Planning and Environmental Consultants

Ecological Impact Assessment

Proposed Residential Development at 102 Main Street, Portlaoise, Co. Laois

DOCUMENT DETAILS

Client:	**Cluid Housing**
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Project Number:	**200413**
Document Title:	**Ecological Impact Assessment**
Document File Name:	**EcIA D4 – 200413 – 2024.05.20**
Prepared By:	**MKO** **Tuam Road** **Galway** **Ireland** **H91 VW84**

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Rev	Status	Date	Author(s)	Approved By
04	Draft	20/05/2024	CLS	KOD

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1. INTRODUCTION

1.1 Background

MKO has been commissioned to conduct an Ecological Impact Assessment (EcIA) for a proposed residential development at 102 Main Street, Portlaoise, Co. Laois (ITM 647207, 698374).

The EcIA includes an accurate description of all aspects of the proposed development during construction and operation. The development is considered permanent and should decommissioning be required, it will be the subject of a separate assessment. It then provides a comprehensive description of the baseline ecological environment, which is based on an appropriate level of survey work that was carried out in accordance with the most appropriate guidelines and methodologies. The EcIA then completes a thorough assessment of the impacts of the proposed development on biodiversity. Where likely ecologically significant effects are identified, measures are prescribed to avoid or minimise or compensate for such effects.

1.2 Statement of Authority

Baseline ecological surveys were undertaken by Kevin McElduff (B.Sc.) on the 6th of September 2022 and by Ciara Lynn Sheehan (B.Sc.) and Laura McEntegart (B.Sc.) of MKO on the 11th of April 2024. Bat surveys were undertaken on the 24th and 28th of September 2022 by Laura McEntegart (B.Sc.), Kevin McElduff (B.Sc.) and Cathal Bergin (B.Sc.) and on the 11th of April 2024 by Laura McEntegart (B.Sc.) of MKO. This report has been prepared by Ciara Lynn Sheehan (B.Sc.) who has the necessary qualifications and experience to undertake this assessment. This report has been reviewed by Kate O Donnell (B.Sc., ACIEEM) who is an experienced ecologist with over 4 years' professional ecological consultancy experience.

1.3 Relevant Guidance

In addition, the guidelines listed below were consulted in the preparation of this document to provide the scope, structure and content of the assessment:

- Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2018) (amended 2021).
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2022).
- Guidelines for assessment of Ecological Impacts of National Road Schemes, (NRA, 2009).
- Ecological Surveying Techniques for Protected Flora and Fauna During the Planning of National Road Schemes (NRA, 2008).
- CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester).
- Bat Mitigation Guidelines for Ireland – V2. Irish Wildlife Manuals, No. 134. (Marnell, Kelleher & Mullen 2022)
- Bat Surveys for Professional Ecologists – Good Practice Guidelines (3rd edn.) (Collins, 2016)
- Guidelines for the Treatment of Bats during the Construction of National Road Schemes (NRA, 2006b)

2. DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 Site Location

The proposed development is located at 102 Main Street in Portlaoise town, Co. Laois (ITM 647207, 698374). Portlaoise is approximately 20km from Portarlington. The site is accessed via Main Street, L63101, which joins with the N80. The site is surrounded primarily by commercial developments and residential dwellings.

A Site Location map is provided in Figure 2-1.


Map Legend
Site Boundary
Site Location
PORTLAOISE
Port Laoise
Rossleaghan
Borris Great
Castle
Clondarrig
Kyle Br
Ballytegan
Ratheven
Gorteen
Kilminchy
Pallas Little
Pallas Cross Rds
Pallas Big
Clonroosk
Borris Little
Ballyroan
Prison
Hosp
Fire Stn.
Beladd
Ballymoon
Coolnamona
Boghlone Br
Summerhill or Aghnaharna
Kylekproe
Clonminam
Downs
Currabsbog
Meelick
Rathleague
Sheffield Cross Rds
Cappoley
N80
R445
R426
R425
M7
N77
17
1:2,962
Microsoft product screen shots reprinted with permission from Microsoft Corporation
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Drawing Title
Site Location
Project Title
Proposed Residential Development at 102 Main Streert, Portlaoise, Co. Laois
Drawn By
CLS
Checked By
KOD
Project No.
200413
Drawing No.
Figure 2-1
Scale
1:30,000
Date
15/05/2024
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2.2 Characteristics of Proposed Development

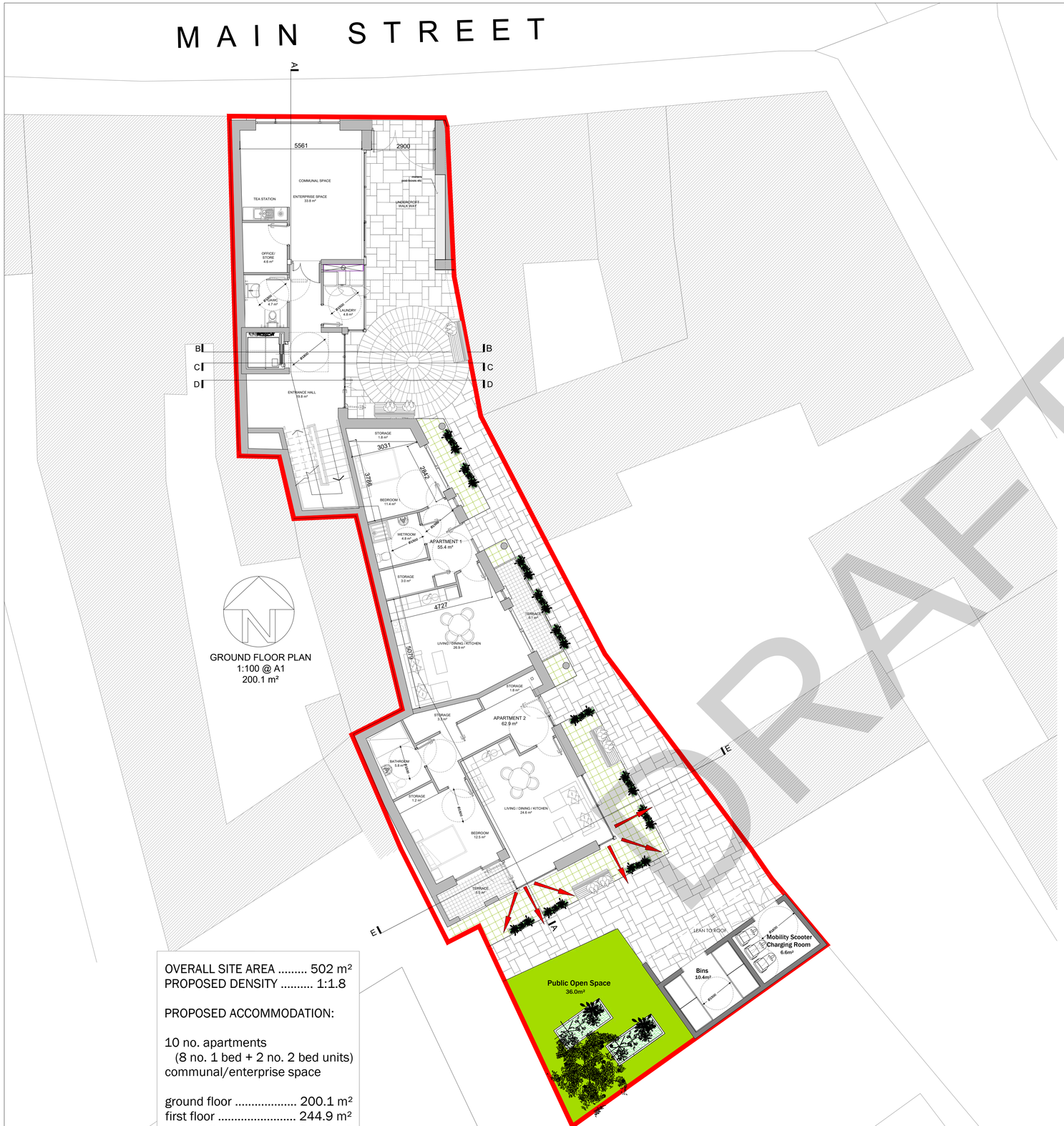
2.2.1 Development Description

The project brief for this new residential development and its associated works at 102 Main Street, Portlaoise, Co. Laois was to design and construct a new residential building. The development will include demolition and redesign of existing front building (formerly 'County Hotel') and design of a new residential extension to the rear of the property.

As a general overview, the proposed development comprises:

a) new residential apartment block, ranging in height from 2 to 3 storeys, accommodating 10 no. apartments consisting of:
   - 8 no. 1 bed units
   - 2 no. 2 bed units
   - a communal/enterprise space at ground level
   - services and plant area at roof level
b) public open space provided to the south of the site
c) terraces and balconies provided for each apartment
d) mobility scooter charging room
e) refuse storage
f) all associated site development works necessary to facilitate the proposed development
g) proposed pedestrian gate in the south-west corner of the site

The proposed site layout is shown in Figure 2-2.



GROUND FLOOR PLAN
1:100 @ A1
200.1 m²

OVERALL SITE AREA ..... 502 m²
PROPOSED DENSITY 1:1.8

PROPOSED ACCOMMODATION:

10 no. apartments
(8 no. 1 bed + 2 no. 2 bed units)
communal/enterprise space

ground floor ..... 200.1 m²
first floor ..... 244.9 m²
second floor ..... 244.9 m²
third floor ..... 173.3 m²
OVERALL FLOOR AREA = 863.2 m²

LEGEND:

- OVERALL SITE AREA
- PUBLIC OPEN SPACE
- PRIVATE OPEN SPACE
- DECORATIVE SHRUB PLANTING TO PRIVACY STRIP 450mm topsoil
- INTERNAL COURTYARD AND WALK WAY
- PASSIVE SURVEILLANCE

SITE STATISTICS:

Site Area (Outlined in RED) = 502m²/ 0.05Ha

Plot Ratio:	1.7
Site Coverage:	39.8%

OPEN SPACE PROVISION:

Public Open Space: 36.0m² (7.1%)

Private Open Space for proposed apartments is provided in the form of private terraces for ground floor units and private balconies for upper floor units, in compliance with the recommended areas required by the current Laois County Development Plan 2021-2027.

clúid housing

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Client:	Clúid Housing
Project:	Proposed Residential Development 102 Main Street, Portlaoise, Co. Laois
Drawing Description:	Propose Site Layout Plan
Scale:	1:100 @ A1
Status:	Planning
Drawing No:	200301-03-103
Rev:	-
Date:	April 2024
Drawn by:	PS
Checked by:	BF

2.2.2 Site Drainage

2.2.2.1 Foul Water Drainage

The wastewater infrastructure has been designed in accordance with Uisce Eireann's latest standard details, code of practice and Building Regulations Part H.

Due to the location of the existing pipe within the site and the requirement within Uisce Eireann's code of practice for private connections to be at 90 degrees to the main, two connections are required to accommodate this. Two private inspection chamber will be provided within the site adjacent to the existing public main.

A Pre-Connection application was issued to Uisce Eireann on the 13th October 2021. A Confirmation of Feasibility letter was received on the 23rd March 2022 and is provided in Appendix 1. The development can be accommodated without infrastructure upgraded works however a build over application is required. A build over application will be made to Uisce Eireann once planning is granted.

2.2.2.2 Surface Water Drainage

It is proposed to construct a new surface water conveyance system within the site, which will provide treatment, storage and infiltration to the existing surface water public main.

All surface water collected on site will pass though green Sustainable Urban Drainage System (SuDs), this will allow for a certain level of treatment of the surface water and also infiltration into the ground. It is proposed to construct underground pipes to convey surface water from source to the SuDs infrastructure. The underground pipes will have slopes between 1:200 and 1:40 to ensure self-cleansing velocities are achieved.

The surface water infrastructure has been designed in accordance with the "Greater Dublin Regional Code of Practice for Drainage Works" (Draft version 6.0) and Laois County Council's Development Plan 2021-2027.

The surface water drainage network has been designed and simulated for a range of storm events (including 1 in 5, 1 in 30 and 1 in 100-year storm events) using the Source Control module of MicroDrainage.

SuDS measures proposed for the site are detailed in the sections below.

Permeable Surfacing

It is proposed to install permeable surfacing within the common paving area on the ground floor of the site. The water, once permeated into the pavement, will be allowed to infiltrate into the ground. The inclusion of the permeable paving will slow the surface water run off at source, treat the surface water runoff and provide storage.

Soakaway

It is proposed to install a soakaway within the landscape area to the South of the site. The surface water will be collected through gullies and underground pipes and directed to a perforated pipe within the soakaway. The perforated pipe will allow the collected water to discharge into the soakaway. The collected water will be allowed to infiltrate into the groundwater.

When the rate of water being collected by the underground pipes exceeds the infiltration rate into the ground, the collected water will be stored within the porous stone and allowed to discharge into the existing 375mm Diameter pipe in Main Street.

Filter Trench

It is proposed to install two filter trenches within the landscape areas adjacent the building. The surface water discharging from the site will pass through the filter trenches and be allowed to infiltrate into the ground through the use of perforated pipes.

Treatment Train

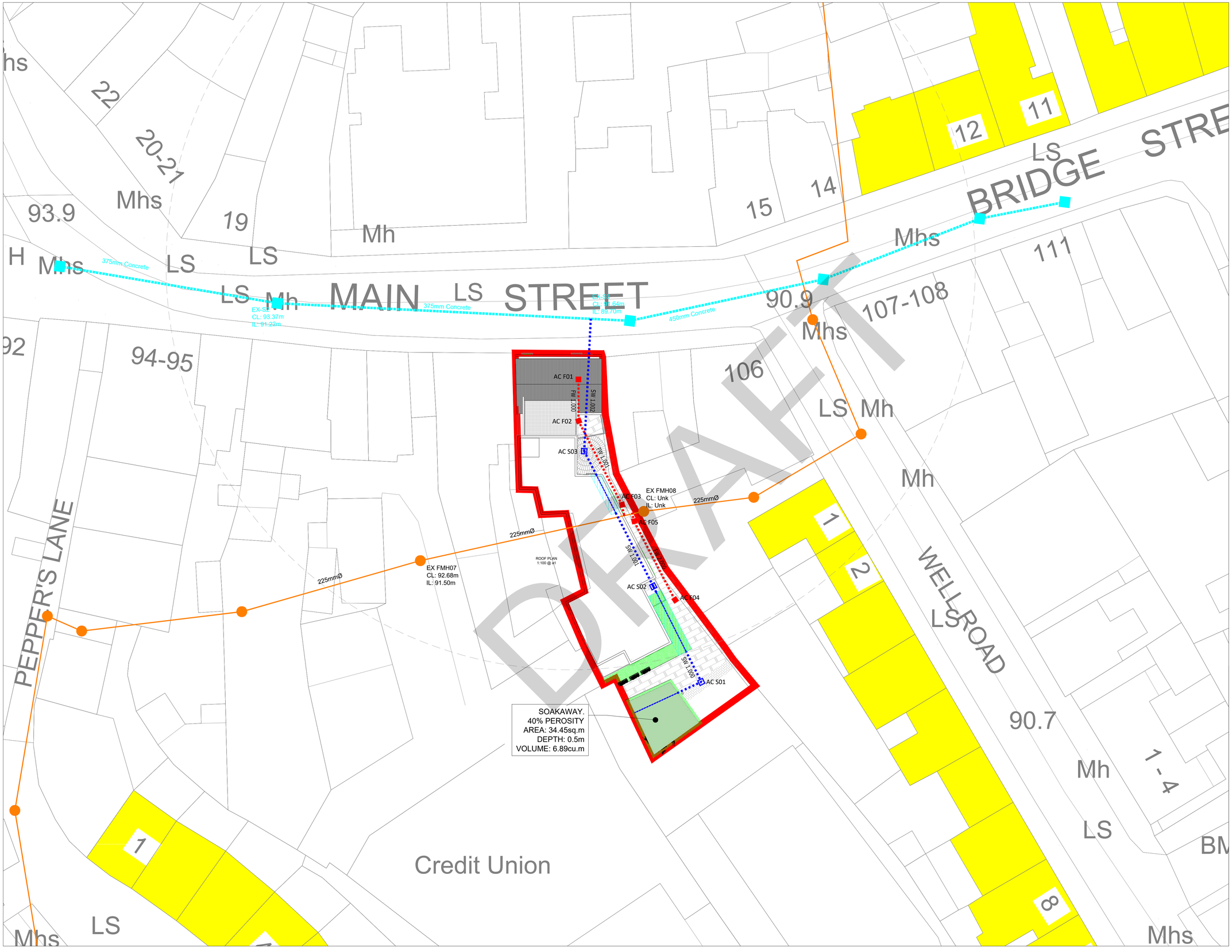
Through the SuDs measures described above, the surface water management (treatment train) approach has been incorporated into the development in accordance with the GDSDS. This will assure the surface water runoff quantity and quality issues are addressed.

Interception

Interception storage has been provided on site by the permeable paving, soakaway and filter trench. The initial 5-10mm of rainfall falling onto the car parking areas will be allowed to infiltrate through the permeable paving and further infiltrate into the ground by the soakaway and filter trench.

Rainfall falling onto the impermeable roof will be collected through gutters and downpipes. The collected water will discharge to the perforated pipes within the Soakaway, and filter trench. The perforated pipes will allow the water to seep out into the soakaway and filter trench and infiltrate into the ground.

The initial rainfall falling onto the roofs will either be discharged to the soakaway or filter trench.



LEGEND:

- SITE BOUNDARY
- EXISTING FOUL PIPE
- EXISTING FOUL MANHOLE
- EXISTING SURFACE WATER PIPE
- EXISTING SURFACE WATER MANHOLE
- PROPOSED FOUL PIPE
- PROPOSED FOUL INSPECTION CHAMBER
- PROPOSED SURFACE WATER PIPE
- PROPOSED SURFACE WATER INSPECTION CHAMBER
- PROPOSED SOAKAWAY
- PROPOSED INFILTRATION TRENCH WITH PERFORATED PIPE
- PROPOSED PERFORATED PIPE

NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD

Rev	Date	Description	By	Chkd.
P01	26/03/2024	ISSUED FOR PLANNING	PF	KH

Client: clúid housing

Project:
102 MAIN STREET
PORTLAOIS
SOCIAL HOUSING

Title:
PROPOSED DRAINAGE LAYOUT

Scale @ A1:	1:200	
Prepared by: P. FANNING	Checked: K. HIGGINS	Date: MAR' 24
Project Director:	BRIAN CARROLL	
Drawing Status:	PLANNING	

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Drawing No.: 10911-2010 Revision: P01

2.2.3 Lighting

A lighting plan has been prepared by CC Engineering and is provided in Appendix 2.

The lighting plan for the operational phase of the proposed works, has been designed to contain minimal light spillage. The lighting has been designed with consideration of the following guidelines: Bat Conservation Ireland guidelines; Bat Conservation Ireland (Bats and Lighting: Guidance Notes for Planners, Engineers, Architects and Developers, BCI, 2010) and the Bat Conservation Trust (Guidance Note 08/18 Bats and Artificial Lighting in the UK (BCT, 2018), to minimise light spillage, thus reducing any potential disturbance to bats.

The lighting plan contains three external lighting types for installation; 8 Modular Lighting Instruments (2700k), 1 Unilamp Mini Tube Recess Light (2700K) and 3 Lamps (3000k).

The undercroft lighting in public areas will be control, buyer, motion, sensor and daylight sensors. The balcony lights will be manual, switched by the occupant.

2.2.4 Landscaping

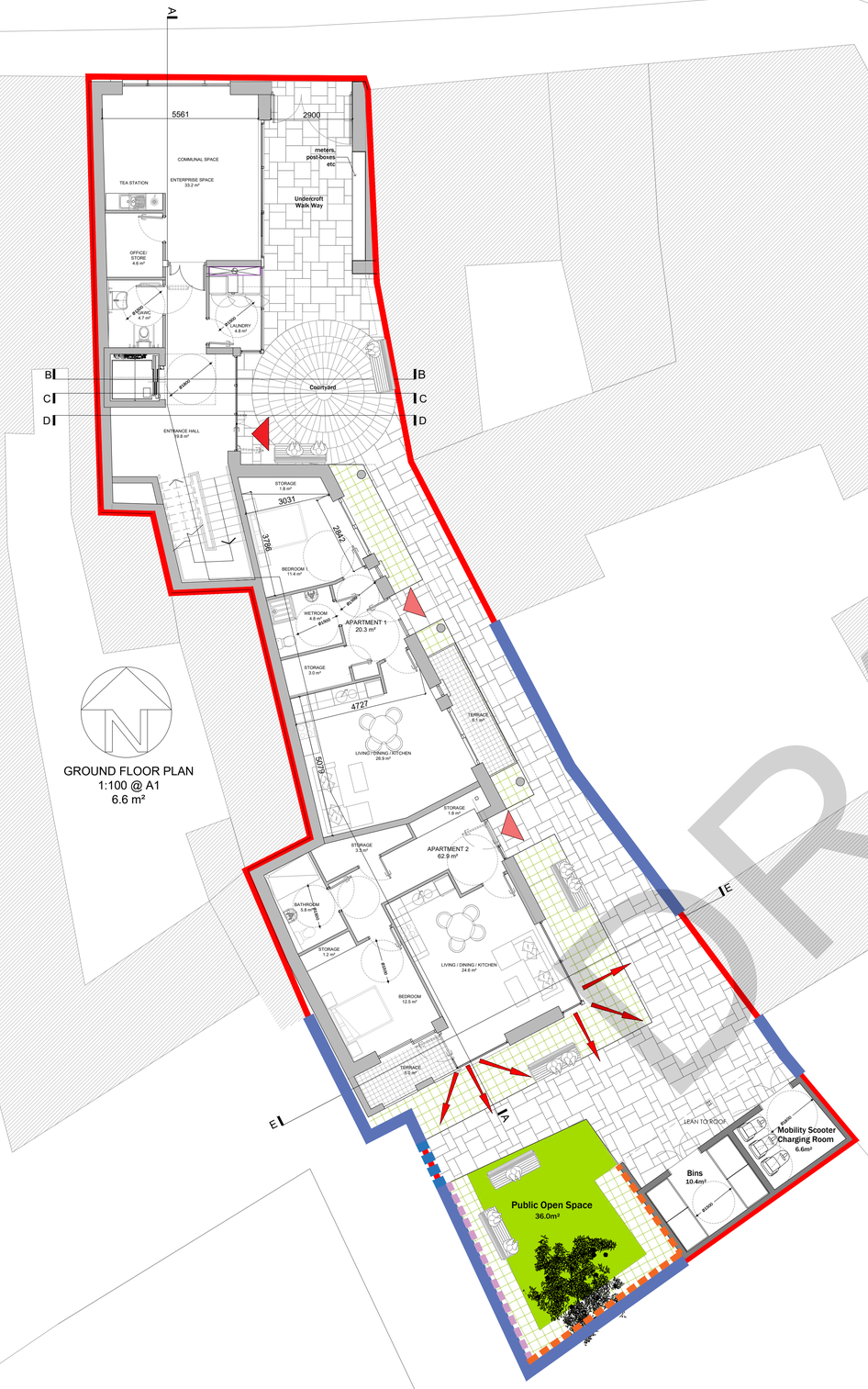
Full details of the landscaping proposed for the proposed re-development of 102 Main Street, Portlaoise, Co. Laois can be found in the proposed landscape plan drawing prepared by Vincent Hannon Architects provided in Figure 2-4.

Ornamental shrub planting will include species like lily turf (*Liriope Muscari*), *Anemone* x Honorine Jobert, French lavender (*Lavendula stoechas*), *Libertia grandiflora*, stonecrop (*Sedum spectabile*)

Shade tolerant plants in the courtyard will include species such as male fern (*Dryopteris fix mas*), ostrich fern (*Mattheucia struthiopteris)*, Solomon's seal (*Polygonatum x hybridum*), bloody crane's-bill (*Geranium sanguineum*), *Heleborus orientalis*, coral bells (*Heuchera*), white giant (*Allium*), ice dance (*Carex*), Frances Williams (*Hosta)*, whirlwind (*Anemone)* and lesser periwinkle (*Vinca minor)*.

There will be a nelly moser (*Clematis*) and a star jasmine (*Trachelospermum jasminoides*) timber trellis to the south of the site surrounding a reinforced grass lawn. A Rowan tree is proposed to be planted within this grass lawn.

MAIN STREET



GROUND FLOOR PLAN
1:100 @ A1
6.6 m²

LEGEND:

- OVERALL SITE AREA
- PROPOSED 2m HIGH RENDERED CONCRETE BLOCK WALL
- PROPOSED PEDESTRIAN GATE ALONG PROPOSED BOUNDARY WALL
- PRIVATE OPEN SPACE
- REINFORCED GRASS LAWN
  200mm growing medium
- DECORATIVE GROUNDCOVERS & SHRUB PLANTING TO PRIVACY STRIP
  Areas containing such species as *Liriope Muscari* (cg 2L), *Anemone* 'Honorine Jobert' (cg 1.5L), *Lavandula stoechas* 'Lavander' (cg 2L), *Libertia grandiflora* (cg 3L), *Sedum spectabile 'Stadust'* (cg 2L)
- COURTYARD SHADE PLANTING
  A mix of shade tolerant ground cover planting, ferms, climbers and specimen shrubs to soften the impact of adjacent boundary walls and provide an interest throughout the year. Containing such plants as *Dryopteris fiix mas* (cg 2L), *Mattheucia struthiopteris* (cg 2L), *Polygonatum x hybridum* (cg 2L), *Geranium sanguineum* (cg 2L), *Heleborus orientalis* (cg 2L), *Heuchera* 'Coral Bells' (cg 2L), *Allium* 'White Giant' (cg 2L), *Carex* 'Ice Dance' (cg 2L), *Hosta* 'Frances Williams' (cg 2L), *Anemone* 'Whirlwind' (cg 2L), *Vinca minor* (cg 2L)
- *Clematis* 'Nelly Moser' on Timber Trellis
- *Trachelospermum jasminoides* on Timber Trellis
- RANDOMLY LAID CONCRETE PAVING FLAG permeable
  Silver granite colour or similar
- HISTORIC CIRCLE PAVING FLAG permeable
  Silver and black granite colour or similar
- ENTRANCE HALL ACCESS / OWN DOOR ACCESS
- PASSIVE SURVEILLANCE
- PROPOSED SMALL CANOPY TREE
  "Rowan" (*Sorbus Aucuparia*)16-18 cmg rb
- PROPOSED SEATING
  Four leg seat, ground fixed in bead blasted 316 stainless steel with treated hardwood laths

clúid housing

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Client:	Clúid Housing
Project:	Proposed Residential Development 102 Main Street, Portlaoise, Co. Laois
Drawing Description:	Proposed Landscape Plan
Scale:	1:100 @ A1
Status:	Planning
Drawing No:	200301-03-104
Rev:	A
Date:	April 2024
Drawn by:	PS
Checked by:	BF

2.2.5 CEMP

A CEMP has been prepared by Vincent Hannon Architects and is provided in Appendix 3. The key measures outlined in the CEMP are summarised below.

Surface Water Contamination

The following measures shall be implemented with the construction of the surface water network:

- The filtering of surface water that is likely to be contaminated by soil particles in order to reduce the silting effects of these particles in the receiving downstream watercourse;
- Construction of suitable silt traps prior to the surface water out-falling to the existing watercourse;
- Relocation of existing services and preparation of detailed construction Methods Statements
- Existing gullies on the Main Street will be cleaned out, lined with a geotextile and filled with pea gravel this will trap and gather any sediment that accidently gets onto the roads surface. Inspections and regular cleaning will be carried out.
- The preparation of a detailed CEMP (this document) to include measures to protect against contamination and runoff;

Appropriate storage and settlement facilities will be provided on site.

Drainage and Water Quality

- Specific measures to prevent the release of sediment over baseline conditions during the construction work, which will be implemented as the need arises. These measures include, but are not limited to, the use of silt traps, silt fences, silt curtains, settlement ponds and filter materials. This is particularly important when undertaking any works/upgrading to the surface and foul water drainage networks at the proposed development site;
- Provision of exclusion zones and barriers (e.g. silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment;
- Imported materials such as terrain, straw bales, coarse to fine gravel should be used either separately or in-combination as appropriate to remove suspended matter from discharges;
- Monitoring shall be carried out on surface water discharge (if necessary and as specified in any Discharge Licence associated with the construction phase of the project);
- Provision of temporary construction surface drainage and sediment control measures to be in place before the construction of the pipeline and/or earthworks commence;
- Weather conditions will be taken into account when planning construction activities to minimise risk of run-off from the site;
- Prevailing weather and environmental conditions will be taken into account prior to the pouring of cementitious materials for the works adjacent to surface water drainage features, or drainage features connected to same. Pumped concrete will be monitored to ensure no accidental discharge. Mixer washings and excess concrete will not be discharged to surface water drainage systems;
- Concrete washout areas will be located remote from the surface water drainage features, where feasible, to avoid accidental discharge to watercourses;
- Any fuels of chemicals (including hydrocarbons or any polluting chemicals) will be stored in a bunded area to prevent any seepage of into the local surface

water network or groundwater, and care and attention taken during refuelling and maintenance operations;
- Temporary oil interceptor facilities shall be installed and maintained where site works involve the discharge of drainage water to receiving waters;
- All containment and treatment facilities will be regularly inspected and maintained;
- All mobile fuel bowsers shall carry a spill kit and operatives must have spill response training. All fuel containing equipment such as portable generators shall be placed on drip trays. All fuels and chemicals required to be stored onsite will be clearly marked;
- Implementation of response measures to potential pollution incidents;
- Emergency procedures and spillage kits will be available and construction staff will be familiar with emergency procedures in the event of accidental fuel spillages;
- All trucks will have a built-on tarpaulin that will cover excavated material as it is being hauled off-site and wheel wash facilities will be provided at all site egress points;
- Water supplies shall be recycled for use in the wheel wash. All waters shall be drained through appropriate filter material prior to discharge from the construction sites;
- The removal of any made ground material, which may be contaminated, from the construction site and transportation to an appropriate licenced facility shall be carried out in accordance with the Waste Management Act, best practice and guidelines for same;
- A discovery procedure for contaminated material will be prepared and adopted by the appointed contractor prior to excavation works commencing on site. These documents will detail how potentially contaminated material will be dealt with during the excavation phase;
- Implementation of measures to minimise waste and ensure correct handling, storage and disposal of waste (most notably wet concrete, pile arisings and asphalt).

Proposed Waste Management Options

Waste materials generated will be segregated on site where it is practical. Where the onsite segregation of certain wastes types is not practical, off-site segregation will be carried out by the appointed waste management contractor. Skips and other receptacles will be provided to facilitate segregation at source. The appointed waste contractor will collect and transfer the waste according as receptacles are filled.

During the demolition phase a certain number of materials will arise. Materials will include glass, concrete, masonry, tiles, ceramics, plasterboard, timber, steel and tarmac.

The classification of materials as non-hazardous and/or hazardous will be based on the HazWasteOnline web based system as well as classification using Waste Acceptance Criteria in accordance with the European Communities (EC) Council Decision 2003/33/EC, which establishes criteria for the acceptance of waste at landfills.

3. METHODOLOGY

The following sections describe the methodologies followed to establish the baseline ecological condition of the proposed development site and surrounding area. Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological Baseline conditions are those existing in the absence of proposed activities (CIEEM 2019).

3.1 Desk Study

A comprehensive desk study was undertaken to inform this ecological impact assessment. This study includes a thorough review of available information that is relevant to the ecology of the site of the proposed development. This information provides valuable existing data and also helps in the assessing the requirement for additional ecological surveys.

The following list describes the sources of data consulted:

- Review of Environmental Protection Agency (EPA), Water Framework Directive (WFD), National Parks and Wildlife Services (NPWS) Designations, and Heritage maps online mapping;
- Review of National Biodiversity Data Centre (NBDC) online records;
- Review of the Bat Conservation Ireland (BCI) Private Database
- Review of the publicly available National Biodiversity Data Centre web-mapper
- Records from the NPWS web-mapper and review of specially requested records from the NPWS Rare and Protected Species Database for the hectads which overlap with the study area

3.2 Field Surveys

3.2.1 Multi-disciplinary ecological walkover surveys

Multi-disciplinary ecological walkover surveys were undertaken in accordance with NRA Guidelines on Ecological Surveying Techniques for Protected Flora and Fauna on National Road Schemes (NRA, 2009). This survey provided baseline data on the ecology of the study area and assessed whether further more detailed habitat or species specific ecological surveys were required. The multi-disciplinary ecological walkover survey comprehensively covered the entire study area.

Habitats were classified in accordance with the Heritage Council's 'Guide to Habitats in Ireland' (Fossitt, 2000). Habitat mapping was undertaken with regard to guidance set out in 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2011).

Plant nomenclature for vascular plants follows 'New Flora of the British Isles' (Stace, 2019), while mosses and liverworts nomenclature follows 'Mosses and Liverworts of Britain and Ireland - a field guide' (British Bryological Society, 2010).

The walkover surveys were designed to detect the presence, or suitable habitat for a range of protected faunal species that are may occur in the vicinity of the proposed development.

During the multidisciplinary surveys, a search for Invasive Alien Species (IAS), with a focus on those listed under the Third Schedule of the European Communities Regulations 2011 (S.I. 477 of 2011), was also conducted.

The walkover surveys were undertaken on 6th of September 2022 and 11th of April 2024. The survey timing falls within the recognised optimum period for vegetation surveys/habitat mapping, i.e. April to September (Smith et al., 2011).

3.2.2 Bat Survey

An internal inspection of the structure was carried out during daylight hours on the 24th of September 2022, an external inspection was repeated on 28th September 2022. An inspection of the site and structure was updated on 11th April 2024 in line with more recent guidelines to reconfirm the baseline ecology of the site.

The habitat features on the site were visually assessed for potential use as bat roosting habitats and commuting/foraging habitats using a protocol set out in BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn.) (Collins, 2023). Surveys carried out in 2022 were carried out according to guidelines in BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn.) (Collins, 2016). 2024 surveys were updating previous surveys to ensure they are within current standards (Collins 2023).

The aim of the survey in 2022 was to identify suitable bat habitats within the site, bat roosting suitability and to carry out manual and static bat activity survey (Collins 2016). The aim of the survey in April 2024 was to update the bat habitat appraisal carried out in September 2022, and roost inspection results in line with current guidelines.

A bat report has been prepared as part of this planning application. This document provides a detailed description of all survey methodologies as undertaken at the site in 2022 and 2024. The bat report is provided Appendix 4.

3.3 Methodology for Assessment of Impacts and Effects

3.3.1 Determining Importance of Ecological Receptors

The importance of the ecological features identified within the study area was determined with reference to a defined geographical context. This was undertaken following a methodology that is set out in Chapter 3 of the 'Guidelines for Assessment of Ecological Impacts of National Roads Schemes' (NRA, 2009). These guidelines set out the context for the determination of value on a geographic basis with a hierarchy assigned in relation to the importance of any particular receptor. The guidelines provide a basis for determination of whether any particular receptor is of importance on the following scales:

- International
- National
- County
- Local Importance (Higher Value)
- Local Importance (Lower Value)

The Guidelines clearly set out the criteria by which each geographic level of importance can be assigned. Locally Important (lower value) receptors contain habitats and species that are widespread and of low ecological significance and of any importance only in the local area. Internationally Important sites are either designated for conservation as part of the Natura 2000 Network (SAC or SPA) or provide the best examples of habitats or internationally important populations of protected flora and fauna. Specific criteria for assigning each of the other levels of importance are set out in the guidelines and have been followed in this assessment. Where appropriate, the geographic frame of reference set

out above was adapted to suit local circumstances. In addition, and where appropriate, the conservation status of habitats and species is considered when determining the significance of ecological receptors.

Any ecological receptors that are determined to be of Local Importance (Higher Value), County, National or International importance following the criteria set out in NRA (2009) are considered to be Key Ecological Receptors (KERs) for the purposes of ecological impact assessment if there is a pathway for effects thereon. Any receptors that are determined to be of Local Importance (Lower Value) are not considered to be Key Ecological Receptors.

3.3.2 Characterisation of Impacts and Effects

The proposed development will result in a number of impacts. The ecological effects of these impacts are characterised as per the CIEEM 'Guidelines for Ecological Impact Assessment in the UK and Ireland (2018). The headings under which the impacts are characterised follow those listed in the guidance document and are applied where relevant. A summary of the impact characteristics considered in the assessment is provided below:

- **Positive or Negative.** Assessment of whether the proposed development result in a positive or negative effect on the ecological receptor.
- **Extent.** Description of the spatial area over which the effect has the potential to occur.
- **Magnitude** to size, amount, intensity and volume. It should be quantified if possible and expressed in absolute or relative terms e.g. the amount of habitat lost, percentage change to habitat area, percentage decline in a species population.
- **Duration** is defined in relation to ecological characteristics (such as the lifecycle of a species) as well as human timeframes. For example, five years, which might seem short-term in the human context or that of other long-lived species, would span at least five generations of some invertebrate species.
- **Frequency and Timing.** This relates to the number of times that an impact occurs and its frequency. A small-scale impact can have a significant effect if it is repeated on numerous occasions over a long period.
- **Reversibility.** This is a consideration of whether an effect is reversible within a 'reasonable' timescale. What is considered to be a reasonable timescale can vary between receptors and is justified where appropriate in the impact assessment section of this report.

3.3.3 Determining the Significance of Effects

The ecological significance of the effects of the proposed development are determined following the precautionary principle and in accordance with the methodology set out in Section 5 of CIEEM (2018).

For the purpose of EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local (CIEEM, 2018).

When determining significance, consideration is given to whether:

- Any processes or key characteristics of key ecological receptors will be removed or changed
- There will be an effect on the nature, extent, structure and function of important ecological features
- There is an effect on the average population size and viability of ecologically important species.
- There is an effect on the conservation status of important ecological habitats and species.

The EPA guidelines on information to be included in Environmental Impact Statements (EPA, 2022 and the *Guidelines for assessment of Ecological Impacts of National Road Schemes*, (NRA, 2009) were also considered when determining significance.

3.4 Limitations

The information provided in this document accurately and comprehensively describes the baseline ecological environment; provides an accurate prediction of the likely ecological effects of the proposed development; prescribes mitigation as necessary; and, describes the residual ecological impacts. The specialist studies, analysis and reporting have been undertaken in accordance with the appropriate guidelines. The third story of the building was not accessible during the site visit however, no significant limitations in the scope, scale or context of the assessment have been identified.

4. DESK STUDY

4.1 Designated Sites

The potential for the proposed development to impact on sites that are designated for nature conservation was considered in this Ecological Impact Assessment.

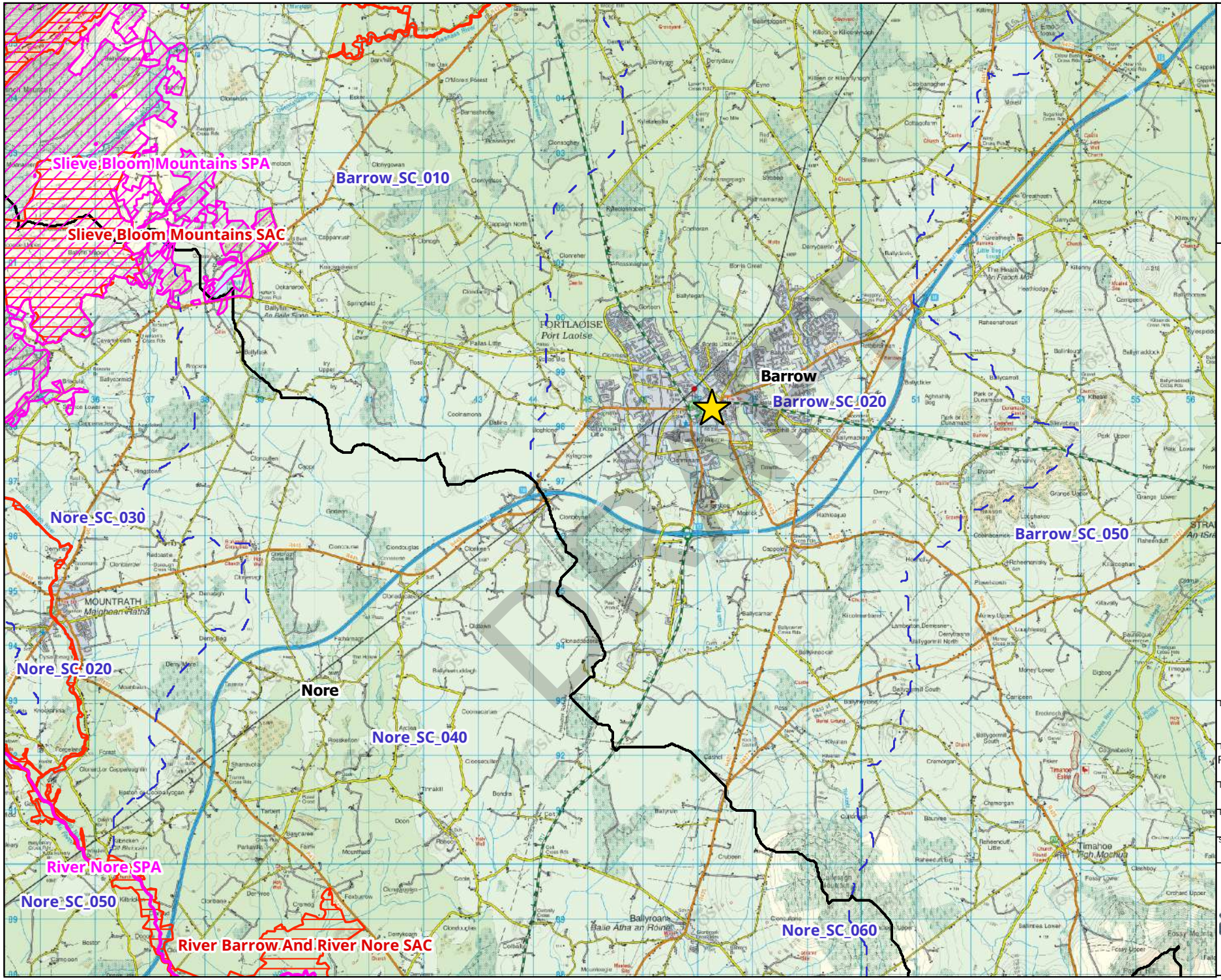
Special Areas of Conservation (SACs) and Special Protection Areas for Birds (SPAs) are designated under EU Habitats Directive and are collectively known as 'European Sites'. The potential for effects on European Sites is fully considered in the AA Screening Report. The location of the site of the proposed development in relation to European Sites is provided in Figure 4-1.

Natural Heritage Areas (NHAs) are designated under the Wildlife (Amendment) Act 2000 and their management and protection is provided for by this legislation and planning policy. The potential for effects on these designated sites is fully considered in this EcIA.

Proposed Natural Heritage Areas (pNHAs) were designated on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. However, the potential for effects on these designated sites is fully considered in this EcIA.

The following methodology was used to establish which sites that are designated for nature conservation have the potential to be impacted by the proposed development:

- Initially the most up to date GIS spatial datasets for Nationally designated sites and water catchments were downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) on the 10/04/2024. The datasets were utilized to identify Designated Sites which could feasibly be affected by the proposed development.
- All Nationally Sites that could potentially be affected were identified using a source-pathway - receptor model. To provide context for the assessment, Nationally Designated Sites surrounding the development site are shown on Figure 4-2. Information on these sites according to the site-specific conservation objectives is provided in Table 4-1. Sites that were further away from the proposed development were also considered and no complete source-pathway-receptor chain for significant effect was identified for any other European Site.
- Catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any Designated Sites. The hydrological catchments are also shown in Figures 4-1. & 4-2.
- Table 4-1, provides details of all relevant Nationally Designated Sites as identified in the preceding steps and assesses which are within the likely Zone of Impact.
- The site synopses and main reasons for designation of these sites, as per the NPWS website (www.npws.ie) were consulted where available.
- Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Impact and further assessment is required.



Map Legend

- Site Location
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- WFD Hydrological Catchments
- WFD Hydrological Subcatchments

Drawing Title
European Designated Sites

Project Title
Proposed Residential Development at 102 Main Street, Portlaoise, Laois

Drawn By	Checked By
CLS	KOD
Project No.	Drawing No.
200413	Figure 4-1
Scale	Date
1:90,000	15/05/2024

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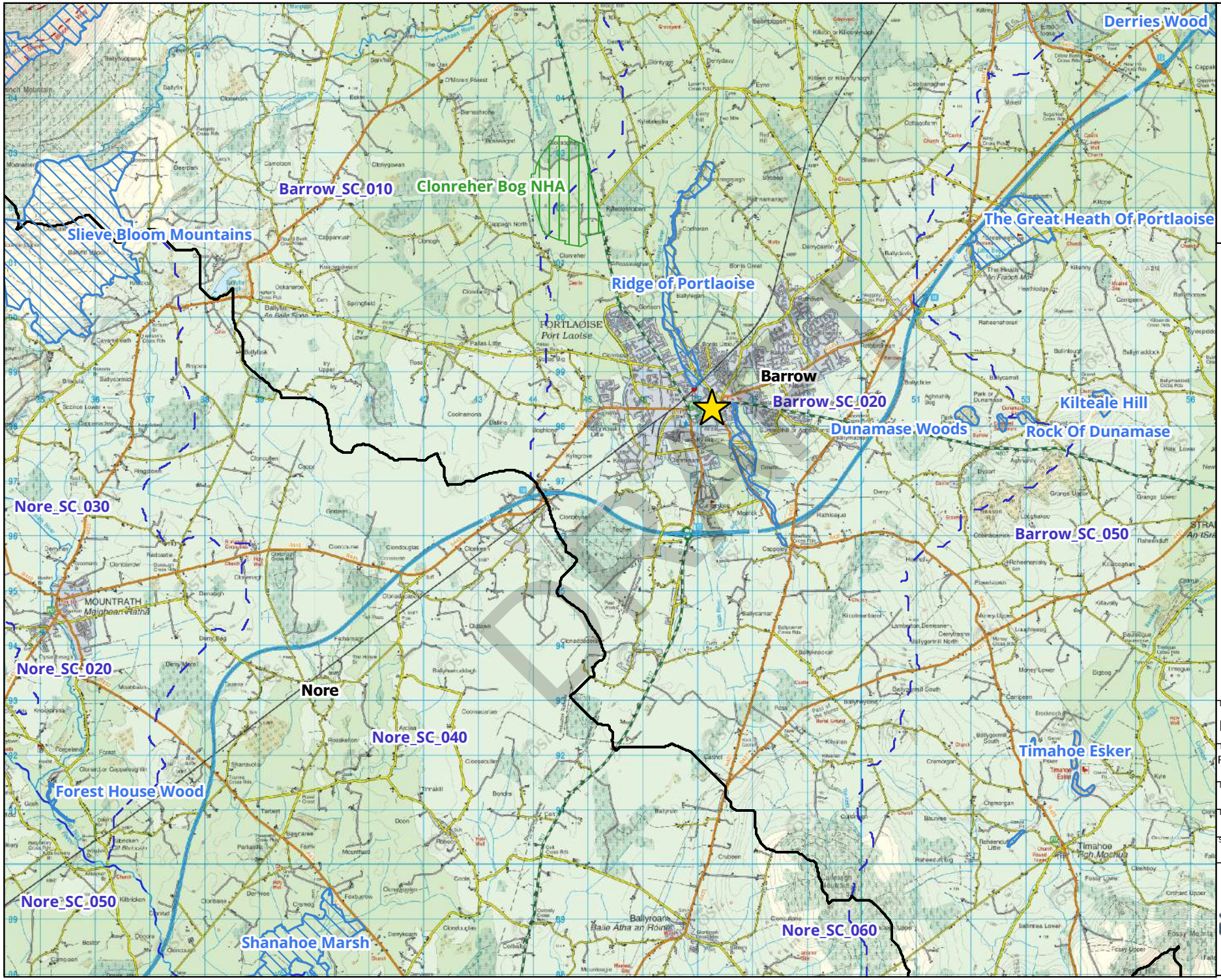

Map Legend

- Site Location
- Natural Heritage Area (NHA)
- Proposed Natural Heritage Area (pNHA)
- WFD Hydrological Catchments
- WFD Hydrological Subcatchments

Drawing Title
Nationally Designated Sites

Project Title
Proposed Residential Development at 102 Main Street, Portlaoise, Laois

Drawn By	Checked By
CLS	KOD
Project No.	Drawing No.
200413	Figure 4-2
Scale	Date
1:90,000	15/05/2024

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Table 4-1:Identification of Designated sites within the Likely Zone of Impact

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
Clonreher Bog NHA [002357] Distance: 3.76km	Peatlands [4]	There is no potential for direct effects as the proposed development site is located entirely outside the NHA boundary. The NHA is designated for a terrestrial habitat. Due to the distance between the site and the NHA and the terrestrial nature of the habitat, no complete source pathway receptor chain for effect was identified between the proposed works and the NHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
Proposed Natural Heritage Areas (pNHA)		
Ridge of Portlaoise pNHA [000876] Distance: 0.36km	› Elongated raised ridge/ esker formed of sand and gravel › Hazel/ash woodland › Species rich, calcareous grassland › Rare species- Nettle-leaved Bellflower (*Campanula trachelium*) & Blue Fleabane (*Erigeron acer*)	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for a terrestrial habitat and species. Due to the distance between the site and the pNHA and the terrestrial nature of the habitats and species, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
Dunamase Woods pNHA [001494] Distance: 4.42km	› Hills underlain with limestone › Oak/ash woodland	There will be no direct effects as the proposed development is located entirely outside the pNHA boundary.

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
		The pNHA is designated for terrestrial habitats. Due to the distance between the site and the pNHA and the terrestrial nature of the habitats, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
The Great Heath Of Portlaoise pNHA [000881] Distance: 5.46km	› Lowland acidic grassland › Peatland › Wetlands › Rare species- Few-flowered Spike-rush (*Eleocharis quinqueflora*) and Fen Bedstraw (*Galium uliginosum*)	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. Both the Proposed Development and the pNHA are underlain by the Bagenalstown Upper groundwater body. However, given the nature and scale of the works and the distance between the works and the pNHA there is no potential for significant indirect effects on the pNHA as a result of pollution via groundwater pathways. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
Rock Of Dunamase pNHA [000878] Distance: 5.56km	› Limestone outcrop › Shallow limestone soil › Meadow grassland › Hazel scrub	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for terrestrial habitats. Due to the distance between the site and the pNHA and the terrestrial nature of the habitats, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
Kilteale Hill pNHA [000867] Distance: 6.94km	› Limestone outcrop › Hazel woodland	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for a terrestrial habitat and species. Due to the distance between the site and the pNHA and the terrestrial nature of the habitat, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
Timahoe Esker pNHA [000421] Distance: 8.38km	› Sand and gravel esker ridge › Hazel woodland	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for terrestrial habitats. Due to the distance between the site and the pNHA and the terrestrial nature of the habitats, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
Emo Court pNHA [000865] Distance: 10.51km	› Semi-natural mixed woodland › Freshwater lake › Large parklands and gardens › Rare species- Myxomycete fungus (*Stemonitis herbatica*), *Scaphleberis mucronata* and *Disparalona rostrata*	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. Both the Proposed Development and the pNHA are underlain by the Bagenalstown Upper groundwater body. However, given the nature and scale of the works and the distance between the works and the pNHA there is no potential for significant indirect effects on the pNHA as a result of pollution via groundwater pathways. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**
Slieve Bloom Mountains pNHA [000412] Distance: 10.62km	› [4010] Northern Atlantic wet heaths with *Erica tetralix* › [7130] Blanket bogs (* if active bog) › [91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)*	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
		conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. The pNHA and the site of the proposed works are underlain by different groundwater bodies. Therefore, there will be no potential for significant indirect effects on the pNHA as a result of pollution via groundwater. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**
Shanahoe Marsh pNHA [001923] Distance: 11.18km	› Marsh	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. The pNHA and the site of the proposed works are underlain by different groundwater bodies. Therefore, there will be no potential for significant indirect effects on the pNHA as a result of pollution via groundwater. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
		between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**
Derries Wood pNHA [000416] Distance: 11.26km	› Mixed coniferous plantation › Lakes › Rare insects- *Criorhina ranunculi* and *Chrysops caucutiens*	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. Both the Proposed Development and the pNHA are underlain by the Bagenalstown Upper groundwater body. However, given the nature and scale of the works and the distance between the works and the pNHA there is no potential for significant indirect effects on the pNHA as a result of pollution via groundwater pathways. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**
Stradbally Hill pNHA [001800] Distance: 11.57km	› Limestone hills › Caves › Pedunculate Oak woodland › Conifer plantation	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary.

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
	› Lake	There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA. Both the Proposed Development and the pNHA are underlain by the Bagenalstown Upper groundwater body. However, given the nature and scale of the works and the distance between the works and the pNHA there is no potential for significant indirect effects on the pNHA as a result of pollution via groundwater pathways. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**
Clopook Wood pNHA [000860] Distance: 13.32km	› Ash/hazel woodland › Tertiary karst landscape › Limestone hill › Calcicole ground flora › Herb-rich dry grassland › Lichen and bryophyte rich communities › Rare species- *Marchensinis mackaii* and *Cololejeunea rosettiana*	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for terrestrial habitats and species. Due to the distance between the site and the pNHA and the terrestrial nature of the habitats and species, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
Forest House Wood pNHA [000874] Distance: 13.79km	› Woodland	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for a terrestrial habitat. Due to the distance between the site and the pNHA and the terrestrial nature of the habitat, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
River Nore/Abbeyleix Woods Complex pNHA [002076] Distance: 13.89km	› Woodland	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. The pNHA is designated for a terrestrial habitat. Due to the distance between the site and the pNHA and the terrestrial nature of the habitat, no complete source pathway receptor chain for effect was identified between the proposed works and the pNHA, therefore the site is **not within the Likely Zone of Impact and no further assessment is required.**
Grand Canal pNHA [002104] Distance: 14.19km	› Canal › Calcareous grassland › Limestone soils › Otter *Lutra lutra* › Smooth Newt *Lissotriton vulgaris* › Rare species- Pondweed (*Groenlandia densa*)	There is no potential for direct effects as the proposed development is located entirely outside the pNHA boundary. There is no surface water connectivity between this pNHA and the proposed development. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is not hydrologically connected to this pNHA.

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Impact Determination
Natural Heritage Areas (NHA)		
		Both the Proposed Development and the pNHA are underlain by the Bagenalstown Upper groundwater body. However, given the nature and scale of the works and the distance between the works and the pNHA there is no potential for significant indirect effects on the pNHA as a result of pollution via groundwater pathways. Given the nature and scale of the development, the absence of connectivity between the Proposed Development and the pNHA and the distance between the development and the pNHA, it is concluded that the site is **not within the Likely Zone of Impact and no further assessment is required.**

4.2 New Flora Atlas

A search was made in the New Atlas of the British & Irish Flora (Preston et al., 2002) to investigate whether any rare or unusual plant species listed as Annex II of the Habitats Directive, Ireland Red List no 10 Vascular Plants (Wyse Jackson *et al.,* 2016) or the Flora (Protection) Order, 2022 had been recorded in the relevant 10km squares in which the study site is situated (S49), during the 1987-1999 atlas survey. The results of this search are provided in **Error! Reference source not found.** below.

Table 4-2 Records of species listed under the Flora Protection Order 2022 or the Irish Red Data Book for Vascular Plants

Common Name	Scientific Name	Status
Basil Thyme	*Clinopodium acinos*	NT
Red Hemp-nettle	*Galeopsis angustifolia*	VU
Green-winged Orchid	*Orchis morio*	VU
Smooth Brome	*Bromus racemosus*	NT
Chrysanthemum segetum	*Chrysanthemum segetum*	NT
Henbane	*Hyoscyamus niger*	NT
Least Bur-reed	*Sparganium natans*	NT

4.3 NPWS Records

A data request was sent to the NPWS on the 10/04/2024 and data received in relation to the 10 kilometer grid square, S49, on the 22/04/2024. Table 4.3 lists the rare and protected species records obtained from the NPWS during this study.

Table 4-3 Records for rare and protected species, NPWS.

Common Name	Scientific Name	Status
Eurasian Badger	*Meles meles*	WA
Henbane	*Hyoscyamus niger*	NT
Common Frog	*Rana temporaria*	Annex V, WA, LC
Red Hemp-nettle	*Galeopsis angustifolia*	FPO, VU
White-clawed Crayfish	*Austropotamobius pallipes*	Annex II, Annex V, WA
Pine Marten	*Martes martes*	Annex V, WA, LC
Fallow Deer	*Dama dama*	WA, LC
Basil Thyme	*Clinopodium acinos*	FPO, NT

Common Name	Scientific Name	Status
Green-winged Orchid	*Anacamptis morio*	VU
Irish Hare	*Lepus timidus subsp. hibernicus*	LC, Annex V, WA
Desmoulin's Whorl Snail	*Vertigo moulinsiana*	Annex II
Eurasian Otter	*Lutra lutra*	Annex II, Annex IV, WA, LC
West European Hedgehog	*Erinaceus europaeus*	WA, LC
Irish Stoat	*Mustela erminea subsp. hibernica*	WA, LC
Smooth Brome	*Bromus racemosus*	NT

Annex II, Annex IV, Annex V – Of EU Habitats Directive, WA – Irish Wildlife Acts (as amended), Ireland Red List Data no 10 Vascular Plants (Wyse Jackson et al., 2016), BoCCI Red List – Birds of Conservation Concern in Ireland (Population for which the species is red listed in brackets), AEWA -Agreement on the Conservation of African-Eurasian Migratory Waterbirds [1999].

4.4 Biodiversity Ireland Database

The National Biodiversity Data centre database was accessed on the 15/04/2024 and the following information was obtained. Table 4-4 lists the protected faunal species (excluding birds) recorded within the hectad which pertains to the current study area. The database was also searched for records of Third Schedule non-native invasive species within the hectad. Table 4-5 lists the non-native invasive species recorded within the hectad. Table 4-6 lists all the protected bird species recorded within the hectad which pertains to the current study area.

Table 4-4 NBDC records for protected fauna records (excl. birds).

Common Name	Scientific Name	Red List Status	Protection Status
Badger	*Meles meles*	LC	WA
Brown Long-eared Bat	*Plecotus auritus*	LC	Annex IV, WA
Common Frog	*Rana temporaria*	LC	Annex V, WA
Common Pipistrelle	*Pipistrellus pipistrellus sensu stricto*	LC	Annex IV, WA
Daubenton's Bat	*Myotis daubentonii*	LC	Annex IV, WA
Fallow Deer	*Dama dama*	LC	WA
Hedgehog	*Erinaceus europaeus*	LC	WA
Irish Hare	*Lepus timidus subsp. hibernicus*	LC	Annex V, WA
Leisler's Bat	*Nyctalus leisleri*	LC	Annex IV, WA

Common Name	Scientific Name	Red List Status	Protection Status
Marsh Fritillary	*Euphydryas aurinia*	VU	Annex II
Natterer's Bat	*Myotis nattereri*	LC	Annex IV, WA
Otter	*Lutra lutra*	LC	Annex II, IV, WA
Pine Marten	*Martes martes*	LC	Annex V, WA
Pipistrelle	*Pipistrellus pipistrellus sensu lato*	LC	Annex IV, WA
Pygmy Shrew	*Sorex minutus*	LC	WA
Red Squirrel	*Sciurus vulgaris*	LC	WA
Soprano Pipistrelle	*Pipistrellus pygmaeus*	LC	Annex IV, WA
White-clawed Crayfish	*Austropotamobius pallipes*	n/a	Annex II, V, WA

Annex II, Annex IV, Annex V – Of EU Habitats Directive, WA – Irish Wildlife Acts (as amended).

Table 4-5 NBDC records for Invasive species.

Common Name	Scientific Name
Cherry Laurel	*Prunus laurocerasus*
Indian Balsam	*Impatiens glandulifera*
Japanese Knotweed	*Fallopia japonica*
Rhododendron ponticum	*Rhododendron ponticum*
Spanish Bluebell	*Hyacinthoides hispanica*
Brown Rat	*Rattus norvegicus*
Fallow Deer	*Dama dama*
Feral Ferret	*Mustela furo*
Raccoon	*Procyon lotor*

Table 4-6 NBDC Records for Birds

Common Name	Scientific Name	Status
Kingfisher	*Alcedo atthis*	Annex I
Hen Harrier	*Circus cyaneus*	Annex I
Spotted Crake	*Porzana porzana*	Annex I
Corncrake	*Crex crex*	Annex I, BoCCI Red List

Common Name	Scientific Name	Status
Golden Plover	*Pluvialis apricaria*	Annex I, BoCCI Red List
Meadow Pipit	*Anthus pratensis*	BoCCI Red List
Swift	*Apus apus*	BoCCI Red List
Stock Dove	*Columba oenas*	BoCCI Red List
Yellowhammer	*Emberiza citrinella*	BoCCI Red List
Kestrel	*Falco tinnunculus*	BoCCI Red List
Snipe	*Gallinago gallinago*	BoCCI Red List
Red Grouse	*Lagopus lagopus*	BoCCI Red List
Grey Wagtail	*Motacilla cinerea*	BoCCI Red List
Curlew	*Numenius arquata*	BoCCI Red List
Grey Partridge	*Perdix perdix*	BoCCI Red List
Woodcock	*Scolopax rusticola*	BoCCI Red List
Redwing	*Turdus iliacus*	BoCCI Red List
Barn Owl	*Tyto alba*	BoCCI Red List
Lapwing	*Vanellus vanellus*	BoCCI Red List

Annex I – Of EU Birds Directive, Red List – Birds of Conservation Concern in Ireland (Population for which the species is red listed in brackets).

4.5 EPA Water Quality Data

The EPA web-mapper (https://gis.epa.ie/EPAMaps/) was consulted on the 12/04/2024 regarding the water quality and status of nearest waterbodies to the proposed development site.

The site of proposed development is located with the Barrow (14) hydrological catchment, the Barrow_SC_020 sub catchment and the Triogue_020 river sub basin. The nearest watercourse is the Triogue River approximately 130m from the site of the proposed works. The Triogue_020 waterbody is classified as 'at risk' with a 'poor' status (SW 2016-2021). In 2023 the Kyle Br River Station gave the Triogue_020 waterbody a Q-value score of 3 and Q-value status of 'poor'.

The site of the proposed work is within the Bagenalstown Upper ground waterbody which is classified as 'not at risk' with a chemical, overall and quantitative groundwater status of 'good' (GW 2016-2021).

4.6 Conclusion of Desk Study

The desktop study has provided information about the existing environment in hectad S49, within which the proposed development is located. The mammals, birds, and aquatic species recorded within the relevant hectad have widespread ranges and distributions in Ireland and are likely to be recorded frequently throughout Ireland.

The site of the Proposed Development has no hydrological connectivity to any designated site. There are no watercourses located within or adjacent to the site of the proposed development which could act as conduits for pollution. The nearest watercourse is the Triogue River which is located 130m from the site of the proposed development.

5. FIELD STUDY

5.1 Habitats Present on the Site and Surrounding Area

A dedicated habitat survey of the area within and in the vicinity of the proposed development were undertaken on the 11th of April 2024. The habitats recorded during the site visit are described below and a habitat map is provided in Figure 5-1.

The proposed development site consisted primarily of an existing 3-story derelict building classified as **Building and artificial surfaces (BL3)** (Plate 5-1) with stands of Butterfly Bush (*Buddleja davidii*) growing from the roof of the building (Plate 5-2).

An area of **Refuse and other waste (ED5)** existed at the back of the building within the southeastern section of the site boundary (Plate 5-3). Species present included Red Valerian (*Centranthus ruber*), Goat Willow (*Salix caprea*) and Dandelion (*Taraxacum officinale agg.*).

There were no watercourses recorded within the boundary of the proposed development.

No habitats listed under Annex I of the EU Habitats Directive were recorded within the site of the Proposed Development and no suitable supporting habitat for species listed under Annex II of the EU Habitats Directive was identified during the walkover survey. No birds listed under Annex I of EU Birds Directive, nor significant suitable habitat, were recorded within the Proposed Development site.

No swifts were recorded using the proposed development site and it was determined that the derelict building did not have any potential to support nesting swifts.

There were no species found listed under the Third Schedule of the European Communities Regulations 2011 (S.I. 477 of 2011).

Map Legend

- Site Boundary
- Buildings and artificial surfaces (BL3)
- Refuse and other waste (ED5)

N

Drawing Title

Habitat Map

Project Title

Proposed Residential Development at 102 Main Street, Portlaoise, Co. Laois

Drawn By	Checked By
CLS	KOD
Project No.	Drawing No.
200413	Figure 5-1
Scale	Date
1:674	15/05/2024

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Plate 5-1 Outside of the derelict building at 102 Main Street, Portlaoise, with stands of Buddleia growing from the roof.

Plate 5-2 Inside of the derelict building at 102 Main Street, Portlaoise.

Plate 5-3 Area of refuse and waste at the back of the derelict building at 102 Main Street, Portlaoise.

5.2 Fauna

5.2.1 Bats

A separate bat report containing detailed results of all bat surveys during 2023 has been prepared in relation to the site and is provided in Appendix 4.

With regard to foraging and commuting bats, the proposed works site is considered of *Negligible* suitability due to the structure's location in an urban setting. Built and open areas, such as building yards and structures are considered of *Negligible* suitability.

A roost assessment was undertaken for all structures within the site, the results of which are outlined in detail in Appendix 4. In summary, the inspected building was assessed as being of *Low* suitability for roosting bats.

Emergence surveys focused on identifying if there were bats present in the buildings within the site, what bat species were present and to gather any information on bat roosting, foraging and commuting behaviour. Overall, bat activity within the area was very low and no evidence of bat roosting was recoded. During the dusk emergence survey, no bats were observed emerging or re-entering the structure. Low levels of bat activity were recorded in the area during this survey. Common pipistrelle (*Pipistrellus pipistrellus*) (2 bat passes) and a Soprano pipistrelle (*Pipistrellus pygmaeus*) (1 bat pass) were observed commuting and foraging in the wider area. No other bat activity was observed. During the dawn re-entry survey, no bats were observed emerging or re-entering the structure and no bats were recorded commuting or foraging in the wider area.

During the static detector surveys, no bat activity was recorded.

5.2.1 Importance of Ecological Receptors

Table 5.1. lists all identified receptors and assigns them an ecological importance in accordance with the Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009). This table also provides the rationale for this determination and identifies the habitats that are Key Ecological Receptors.

Table 5.1. Importance of Ecological Receptors

Habitat and Geographic Importance	KER Y/N	Rationale
Internationally Designated Sites		
International Importance No European Sites were identified to be within the likely zone of influence		
Nationally Designated Sites		
National Importance No National Sites were identified to be within the likely zone of influence		
Habitats		

Local Importance (lower value) › Buildings and artificial surfaces (BL3) › Refuse and other waste (ED5)	*No*	These habitats are assessed as being of Local Importance (Lower value). While some species may use these habitats, the loss of these habitats will not have any significant impacts on any species. Therefore, these habitats are **not** considered as KERs.
Faunal Species		
Local Importance (higher value) › Bats	*Yes*	All bat species in Ireland are protected under the Bonn Convention (1992), Bern Convention (1982) and the EU Habitats Directive (92/43/EEC). Additionally, in Ireland, bat species are afforded further protection under the Birds and Natural Habitats Regulations (2011) and the Wildlife Acts 1976 (as amended). Potential roosting features for bats were identified but no bats or roosts were found within the boundary of the proposed works. **Therefore, bats are considered as KERs.**

6. ECOLOGICAL IMPACT ASSESSMENT

6.1 Do Nothing Impact

If the proposed development were not to go ahead, all habitats would stay the same and the site would remain as a derelict building with a waste habitat at the back of the building.

6.2 Impacts during Construction

6.2.1 Impacts on Habitats

The proposed development will result in the loss of Buildings and artificial surfaces (BL3) and Refuse and other waste (ED5). The loss of these habitats is not significant at any geographical scale as these habitats have a relatively low biodiversity value and are widespread in the local and wider area. These habitats are not classed as KERS as they are of Local Importance (lower value). Consequently, their loss does not constitute a significant effect on biodiversity and they are not considered further in this assessment.

Mitigation:

Although there will be no loss of any habitats of greater than local importance (lower value) the following best practice measures will be implemented to ensure there is no loss of or encroachment on habitats outside the construction footprint:

- Construction footprint will be fenced off prior to commencement of any construction works and all works will be confined to within the fenced area.

Residual impact: No significant impacts are anticipated.

6.2.2 Impacts on Fauna

The effects on faunal species that have been identified as Key Ecological Receptors to facilitate construction are described in the following sections.

6.2.2.1 Bats

Table 6-1 Assessment of the potential for impacts on bats during the Construction Phase

Description of Effect	**Habitat Loss and Fragmentation** The habitats to be lost and fragmented during construction of the proposed development include: Buildings and artificial surfaces (BL3) and Refuse and other waste (ED5). These habitats are of Negligible Importance for bats. No bats or signs of bats were observed in the existing building on the site.
	Disturbance Although no bats roosts were identified within the development site, commuting and foraging bats utilising the area may be disturbed by increased human presence and increased noise during construction, leading to avoidance of the area. Taking a preacutionary approach the potential for disturbance of bats as a result of the construction activities is assessed as a short-term negative effect. The effects are reversible and not likely to be significant.

	It is unlikely that there will be any significant effect as a result of disturbance.
Assessment of Significance prior to mitigation	**Disturbance** The potential for disturbance of bat species during the construction phase is not likely to be significant, however the mitigation below is prescribed on a precautionary basis.
Mitigation	The following measures will be employed to further minimize the potential for disturbance: › All plant and equipment for use will comply with Statutory Instrument No 359 of 1996 "European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations 1996". › Plant machinery will be turned off when not in use. › Operating machinery will be restricted to the proposed works site area. › Artificial lighting that is used during construction will only be used when construction is taking place. All lighting will be designed in accordance with the guidelines contained in BCT Bats and Artificial Lighting at Night 2023, NPWS Bat Mitigation Guidelines (2022)
Residual Effect following Mitigation	Following the implementation of mitigation, there is no potential for the construction of the proposed development to result in significant effects on bat species.

6.3 Operational Phase

6.3.1 Impacts on Habitats

There will be no loss or fragmentation of habitats during the operational phase of the proposed development. Any habitat loss will occur during construction. As such, no negative effects on habitats are predicted during the operation of this development.

6.3.2 Impacts on Fauna

The operational effects on faunal species are assessed in this section of the report. Bats are identified as a Key Ecological Receptors and have the potential to be impacted by the lighting that is proposed as part of the development. This is discussed in more detail below.

6.3.2.1 Bats

Table 6-2 Assessment of the potential for impacts on bats during the Operational Phase

Description of Effect	The proposed development will include lighting for the new building. Details of this is provided within the site lighting report provided in **Appendix 2.** The lighting associated with the operational phase of the proposed development has potential to disturb foraging and commuting activity for bats.
Assessment of Significance prior to mitigation	**Disturbance** The potential for disturbance of bat species during the operational phase represents a potential significant effect on a receptor of local importance higher value.
Mitigation	The following measures will be employed to minimise the potential for disturbance: › Lowest possible design illuminance levels considering the nature of the site › Lamps should have a lamp flux/colour of White LED (2700K) light source – less attractive to insects, and a good light source to enable directional luminaires. (2700K-3000K, but ideally 2700K). › Installation of a control regime (night switch off or dim) and/or motion activation to avoid having lights on unnecessarily, particularly emergency lighting. › Recommendations to keep unavoidable lighting to a minimum and implement lighting controls where possible with unavoidable light spill topping at 1Lux. All lighting for the operational phase of the proposed development, will be designed with consideration of the following guidelines: Bat Conservation Ireland guidelines; Bat Conservation Ireland (Bats and Lighting: Guidance Notes for Planners, Engineers, Architects and Developers, BCI, 2010) and the Bat Conservation Trust (Guidance Note 08/18 Bats and Artificial Lighting in the UK (BCT, 2018).

Residual Effect following Mitigation	Following the implementation of mitigation, there is no potential for the operation of the proposed development to result in significant effects on bat species.

6.4 Impacts on Designated Sites

No potential pathway for significant effects on any Designated Site was identified. The AASR which accompanies this planning application concluded:

> *"It is concluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, will not have a significant effect on any European Site".*

Section 4-1 of this report assessed the potential for the proposed development to result in significant impacts on National Sites. No potential pathway for significant effects on any National Site was identified.

The AASR concluded that no potential for likely significant effects on any European Site was identified. No mitigation is required.

7. CUMULATIVE IMPACT ASSESSMENT

A search and review in relation to plans and projects that may have the potential to result in cumulative and/or in-combination impacts on Biodiversity was conducted. This assessment focuses on the potential for cumulative in-combination effects on the European Sites where potential for adverse effects was identified in Section 4 of this report. This included a review of online Planning Registers, development plans and other available information and served to identify past and future plans and projects, their activities and their predicted environmental effects. The plans and projects considered are discussed below.

7.1 Plans

The following development plans have been reviewed and taken into consideration as part of this assessment:

- Laois County Development Plan 2021–2027
- Ireland's 4th National Biodiversity Action Plan 2023-2030
- Eastern and Midland Regional Assembly Regional Spatial and Economic Strategy 2019-2031

The review focused on policies and objectives that relate to Biodiversity and natural heritage. Policies and objectives relating to sustainable land use were also reviewed

Table 8.1 Review of plans

Plans	Key Policies/Issues/Objectives Directly Related to European Sites in The Zone of Influence	Assessment of Potential Effects on European Sites
Laois County Development Plan 2021-2027	**RTP 17** Ensure that all proposed town centre projects and any associated improvement works or associated infrastructure such as parking facilities, individually or in combination with other plans and projects, are subject to Appropriate Assessment to ensure there are no likely significant effects on the integrity of any Natura 2000 sites in the County. **ES 27** Ensure the protection of groundwater dependant Natura 2000 sites which rely on the continued supply of groundwater resources to secure the key environmental conditions that support the integrity of the site and through the protection of groundwater standards as defined by the National River Basin Management Plan 2018 – 2021 (and any subsequent Plan). Where no detailed Plan for protection of a specific source is available wastewater discharge will not be permitted within a radius of 200 metres of that source. **ES 50** Ensure that external lighting and lighting schemes are designed so that light spillage is minimised, thereby limiting light pollution into the surrounding environment and protecting the amenities of nearby properties and wildlife, including protected species **BNH 1** Protect, conserve, and seek to enhance the county's biodiversity and ecological connectivity. **BNH 2** Conserve and protect habitats and species listed in the Annexes of the EU Habitats Directive (92/43/EEC) (as amended) and the Birds Directive (2009/147/EC), the Wildlife Acts 1976 and 2010 (as amended) and the Flora Protection Orders. **BNH 3** Support and co-operate with statutory authorities and others in support of measures taken to manage proposed or designated sites in order to achieve their conservation objectives and maintain the favourable conservation status and conservation value of Sites under National and European legislation and International Agreements and maintain and /develop linkages between them where feasible. **BNH 4** Protect and maintain the conservation value of all existing and future Natural Heritage Areas, Nature Reserves, Ramsar Sites, Wildfowl Sanctuaries and Biogenetic Reserves in the county.	The Development Plan was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the Natura 2000 network and other natural heritage interests. The Development Plan was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the promotion of biodiversity. No potential for cumulative effects, considered in conjunction with the proposed development, were identified. No potential for negative cumulative impacts when considered in conjunction with the Proposed Development were identified.

	BNH 5 Projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this Plan (either individually or in combination with other plans or projects)[1]. Screening for AAs and AAs undertaken shall take into account invasive species as relevant. **BNH 6** Assess, in accordance with the relevant legislation, all proposed developments which are likely to have a significant effect (directly or through indirect or cumulative impact) on designated natural heritage sites, sites proposed for designation and protected species. **BNH 10** Support the objectives of the All Ireland Pollinator Plan 2015-2020 by encouraging the planting of pollinator friendly trees and plants within grass verges along public roads and existing and future greenways, new hedgerows, public parks and public open spaces in towns and villages, including part of mixed use and residential developments. **BNH 11** Support measures to protect Swift population such as the creation of Swift nest cavities in all new commercial and public buildings (schools/libraries, etc). **BNH 13** It is an policy objective of the Council to require new developments to identify, protect and enhance ecological features by making provision for local biodiversity (for example, through provision of swift boxes or bricks, bat roost boxes, green roofs, etc.) and improve the ecological coherence of wider green infrastructure. **BNH 14** It is an objective of the Council to protect existing swift roosts as identified in the County Swift Survey and ensure existing nest sites are not lost through inappropriate renovation or destruction. **BNH 15** In dealing with applications for new developments, the Planning Authority will have regard to the following: • Inclusion of swift nesting opportunities in new buildings through use of swift brick or swift nest boxes where appropriate. **BNH 23** Encourage, pursuant to Article 10 of the Habitats Directive, the management of features of the landscape, such as traditional field boundaries and laneways, important for the ecological coherence of The Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species.	

	LCA 2 Protect and enhance the county's landscape, by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape and conserve valuable habitat including any European and National Designations. **LCA 24** Conserve valuable habitats including any European and national designations. **CS 03** In the assessment of development proposals, to take account of transport corridors, environmental carrying capacity, availability and/or capacity to provide waste water and water supply services, potential to conflict with Water Framework Directive objectives, potential to impact on the integrity of European sites and Annexed Habitats and species, features of biodiversity value including ecological networks, impact on landscape and visual characteristics, education and other socioeconomic objectives. **SWD 1** Support in conjunction with Irish Water the improvement of storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in urban environments. **SWD 5** Ensure that in public and private developments in urban areas, both within developments and within the public realm, seek to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.	

Ireland's 4th National Biodiversity Action Plan **2023-2030**	**Objective 2:** Meet urgent conservation and restoration needs **Outcome 2A:** The protection of existing designated areas and species is strengthened and conservation and restoration within the existing protected are network are enhanced **Outcome 2B:** Biodiversity and ecosystem services in the wider countryside are conserved and restored – agriculture & forestry **Outcome 2C:** Biodiversity and ecosystem services in the wider countryside are conserved and restored – peatlands & climate action **Outcome 2D:** Biodiversity and ecosystem services in the marine and freshwater environment are conserved and restored **Outcome 2H:** Invasive alien species (IAS) are controlled and managed on an all-island basis to reduce the harmful impact they have on biodiversity and measures are undertaken to tackle the introduction and spread of new IAS to the environment	The 4th National Biodiversity Action Plan was comprehensively reviewed with particular focus on policies and objectives related to the promotion of biodiversity. No potential for cumulative effects, considered in conjunction with the proposed development, were identified.
Eastern and Midland Regional Assembly **2019-2031**	**Regional Policy Objective (RPO) 4.73:** Support the vision and objectives of the J17 National Enterprise Park Masterplan, where appropriate, which aims to deliver a viable economic zone within Portlaoise which will accommodate a range of potential businesses and industries whilst having regard to spatial planning, infrastructural, environmental and transportation requirements and compatibility with adjoining land uses. This is subject to compliance with the requirements of the SEA, Habitats and Floods Directive. **RPO 7.9:** Local authorities shall consider measures to minimise the harmful effects of light pollution in the future provision of outdoor lighting, including improving their approach to street lighting and ensuring that new developments are lit appropriately and to ensure that environmentally sensitive areas are protected. **RPO 7.16:** Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans.	The Spatial and Economic Policy was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the Natura 2000 network and other natural heritage interests. The Spatial Economic Policy was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the promotion of biodiversity. No potential for cumulative effects, considered in conjunction with the proposed development, were identified. No potential pathway for significant effects on any European Site as a result of the Proposed Development were identified.

	RPO 7.17: Facilitate cross boundary co-ordination between local authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species. **RPO 7.21:** Local authorities shall promote an Ecosystem Services Approach[49] in the preparation of statutory land use plans.	No potential for negative cumulative impacts when considered in conjunction with the Proposed Development were identified.

7.2 Other Projects

Assessment material for this in-combination impact assessment was compiled on the relevant developments within the vicinity of the Proposed works and was verified on the 9th of April 2024. The material was gathered through a search of relevant online Planning Registers, reviews of relevant documents, planning application details and planning drawings, and served to identify past and future projects, their activities, and their environmental impacts. All relevant projects were considered in relation to the potential for in-combination effects. All relevant data was reviewed (e.g., individual EISs/EIARs, layouts, drawings etc.) for all relevant projects where available. The projects considered in the vicinity of the proposed works within the last 5 years include extensions to houses, retention permission, change of use, small alterations, and the following:

- Permission to construct a new dormer dwelling house and a new site entrance and all associated siteworks (planning ref: 2360376).
- Permission to construct a 3-storey apartment block containing 9 no. apartments and utilising the existing shared vehicular access onto Harpur's Lane and to carry out all associated site boundary and site development works at No. 2 Harpur's Lane, Portlaoise, Co. Laois, R32 TXF7, which is within the curtilage of a protected structure (NIAH reference number - 12504235, record of protected structures reference number - RPS 185_B) (planning ref: 22530).
- Permission to revise the plans previously granted under planning ref no. 19/504. Permission is sought to construct a two-storey building comprising of 2 no. two bedroom apartments, 2 no. one bedroom apartments, storage room & plant room together with all ancillary services and associated site works (planning ref: 22639).
- Permission for the construction of 49 no. residential units consisting of 15 no. terraced, two-storey houses (1 no. 4-bedroom house and 14 no. 3-bedroom houses) and 34 no., two-bed apartments arranged in 2-storey blocks of 12 apartments (1 no. block), 8 apartments (2 no. blocks) and 6 apartments (1 no. block). Proposed access will be through the existing entrance (serving Mill Court) off Green Mill Lane and works will include new estate roads, parking courts, boundaries, landscaping, a play area, related and ancillary services including bin storage and cycle shelters along with the demolition/removal of the existing boundary wall fronting Green Mill Lane and all associated site-works at Green Mill Lane, Portlaoise (planning ref: 2260005).
- Permission to construct 2 no. apartment blocks (Blocks 6 & 7), ranging from 2 to 4 storeys, totalling 28 apartments consisting of 2 no. one-bedroom apartment, 25 no. two-bedroom apartments, 1 no. three bed apartment. Block 6 will include a 22 child space creche. Block 7 will include a manager's office. All associated site works including modification of permitted vehicular entrance off Harpur's Lane permitted under Reg. Ref. 17/449, spine road, car parking, cycle parking, bin storage, open space and landscaping. 2 no. apartment will be used for short term use by the close relatives of the nursing home in the case of a health crisis (planning ref: 22271).
- Permission to construct a single storey dwelling house, garage, connection to existing public sewer and water services, new entrance and all associated site works on existing vacant site (planning ref: 22759).
- Permission to develop at 7-8 Well Road, Portlaoise, Co. Laois with access from Well Road Court (Similar to the proposed development in the grant of planning permission for building 'A' in P.A. 08/1430). The development will consist of the demolition of the derelict building on the site, the construction of a three-storey building with five apartments (three X 1-bedroom and two X 2-bedroom), the provision of bike and bin stores, the provision of landscaping including boundary treatments, and all ancillary site development and utility work (planning ref: 22165).
- Permission to create an open pedestrian area at the entrance to the train station, reorganise parking by providing 28 car parking spaces to the rear of the site, the plans involve works within the curtilage of a protected structure, new bicycle shelter with 30 no. bicycle spaces, footpaths, fencing, kerbing, drainage, road markings, public lighting, CCTV, ticketing machine, EV charging points, relocation of existing bus stop and all other associated site works (planning ref: 21831).
- Permission to subdivide existing plot and construct new dwelling house and all associated works (planning ref: 22254).

- Permission to construct a new recording studio inclusive of offices and a chapel, a new entrance onto Lismard Business Park and all associated site works (planning ref: 2231).
- Permission to construct 1 no. apartment block (Block 3), along with all associated site works including vehicular entrance off Harpur's Lane, new spine road, car parking, cycle parking, bin storage, water tank, store, open space and landscaping. Apartment Block 3 will be 5 storeys high and contain 19 no. apartments (14 no. 2-bed apartments and 5 no. one-bed apartment (planning ref: 2151).
- Permission to construct 2 no. apartment blocks (Blocks 4 and 5), along with all associated site works including vehicular entrance off Harpur's Lane, new spine road, car parking, cycle parking, bin storage, open space and landscaping. Apartment Block 4 will be 4 storeys high and contain 27 no. 2-bed apartments. Apartment Block 5 will be 5 storeys high and contain 38 no. 2-bed apartments and 1 no. 1-bed apartment. 2 apartments will be used for short term use by the close relatives of the nursing home residents in the case of a health crisis (planning ref: 2164).
- Permission to amend previously granted permission 15/544 to include amending the previously approved site layout, site boundary and house designs. The revised permission applied for is to construct 12 no. two storey, three bed semi-detached dwelling houses, 2 no. two storey end of terrace 3-bedroom houses and 1 no. two storey mid-terrace 3 bedroom house incorporating footpaths, parking spaces, foul & storm water drainage, public open space and all ancillary site works and services (planning ref: 2056).
- construct a 101-bed nursing home (gfa 5184.85 sqm) ranging from 1-3 storeys high along with all associated site works including vehicular entrance off Harpur's Lane, new spine road, car parking, cycle parking, bin storage, open space and landscaping (planning ref: 2052).
- Permission to construct 2 number training rooms at first floor level and new fire escape door and all ancillary services (planning ref: 19585).
- Permission to construct a new commercial storage building with all ancillary site works (planning ref: 19567).
- Permission to construct two no. two bedroomed apartments, winter gardens, amend elevations and all associated site works (former Portlaoise arms Building Protected Structure RPS no. 227) (planning ref: 19489).
- Permission to construct a self-contained domestic unit attached to rear of existing dwelling. The works include the demolition of existing outbuilding and partial removal of North boundary wall with all associated site works and services (planning ref: 19431).
- Permission to construct a single storey place of worship with external signage and car parking and connection to existing services and all ancillary site works, within the curtilage of protected structure IBS House (planning ref: 19220).
- Permission to construct (a) a single, detached, 3 storey block (Block 1) containing 40 no. 2 bed apartments for Independent and Assisted Living for the Elderly & Disabled; (b) a spine road and haul road which will both serve the proposed development and future development of the applicant's wider landholding (subject to planning permission). All associated site works including modification of permitted vehicular entrance off Harpur's Lane permitted under Reg. Ref. 17/449, car parking, cycle parking, bin storage, open space, landscaping (planning ref: 19151).
- Permission to construct a new dwelling house and all associated site works adjacent to No.74 Borris Little, Borris Road (planning ref: 18658).
- Permission to construct a 3 unit housing development consisting of 2 no. two storey two bed end of terrace houses and 1 no. two storey 2 bed mid terraced house. The proposed development will be accessed from the existing public roadway along the Western boundary of the subject site which connects onto the Old Knockmay Road. The proposed development will include access roads, footpaths, public open space, foul and surface water drainage, landscaping and all associated infrastructure works and services (planning ref: 19106).

The dominant land uses in the area were also considered in the assessment, these included the following:

- Residential
- Commercial

7.3 Conclusion of Cumulative Assessment

In the review of the projects that was undertaken, no connection, that could potentially result in additional or cumulative impacts was identified. Neither was any potential for different (new) impacts resulting from the combination of the various projects and plans in association with the proposed development.

Taking into consideration the reported residual impacts from other plans and projects in the area and the predicted impacts with the current proposal, no residual cumulative impacts have been identified with regard to Biodiversity.

8. CONCLUSION

Following consideration of the residual effects (post incorporation of best practice measures) it is noted that the proposed development will not result in any significant effects on the biodiversity, flora and fauna of the existing environment.

The potential residual impacts on ecological receptors will not be significant and no potential for the proposed development to contribute to any cumulative impacts on biodiversity when considered in-combination with other plans and projects was identified.

Provided that the proposed development is constructed and operated in accordance with the design and best practice that is described within this report, significant effects on biodiversity are not anticipated at any geographical scale.

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APPENDIX 1

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www.water.ie

23 March 2022

Re: CDS22002071 pre-connection enquiry - Subject to contract | Contract denied

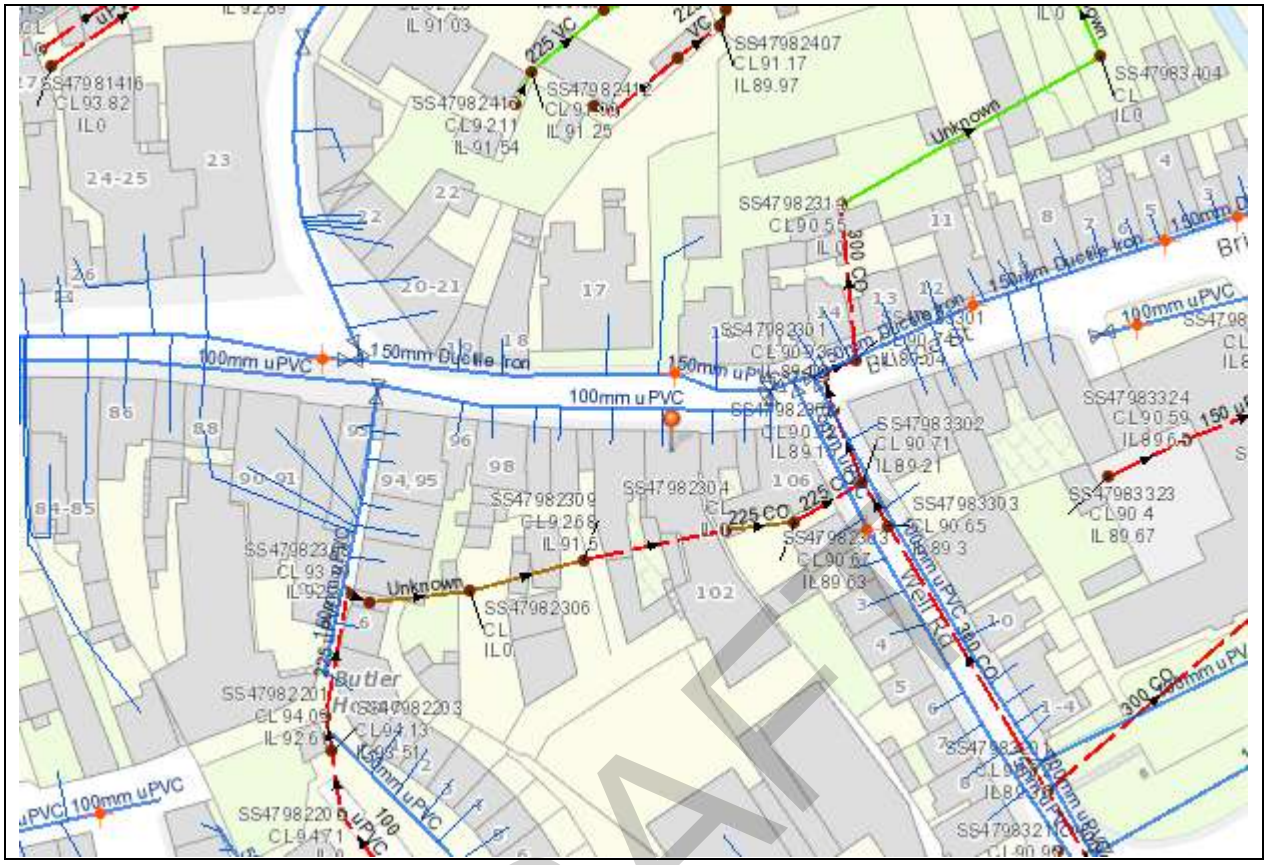
Connection for Multi/Mixed Use Development of 11 unit(s) at 102 Main Street, Portlaoise, Co. Laois

Dear Sir/Madam,

Irish Water has reviewed your pre-connection enquiry in relation to a Water & Wastewater connection at 102 Main Street, Portlaoise, Co. Laois (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on our desk top analysis of the capacity currently available in the Irish Water network(s) as assessed by Irish Water, we wish to advise you that your proposed connection to the Irish Water network(s) can be facilitated at this moment in time.

SERVICE	OUTCOME OF PRE-CONNECTION ENQUIRY THIS IS NOT A CONNECTION OFFER. YOU MUST APPLY FOR A CONNECTION(S) TO THE IRISH WATER NETWORK(S) IF YOU WISH TO PROCEED.
Water Connection	Feasible without infrastructure upgrade by Irish Water
Wastewater Connection	Feasible without infrastructure upgrade by Irish Water
SITE SPECIFIC COMMENTS	
Wastewater Connection	As there is an existing sewer running under the existing building an IW build Over/Near application will have to be applied for before a IW connection agreement can be obtained, Please contact diversions@water.ie to apply for build over agreement.
The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this development shall comply with the Irish Water Connections and Developer Services Standard Details and Codes of Practice that are available on the Irish Water website. Irish Water reserves the right to supplement these requirements with Codes of Practice and these will be issued with the connection agreement.	

The map included below outlines the current Irish Water infrastructure adjacent to your site:



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Whilst every care has been taken in its compilation Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland to Irish Water. Irish Water can assume no responsibility for and give no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided and does not accept any liability whatsoever arising from any errors or omissions. This information should not be relied upon in the event of excavations or any other works being carried out in the vicinity of the Irish Water underground network. The onus is on the parties carrying out excavations or any other works to ensure the exact location of the Irish Water underground network is identified prior to excavations or any other works being carried out. Service connection pipes are not generally shown but their presence should be anticipated.

General Notes:

1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. **The availability of capacity may change at any date after this assessment.**
2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
3) The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at https://www.water.ie/connections/get-connected/
5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.

6) Irish Water Connection Policy/ Charges can be found at https://www.water.ie/connections/information/connection-charges/
7) Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
9) To access Irish Water Maps email datarequests@water.ie
10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

If you have any further questions, please contact Tony Scanlan from the design team on 021 42 18905 or email toscanlon@water.ie For further information, visit **www.water.ie/connections.**

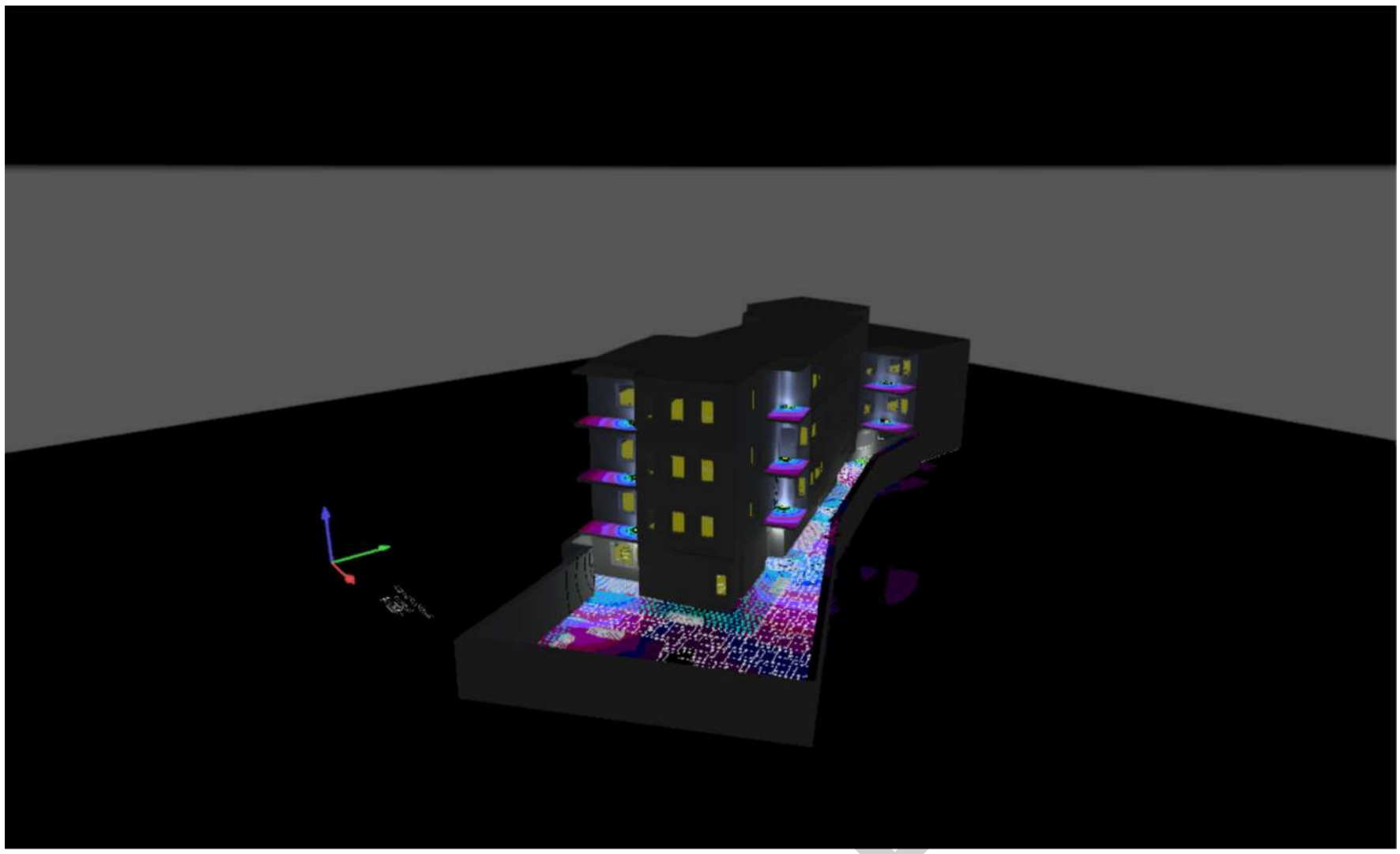
Yours sincerely,

Yvonne Harris

Head of Customer Operations

APPENDIX 2

LIGHTING PLAN



Project

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DIALux

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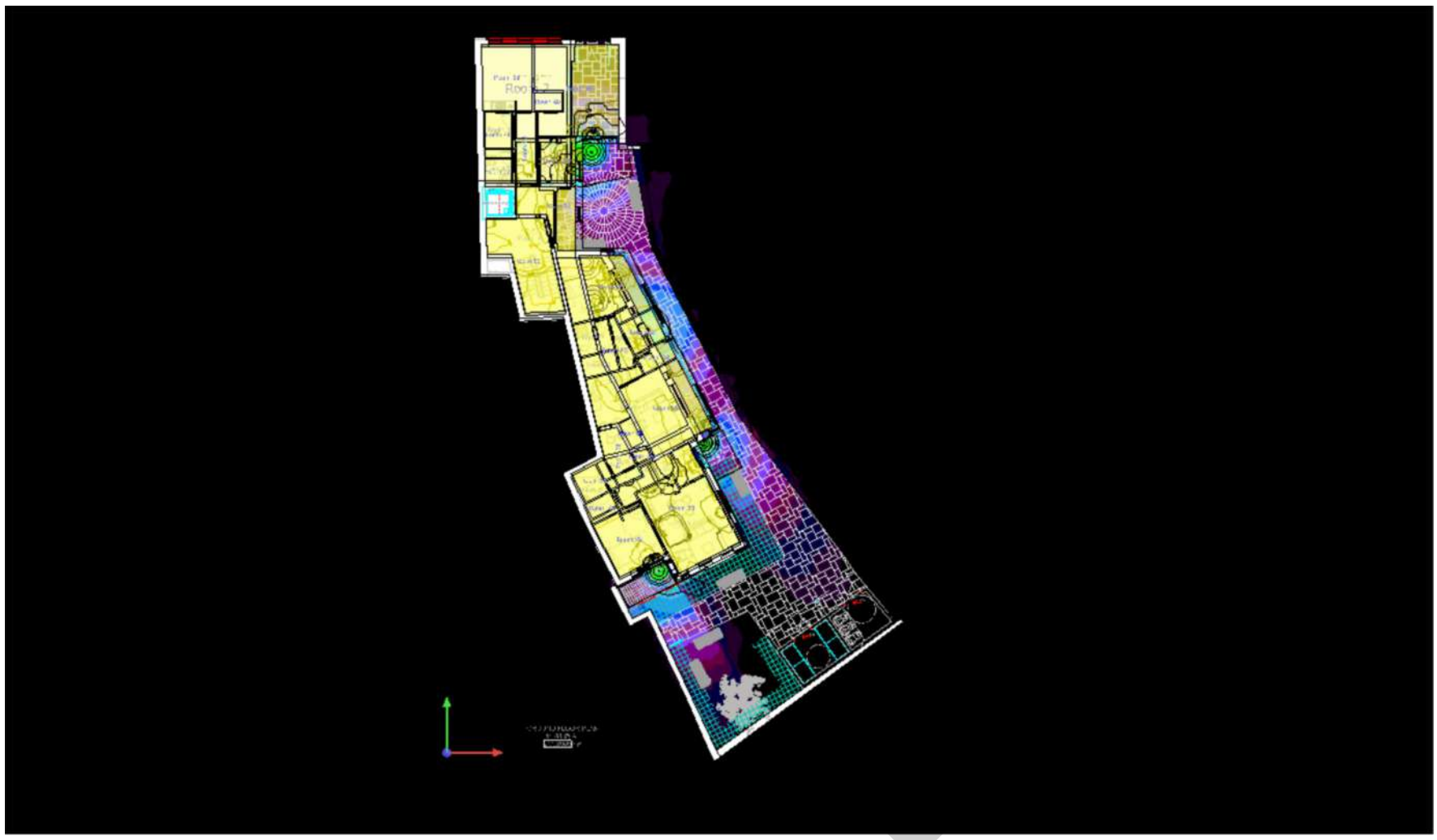
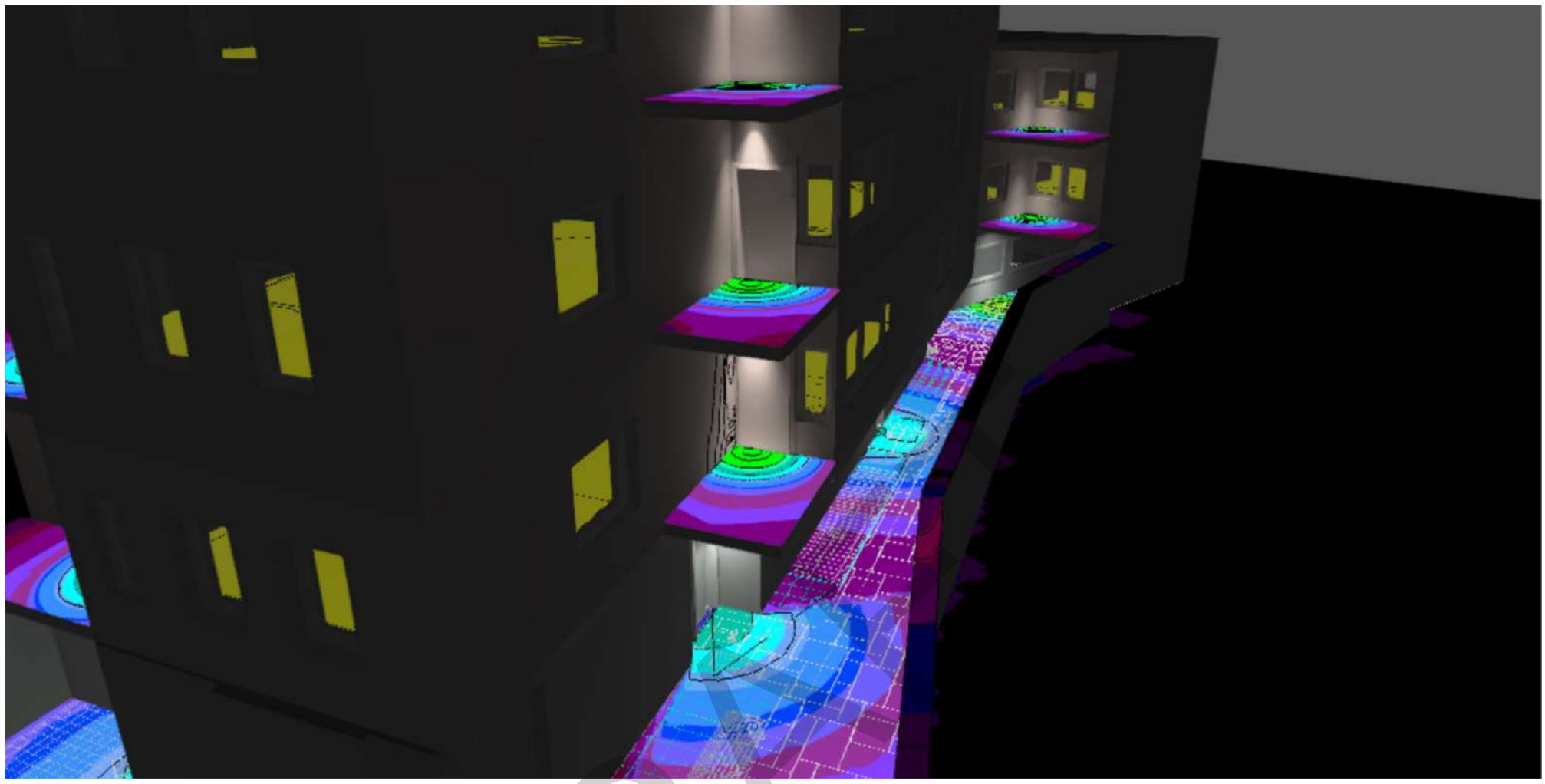


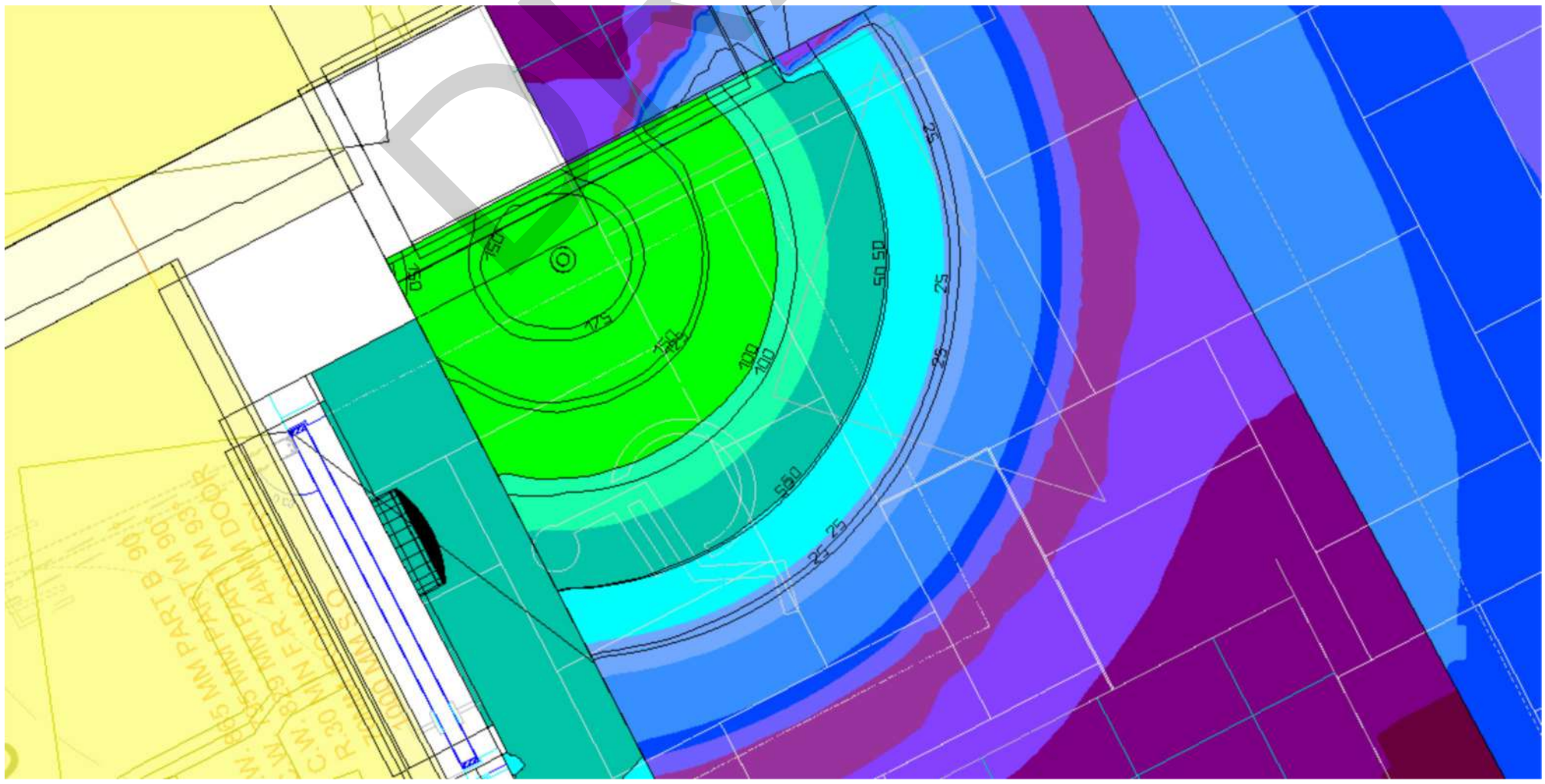
Site 1

Description

Site 1

Images





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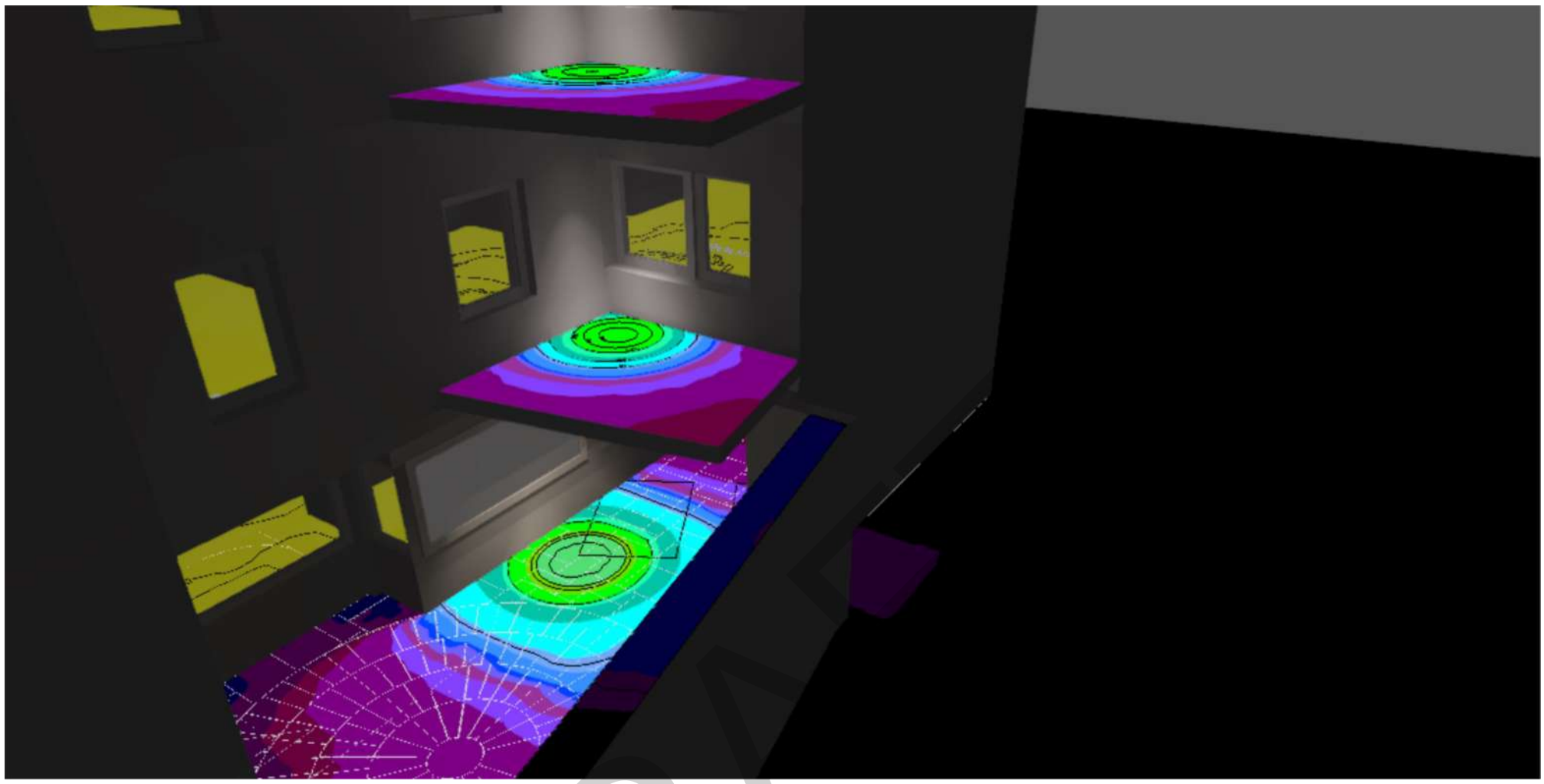
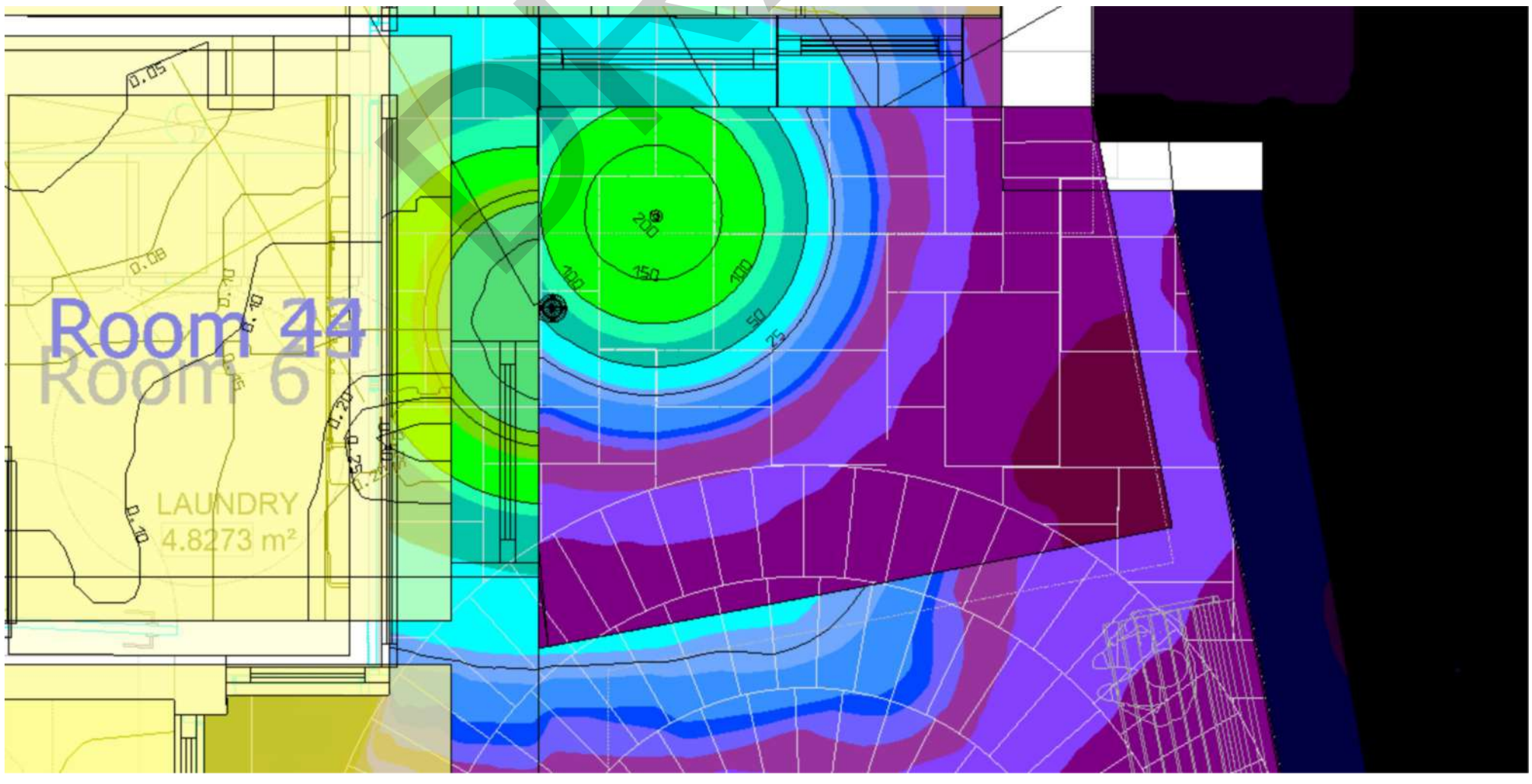
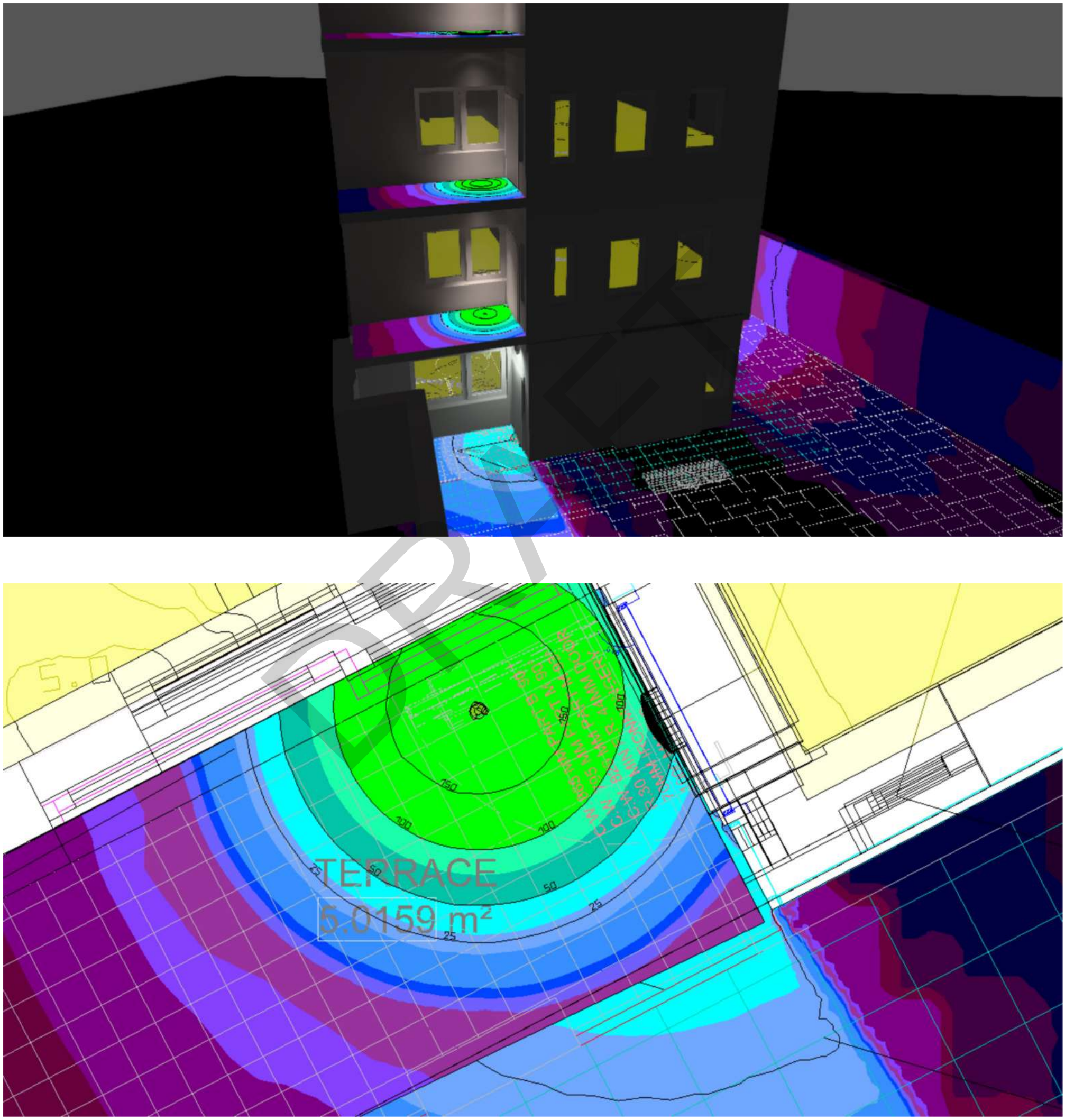




Site 1

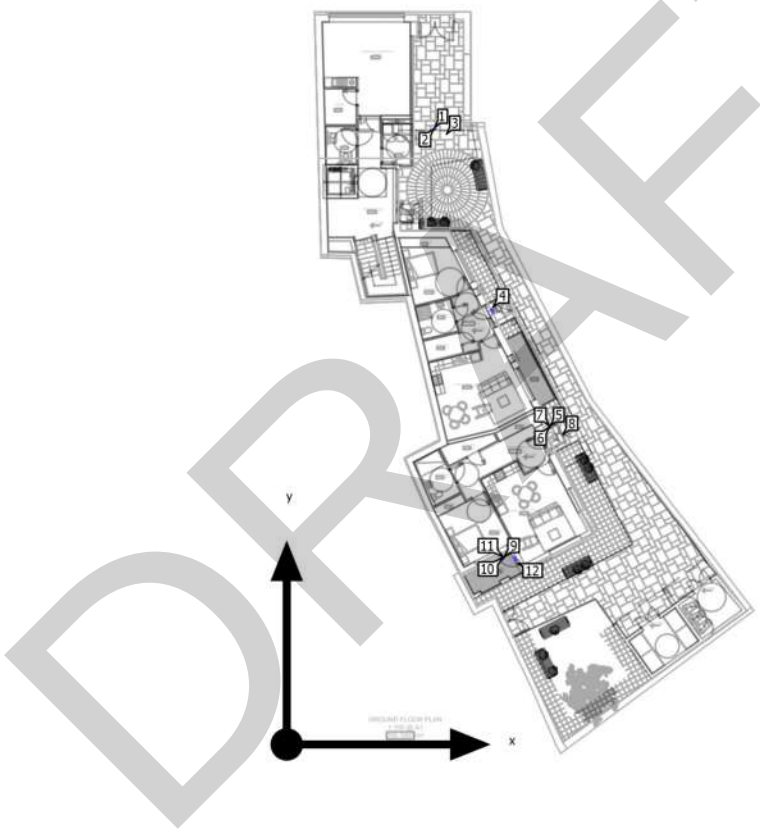
Images



DIALux

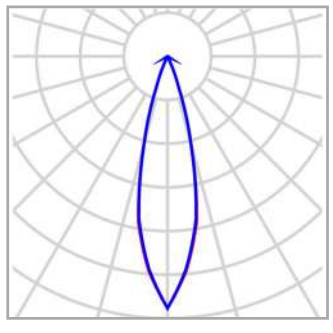
Site 1

Luminaire layout plan



Site 1

Luminaire layout plan



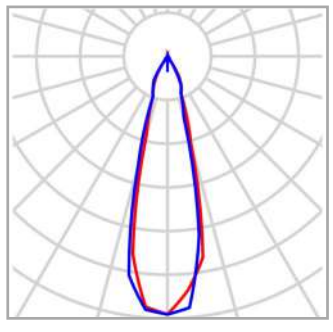
Manufacturer	Modular Lighting Instruments	P	7.2 W
Article No.	13511180+1351503X	$\Phi_{Luminaire}$	305 lm
Article name	Tetrix Straight 62 IP55 LED DE 2700K flood black chrome + snoot		
Fitting	1x Tetrix LED 500mA 2700K flood		

Individual luminaires

X	Y	Mounting height	Luminaire
9.369 m	38.849 m	8.750 m	1
9.369 m	38.849 m	5.950 m	2
16.600 m	20.029 m	11.800 m	5
16.600 m	20.028 m	5.900 m	6
16.600 m	20.028 m	8.950 m	7
13.692 m	11.737 m	5.950 m	9
13.692 m	11.737 m	8.950 m	10
13.692 m	11.737 m	11.750 m	11

Site 1

Luminaire layout plan



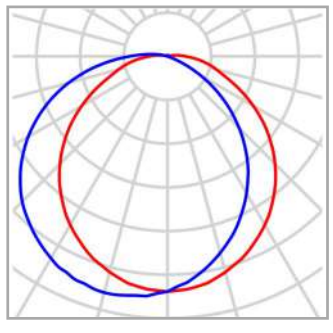
Manufacturer	Unilamp	P	15.0 W
Article No.	7312-6-4-503-XX	$\Phi_{Luminaire}$	1510 lm
Article name	Mini Tube-Recess Light Clear Glass		
Fitting	1x LED 12W 2700K 1760 lm		

Individual luminaires

X	Y	Mounting height	Luminaire
8.835 m	38.376 m	3.000 m	3

Site 1

Luminaire layout plan



Manufacturer	WE-EF	P	20.0 W
Article No.	195-9527	$\Phi_{Luminaire}$	974 lm
Article name	DLS229 IP55:LED-FT-17W/3K		
Fitting	1x LED-FT-17W/830 - 3000K		

Individual luminaires

X	Y	Mounting height	Luminaire
12.921 m	27.357 m	2.392 m	4
16.191 m	19.324 m	2.217 m	8
14.460 m	11.717 m	2.438 m	12

DIALux

Site 1

Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
6872 lm	132.6 W	51.8 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy
8	Modular Lighting Instruments	13511180 +1351503 X	Tetrix Straight 62 IP55 LED DE 2700K flood black chrome + snoot	7.2 W	305 lm	42.4 lm/W
1	Unilamp	7312-6-4-503-XX	Mini Tube-Recess Light Clear Glass	15.0 W	1510 lm	100.7 lm/W
3	WE-EF	195-9527	DLS229 IP55:LED-FT-17W/3K	20.0 W	974 lm	48.7 lm/W

APPENDIX 3

CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

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Outline Construction and Environmental Management Plan (CEMP)

for

Proposed Redevelopment of 102 Main Street, Portlaoise, Co. Laois

April 2024

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1. INTRODUCTION

This CEMP details the proposed works and defines the environmental measures that shall be implemented for the construction works in order to manage, minimise or mitigate any potential environmental impacts that may arise as a result of the Proposed Development.

'Live document'

This CEMP is considered a 'live' document and, as such, will be reviewed on a regular basis. Updates to this CEMP may be necessary due to any changes in environmental management practices and/or contractors.

The procedures agreed in this CEMP will be audited throughout the project's roll-out phase to ensure compliance. This CEMP will be updated, following grant of planning permission, to ensure all conditions, emission limit values and trigger levels contained within the Grant of Permission are incorporated and it will also set out how this will be achieved.

2. PROPOSED DEVELOPMENT DESCRIPTION

PROPOSED DEVELOPMENT OVERVIEW

The project brief for this new residential development and its associated works at 102 Main Street, Portlaoise, Co. Laois was to design and construct a new residential building.
The development will include demolition and redesign of existing front building (formerly 'County Hotel') and design of a new residential extension to the rear of the property.

As a general overview, the proposed development comprises:

a) new residential apartment block, ranging in height from 2 to 3 storeys, accommodating 10 no. apartments consisting of:
   - 8 no. 1 bed units
   - 2 no. 2 bed units
   - a communal/enterprise space at ground level
   - services and plant area at roof level
b) public open space provided to the south of the site
c) terraces and balconies provided for each apartment
d) mobility scooter charging room
e) refuse storage
f) all associated site development works necessary to facilitate the proposed development
g) proposed pedestrian gate in the south-west corner of the site

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PROPOSED DEVELOPMENT SITE OVERVIEW

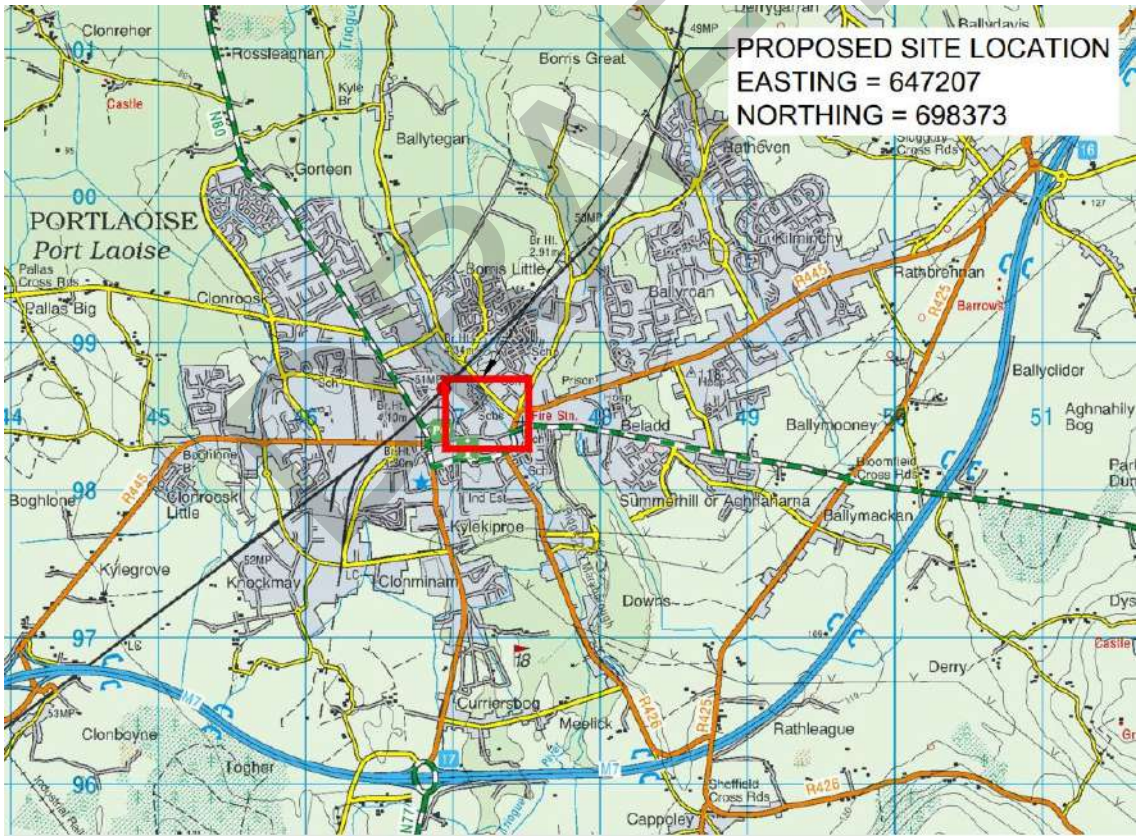
The proposed development land lies within the jurisdiction of Laois County Council, whose offices are located at JFL Avenue, Portlaoise.

The site is located on the eastern edge of Main Street, within the town of Portlaoise.

The overall area of the subject site is 0.05 Hectares. The site is bounded to the North by Main Street, to the West by an existing Public House, to the East by a commercial property and to the South by the yard of a commercial premises. Presently the site is an existing derelict building and will be demolished. The site is reasonably level.

At present the only access to the site is from Main Street.

Figure 1: SITE LOCATION



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3. OUTLINE CONSTRUCTION AND ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

A CEMP shall be prepared in advance of the physical elements of the project commencing and will be implemented throughout. Such plans shall incorporate relevant mitigation measures indicated below.

Laois County Council (LCC) will be informed in advance of construction activities in sensitive environmental areas. LCC will be informed of all construction or maintenance works. Monitoring of works will be undertaken and the results of monitoring will be provided to LCC.

Where works are undertaken in or adjacent to sensitive environmental receptors, all construction/maintenance staff will be inducted by means of a "Tool-box Talk", which will inform them of environmental sensitivities and the best practice to be implemented to avoid disturbance to these receptors.

All construction and maintenance works will be undertaken in accordance with the following guidance documents:

- CIRIA (Construction Industry Research and Information Association) Guidance Documents
- Control of water pollution from construction sites (C532);
- Control of water pollution from linear construction projects: Technical Guidance (C648);
- Control of water pollution from linear construction projects: Site Guide (C649);
- Environmental Good Practice on Site (C692);
- NRA Guidance Documents;
- Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes;
- Guidelines for the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads;
- Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub Prior to, during and Post Construction of National Road Schemes;

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3.1. OPERATIONAL CONTROLS

The proposed environmental control measures that will be implemented during the construction phases are detailed below.

Any excavations and/or vegetation removal will be minimised during construction and/or maintenance works.

Excavated material will not be stored immediately adjacent to watercourses.

Disturbance to natural drainage features should be avoided during the construction and/or maintenance of routes.

Construction machinery should be restricted to public and/or site roads. As a general rule, machinery should not be allowed to access, park or travel over areas outside the footprint of proposed development.

Protection of existing drainage that lead to water courses:

Suitable prevention measures should be put in place at all times to prevent the release of sediment to the drainage system from associated construction works on site during the development. These protections must reduce erosion and silt-laden runoff, create – where necessary and possible – natural vegetation buffers and divert runoff from exposed areas, control the volume and velocity of runoff, and convey that runoff away from the existing drainage that leads to watercourses.

Where necessary, drainage waters from construction areas should be managed through a series of treatment stages that may include swales, check dams and detention ponds along with other pollution control measures such as silt fences and silt mats.

The following measures will be included in the Environmental Impact Assessment Screening report and the Screening Statement in support of Appropriate Assessment:

3.2. POTABLE WATER SUPPLY

INTRODUCTION

Uisce Eireann's record indicate a 150mm ductile iron watermain and a 100mm uPVC watermain within Main Street.

PROPOSAL

There is an existing water supply serving the buildings on site. It is proposed to reuse the existing water supply connection. There is also an existing fire hydrant located within the footway opposite the building on Main Street.

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A Pre-Connection application was issued to Uisce Eireann on the 13th October 2021. A Confirmation of Feasibility (COF) was received on the 23rd March 2022 and can be seen in Appendix B. The COF confirmed the development can be accommodated without infrastructure upgraded works.
Once planning is granted a Connection application will be made to Uisce Eireann and a self-lay agreement be entered into between the developer and Uisce Eireann.

3.3. WASTEWATER INFRASTRUCTURE

INTRODUCTION

Uisce Eireann's record maps indicate a 225mm diameter concrete pipe traverse beneath the existing building at the back of the site. The pipe discharges into a 300mm diameter Concrete pipe within Well Road, to the east of the site.

PROPOSAL

The wastewater infrastructure has been designed in accordance with Uisce Eireann's latest standard details, code of practice and Building Regulations Part H. The design is subject to approval by Uisce Eireann after a Connection Application has been made and a Build over Application.
Due to the location of the existing pipe within the site and the requirement within Uisce Eireann's code of practice for private connections to be at 90 degrees to the main, two No. connections are required to accommodate this. Two No. Private inspection chamber will be provided within the site adjacent to the existing public main.

A Pre-Connection application was issued to Uisce Eireann on the 13th October 2021. A Confirmation of Feasibility (COF) was received on the 23rd March 2022. The COF confirmed the development can be accommodated without infrastructure upgraded works but a Build Over application is required. A build over application will be made to Uisce Eireann once planning is granted.

Once planning is granted a Connection application will be made to Uisce Eireann and a self-lay agreement be entered into between the developer and Uisce Eireann.

3.4. SURFACE WATER INFRASTRUCTURE

INTRODUCTION

Laois County Council's records indicates an existing 375mm diameter Concrete public main within Main Street, which falls from west to east.

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DESIGN PRINCIPLES

The design and management of the Surface Water for the proposed development will comply with the policies and guidelines outlined in the following:

- The Greater Dublin Strategic Drainage Study (GDSDS);
- Laois County Council's Development Plan, 2021-2027;
- DCC's Sustainable Drainage Design & Evaluation Guide, 2021;
- Recommendations for Site Development Works for Housing Areas published by the Department of the Environment;
- Greater Dublin Regional Code of Practice for Drainage Works;
- The SuDS Manual (2015)

The key design principles of the Surface Water drainage are as follows:

a) The flow from the development to the existing Surface Water Infrastructure is designed to equal the natural greenfield runoff in accordance with the GDSDS and sustainable drainage best practice;
b) There are no additional or increased flows for the developed site compared to the existing greenfield condition;
c) The site will have an Attenuation Area designed to store volumes from the 30 year and 100-year storm events on site in accordance with SuDs best practise;
d) The design of the attenuation system includes an allowance for 20% climate change

PROPOSAL

It is proposed to construct a new surface water conveyance system within the site, which will provide treatment, storage and infiltration to the existing surface water public main.

All surface water collected on site will pass though green Sustainable Urban Drainage System (SuDS), this will allow for a certain level of treatment of the surface water and also infiltration into the ground. It is proposed to construct underground pipes to convey surface water from source to the SuDS infrastructure. The underground pipes will have slopes between 1:200 and 1:40 to ensure self-cleansing velocities are achieved.

The surface water infrastructure has been designed in accordance with the "Greater Dublin Regional Code of Practice for Drainage Works" (Draft version 6.0) and Laois County Council's Development Plan 2021-2027.

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Surface water drainage for the proposed development is designed using recommendations of the GDSDS, EN752 and BS8301:1985, with the following parameters applied:

- Return period for pipe network: 2 years,
- Time of entry = 4 minutes
- Pipe Friction (Ks) = 0.6 mm
- Minimum Velocity = 0.75 m/s
- M5 - 2D = 57.2
- M5-60 = 15.8 mm

The surface water drainage network has been designed and simulated for a range of storm events (including 1 in 5, 1 in 30 and 1 in 100-year storm events) using the Source Control module of Micro Drainage.

Sustainable Urban Drainage Systems (SuDS):

A number of SuDS features have been proposed as part of the surface water drainage system in accordance with the GDSDs. SuDS are incorporated to attenuate runoff and volumes, reduce pollutant concentrations in surface water and to replicate the natural characteristics of surface water run off for the site in its pre-developed state.

The following SuDS features are proposed:

a) Permeable surfacing
It is proposed to install permeable surfacing within the paved areas of the site. The water, once permeated into the pavement, will be allowed to infiltrate into the ground. The inclusion of the permeable paving will slow the surface water run off at source, treat the surface water runoff and provide storage.

b) Soakaway
It is proposed to install a soakaway within the landscape area to the South of the site. The surface water will be collected through gullies and underground pipes and directed to a perforated pipe within the soakaway. The perforated pipe will allow the collected water to discharge into the soakaway. The collected water will be allowed to infiltrate into the groundwater. When the rate of water being collected by the underground pipes exceeds the infiltration rate into the ground, the collected water will be stored within the porous stone and allowed to discharge into the existing 375mm diameter pipe in Main Street.

c) Filter Trench
It is proposed to install two filter trenches within the landscape areas adjacent the building. The surface water discharging from the site will pas through the filter trenches and be allowed to infiltrate into the ground through the use of perforated pipes. When the rate of water being collected by the underground pipes exceeds the infiltration rate into the ground, the collected water will be stored within the porous stone and allowed to discharge into the existing 375mm diameter pipe in Main Street.

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d) Treatment Train
Through the SuDS measures described above, the surface water management (treatment train) approach has been incorporated into the development in accordance with the GDSDS. This will assure the surface water runoff quantity and quality issues are addressed.

In accordance with the GDSDS, the following four objectives of the treatment train provide an integrated and balanced approach to help mitigate the changes in surface water runoff flows that occur as land is urbanised and to help mitigate the impacts of surface water quality on receiving systems:

- Pollution Prevention: spill prevention (protection provided by filter trench, permeable surfacing and soakaways), recycling, public awareness, and participation;
- Source Control: conveyance and infiltration of runoff (provided by the proposed surface water network, soakaway, permeable surfacing and filter trench);
- Site Control: reduction in volume and rate of surface water runoff, with some additional treatment provided (provided by soakaway, filter trench and permeable surfacing);
- Regional Control: Interception of runoff downstream of all source and on-site controls to provide follow-up flow management and water quality treatment (provided by the Existing Surface Water infrastructure).

The above measures ensure a suitable treatment train is provided in accordance with GDSDS.

e) Interception
Interception storage has been provided on site by the permeable paving, soakaway and filter trench. The initial 5-10mm of rainfall falling onto the site will be allowed to infiltrate through the permeable paving and further infiltrate into the ground by the soakaway and filter trench. Rainfall falling onto the impermeable roof will be collected through gutters and downpipes. The collected water will discharge to the perforated pipes within the soakaway and filter trench. The perforated pipes will allow the water to seep out into the soakaway and filter trench and infiltrate into the ground. The initial rainfall falling onto the roofs will either be discharged to the soakaway or filter trench.

SURFACE WATER CONTAMINATION MITIGATION MEASURES

Surface water runoff during construction stage can be potentially contaminated. The most likely forms of contamination are siltation and spillage.

Siltation can happen when soil and particulate matter are washed away in the storm by rainwater. Siltation will be mitigated on the project using stilling tanks and strainers within the site to prevent silt being lost to the drainage network.

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As fuels and oils are required in construction, it is necessary to mitigate the possibility of there being an accidental leakage of these liquids to a water course. As per the construction methodology and legislative requirements, all fuels stored on site will be bunded and all chemicals will be stored in an appropriate chemical storage tanks. Should a spillage of fuel occur n site during construction, it is likely that there will be a localised moderate impact on the environment, which will be short in duration.

The following mitigation measures shall be implemented with the construction of the surface water network:

- The filtering of surface water that is likely to be contaminated by soil particles in order to reduce the silting effects of these particles in the receiving downstream watercourse;
- Construction of suitable silt traps prior to the surface water out-falling to the existing watercourse;
- Relocation of existing services and preparation of detailed construction Methods Statements;
- Existing gullies on the Main Street will be cleaned out, lined with a geotextile and filled with pea gravel this will trap and gather any sediment that accidently gets onto the roads surface. Inspections and regular cleaning will be carried out.
- The preparation of a detailed CEMP (this document) to include measures to protect against contamination and runoff;

Appropriate storage and settlement facilities will be provided on site. Areas of high risk include:

- Fuel and chemical storage;
- Refuelling areas;
- Vehicle and equipment washing areas (concrete mixer trucks will not be permitted to wash out on site, with the exception of cleaning the chute into a container, which will then be emptied into watertight skip.)
- Site compound

DRAINAGE AND WATER QUALITY MITIGATION MEASURES

The following mitigation measures have been proposed to ensure that no potential adverse effects will arise from construction-related surface water discharges from the Proposed Development. The construction contractor will be required to implement the following specific mitigation measures, for release of hydrocarbons, polluting chemicals, sediment/silt and contaminated waters control:

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- Specific measures to prevent the release of sediment over baseline conditions during the construction work, which will be implemented as the need arises. These measures include, but are not limited to, the use of silt traps, silt fences, silt curtains, settlement ponds and filter materials. This is particularly important when undertaking any works/upgrading to the surface and foul water drainage networks at the proposed development site;
- Provision of exclusion zones and barriers (e.g. silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment;
- Imported materials such as terrain, straw bales, coarse to fine gravel should be used either separately or in-combination as appropriate to remove suspended matter from discharges;
- Monitoring shall be carried out on surface water discharge (if necessary and as specified in any Discharge Licence associated with the construction phase of the project);
- Provision of temporary construction surface drainage and sediment control measures to be in place before the construction of the pipeline and/or earthworks commence;
- Weather conditions will be taken into account when planning construction activities to minimise risk of run-off from the site;
- Prevailing weather and environmental conditions will be taken into account prior to the pouring of cementitious materials for the works adjacent to surface water drainage features, or drainage features connected to same. Pumped concrete will be monitored to ensure no accidental discharge. Mixer washings and excess concrete will not be discharged to surface water drainage systems;
- Concrete washout areas will be located remote from the surface water drainage features, where feasible, to avoid accidental discharge to watercourses;
- Any fuels of chemicals (including hydrocarbons or any polluting chemicals) will be stored in a bunded area to prevent any seepage of into the local surface water network or groundwater, and care and attention taken during refuelling and maintenance operations;
- Temporary oil interceptor facilities shall be installed and maintained where site works involve the discharge of drainage water to receiving waters;
- All containment and treatment facilities will be regularly inspected and maintained;
- All mobile fuel bowsers shall carry a spill kit and operatives must have spill response training. All fuel containing equipment such as portable generators shall be placed on drip trays. All fuels and chemicals required to be stored on-site will be clearly marked;
- Implementation of response measures to potential pollution incidents;
- Emergency procedures and spillage kits will be available and construction staff will be familiar with emergency procedures in the event of accidental fuel spillages;

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- All trucks will have a built-on tarpaulin that will cover excavated material as it is being hauled off-site and wheel wash facilities will be provided at all site egress points;
- Water supplies shall be recycled for use in the wheel wash. All waters shall be drained through appropriate filter material prior to discharge from the construction sites;
- The removal of any made ground material, which may be contaminated, from the construction site and transportation to an appropriate licenced facility shall be carried out in accordance with the Waste Management Act, best practice and guidelines for same;
- A discovery procedure for contaminated material will be prepared and adopted by the appointed contractor prior to excavation works commencing on site. These documents will detail how potentially contaminated material will be dealt with during the excavation phase;
- Implementation of measures to minimise waste and ensure correct handling, storage and disposal of waste (most notably wet concrete, pile arisings and asphalt).

PROPOSED WASTE MANAGEMENT OPTIONS

Waste materials generated will be segregated on site where it is practical. Where the on-site segregation of certain wastes types is not practical, off-site segregation will be carried out by the appointed waste management contractor. Skips and other receptacles will be provided to facilitate segregation at source. The appointed waste contractor will collect and transfer the waste according as receptacles are filled.

During the demolition phase a certain number of materials will arise. Materials will include glass, concrete, masonry, tiles, ceramics, plasterboard, timber, steel and tarmac.

The classification of materials as non-hazardous and/or hazardous will be based on the HazWasteOnline web based system as well as classification using Waste Acceptance Criteria in accordance with the European Communities (EC) Council Decision 2003/33/EC, which establishes criteria for the acceptance of waste at landfills.

Once the Construction Contractor is appointed, following grant of planning permission, a more detailed CEMP for contract stage will be developed.

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STRUCTURE OF CEMP

CEMPs typically provide details of intended construction practice for the proposed development, including:

a) location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse;

b) location of areas for construction site offices and staff facilities;

c) details of site security fencing and hoardings;

d) details of on-site car parking facilities for site workers during the course of construction;

e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage;

f) measures to obviate queuing of construction traffic on the adjoining road network;

g) measures to prevent the spillage or deposit of clay, rubble or other debris;

h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works;

i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained; such bunds shall be roofed to exclude rainwater;

k) disposal of construction/demolition waste and details of how it is proposed to manage excavated soil;

l) a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains;

m) details of a water quality monitoring and sampling plan;

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n) if peat is encountered - a peat storage, handling and reinstatement management plan;

o) measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed);

p) Appointment of an ecological clerk of works at site investigation, preparation and construction phases;

Signed:

Brian Fahy B Arch MRIAI

APPENDIX 4

BAT REPORT

Planning and Environmental Consultants

Bat Report

Proposed Residential Development at 102 Main Street, Co. Laois

DOCUMENT DETAILS

Client:	**Vincent Hannon Architects**
Project Title:	**Proposed Residential Development at 102 Main Street, Co. Laois**
Project Number:	**200413**
Document Title:	**Bat Report**
Document File Name:	**BR F - 200413**
Prepared By:	**MKO** **Tuam Road** **Galway** **Ireland** **H91 VW84**

Planning and Environmental Consultants

Rev	Status	Date	Author(s)	Approved By
01	Draft	18/04/2024	LM	SF
02	Final	13/05/2024	LM	SF

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1. INTRODUCTION

1.1 Purpose of this Report

This project relates to the proposed works at the Old County Hotel, 102 Main Street, Portlaoise, Co. Laois (Grid Ref: S 47266 98327). MKO were commissioned by Vincent Hannon Architects, on behalf of Clúid Housing, to carry out bat surveys in relation to proposed safety and demolition works. This report provides details of the bat surveys undertaken, including survey design, methods and results, and recommendation to safeguard bats. An impact assessment based on the information contained in this report is carried out within the accompanying EcIA.

The report presents the ecological baseline recorded within the proposed development site in relation to bats. Surveys were carried out in September 2022, and April 2024. Surveys included a suitability appraisal and inspection of the habitats and potential roosting features present on site. Manual activity surveys and roost surveys were carried out, as well as ground-level static detectors surveys in 2022, 2024 surveys updated baseline surveys to adhere with current guidelines. 2 detectors were deployed around the site for 19 nights.

The main objective of the surveys was to assess the site for its suitability for foraging and commuting bats, as well as assess and inspect any structures for potential roosts, including maternity roosts. The bat surveys were designed to establish the nature, scale and locations of potential bat activity within the site.

The bat survey and assessment were informed by a desk study and with reference to the following guidelines:

- *Bat Survey Guidelines: Traditional Farm Buildings Scheme. The Heritage Council, Áras na hOidhreachta, Church Lane, Kilkenny (Aughney, T., Kelleher, C. & Mullen, D., 2008)).*
- *'Bat Workers' Manual' (3rd edn). JNCC, Peterborough (Mitchell-Jones, A.J. & McLeish, A.P. (eds) 2004).*
- *Bat Surveys for Professional Ecologists – Good Practice Guidelines (4th edn.) (Collins, 2023)*
- *Bat Roosts in Trees (Andrews, 2018)*
- *Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes (NRA, 2006a)*
- CIEEM (2013) *Competencies for Species Surveys: Bats.* Chartered Institute of Ecology and Environmental Management, Winchester.
- *Guidelines for the Treatment of Bats during the Construction of National Road Schemes (NRA, 2006b)*
- *British Bat Calls: A Guide to Species Identification (Russ, 2012)*
- *Bat Mitigation Guidelines for Ireland – V2. Irish Wildlife Manuals, No. 134. (Marnell, Kelleher & Mullen 2022)*
- *UK Bat Mitigation Guidelines, (Reason, P. F. and Wray, S. 2023)*
- *Guidance Note 08/23: Bats and Artificial Lighting at Night (ILP, 2023)*

1.2 Site Description

The proposed works site is located at 102 Main Street, Portlaoise, Co. Laois (Grid Ref.: S 47215 98355) within the town centre of Portlaoise, Co. Laois. The site has frontage to the Main Street and is accessed from the North. The site location and proposed demolition works are shown in **Appendix 1**.

The building is a terraced, three-bay, three-storey former house/hotel with a two-storey return to the rear. The roofs are single pitched and gabled and there are a number of two-storey extensions to the rear.

The proposed works will consist of the following:

- *A New residential apartment block, ranging in height from 2 to 3 storeys, accommodating 10 No. apartments consisting of:*
  - 8 no. 1 bed units
  - 2 no. 2 bed units
  - A communal/enterprise space at ground level
  - Services and plant area at roof level

- *Public open space provided to the south of the site.*
- *Terraces and Balconies provided for each apartment.*
- *Mobility scooter charging room.*
- *Refuse Storage.*
- *All associated site development works necessary to facilitate the proposed development.*
- *Proposed pedestrian gate to the south-west corner of the site.*

A location map of the Proposed Development site is provided in Figure 1-1.

Map Legend

Site Location

Drawing Title

Site Location

Project Title: Residential Development - 102 Main Streert Portlaoise	
Drawn By: LM	Checked By: SF
Project No.: 200413	Drawing No.: Figure 1-1
Scale: 1:30,000	Date: 07/05/2024

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1.3 Policy and Legislation

All Irish bats are protected under European legislation, namely the Habitats Directive (92/43/EEC). All Irish species are listed under Annex IV of the Directive, requiring strict protection for individuals, their breeding sites and resting places. The Lesser horseshoe bat (*Rhinolophus hipposideros*) is further listed under Annex II of the Directive, requiring the designation of conservation areas for the species. Under this Directive, Ireland is obliged to maintain the favourable conservation status of Annex-listed species. This Directive has been transposed into Irish law through the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011).

In addition, Irish species are further protected by national legislation (Wildlife Acts 1976, as amended). Under this legislation, it is an offence to intentionally disturb, injure or kill a bat or disturb its roost. Any work at a roost site must be carried out with the agreement of the National Parks and Wildlife Service (NPWS) and a derogation licence must be granted before works commence.

The NPWS monitors the conservation status of European protected habitats and species and reports their findings to the European Commission every 6 years in the form of an Article 17 Report. The most recent report for the Republic of Ireland was submitted in 2019. Table 1-1 summarises the current conservation status of Irish bat species and identified threats to Irish bat populations.

Table 1-1 Irish Bat Species Conservation Status and Threats (NPWS, 2019)

Bat Species	Conservation Status	Principal Threats
Common pipistrelle *Pipistrellus pipistrellus*	Favourable	**A05** Removal of small landscape features for agricultural land parcel consolidation (M) **A14** Livestock farming (without grazing) [impact of anti-helminthic dosing on dung fauna] (M) **B09** Clear--cutting, removal of all trees (M) **F01** Conversion from other land uses to housing, settlement or recreational areas (M) **F02** Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (M) **F24** Residential or recreational activities and structures generating noise, light, heat or other forms of pollution (M) **H08** Other human intrusions and disturbance not mentioned above (Dumping, accidental and deliberate disturbance of bat roosts (e.g. caving) (M) **L06** Interspecific relations (competition, predation, parasitism, pathogens) (M) **M08** Flooding (natural processes) **D01** Wind, wave and tidal power, including infrastructure (M)
Soprano pipistrelle *Pipistrellus pygmaeus*	Favourable	
Nathusius' pipistrelle *Pipistrellus nathusii*	Unknown	
Leisler's bat *Nyctalus leisleri*	Favourable	
Daubenton's bat *Myotis daubentoni*	Favourable	
Natterer's bat *Myotis nattereri*	Favourable	
Whiskered bat *Myotis mystacinus*	Favourable	
Brown long-eared bat *Plecotus auritus*	Favourable	
Lesser horseshoe bat *Rhinolophus hipposideros*	Inadequate	

1.4 Bat Roosting Behaviour

Bats use a variety of natural and manmade structures as roosting or resting places. The type of roost and its level of use is determined by its function in the bat life cycle. Table 1-2 provides a summary of different types of bat roosts.

Table 1-2 Bat Roost Types and Definitions

Roost Type	Definition
Day	Where individuals or small groups of male's rest/shelter in the day but are rarely found by night in summer.
Night	Where bats rest/shelter at night but are rarely found in the day.
Feeding	Where individuals rest/feed during the night but are rarely found during the day.
Transitional	Used by a few individuals for short periods of time prior to or following hibernation.
Swarming	Where large numbers gather in late summer to autumn. Important mating sites.
Mating	Where mating takes place in late summer to winter.
Maternity	Where females give birth and raise their young.
Hibernation	Where bats are found during winter (constant cool temperature and high humidity).
Satellite	An alternative roost found in close proximity to the main nursery colony.

There are currently no clear guidelines to determine the significance of a bat roost. All the largest roosts of LHB in Ireland are of international importance and it is anticipated that all large Leisler's bat roosts (>100) would also have international significance (NRA, 2006). Table 1-3 provides some criteria for determining the significance of different building roosts, as determined by the Bat Expert Panel of the Heritage Council in 2003 (NRA, 2006).

Table 1-3 Level of Importance of Various Roosts

Species	Indicator	Significance
Lesser horseshoe bat	Special Area of Conservation	Very significant
	If present	Significant
Whiskered bat	>10	Very significant
	If present	Significant
Natterer's bat	>10	Very significant
	If present	Significant
Daubenton's bat	Maternity roost	Significant
Leisler's bat	Maternity roost	Significant
Common pipistrelle	Maternity roost	Significant
Soprano pipistrelle	Maternity roost	Significant
Brown long-eared bat	Maternity roost	Significant

The likelihood of detecting active roosts is determined by the timing of the roost survey. In general;

- April surveys may detect transitional roosts used by bats following hibernation and prior to summer roosting.
- May-August surveys may detect maternity colonies and male/non-breeding female summer roosts.
- August surveys are best to determine maximum counts of adult and juvenile bats.
- August – October surveys may detect swarming and mating bats.
- September and October surveys may detect transitional roosts used by bats following the dispersal of maternity colonies and prior to hibernation.
- Day, night, feeding and satellite roosts may be found anytime between April and October.
- November – March surveys may detect hibernacula.

1.5 Statement of Authority

MKO employs a dedicated bat unit within its Ecology team, dedicated to scoping, carrying out, and reporting on bat surveys, as well as producing impact assessments in relation to bats. MKO ecologists have relevant academic qualifications and are qualified in undertaking surveys to the levels required. MKO's Ecology team holds an open bat derogation licence from NPWS. The licence is intended for professionals carrying out surveys with the potential to disturb roosting bats (i.e. roost inspections).

Survey scoping was prepared Aoife Joyce. The daytime walkover survey and inspections were carried out by Laura McEntegart. Manual activity surveys were carried out by Kevin McElduff and Cathal Bergin. Data manual ID were carried out by Neil Campbel. This report was prepared by Laura McEntegart, was reviewed by Aoife Joyce. Staff's roles and relevant training are presented in Table 1-4 below.

Table 1-4 Project team qualifications and training.

Staff	Role	Qualifications and Training
Aoife Joyce (B.Sc., M.Sc.)	Project Director	B.Sc. (Hons) Environmental Science, University of Galway, Ireland. M.Sc. (Hons) Agribioscience, University of Galway, Ireland. Advanced Bat Survey Techniques – Trapping, biometrics, handling (BCI), Bat Impacts and Mitigation (CIEEM), Bat Tree Roost Identification and Endoscope Training (BCI), Bats in Heritage Structures (BCI), Bats and Lighting (BCI),
Sara Fissolo (B.Sc.)	Project Ecologist	B.Sc. (Hons) Ecology and Environmental Biology, University College Cork, Ireland. Advanced Bat Survey Techniques (BCI), Bat Impacts and Mitigation (CIEEM), Bats in Heritage Structures (BCI), Bat Care (BCT), Bats and Lighting (BCI), Kaleidoscope Pro Analysis (Wildlife Acoustics).
Laura McEntegart (B.Sc.)	Ecologist	B.Sc. (Hons) Botany and Plant Science, National university of Ireland, Galway Bat Handling Training Course (BCI), Bats: Assessing the Impact of Development on Bats, Mitigation & Enhancement - (CIEEM), Kaleidoscope Pro Analysis (Wildlife Acoustics), Kaleidoscope Pro Analysis (Wildlife

		Acoustics). Endoscope Training (Internal), Emergence and Re-Entry Surveys (Internal) Structure & Tree Inspection (Internal), Manual Transect Survey (Internal), Bat Habitat Appraisal (Internal)
Neil Campbell (B.Sc., M.Sc.)	Bat Ecologist	B.Sc. Botany and Plant Science, National University of Ireland, Galway. M.Sc. Botany and Plant Science, National University of Ireland, Galway. Kaleidoscope Pro Analysis (Wildlife Acoustics), Endoscope Training (Internal), Structure & Tree Inspection (Internal), Manual Transect Survey (Internal), Bat Habitat Appraisal (Internal), Emergence and Re-Entry Surveys (Internal).
Kevin McElduff (B.Sc.)	Ecologist	B.Sc. Environmental Science from NUIG (2021) Flora and Fauna Surveys, Manual and Static Survey Techniques Manual Transect Survey (Internal), Bat Habitat Appraisal (Internal), Emergence and Re-Entry Surveys (Internal).
Cathal Bergin (B.Sc.)	Project Ecologist	BSc (Hons) In Wildlife Biology Course from Munster Technological University (2021) Experience in bat activity surveys and static deployment/collections. Species identification, Botany, Habitat identification, Bat surveys, Manual Transect Survey (Internal), Bat Habitat Appraisal (Internal), Emergence and Re-Entry Surveys (Internal).

2. METHODOLOGY

2.1 Desktop Study

A desktop review of published material was undertaken to inform all subsequent field studies and assessments. The aim of the desktop review was to identify the presence of species of interest within the site and surrounding region.

The following list describes the sources of data consulted:

- *Review of online web-mappers: National Parks and Wildlife Service (NPWS) mapping.*
- *Review of NPWS Article 17 Report.*
- *Review of the publicly available National Biodiversity Data Centre web-mapper.*
- *Review of specially requested records from the NPWS Rare and Protected Species Database for the hectads which overlap with the study area.*

2.1.1 Bat Species' Range

EU member states are obliged to monitor the conservation status of natural habitats and species listed in the Annexes of the Habitats Directive. Under Article 17, they are required to report to the European Commission every six years. In April 2019, Ireland submitted the third assessment of conservation status for Annex-listed habitats and species, including all species of bats (NPWS, 2019).

The 2019 Article 17 Reports were reviewed for information on bat species' range and distribution in relation to the location of the proposed development.

2.1.2 National Bat Database of Ireland

The National Bat Database of Ireland holds records of bat observations received and maintained by Bat Conservation Ireland. These records include results of national monitoring schemes, roost records as well as ad-hoc observations. The database was searched for bat presence and roost records within a 10km radius of the proposed site, as well as general landscape suitability for bats.

2.1.3 Designated Sites

The potential for the proposed works to impact on sites that are designated for nature conservation is considered in separate Ecological Impact Assessment (EcIA) and Appropriate Assessment Screening (AASR) reports. Special Areas of Conservation (SACs) are designated under EU Habitats Directive. The European Sites that are within the Zone of Likely Impact, with bats identified as Qualifying Interests, are listed in Section 3.1.3 below.

Natural Heritage Areas (NHAs) are designated under the Wildlife (Amendment) Act 2000 and their management and protection is provided for by this legislation and planning policy. Proposed Natural Heritage Areas (pNHAs) were designated on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. Any identified NHAs and pNHAs designated for the protection of bats are presented in Section 3.1.3 and potential for impacts was fully considered.

2.1.4 Habitat and Landscape

2.1.4.1 Ordnance Survey Mapping

Ordnance survey maps (OSI 1:5,000 and 1: 50,000) and aerial imagery (ortho-based maps) were reviewed to identify any habitats and features likely to be used by bats. Maps and images of the site and general landscape were examined for suitable foraging, commuting or roosting habitats including woodlands and forestry, hedgerows, tree lines and watercourses.

2.1.4.2 Geological Survey Ireland

The Geological Survey Ireland (GSI) online mapping tool and University of Bristol Spelaeological Society (UBSS) Cave Database for the Republic of Ireland were consulted for any indication of natural subterranean bat sites, such as caves, within 10km of the proposed site (BCI, 2012) (last searched on the 18/04/2024). Furthermore, the archaeological database of national monuments was reviewed for any evidence of manmade underground structures, e.g. souterrains, that may be used by bats (last searched on the 18/04/2024).

2.1.4.3 National Monuments

The archaeological database of national monuments was reviewed for any evidence of manmade underground structures, e.g. souterrains, that may be used by bats (last searched on the 18/04/2024).

2.2 Field Study

2.2.1 Bat Habitat Appraisal

An internal inspection of the structure was carried out during daylight hours on the 24th of September 2022, an external inspection was repeated on 28th September 2022. An inspection of the site and structure was updated on 11th April 2024 in line with more recent guidelines to reconfirm the baseline ecology of the site.

The habitat features on the site were visually assessed for potential use as bat roosting habitats and commuting/foraging habitats using a protocol set out in BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn.) (Collins, 2023). Surveys carried out in 2022 were carried out according to guidelines in BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn.) (Collins, 2016). 2024 surveys were updating previous surveys to ensure they are within current standards (Collins 2023).

The aim of the survey in 2022 was to identify suitable bat habitats within the site, bat roosting suitability and to carry out manual and static bat activity survey (Collins 2016). The aim of the survey in April 2024 was to update the bat habitat appraisal carried out in September 2022, and roost inspection results in line with current guidelines. The roost inspection methodology is discussed below in Section 2.2.1.1.

Table 4.1 of the 2023 BCT Guidelines identifies a grading protocol for assessing structures, as well as commuting/foraging habitat for bats, which is summarised in Table 2-1. The protocol is divided into five Suitability Categories: *High, Moderate, Low*, *Negligible and None*. Table 4.2 of the 2023 BCT Guidelines identifies a grading protocol to assess trees, which is divided into three Suitability Categories: NONE (No suitability), FAR (Further Assessment Required), and PRF (Potential Roosting Feature present). This initial tree grading protocol can inform a preliminary roost assessment (PRA) to determine the available tree-roosting resource within the proposed development site, depending on whether a PRF could accommodate a small number of bats (PRF-I) or a larger roost, including maternity roosts (PRF-M). More information on PRAs is provided below.

Table 2-1 BCT protocol for bat habitat appraisals (Collins, 2023)

Assessment	Rationale
High	Structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. Continuous, high-quality, well-connected habitats, connected to known roosts.
Moderate	A structure used by bats due to their size, shelter, protection, conditions and surrounding habitat, but are unlikely to support a roost of high conservation status, and suitable, connected habitats.
Low	Structures with one or more potential roost sites that could be used by an individual bat opportunistically, and suitable but isolated habitats that could be used by a small number of bats.
Negligible	No obvious features present, but a level of uncertainty remains.
None	No habitat features likely to be used by roosting, foraging or commuting bats.

2.2.1.1 Preliminary Roost Assessment

A search for roosts was undertaken within the boundary of the proposed site by two licenced ecologists to identify any potential roost features (PRFs). The licence, issued by NPWS, is intended for professionals carrying out surveys with the potential to disturb roosting bats. The aim of the survey was to determine the presence of roosting bats, potential access points, roosting locations and the need for further survey work or mitigation.

The site was visited on 24th of September 2022, an external inspection was repeated on 28th September 2022 and a full internal and external inspection carried out on 11th April 2024. All structures identified within the site were assessed for their potential to support roosting bats. A systematic search of all accessible interiors, including all attic spaces, was undertaken. The exterior of each building was inspected first from ground level and included all accessible windowsills, walls, eaves, roof ridge and roof slates. Inspections were carried out with the aid of torches, a ladder, an endoscope, a thermal camera and binoculars, and searched for evidence of bat use, including live and dead specimens, droppings, feeding remains, urine splashes, fur oil staining and noises, as well as potential access points into the structure.

The buildings were assessed and are described in Section 3.2.1 below.

2.3 Bat Activity Surveys

2.3.1 Manual Surveys

Manual activity surveys included roost surveys of any feature identified as a potential roost. For each of the surveys, surveyors were equipped with active full spectrum bat detectors, Batlogger M (Elekon AG, Lucerne, Switzerland). Surveyors were located to ensure maximum coverage for access points within the building. Where possible, species identification was made in the field and any other relevant information was also noted, e.g., numbers, behaviour, features used, etc. All bat echolocation was recorded for subsequent analysis to confirm species identifications, as detailed in Section 2.4. The survey effort is summarised in Table 2-2 and presented in Figure 2-1.

Table 2-2 Bat Activity survey effort

Date	Surveyors	Type	Sunrise/ Sunset	Weather
28th September 2022	Cathal Bergin & Kevin McElduff	Roost Emergence	19:15	12 - 15°C, Dry, Calm
29th September 2022	Cathal Bergin & Kevin McElduff	Roost re-entry	07:25	9-10°C, Dry, Light Breeze

2.3.1.1 Roost Surveys

Any structure identified during the bat habitat appraisal as having potential to host roosting bats was subject to presence/absence surveys in the form of emergence surveys. Rationale for survey effort was based on guidelines proposed by Collins 2016. The main structure was subject to roost surveys following the initial roost assessment under Collins 2016 in September 2022 and under Tables 7.1 and 7.2 (Collins, 2023) in April 2024.

Surveyors were located to the front and rear of the property with a focus on potential access point and roosting features identified during the daylight walkover surveys. The purpose was to identify any bat species, numbers, access points and roosting locations within each the PRF structure.

Surveys were carried out in favourable weather conditions (Table 2-1). Roost emergence surveys commenced at least 15 minutes before sunset and concluded approximately 1.5 hours after sunset. Re-entrance surveys commenced approximately 1.5 hours before sunrise and concluded 15 minutes after sunrise.

2.3.2 Static Detectors Surveys

Two full spectrum Minibat detectors (Wildlife Acoustics, Maynard, MA, USA), were deployed during static surveys to record bat activity for a two-week period. The detectors were deployed on 22nd September 2022 to 11th October 2022. The two locations of static detectors were selected to represent the range of habitats present within the site, including favourable bat habitats.

Settings used were those recommended by the manufacturer for bats, with minor adjustments in gain settings and band pass filters to reduce background noise when recording. Detectors were set to record from 30 minutes before sunset until 30 minutes after sunrise. The Song Meter automatically adjusts sunset and sunrise times using the Solar Calculation Method when provided with GPS coordinates. Static detector locations are presented in Table 2-3.

Table 2-3 Static Detector Location

Detector ID	Habitat	Deployment	Collection
D01	1st Floor	22/10/2022	11/10/2022
D02	2nd Floor	22/10/2022	11/10/2022

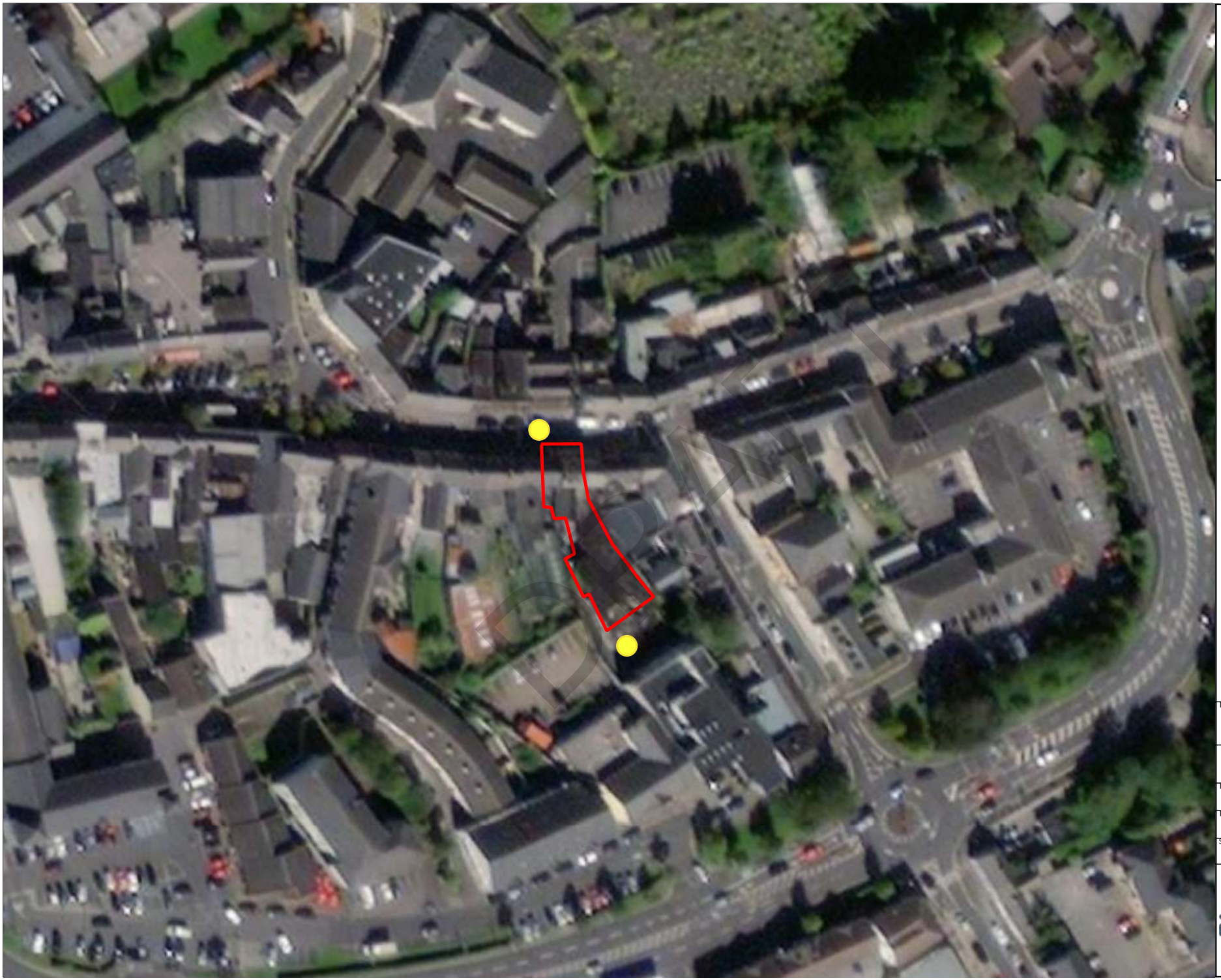
2.4 Bat Call Analysis

All recordings were later analysed using bat call analysis software Kaleidoscope Pro v.5.4.8 (Wildlife Acoustics, MA, USA). The aim of this was to identify, to a species or genus level, what bats were present at the proposed development site. Bat species were identified using established call parameters, to create site-specific custom classifiers. All identified calls were also manually verified.

Echolocation signal characteristics (including signal shape, peak frequency of maximum energy, signal slope, pulse duration, start frequency, end frequency, pulse bandwidth, inter-pulse interval and power spectra) were compared to published signal characteristics for local bat species (Russ, 1999). *Myotis* species (potentially Daubenton's bat *(M. daubentonii),* Whiskered bat *(M. mystacinus),* Natterer's bat *(M. nattereri)*) were considered as a single group, due to the difficulty in distinguishing them based on echolocation parameters alone (Russ, 1999). The echolocation of Soprano pipistrelle *(P. pygmaeus)* and Common pipistrelle *(P. pipistrellus)* are distinguished by having distinct (peak frequency of maximum energy in search flight) peak frequencies of ~55 kHz and ~46 kHz respectively (Jones & van Parijs, 1993). Some overlapping is possible between these species: where no certainty could be achieved, calls were identified to genus level.

Individual bats of the same species cannot be distinguished by their echolocation alone. Thus, 'bat passes' was used as a measure of activity (Collins, 2023). A bat pass was defined as a recording of an individual species/species group's echolocation containing at least two echolocation pulses and of maximum 15s duration. All bat passes recorded in the course of this study follow these criteria, allowing comparison. Due to the volume of bat activity data recorded, where multiple bat passes were recorded within the same registration, rarer or harder to record species were identified. Underreporting of common species is possible using this method, and is accounted for within the assessment.

Echolocation calls by Brown long-eared bats (*Plectous auritus*) are intrinsically quiet and hard to record by static equipment. All data collected, including Noise files and Auto ID files are checked to ensure all calls for this species have been captured. However, a level of underrepresentation is expected for this species and is accounted for in the assessment of activity level.



Map Legend

- Surveyor Location
- Site Boundary

N

Drawing Title

Survey Effort

Project Title

Residential Development - 102 Main Street Portlaoise

Drawn By	Checked By
LM	SF
Project No.	Drawing No.
200413	Figure 2-1
Scale	Date
1:3,000	07.05.2024

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3. RESULTS

3.1 Desktop Study

A desktop review of published material was undertaken to inform all subsequent field studies and assessments. The aim of the desktop review was to identify the presence of species of interest within the site and surrounding region.

3.1.1 National Biodiversity Data Centre

A review of the National Bat Database of Ireland on the X yielded results of bats within a 10km hectad of the proposed works. The search yielded 8 bat species within 10km. Table 3-1 lists the bat species recorded within the hectad which pertains to the proposed works site (S49, N40, N50 & S59).

A review of the NBDC bat landscape map provided a habitat suitability index of 30.22 (red). This indicates that the proposed development area has high habitat suitability for bat species.

Table 3-1 NBDC Bat Records

Hectad	Species	Date	Database	Status
S49, N40, N50, S59	Brown Long-eared Bat (*Plecotus auritus*)	25/04/2009 03/08/2009 30/05/2014 20/07/2022 30/07/2008	National Bat Database of Ireland	Annex IV
S49, N40, S59,	Daubenton's Bat (*Myotis daubentonii*)	15/08/2017 27/08/2021 14/06/2018 11/10/2013	National Bat Database of Ireland	Annex IV
S49, N40, N50, S59	Leisler's bat (*Nyctalus leisleri*)	03/09/2009 01/09/2021 01/08/2023 04/07/2022	National Lesser Horseshoe Bat Database	Annex II
S49, N40, S59,	Natterer's bat *(Myotis nattereri)*	15/07/2006 01/08/2007 30/07/2008	National Bat Database of Ireland	Annex IV
S49, N40, N50, S59	Common Pipistrelle (*Pipistrellus pipistrellus*)	10/08/2018 24/06/2022 01/08/2023 04/07/2022	National Bat Database of Ireland	Annex IV
S49, N40, N50,	Soprano Pipistrelle (*Pipistrellus pygmaeus*)	10/08/2018 16/06/2018 01/08/2023	National Bat Database of Ireland	Annex IV
S59	Whiskered Bat (*Myotis mystacinus)*	31/05/2008	National Bat Database of Ireland	Annex IV
S49, N50, S59	Pipistrelle spp (*Pipistrellus pipistrellus sensu lato*)	24/05/2008 31/07/2022 30/07/2008	National Bat Database of Ireland	Annex IV
N50	Nathusius's Pipistrelle (Pipistrellus nathusii)	31/07/2022	National Bat Database of Ireland	Annex IV

3.1.2 Designated Sites

Within Ireland, the Lesser horseshoe bat is the only bat species requiring the designation of Special Areas of Conservation (SACs). The site is situated outside the current known range for this species and there are no SACs designated for its protection within 10km of the proposed works site.

A search of all SACs within a 10 km radius of the site found no sites designated for the conservation of bats.

No Natural Heritage Areas (NHAs), or proposed NHAs, designated for the protection of bats were identified within 10km of the proposed works.

3.1.3 Habitat and Landscape

A review of mapping and photographs provided insight into the habitats and landscape features present at the proposed development site. In summary, the proposed site is located in an urban setting with commonly found fragmented green areas of grassland, scattered trees and parkland, with farmland, woodland and on the outer edges of the town of Portlaoise site supports marginal farmland habitats.

A review of the GSI online mapper did not indicate the possible presence of any subterranean sites within the EIAR Study Area and a search of the National Monuments Database did not reveal the presence of any manmade subterranean sites within the EIAR Study Area.

A search of the UBSS Cave Database for the Republic of Ireland found no caves within the proposed site or within 10 km of the study area.

No national monuments are reported within the site.

3.2 Bat Habitat Appraisal

A detailed description of the species and habitats located onsite are presented in the accompanying Ecological Impact Assessment (EcIA). A bat walkover and inspection survey were conducted in 2022 and 2024 of the proposed work site. During this survey, the structure within the study area was assessed for suitability for bats to roost, forage and commute. Connectivity with the wider landscape was also considered to determine habitat suitability.

Survey findings in 2022 under previous guidance (Collins 2016) for foraging and commuting bats, the buildings on site were considered of *Low* suitability, i.e. habitat that could be used by small numbers of commuting or foraging bats (Collins, 2016). The buildings are surrounded by commercial and residential developments with limited connectivity to the wider landscape. There are also streetlights present at the front of the structure causing light spillage throughout the building.

With regard to roosting bats, the proposed works site was assessed as having *Low* suitability. Although there were potential bat access points recorded within the structure, extensive water and fire damage throughout the building, rendered it largely unsuitable for roosting bats.

In 2024 following updated guidance surveys (Collins 2023) with regard to foraging and commuting bats, the proposed works site is considered of *Negligible* suitability due to the structure's location in an urban setting. Built and open areas, such as building yards and structures are considered of *Negligible* suitability.

With regard to foraging and commuting bats, the buildings present on site were considered *Negligible* suitability, i.e. *no obvious habitat feature on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for standard bat behaviour*

(Collins, 2023). The buildings are surrounded by commercial and residential developments with poor quality and poor connectivity to wider landscape. There are also streetlights present at the front of the structure causing light spillage throughout the building.

Details of the assessment of existing man-made structures for their suitability to host roosting bats are presented below.

3.3 Daytime Roost Inspection Survey

3.3.1.1 PRF Structures

A dedicated interior and exterior roost inspection was carried out on 28th September 2022 and 11th April 2024. A search for roosts was undertaken on the structure proposed for demolition. The structures were also the subject of roost emergence surveys. Details of the emergence surveys are presented in Section 4.4.1.

The search comprised a detailed inspection of the exteriors and interiors of the buildings to look for evidence of bat use, including live and dead specimens, droppings, feeding remains, urine splashes, fur oil staining and noises (Collins, 2023).

Main work structure

The main structure of the site consisted of a block structure, with three floors, a pitched tile roof at the front of the building with lead flashing present around the chimneys. The roof to the rear of the structure had partially collapsed, leaving the interior exposed to the elements and allowing light penetration throughout large parts of the building (Plates 3-1 & 3-4).
The roof is a wooden frame with missing roof section to the front of the building, an intact roof structure exists toward the rear of the property.

Two sets of stairs leading to the 1st floor occur to the front and rear of the property (Plate 3-5 & 3.6). Potential bat access points included holes in the roof to the rear of the structure, gaps in roof tiles and under lead flashing at the front of the structure, and broken windows. Several interior ceilings had partially collapsed due to extensive water and fire damage (Plates 43-6, 3-11, 3-14 & 3-15).

The ground floor consisted of a bar area, kitchen, toilets, seating area to the front, hallway and large open back room all dark with little to no natural light. The first floor consisted of a kitchen, bedrooms, bathrooms, office and large rooms, all containing natural light, the rear room with open access showed the least natural light. The second floor was inaccessible due to health and safety reasons.

The rear structure consisted of block walls and a flat roof (Plates 3-4). Natural light enters the internal structure through the ceiling windows. An internal room located within the structure contained a toilet and sink. A small hole, through the blockwall was located behind the wooden façade internally (Plate 3-17 & 3-18) No evidence of bats were found in any of the structures. The structure was subject to a activity surveys on 28th & 28th September 2022, as detailed in Section 4.4.1.

With regard to roosting bats, the Old County Hotel was assessed as having *Low* suitability in 2022 (Collins 2016) and Negligible in April 2024 (Collins 2023) i.e 'A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough shelter, space, appropriate conditions or suitable surrounding habitat to be used on a regular basis.' Although there were potential bat access points recorded within the structure, extensive water and fire damage throughout the building, rendered it largely unsuitable for roosting bats.

Plate 3-1 Exterior front view of the derelict structure.

Plate 3-2 Exterior rear view of derelict structure.

Plate 3-3 Exterior rear view of derelict structure, eastern aspect.

Plate 3-4 Rear structure with access door on right.

Plate 3-5 Partially collapsed roof with light penetration into building.

Plate 3-6 Partially collapsed roof with water damage visible within the building.

Plate 3-7 Interior section of derelict structure with water damage visible on the walls.

Plate 3-8 Gap in the ceiling with potential access to attic space.

Plate 3-9 Kitchen of the Hotel.

Plate 3-10 Keg room of the main bar.

Plate 3-11 Water damage visible of the ground floor ceiling.

Plate 3-12 Blocked door to the west of the structure.

Plate 3-13 1st Floor room to the rear with open external access.

Plate 3-14 Hallway with water damage leading the rear of the property.

Plate 3-15 Toilets showed no evidence of bats on surfaces.

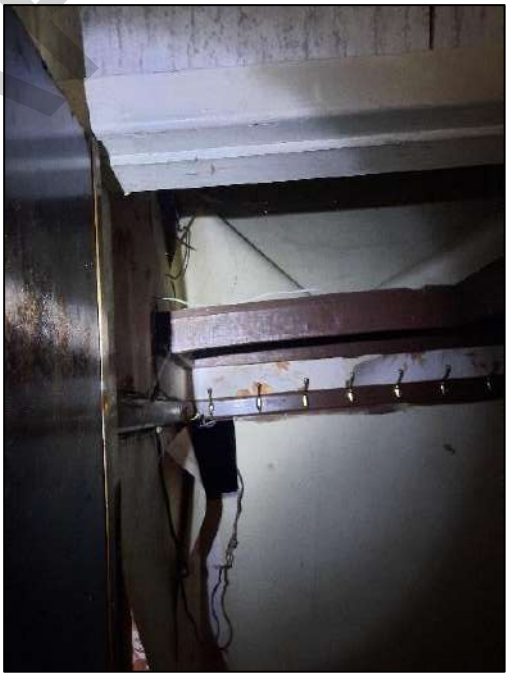

Plate 3-16 Cupboard in the 1st Floor.

Plate 3-17 Facia of the rear structure showing bright light access internally.

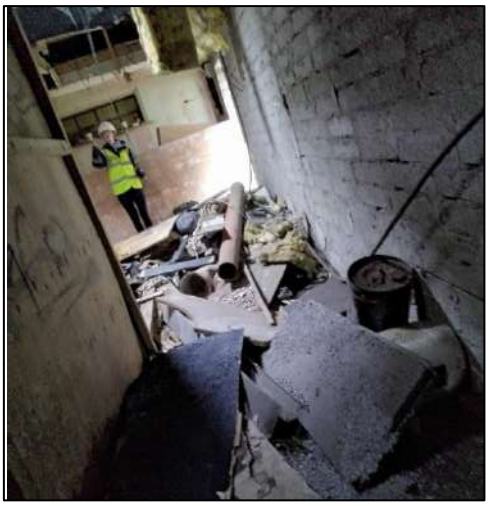

Plate 3-18 Internal view of rear structure with high natural light from roof lights.

3.4 Bat Activity Surveys

3.4.1 Manual Surveys

3.4.1.1 Dusk Activity and Dawn Activity Surveys

A presence/ absence survey was undertaken in the form of a dusk emergence survey (Collins 2016) on the evening of the 28th of September 2022. The aim of the survey was to identify if there were bats present in the buildings within the site, what bat species were present and to gather any information on bat roosting, foraging and commuting behaviour.

Two surveyors were equipped with active full spectrum bat detectors, a Batlogger M (Elekon, Lucerne, Switzerland). Where possible, species identification was made in the field and any other relevant information was also noted, e.g. numbers, behaviour, features used, etc. All bat echolocation was recorded for subsequent analysis to confirm species identifications.

The dusk survey commenced 15 minutes before sunset and was completed for 1.5 hours after sunset. Conditions were suitable for bat survey; dry, warm (14˚C at sunset) and calm. The moon was not visible with approximately 0-5% cloud cover. Table 3-1 shows emergence survey effort.

A presence/ absence survey was undertaken in the form of a dawn activity survey was undertaken on the morning of the 29th of September 2022. The aim of the survey was to identify if there were bats present at the proposed works site, what bat species were present and to gather any information on bat roosting, foraging and commuting behaviour.

The dawn survey commenced two hours before sunrise and was completed at sunrise. Conditions were suitable for bat survey; dry, warm (9˚C at sunset) and with a light breeze (2 on the Beaufort Scale). The moon was not visible with approximately 20% cloud cover. Table 3-2 shows emergence survey effort

Table 3-2 Manual activity surveys at PRFs.

PRF Structure	Building aspect	Date	Survey Type	Results
Building	Front			

	Rear	28th September 2022	Dusk Emergence	No roosting bats. Two bats observed flying around neighbouring property.
Building	Front Rear	29th September 2022	Dawn Re-Entry	No roosting bats. No bats recorded.

Dusk Emergence & Dawn Re-entry Survey Results

One surveyor was positioned at the front of the building, on the main street in Portlaoise. Another surveyor was positioned at the rear of the building to monitor potential access points and stone walls.

During the dusk emergence survey, no bats were observed emerging or re-entering the structure during the emergence survey. Low levels of bat activity were recorded in the area during the survey. Common pipistrelle (*Pipistrellus pipistrellus*) (2 bat passes) and a Soprano pipistrelle (*Pipistrellus pygmaeus*) (1 bat pass) were observed commuting and foraging in the wider area. No other bat activity was observed.

During the re-entry survey, no bats were observed emerging or re-entering the structure during the dawn re-entry survey and no bats were recorded commuting or foraging in the wider area. Overall bat activity within the area was very low. No evidence of roosting bats was recorded.

3.4.2 Static Detectors Surveys

Two Song Meter Minibat detectors were deployed on the site for a period of one month at four different locations (D01 to D04) on the 22nd September 2022 for a total of 20 nights and were collected on the 11th of October 2022. Locations were chosen to represent areas of likely bat activity. The two detectors were deployed within the main structure, D01 was located on the ground floor and D02 was located in the hallway of the second floor.

No bat activity was recorded within the structure over the deployed period of time.

3.4.3 Survey limitations

A comprehensive suite of bat surveys were undertaken at the Proposed Development site. The surveys undertaken in accordance with BCT Guidance, provide the information necessary to allow a complete, comprehensive and robust assessment of the potential impacts of the Proposed Development on bats receptors.

Access limitations can relate to static deployments and roost inspections:

- Access to the 2nd floor was not possible due to health and safety reasons.
- No significant access issues were encountered with the Site during static deployments, as the detectors were deployment where intended.
- Access was gained throughout the site and within all structures identified.

Survey limitations can relate to deployment coverage, data storage, equipment failure or deployment-related incidents:

- Good survey coverage of the site has been achieved, with 2 detectors being deployed within the site covering the internal structure of the building. Manual Activity surveys cover the external facades of the building.
- MKO employs data storage redundancy methods to ensure no data is lost from the field to final analysis - no data was lost.
- SD card corruption or fill-up can prevent data from being collected during deployments – no issues with data on-site data storage were encountered.
- Bat detector's microphones are checked before every season to ensure they have good sensitivity for data collection, and detectors' software updates are installed as soon as they become available - no issues related to equipment were encountered during the surveys.
- Incidents during deployments, such as tampering, can prevent data from being collected effectively - no incidents were reported during the surveys.

No significant limitations in the scope, scale or context of the assessment have been identified.

4. CONCLUSION & RECOMMENDATIONS

The following points set out the main conclusions following the completion of the surveys described above:

- Two bat species, a common pipistrelle and soprano pipistrelle were recorded commuting and foraging adjacent to the proposed work site during the bat surveys carried out in September 2022.
- The existing structure occurs within an urban landscape which provides limited habitats for commuting and foraging bats.
- The structure has limited potential to support bat roosts. However, considering the location of the building, Bat Habitat Appraisal results, Bat Activity results and inspection finding no evidence of bats within the structure, the suitability was updated from Collins 2016 guidance to Collins 2023 and there is a level of uncertainty of presence of bats. Access points available to bats suggest opportunistic use is likely on the external facade.
- No active roosts were recorded during the 2022 or 2024 surveys.

A full assessment of the potential impacts on bats as a result of the proposed development is presented in the EcIA which will accompany the planning application. Consideration should be given to the following measures to mitigate for potential impacts:

- Although no roosting bats were identified within the buildings surveyed, suitability for roosting resource has declined between the surveys in September 2022 and April 2024. The structure has extensive water damage and fire damage internally throughout. The external wooden façade located to the rear of the property provides opportunistic roosting suitability.
- A pre-commencement survey is recommended to ensure no presence of bats at the time work is carried out.
- The requirement for a pre-commencement survey does not represent a lacuna in the survey assessment but is fully in line with industry best practice. The function of this survey will be to assess any changes in baseline environment since the time of undertaking the survey in April 2024 and in the case of presence of any opportunistic roosting bats.
- The lighting plan for the operational phase of the proposed works, has been designed to contain minimal light spillage. The lights with consideration of the following guidelines: Bat Conservation Ireland guidelines; Bat Conservation Ireland (Bats and Lighting: Guidance Notes for Planners, Engineers, Architects and Developers, BCI, 2010) and the Bat Conservation Trust (Guidance Note 08/18 Bats and Artificial Lighting in the UK (BCT, 2018), to minimise light spillage, thus reducing any potential disturbance to bats.
- The Lighting plan contains three external lighting types for installation; 8 Modular Lighting Instruments (2700k), 1 Unilamp Mini Tube Recess Light (2700K) and 3 Lamps (3000k).
- Lowest possible design illuminance levels considering the nature of the site.
- Recommendations for installation of a control regime (night switch off or dim) and/or motion activation to avoid having lights on unnecessarily, particularly emergency lighting.
- Recommendations to keep unavoidable lighting to a minimum and implement lighting controls where possible with unavoidable light spill topping at 1Lux.

The surveys undertaken provide a good understanding of the use of the buildings and surrounding habitats by bats and the report provides an overview of the activity of bats within the area of proposed works. A pre-commencement survey is recommended in advance of works to begin.

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