KILKENNY COUNTY COUNCIL

REPORT – Dated 22nd June, 2023

In Accordance with Section 179A of the Planning and Development Acts, 2000 as amended

RE: Old Weather Station Site, Dunningstown Rd, Kilkenny

For consideration by the Chief Executive of Kilkenny County Council

Structure of Report

1. Introduction
2. Description of proposed development
3. Application of S179A
4. Pre-planning consultations undertaken and advice received
5. Implications for the proper planning and sustainable development of the Area
6. Council's Intention regarding proposed development

Appendix A

1. Architectural Drawings prepared by Brian Dunlop Architects

2. Engineering Services Report prepared by Kilgallen & Partners Consulting Engineers.

3. Public Lighting Design Prepared by Ronan Meally Consulting Engineers

4. Archaeological Impact Assessment prepared by Mary Henry Archaeological Services

Appendix B

1. Pre-planning Report

2. Environmental Impact Assessment (EIA) Screening

3. Appropriate Assessment (AA) Screening

4. Roads Design Office Report

Appendix C - Proposed Public Notice

1. Introduction

This report has been prepared for consideration by the Chief Executive of Kilkenny County Council and contains information regarding the proposed development, as required in accordance with Section 179A of the Planning & Development Acts, 2000 as amended .

2. Description of Proposed Development

The proposal put forward provides for the demolition of the existing structures on the site and the construction of 6no. own door apartments (4no. 1-bed and 2 no. 2-bed) in a two-storey building, and all associated site works including roadways, parking, bin store and landscaping.

3. Application of S179A

		Yes / No	Comment
A	the land is **owned by the local authority** or another specified State Body;	Yes	
B	the land is **zoned for residential development**;	Yes	
C	the proposed development **does not materially contravene the development plan** or local area plan for the area;	Yes	
D	the proposed development is in accordance with the relevant local authority's **housing strategy**;	Yes	
E	the land **is serviced or will be serviced** with the necessary supporting infrastructure or facilities within the timeframe of the development;	Yes	

F	the proposed development is **not required to undergo environmental impact assessment (EIA)** under the EIA Directive or appropriate assessment (AA) under the Habitats Directive; and	Yes	Screening report attached
G	the development works in question are **commenced by no later than 31 December 2024**.	Yes	Expected to go to tender Q4 2023 and commence on site Q1 2024

4. Pre-planning

As part of the planning application process the Area Planner, City Engineer, Roads Design, Water Services and Environment Section were advised of planning requirements through a formal pre-planning submission prior to finalising the details of the application.

5. Implications for Proper Planning and Sustainable Development of the Area

The proposed development is consistent with the provisions of the Kilkenny City and County Development Plan 2021-2027 and is compatible with the proper planning and sustainable development for the area. Copy of a report to this effect from the Planning Department is appended to this report.

Appended to this report are reports from (see Appendix B):

- Planning Department
- Environmental Impact Assessment (EIA) Screening
- Appropriate Assessment (AA) Screening
- Roads Design Office Report

The following comments were noted by the Planning Department and will be addressed as follows:

1. *Wastewater: Uisce Eireann have noted that the proposed wastewater connection will be via Talbots Court existing third-party infrastructure; and that permission to connect to this network will be required at application stage. In this regard it should be noted that Talbots Court has been 'taken-in-charge' by the Council ref. TC104; it would appear that the Council would have sufficiency of interest with regard to connection to the public sewer, however, the proposing section should satisfy themselves of same.*

Housing Capital are satisfied that the wastewater network from the new development can discharge into the existing sewer in Talbot's Court and permission from Uisce Eireann for a connection will be made at application stage. Proposed connection details are shown Kilgallen & Partners Consulting Engineers drawings in Appendix A.

2. *Surface Water: No stormwater will be permitted to enter the wastewater network as per the response from Uisce Eireann; proposals are required for on-site surface water management and disposal.*

Kilgallen & Partners, Consulting Engineers have designed proposals for the collection, storage and discharge of surface water on site and these are detailed in the Engineering Services Report attached in Appendix A.

3. *Waste Management: Prior to commencement of development, a waste management plan for the construction and demolition phases of development is recommended.*

Prior to commencement of development, a waste management plan for the construction and demolition phases of the development will be prepared in conjunction with the building contractor.

4. *Access: A report has been received from the Roads Design Office dated 25th April 2023, with a number of recommendations to be addressed as part of the proposed development; these recommendations should be addressed in the detailed design.*
   The proposing section shall ensure that they have sufficiency of interest to carry out any required works to achieve sightlines on lands outside of the site boundaries.

The following recommendations from the Roads Design Office have either been addressed in the revised drawings or will be addressed in the detailed design:

a) The entrance detail has been revised on the current site layout to prioritise pedestrian movements on the public footpath as against the vehicular traffic for the proposed entrance and this has been shown on the Roads and Streets Site Layout prepared by Kilgallen & Partners.
b) Visibility splays will be provided in accordance with the requirements of the DMRD and DMURS for 50km/h speed limit to suit the realignment of the Dunningstown Road fronting the development.
c) The anomaly of the radius provided for the proposed roadway edge on the architectural layout drawings will be corrected as part of the detailed design.
d) An appropriate variation/ demarcation in material finish between the public road and the internal road/ footpaths provided within the site has been included. It is proposed to use a coloured chip asphalt for the internal road surface to create a 'Home Zone' shared area for pedestrians and vehicles.
e) An additional two parking spaces have been provided and shown on the layout drawings to indicate a total of 8no. parking spaces. The turning head has been kept as it is required to allow a refuse vehicle to turn within the site and exit in a forward direction.
f) It is proposed to create a 'Home Zone' shared pedestrian and vehicular route within the site. This will utilise a different surface finish and a 6mm kerb between 'Home Zone' area and the landscaping and footpaths as shown on the Roads and Streets Site Layout prepared by Kilgallen & Partners.

g) The proposed entry will be reviewed as part of the detailed design to ensure compatibility with the design of the adjacent entrance of the permitted development, ref P22/486.

h) A public lighting design has been prepared by Ronan Meally Consulting Engineers and a copy is attached in Appendix A.

i) All proposed lighting columns will be located a minimum of 450mm off the roadway edge and installed in such a manner to not obstruct pedestrian footpaths.

j) All required road marking and signage will be in compliance with the Department of Transport, Traffic Signs Manual, 2019

k) Slow zone signage will be provided at the entrance into the site in accordance with DTTAS Traffic Signs Advice Note-2016-02.

l) Stop signage and road markings will be provided at the junction with the public road.

m) A detailed Construction and Environmental Management Plan (CEMP) including a Traffic Management Plan for the proposed development will be prepared in conjunction with the appointed contractor and agreed with the Municipal District Office prior to commencement of development works.

n) The final finishes, construction make-up and detailing of the proposed footpath and the layout of the proposed entrance will be agreed with the local Municipal District Office.

o) In the event that development entrance works proceed prior to the Dunningstown Road improvement works, the Housing Technical section will ensure that the sightlines and visibility splays from the development entrance to the existing road will be optimised in consultation with the Roads Section of Kilkenny County Council.

5. *Site Notice: In accordance with article 81A (2) (e) of the Planning and Development Regulations 2001, as amended, the site notice shall "(e) indicate its determinations under*

articles 81A(5) and 81A(6),"; therefore the determination of the AA Screening shall also be included in the site notice.

Site notices should be erected on the Dunningstown Road and in Talbots Court

A copy of the proposed site notice is included in Appendix C and includes the determination of the Appropriate Assessment (AA) screening that there is no likelihood of significant effects on a European Site and that an Appropriate Assessment is not required. The site notice will be erected on both the Dunningstown Road and the Talbots Court sides of the site.

6. *Layout and landscaping: The site layout would benefit from the inclusion of;*
    - *a **pedestrian/cycle link** to Talbots Court;*
    - *Specification of proposed boundary types and extents and details of roof finishes should be clarified.*
    - *landscaping which includes planting of native species, and pollinator friendly species.*

A pedestrian footpath will be included as part of the realignment of the Dunningstown Rd which will link the development to local services and amenities. It is not proposed to include an additional link to Talbots Court. There are concerns that a link to Talbots Court may lead to objections from residents in that estate and may reduce the security of the new development.

The specification of the boundary types is shown on the Architectural Site Layout attached in Appendix A and consists of a 2.1 metre high block wall with a concrete capping to the adjoining private residential site to the east and a 1.8 metre metal paladine fence to the open space of the Talbot's Court estate to the north. Proposed roof finishes will be a selected standing seam metal roof and this has been indicated on the Architectural Roof Plan.

A detailed Landscaping plan will be developed as part of the tender documents and will include native species and pollinator friendly species.

7. *Archaeology: Consultation with the National Monuments Section is recommended, prior to commencement of any development on site. The mitigation measures as per section 6 of the Archaeological Impact Assessment shall be adhered to in relation to the proposed development.*

All ground works will be monitored by a qualified archaeologist and mitigation measures as outlined in the Archaeological Impact Assessment will be adhered to.

Report prepared by:

SIGNED _____

Richard Vaughan
Executive Architect

Kilkenny County Council's Intention

Regarding Proposed Development

Proposed Development: S179A Proposal
Old Weather Station Site, Dunningstown Rd, Kilkenny

I recommend that Kilkenny County Council proceed with the proposed development in accordance with the report and recommendation from the Housing Capital Section dated 22nd June 2023

SIGNED

Mary J Mulholland
Director of Services

I approve Kilkenny County Council proceeding with the proposed development in accordance with the report and recommendation from the Housing Capital Section dated 22nd June 2023

SIGNED:

Sean McKeown
Interim Chief Executive

Appendix A

1. Architectural Drawings prepared by Brian Dunlop Architects
2. Engineering Services Report prepared by Kilgallen & Partners Consulting Engineers.
3. Public Lighting Design prepared by Ronan Meally Consulting Engineers
4. Archaeological Impact Assessment prepared by Mary Henry Archaeological Services

CITY AND COUNTY DEVELOPMENT PLAN - KILKENNY CITY ZONING MAP

01/001 OS MAP
1 : 500

NOTES RELEVANT TO PARTICULAR JOB STAGE:

SKETCH AND DESIGN STAGE
ALL DRAWINGS ARE FOR DISCUSSION PURPOSES ONLY. DRAWINGS ARE NOT TO BE USED FOR ANY OTHER PURPOSE.

PLANNING STAGE
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N

SITE BOUNDARY OUTLINED IN RED

SITE AREA = 1352m² / 0.3274 ACRES

REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
DIGITAL OS MAP

brian dunlop architects

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PLANNING DRAWINGS

Job No.	2239
Dwg No.	2239-P-001
Date	JUNE 2023
Scale	1 : 500@A2
Drawn By	ND
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ISO 9001 Registered Quality Management

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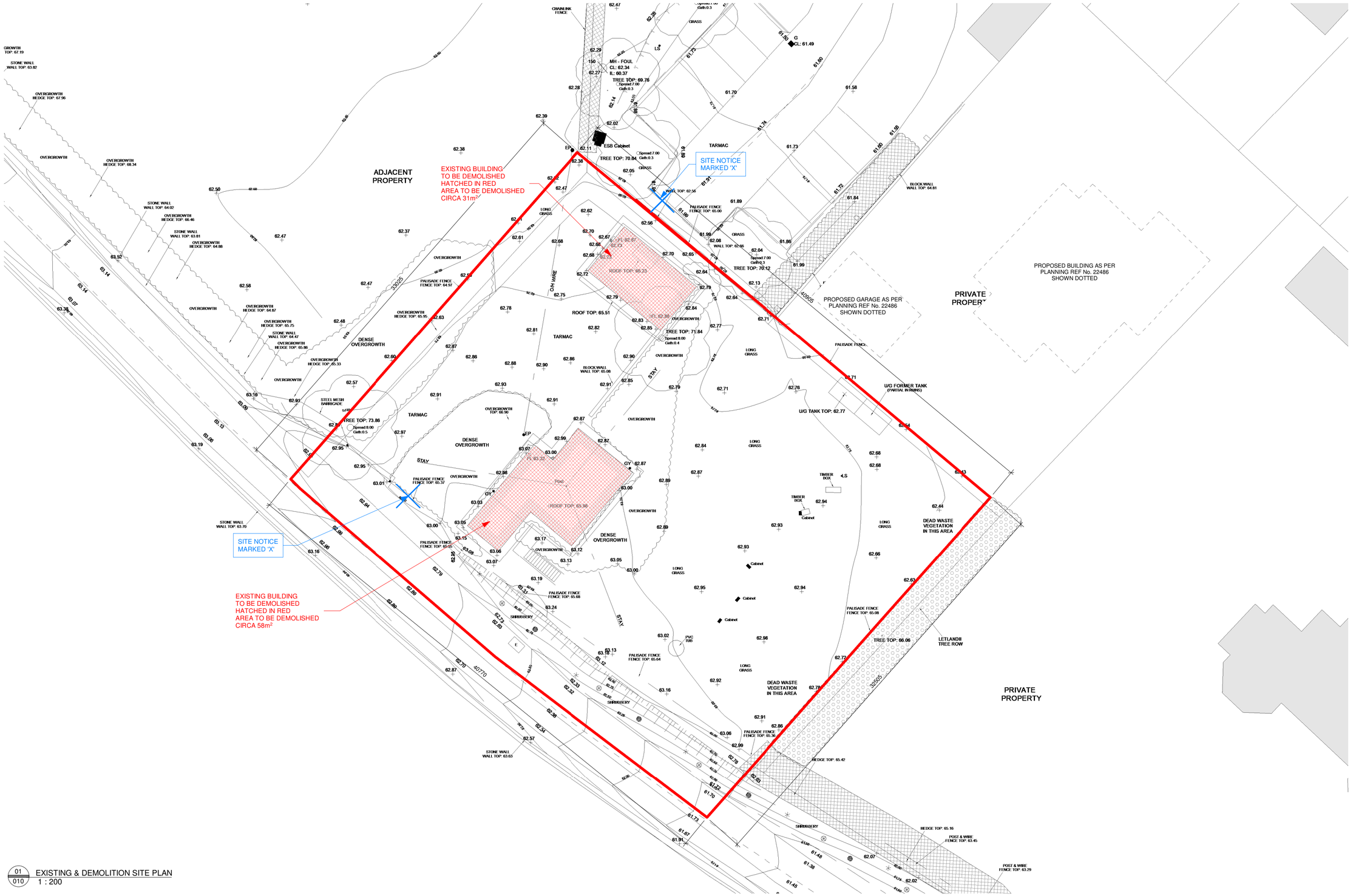

01 / 010 EXISTING & DEMOLITION SITE PLAN
1 : 200

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SITE BOUNDARY OUTLINED IN RED
SITE AREA = 1352m² / 0.3274 ACRES

REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
EXISTING & DEMOLITION SITE PLAN

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01/020 PROPOSED SITE PLAN
1 : 200

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RED LINE SITE AREA = 1352m² / 0.1352ha
DEVELOPMENT AREA = 1156m² / 0.1156ha
6 No. APARTMENTS
PROPOSED DENSITY = 44.34 UNITS PER HECTARE
PRIVATE OPEN SPACE REQUIRED 15% OF DEVELOPMENT AREA = 173m² PRIVATE OPEN SPACE PROVIDED = 182m² (16%)
MIN. STANDARD OF 1 CYCLE STORAGE SPACE PER BEDROOM = 8 REQUIRED VISITOR CYCLE PARKING PROVIDED AT A STANDARD OF 1 SPACE PER 2 RESIDENTIAL UNITS = 3 REQUIRED 11 No. CYCLE STORAGE SPACES REQUIRED 11 No. CYCLE STORAGE SPACES PROVIDED
8 No. CAR PARKING SPACES PROVIDED INCLUDING 1 No. ACCESSIBLE
PROPOSED FINISHED FLOOR LEVEL +62.925

N

SITE BOUNDARY OUTLINED IN RED

SITE AREA = 1352m² / 0.3274 ACRES

REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
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LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED SITE PLAN

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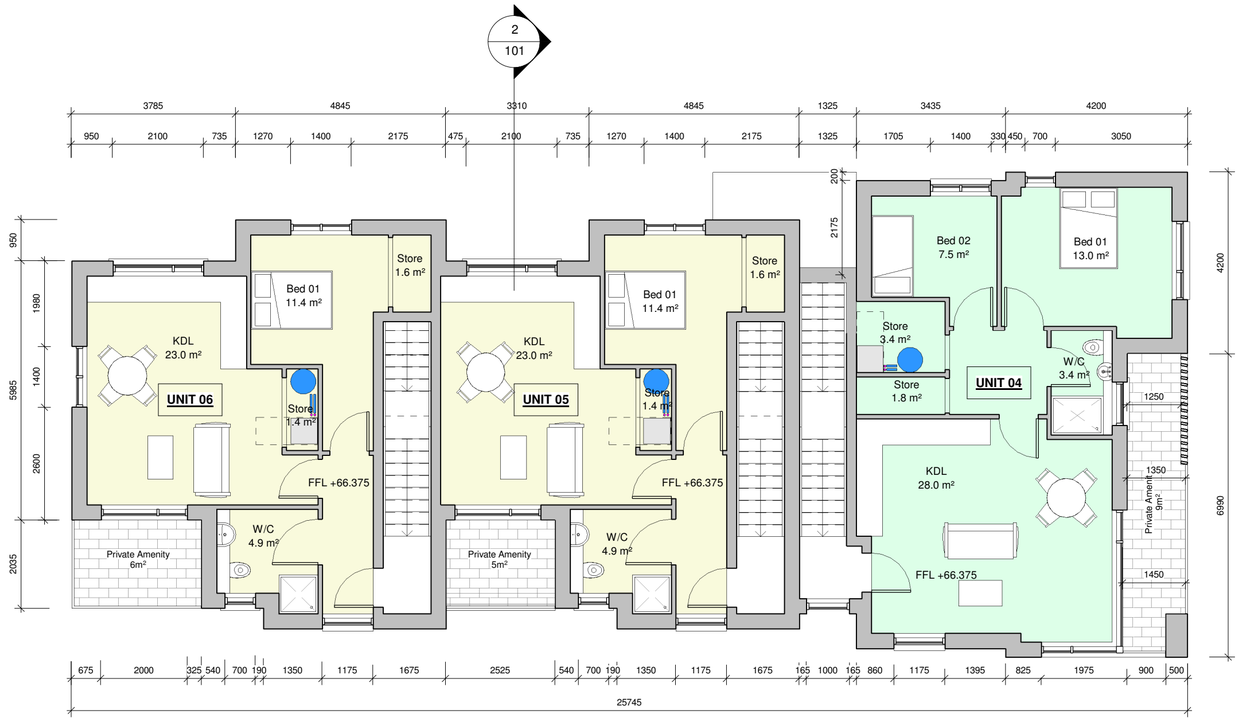
PRACTICE ACCREDITED IN CONSERVATION

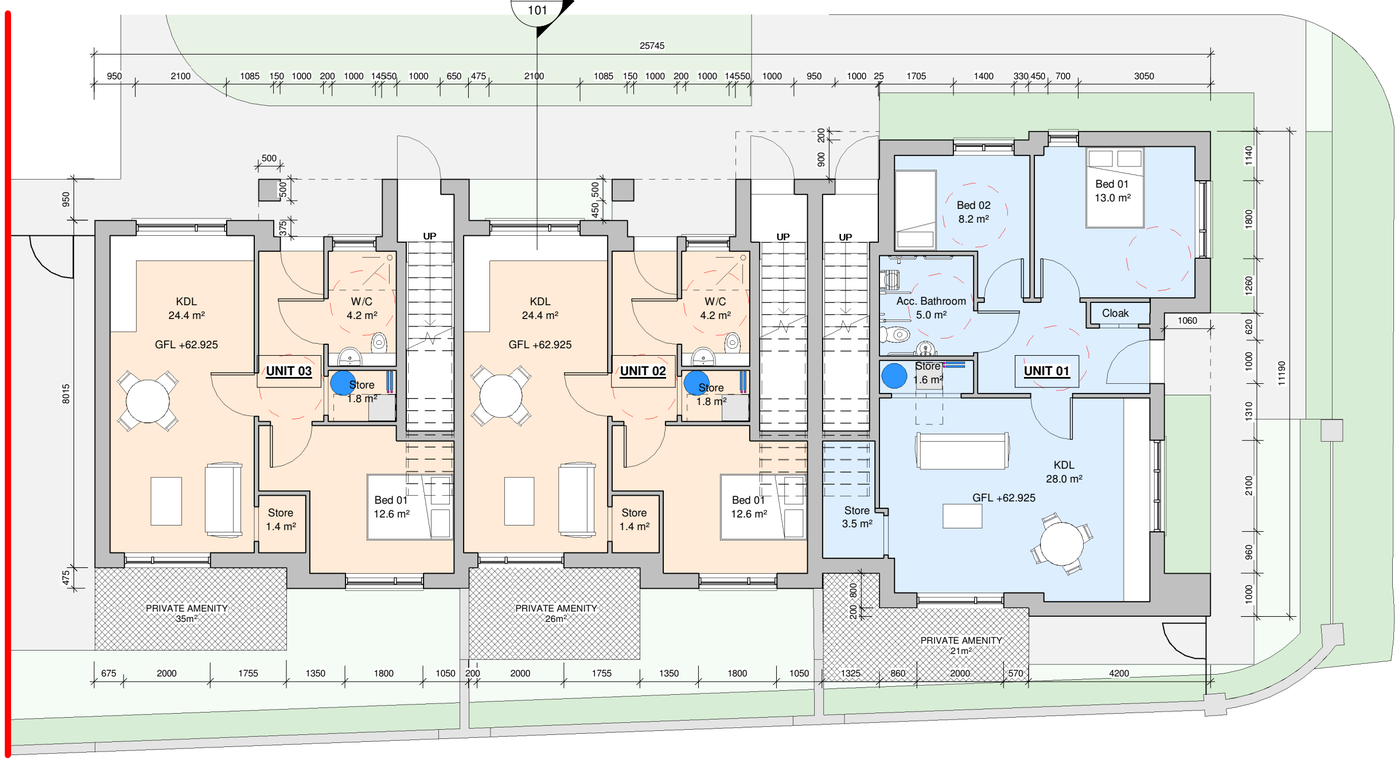
ONE BEDROOM FFL APARTMENTS
OVERALL AREA REQUIRED = 45m² OVERALL AREA PROVIDED = 48m²
KDL FLOOR AREA REQ. = 23m² KDL FLOOR AREA PROVIDED = 23m²
BEDROOM FLOOR AREA REQ. = 11.4m² BEDROOM FLOOR AREA PROVIDED = 11.4m²
STORAGE AREA REQUIRED = 3m² STORAGE AREA PROVIDED = 3m²
PRIVATE AMENTIY REQUIRED = 5m² PRIVATE AMENTIY PROVIDED = 6/5m²



02/100 PROPOSED FIRST FLOOR PLAN
1 : 100

TWO BEDROOM FFL APARTMENT
OVERALL AREA REQUIRED = 63m² OVERALL AREA PROVIDED = 63m²
KDL FLOOR AREA REQ. = 28m² KDL FLOOR AREA PROVIDED = 28m²
BEDROOM FLOOR AREA REQ. = 13 + 7.1m² BEDROOM FLOOR AREA PROVIDED = 13 + 7.5m²
STORAGE AREA REQUIRED = 5m² STORAGE AREA PROVIDED = 5.2m²
PRIVATE AMENTIY REQUIRED = 6m² PRIVATE AMENTIY PROVIDED = 9m²

ONE BEDROOM GFL AGE FRIENDLY APTS.
OVERALL AREA REQUIRED = 45m² OVERALL AREA PROVIDED = 52m²
KDL FLOOR AREA REQ. = 23m² KDL FLOOR AREA PROVIDED = 24.4m²
BEDROOM FLOOR AREA REQ. = 11.4m² BEDROOM FLOOR AREA PROVIDED = 12.6m²
STORAGE AREA REQUIRED = 3m² STORAGE AREA PROVIDED = 3.2m²
PRIVATE AMENTIY REQUIRED = 5m² PRIVATE AMENTIY PROVIDED = 35/26m²



01/100 PROPOSED GROUND FLOOR PLAN
1 : 100

TWO BEDROOM GFL ACCESSIBLE APARTMENT
OVERALL AREA REQUIRED = 63m² OVERALL AREA PROVIDED = 70m²
KDL FLOOR AREA REQ. = 28m² KDL FLOOR AREA PROVIDED = 28m²
BEDROOM FLOOR AREA REQ. = 13 + 7.1m² BEDROOM FLOOR AREA PROVIDED = 13 + 8.2m²
STORAGE AREA REQUIRED = 5m² STORAGE AREA PROVIDED = 5.1m²
PRIVATE AMENTIY REQUIRED = 6m² PRIVATE AMENTIY PROVIDED = 21m²

NOTES RELEVANT TO PARTICULAR JOB STAGE:

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N

REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED GROUND & FIRST FLOOR PLANS

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PLANNING DRAWINGS

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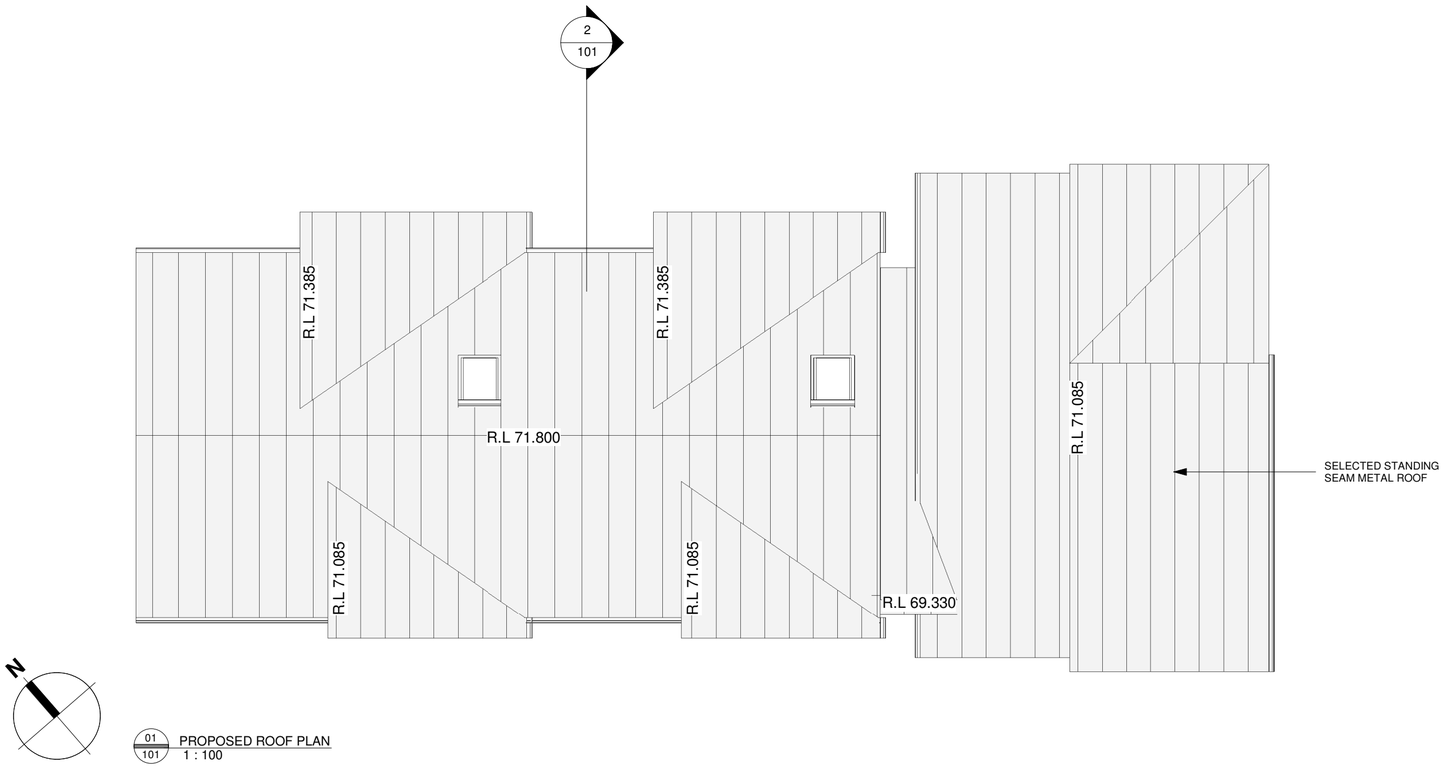
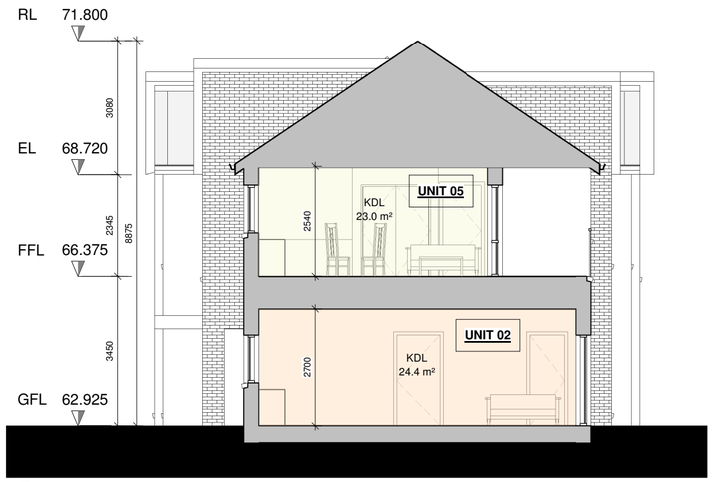


01/101 PROPOSED ROOF PLAN
1 : 100



02/101 PROPOSED SECTION
1 : 100

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CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED ROOF PLAN & SECTION

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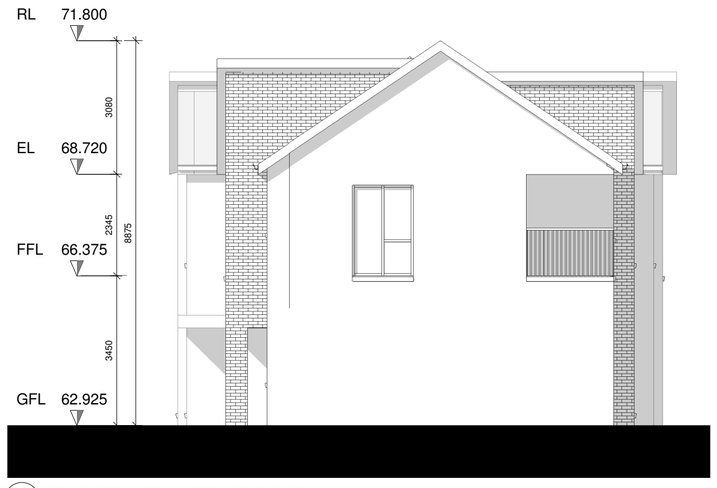
01/200 PROPOSED SOUTH-WEST ROAD SIDE ELEVATION
1 : 100

02/200 PROPOSED NORTH-EAST FRONT ELEVATION
1 : 100



03/200 PROPOSED NORTH-WEST SIDE ELEVATION
1 : 100

04/200 PROPOSED SOUTH-EAST SIDE ELEVATION
1 : 100

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REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED ELEVATIONS

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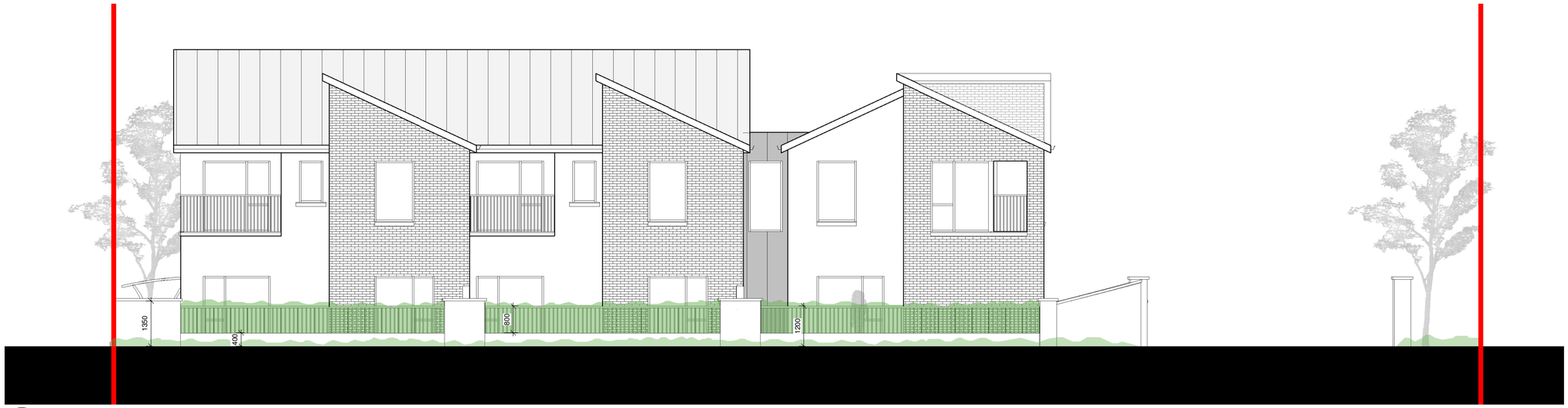
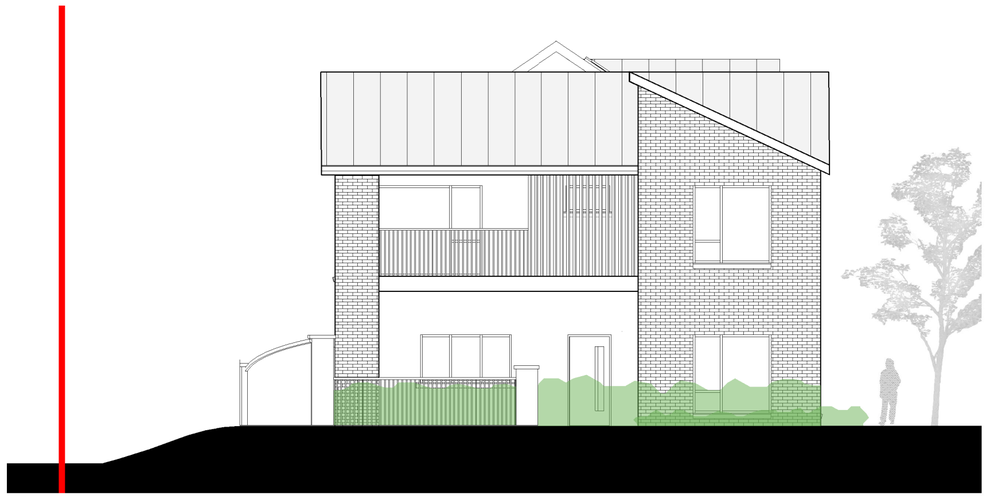
PRACTICE ACCREDITED IN CONSERVATION G3 RIAI

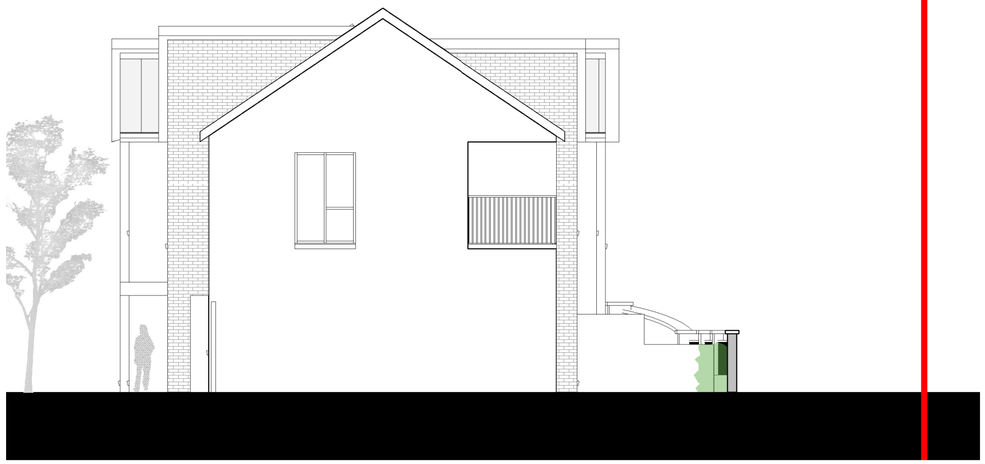


01/201 PROPOSED SOUTH-WEST ROAD SIDE CONTIGUOUS ELEVATION
1 : 100

02/201 PROPOSED NORTH-EAST FRONT CONTIGUOUS ELEVATION
1 : 100



03/201 PROPOSED SOUTH-EAST SIDE ELEVATION
1 : 100



04/201 PROPOSED NORTH-WEST SIDE ELEVATION
1 : 100

NOTES RELEVANT TO PARTICULAR JOB STAGE:

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PROPOSED SOUTH-EAST 3D VIEW - NTS

PROPOSED NORTH-EAST 3D VIEW - NTS

REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED CONTEXTUAL ELEVATIONS

brian dunlop architects

Address: 15 Patrick Street, Kilkenny
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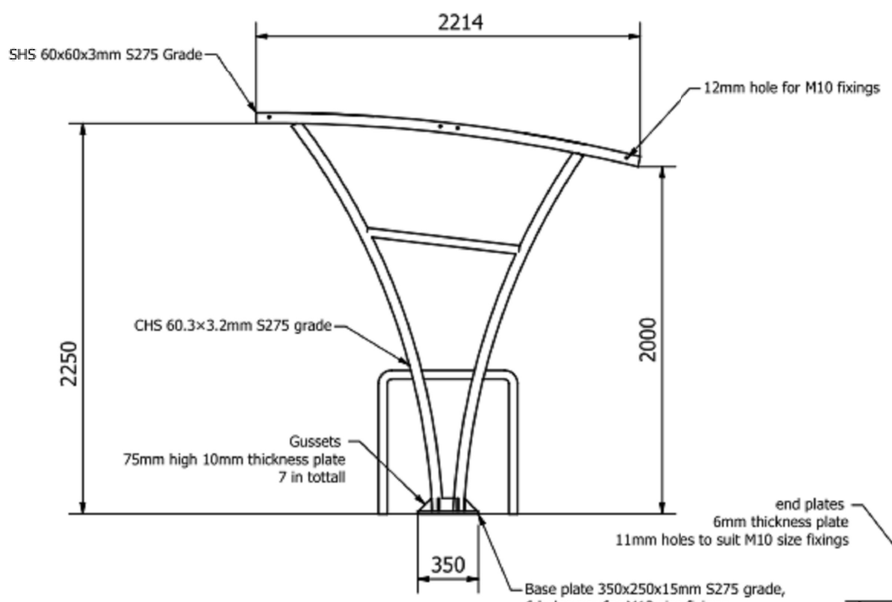
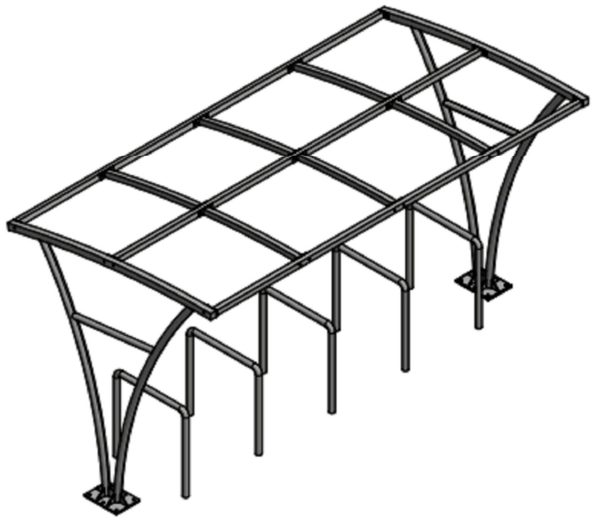
E-Mail info@bdarchitects.ie
Website: www.briandunloparchitects.com

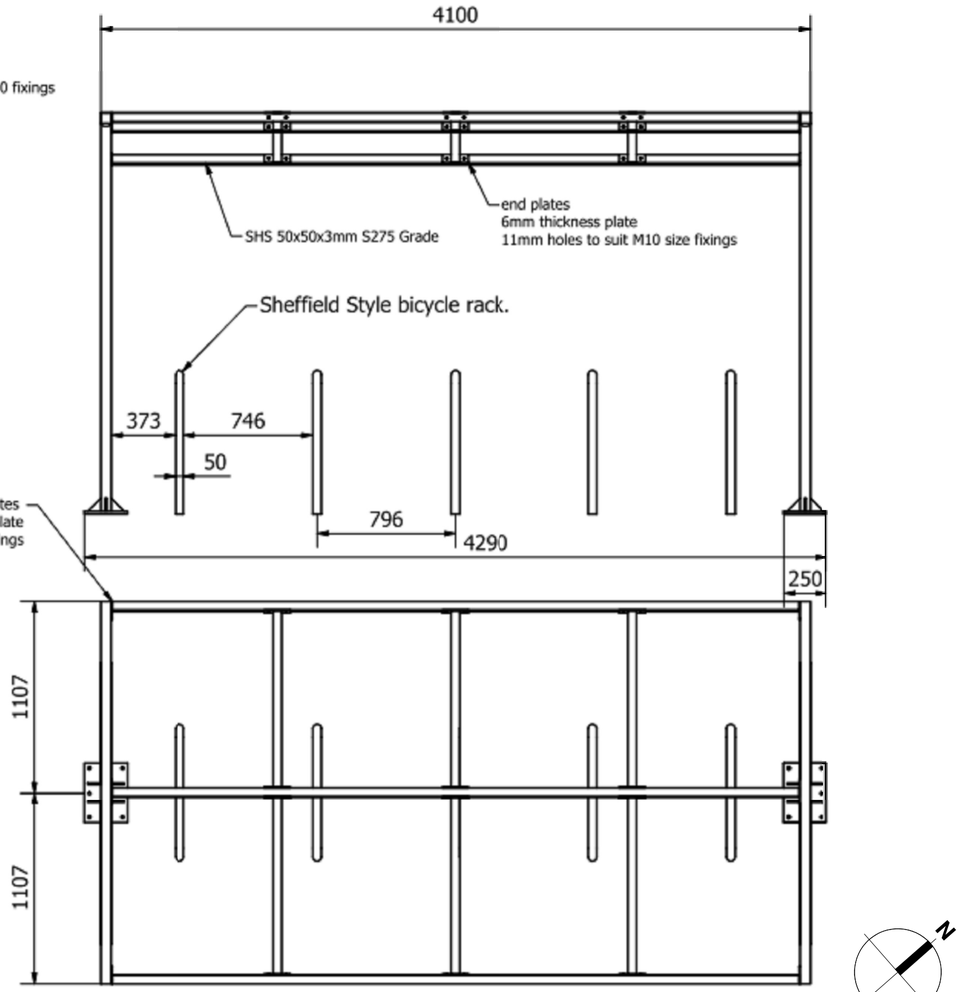
PLANNING DRAWINGS

Job No.	2239
Dwg No.	2239-P-201
Date	JUNE 2023
Scale	1 : 100@A2
Drawn By	ND
Issued By	BD
Checked By	BD

PRACTICE ACCREDITED IN CONSERVATION







All welds 6mm wide minimum
Finish:
All steel to be galvanized.

01/300 Bike Shelter
1 : 25

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REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED BIKE SHELTER DETAILS

brian dunlop architects

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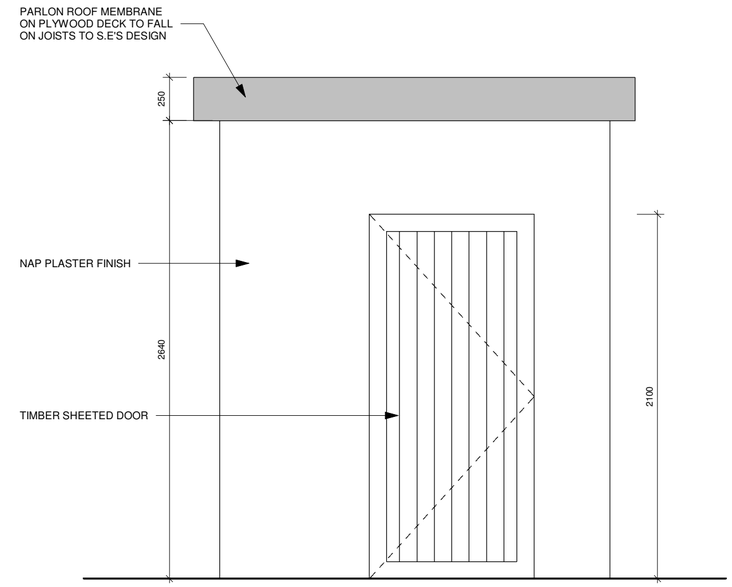
E-Mail info@bdarchitects.ie
Website: www.briandunlopparchitects.com

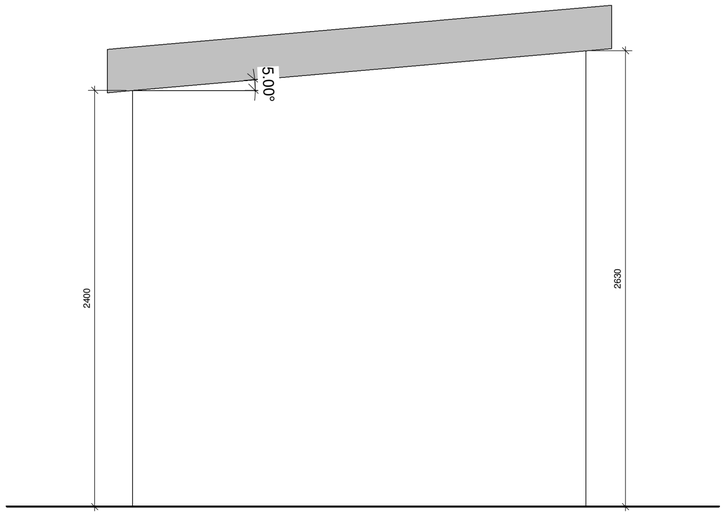
PLANNING DRAWINGS

Job No.	2239
Dwg No.	2239-P-300
Date	JUNE 2023
Scale	1 : 25@A2
Drawn By	ND
Issued By	BD
Checked By	BD

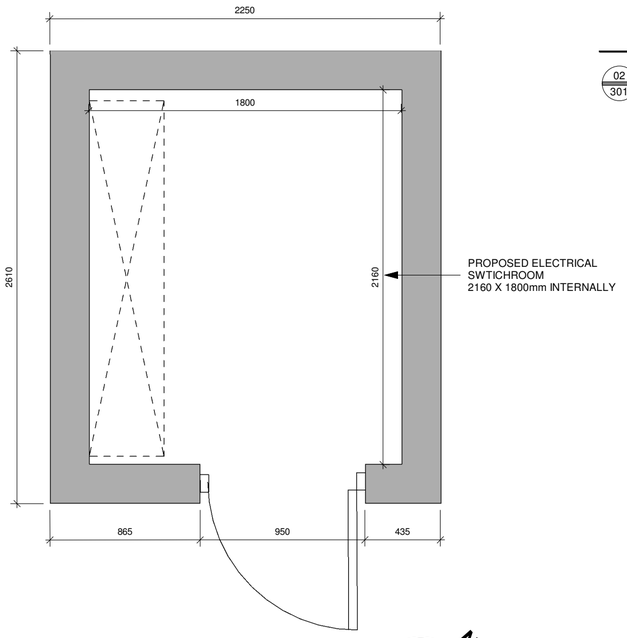
PRACTICE ACCREDITED IN CONSERVATION G3 RIAI



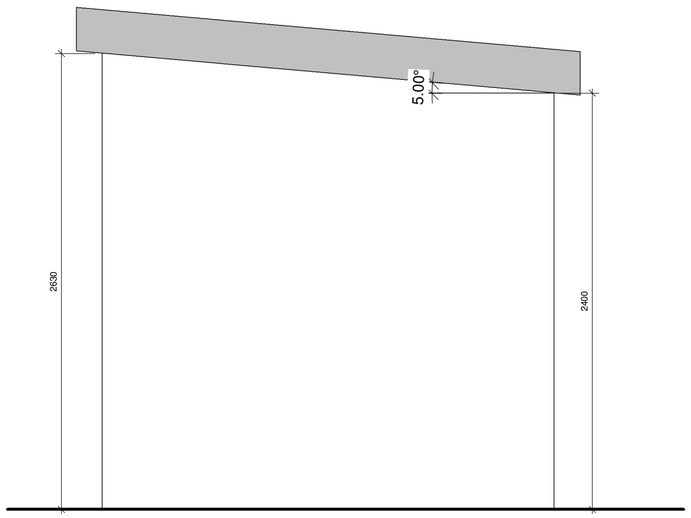
02 / 301 ELECTRICAL SWITCHROOM FRONT ELEVATION
1 : 25



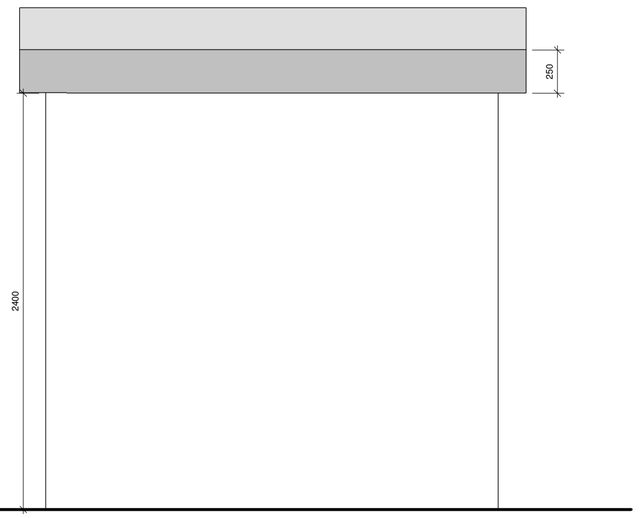
03 / 301 ELECTRICAL SWITCHROOM SIDE ELEVATION
1 : 25



01 / 301 ELECTRICAL SWITCHROOM FLOOR PLAN
1 : 25



04 / 301 ELECTRICAL SWITCHROOM SIDE ELEVATION
1 : 25



05 / 301 ELECTRICAL SWITCHROOM REAR ELEVATION
1 : 25

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REV.	NOTE.	DATE.

CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED ELECTRICAL SWITCHROOM DETAILS

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PLANNING DRAWINGS

Job No.	2239
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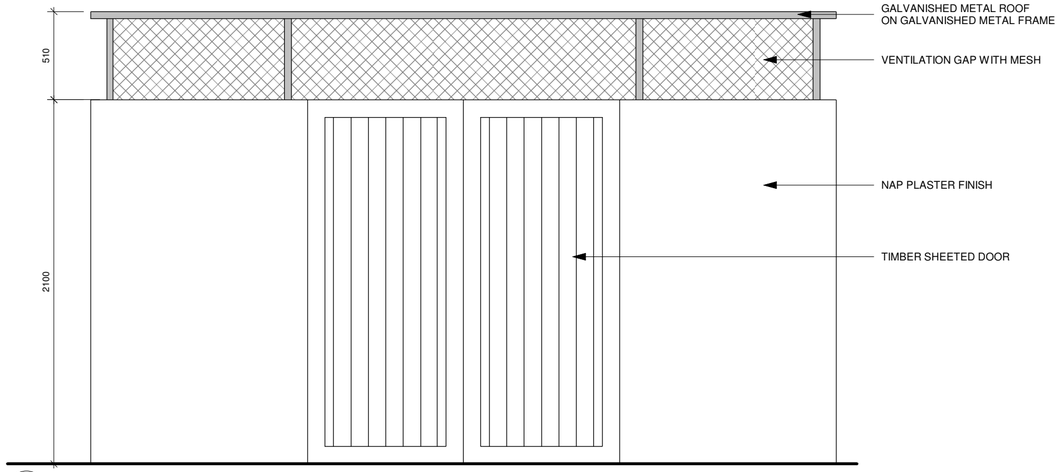
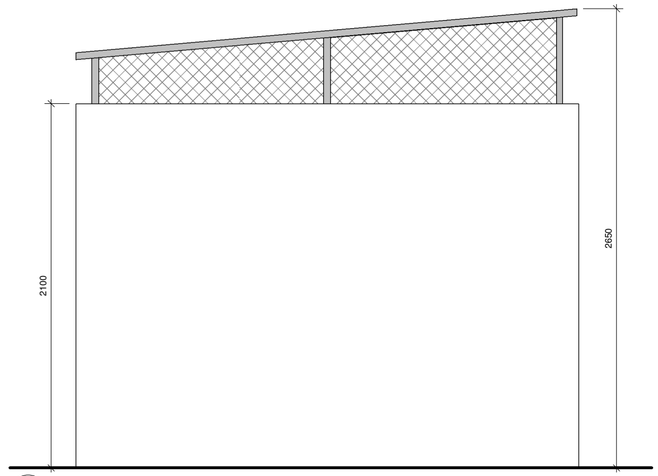
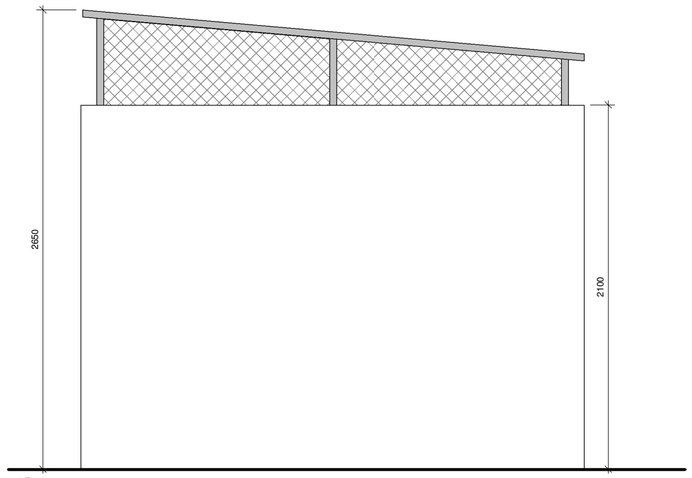
PRACTICE ACCREDITED IN CONSERVATION



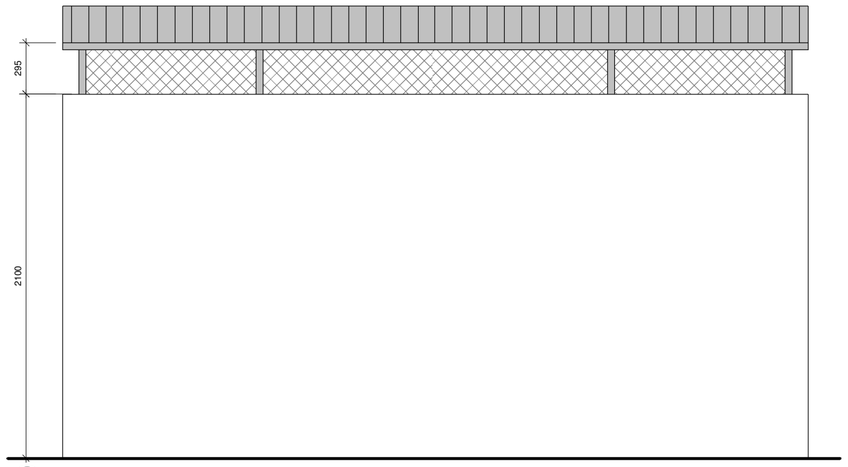
02/302 COMMUNAL BIN STORE FRONT ELEVATION
1 : 25



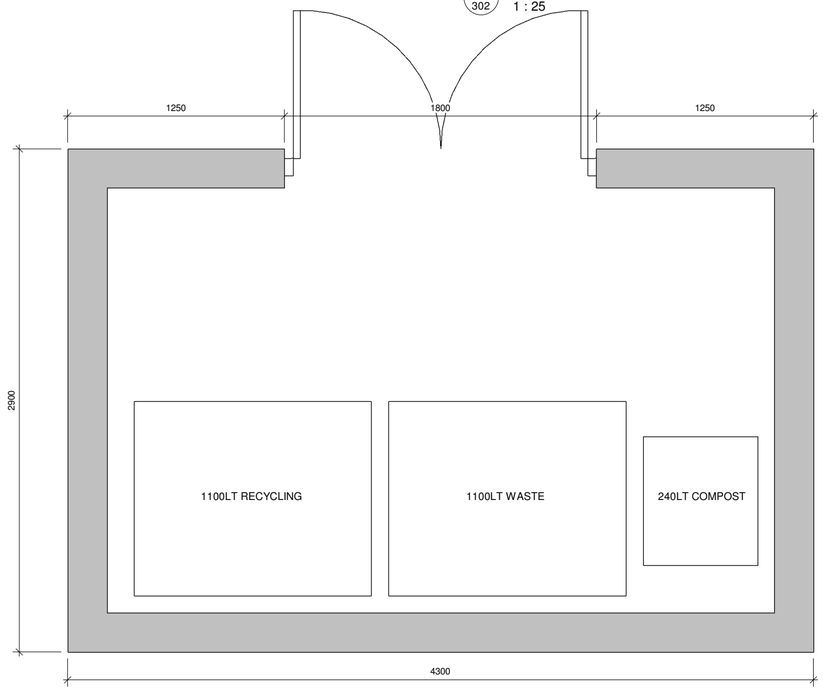
03/302 COMMUNAL BIN STORE SIDE ELEVATION
1 : 25



04/302 COMMUNAL BIN STORE SIDE ELEVATION
1 : 25



05/302 COMMUNAL BIN STORE REAR ELEVATION
1 : 25



01/302 COMMUNAL BIN STORE PLAN
1 : 25

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CLIENT:
PRIVATE

DEVELOPMENT:
RESIDENTIAL DEVELOPMENT

LOCATION:
DUNNINGSTOWN ROAD, CO. KILKENNY

DRAWING TITLE:
PROPOSED COMMUNAL BIN STORE DETAILS

brian dunlop architects

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Telephone: 056 7813015
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PRACTICE ACCREDITED IN CONSERVATION G3 RIAI

Kilkenny County Council

Proposed residential development at Dunningstown Road, Kilkenny

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Engineering Services Report

Kilkenny County Council	KILGALLEN & PARTNERS CONSULTING ENGINEERS	**Kilgallen & Partners Consulting Engineers Danville Business Park Co. Kilkenny**
	22038-ESR Issue PL1	

REVISION HISTORY

Client	Kilkenny County Council
Project	Proposed residential development at Dunningstown Road, Kilkenny
Title	Engineering Services Report

Date	Detail of Issue	Issue No.	Origin	Checked	Approved
02/06/23	Initial issue	PL1	AC	PB	PB

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Introduction

This report relates to the roads, drainage and water supply services for the proposed development ('the Development') of a site ['the Site'] at Dunningstown Road, Kilkenny, Co. Kilkenny and is submitted in support of an application for Planning Permission for the Development.

The Development comprises 6 no. units together with associated streets, footways, drainage, services, boundary treatment and landscaping.

The following drawings should be read in conjunction with this report:

Drawing No.	Title	Issue
22038-C-DR-101	Roads and Streets – Layout, Longitudinal Section and Details	PL1
22038-C-DR-102	Roads and Streets – Swept Path Analysis	PL1
22038-C-DR-201	Drainage & Water Supply Layout & Longitudinal Sections	PL1
22038-C-DR-202	Drainage – Construction Details	PL1

2. ROADS AND STREETS

The internal road network and long sections through the road centrelines are shown on drawing no. 22038-C-DR-101.

Traffic Calming

The internal access road is relatively short with a pronounced bend and so encourages low speeds. This low-speed environment is enhanced by using it as 'homezone' area for shared pedestrian and vehicle activity.

Sightlines and stopping sight distances are provided in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) for a 30kph design speed.

Drainage and Construction

Surface water run-off from roads will be collected by gullies and from the gullies will discharge to the surface water sewer network. All roads are designed to ensure that sufficient crossfalls and gradients are available to drain all areas of the road network.

Pavement and capping layer depths for internal roads will be determined in accordance with the 'Guide to site development works for housing areas' as published by the Department for the Environment.

3. WASTEWATER

3.1 Collection Network and Outfall

Separate systems will be provided within the development for the collection and disposal of surface water run-off and wastewater.

The wastewater sewer network for the Development will discharge to an existing wastewater sewer which is located in the Talbots Gate housing estate.

A pre-connection enquiry was made to Irish Water for this development (Ref No. CDS22008299). A copy of the Confirmation of Feasibility is provided in Appendix A.

Each house will be served by a separate private foul drain with individual inspection chamber to Irish Water details and which subsequently will discharge directly to a foul sewer in a public area.

Wastewater sewers are to be constructed in accordance with the Irish Water Code of Practice.

3.2 Design of Network

The Development will generate 2,430 litres of wastewater per day. These calculations were submitted as part of the pre-connection enquiry.

Wastewater sewers are designed to comply with the Irish Water Code of Practice for Wastewater

4. SURFACE WATER DRAINAGE

4.1 Collection Network and Outfall

Separate systems will be provided within the development for the collection and disposal of surface water run-off and wastewater.

Each unit will be served by a surface water drainage system for disposal of roof-water run-off.

Surface water sewers will be constructed in accordance with the *'Guide to site development works for housing areas'* as published by the Department of the Environment.

4.2 Design of Network

The rainfall data used in the design is site-specific and was obtained from Met Eireann. In accordance with recommendations of GDSDS, a climate change factor of 20% was applied to the design of the surface water sewers. This was achieved by applying a 20% factor to the rainfall data obtained from Met Eireann.

The surface water collection networks were designed in accordance with IS EN 752-4: Part 4 *'Drain and sewer systems outside buildings'* as published by the NSAI, to carry the 2 year rainfall event without surcharge. The design was carried out using the industry-standard software package 'Storm and Sanitary Analysis'.

Self-cleansing flows of greater than 0.75m/s are provided generally. This is not always possible at upstream pipe-runs where contributing areas are low. In these cases, minimum gradients of 1:DN are provided, where DN is the internal diameter of the pipe.

Rainfall data used in the design and calculations for the 100-year design storm are provided in Appendix B.

4.3 SUDS Strategy and Compliance with GDSDS

A ground investigation was carried out to determine the potential of the insitu soils to infiltrate run-off. The investigation found insitu soils to be of good permeability and so it is suited for infiltration of run-off from intense rainfall events. Accordingly, surface water run-off will be collected, stored and discharged as described below. (A copy of the GI report is provided in Appendix C).

The surface water network for the development will discharge to an underground storage are (Stormtech Arch Chambers or similar approved). A porous stone base under these chambers will allow first-flush run-off from rainfall events to infiltrate to ground to the maximum extent that sub-soil permeabilities allow.

In accordance with recommendations of GDSDS, a climate change factor of 20% has been applied to the design of the surface water sewers. This was achieved by applying a 20% factor to the rainfall data obtained from Met Eireann as described in Section 4.1.

Refer to Appendix B for design calculations.

4.4 Surface Water Drainage System- Operation and Maintenance

The surface water drainage system operates entirely under force of gravity.

Drains and gullies in public areas should be inspected on an annual basis, with covers lifted to ensure that manholes remain accessible. Where the inspection reveals evidence of silt or other deposits, these should be sucked out and disposed of appropriately. However, given the nature of the development and the traffic flows that it will generate, it is not anticipated that significant maintenance measures will be required for this infrastructure.

Maintenance of electrical infrastructure will not be required.

A Safety File for the infrastructure in public areas will be prepared in accordance with the Safety, Health and Welfare at Work (Construction) Regulations. In terms of the operation and maintenance of the surface water drainage system, the Safety File should set out:

- Drawings and details of the surface water drainage system together with a description of how the system operates and how damage or failures of the system will manifest themselves;
- The maintenance regime to be applied, based on the designer's assessment of maintenance requirements and manufacturer's recommendations;
- Designer's assessment of risks in maintenance or repair that may not be obvious to a competent caretaker of remedial works contractor.

5. WATER SUPPLY

5.1 Water Supply Network

The water supply for the development will be taken from the existing water supply network located on the Dunningstown Road.

The Development will generate a demand for potable water of 2,430 litres of wastewater per day.

The water supply network was designed to comply with the Irish Water Code of Practice for Water Supply.

Hydrants and sluice valves are located throughout the network in accordance with the requirements of the *"Site development works for housing areas"* as published by the Department of the Environment.

Air valves will be constructed at all high points on site, with scour valves to be constructed at low points.

APPENDIX A

Irish Water Confirmation of Feasibility

CONFIRMATION OF FEASIBILITY

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

Andrew Cantwell

Kilgallen & Partners
3 Danville Business Park
Co.Kilkenny
R95VH33

27 February 2023

Our Ref: CDS22008299 Pre-Connection Enquiry
Dunningstown Road, Kilkenny, Kilkenny

Dear Applicant/Agent,

We have completed the review of the Pre-Connection Enquiry.

Irish Water has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Housing Development of 6 unit(s) at Dunningstown Road, Kilkenny, Kilkenny, (the **Development)**.

Based upon the details provided we can advise the following regarding connecting to the networks;

• **Water Connection**	- Feasible without infrastructure upgrade by Irish Water
• **Wastewater Connection**	- Feasible without infrastructure upgrade by Irish Water - Connection will be via Talbots Court existing third party infrastructure. Permission to connect to this network will be required at application stage. - No stormwater will be permitted to enter the wastewater network.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before the Development can be connected to our network(s) you must submit a connection application and be granted and sign a connection agreement with Irish Water.

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the

Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

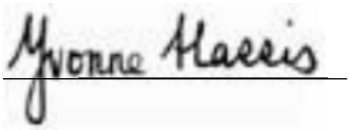
Where can you find more information?

- **Section A -** What is important to know?
- **Section B -** Details of Irish Water's Network(s)

This letter is issued to provide information about the current feasibility of the proposed connection(s) to Irish Water's network(s). This is not a connection offer and capacity in Irish Water's network(s) may only be secured by entering into a connection agreement with Irish Water.

For any further information, visit **www.water.ie/connections, email newconnections@water.ie** or contact 1800 278 278**.**

Yours sincerely,



Yvonne Harris
Head of Customer Operations

Section A - What is important to know?

What is important to know?	Why is this important?
Do you need a contract to connect?	• Yes, a contract is required to connect. This letter does not constitute a contract or an offer in whole or in part to provide a connection to Irish Water's network(s). • Before the Development can connect to Irish Water's network(s), you must submit a connection application and be granted and sign a connection agreement with Irish Water.
When should I submit a Connection Application?	• A connection application should only be submitted after planning permission has been granted.
Where can I find information on connection charges?	• Irish Water connection charges can be found at: https://www.water.ie/connections/information/charges/
Who will carry out the connection work?	• All works to Irish Water's network(s), including works in the public space, must be carried out by Irish Water*. *Where a Developer has been granted specific permission and has been issued a connection offer for Self-Lay in the Public Road/Area, they may complete the relevant connection works
Fire flow Requirements	• The Confirmation of Feasibility does not extend to fire flow requirements for the Development. Fire flow requirements are a matter for the Developer to determine. • **What to do?** - Contact the relevant Local Fire Authority
Plan for disposal of storm water	• The Confirmation of Feasibility does not extend to the management or disposal of storm water or ground waters. • **What to do?** - Contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges.
Where do I find details of Irish Water's network(s)?	• Requests for maps showing Irish Water's network(s) can be submitted to: datarequests@water.ie

What are the design requirements for the connection(s)?	• 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,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

Section B – Details of Irish Water's Network(s)

The map included below outlines the current Irish Water infrastructure adjacent the Development: To access Irish Water Maps email datarequests@water.ie

Reproduced from the Ordnance Survey of Ireland by Permission of the Government. License No. 3-3-34

Note: The information provided on the included maps as to the position of Irish Water's underground network(s) is provided as a general guide only. The information is based on the best available information provided by each Local Authority in Ireland to Irish Water.

Whilst every care has been taken in respect of the information on Irish Water's network(s), Irish Water assumes no responsibility for and gives no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided, nor does it accept any liability whatsoever arising from or out of any errors or omissions. This information should not be solely relied upon in the event of excavations or any other works being carried out in the vicinity of Irish Water's underground network(s). The onus is on the parties carrying out excavations or any other works to ensure the exact location of Irish Water's underground network(s) 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.

APPENDIX B

Rainfall data

Return Period	Event Duration													
	5	10	15	30	60	120	180	240	360	540	720	1080	1440	2880
1	3.90	5.50	6.50	8.20	10.40	13.20	15.10	16.70	19.20	22.10	24.30	28.00	30.90	37.50
2	4.60	6.40	7.60	9.50	11.90	15.00	17.20	18.90	21.60	24.70	27.10	31.00	34.10	41.00
5	6.90	9.60	11.30	13.90	17.00	20.90	23.60	25.70	29.10	32.80	35.70	40.30	43.90	51.60
30	12.20	16.90	19.90	23.70	28.30	33.70	37.30	40.10	44.50	49.30	53.00	58.70	63.10	71.60
100	17.30	24.10	28.40	33.20	38.70	45.20	49.60	52.90	57.90	63.40	67.60	74.10	79.00	87.60

Total Rainfall (mm) from Met Eireann records

Return Period	Event Duration													
	5	10	15	30	60	120	180	240	360	540	720	1080	1440	2880
1	46.80	33.00	26.00	16.40	10.40	6.60	5.03	4.18	3.20	2.46	2.03	1.56	1.29	0.78
2	55.20	38.40	30.40	19.00	11.90	7.50	5.73	4.73	3.60	2.74	2.26	1.72	1.42	0.85
5	82.80	57.60	45.20	27.80	17.00	10.45	7.87	6.43	4.85	3.64	2.98	2.24	1.83	1.08
30	146.40	101.40	79.60	47.40	28.30	16.85	12.43	10.03	7.42	5.48	4.42	3.26	2.63	1.49
100	207.60	144.60	113.60	66.40	38.70	22.60	16.53	13.23	9.65	7.04	5.63	4.12	3.29	1.83

Equivalent Rainfall Intensity (mm/hr)

Return Period	Event Duration													
	5	10	15	30	60	120	180	240	360	540	720	1080	1440	2880
1	56.16	39.60	31.20	19.68	12.48	7.92	6.04	5.01	3.84	2.95	2.43	1.87	1.55	0.94
2	66.24	46.08	36.48	22.80	14.28	9.00	6.88	5.67	4.32	3.29	2.71	2.07	1.71	1.03
5	99.36	69.12	54.24	33.36	20.40	12.54	9.44	7.71	5.82	4.37	3.57	2.69	2.20	1.29
30	175.68	121.68	95.52	56.88	33.96	20.22	14.92	12.03	8.90	6.57	5.30	3.91	3.16	1.79
100	249.12	173.52	136.32	79.68	46.44	27.12	19.84	15.87	11.58	8.45	6.76	4.94	3.95	2.19

Rainfall Intensity (mm/hr) with 20% Climate Change Factor

Design calculations for 100 year rainfall event

Project Description

File Name	22038 Dunningstown Road.SPF

Project Options

Flow Units	LPS
Elevation Type	Elevation
Hydrology Method	Modified Rational
Time of Concentration (TOC) Method	User-Defined
Link Routing Method	Hydrodynamic
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	YES

Rainfall Details

Return Period	100	years
Event Duration	15	minutes

Run-off Coefficients

Roofs, Paved Areas and Grassed Verges	1
Permable Pavement	0.5
Other Grassed Areas	0

Ref.	Area	Run-off Coefficient	Rainfall During Event	Run-off volume
	(sq.m)		(mm)	(m^3)
Sub-01	100	1.0	34.08	3.4
Sub-02	100	1.0	34.08	3.41
Sub-03	200	1.0	34.08	6.82
Sub-04	400	1.0	34.08	13.63
			TOTAL RUN-OFF	**27.3**

CONTRIBUTING AREAS

Upstream manhole	Downstream manhole	Length	Invert level		Gradient	Diameter	Peak Flow	Capacity	Peak Flow / Capacity	Peak Flow Velocity	Total Time Surcharged	Status
			Inlet	Outlet								
		(m)	(m)	(m)	(%)	(mm)	(lps)	(lps)		(m/sec)	(min)	
S1	S2	19.25	61.01	60.91	0.50	225	6.4	31.7	0.20	0.26	0.00	Calculated
S2	S3	24.10	60.91	60.79	0.50	300	40.6	68.2	0.59	0.85	15.00	SURCHARGED
S3	Infiltration	2.60	60.79	60.78	0.35	300	47.6	56.9	0.84	1.60	198.00	SURCHARGED

Storage Area 1

Invert level of Sub-base Layer	60.28	m
Invert level of Storage Chamber	60.78	m
Max. Water Level during Critical Storm	61.22	m
Storage Provided at Max. Water level	49.3	m3

Depth above IL (m)	IL (m OD)	Storage Volume (cumulative) (m^3)	*Storage Type*
0	60.280	0.0	Sub-base Layer
0.025	60.305	1.2	
0.051	60.331	2.5	
0.076	60.356	3.8	
0.102	60.382	5.1	
0.127	60.407	6.3	
0.152	60.432	7.5	Hydrochamber and Stone Surround
0.178	60.458	8.8	
0.203	60.483	10.1	
0.229	60.509	11.4	
0.254	60.534	12.6	
0.279	60.559	13.8	
0.305	60.585	15.1	
0.33	60.610	16.4	
0.356	60.636	17.7	
0.381	60.661	18.9	
0.406	60.686	20.1	
0.432	60.712	21.4	
0.457	60.737	22.7	
0.483	60.763	24.0	
0.508	60.788	25.4	
0.533	60.813	26.9	
0.559	60.839	28.5	
0.584	60.864	30.0	
0.61	60.890	31.6	
0.635	60.915	33.1	
0.66	60.940	34.5	
0.686	60.966	36.0	
0.711	60.991	37.5	
0.737	61.017	38.9	
0.762	61.042	40.3	
0.787	61.067	41.7	
0.813	61.093	43.0	
0.838	61.118	44.3	
0.864	61.144	45.6	
0.889	61.169	46.9	
0.914	61.194	48.1	
0.94	61.220	49.3	
0.965	61.245	50.4	
0.991	61.271	51.5	
1.016	61.296	52.5	
1.041	61.321	53.5	
1.067	61.347	54.4	
1.092	61.372	55.2	
1.118	61.398	56.0	
1.143	61.423	56.7	
1.168	61.448	57.3	
1.194	61.474	57.7	
1.219	61.499	58.0	
1.245	61.525	58.1	

Network Summary for Critical Event 15 minutes

A	Peak Outflow (lps)	47.63
B	Max Water Level (m)	61.22
C	Storage Provided	58.10
D	Total exfiltration volume (1000-m³)	0.000
E	Total discharge to outfall (m3)	42.9
F	Total amount discharged during event (m3) [= D + E]	42.9
G	Total run-off during event (m3)	27.3
H	Newtork Storage (m3) [= G - (F + C)]	-73.7
	Total Flooded Volume (ha-mm)	0

APPENDIX C

Ground Investigation Report

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Ground Investigations Ireland

Dunningstown Road

Kilkenny County Council

Ground Investigation Report

October 2022

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DOCUMENT CONTROL SHEET

Project Title	Dunningstown Road
Engineer	Kilgallen & Partners
Client	Kilkenny County Council
Project No	12128-08-22
Document Title	Ground Investigation Report

Rev.	Status	Author(s)	Reviewed By	Approved By	Office of Origin	Issue Date
A	Interim	B Sexton	C Finnerty	B Sexton	Dublin	14 October 2022

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CONTENTS

APPENDICES

1.0 Preamble

On the instructions of Kilgallen & Partners Consulting Engineers, a site investigation was carried out by Ground Investigations Ireland Ltd., in October 2022 at the site of the proposed residential development at Dunningstown Road, Kilkenny City.

2.0 Overview

2.1. Background

It is proposed to construct a new residential development comprising houses at the proposed site. At the time of the site investigation the site was occupied by two building which had been in use as weather monitoring stations. The proposed construction is envisaged to consist of conventional foundations and pavement make up with some local excavations for services and plant.

2.2. Purpose and Scope

The purpose of the site investigation was to investigate subsurface conditions utilising a variety of investigative methods in accordance with the project specification. The scope of the work undertaken for this project included the following:

- Visit project site to observe existing conditions
- Carry out 7 No. Trial Pits to a maximum depth of 2.5m BGL
- Carry out 1 No. Soakaway to determine a soil infiltration value to BRE digest 365
- Carry out 7 No. Dynamic Probes to determine strength/density characteristics
- Carry out a GPR survey of the site
- Geotechnical Laboratory testing
- Report with recommendations

3.0 Subsurface Exploration

3.1. General

During the ground investigation a programme of intrusive investigation specified by the Consulting Engineer was undertaken to determine the sub surface conditions at the proposed site. Regular sampling and in-situ testing was undertaken in the exploratory holes to facilitate the geotechnical descriptions and to enable laboratory testing to be carried out on the soil samples recovered during excavation and drilling.
The procedures used in this site investigation are in accordance with Eurocode 7 Part 2: Ground Investigation and testing (ISEN 1997 – 2:2007) and B.S. 5930:2015.

3.2. Trial Pits

The trial pits were excavated using a 5T tracked excavator at the locations shown in Figure 1 in Appendix 1. The locations were checked using a CAT scan to minimise the potential for encountering services during the excavation. The trial pits were sampled, logged and photographed by a Geotechnical Engineer/Engineering Geologist prior to backfilling with arisings. Notes were made of any services, inclusions, pit stability, groundwater encountered and the characteristics of the strata encountered and are presented on the trial pit logs which are provided in Appendix 2 of this Report.

3.3. Soakaway Testing

The soakaway testing was carried out in selected trial pits at the locations shown in the exploratory hole location plan in Appendix 1. These pits were carefully excavated and filled with water to assess the infiltration characteristics of the proposed site. The pits were allowed to drain and the drop in water level was recorded over time as required by BRE Digest 365. The pits were logged prior to completing the soakaway test and were backfilled with arising's upon completion. The soakaway test results are provided in Appendix 3 of this Report.

3.4. Dynamic Probing

The dynamic probe tests (DPH) were carried out at the locations shown in the location plan in Appendix 1 in accordance with B.S. 1377: Part 9 1990. The test consists of mechanically driving a cone with a 50kg weight in 100mm intervals and monitoring the number of blows required. An equivalent Standard Penetration Test (SPT) 'N' value may be calculated by dividing the total number of blows over a 300mm drive length by 1.5. The dynamic probe logs are provided in Appendix 4 of this Report.

3.5. Ground Penetrating Radar (GPR) Survey

A GPR survey was completed across the site to identify buried services and other analogies. The survey was limited by the fact that the site was heavy overgrown at the time of the survey. The results of the survey are presented in Appendix 5 of this Report.

3.6. Surveying

The exploratory hole locations have been recorded using a KQ GEO Technologies KQ-M8 System which records the coordinates and elevation of the locations to ITM or Irish National Grid as required by the project specification. The coordinates and elevations are provided on the exploratory hole logs in the appendices of this Report.

3.7. Laboratory Testing

Samples were selected from the exploratory holes for a range of geotechnical and environmental testing to assist in the classification of soils and to provide information for the proposed design.

Environmental & Chemical testing as required by the specification, including the pH and sulphate testing was carried out by Element Materials Technology Laboratory in the UK.
Geotechnical testing consisting of moisture content, Atterberg limits and Particle Size Distribution (PSD) tests were carried out in Professional Soil Laboratory (PSL) in the UK.
The results of the laboratory testing are included in Appendix 6 of this Report.

4.0 Ground Conditions

4.1. General

The ground conditions encountered during the investigation are summarised below with reference to insitu and laboratory test results. The full details of the strata encountered during the ground investigation are provided in the exploratory hole logs included in the appendices of this report.

The sequence of strata encountered were relatively consistent across the site and generally comprised;

- Topsoil/Surfacing
- Made Ground
- Granular Deposits

TOPSOIL: Topsoil was encountered in the majority of the exploratory holes and was present to a maximum depth of 0.30m BGL.

SURFACING: Tarmacadam was encountered at TP-01 and TP-02 to a maximum depth of 0.10m BGL.

MADE GROUND: Made Ground deposits were encountered beneath the Topsoil/Surfacing and were present to a depth of between 0.30m and 1.00m BGL. These deposits were described generally as *brown/grey slightly clayey sandy fine to coarse subrounded to rounded Gravel with occasional fragments of plastic and metal.*

GRANULAR DEPOSITS: Granular deposits were encountered within/below/at the base of the cohesive deposits and were typically described as *grey/brown slightly clayey sandy fine to coarse subrounded to rounded GRAVEL with many subrounded to rounded cobbles and boulders.* The secondary sand/gravel and silt/clay constituents varied across the site and with depth while occasional or frequent cobble and boulder content also present where noted on the exploratory hole logs.
Based on the SPT N values the deposits are typically dense. The gravels encountered at TP-04 were found to be loose to a depth of 1.50m BGL after which they became dense. It should be noted that many of the trial pits where granular deposits were encountered, experienced instability. This was described either as side wall spalling or as side wall collapse in the remarks section at the base of the trial pit logs.

4.2. Groundwater

No groundwater was noted during the investigation however it should be noted that these exploratory holes did not remain open for sufficiently long periods of time to establish the hydrogeological regime and groundwater levels would be expected to vary with the time of year, rainfall, nearby construction and other factors.

4.3. Laboratory Testing

4.3.1. Geotechnical Laboratory Testing

The geotechnical laboratory results were not available at the time of writing this report.

4.3.2. Chemical Laboratory Testing

The chemical laboratory results were not available at the time of writing this report.

The results from the completed laboratory testing will be included in Appendix 7 of this report.

5.0 Recommendations & Conclusions

5.1. General

The recommendations given and opinions expressed in this report are based on the findings as detailed in the exploratory hole records. Where an opinion is expressed on the material between exploratory hole locations, this is for guidance only and no liability can be accepted for its accuracy. No responsibility can be accepted for conditions which have not been revealed by the exploratory holes. Limited information has been provided at the ground investigation stage and any designs based on the recommendations or conclusions should be completed in accordance with the current design codes, taking into account the variation and the specific details contained within the exploratory hole logs.

5.2. Foundations

An allowable bearing capacity of 125 kN/m^2 is recommended for conventional strip or pad foundations on the dense of medium dense granular deposits at a depth of 1.0m BGL.

The possibility for variation in the depth of the made ground in the vicinity of these foundations should be considered and foundation inspections should be carried out. Any soft spots encountered at the proposed foundation depths should be excavated and replaced with lean mix concrete. Where the granular deposits are deeper, lean mix trench fill is recommended to achieve the recommended allowable bearing capacity.

A ground bearing floor slab is recommended to be based on the medium dense granular deposits with an appropriate depth of compacted hardcore specified by the consulting engineer and in accordance with the limits and guidelines in SR21:2014 +A1:2016 and/or NRA SRW CL808 Type E granular stone fill. Made Ground should be removed below any proposed floor slabs. Where the depth of Made Ground/Soft deposits exceeds 0.9m then suspended floor slabs should be considered.

5.3. Excavations

Short term temporary excavations in the cohesive deposits will remain stable for a limited time only and will require to be appropriately battered or the sides supported if the excavation is below 1.25m BGL or is required to permit man entry.
Any excavations which penetrate the granular deposits will require to be appropriately battered or the sides supported.
The stability noted on the trial pit logs should be consulted when determining the most appropriate construction methods for excavations.

5.4. Soakaway Design

An infiltration rate of f=1.31 x 10^{-5} m/s was calculated for the soakaway location SA-01.

The recommendations provided in this report should be verified in the design of the proposed buildings, using the full details of the loading conditions and taking into consideration the allowable tolerable

settlements/movements that the building can accommodate. The founding strata should be inspected and verified by a suitably qualified engineer prior to construction of the building foundations.

APPENDIX 1 - Figures

649360E 649380E 649400E 649420E

657480N

657460N

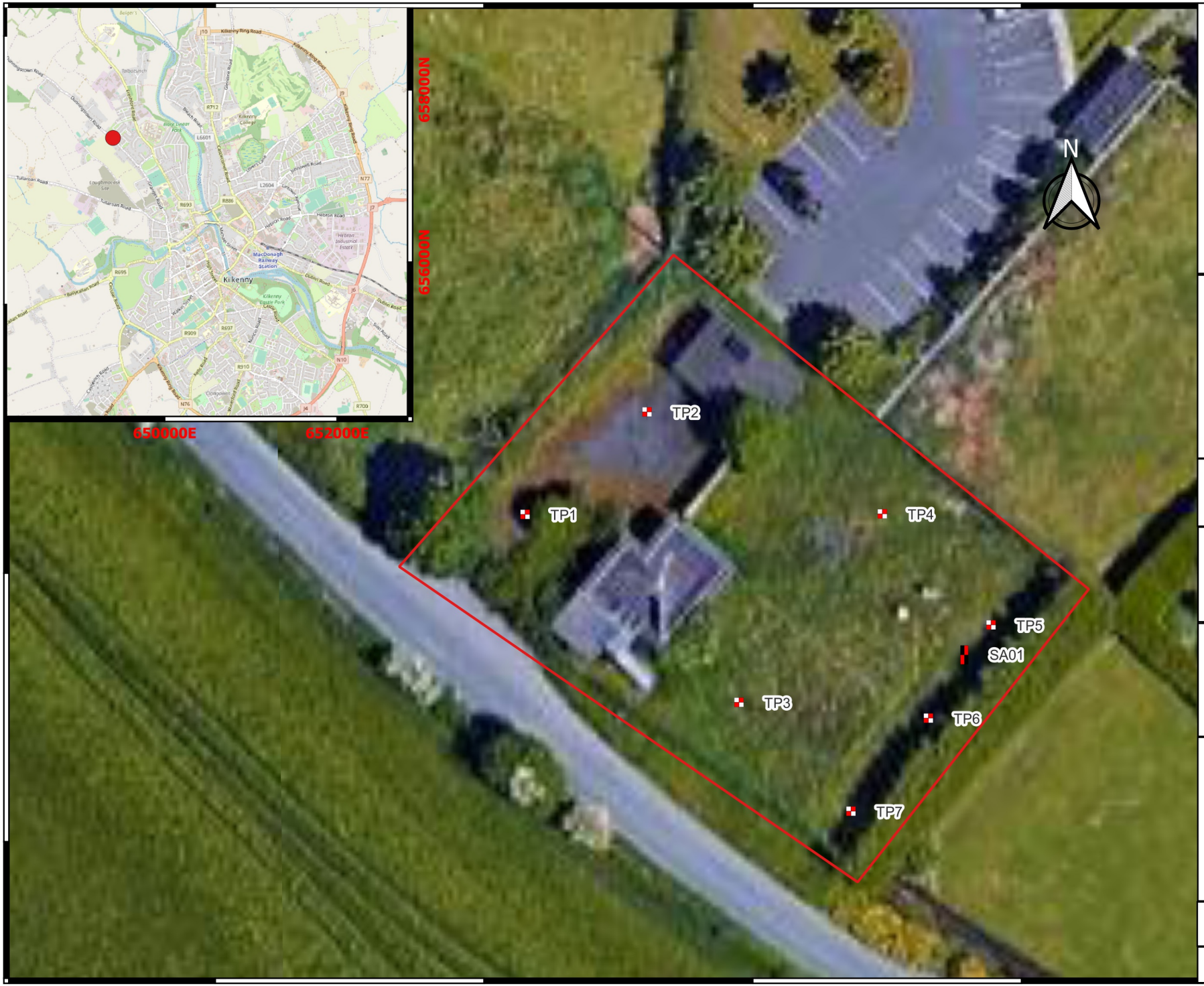
657440N

657420N

658000N

656000N

650000E 652000E



649360E 649380E 649400E 649420E

Indicative Site Boundary

Site Location

SI Points

Soakaway

Trial Pit

Client:

Project Code:
12128-08-22

Project Title:
Dunningstown

Drawing Title:
Figure 1 Site Location and Layout

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0 5 10 15 m

Drawn By: BS

Date: 14-10-2022

APPENDIX 2 – Trial Pit Records

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road			**Trial Pit Number** SA01
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 1.80m x 0.60m x 1.50m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.10) 0.10	TOPSOIL		
					(0.30) 0.40	MADE GROUND: Reddish brown/grey slightly clayey sandy fine to coarse subrounded to rounded Gravel with occasional fragments of plastic and metal		
0.50	B				(1.10)	Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
1.50	B				1.50	Complete at 1.50m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 1.00m BGL
Complete at 1.50m BGL
Soakaway test carried out in trial pit upon completion in accordance with BRE Digest 365
Trial pit backfilled upon completion of soakaway

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.SA01

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road			**Trial Pit Number** TP01
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.40m x 1.30m x 2.50m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.10) 0.10	TARMACADAM		
					(0.20) 0.30	FILL: Grey sandy coarse angular Gravel (Crushed Rock Fill)		
0.50	B				(0.70) 1.00	MADE GROUND: Reddish brown/grey clayey sandy fine to coarse subrounded to rounded Gravel with occasional subrounded to rounded cobbles and boulders and occasional fragments of red brick and clay pipe		
1.50	B				(1.10) 2.10	Dense grey/brown slightly clayey sandy fine to coarse subrounded to rounded GRAVEL with many subrounded to rounded cobbles and boulders		
2.50	B					Complete at 2.50m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 0.40m BGL
Refusal at 2.50m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP01

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road			**Trial Pit Number** TP02
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.40m x 1.30m x 2.50m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.10) 0.10	TARMACADAM		
					(0.20) 0.30	FILL: Grey sandy coarse angular Gravel (Crushed Rock Fill)		
0.50	B				(0.60) 0.90	MADE GROUND: Reddish brown slightly sandy gravelly Clay with some fragments of red brick, concrete and crushed rock fill		
1.50	B				(1.60) 2.50	Dense grey/brown slightly clayey sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles and boulders		
2.50	B					Complete at 2.50m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 0.40m BGL
Refusal at 2.50m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP02

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road			**Trial Pit Number** TP03
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.40m x 1.30m x 2.50m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	TOPSOIL		
					(0.10) 0.30	Loose reddish brown/grey slightly clayey gravelly fine to coarse SAND with some subrounded to rounded cobbles (Possible Made Ground)		
0.50	B					Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
1.50	B				(2.20)			
2.50	B				2.50	Complete at 2.50m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from surface
Refusal at 2.50m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP03

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road			**Trial Pit Number** TP04
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.40m x 1.30m x 2.20m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	TOPSOIL		
					(0.30) 0.50	Loose reddish brown/grey slightly clayey gravelly fine to coarse SAND with some subrounded to rounded cobbles (Possible Made Ground)		
0.50	B				(1.00) 1.50	Loose grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
1.50	B				(0.70) 2.20	Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
2.20	B					Complete at 2.20m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from surface
Refusal at 2.20m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP03

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Site Dunningstown Road			**Trial Pit Number** TP05
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.50m x 1.20m x 2.50m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.30)	TOPSOIL		
					0.30	MADE GROUND: Reddish brown/grey slightly clayey gravelly fine to coarse Sand with occasional fragments of metal and plastic		
0.50	B				(0.60)			
					0.90	Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
1.50	B				(1.60)			
2.50	B				2.50	Complete at 2.50m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 1.00m BGL
Refusal at 2.50m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP05

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Site Dunningstown Road			**Trial Pit Number** TP06
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.20m x 1.30m x 2.30m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	TOPSOIL		
0.50	B				(0.80)	Loose reddish brown/grey slightly clayey gravelly fine to coarse SAND with some subrounded to rounded cobbles (Possible Made Ground)		
					1.00			
1.50	B				(1.30)	Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
2.30	B				2.30	Complete at 2.30m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 0.50m BGL
Refusal at 2.30m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP06

Ground Investigations Ireland Ltd
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Site Dunningstown Road			**Trial Pit Number** TP07
Machine : 5T Tracked Excavator **Method :** Trial Pit	**Dimensions** 3.20m x 1.30m x 2.30m (L x W x D)	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
					(0.20) 0.20	TOPSOIL		
					(0.30) 0.50	Loose reddish brown/grey slightly clayey gravelly fine to coarse SAND with some subrounded to rounded cobbles (Possible Made Ground)		
0.50	B				(0.50) 1.00	Medium dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
1.50	B				(1.30) 2.30	Dense grey/brown sandy fine to coarse subrounded to rounded GRAVEL with some subrounded to rounded cobbles		
2.30	B					Complete at 2.30m		

Plan

Remarks

No groundwater encountered
Trial pit spalling from 0.40m BGL
Refusal at 2.30m BGL
Trial pit backfilled upon completion

Scale (approx)	Logged By	Figure No.
1:25	AB	12128-08-22.TP07

APPENDIX 3 – Soakaway Records

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D22 YD52

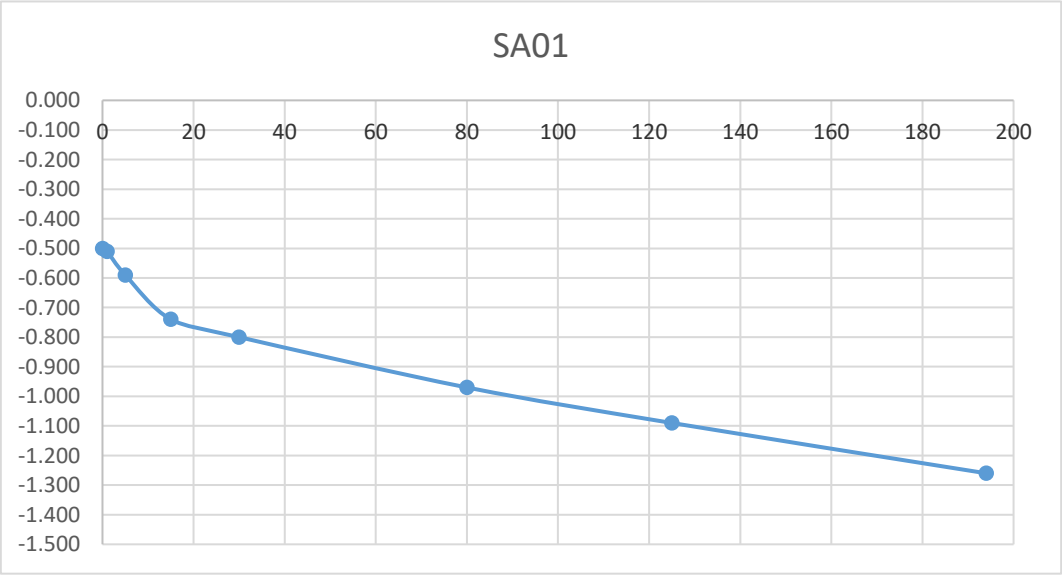
Tel: 01 601 5175 / 5176
Email: info@gii.ie
Web: www.gii.ie

SA01

Soakaway Test to BRE Digest 365
Trial Pit Dimensions: 1.80m x 0.60m 1.50m (L x W x D)

Date	Time	Water level (m bgl)
04/10/2022	0	-0.500
04/10/2022	1	-0.510
04/10/2022	5	-0.590
04/10/2022	15	-0.740
04/10/2022	30	-0.800
04/10/2022	80	-0.970
04/10/2022	125	-1.090
04/10/2022	194	-1.260

Start depth	Depth of Pit		Diff	75% full	25%full
0.50	**1.500**		**1.000**	**0.75**	**1.25**
Length of pit (m)	Width of pit (m)			75-25Ht (m)	Vp75-25 (m3)
1.500	0.600			0.500	0.45
Tp75-25 (from graph) (s)		**11400**		50% Eff Depth	ap50 (m2)
				0.500	3
f =	**1.316E-05**	**m/s**			

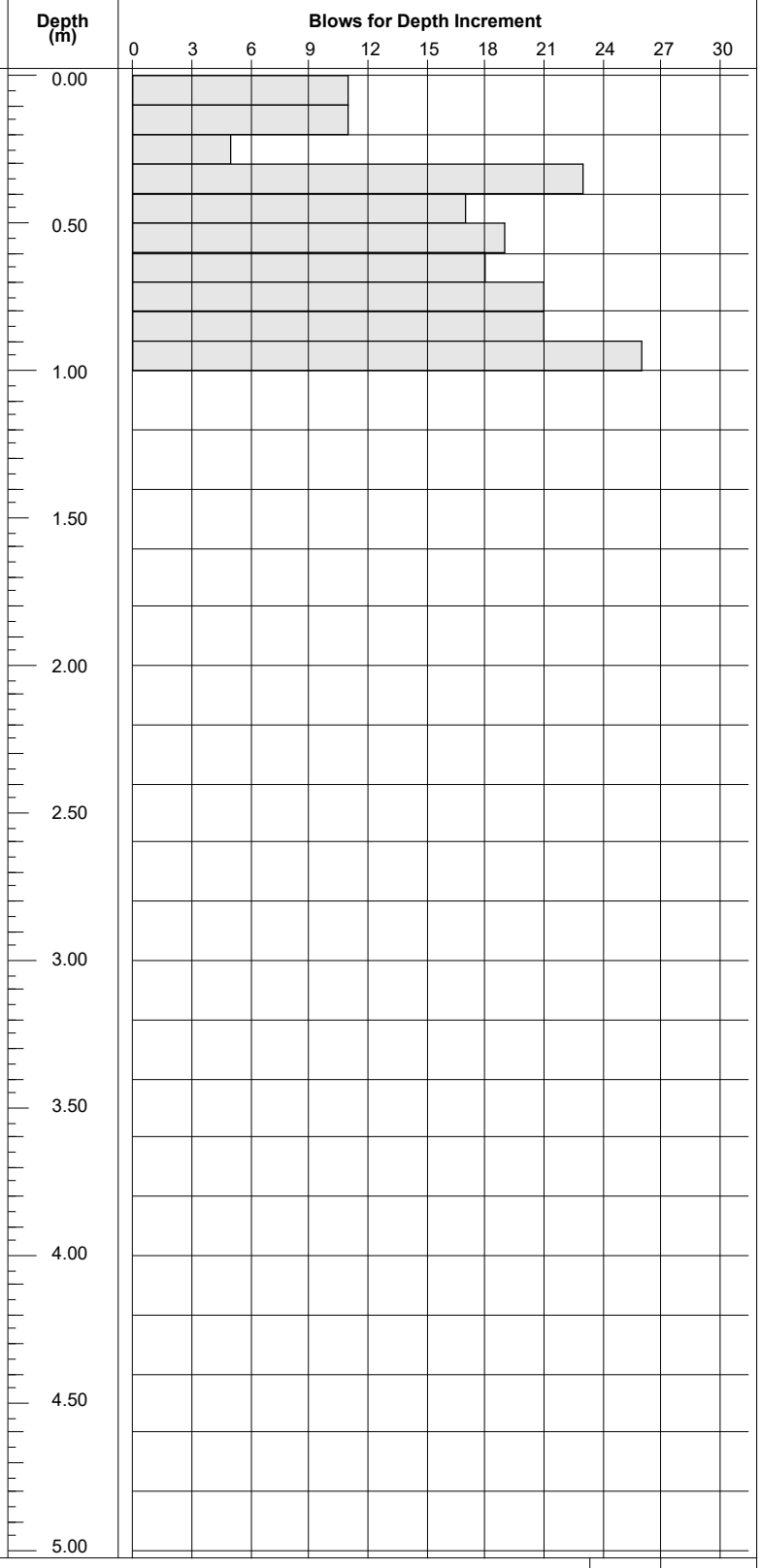


APPENDIX 4 – Dynamic Probe Records

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP01
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	11		
0.10-0.20	11		
0.20-0.30	5		
0.30-0.40	23		
0.40-0.50	17		
0.50-0.60	19		
0.60-0.70	18		
0.70-0.80	21		
0.80-0.90	21		
0.90-1.00	26		



Remarks
Refusal at 1.00m BGL

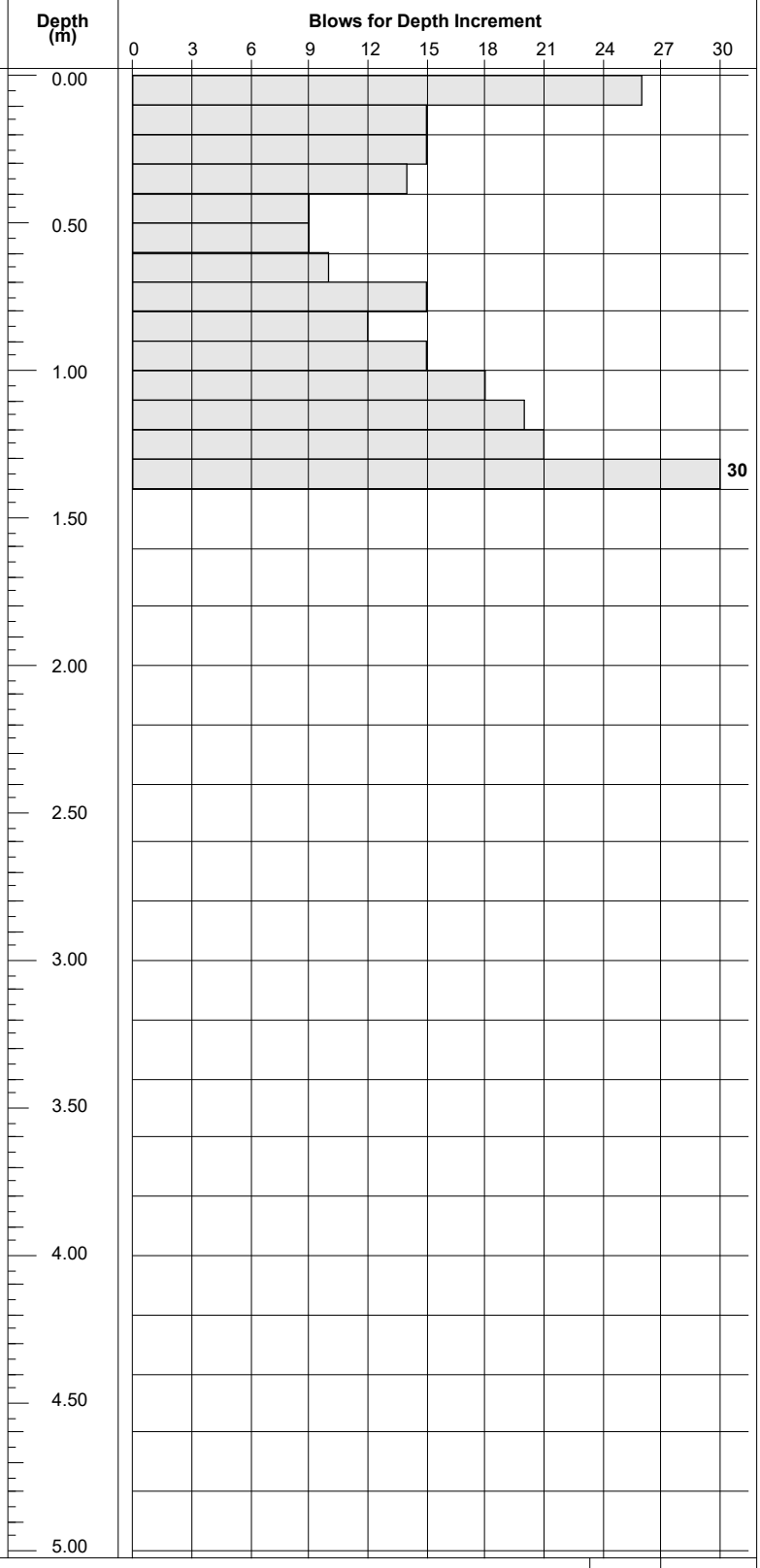
Scale (approx)	Logged By
1:25	AB

Figure No. 12128-08-22.DP01

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP02
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	26		
0.10-0.20	15		
0.20-0.30	15		
0.30-0.40	14		
0.40-0.50	9		
0.50-0.60	9		
0.60-0.70	10		
0.70-0.80	15		
0.80-0.90	12		
0.90-1.00	15		
1.00-1.10	18		
1.10-1.20	20		
1.20-1.30	21		
1.30-1.40	30		



Remarks
Refusal at 1.40m BGL

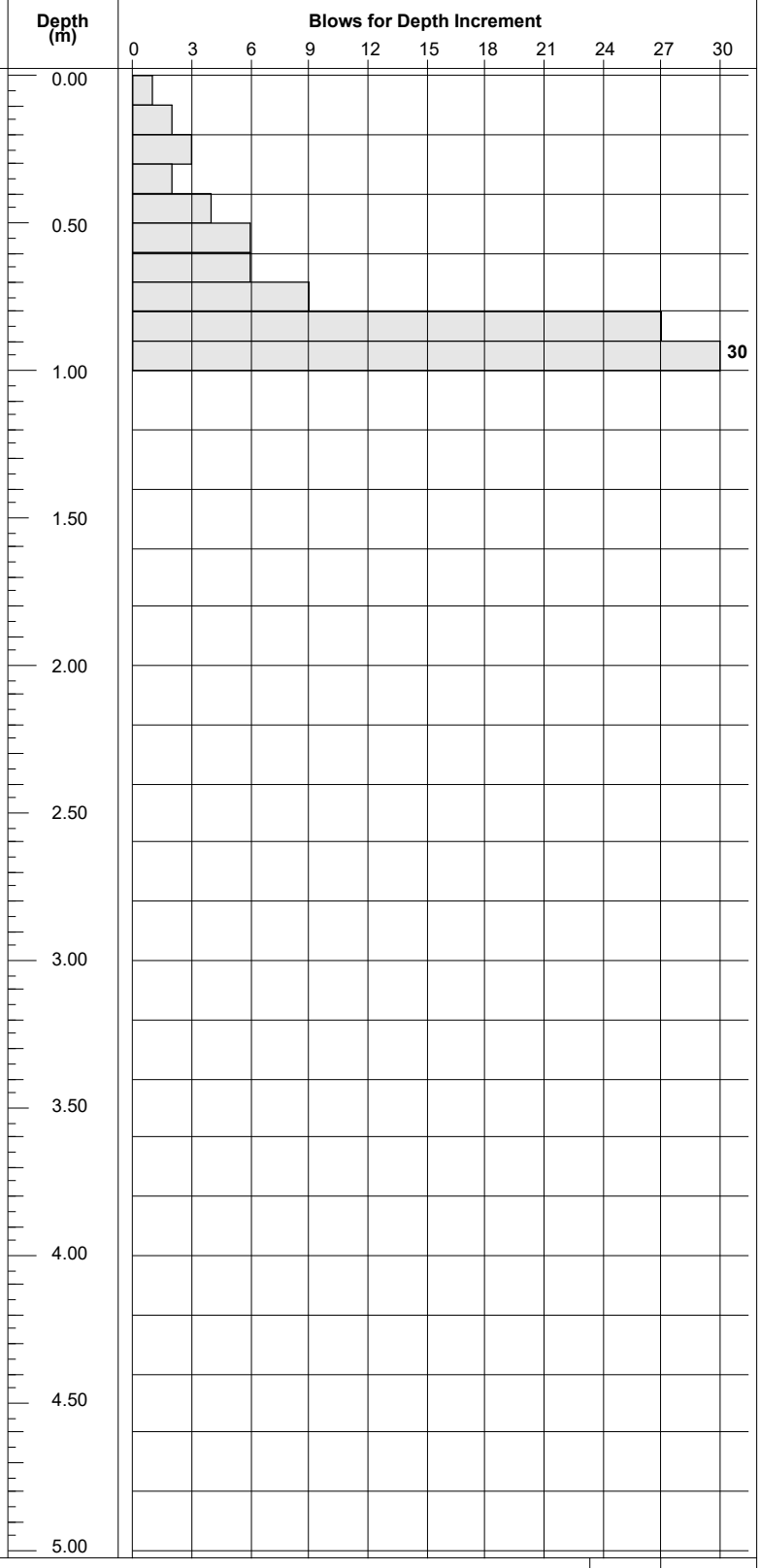
Scale (approx)	Logged By
1:25	AB

Figure No.
12128-08-22.DP02

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP03
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	1		
0.10-0.20	2		
0.20-0.30	3		
0.30-0.40	2		
0.40-0.50	4		
0.50-0.60	6		
0.60-0.70	6		
0.70-0.80	9		
0.80-0.90	27		
0.90-1.00	30		



Remarks
Refusal at 1.00m BGL

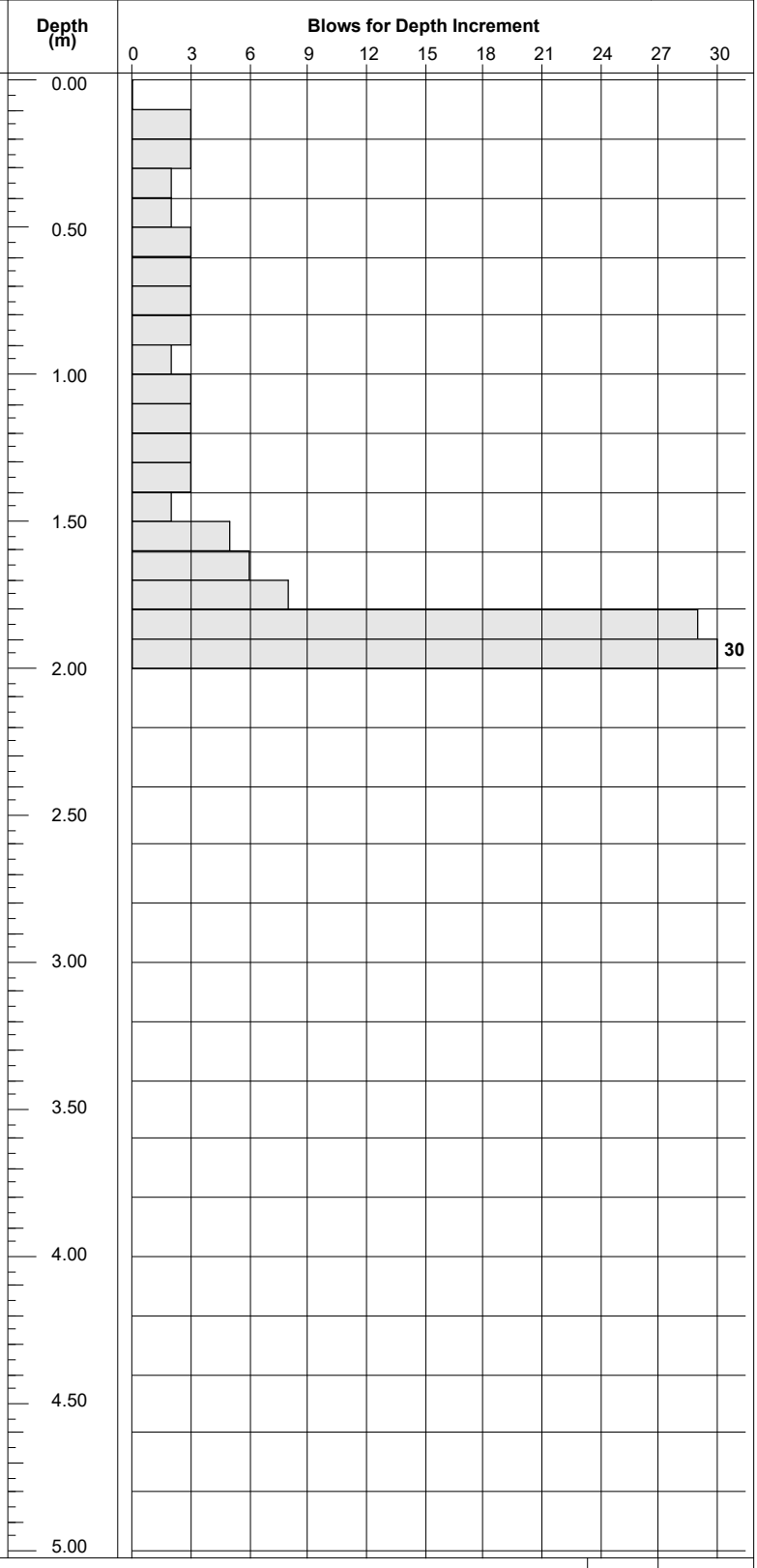
Scale (approx)	Logged By
1:25	AB

Figure No. 12128-08-22.DP03

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP04
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	0		
0.10-0.20	3		
0.20-0.30	3		
0.30-0.40	2		
0.40-0.50	2		
0.50-0.60	3		
0.60-0.70	3		
0.70-0.80	3		
0.80-0.90	3		
0.90-1.00	2		
1.00-1.10	3		
1.10-1.20	3		
1.20-1.30	3		
1.30-1.40	3		
1.40-1.50	2		
1.50-1.60	5		
1.60-1.70	6		
1.70-1.80	8		
1.80-1.90	29		
1.90-2.00	30		



Remarks
Refusal at 2.00m BGL

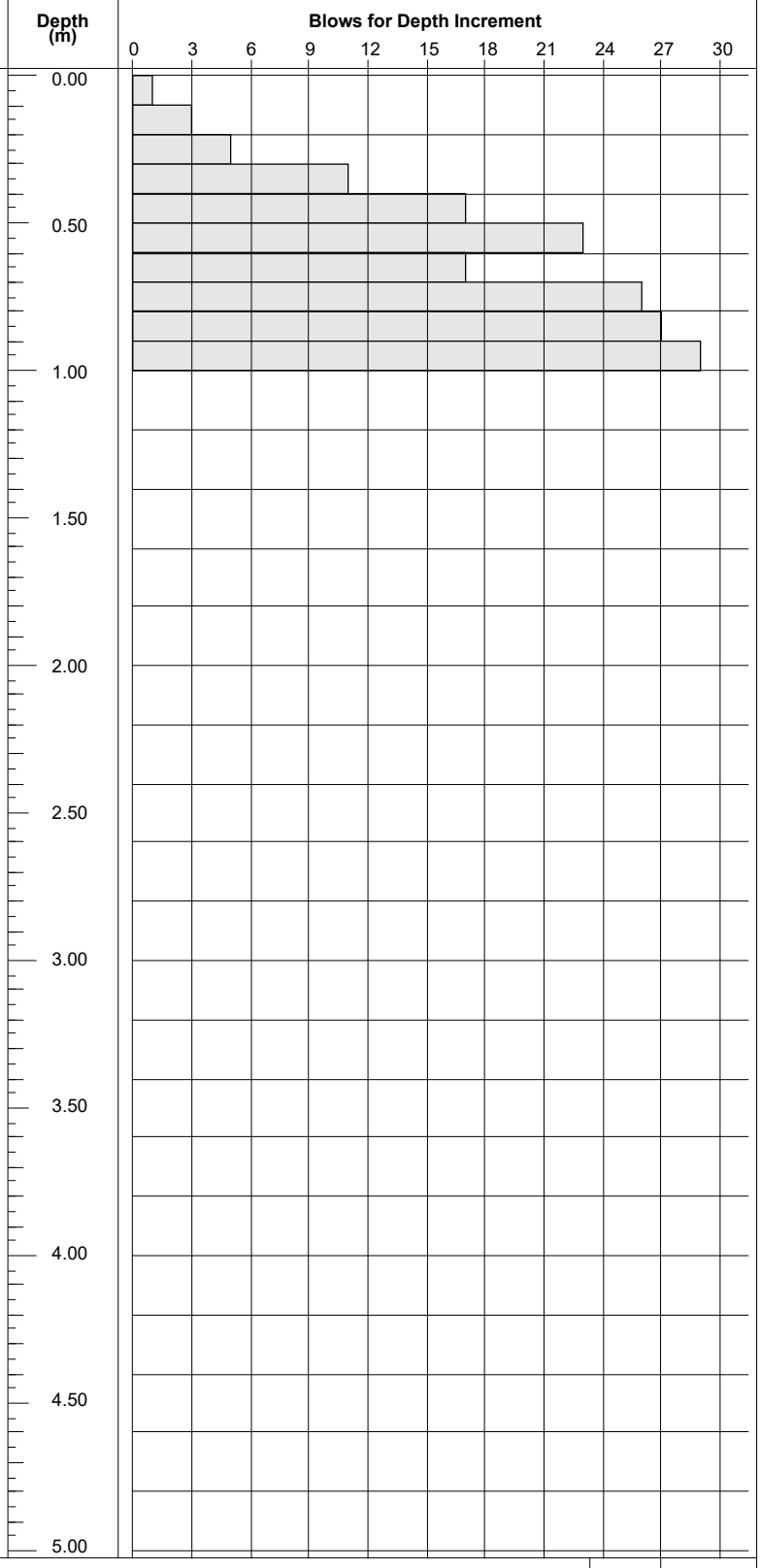
Scale (approx)	Logged By
1:25	AB

Figure No.
12128-08-22.DP04

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP05
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	1		
0.10-0.20	3		
0.20-0.30	5		
0.30-0.40	11		
0.40-0.50	17		
0.50-0.60	23		
0.60-0.70	17		
0.70-0.80	26		
0.80-0.90	27		
0.90-1.00	29		



Remarks
Refusal at 1.00m BGL

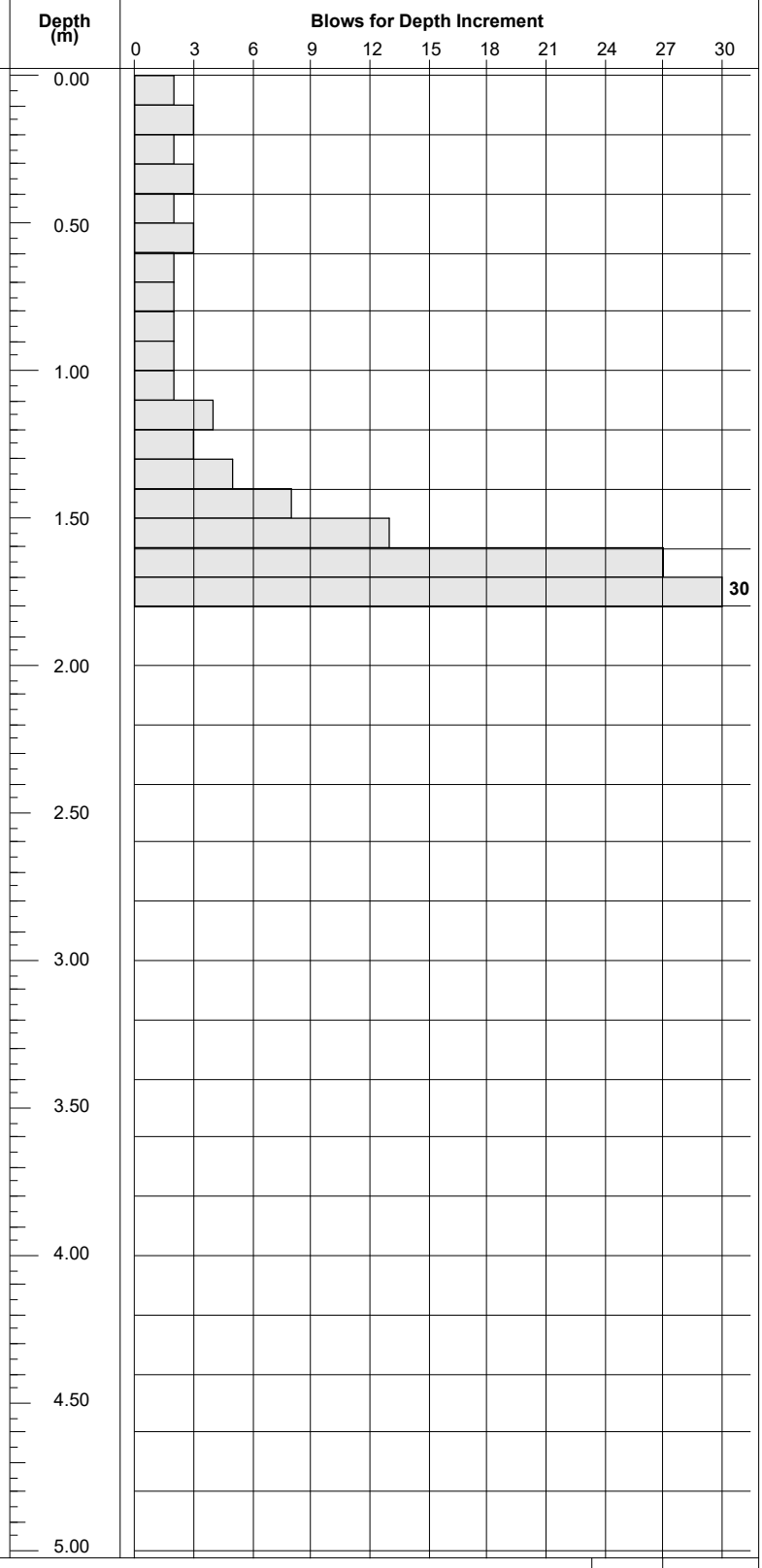
Scale (approx)	Logged By
1:25	AB

Figure No. 12128-08-22.DP05

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP06
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	2		
0.10-0.20	3		
0.20-0.30	2		
0.30-0.40	3		
0.40-0.50	2		
0.50-0.60	3		
0.60-0.70	2		
0.70-0.80	2		
0.80-0.90	2		
0.90-1.00	2		
1.00-1.10	2		
1.10-1.20	4		
1.20-1.30	3		
1.30-1.40	5		
1.40-1.50	8		
1.50-1.60	13		
1.60-1.70	27		
1.70-1.80	30		



Remarks
Refusal at 1.80m BGL

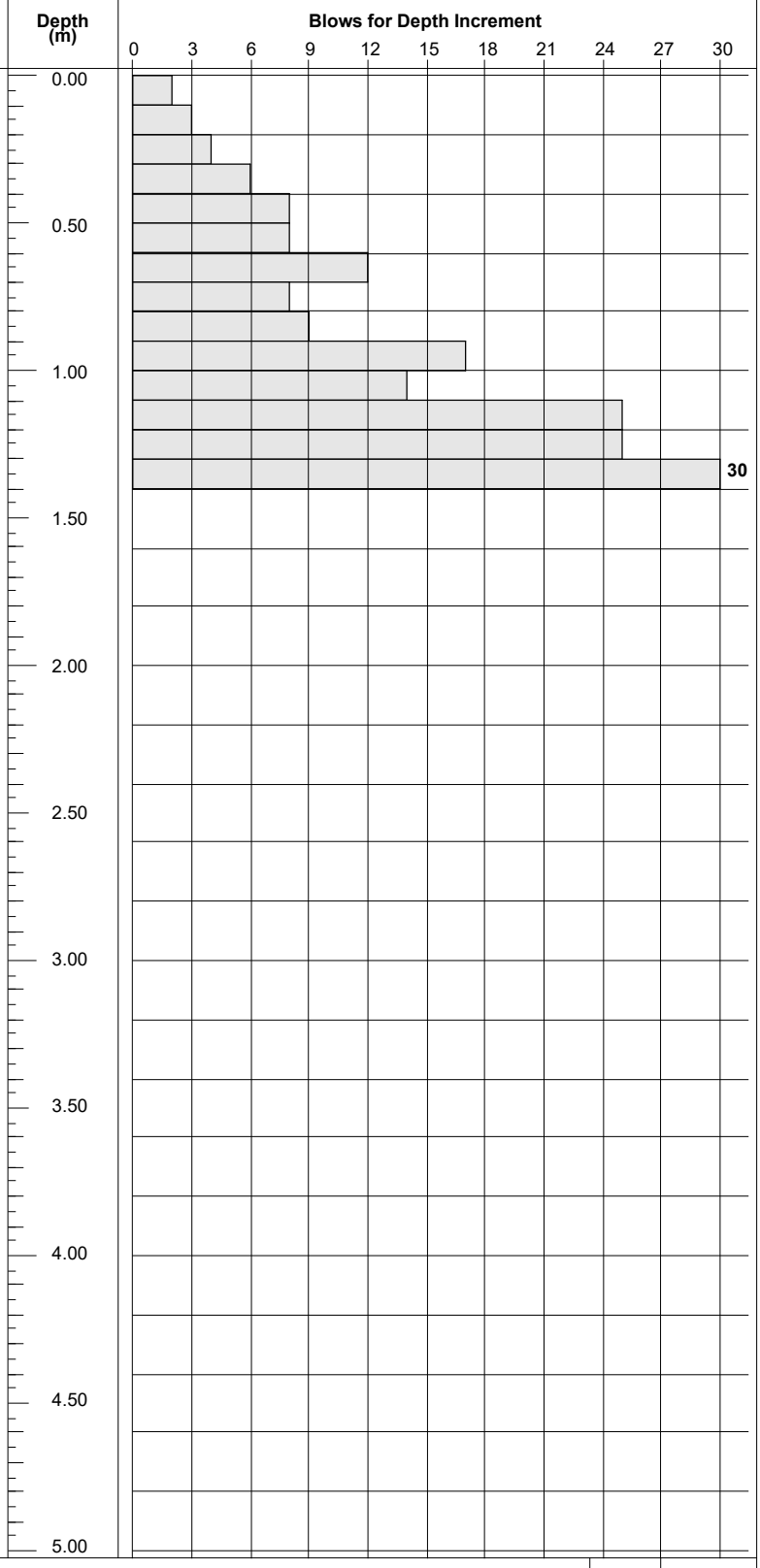
Scale (approx)	Logged By
1:25	AB

Figure No.
12128-08-22.DP06

Ground Investigations Ireland Ltd
www.gii.ie

Site Dunningstown Road				**Probe Number** DP07
Machine : Tecop 10 **Method :** Dynamic Probe	**Cone Dimensions** Diameter 43.7mm	**Ground Level (mOD)**	**Client** Kilgallen & Partners	**Job Number** 12128-08-22
	Location	**Dates** 04/10/2022	**Engineer**	**Sheet** 1/1

Depth (m)	Blows for Depth Increment	Field Records	Level (mOD)
0.00-0.10	2		
0.10-0.20	3		
0.20-0.30	4		
0.30-0.40	6		
0.40-0.50	8		
0.50-0.60	8		
0.60-0.70	12		
0.70-0.80	8		
0.80-0.90	9		
0.90-1.00	17		
1.00-1.10	14		
1.10-1.20	25		
1.20-1.30	25		
1.30-1.40	30		

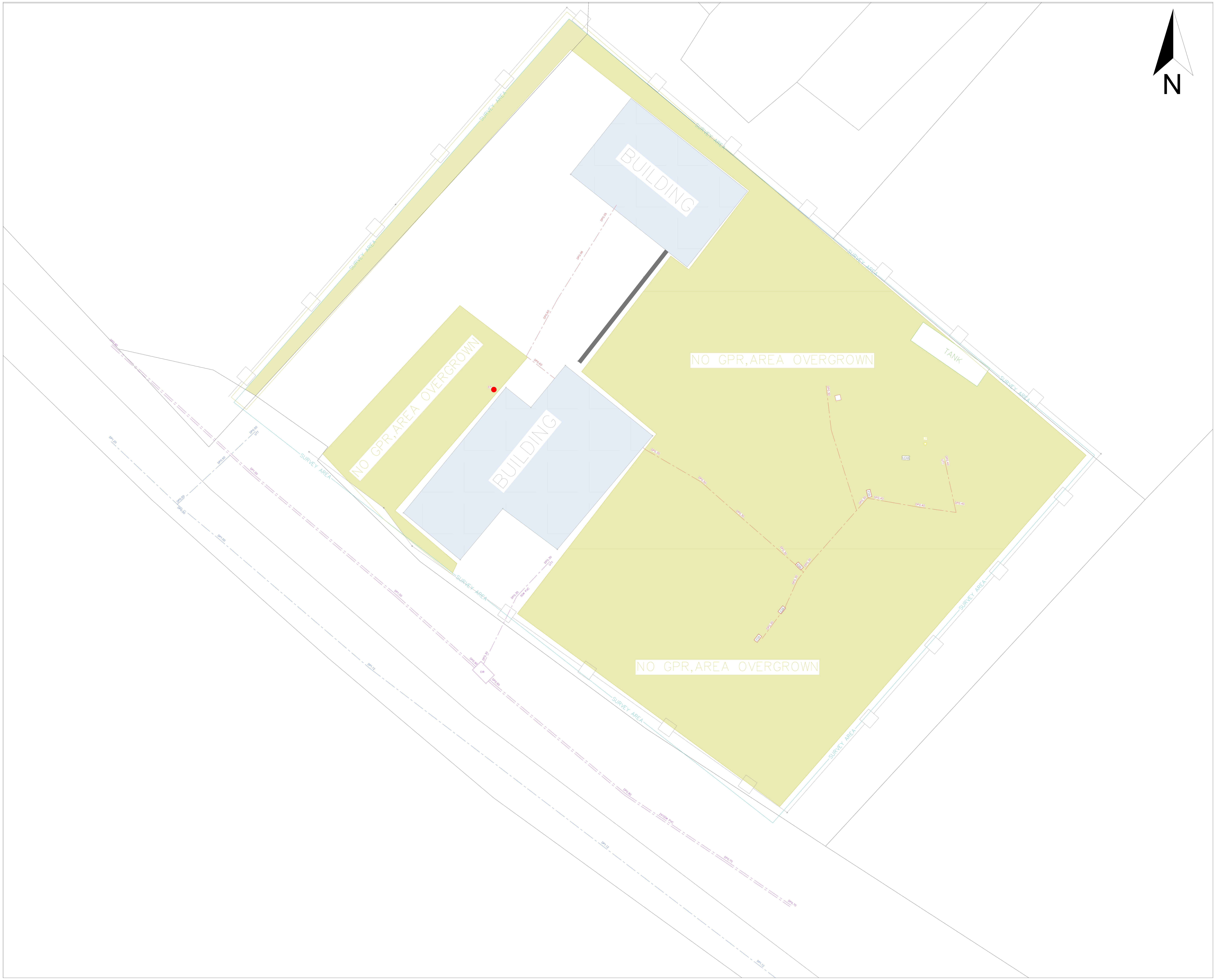


Remarks
Refusal at 1.40m BGL

Scale (approx)	Logged By
1:25	AB

Figure No.
12128-08-22.DP07

APPENDIX 5 – GPR Survey



SERVICES LEGEND

UNDERGROUND ELECTRICITY LINE	FOUL DRAINAGE
EMH EMH ELECTRICAL M/HOLE	FMH FMH FOUL MANHOLE
EP OVERHEAD LINE WITH POLE	STORM DRAINAGE
OVERHEAD ELECTRIC	SMH SMH STORM DRAINAGE MANHOLE
ESB HV UNDERGROUND HV ELECTRICITY LINE	COMBINED DRAINAGE
LP 6M HIGH STREET LIGHT	CMH CMH COMBINED DRAINAGE MANHOLE
ESB MP/PL MINI PILLAR	PRODUCT DRAINAGE
U/G ELECTRIC TRAFFIC CONTROL	PMH PMH PRODUCT DRAINAGE MANHOLE
TMH TMH TRAFFIC CONTROL M/HOLE	CHEMICAL LINE
EIR	CHEM CHEM CHEMICAL MANHOLE
EIR EIR EIR CHAMBER	ROAD GULLY
TP OVERHEAD LINE WITH POLE	GULLY TRAP
ENET	WATER MAIN
ENET ENET ENET CHAMBER	SV SLUICE VALVE
COMMS	HYD FIRE HYDRANT
COMMS COMMS COMMS CHAMBER	WM WATER METER
VIRGIN	ScV SCOUR VALVE
VIRGIN VIRGIN VIRGIN CHAMBER	PRV PRESSURE RELEASE VALVE
FIBRE	AV AIR VALVE
FBO FBO FIBRE CHAMBER	NRV NON-RETURN VALVE
AURORA TELECOM	FUEL LINE/TANK
AURORA AURORA AURORA TELECOM CHAMBER	GSV GAS SV
CATV	GAS GAS LINE
CATV CATV CATV CHAMBER	GAS HP GAS HIGH PRESSURE LINE
BT/ESAT	GL 00.00 GROUND LEVEL (METRES - OS DATUM)
BT/ESAT BT/ESAT BT/ESAT CHAMBER	CL 10.00 COVER LEVEL (METRES - OS DATUM)
SIRO FIBRE	IL 10.00 INVERT LEVEL (METRES - OS DATUM)
SIRO SIRO SIRO CHAMBER	DP1.50 DEPTH TO TOP OF SERVICE DUCT OR CABLE
UNID UNIDENTIFIED SERVICE	DP ON MANHOLES = INVERT LEVEL OF CHAMBER
UNMH UNMH UNIDENTIFIED CHAMBER	DP ON DRAINAGE = INVERT LEVEL OF PIPE
EARTH LINE AND RODS	UTO UNABLE TO OPEN
SENSOR TRAFFIC SENSORS	OSA OUTSIDE SURVEY AREA
CCTV CCTV POLE	UTT UNABLE TO TRACE
UCAB UTILITIES CABNET	QL-B4 QL-B4 DRAWN FROM RECORDS
	SURVEY AREA SURVEYED AREA

Please note that the absence of services on this drawing is not solid proof that these services are not present in the ground. While every method of underground utility locating has been adhered to in this survey, some services may lie outside the range of the GPR and electro-magnetic locator signal. Poor ground conditions and or services situated underneath other services can also prove impossible to locate. Due to the fact that not all Utility Service Plans were provided to Metroscan by the contractor,Metroscan cannot be held responsible for any services that have not been identified. The contractor should not assume that all services have been identified and must exercise a duty of care when excavating.
Hand / vacuum excavation is advised to determine exact depth and position of service prior to excavation commencing.
Please note that the drawing provided is valid for 60 days from date stated below.
Drawing is intended solely for use of the contractor named below.

Accuracy Levels

In ideal conditions the accuracy levels of the EML is +/-5% whilst the GPR outputs accuracy levels of 10% up to 2.5m depth.
These accuracy levels can vary depending on ground conditions, depths of servcies, congestion of services (may cause signal to bleed on to other services).
Depths noted on drawings should be taken as indicative and hand / vacuum excavation is advised where exact depth are required.
Diameter of services will be given where direct access is available through visual inspection, eg manhole.
All Cover level elevations for Manholes / Inspection Chambers will be taken from topographical survey if supplied

Survey Limitations
Non-conductible services pose a difficult task to identify. Direct buried fibre optic cables are difficult to identify with GPR.
They can easily be traced when placed in a conduit by the means of a sonde or cobra reel.
PE gas mains can also prove difficult to identify.

If Metroscan cannot get an accurate signal from a service, it will be noted on the drawing that the service is 'Taken from records QL-B4'.
If manholes cannot be opened on site, they with be marked on the drawing as UTO (unable to open).
Excluded from the survey unless otherwise stated :
Domestic services, Services above ground, Disconnected services where no signal can be obtained.

Notes

1. GPR scanning frequency 250 and 700 mhz
   Depth of investigation 2.5m, self calibrating.
2. Radio detection equipment:
   Vivax Metrotech VLoc Pro3 / RD7000
3. GPR scanning limited to smooth surfaces only no obstruction.
   Survey area marked on drawing
4. All depths stated are an indication of depth
   caution required when excavating.
5. All Utilities are classified QL- B2 unless noted otherwise.

PAS 128

Survey Type		Quality Level	Location Accuracy		Supporting Data
			Hortizonal	vertical	
D	Desktop utility record search	QL-D	Undefined	Undefined	
C	Site Reconnaissance	QL-C	Undefined	Undefined	A segmant of utility whose location is demonstrated by visual reference to street furniture, topographical features or evidence of previous street works.
B	Detection	QL-B4	Undefined	Undefined	A utility segmant which is suspected to exist but has not been detected and is therefor shown as an assumed route
		QL-B3 QL-B3P	plus/minus 500mm	Undefined (no reliable depth)	Horizontal location only of the utility detected by one of the geophysical techniques used
		QL-B2 QL-B2P	plus/minus 250mm of the detected depth	Plus/minus 40% of the detected depth	Horizontal and vertical location of the utility detected by one of the geophysical techniques used
		QL-B1 QL-B1P	plus/minus 150mm of the detected depth	plus/minus 15% of the detected depth	Horizontal and vertical location of the utility detected by multiple geophysical techniques used
A	Verification	QL-A	plus/minus 50mm	plus/minus 15mm	Horizontal and vertical location of the top and/or bottom of the utility through trial holes/slit trench method

Client : Ground Investigations Ireland
Site Address : Dunningstown Rd. Kilkenny

Drawing Title: MUL1225_GII_Dunningstown		**Drwg No:**	**1**
Site Completion Date: 9th September 2022		**Sheet No:**	**1**
Scale: 1:100@A1	**Coordinates:** ITM	**Revision No:**	

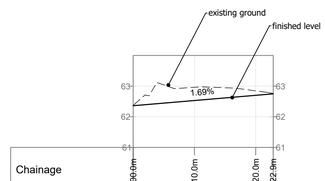
METROSCAN UTILITY LOCATING

Address: Rathjarney
Piercestown
Co. Wexford
Tel (086) 8522298
(086) 1935847

Email: john@metroscan.ie
ciaran@metroscan.ie

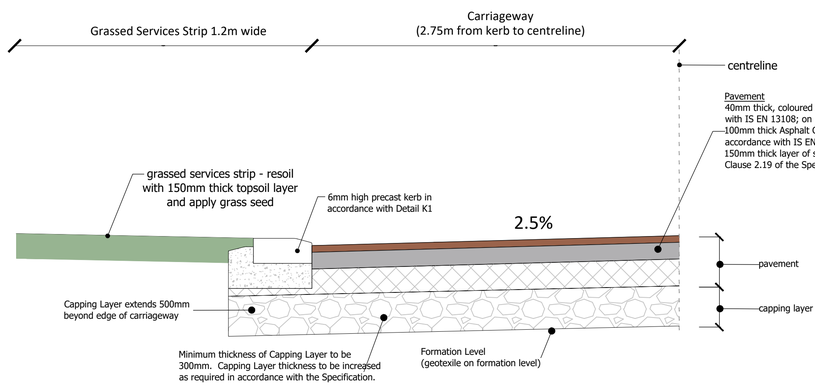
Website: www.metroscan.ie

APPENDIX 6 – Laboratory Testing



Chainage	00.0m	10.0m	20.0m	22.9m
Finished Level	62.363	62.532	62.701	62.749
Existing Level	62.373	62.962	62.847	62.759
Level Difference	0.01	0.43	0.15	0.01
Horizontal Geometry	STRAIGHT			
Vertical Geometry	TANGENT G =1.69% L =22.9m			

ROAD ENTRANCE



DETAIL R7
HOMEZONE (Not to Scale)

GENERAL

1. Datum for levels is OS Malin Head.
2. Verify existing levels prior to commencement of works. Report any discrepancies immediately to the Employer's Representative.
3. The locations shown for existing services are indicative only and may not be accurate. Furthermore, uncharted services may also be present. The Contractor should assume the existence of services unless proven otherwise.
4. It is the Contractor's responsibility to determine the existence and precise location of any service located within the site. All works shall be carried out in strict accordance with the document 'Code of Practice for Avoiding Danger from Underground Services' as published by the Health and Safety Authority.

Carriageway/Homezone	
Kerb - 100mm high	
Kerb - 6mm high	
Footway	
Site Boundary	

REV	DATE	BY	DETAILS
PL1	02/06/23	AC	ISSUED FOR PLANNING

STATUS
FOR PLANNING APPLICATION PURPOSES ONLY. NOT TO BE USED FOR ANY OTHER PURPOSE.

CLIENT
KILKENNY COUNTY COUNCIL

PROJECT
RESIDENTIAL DEVELOPMENT AT DUNNINGSTOWN ROAD, KILKENNY

TITLE
ROADS AND STREETS - GENERAL LAYOUT, LONGITUDINAL SECTION AND DETAILS

KILGALLEN & PARTNERS
CONSULTING ENGINEERS
E-mail: Info@Kilgallen.ie, Web: www.kilgallen.ie

KYLEKIPROE
WELL ROAD
PORTLAOISE
T +353 56 866 2860

UNIT 3
DANVILLE BUSINESS PARK
KILKENNY
+353 56 777 01090

DRN:	DRAWING NO.:		REV.:
AC	22038-C-DR-101		PL1
CHKD:	SCALE:	SIZE:	DATE:
PB	1:250 @ A1	A1	02/06/23

7.9m Refuse Vehicle

GENERAL

1. Datum for levels is OS Malin Head.
2. Verify existing levels prior to commencement of works. Report any discrepancies immediately to the Employer's Representative.
3. The locations shown for existing services are indicative only and may not be accurate. Furthermore, uncharted services may also be present. The Contractor should assume the existence of services unless proven otherwise.

REV	DATE	BY	DETAILS
PL1	02/06/23	AC	ISSUED FOR PLANNING

STATUS
FOR PLANNING APPLICATION PURPOSES ONLY. NOT TO BE USED FOR ANY OTHER PURPOSE.

CLIENT
KILKENNY COUNTY COUNCIL

PROJECT
RESIDENTIAL DEVELOPMENT AT DUNNINGSTOWN ROAD, KILKENNY

TITLE
SWEPT PATH ANALYSIS

KILGALLEN & PARTNERS
CONSULTING ENGINEERS
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UNIT 3
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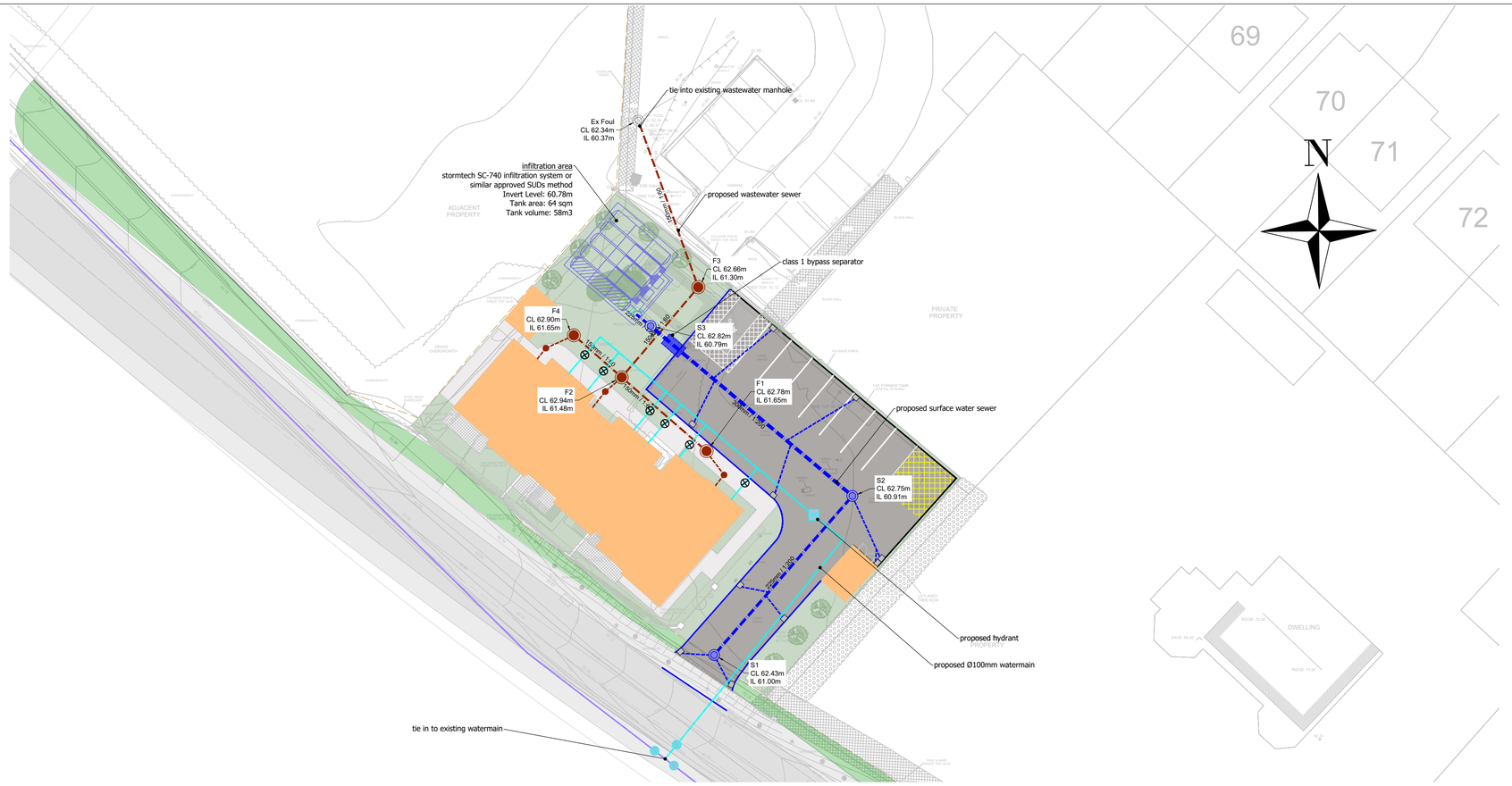
KILKENNY
+353 56 777 01090

DRN:	DRAWING NO.:		REV.:
AC	22038-C-DR-110		PL1
CHKD:	SCALE:	SIZE:	DATE:
PB	1:100 @ A1	A1	02/06/23



LEGEND

- Surface water drain / sewer and chamber
- Gully and discharge pipe
- House drain - surface water
- Wastewater sewer and chamber
- House drain - wastewater with 600mm dia. inspection chamber
- 100mm OD HDPE watermain
- Sluice valve in accordance with STD-W-15
- On line hydrant in accordance with STD-W-19
- On line air valve in accordance with STD-W-22
- Boundary box in accordance with STD-W-03
- Scour Chamber in accordance with STD-W-30B
- Bulk Meter in accordance with STD-W-26A

GENERAL

1. Datum for levels is OS Malin Head.
2. Verify existing levels prior to commencement of works. Report any discrepancies immediately to the Employer's Representative.
3. The locations shown for existing services are indicative only and may not be accurate. Furthermore, uncharted services may also be present. The Contractor should assume the existence of services unless proven otherwise.
4. It is the Contractor's responsibility to determine the existence and precise location of any service located within the site. All works shall be carried out in strict accordance with the document 'Code of Practice for Avoiding Danger from Underground Services' as published by the Health and Safety Authority.

SURFACE WATER

1. The Specification for surface water drainage works shall be Specification for Roadworks published by Transport Infrastructure Ireland.
2. All surface water drains and sewers to be constructed in accordance with Detail D1.
3. Discharge pipes from gullies to drains and sewers shall be 150mm dia. Saddle connection for discharge pipes in accordance with Detail D3.
4. Chambers to be 1200mm dia. PCC in accordance with the 'Code of Practice for Chamber and Gully Top Installations' published by Laois County Council.
5. Road gullies shall be in accordance with TII Detail CC-SCD-00510 and CC-SCD-00512.
6. Separators to be installed in accordance with Detail D5 and manufacturer's recommendations.
7. Each house to be served by a separate drain of min.diameter 100mm dia. and laid to a minimum grade of 1 in 100.

WASTEWATER

1. Construction of wastewater infrastructure to comply with the Irish Water Code of Practice for Wastewater Infrastructure.
2. Pipes for wastewater gravity sewers shall be uPVC pipes application area code "UD", stiffness class 8kN/m^2 in accordance with 3.13 of the Irish Water 'Wastewater Code of Practice'.
3. Wastewater drains and sewers to be constructed in accordance with STD-WW-07.
4. The minimum separation between wastewater pipes and other services shall not be less than either that shown in STD-WW-05 or that shown on M&E drawings.
7. Each house to be served by a separate drain of min.diameter 100mm dia. and laid to a minimum grade of 1 in 60.
8. Chambers on wastewater drains and sewers in public areas shall be in accordance with STD-WW-10 .
9. Private-side inspection chambers shall be in accordance with STD-WW-02, STD-WW-03 and STD-WW-13 and shall have a minimum depth to invert of 0.5m and a maximum depth to invert of 1.2m.
10. Maximum depth to invert for Access Junctions to be 0.6m.

WATER SUPPLY INFRASTRUCTURE

1. Construction of water supply infrastructure to comply with the Irish Water Code of Practice for Water Supply Infrastructure.
2. Pipes for watermains shall be HDPE PE-80 with an SDR-11 or SDR-17 rating in accordance with 3.9.2. of Irish water 'Code of Practice for Water Supply Infrastructure'.
3. The minimum separation between watermains and other services shall not be less than either that shown in STD-W-11 or that shown on M&E drawings.
7. Each house to be served by a separate service main.and Boundary Box in accordance with STD-W-03.

REV	DATE	BY	DETAILS
PL1	02/06/23	AC	ISSUED FOR PLANNING

STATUS
PRELIMINARY. NOT TO BE USED FOR ANY OTHER PURPOSE.

CLIENT
KILKENNY COUNTY COUNCIL

PROJECT
RESIDENTIAL DEVELOPMENT AT DUNNINGSTOWN ROAD, KILKENNY

TITLE
DRAINAGE & WATER SUPPLY
- GENERAL LAYOUT & LONGITUDINAL SECTIONS

KILGALLEN & PARTNERS
CONSULTING ENGINEERS
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KYLEKIPROE
WELL ROAD
PORTLAOISE
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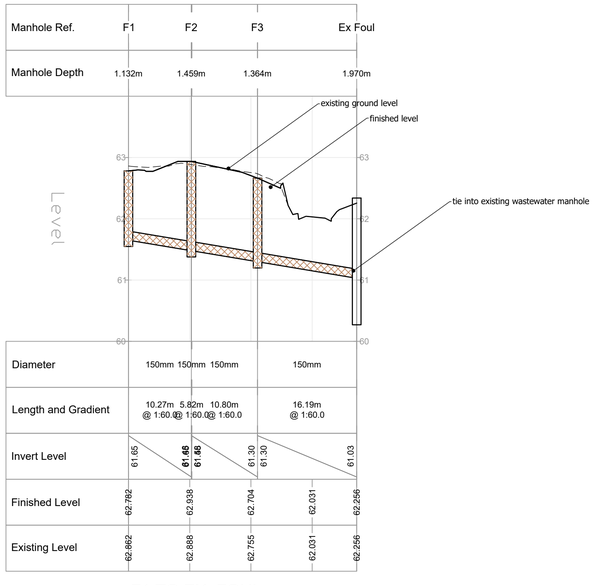
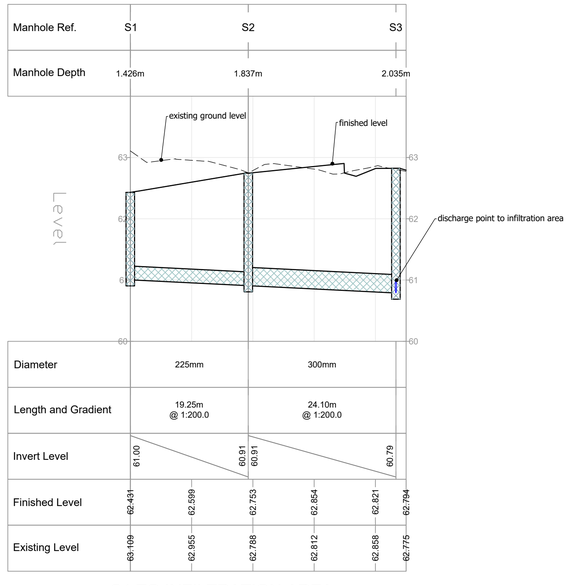
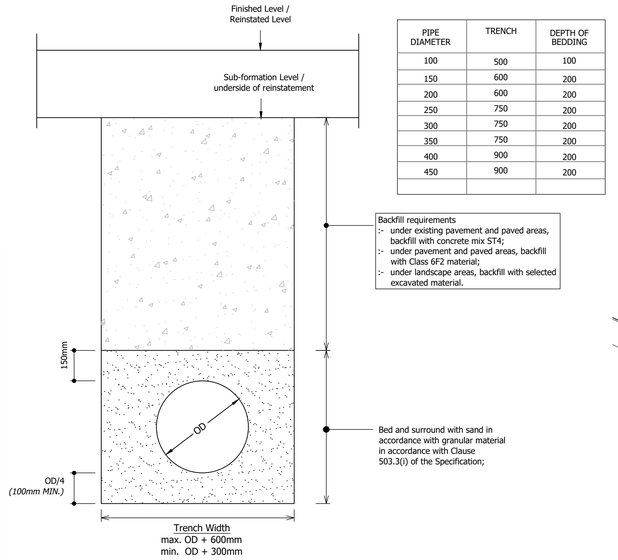
DRN:	DRAWING NO.:		REV.:
AC	22038-C-DR-201		PL1
CHKD:	SCALE:	SIZE:	DATE:
PB	as shown @ A1	A1	02/06/23



F1 TO EX. FOUL

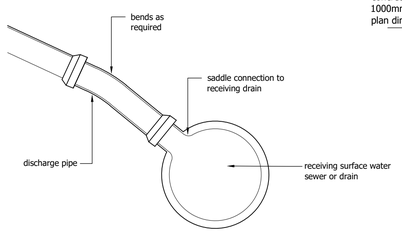


S1 TO INFILTRATION AREA

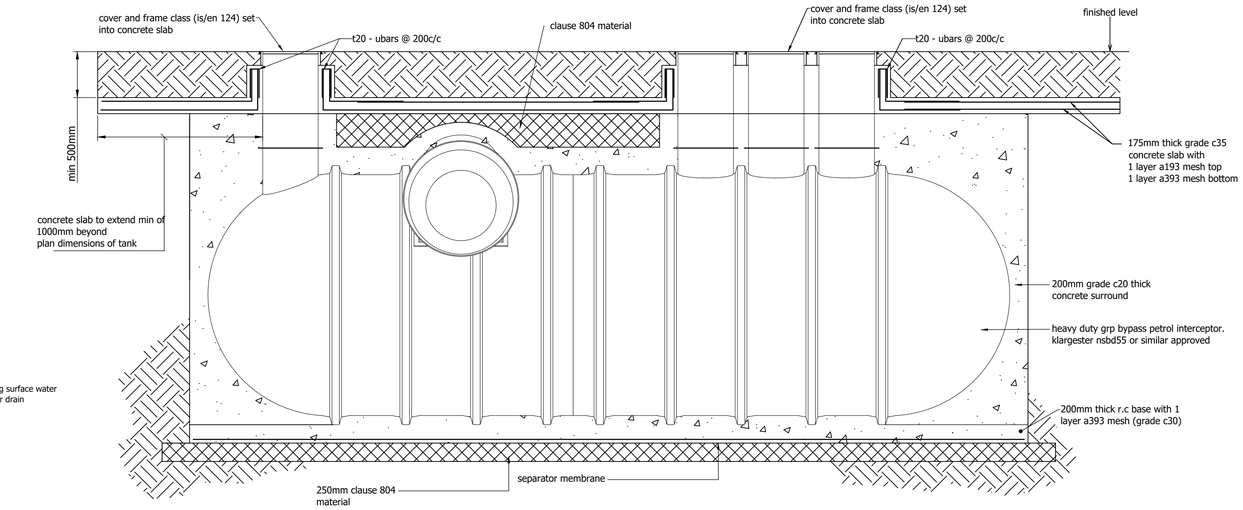


PIPE DIAMETER	TRENCH	DEPTH OF BEDDING
100	500	100
150	600	200
200	600	200
250	750	200
300	750	200
350	750	200
400	900	200
450	900	200

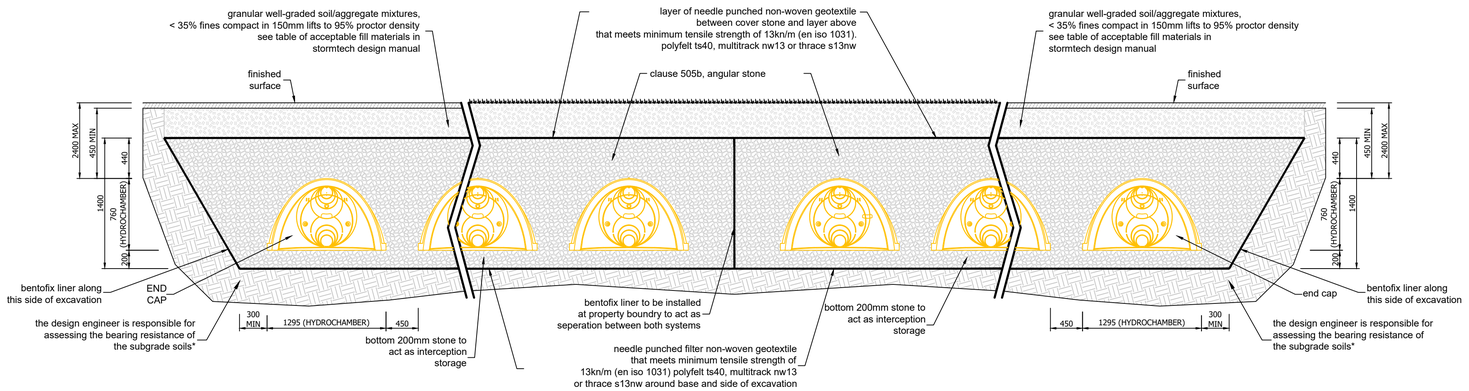
DETAIL D1
Trench Detail for Surface Water Drains and Sewers



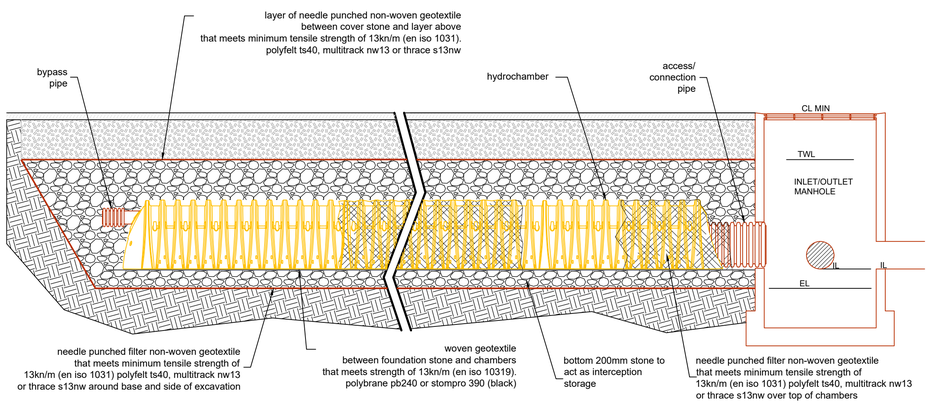
DETAIL D3
Saddle Connection from Gully Discharge Pipe to Surface Water Sewer



DETAIL D5
Installation of Separators



DETAIL D7
HYDROCHAMBERS - ELEVATION



DETAIL D7
HYDROCHAMBERS - SECTION

GENERAL

1. Datum for levels is OS Malin Head.
2. Verify existing levels prior to commencement of works. Report any discrepancies immediately to the Employer's Representative.
3. The locations shown for existing services are indicative only and may not be accurate. Furthermore, uncharted services may also be present. The Contractor should assume the existence of services unless proven otherwise.
4. It is the Contractor's responsibility to determine the existence and precise location of any service located within the site. All works shall be carried out in strict accordance with the document 'Code of Practice for Avoiding Danger from Underground Services' as published by the Health and Safety Authority.

SURFACE WATER

1. The Specification for surface water drainage works shall be Specification for Roadworks published by Transport Infrastructure Ireland.
2. All surface water drains and sewers to be constructed in accordance with Detail D1.
3. Discharge pipes from gullies to drains and sewers shall be 150mm dia. Saddle connection for discharge pipes in accordance with Detail D3.
4. Chambers to be 1200mm dia. PCC in accordance with the 'Code of Practice for Chamber and Gully Top Installations' published by Laois County Council.
5. Road gullies shall be in accordance with TII Detail CC-SCD-00510 and CC-SCD-00512.
6. Separators to be installed in accordance with Detail D5 and manufacturer's recommendations.
7. Each house to be served by a separate drain of min.diameter 100mm dia. and laid to a minimum grade of 1 in 100.

WASTEWATER

1. Construction of wastewater infrastructure to comply with the Irish Water Code of Practice for Wastewater Infrastructure.
2. Pipes for wastewater gravity sewers shall be uPVC pipes application area code "UD", stiffness class 8kN/m^2 in accordance with 3.13 of the Irish Water 'Wastewater Code of Practice'.
3. Wastewater drains and sewers to be constructed in accordance with STD-WW-07.
4. The minimum separation between wastewater pipes and other services shall not be less than either that shown in STD-WW-05 or that shown on M&E drawings.
7. Each house to be served by a separate drain of min.diameter 100mm dia. and laid to a minimum grade of 1 in 60.
8. Chambers on wastewater drains and sewers in public areas shall be in accordance with STD-WW-10 .
9. Private-side inspection chambers shall be in accordance with STD-WW-02, STD-WW-03 and STD-WW-13 and shall have a minimum depth to invert of 0.5m and a maximum depth to invert of 1.2m.
10. Maximum depth to invert for Access Junctions to be 0.6m.

WATER SUPPLY INFRASTRUCTURE

1. Construction of water supply infrastructure to comply with the Irish Water Code of Practice for Water Supply Infrastructure.
2. Pipes for watermains shall be HDPE PE-80 with an SDR-11 or SDR-17 rating in accordance with 3.9.2. of Irish water 'Code of Practice for Water Supply Infrastructure'.
3. The minimum separation between watermains and other services shall not be less than either that shown in STD-W-11 or that shown on M&E drawings.
7. Each house to be served by a separate service main.and Boundary Box in accordance with STD-W-03.

REV	DATE	BY	DETAILS
PL1	02/06/23	AC	ISSUED FOR PLANNING

STATUS
PRELIMINARY. NOT TO BE USED FOR ANY OTHER PURPOSE.

CLIENT
KILKENNY COUNTY COUNCIL

PROJECT
RESIDENTIAL DEVELOPMENT AT DUNNINGSTOWN ROAD, KILKENNY

TITLE
DRAINAGE - ENGINEERING DETAILS

KILGALLEN & PARTNERS
CONSULTING ENGINEERS
E-mail: Info@Kilgallen.ie, Web: www.kilgallen.ie
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WELL ROAD
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+353 56 777 01090

DRN:	DRAWING NO.:		REV.:
AC	22038-C-DR-202		PL1
CHKD:	SCALE:	SIZE:	DATE:
PB	As shown @ A1	A1	02/06/23

ADJACENT PROPERTY

EP

ESB Cabinet

TARMAC

BLOCK WALL

GRASS

LONG GRASS

OVERGROWTH

PROPOSED ELECTRICAL SWITCHROOM 2160x1800MM INTERNAL

Bike Shelter

PUBLIC OPEN SPACE

DENSE OVERGROWTH

PROPOSED GARAGE AS PER PLANNING REF No. 22486 SHOWN DOTTED

FUTURE EV CHARGING

STAY

LONG GRASS

Bin Store

GY

E

SHRUBBERY

PRIVATE PROPERTY

125MM RED PVC DUCTING POWER

50MM RED PVC DUCTING SITE LIGHTING

PHILIPS LUMA MICRO COLUMN MOUNTED LIGHT FITTING ON 6M LIGHTING COLUMN

900mm COVER ABOVE CROWN OF PIPE

G.L

BURIED SERVICES MARKER TAPE (AS PER DETECTATAPE OR EQUIVALENT).

DRAWWIRE TO BE INSTALLED IN ALL DUCTING

150

150

600

200mm BACK FILLING

1150mm DEPTH OF TRENCH (MIN)

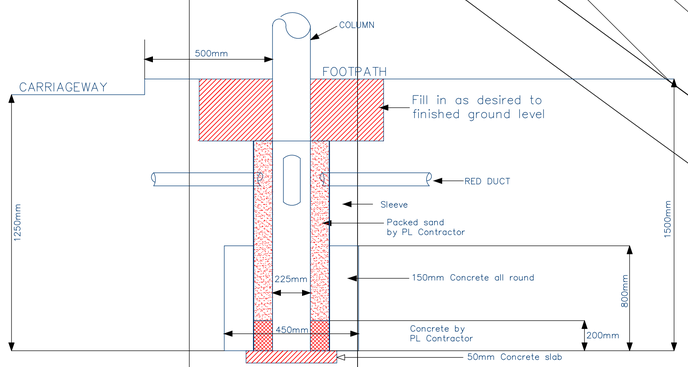
100mm SAND FILLING

100mm SAND BEDDING

100mm PUBLIC LIGHTING DUCTING

TRENCH WIDTH 150(MIN)

TRENCH DETAIL SECTION - PUBLIC LIGHTING



LIGHTING COLUMN DETAIL

Grid 1

A1

REVISIONS

DATE	REV	BY	DETAILS

NOTES

1.) THESE DRAWINGS TO BE READ IN CONJUNCTION WITH ALL RELEVANT DRAWINGS AND SPECIFICATIONS.

2.) DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.

3.) THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES.

4.) REFER TO DATA SHEETS IN ELECTRICAL SPECIFICATION FOR DETAILS OF ELECTRICAL EQUIPMENT.

5.) ALL CIVIL WORKS BY THE MAIN CONTRACTOR.

6.) MAIN CONTRACTOR TO ALLOW FOR BASES FOR THE LIGHTING COLUMNS AND FOR ERECTION OF THE LIGHTING COLUMNS.

PRELIMINARY

rmce
Mechanical & Electrical Engineering
RONAN MEALLY CONSULTING ENGINEERS LTD
1 City Wall, James Street
Kilkenny
Ireland
Telephone: 056 7795428 Facsimile: 056 7795427

PROJECT

RESIDENTIAL DEVELOPMENT
DUNNINGSTOWN ROAD
KILKENNY

DRAWING TITLE

M&E SERVICES
SITE SERVICES LAYOUT

DRAWN	SCALE	JOB NO. 22K105	
CM	1:100	DRAWING No. ME-1000	REV P2
CHECKED RM	DATE MAY 2023		

DATE:	**30 May 2023**
DESIGNER:	**Ronan Meally**
PROJECT No:	**22K105**
PROJECT NAME:	**Dunningstown Road**

rmce
Ronan Meally Consulting Engineers

Carpark Lighting designed to meet Lighting Class IS EN 12464:2:2007
Maintenance factor 0.76

Outdoor Lighting Report

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin -60.4m x -34.2m
Area 54.9m x 50.7m
Sample Spacing 1.00m x 1.01m

Luminaires

Luminaire A Data

Supplier	Philips
Type	BGP291 DW50
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	4.60
File Name	LumiStreet Gen2 Micro_BGP291_DW50_4600_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	609.4, 39.0, 0.0
No. in Project	2

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
3	A	-18.67	-21.66	6.00	141.00	0.00	0.00	0.20			
4	A	-24.21	4.83	6.00	283.00	0.00	0.00	0.20			

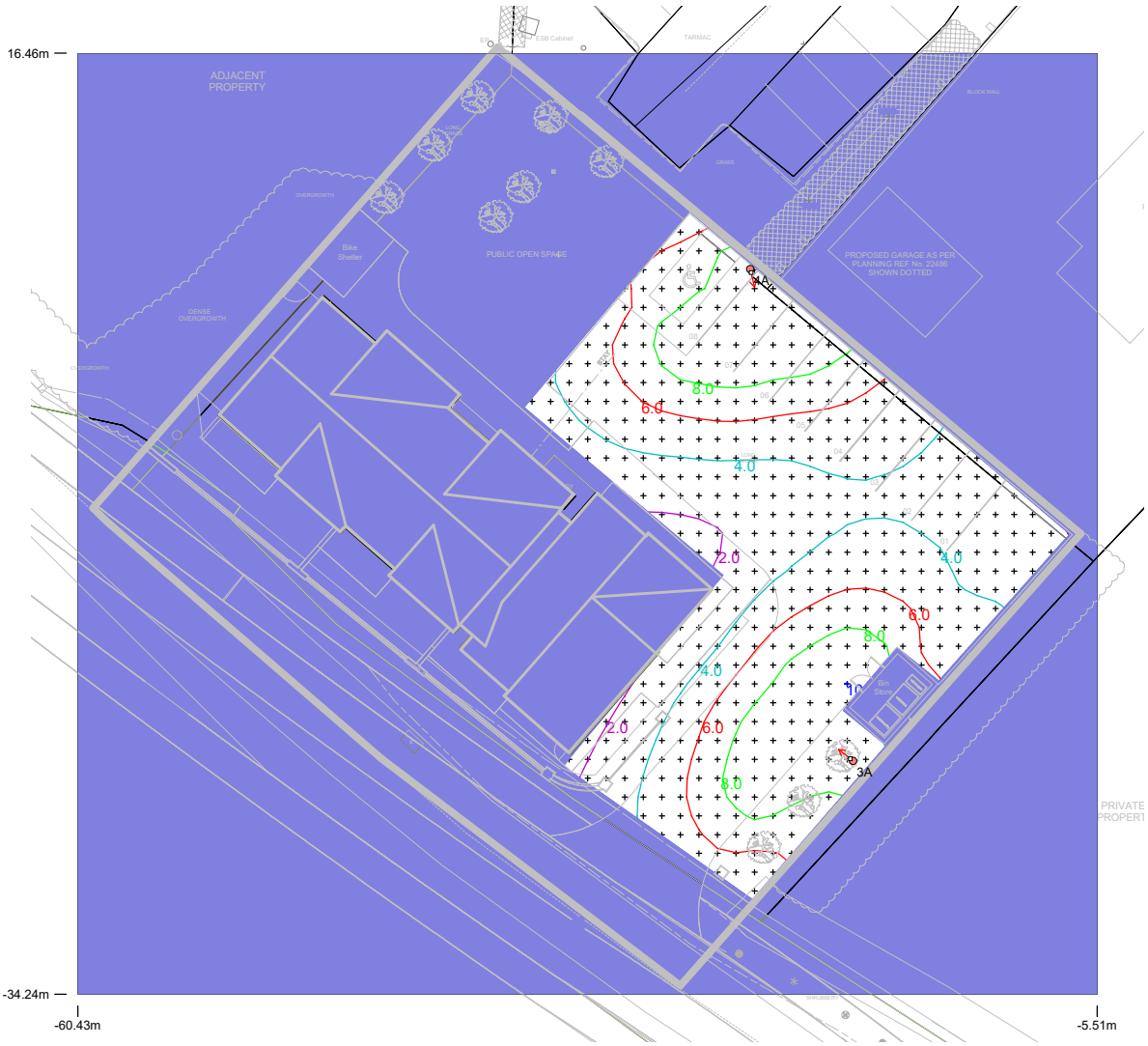
8514671513

DATE: 30 May 2023 DESIGNER: Ronan Meally

PROJECT No: 22K105 PROJECT NAME: Dunningstown Road

Horizontal Illuminance (lux)

Dunningstown



Results

Eav	5.57
Emin	1.50
Emax	10.02
Emin/Emax	0.15
Emin/Eav	0.27

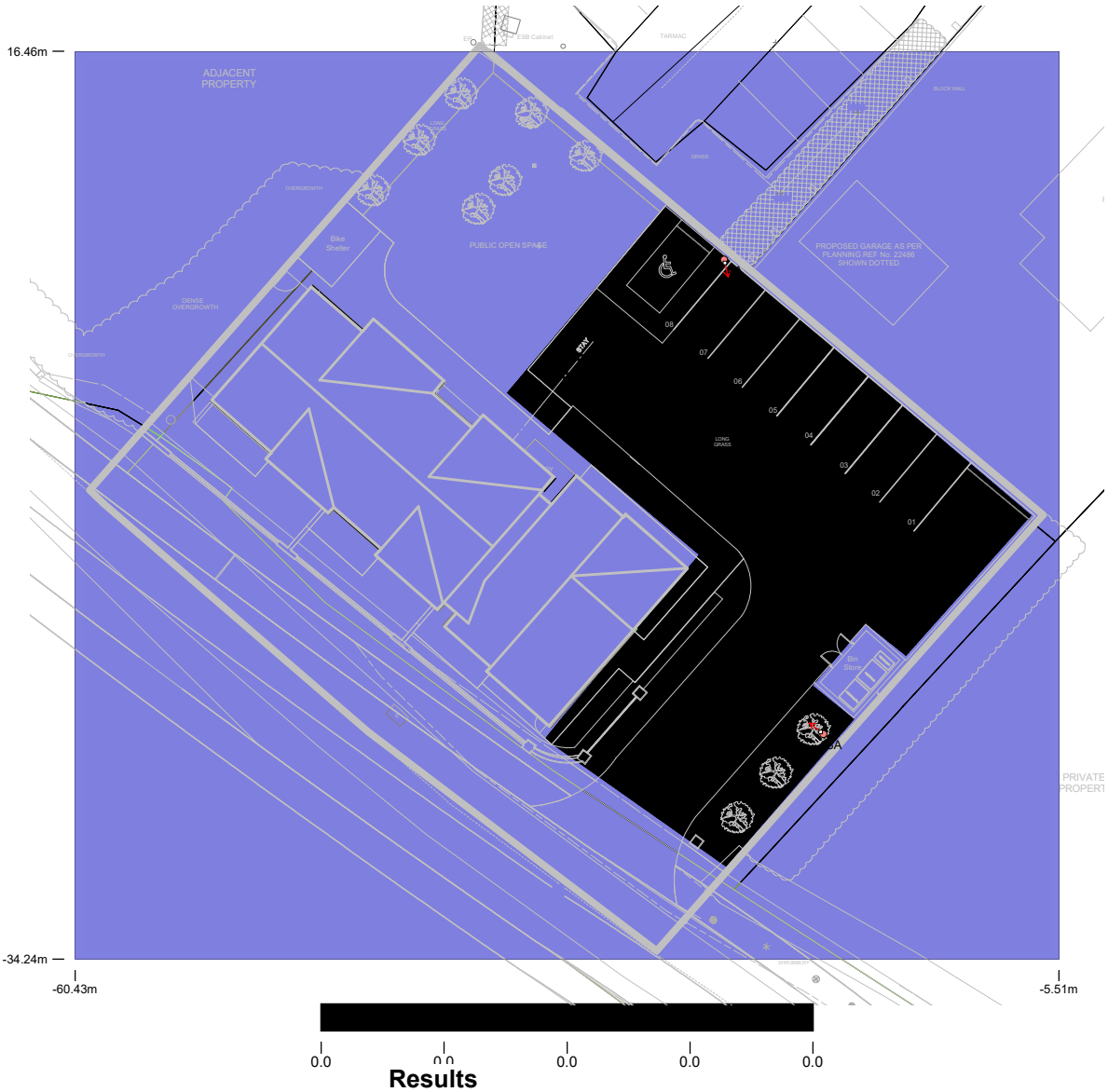
8514671513

DATE: 30 May 2023 DESIGNER: Ronan Meally

PROJECT No: 22K105 PROJECT NAME: Dunningstown Road

Horizontal Illuminance (lux)

Dunningstown



Results

Eav	5.57
Emin	1.50
Emax	10.02
Emin/Emax	0.15
Emin/Eav	0.27

8514671513

DATE: 30 May 2023 DESIGNER: Ronan Meally

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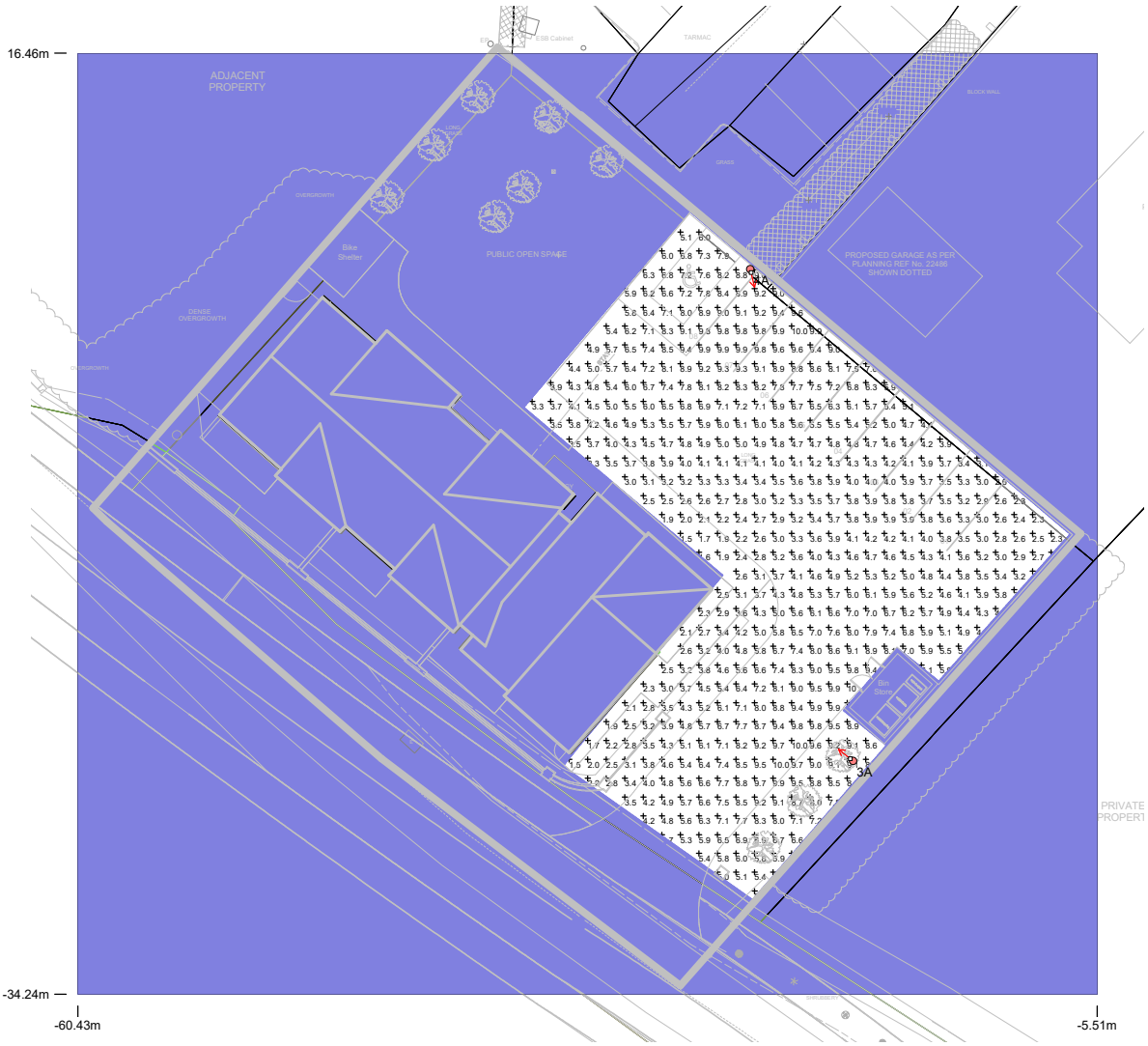
Horizontal Illuminance (lux)

Dunningstown



Results

Eav	5.57
Emin	1.50
Emax	10.02
Emin/Emax	0.15
Emin/Eav	0.27

8514671513

Archaeological Impact Assessment of the Old Weather Station, Dunningstown Road, Kilkenny.

Archaeological Consultant:	Mary Henry Archaeological Services Ltd.
Client:	Kilkenny County Council
Planning Reference No.:	Part 8 of the Planning and Development Regulations
Site Type:	Urban
Report Author:	Mary Henry
Report Status:	Final
Date of Report:	5th October 2022

Table of Contents Page

List of Figures

1. Introduction

This report describes an Archaeological Impact Assessment (AIA) of a proposed small residential housing development at The Old Weather Station, Dunningstown Road, Kilkenny. The report was commissioned by Kilkenny County Council who are, in accordance with Part 8 of the Planning and Development Regulations 2001 to 2021, progressing the design and delivery of the six-unit residential housing development.

The AIA report sets out the historical and archaeological background of the study area as well as the results from a site inspection. The assessment outlines the potential archaeological and/or cultural remains/features on the site and within its environs and presents the impacts, if any, of the development on the archaeology and/or cultural heritage.

2. Method of Study

This AIA comprised a walkover survey of the site and its environs as well as a desk-based study. No on-site intrusive archaeological investigations were undertaken. The walkover inspection entailed an examination of the site for known and potential archaeological sites, features and anomalies along the route. This was to gain an overall understanding of the terrain and the archaeological environment. A photographic survey and written descriptions were undertaken of all upstanding archaeological/architectural structures/features of note.

The desk study entailed an examination of documentary, cartographic and aerial photographic sources. Sources examined included the following:

- Documentary Sources, both Primary and Secondary.
- Ordnance Survey series of published maps: 1840, 1901-05 and 1945-46.
- Review of Aerial Photographs.
- Sites and Monuments Record (SMR) for County Kilkenny.
- Record of Monuments and Places (RMP) for County Kilkenny.
- Consultation of the Archaeological Survey Database, Archaeological Survey of Ireland, National Monuments Service, Department of Housing, Local Government and Heritage.
- Urban Archaeological Survey of County Kilkenny. OPW.
- Kilkenny City and County Development Plan, 2021-2027.
- Kilkenny City Record of Protected Structures (RPS).
- National Inventory of Architectural Heritage (NIAH) for County Kilkenny.
- Archaeological Excavations Bulletin Database.

3. Existing Environment

3.1 Site Location

The proposed development is sited at the The Old Weather Station, Dunningstown Road, Kilkenny. Dunningstown Road is predominantly a residential road on the northwest outskirts of Kilkenny City, mainly consisting single house plots. A continuation of Grange Road, which commences at the Lord Edward St./Loreto View/Butt's Green junction, this road extends parallel to the Kilkenny City/Freshford regional road (R693), leading to the county's northwest hinterland.

The site fronts the northeast side of Dunningstown Road. A housing estate – the Grange and Talbot's Court – is located to east and southeast, whilst a large tillage field is to the west, on the opposite side of Dunningstown Road. To the northwest/north is a green field; and a private dwelling house and garden to the south (*Fig.1*).

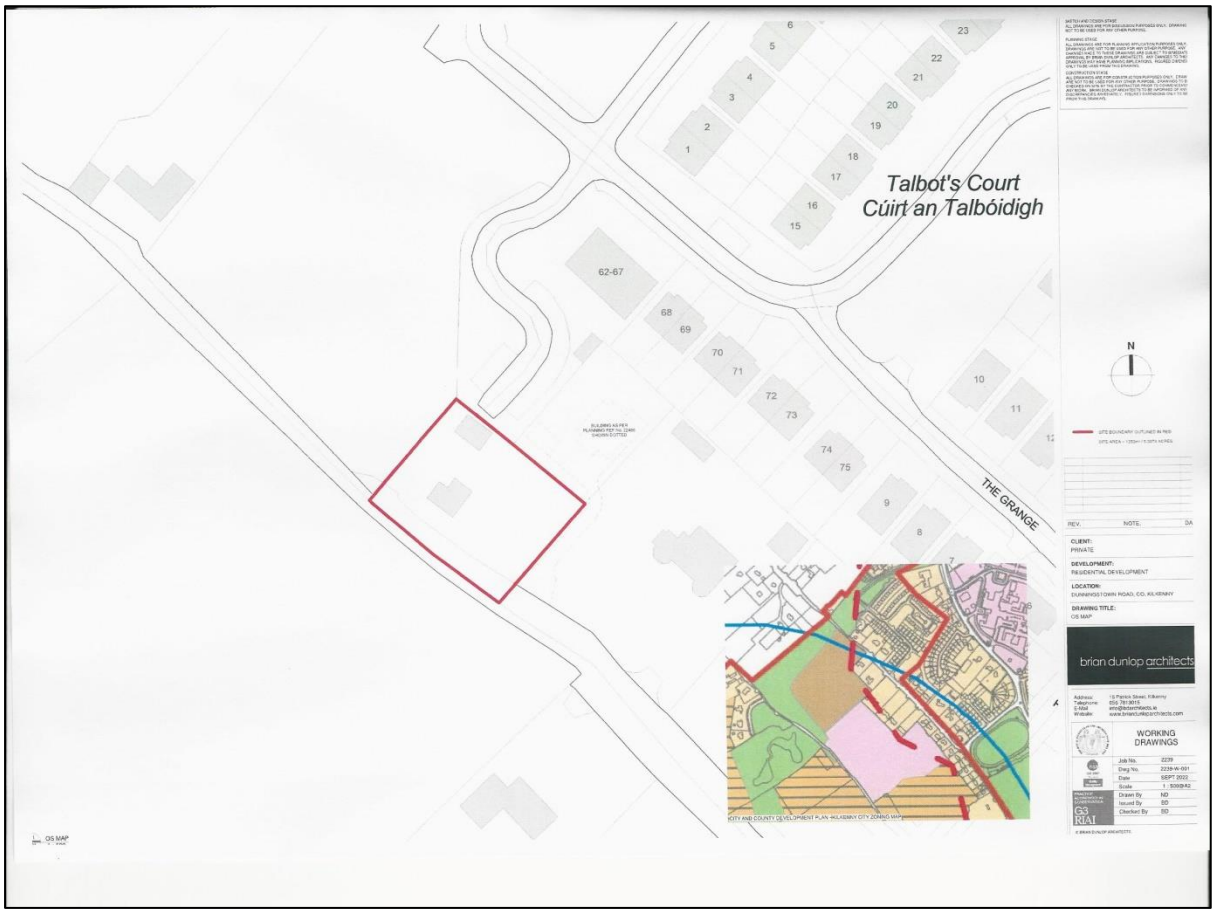


Figure 1. Site Location Highlighted in Red.

3.2 Development Proposal

Kilkenny County Council propose to build on the site a small residential development comprising six age-friendly residential apartment units. It will front the public road, with the entrance to the south and a driveway accessing the rear. Car-parking will be sited to the rear, whilst there will be a public open space in the northeast part of the site, covering an area of 230m² (*Figs.2&3*).

Figure 2. Proposed Layout of Site.

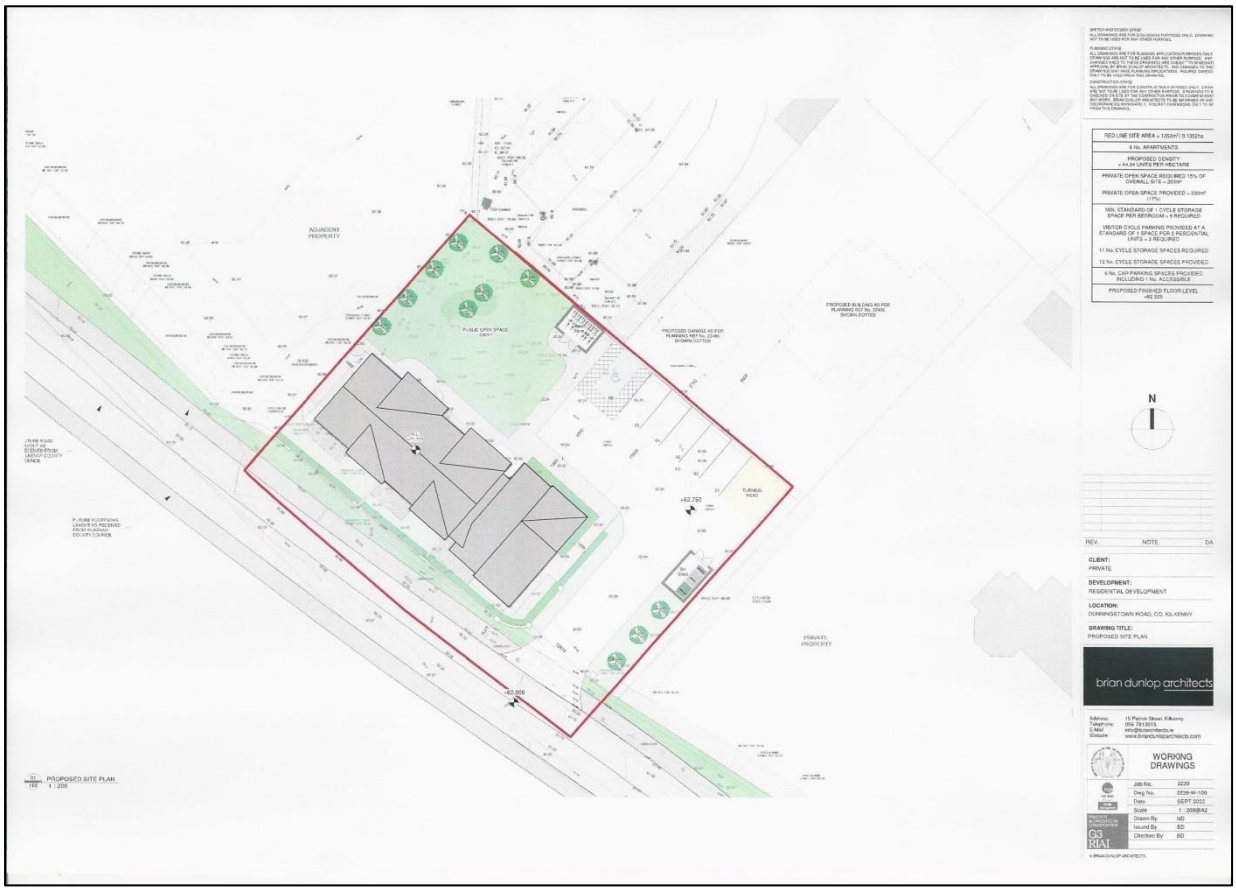


Figure 3. Proposed Development Site Plan.

Figure 4. Housing Development Layout.

3.3 Site Inspection

The site was inspected in late September 2022, with weather conditions fair. Site access is facilitated via a narrow third class road fronting its east side. Although within a rural setting, the area is built-up with one-off housing and a housing estate to the east and southeast. A proposal is also pending to build a new CBS Secondary School and associated road on the opposite side of the public road to the site.

This site is located on a slight hillock, 66m above sea level and *circa* 1m/1.5m above the road level, which rises slightly upwards from south to north (*Pl.1*). A small site, measuring *circa* 43m x 29m, it is bounded by the public road on its west side (*Pl.1)* and a pasture field to the north (*Pl.2*). A housing estate is to its northeast (*Pl.3*); and a small paddock/garden to its southeast, both of which are lower than the site. To the south is a private house and garden. All site boundaries are defined by a metal fence, in excess of 2m high, with a gated entrance at the north end of its west side.

The interior of the site comprises two vacant single storey buildings in the northern part of the site (*Pls.5-6*), with a tarred surface between them and the northern boundary. Inside the gate, in the northwest corner, is dense overgrowth including brambles and small trees (*Pl.7*). The remainder of the site consists rough, uneven ground under a cover of high thin grass (*Pls.8-9*). Defunct weather boxes on stilts still survive in the southern half of the site (*Pls.8-9*).

Pl. 1. View of Site from Public Road.

Pl.2. Pasture Field to the North.

Pl.3. Housing Estate to the East.

Pl.4. Looking West:

Location of Ring-ditch (KK019-007).

Pl.5. Northeast Part of Site.

Pl.6. Northwest Part of Site.

Pl.7. Overgrown Northwest Part of Site.

Pl.8. South Part of the Site.

Pl. 9. Looking North at Site.

4. History and Archaeology of the Site and Environs

4.1 Historical Background

The site is located in the townland of Coolgrange, the parish of St. Canice and within the barony of Crannagh. Coolgrange derives its name from the Irish *An Ghráinseach Fhur*. In 1655 it was known as Could Grange (Churchland) and by 1839 the townland was referred to in Irish as *Cúil Gráinsighe* which translates as "corner or angle of the grange"[1]. Covering an area of 159 acres, it is a long narrow townland, widening at its northern end. The site occupies a small area towards its southern end. The townland boundary between, Coolgrange and Lousybush, extends along Dunningstown Road.

Coolgrange townland is located within St. Canice's parish, a large parish, incorporating substantial sections of Kilkenny city. The present day St. Canice's covers the entire civil parish of St. Maul's as well as the civil parish of St. Canice's. Its area, city and rural combined, is 6,957 statute acres. Its rural district covers a small area and had two ecclesia or parish churches, each with its own separate parochial district within the present civil parish of St. Canice's[2]. These were the churches of Ballyfinnan or Newtown and Thornback. Thornback, 2 miles north of the city, was an independent parish, whilst the Cathedral parish and Ballyfinnan were vested in the Vicars Choral of St. Canice's[3]. The parochial church of Thornback (KK014-056), situated in the townland of Troyswood, on a high bank over the river Nore, was referenced as far back as the fourteenth century. The church was in a ruinous state, whilst a part of a castle (KK014-056003) joined (*sic*) the church ruins[4]. It was noted in the 1839 Ordnance Survey Letters (OSL) that Thornback was also known as Druimdelig and a burial place of note[5]. It lost its status, becoming little more than a chapel and its parish and was merged into St. Canice's parish[6].

[1] www.logainm.ie
[2] Rev. W. Carrigan. History and Antiquities of the Diocese of Ossory. 1905.
[3] *Ibid*.
[4] Rev. M. O'Flanagan (Ed.). Letters Containing Information Relative to the Antiquities of the County of Kilkenny Collected during the Progress of the Ordnance Survey in 1839. 1930.
[5] *Ibid*.
[6] Rev. W. Carrigan. History and Antiquities of the Diocese of Ossory. 1905.

There are no references to the townland of Coolgrange in the OSL of 1839 and no mention by Rev. Carrgian to the townland of any antiquities within, when compiling the History and Antiquities of the Diocese of Ossory in the early twentieth century.

The modern history of the site relates to Met Éireann establishing a weather station in May 1957 at a green field location, just off the Dunningstown Road. This weather station was closed in early 2008 and has remained vacant ever since.

4.2 Archaeological Background

There are seven recorded archaeological monuments recorded in the Record of Monuments and Places (RMP) for County Kilkenny within 1 km of the development site. The nearest monument is a ring-ditch (KK019-007), on the opposing side of Dunningstown Road and *circa* 40m to the northwest (*Fig.5*); whilst the furthest monument within the 1km, is a burial (KK019-139), located *circa* 900m east northeast.

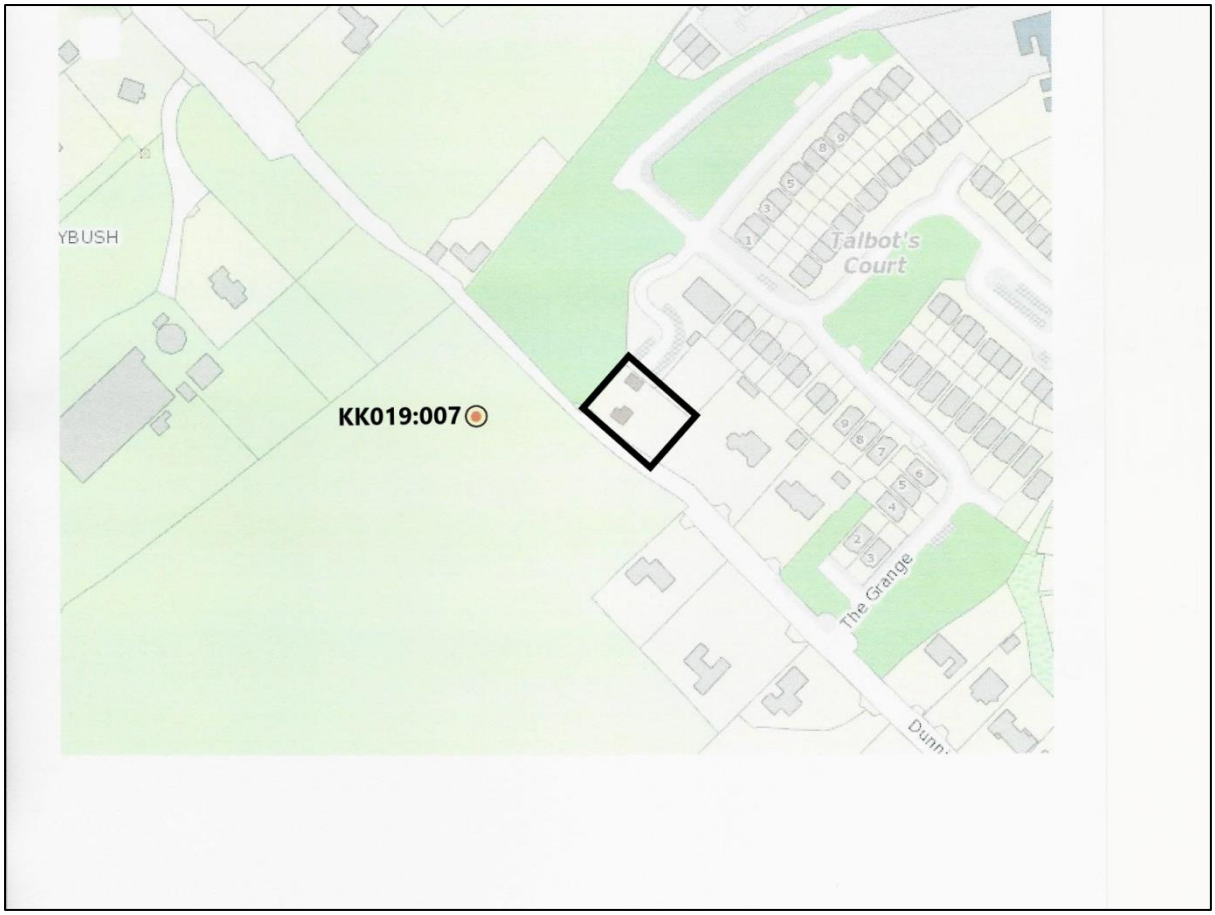


Figure 5. OSI Map after (ASI). Showing Site Highlighted in Black and Nearest Monument (KK019-007).

The recorded monuments are set out as follows:

RMP No.	Townland	ITM Ref.	Classification
KK019-007	Lousybush	649318/657446	Ring-ditch
KK019-008	Talbotsinch	649807/657708	Enclosure
KK019-124	Raheennagun	648844/657790	Enclosure
KK019-006	Raheennagun	648688/657755	Ringfort
KK019-009	Talbotsinch	650189/657313	Enclosure
KK019-139	Friarsinch/Dunmore	650266/657727	Burial
KK019-112	Coolgrange	649253/657995	Burial

The following descriptions of the above recorded monuments within 1km of the development site are taken from the ASI accessed from the National Monuments Service website (www.archaeology.ie)

KK019-007

Description: A ring-ditch identified by aerial photography in 1967. Located in a large tillage field, it comprises a small circular enclosure with a diameter of 10-15m. The site is visible as the cropmark of a fosse on the aerial photograph (CUCAP ASW054).

Compiled by M. Tunney. Uploaded in August 2013.

This site is presently subject to archaeological investigations as part of advance works for the construction of the new CBS Secondary School (see Section 4.3).

KK019-008

Description: On the edge of a ridge overlooking the River Nore which flows *circa* 100m to the east. The monument comprises a large D-shaped enclosure measuring *circa* 93m (NW/SE) x 46m (NE/SW) with the straight northeast edge (*circa* 93m long) extending parallel to the edge of the ridge. A large shed has been built across the north portion of the monument and a concrete yard and car-park has been constructed on top of the south portion of the enclosure.

Compiled by J. Farrelly. Uploaded in July 2020.

KK019-124

Description: Denoted as a spring on the First Edition (1839-40) OS 6-inch map immediately south southwest of the enclosure. Located in a tillage field, it was identified on an aerial photography (GB90.CH.03, July 1960) shows a cropmark of a curvilinear enclosure (diameter of *circa* 35m). Defined by a fosse and with an entrance facing southeast. There is a ringfort (KK019-006) *circa* 110m to the west.
Compiled Dr. G. Barrett and J. Farrelly. Uploaded in October 2020.

KK019-006

Description: Denoted on the First Edition (1839-40) OS 6-inch map and the 1945-46 revision as a circular enclosure with an internal diameter of *circa* 42m and an external fosse, 7-10m wide. A townland boundary extends along the edge of the northeast sector and a field boundary extends northeast/southwest along the northwest edge of the monument. It is described by O'Kelly in 1969 as a 'partly-demolished rath'. The interior is covered with grass and some trees and scrub.
Compiled by J. Farrelly. Uploaded in September 2020.

KK019-009

Description: Located near the edge of ridge overlooking the River Nore which flows *circa* 200m to the east, and its flood plain. A large roughly circular enclosure with a diameter of *circa* 80m, it was identified as a cropmark of a wide deep fosse on aerial photographs. There is a clear entrance in the east quadrant. A housing estate was subsequently built over this monument.
Compiled by J. Farrelly. Uploaded in September 2020.

KK019-139

Description: Burials were uncovered during the laying of underground services beneath the existing road surface of Bleach Road. The river Nore is *circa* 150m southwest of the burials at its nearest point. Indications suggested that the human bone assemblage included several individuals. The road forms the boundary between two townlands and it is probable that the burials extend eastward into Dumore townland and westward into Friarsinch townland. Compiled by J. Farrelly. Uploaded in December 2019.

KK019-012

Description: A burial was found in 1988 during quarrying gravel. Situated on a low east-west ridge, the burial comprised an incomplete upper half of the skeleton of an adult female in an unlined grave aligned east/west.

Compiled by M. Tunney. Uploaded in August 2013.

4.3 Previous Archaeological Works in the Vicinity

The archaeological excavations (www.excavations.ie) database – 1978 to 2022 - was consulted and the following summary of the excavations undertaken within the environs of the proposed development site are set out as follows:

Lousybush Townland
Entry No. 2022:091
Excavation Licence No. 22E0154
Archaeological testing of the proposed development site at CBS Secondary School, Lousybush, County Kilkenny, entailed the excavation of 58 linear test trenches totalling 3,710 linear metres within a 7.5 hectare area. The licensed use of a metal-detector was incorporated into the test trenching investigations to assist in artefact retrieval (Detection Device Licence Ref. 22R0067). However, no potential archaeological artefacts were recovered.

Potential archaeological features were uncovered within eight of the 58 test trenches investigated within the two fields. In total over 13 potential archaeological features were identified, including two potential barrows, four pits including a potential bowl furnace and burnt spread and two associated pits. These features have been categorised into three distinct archaeological sites and in summary comprise the following:

Site 01, located at the north-western corner of Field 1, within the general area of RMP-K019-007, consisted a potential barrow approximately 10m in diameter, a smaller barrow-type feature between 5-6m in diameter, a possible cremation pit, bowl furnace and two potential refuse pits. Several linear and curvilinear features and charcoal stains on the surface of the subsoil were also revealed which may indicate the presence of further archaeological activity.

Site 02, located within a large natural hollow towards the centre of Field 2, consisted an extensive fulacht fiadh defined by one large mound of heat-shattered stone 1.5-2m below the existing surface level and overlying an extensive deposit of colluvium or hill wash. A possible surface deposit containing a possible flint core and two potential pieces of flint debitage and a possible linear feature were uncovered at a similar depth in an adjacent test trench.

Site 03, located towards the south-eastern corner of Field 2 consisted a curvilinear spread of heat-shattered stone measuring 3.5m in width with two small possible pits at its north-west margins. Paudie Dunne, John Cronin & Associates, 3A Westpoint Trade Centre, Ballincollig, Co. Cork.

Loughmacask Townland

Entry No. 2010:427

Excavation Licence No. 10E0226

Testing was undertaken in order to study the impact on the potential archaeological resource within the footprint of a proposed residential development at Loughmacask, c. 1.5km north-west of the centre of Kilkenny city. It followed an EIA report, and subsequent geophysical survey carried out by Target Geophysics. Loughmacask can be translated as the 'Lake of MacCask'. Further testing was carried out adjacent to this under licence 10E0225.

The overall testing programme involved the excavation of 39 trenches across the proposed development area. A total of 22 of these trenches were excavated specifically to investigate potential archaeological features identified by the geophysical survey. Testing did not reveal any archaeological features or deposits. However, it was thought possible that previously unrecorded subsurface archaeological remains might be present within the proposed development area. As a result, it was recommended that all ground disturbance works associated with the proposed development be monitored.

Due to the presence of a potato crop at the location of the proposed temporary well and associated pipeline, it was not possible to excavate test-trenches at this location. The well and pipeline are located c. 60m north-west of the remains of ringfort KK019–006. Although the proposed infrastructure will not directly impact on the site, it was thought possible that ground disturbance associated with the construction of the well may impact on associated remains located beneath the existing ground level. It was therefore recommended that testing be carried out as originally proposed at the site of the temporary well and pipeline. Dave Bayley, IAC, Bray, Co. Wicklow.

Granges Rd./Dean St./Thomas St., Kilkenny City

Entry No. 2005:815

Excavation Licence No. 05E0463

Monitoring was requested as a planning condition on the construction of a storm-drain pipeline trench from Granges Road to an outfall at the Bregagh River just beyond Butts Roundabout, Kilkenny city. Part of the proposed route extended through the zone of archaeological potential for the historic town and across the suggested western line of the monastic enclosure of St Canice's Church. Nothing of archaeological interest was noted. E. Devine, Kilkenny Archaeology Threecastles, Co. Kilkenny.

Coolgrange Townland

Excavation Licence No. E1098

In January 1988 human remains were discovered during quarrying operations at Talbot's Inch, Co. Kilkenny. The site was in the townland of Coolgrange in east County Kilkenny, approximately 2km north-west of Kilkenny City.[38] It consists a low gravel ridge, extending approximately north/south and rising at its maximum to approximately 9m above the level of the surrounding field. The site lay at an altitude of 70–80m above sea level. Adjacent sites marked on the SMR include a ringfort in Raheennagun townland and two enclosures in Lousybush and Talbotsinch townlands respectively. The quarry had been worked sporadically for approximately 100 years but no previous discoveries of human remains had been noted. At the time of Ó Floinn's investigation most of the east side of the ridge had been removed. On arrival, the bones lay as they had been discovered, on the gravel scree at the base of the quarry, but the original location of the burial must have been close to the crest of the ridge.

There was no indication of any stone lining in the grave, nor was there any trace of a grave-pit in the area from which the burial was thought to have come. The burial consisted an inhumation; and no artefacts were found in the vicinity of the bones, which comprised a cranium, mandible, vertebrae and arm bones of an adult female. As no further bones came to light, it would appear the remains found represented the western extremity of a burial aligned east/west; and therefore that the head was placed to the west. In the absence of associated finds or other dating evidence, this burial must be regarded as undated. R. Ó'Floinn. NMI, Kildare St., Dublin.

4.4 Architectural Heritage

There are no Protected Structures recorded in the Kilkenny City Record of Protected Structures (Kilkenny City and County Development Plan, 2021-2027) or in the National Inventory of Architectural Heritage (www.buildingsofireland.ie) within the vicinity of the development site (i.e. within ½ km).

4.5 Cartographic and Aerial Photographic Sources

An examination of earlier Ordnance Survey (OS) maps including the First Edition 6-inch series (1839 [*Fig.6*]); 25-inch OS series (1903 [*Fig.7*]) and the revised 6-inch OS series (1945-46) revealed the area of the site was part of a large field covering 9.17887 acres. This did not change between 1839/40 (*Fig.6*) and 1945/46. In the second half of the twentieth century the field was sub-divided, with the weather station built in 1957 on a small plot fronting the public road.

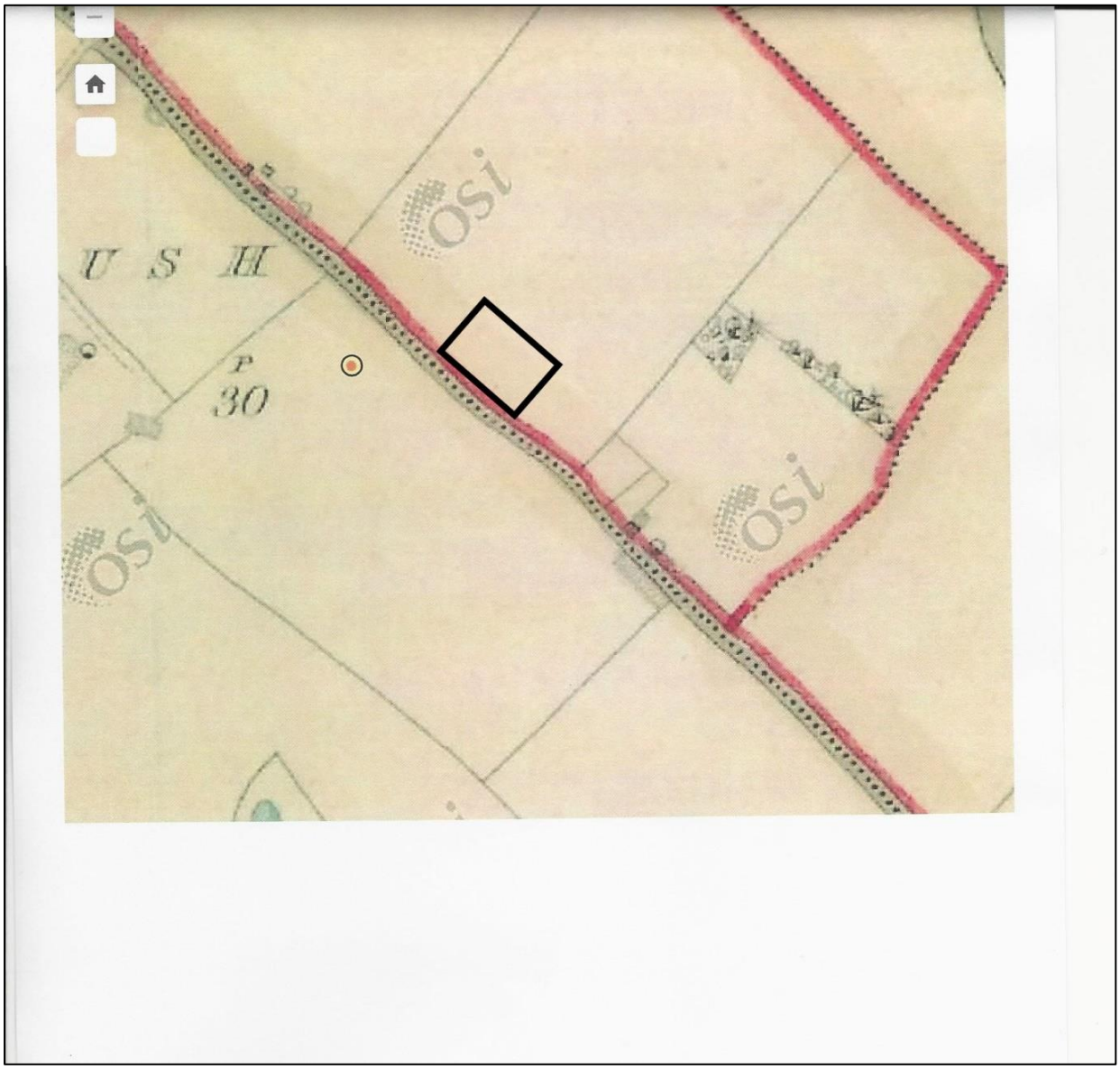


Figure 6. First Edition Ordnance Survey Map (1839).
Site Location Highlighted in Black.

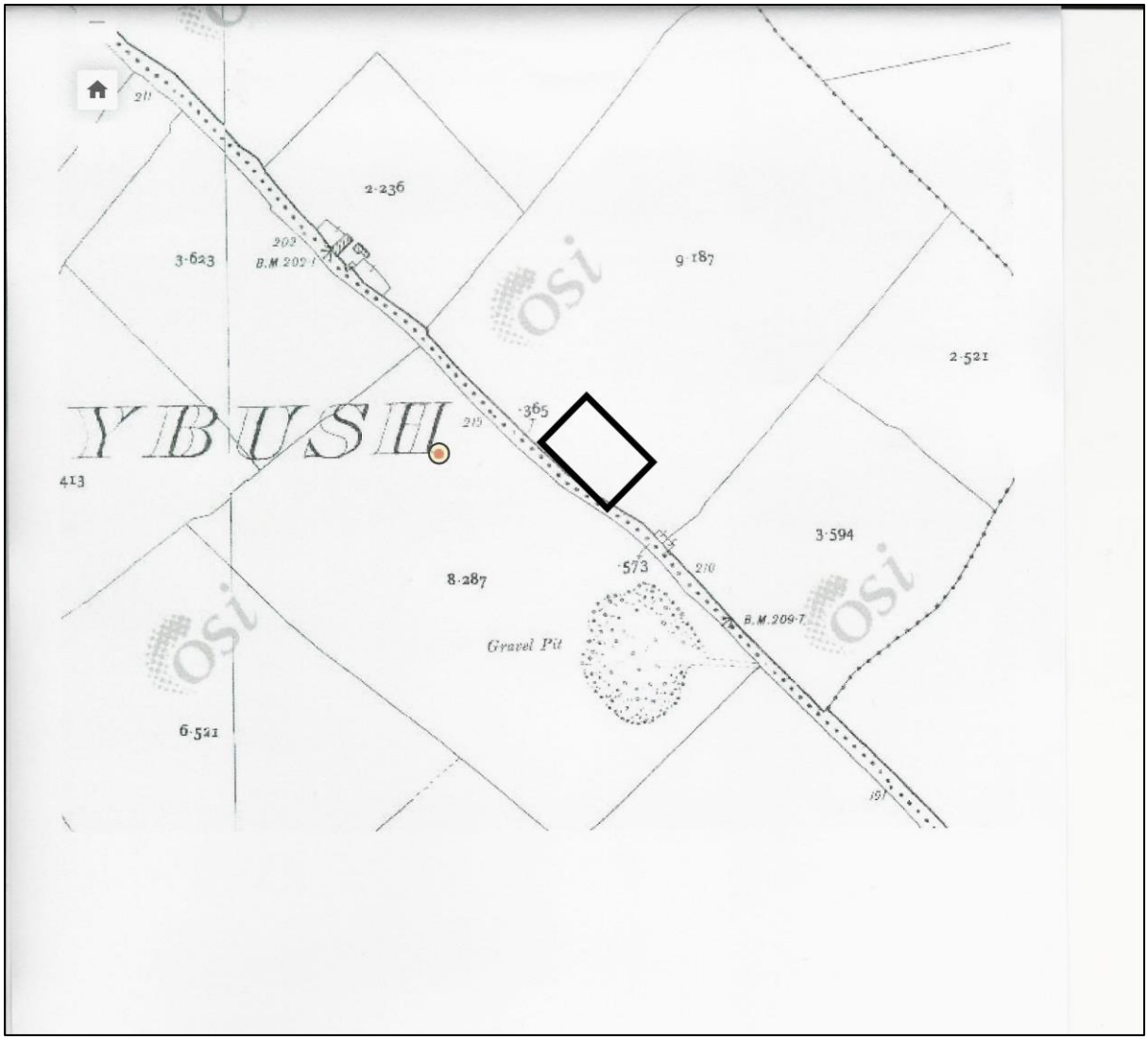


Figure 7. 25-inch OS Series (1903). Site Location Highlighted in Black.

An examination of aerial photography (OSI Map Genie 1995, 1999, 2004, 2005 & 2011) revealed further information about the site and its environs. By the end of the 20th century further sub-division of the field had been undertaken with two plots being developed for single housing. This was part of the general development along Dunningstown Road of single houses in the latter part of the 20th century and early 21st century. The field containing the weather station was subject to extensive development for housing estates (the Grange and Talbots Court) by 2004.

5. Impact of the Proposed Development

5.1 Introduction

There may be a direct impact where sites of archaeological, architectural and cultural heritage significance are located within the footprint of a proposed development, which can potentially be impacted upon by sub-surface ground disturbances. In relation to the proposed development, there is no site of archaeological, architectural and cultural heritage within the proposed development's footprint.

It is evident from the review of known recorded archaeological monuments and the database of archaeological excavations, that the proposed development is located in an area of archaeological potential. As a result, there is potential that ground works associated with the construction of the proposed residential development could have an impact on previously unrecorded archaeological deposits/remains that the site may retain. The recorded ring-ditch (KK019-007), located *circa* 40m to the northwest in a large tillage field on the opposite side of the road to the site, comprises a small circular enclosure. Ongoing archaeological investigations at this site and its immediate environs have revealed archaeological features including two potential barrows, a possible cremation pit, a potential bowl furnace and two potential refuse pits[7]. Other findings, in the centre of an adjoining field, included an extensive fulacht fiadh whilst in the southeast corner of the same field a curvilinear spread of heat-shattered with two small possible pits was revealed[8].

5.2 Potential Direct Impact on Recorded Archaeological Monuments

There is no recorded archaeological monument within the footprint of the site of the proposed development. Accordingly there will be no impact on known archaeological monuments.

5.3 Potential Direct Impact on Unrecorded Archaeological Monuments

[7] P. Dunne. Excavations Bulletin Database. 2022
[8] *Ibid*.

There may be unrecorded archaeological deposits associated with the nearby archaeological monument (KK019-007) that could be impacted on by the proposed development. Ongoing archaeological investigations in the vicinity of this monument have indicated extensive human activity over a large area.

5.4 Potential Direct Impact on Architectural Heritage Sites

There are no protected structures or architectural heritage sites within the proposed development site or its environs (i.e. within ½ km). Accordingly there will be no impact on such structures/sites.

5.5 'Do Nothing' Scenario

In this instance, there would be no impact on any potential unrecorded sub-surface archaeological deposits/remains.

5.6 'Worst Case' Scenario

Were the development to proceed without appropriate mitigation, it could impact on unrecorded archaeological deposits/remains associated with the nearby archaeological monuments. Archaeological deposits/remains are irreplaceable and if impacted upon without appropriate mitigation, a valuable resource is permanently lost.

6. Mitigation Measures

Should the proposed residential development proceed, it is recommended all groundworks to be archaeologically monitored.

Archaeological monitoring shall consist the following:

- The applicant is required to employ a qualified archaeologist to monitor all groundworks associated with the development.

- Should archaeological material be found during the course of monitoring, the archaeologist may have work on the site stopped, pending a decision as to how best to deal with the archaeology.

- The developer shall be prepared to be advised by the Department of Housing, Local Government and Heritage with regard to any necessary mitigation measures, such as preservation *in situ*, redesign or excavation and should facilitate the archaeologist in recording any material found.

- The Planning Authority of Kilkenny County Council and the Department of Housing, Local Government and Heritage shall be furnished with a report describing the results of the monitoring.

Mary Henry
Mary Henry Archaeological Services Ltd.
5th October 2022.

Appendix B

1. Pre-planning Report
2. Environmental Impact Assessment (EIA) Screening
3. Appropriate Assessment (AA) Screening
4. Roads Design Office Report

Comhairle Chontae Chill Chainnigh
Kilkenny County Council
Pre-Planning Report

Planning and Development Act 2000, as amended
Planning and Development Regulations 2001, as amended

Planning Ref: Section 179A Housing Development

Subject: Housing Section proposed development at the Old Weather Station Site, Dunningstown Road, Kilkenny.

Site History

Adjacent sites

22/486 – Permission granted to Michael and Eileen O' Riordan to construct a two-storey detached dwelling with detached domestic garage to include a new vehicular entrance from the Dunningstown Road connections to public water mains and public sewers and associated site development works.

22/485 – Retention permission granted to Michael and Eileen O' Riordan for:
a. Conversion of single storey domestic garage to use as home office.
b. Single store domestic store and all associated site development works

Subject site

00/1968 – Permission granted to Ragget Homes and Silverspruce Ltd. for Phase 3 of an overall housing development of 191 houses and community service buildings; the application was revised through further information submitted, for six apartments, and dwellings.

99/906 – Permission granted to Michael and Eileen O' Riordan for retention of change of roof-type, increase of size of conservatory, change of position of house on site, retention of front entrance wall and increase in height to part of rear wall (re: P.963/95); subject site formed part of a larger site relating to dwelling to the south-east.

98/46 – Permission granted to Met Eireann to erect a palisade security fence around the perimeter of the Met Station property.

99/228 – Application for James Walsh withdrawn for dwelling.

95/963 – Permission granted to Michel O' Riordan for dwelling and garage; the subject site was part of a larger site to the south-east.

95/928 – Permission granted to P & K Bollard for a dwelling; the subject site formed part of a larger site to the south-east.

Pre-planning
Previous pre-Part 8 proposed housing development at this location; advised as follows:
"In principle the proposal for a two-storey apartment block at this location may be acceptable in principle subject to technical and design considerations. I would suggest that the design would be in keeping with the existing apartment block to the north of the site."

Legislation
The provisions of the Planning and Development Act 2000, as amended, and the Planning and Development Regulations 2001, as amended apply.

Planning and Development Act 2000, as amended, Part XI Section 179A 'Local Authority own housing development' states as follows:

179A. (1) This section applies to housing development—
(a) that is carried out by, on behalf of, or jointly or in partnership with, a local authority pursuant to a contract entered into by the local authority concerned, whether in its capacity as a planning authority or in any other capacity,

(b) that does not materially contravene the development plan or local area plan for the area,

(c) that is in accordance with the strategy included in the development plan for the area in accordance with section 94(1),

(d) that is not subject to a requirement, in accordance with the Environmental Impact Assessment Directive, for an assessment with regard to its effects on the environment,

(e) that is not subject to a requirement, in accordance with the Habitats Directive, for an appropriate assessment,

(f) that is on land—
(i) that is owned by a local authority or a State Authority,
(ii) that is zoned for residential use, and
(iii) that has access, or can be connected, to public infrastructure and facilities, including roads and footpaths, public lighting, foul sewer drainage, surface water drainage and water supply, necessary for dwellings to be developed and with sufficient service capacity available for such development, and

(g) that is commenced on or before 31 December 2024.

(2) Prior to the commencement of development to which this section applies, the chief executive of the local authority shall inform the members of the local authority in relation to the development and shall provide documents, particulars or plans relevant to the development to the members.

Having regard to the documentation submitted from the Housing Section in support of the proposed development, I consider that the requirements of Section 179 A. (1) (a) – (g) will be satisfied in respect of the proposed development.

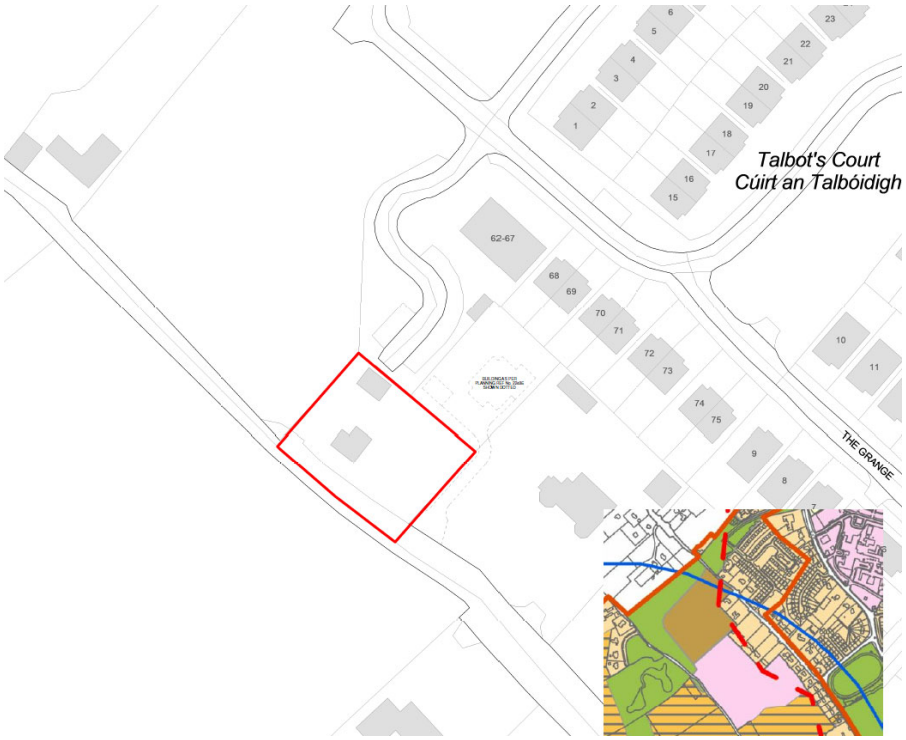
Development Plan Zoning
The site is zoned Existing Residential as per the Kilkenny City and County Development Plan 2021-2027 with the objective to protect, provide and improve residential amenities.

The proposed development is in accordance with the zoning objective for the site.

Site location and description
The site is located to the north-west of Kilkenny City centre, with access from the Dunningstown Road. The site has a stated area of 0.1352ha, and there are existing buildings on site relating to the former use of the site as a Met Eireann weather station. The site boundaries are currently fenced with palisade fencing.

There are existing residential developments located on the adjoining sites. The site to the north east and east of the site is a large residential site with an existing detached two-storey dwelling, and with permission recently granted for a two-storey dwelling within the side garden to the north-east of the proposed development. Talbots Court residential development is located to the north-east of the site, with parking spaces and public open space is located within the vicinity of the site.
The Roads objective R6 as per the development plan relates to the lands to the west of the site, with the objective to "provide for a road connection from the Freshford Road to the site reserved for a proposed secondary school within the Loughmacask masterplan area".

The south-west area of the site is located within a zone of archaeological potential associated with a recorded monument ref. KK019-007--- 'Enclosure', which appears to be centred on the opposite side of the public road to the south-west of the site.



Site location map submitted

Referrals *(by proposing section)*

- Environment – recommends proposals for surface water are addressed.

- Uisce Eireann – notes that the wastewater connection will be via Talbot's Court existing third party infrastructure, and that permission to connect to this network will be required at application stage.

- Roads – recommends a number of matters to be addressed at detailed design stage.

- Municipal District Engineer – response not received to date.

Proposed development

- Proposed demolition of the existing structures on this brownfield site formerly used as a Met Eireann weather station.

- Proposed construction a two-storey apartment building to accommodate:
  - Four 1-bed own door apartments, and
  - Two 2-bed own door apartment units.

Three apartments are proposed at ground floor level, and three with own door access at first floor level.

The site has a stated area of 0.1352ha; a density of 44.34 units per hectare is proposed.
The proposal meets the required minimum development plan standards in relation to unit size, private and public open space, bin storage and bike parking. Public space and the access road benefits from proposed passive supervision. The proposed external finishes appear to include render and brick; the roof finishes are unclear.
The site layout would benefit from the inclusion of proposed boundary types.

Proposed site layout plan

Proposed Elevations

Archaeology
The site is located within
Within zone of notification for Lousybush Ring Ditch. AIA completed. Archaeological Monitoring proposed.

The south-west area of the site is located within a zone of archaeological potential associated with a recorded monument ref. KK019-007--- 'Enclosure', which appears to be centred on the opposite side of the public road to the south-west of the site.

An Archaeological Impact Assessment has been submitted prepared by Mary Henry Archaeological Services Ltd. The report notes that archaeological investigations are being carried out relating to the recorded monument KK019-007--- as part of advance works for the construction of the new CBS Secondary School.
Potential impacts have been identified on previously unrecorded archaeological deposits/ remains; section 6 of the report recommends mitigation measures including archaeological monitoring.

Services
Water – connection to mains supply.
Waste water – connection to public sewer
Surface water – to be clarified.

A Confirmation of Feasibility has been submitted with the proposal which notes as follows:

- *Water Connection – Feasible without infrastructure upgrade by Irish Water*
- *Wastewater Connection – Feasible without infrastructure upgrade by Irish Water*
  Connection will be via Talbots Court existing third-party infrastructure. Permission to connect to this network will be required at application stage.
  No stormwater will be permitted to enter the wastewater network.

Talbots Court has been 'taken-in-charge' by the Council following a Taking-In-Charge application ref. TC104; it would therefore appear that the Council would have sufficiency of interest with regard to connection to the public sewer, however, the proposing section should satisfy themselves of same.

The response from the Environment Section, notes that surface water shall not enter the mains wastewater network and that proposals for disposal of surface water are recommended within the boundaries of the site.

Access

Access to the site is proposed at the south-east corner to the site onto the Dunningstown Road. Sightlines of 50m are proposed in both directions.
The proposing section shall ensure that they have sufficiency of interest to carry out any required works to achieve sightlines on lands outside of the site boundaries.

A report has been received from the Roads Design Office dated 25th April 2023, with a number of recommendations to be addressed as part of the proposed development; these recommendations should be addressed in the detailed design by the proposing section.

The report notes:
It shall be noted that the existing realignment of the Dunningstown Road fronting the proposed access is subject to change. This is being advanced as part of a Design-Build contract linked with the nearby school site. As such the design as produced by the consultant to date and on which the proposed design of the entrance in this proposal is based may be subject to potential change. This shall be noted and the Housing Section is advised to consult with the Roads Section as the detailed design progresses.
Suggestions are also made to increase parking provision on site to accord with development plan standards.

Landowner

The Local Authority is the he stated landowner.

Impact on Natura 2000 site

A Screening exercise was completed, which showed that no significant environmental impact is likely on any Natura 2000 site.

EIA Conclusion

A preliminary examination of the nature, size and location of the proposed development has been carried out which determines that there is no real likelihood of significant effects on the environment arising from the proposed development. It is therefore concluded that an EIAR is not required.

S.179A Recommendation:

The following shall be addressed by the Housing Section:

1. Wastewater: Usice Eireann have noted that the proposed wastewater connection will be via Talbots Court existing third-party infrastructure; and that permission to connect to this network will be required at application stage. In this regard it should be noted that Talbots Court has been 'taken-in-charge' by the Council ref. TC104; it would appear that the Council would have sufficiency of interest with regard to connection to the public sewer, however, the proposing section should satisfy themselves of same.

2. Surface Water: No stormwater will be permitted to enter the wastewater network as per the response from Uisce Eireann; proposals are required for on-site surface water management and disposal.

3. Waste Management: Prior to commencement of development, a waste management plan for the construction and demolition phases of development is recommended.

4. Access: A report has been received from the Roads Design Office dated 25th April 2023, with a number of recommendations to be addressed as part of the proposed development; these recommendations should be addressed in the detailed design.
   The proposing section shall ensure that they have sufficiency of interest to carry out any required works to achieve sightlines on lands outside of the site boundaries.

5. Site Notice: In accordance with article 81A (2) (e) of the Planning and Development Regulations 2001, as amended, the site notice shall "(e) indicate its determinations under articles 81A(5) and 81A(6),"; therefore the determination of the AA Screening shall also be included in the site notice.
   Site notices should be erected on the Dunningstown Road and in Talbots Court

6. Layout and landscaping: The site layout would benefit from the inclusion of;
   - a **pedestrian/cycle link** to Talbots Court;
   - Specification of proposed boundary types and extents and details of roof finishes should be clarified.
   - landscaping which includes planting of native species, and pollinator friendly species.

7. Archaeology: Consultation with the National Monuments Section is recommended, prior to commencement of any development on site. The mitigation measures as per section 6 of the Archaeological Impact Assessment shall be adhered to in relation to the proposed development.

12th May 2023

C. Kelly, Senior Executive Planner (Acting)

N. Louw, Senior Planner (Acting)

Appendix: Roads Design Office Report.

Una Kealy,
Administrative Officer
Planning

Date: 25/04/2023

Ref: Kilkenny County Council Housing Section. Proposal for the construction of 4 no. 1 bed own door apartments and 2no. 2 bed own door apartment units on an existing brownfield site. Demolition of existing structures on site (former Weather Station), Dunningstown Road, Kilkenny.

A Chara,
I refer to notification received in relation to the above and I have the following comments in relation to the proposal.

It shall be noted that the existing realignment of the Dunningstown Road fronting the proposed access is subject to change. This is being advanced as part of a Design-Build contract linked with the nearby school site. As such the design as produced by the consultant to date and on which the proposed design of the entrance in this proposal is based may be subject to potential change. This shall be noted and the Housing Section is advised to consult with the Roads Section as the detailed design progresses.

The following issues shall be addressed in detailed design.

(a) The entrance detail shall be revised to prioritise pedestrian movements on the public footpath as against the vehicular traffic for the proposed entrance.

(b) Ensure visibility splays at the entrance are provided for to requirements of the DMRD and DMURS.

(c) Address and correct the anomaly on the layout drawings of the entrance as it joins the public as regards the radius provided for the proposed roadway edge.

(d) Provide an appropriate variation/demarcation in material finish types between the public road & its proposed associated footpath and the internal roads/footpaths provided within the site.

(e) The parking as provided does not accord to development plan standards. It is noted that the development plan standards indicate a requirement for a minimum of 7.5 spaces, (6 + 1.5 for visitors), equating to 8 parking spaces being required. I note that 6 are proposed. (It is not clear the benefit of the turning area provided noting the width of the general access roads to be provided which will already aid turning manoeuvres. In addition, the width of the standard parking spaces could be reduced from 2.5 to 2.4 to gain some extra width. This additional area plus the turning head could then allow for an additional 2 spaces to be potentially available.)

(f) There appears to be no internal footpath to safely direct pedestrians from the proposed public road footpath to link with the footpaths provided within the site. A footpath is recommended on the northern side given the housing units are located on this side, minimum width 1.8m.

(g) It shall be noted that there is an existing permitted development, ref: P22/486 which will access the public road directly adjacent (southern side) of the access proposed. The proposed development shall be reviewed to ensure compatibility with the design of that adjacent entrance and liaise with the developer adjacent in that regard.

(h) I note that no detail in respect of the provision of public lighting has been provided. Prior to the commencement of the development the Housing Section is requested to submit for the agreement of the public lighting section of Kilkenny County Council details of the public lighting design including digital lighting plots for the proposed development for consideration. The lighting shall have energy efficient LED technology and capable to be adapted for use with a central management system (CMS –with 7pin NEMA sockets) or equivalent and consideration shall be given to the lighting provision on the existing road network. The lantern specification shall be registered on the SEAI Triple E register. Guidance is available in the draft Kilkenny County Council Public Lighting Manual and Product Specification 2021.

(i) All proposed columns and signs shall be located in such a manner to be minimum 450mm off the roadway edge and installed in such a manner to not obstruct pedestrian footpaths.

(j) All required road markings and signage shall be in-compliance with the Department of Transport, Traffic Signs Manual, 2019.

(k) Slow zone signage shall be provided at the entrance into the site in accordance with DTTAS Traffic Signs Advice Note-2016-02.

(l) Stop signage and road markings shall be provided at the junction with the public road.

(m) A detailed Construction and Environmental Management Plan (CEMP) including a Traffic Management Plan for the proposed development shall be agreed with the Municipal District Office prior to commencement of development works.

(n) Ensure agreement with the local Municipal District Office the final finishes, construction make up and detailing of the proposed footpath and the layout of the proposed entrance.

(o) In the event that development entrance works proceed prior to the road improvement works, the Housing Technical section shall ensure to optimise the sightlines and visibility splays from the development entrance to the existing road in consultation with the Roads Section of Kilkenny County Council.

A road opening licence shall be required in respect of all works affecting the public road and footpath.

Mise le meas,

_____
Seamus Foley,
Senior Executive Engineer,
Road Design Section.

Comhairle Chontae Chill Chainnigh
Kilkenny County Council

Planning and Development Act 2000, as amended
Planning and Development Regulations 2001, as amended

Applicant: **Housing Section, Kilkenny County Council**

Subject: **Environment Impact Assessment**

Development: **Demolition of existing structures and construction of a block of 6 apartments and associated works (bin store, roadways, parking) on the former Weather Station site at Coolgrange, Dunningstown Road, Kilkenny City**

Kilkenny County Council Housing Section proposes to carry out a residential development in accordance with the provisions of Section 179A of the Planning and Development Act, as amended, at to consist of the following:

Demolition of existing structures and construction of a block of 6 apartments and associated works (bin store, roadways, parking) on the former Weather Station site at Coolgrange, Dunningstown Road, Kilkenny City

EIA Conclusion and Determination

The Planning Authority EIA screening has considered:

- The characteristics of the proposed development, including size and design, cumulation with other existing development
- The nature of works and risks relevant to the project, the location of the proposed development, the types and characteristics of potential impacts, including the cumulation of the impact with the impact of other existing and proposed development
- The criteria as set out in Schedule 5 of the Planning and Development Regulations, 2001 as amended
- Schedules 7 and 7A of the Planning and Development Regulations, 2001 (as amended)
- The description of the proposed development, description of the aspects of the environment likely to be significantly affected by the proposed development, and a description of any likely significant effects, on the environment resulting from (a) the expected residues and emissions and the production of waste, where relevant, and (b) the use of natural resources, in particular soil, land, water and biodiversity.

- Directive 2014/52/EU, amending EIA Directive 2011/92/EU
- The complete documentation submitted, and referral responses

Having regard to the foregoing, the Planning Authority concludes that an EIAR is not required.

16th May 2023

C. Kelly, A/ Senior Executive Planner

N. Louw, Senior Planner (Acting)

AA: Screening Form

STEP 1. Description of the project/proposal and local site characteristics:	
(a) File Reference No:	S.179 A Housing Application Dunningstown Road, Kilkenny
(b) Brief description of the project or plan:	Demolition of existing structures and construction of a block of 6 apartments and associated works (bin store, roadways, parking) on the former Weather Station site at Coolgrange, Dunningstown Road, Kilkenny City
(c) Brief description of site characteristics:	Site is located in Kilkenny City remote from existing Natura 2000 sites and without a pathway between the proposed site and works and the Natura 2000 sites within 15km of the site.
(d) Relevant prescribed bodies consulted: e.g. DHLGH (NPWS), EPA, OPW	n/a
(e) Response to consultation:	n/a

STEP 2. Identification of relevant Natura 2000 sites using Source-Pathway-Receptor model and compilation of information on Qualifying Interests and conservation objectives.

Natura 2000 European Site	List of Qualifying Interest/Special Conservation Interest[1]	Distance from proposed development[2] (km)	Connections (Source- Pathway- Receptor)	Considered further in screening Y/N
See tables 2 and 3 below	See tables 2 and 3 below	See tables 2 and 3 below	No	No

[1] Short paraphrasing and/or cross reference to NPWS is acceptable – it is not necessary to reproduce the full text on the QI/SCI.
[2] If the site or part thereof is within the European site or adjacent to the European site, state here.

Table 2: Identification of Natura 2000 sites (SACs and SPAs) which may be impacted by the proposed development

Please answer the following five questions in order to determine whether there are any Natura 2000 sites which could potentially be impacted by the proposed development. If the answer to all of these questions is no, significant impacts can be ruled out for habitats and bird species. No further assessment is required. Please refer to tables 3 and 4 where the answer to any of these questions is yes.

	Using the Source – Pathway- Receptor model, please consider the following	**Y/N**
1	**ONE- OFF HOUSE /SMALL EXTENSION/ ALTERATION TO EXISTING BUILDING**	

	Using the Source – Pathway- Receptor model, please consider the following	**Y/N**
1a	Is the development a one- off house/small extension/alternation to existing building within an SAC/SPA or within 100m of an SAC/SPA and likely to discharge pollutants or nutrients of a significant nature and amount to surface water within catchments of and SAC/ SPA as part of its construction or operational phase (including the installation of waste water treatment systems; percolation areas; septic tanks within SAC/SPA or very close proximity)?. **If the answer to the above question is:** **- no, then no appropriate assessment required** **- yes, then an appropriate assessment is required** **- not sure, then an appropriate assessment is required in accordance with the precautionary principle**	N
2	**DEVELOPMENTS OTHER THAN THOSE DESCRIBED IN 1 ABOVE**	
2a	**Impacts On Freshwater Habitats** *Is the development within a Special Area of Conservation whose qualifying interests include freshwater habitats, or in the catchment of same and does the development propose to discharge water to or abstract water from the habitat?* **Sites to consider:** Lower River Suir, River Barrow, River Nore. (these sites also include many tributaries – check on NPWS website) **Habitats to consider:** Alluvial Wet Woodland, (Lower River Suir and Nore), Dry Heath (some steep slopes along River Barrow and its tributaries) Rivers, Streams, Lakes and Lagoons, Old Oak Woodland, floating river vegetation, **Species to consider:** River Lamprey, Brook Lamprey, Freshwater Pearls Mussel, Nore Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter, Vertigo Moulinsiana,	N
2b	**Impacts On Wetland Habitats** *Is the development within a Special Area of Conservation whose qualifying interests include wetland habitats, or likely to discharge water to or abstract water from the wetland?* **Sites to consider:** Hugginstown Fen, Galmoy Fen, The Loughans, Flood Plain wetlands **Habitats to consider:** Bogs, Alkaline Fens (Hugginstown and Galmoy), Turloughs (The Loughans), wet grassland and Marsh (river floodplains)	N
2c	**Impacts on Intertidal and Marine Habitats** *Is the development located within a Special Area of Conservation whose qualifying interests include intertidal and marine habitats and species, or within the catchment of same and likely to discharge water to or abstract water from the habitats.* **Sites to consider:** Lower River Suir **Habitats to consider:** *Atlantic Salt meadows, Mudflats, sandflats, saltmarsh, estuary* **Species to consider:** Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Crayfish, Twaite Shad, Atlantic Salmon, Otter.	N
2d	**Impacts On Woodlands And Grasslands** *Is the development within a Special Area of Conservation whose qualifying habitats include terrestrial habitats, or in close proximity to same with a likely ecological impact?.* **Sites to consider:** Spa hill and Clomantagh Hill, Cullahil Mountain, River Barrow, River Nore, Lower River Suir **Habitats to consider:** *Alluvial Wet Woodlands* (River Nore below Inistioge and River Suir at Fiddown Island and Carrick on Suir), Eutropic tall herb vegetation (River Suir at Fiddown Island and Carrick on Suir), and grasslands (Spa hill and Clomantagh Hill, Cullahil Mountain) Oak Woodlands in old estates next to the Nore and Barrow **Species to consider:** Greenwinged, Frog and Bee Orchids (Cullahill and Clomantagh Hill), Nettle Leaved Bellflower and Autumn Crocus	N
2e	**Impacts On Birds** *Is the development within a Special Protection Area, or likely to discharge water to same or likely to have another significant impact on the habitats of Birds in same?.* ***Sites to consider:*** *River Nore* **Species to consider:** **River Nore:** Kingfisher (Alcedo Atthis**)** – Nesting in river banks	N

Table 3: Determination of possible impacts on Natura 2000 sites.
Where it has been identified in table 2 that there is a Natura 2000 site within the potential impact zone of the proposed development, it is necessary to try to determine the nature of the possible impacts. Please answer the following questions as appropriate.

	Using the Source – Pathway- Receptor model, please consider the following- notwithstanding distance any direct link needs consideration	
1.	**Impacts on designated freshwater habitats (rivers, lakes streams and lagoons).** *Please answer the following if the answer to question 2a in table 2 was yes.* *Does the development involve any of the following:*	
1.1	Impacts on watercourses (tributaries, streams, drains) which are remote from the SAC/SPA but may still impact on the SAC/SPA by reason of the nature or quantity of the discharge	
1.2	Abstraction from surfacewater or groundwater within 1km of SAC/SPA.	
1.3	Removal of topsoil within 100 m of watercourses with potential for surface water runoff.	
1.4	Infilling or raising of ground levels within 100m of watercourses with potential for surface water runoff.	
1.5	Construction of drainage ditches within 1km of SAC/SPA.	
1.6	Construction within a floodplain or within an area liable to flood.	
1.7	Crossing or culverting of rivers or streams within 1km of SAC/SPA.	
1.8	Storage of chemicals hydrocarbons or organic wastes within 100 m of a watercourse.	
1.9	Development of a large scale which involves the production of an EIS.	
1.10	Development of quarries, particularly where abstraction is below water table. Provision of process water silt management systems	
1.11	Development of windfarms within 1km of an SAC or with the risk of runoff to an SAC/SPA, particularly during construction.	
1.12	Development of pumped hydro electric stations.	
2	**Impacts on designated wetland habitats (bog, heath, marsh, fen).** *Please answer the following if the answer to question 2b in table 2 was yes.* *Does the development involve any of the following:*	
2.1	Impacts on watercourses (tributaries, streams, drains) which are remote from the SAC/SPA but may still impact on the SAC/SPA by reason of the nature or quantity of the discharge.	
2.2	Construction of roads or other infrastructure on peat habitats within 1km of a Natura 2000 site of which qualifying interests include peat, fen or marsh. (Only Peat habitat at Bruckana – consider Galmoy fen – impact unlikely	
2.3	Development of a large scale within 1km within a Natura 2000 site, whose qualifying features include fen or marsh, which involves the production of an EIS.	
3	**Impacts on designated intertidal and marine habitats (mudflats, sandflats, estuaries, reefs and sea cliffs).** *Please answer the following if the answer to question 2c in table 2 was yes.* *Does the development involve any of the following:*	
3.1	Impacts on intertidal and marine habitats from potential development which are remote from the SAC/SPA but may still impact on the SAC/SPA by reason of the nature or quantity of the discharge	
3.2	Development of piers, slipways, marinas, pontoons or any other infrastructure within 5km of a Natura 2000 site whose qualifying features include intertidal or marine habitats.	
3.3	Dredging within 5km of a Natura 2000 site whose qualifying features include intertidal or marine habitats.	
3.4	Impacts on watercourses (tributaries, streams, drains) which are remote from the SAC/SPA but may still impact on the SAC/SPA by reason of the nature or quantity of the discharge.	

3.5	Removal of topsoil or infilling within 100m of Natura 2000 sites whose qualifying features include intertidal or marine habitats where potential for surface water runoff exists.	
3.6	Development of a large scale within 1km of Natura 2000 sites whose qualifying features include intertidal or marine habitats, which involves the production of an EIS.	
4	**Impacts on other designated woodlands and grasslands** (woodland, upland grassland, lowland grassland, coastal grassland including dunes). *Please answer the following if the answer to question 2d in table 2 was yes.* *Does the development involve any of the following:*	
4.1	Works within the boundary of a Special Area of Conservation whose qualifying interests include woodland or grassland habitat types.	
4.2	Development within 200m of Natura 2000 site with woodland or grassland habitats.	
4.3	Development of a large scale within 1km of Natura 2000 site with woodland, grassland or coastal habitats which involves the production of an EIS.	
5	**Impacts on birds in SPAs** *Please answer the following if the answer to question 2e in table 2 was yes.* *Does the development involve any of the following:*	
5.2	Erection of wind turbines within 1km of an SPA.	
5.3	All construction works within 100m of SPA (River Nore), including the development of cycle ways or walking routes	
5.4	Infilling of coastal habitats within 500m of intertidal SPA.	
5.5	Works within 1km of coastal SPA which will result in discharges to rivers or streams that are directly connected to designated sites.	
	.	

Conclusion: If the answer to question 1 and 2a-e are no or n/a, significant impacts on habitats within Natura 2000 sites and on SPAs can be ruled out. No further assessment is required in relation to habitats or birds. If the answer to any question in table 2 is yes, you may require further information, unless you are satisfied that the project proponents have incorporated adequate mitigation into their design to avoid impacts on the Natura 2000 site (eg water pollution protection measures). Such information should be provided in the form of a Natura Impact Statement which should address the particular issues of concern as identified through the above.

Table 4: Consideration of potential impacts on protected species

Many of our Special Areas of Conservation are designated for species as well as for habitats. These are listed below, alongside the sites for which they are designated. Included is a short list of the types of activities which could have an impact on these species. Please tick if you are concerned that the proposed development could have an impact on these species.

Species	**Relevant Sites**	**Activites which could have impacts on species**	**Possible Impacts Identified? Y/N**
Otter	River Nore River Barrow Lower River Suir Note: Otters are a strictly protected species. All breeding sites and resting places are protected regardless of whether or not they are within or external to Special Areas of Conservation.	Activities that interfere with river banks.	
Atlantic Salmon	River Barrow River Nore Lower River Suir	Activities that interfere with water quality, levels or the river bed;	

Species	Relevant Sites	Activites which could have impacts on species	Possible Impacts Identified? Y/N
River Lamprey	River Barrow River Nore Lower River Suir	Activities that interfere with water quality, levels or the river bed;	
Brook Lamprey	River Barrow River Nore Lower River Suir	Activities that interfere with water quality, levels or the river bed;	
Sea Lamprey	River Barrow River Nore Lower River Suir	Activities that interfere with water quality or the river bed – estuarine areas;	
Twaite Shad	Lower River Suir	Activities that interfere with water quality or the river bed – estuarine areas;	
Crayfish	Lower River Suir	Activities that interfere with water quality or the river bed;	
Freshwater Pearl Mussel	River Barrow River Nore Lower River Suir	Activities that interfere with water quality, levels or the river bed ;	
Nore Freshwater Pearl Mussel	River Nore	Activities that interfere with water quality, levels or the river bed ;	

Conclusion: If the answer to all of the above is no, significant impacts on species can be ruled out. If the answer to any of the above is yes, then further information is likely to be required in relation to potential for impact on that particular species. Where potential impacts are identified on Otters or on Bats outside designated sites, then further information should be sought in the form of a species specific survey. In these cases, appropriate assessment is not required.

STEP 3. Assessment of Likely Significant Effects

(a) Identify all **potential direct and indirect impacts that may have an effect on the conservation objectives of a European site, taking into account the size and scale of the project under the following headings:**

Impacts:	Possible Significance of Impacts: (duration/magnitude etc.)
Construction phase e.g. • Vegetation clearance • Demolition • Surface water runoff from soil excavation/infill/landscaping (including borrow pits) • Dust, noise, vibration • Lighting disturbance • Impact on groundwater/dewatering • Storage of excavated/construction materials • Access to site • Pests	Not anticipated to
Operational phase e.g. • Direct emission to air and water • Surface water runoff containing contaminant or sediment • Lighting disturbance • Noise/vibration • Changes to water/groundwater due to drainage or abstraction • Presence of people, vehicles and activities • Physical presence of structures (e.g. collision risks) • Potential for accidents or incidents	None anticipated
In-combination/Other	None anticipated

(b) Describe any likely changes to the European site:	
Examples of the type of changes to give consideration to include: • Reduction or fragmentation of habitat area • Disturbance to QI species • Habitat or species fragmentation • Reduction or fragmentation in species density • Changes in key indicators of conservation status value (water or air quality etc.) • Changes to areas of sensitivity or threats to QI • Interference with the key relationships that define the structure or ecological function of the site	None anticipated

(c) Are *'mitigation'* measures necessary to reach a conclusion that likely significant effects can be ruled out at screening?	
No	

Step 4: Habitats Directive Screening Conclusion Statement		
Conclusion:		
	Tick as Appropriate:	**Recommendation:**
(i) It is clear that there is **no likelihood** of significant effects on a European site.	√	The proposal can be screened out: Appropriate assessment not required.
(ii) It is **uncertain** whether the proposal will have a significant effect on a European site.	☐	☐ Request further information to complete screening ☐ Request NIS ☐ Refuse planning permission
(iii) **Significant effects** are likely.	☐	☐ Request NIS ☐ Refuse planning permission
Signature and Date of Recommending Officer:	 16th May 2023	

N. Louw, Senior Planner (Acting)

Appendix C

1. Public Notice

Planning and Development Act 2000, as amended
Planning and Development Regulations 2001, as amended

NOTICE OF INTENTION TO UNDERTAKE DEVELOPMENT BY A LOCAL AUTHORITY UNDER SECTION 179A OF THE PLANNING AND DEVELOPMENT ACT, 2000 (as amended)

In accordance with the provisions of Section 179A of the Planning and Development Act 2000 (as amended) Kilkenny County Council gives notice of its intention to carry out the following development:

Demolition of existing structures and the construction of a block of 6no. apartments in a two-storey building and associated site works (bin store, roadways & parking) on the former Weather Station site at Coolgrange, Dunningstown Road, Kilkenny City

Plans and particulars of the proposed development will be available for inspection or purchase for a fee not exceeding the reasonable cost of making a copy during office hours from the date of this notice for a period of 8 weeks at Planning Dept., Kilkenny County Council, County Hall, John St., Kilkenny City from 9am to 1pm & 2pm to 4pm Monday to Friday (excluding weekends and Bank Holidays) and can be viewed online at https://consult.kilkenny.ie/

Screening Determination:- In accordance with the requirements of Article 120(1)(a) of the Planning and Development Regulations 2001 (as amended) the Planning authority has made a preliminary examination of the nature, size and location of the proposed development. The authority has concluded that there is no real likelihood of significant effects on the environment arising from the proposed development and a determination has been made that an Environmental Impact Assessment (EIA) is not required. The authority has concluded that there is no likelihood of significant effects on a European Site and that an Appropriate Assessment is not required. As per Article 120(3) of the Planning and Development Regulations 2001 (as amended), where any person considers that the development proposed to be carried out would be likely to have significant effects on the environment, he or she may, at any time before the expiration of 4 weeks beginning on the date of the publication of this updated notice apply to An Bord Pleanála for a screening determination as to whether the development would be likely to have a significant effect on the environment.

Within a period of 8 weeks from the date of this notice any person may question the validity of any decision of the Planning Authority by way of an application for judicial review. The development will not commence until this period of 8 weeks has expired

Mary Mulholland, Director of Services.
30th June, 2023