of more special interest) utilizing the site will be mapped and estimates of the time these species frequented the site recorded.

Site Location

Figure 1. Site Location – Block situated south of Talbot Bridge (between 'R813' and 'R802' on map). Vantage point was from Talbot Bridge, which gave good elevation to view site and clear views west and east of Liffey.

Site Description

Urban site partly demolished in city center urban location to south of river Liffey.

Specific site survey methodology

Continual observations of site and surrounding area mainly from Talbot Bridge immediately to the north which afforded a good overview of the site, also observations made from City Quay and George's Quay.

Survey results

December 14th, 2021

Sunrise- 08.33hrs/Sunset 16.06hrs. Weather – Wind F2 Southwest, Cloud 3/8, Dry, 7c, Excellent visibility. On-site 08.20hrs – 15.30hrs.

Species recorded – Herring Gull, Black-headed Gull, Lesser black-backed Gull, Feral Pigeon, Pied Wagtail, Black Guillemot, Brent Geese, Mute Swan, House Sparrow.

Observations from 08.20hrs – 12.00hrs –

Herring Gull and Black-headed Gull dominating the avifauna recorded through the morning with peak counts of 58 Herring Gull at 11.30hrs and 45 Black-headed Gull at 10.40hrs, almost all on Liffey area. Single Herring and Black-headed Gull recorded passing over the site occasionally, with most being 4 Herring over site at 10.10hrs. Small numbers of Lesser black-backed Gull (<4) in Liffey area also during morning. Feral Pigeon and Pied Wagtail noted on site structure. No target species (Brent Geese, Wader species etc.) on-site or noted passing over site.

Observations from 12.00hrs – 15.30hrs –

Peak counts of Herring Gull were 62 at 14.35hrs and Black-headed Gull 40 at 13.15hrs. Occasional birds of both species passing over the site, maximum recorded together were 5 Herring Gull and 3 Black-headed Gull flying south over the site at 15.10hrs. A flock of 40 Brent Geese were observed distantly east of vantage point on Talbot Bridge (birds were estimated to be east of the Samuel Beckett Bridge) at 13.20hrs flying north to south. Two Mute Swan flew east over vantage point on Talbot Bridge at 14.05hrs. No target species recorded on-site or passing over the site.

December 27th, 2021

Sunrise- 08.40hrs/Sunset 16.12hrs. Weather – Wind F1 East, Cloud 6/8, Dry, 6c, Excellent visibility. On-site 09.00hrs – 15.50hrs.
Species recorded – Herring Gull, Black-headed Gull, Lesser black-backed Gull, Common Gull, Feral Pigeon, Black Guillemot, Cormorant, House Sparrow, Pied Wagtail.

Observations from 09.00hrs – 12.00hrs –

Herring Gulls and Black-headed Gull dominating throughout the morning with peak counts of Herring Gull (<45) and 10.45hrs and Black-headed Gull (<24) at 11.25hrs observed from Talbot Bridge, small number of Lesser black-backed Gull (<8) also in area. Gulls recorded mostly on Liffey north of the site with occasional sightings of Herring Gull and Black-headed Gull passing over the site (2-4 at a time usual). Pied Wagtail and Feral Pigeon observed occasionally land on site structure. Black Guillemot (<5) observed further south on Liffey from Talbot Bridge, mainly east of Sean O'Casey Bridge. No other target species recorded, and no target species recorded passing over the site.

Observations from 12.00hrs – 15.30hrs –

Herring Gull numbers peaked at 55 at 13.45hrs with Black-headed Gulls peaking at 38 at 14.30hrs, most on river Liffey. Small numbers of both occasionally passing over the site, generally just 2-3 or single birds, 8 Herring Gull noted soaring over the site at 15.05hrs. Common Gull (single birds) noted on Liffey at 13.15hrs and 14.35hrs north of site. A Cormorant passed east over Talbot Bridge at 12.25hrs and 14.10hrs. Black Guillemot (<4) noted again east of Sean O'Casey bridge with two birds between Talbot and Sean O'Casey Bridge at 14.00hrs. Pied Wagtail and Feral pigeon again occasionally on-site. No other target species recorded on-site or passing over the site.

Comments and observations on the survey results

11 bird species were recorded from observations made at the City Quay site. Results from the surveys suggest that the site is not an ex-situ foraging or roosting site for species of qualifying interest from nearby Special protection areas (SPA's). Results also suggest that the site is not a regular flightline path for such species like Brent Geese or other species of significant interest, from the observers experience of regular commuting through this part of the city center these species are not frequently encountered passing through this area. The birds move primarily from roost sites (in the case of Brent Geese for example - the North Bull) on the coast and travel west and northwest further north and east from Dublin city center. A nearby site being surveyed in Fairview concurrently in the same period that these surveys were conducted found Brent Geese were following the Tolka river from the coast as a route to negotiate towards feeding grounds inland. This would appear to be the closest flight path to the city center identified and some distance from this site.