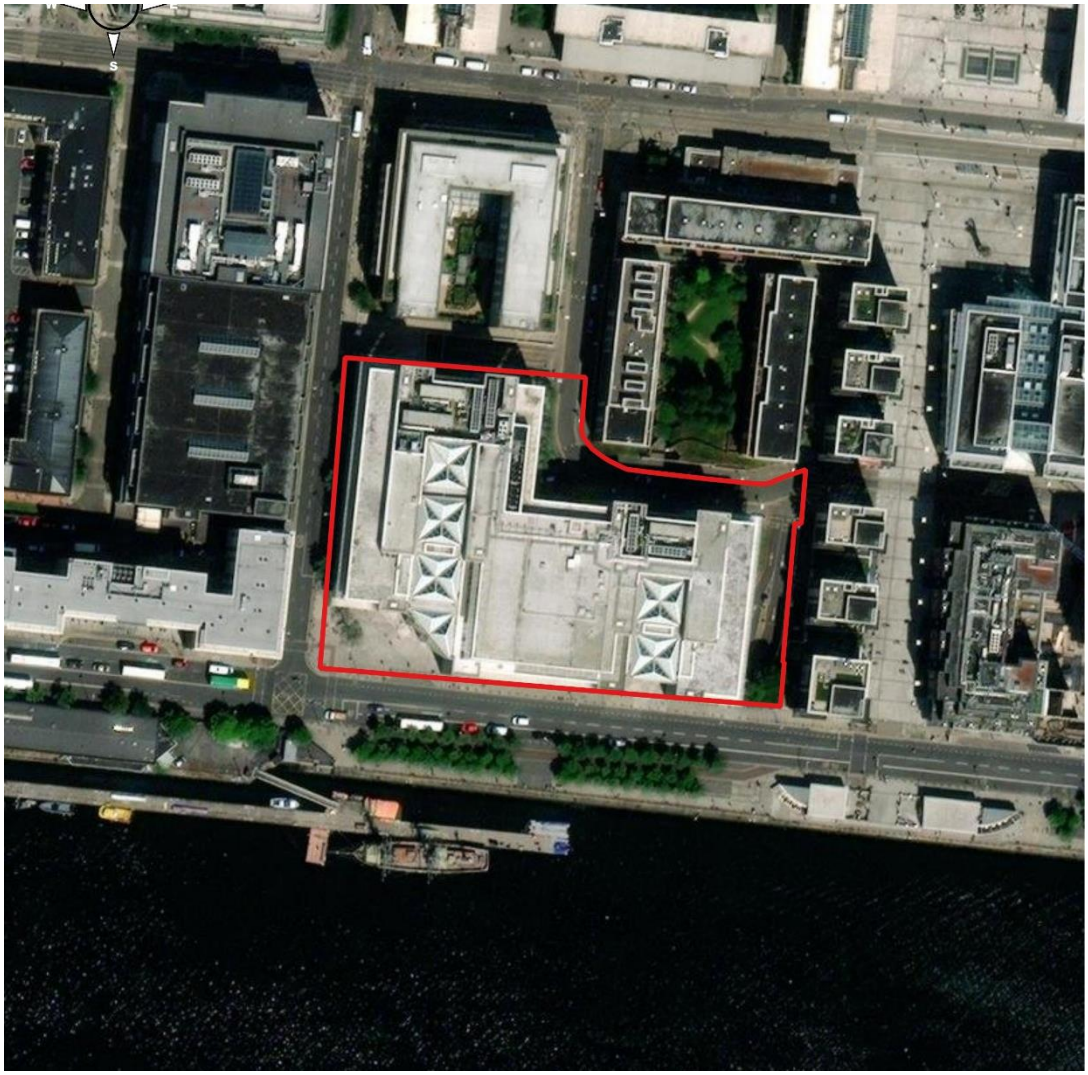
APPENDIX 7.1

BAT FAUNA IMPACT ASSESSMENT FOR A PROPOSED DEVELOPMENT AT 1 NORTH WALL QUAY, DUBLIN 1

PREPARED BY ALTEMAR MARINE AND ENVIRONMENTAL CONSULTANCY

ALTEMAR
Marine & Environmental Consultancy

Appendix 1: Bat Fauna Impact Assessment for a Proposed Development at 1 North Wall Quay, Dublin 1.



23rd January 2024

Prepared by: Bryan Deegan (MCIEEM) of Altemar Ltd.
On behalf of: NWQ Devco Ltd.

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Document Control Sheet			
Client	NWQ Devco Ltd.		
Project	Office Development at 1 North Wall Quay, Dublin 1		
Report	Bat Fauna Impact Assessment		
Date	23rd January 2024		
Version	Author	Reviewed	Date
Final	Bryan Deegan	Jeff Boyle	

SUMMARY

Structure:	The existing site is brownfield and is occupied by an existing office building which shall be demolished as part of the Proposed Development. The River Liffey is located approximately 25m south of the Proposed Development site.
Location:	1 North Wall Quay, Dublin 1.
Bat species present:	None Roosting. None foraging.
Proposed work:	Commercial Development
Impact on bats:	No bats were noted roosting on site. No trees of bat roosting potential are noted on site. The Proposed Development is not in proximity to sensitive bat areas. The potential for collision risk and impact on flight paths in relation to bats is considered is considered low/ negligible due to the lack of bat activity on site and the buildings would be deemed to be clearly visible to bats. The site is currently well-lit from the existing streetlights within the subject site. There are no predicted significant negative impacts on bat species from the Proposed Development. The residual impact is considered to be minor adverse/not significant in the short term and low beneficial positive in the long term.
Survey by:	Bryan Deegan MCIEEM
Survey date:	28th of September 2023.

1.0 Project Description

The Proposed Development provides for the demolition of the existing building and construction of a new building ranging in height from 9 no. to 17 no. storeys over lower ground floor and double basement comprising of office accommodation, arts/community/cultural uses, and a retail/café/restaurant unit. Office accommodation is provided from lower ground floor to 15th floor level, arts/community/cultural uses are provided at lower ground, ground, 1st and 16th floor level with a retail/café/restaurant unit at ground floor level. Landscaped terraces are located at 8th, 9th, 10th, 11th, 15th, 16th floor level with winter terraces located at 4th, 6th 9th floor level. Provision of a new landscaped street to the east of the building to include external arts/community/cultural uses. The double basement comprises 30 no. car parking spaces, 923 no. bicycle parking spaces and 6 no. motorbike spaces as well as shower/changing facilities and plantroom.

2.0 Landscape

The landscape strategy for the Proposed Development has been prepare by Cameo and Partners. The general arrangement plan and masterplan are demonstrated in Figures 3 & 4.

3.0 Lighting

An external lighting report has been prepared by Axiseng Consulting Engineers to accompany this planning application. This report outlines the following in relation to public lighting onsite:

"***3.1 Design Philosophy***

Lighting modelling software was used to confirm the proposed lighting design. The software gives a detailed output in terms of lux levels and lighting types used. The software provides a detailed summary of all proposed fittings with their locations, heights and quantities – refer to Appendix A attached.

The following documents were referenced as part of the lighting design:

- *Dublin County Council Exterior Lighting Policy*
- *CIBSE Lighting Guides*
- *National Rules for Electrical Installations*

3.2 Design Results

As per the calculation results the below lux levels being achieved are:

Main entry point Eavg – 41lx

Landscaped Park Eavg – 38lx

Clarion Quay Eavg – 31lx

The proposed lighting design is designed to minimise light spill into the neighbouring sites. The lighting will be controlled via photocell pre-set to on/off levels."

Luminaire list

pcs.	Manufacturer	Article No.	Article name	R_{UG}	P	Φ	Luminous efficacy
9	SIMES S.p.A.	S.3092N	AVENUE STREET LIGHTING 40led	–	104.8 W	10556 lm	100.7 lm/W
11	iGuzzini illuminazione S.p.A	EI55.15_B97P	Walky LED: Round optic assembly Ø200mm – AL optic – Neutral White LED – 220÷240Vac - DALI - 11.7W 445.5lm - 4000K	–	11.7 W	446 lm	38.1 lm/W

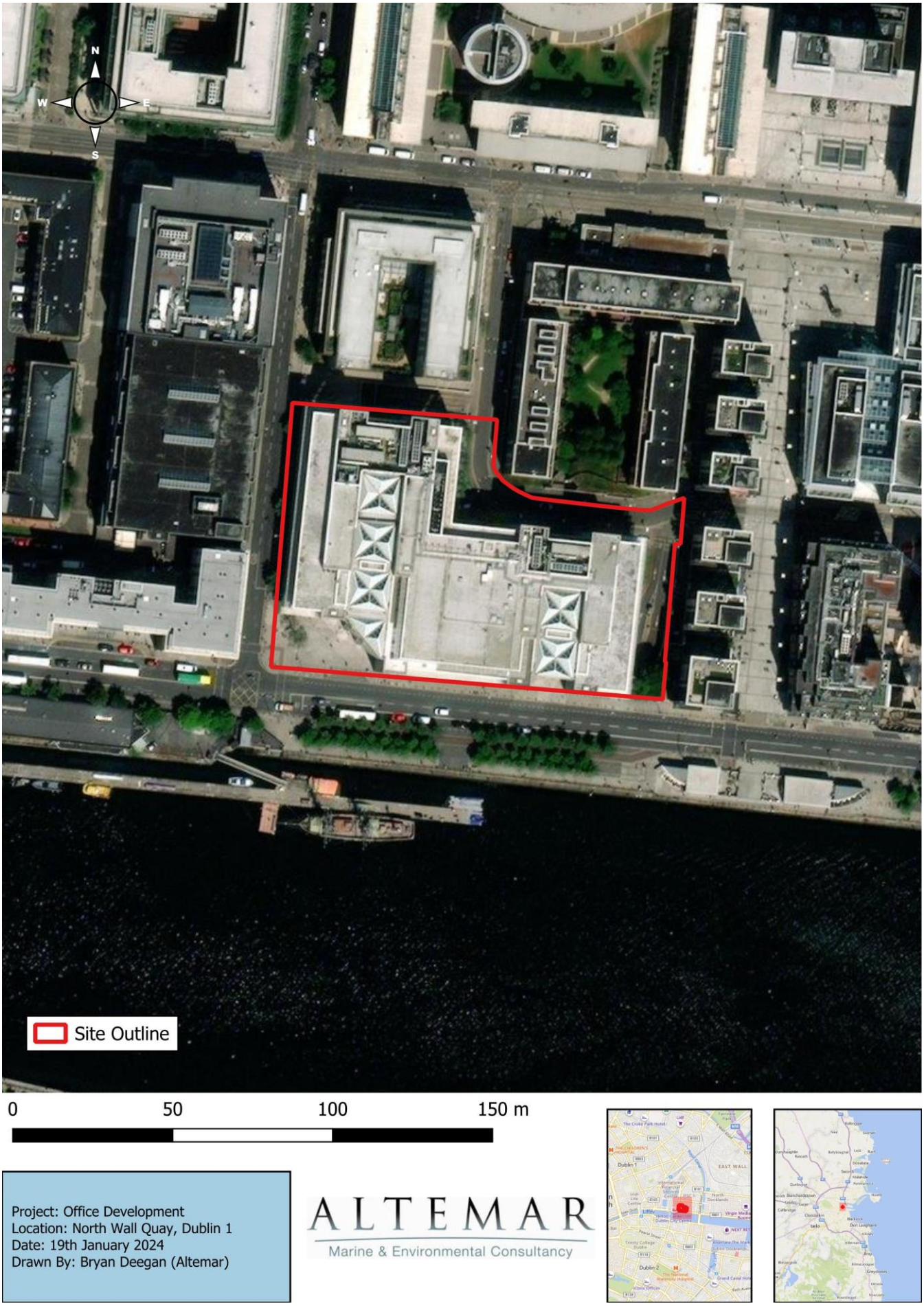

Figure 1 Site Outline

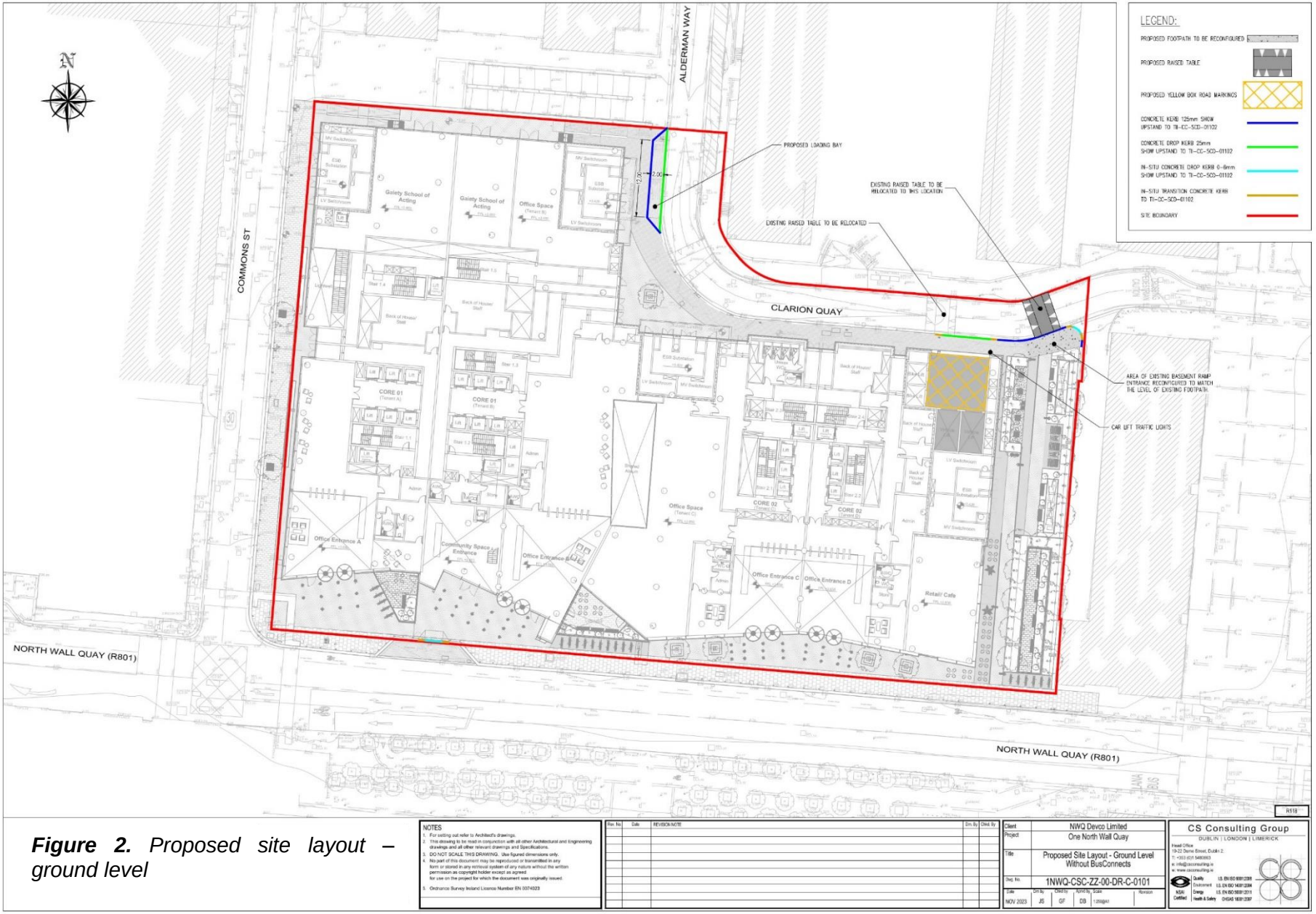

Figure 2. *Proposed site layout – ground level*

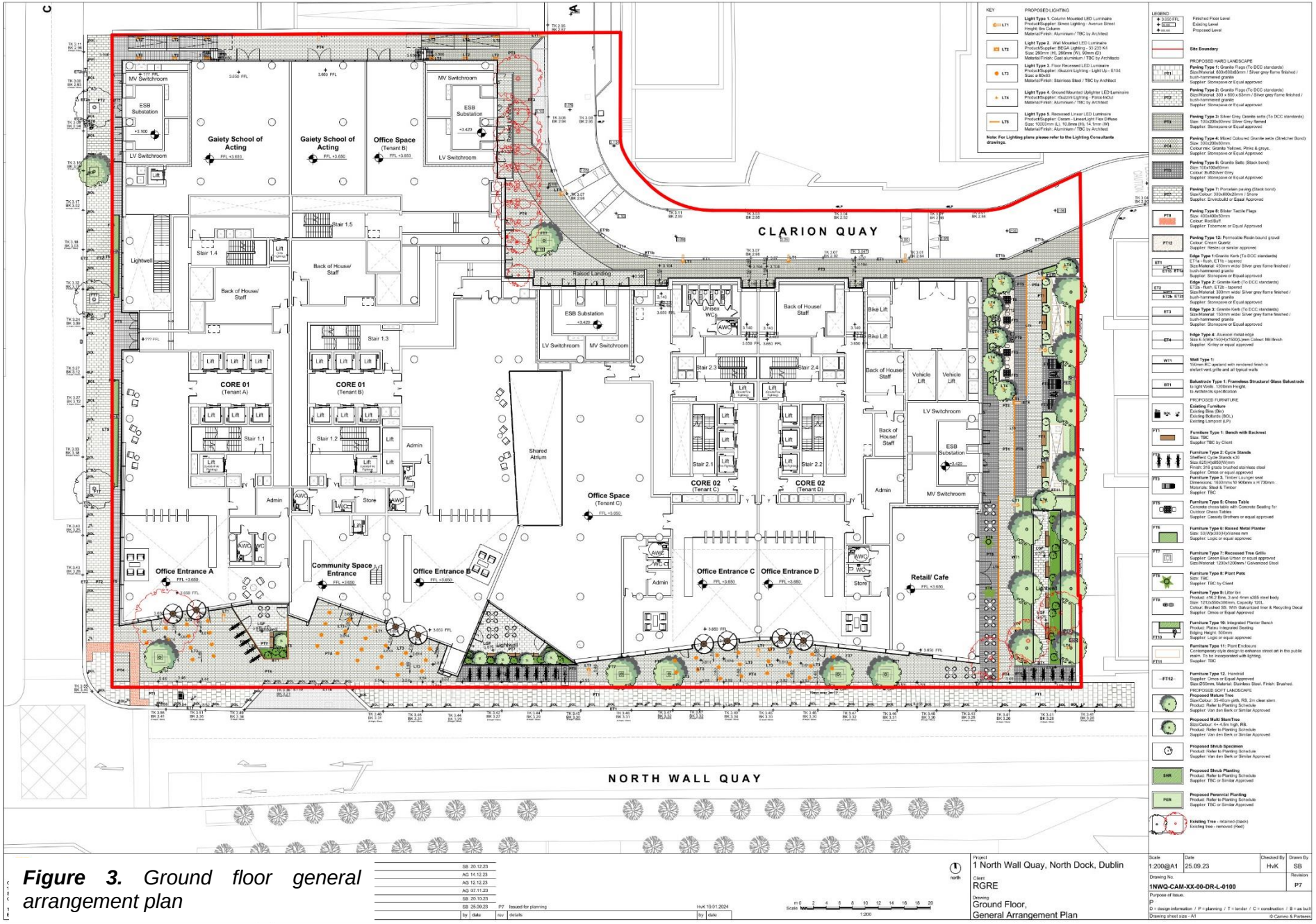

Figure 3. *Ground floor general arrangement plan*

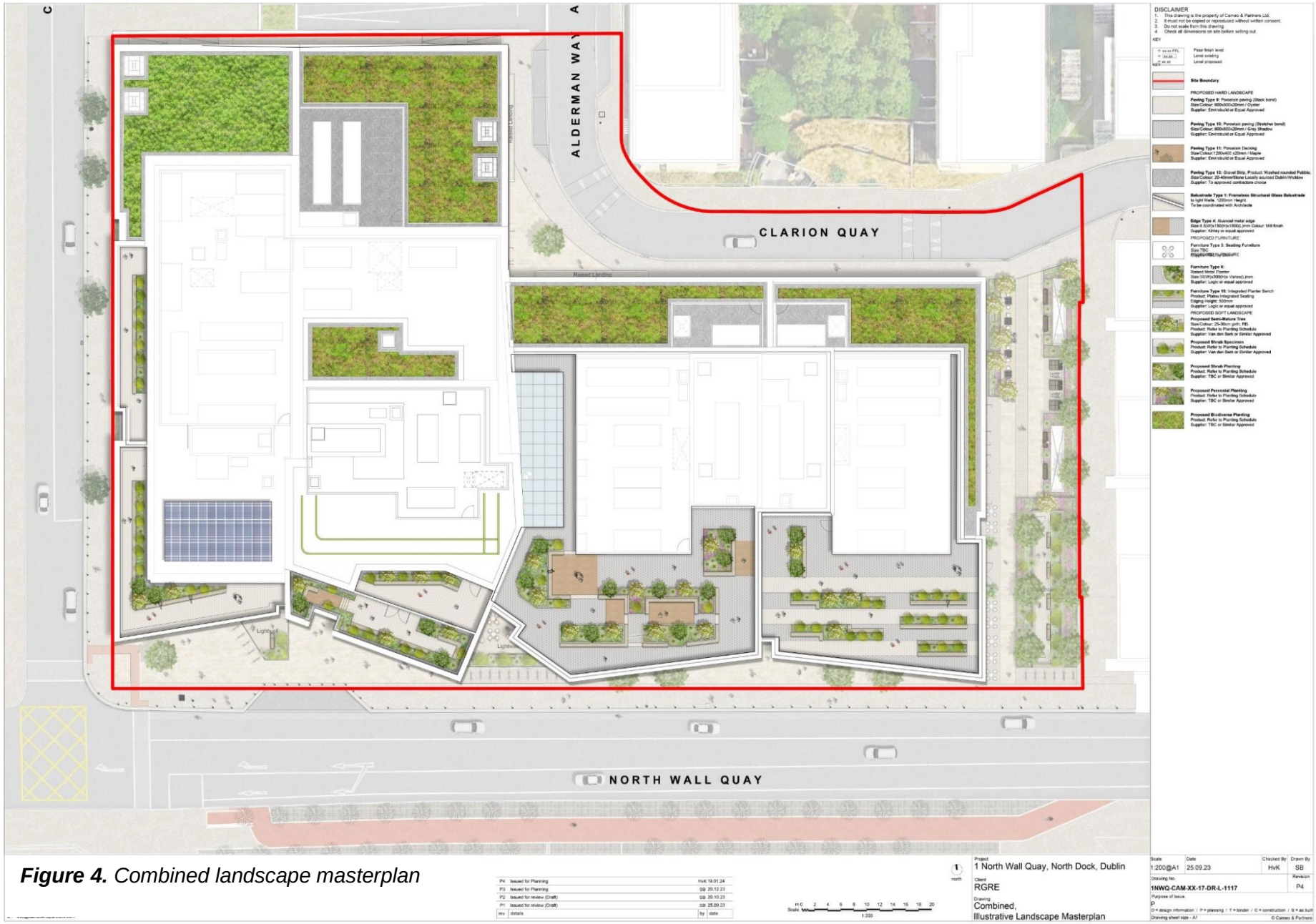

Figure 4. *Combined landscape masterplan*

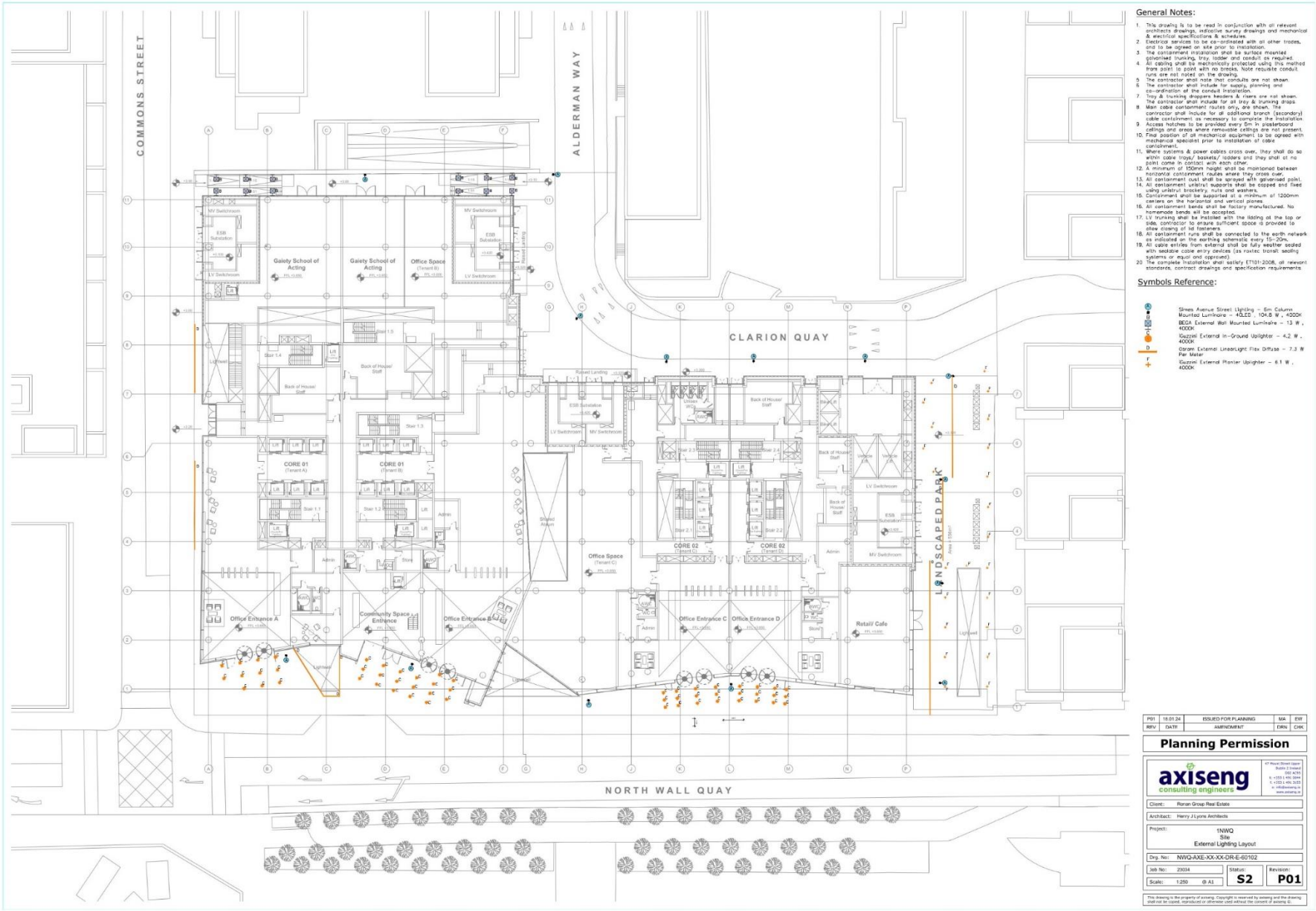

Figure 5: *External lighting layout.*

4.0 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).

5.0 Legislative Context

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

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

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

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

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

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

6.0 Bat survey

This report presents the results of a site visit by Bryan Deegan (MCIEEM) on the 28th of September 2023. A bat emergent and detector survey was carried out. Trees and buildings on site were examined for bat roosting potential.

7.0 Survey Methodology

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

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

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

8.0 Survey Results

9.0 Trees as potential bat roosts.

A ground level roost assessment was carried and used to examine the trees and buildings on site for features that could form bat roosts. Potential roosting features include heavy ivy growth, broken limbs, areas of decay, vertical or horizontal cracks, cracks in bark etc. All trees on site were assessed for bat roosting potential. No trees of bat roosting potential were noted on site. No bats, evidence of bats or bat roost were identified in any of the onsite. A derogation license is therefore not required for the removal of trees on site.

10.0 Emergent/detector surveys.

An emergent/detector survey was carried out by Bryan Deegan on the 28th of September 2023. The site consists of a modern active and lit commercial building with poor potential bat roosting potential.

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

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

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

No bats were observed foraging. No bats were observed emerging from onsite trees on or proximate to the subject site.

11.0 Bat Assessment Findings

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 to determine whether there have been recorded bat sightings in the wider area. This is visually represented in Figures 6-8. The following species were noted in the wider area: Common Pipistrelle (*Pipistrellus pipistrellus*), Daubenton's Bat (*Myotis daubentonii*), Brown Long-eared bat (*Plecotus auratus),* Nathusius' pipistrelle (Pipistrellus nathusii), Leisler's bat (*Nyctalus leisleri*) and Soprano pipistrelle (*Pipistrellus pygmaeus.*

Table 1. Status of bat species within a 2km² grid encompassing the subject site (Reference No. O13S)

Species name	Record count	Date of last record	Note
Pipistrelle (*Pipistrellus pipistrellus*)	2	15/09/2008	National Bat Database of Ireland
Nathusius's Pipistrelle (*Pipistrellus nathusii*)	1	15/09/2010	National Bat Database of Ireland
Soprano Pipistrelle (*Pipistrellus pygmaeus)*	1	18/05/2006	National Bat Database of Ireland
Lesser Noctule (*Nyctalus leisleri*)	3	15/09/2010	National Bat Database of Ireland

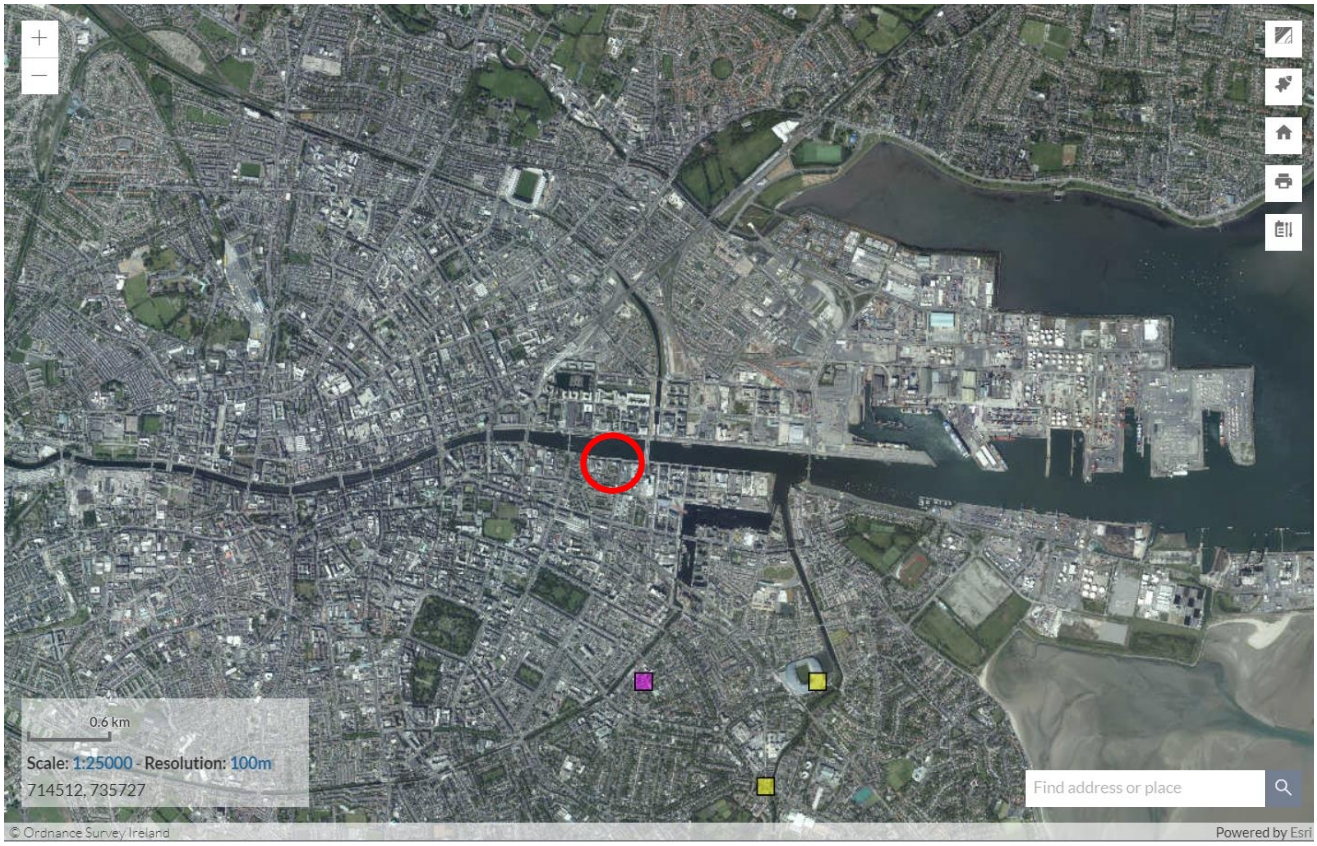

Figure 6. Daubenton's bat (*Myotis daubentonii*) (yellow) and Brown Long-eared bat (*Plecotus auratus) (purple) (Source: NBDC) (Site: red circle)*

Figure 7. Nathusius' pipistrelle (*Pipistrellus nathusii*) (purple) and both Leisler's bat (*Nyctalus leisleri*) and Nathusius' pipistrelle (orange) *(Source: NBDC) (Site: red circle).*

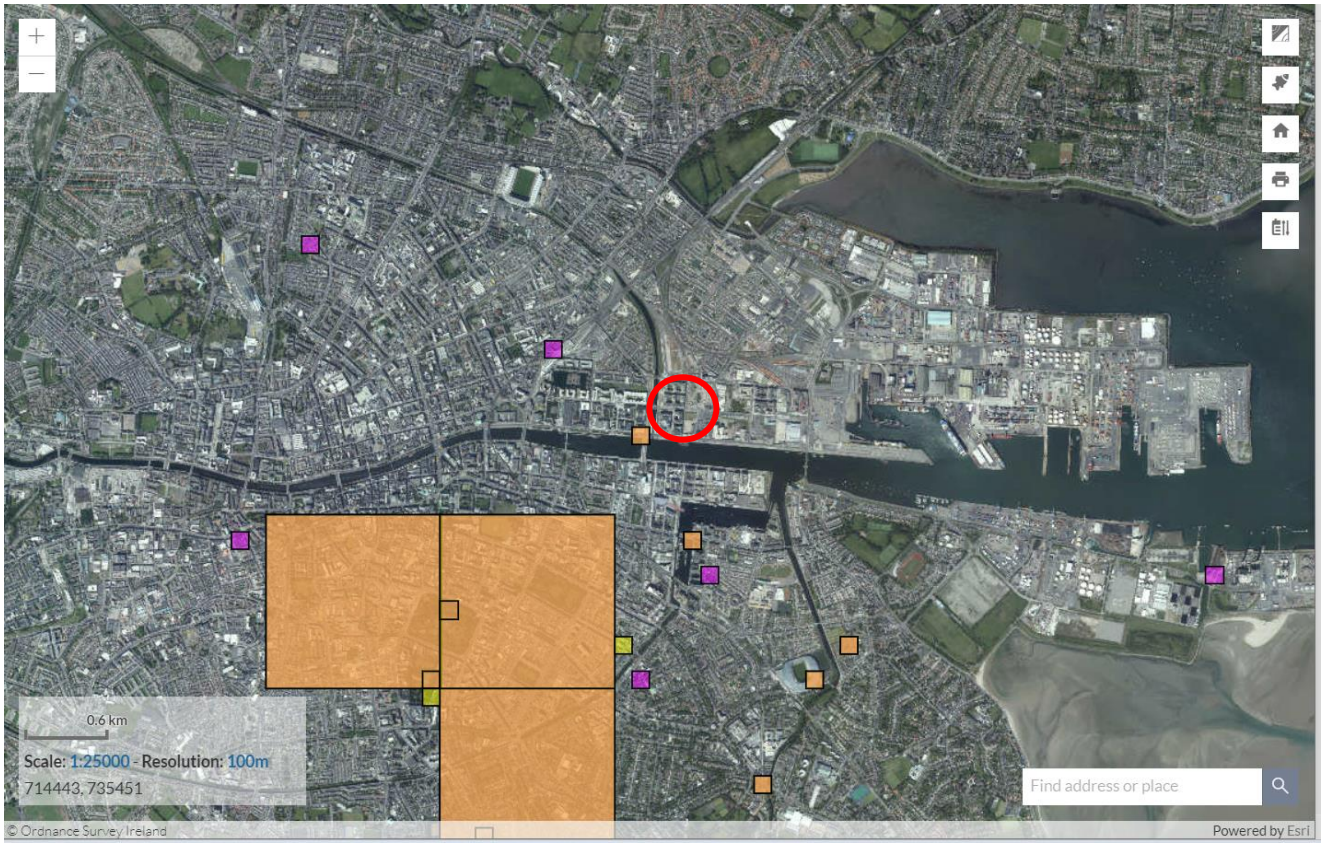

Figure 8. Soprano pipistrelle (*Pipistrellus pygmaeus*) (yellow) and common pipistrelle (*Pipistrellus pipistrellus*) *(purple), both (orange) (Source: NBDC) (Site: red circle)*

12.0 Evaluation of Results

The bat surveys comply with bat survey guidance documentation including Marnell et al (2022) and Collins (2016). No bats were noted foraging on site. No bats were noted transiting through the subject site. The site is of relatively low importance to the local bat population. The site is currently well-lit from the existing streetlights within the subject site, and from light spill of the adjacent petrol station (located to the east of the subject site). The building itself is of poor roosting potential.

13.0 Potential Impact of the development on Bats

The Proposed Development is not in proximity to sensitive bat areas. The potential for collision risk and impact on flight paths in relation to bats is considered is considered low/ negligible due to the lack of bat activity on site and the buildings would be deemed to be clearly visible to bats. The site is currently well-lit from the existing streetlights within the subject site. There are no predicted significant negative impacts on bat species from the Proposed Development.

14.0 Mitigation Measures

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

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

However, no bats were noted on site. No bats were noted roosting on site. No trees of bat roosting potential are noted on site. A pre-demolition inspection for roosting bats will be carried out.

15.0 Predicted Residual Impact of Proposed Development on Bats

No bats were noted roosting on site. No trees of bat roosting potential are noted on site. The Proposed Development is not in proximity to sensitive bat areas. The Proposed Development is not in proximity to sensitive bat areas. The potential for collision risk and impact on flight paths in relation to bats is considered is considered low/ negligible due to the lack of bat activity on site and the buildings would be deemed to be clearly visible to bats. The site is currently well-lit from the existing streetlights within the subject site. There are no predicted significant negative impacts on bat species from the Proposed Development.

16.0 References

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