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PROPOSED RESIDENTIAL DEVELOPMENT AT LONG MILE ROAD, DUBLIN 12, CO. DUBLIN

Engineering Report For Planning

March 2025

ROD
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Proposed Residential Development at Long Mile Road, Dublin 12, Co. Dublin

Engineering Report – For Planning

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Proposed Residential Development at Long Mile Road, Dublin 12, Co. Dublin
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TABLE OF CONTENTS

1. INTRODUCTION

1.1 Background

This report has been prepared to supplement a Planning Application for a proposed residential development at Long Mile Road, Dublin 12. This engineering report sets out the basis for the planning submission in terms of surface water and foul drainage, water supply and utilities.

2. PROPOSED DEVELOPMENT

The development will comprise a Large-Scale Residential Development (LRD) on a site at Parkmore Industrial Estate, Long Mile Rd, Robinhood, Dublin, 12. The proposed development will comprise the demolition of existing industrial units, and construction of a mixed use, residential-led development within 4 no. blocks ranging in height from 06 to 10 storeys over semi-basement. The development will comprise the following: 436 no. apartments (studios; 1 beds; 2 beds and 3 beds) with commercial/employment units, creche, café and library. Provision of car, cycle and motorbike parking. Vehicular accesses from Parkmore Estate Road and additional pedestrian/cyclist accesses from the Long Mile Road and Robinhood Road. Upgrade works to the estate road and surrounding road network. All associated site development works and services provision, open spaces, ESB substations, plant areas, waste management areas, landscaping and boundary treatments.

The proposed development has a gross site area of approximately 1.9 hectares.

3. SITE INFORMATION

3.1 Site Location

The proposed development is located at Parkmore Industrial Estate, as outlined in Figure 3.1. The site lies within 2km east of the M50 Junction 9 interchange with the N7 road network. The development is also situated less than 1km south of the Kylemore Luas stop, which is part of the red line tram service, and 6.5km south of Dublin city centre. The site is adjacent on all sides to industrial and commercial buildings and currently has its own carparking facilities. At the south of the site, the development is adjacent to the Robinhood Stream (a tributary of the Walkinstown Stream). The stream flows in a northwest direction, and is approximately within 10m of the southern boundary of the site.

Figure 3.1 Site Location Map and Extents

3.2 Planning History

A planning application was lodged for this site on 12th July 1999 for the erection of storeroom facilities and an extension to the canteen of the building (Planning Reference S99A/0082). Planning was granted on 20th October 1999.

A planning application was lodged for this site on 18th September 2000 for a change of use from general showrooms, offices and warehouse to car showrooms, offices and car repair workshop with a revised front elevation (Planning Reference S00A/0334). Planning permission was granted on 11th April 2001.

A planning application was lodged for this site on 11th January 2001 for Improved loading and office facilities including alterations to front and rear elevations and other peripheral works (Planning Reference S00A/0739). Planning permission was granted on 26th April 2001.

3.3 Site Topography

The site is relatively flat for most part with existing ground levels at between approximately 47.30 to 47.50mOD.

3.4 Site Hydrology and Flood Risk Assessment

The site is located within the Wider Camac River Catchment, outlined in Figure 3.2 below. The EPA maps website indicates that the Camac River rises at Knockannavea, approximately 10km southwest of the study area and generally flows in a northernly direction where it meets the River Liffey, approximately 5km northeast of the study area. The Robinhood Stream, which is a tributary of the Camac River is located immediately south of the development site.

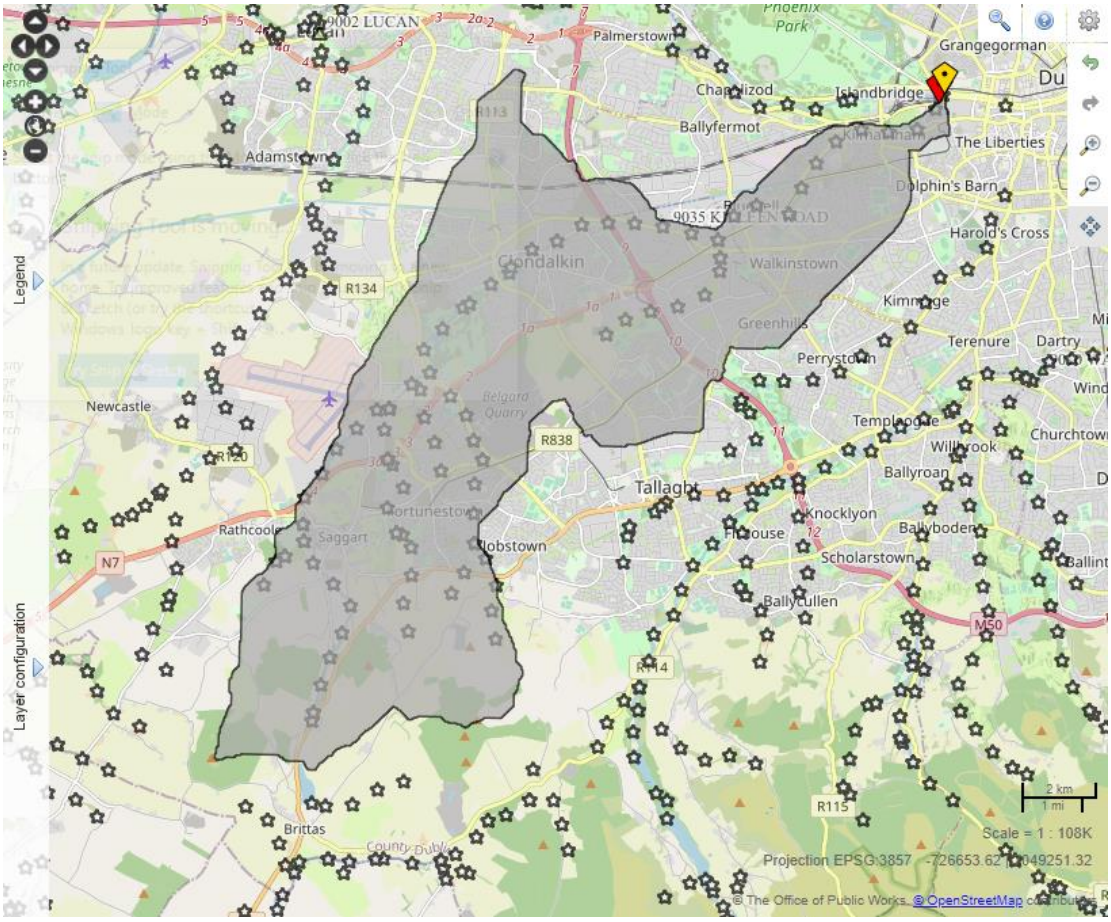

Figure 3.2 **FSU Web Portal Camac River Catchment (© 2015 Office of Public Works © OpenStreetMap contributors)**

A detailed Flood Risk Assessment has been prepared to supplement this planning application. Refer to Flood Risk assessment document PIE-ROD-EWE-SW_AE-RP-EN-3001.

3.5 Site Geology

Information obtained from the GSI website indicates that the site is underlain by limestone, as part of the Lucan Formation, interbedded with shale. The GSI website GeoUrban viewer indicates a depth to bedrock of between 5 to 10m. Subsoil information obtained from the GSI indicates that the proposed development site is underlain by gravels derived from limestone.

The GSI database shows records of trial pits undertaken on an adjacent site, approximately 80m west of the subject site. The trial pits indicated Made Ground and Clay. There was no record of Bedrock being met.

Ground investigations were undertaken on the site during July and August 2024. The fieldwork comprised of cable percussive boreholes, trial pits and foundation pits. Made Ground was encountered across the site at depths ranging from 0.60mbgl to 0.90mbgl. The material was generally recorded as granular gravel dominant soils with a thin layer of sand recorded in BH05 and cohesive brown sandy slightly gravelly silty clay at BH06. The natural ground conditions vary beneath the fill material with granular GRAVEL soils recorded at shallow depths at BH01, BH03 and BH06 across the south of the site. BH01 then encountered a layer of SAND from 2.50mbgl to 3.90mbgl and then cohesive CLAY soils. BH03 recorded CLAY from 2.30mbgl until termination of the

hole at 5.70mbgl and BH06 recorded a thin band of SAND from 3.70mbgl to 4.00mbgl, underlain by CLAY to 4.90mbgl and then a thin layer of GRAVEL to 5.30mbgl when the borehole terminated. BH02 to the north west corner of the site recorded a thin layer of CLAY to 1.50mbgl before SAND was encountered to 2.850mbgl when CLAY was once again encountered. Finally, BH04 and BH05 were dominated by CLAY with only a thin band of SAND recorded in BH05 at 3.00mbgl to 4.30mbgl. Groundwater was recorded in the five of the six boreholes during the fieldworks from 2.10mbgl in BH03 to 3.70mbgl in BH01 whilst BH02 remained dry throughout. The trial pits remained dry during excavations.

Based on the above soil description, Soil Class 3 (ST3) has been used in the calculation of the proposed discharge rate, refer to Section 7 of the report.

Historic 6" First Edition and 25" mapping obtained from the Geohive website shows that the study area was once used as a gravel pit for quarrying activities.

Refer to Appendix A for GSI Maps and Ground Investigation Extract.

3.6 Vehicle, Cyclist and Pedestrian Transport/Access

The effect of the proposed development on transport linkages and access is analysed in the accompanying *Transport Impact Assessment Report*.

4. CITY EDGE PROJECT

The City Edge Project represents the most significant housing and economic opportunity undertaken in the Dublin Region and has potential to be one of the largest and most transformational regeneration projects in Europe. The project involves re-imagining the Naas Road, Ballymount and Park West areas at the western edge of Dublin City. Creating an urban quarter, it has the potential for 40,000 new homes and 75,000 jobs. The subject area of this report falls within the City Edge Project boundary extents. The City Edge Project extents are outlined in Figure 4.1 below.

Figure 4.1 City Edge Project Extents

As part of the City Edge Project, there are a number of proposals within the vicinity of the development site. These include:

- To underground overhead high voltage lines from the Inchicore substation outwards to Walkinstown Avenue Park in the south, and to Park West Industrial Park in the west (exact routing to be considered at a later stage)
- Reinforcement of the existing 9B Trunk Sewer
- Provision of Stormwater Storage
- Reduction in surface water run-off by introduction of sponge city principles through coordinated green infrastructure and SuDS across City Edge
- Set out a clear street hierarchy for City Edge in the context of the wider movement network
- Recharacterise the Naas Road into three sections, to ensure the maintenance of its role in the strategic road network
- Complete missing links in the street network
- Introduce a cycling network through cycleways in every street, as well as cycleways in greenways such as along the Grand Canal and the River Camac
- Introduce a cycle network along both dedicated greenways and alongside all roads
- Segregate cycleways and create a safe and attractive cycling environment
- Provide cycling infrastructure that supports the modal shift away from car usage, including storage and parking solutions
- Introduce two new public transport orbital routes, an inner and an outer route, passing through City Edge as part of wider, Dublin orbital connections.
- Accommodate a new station at Kylemore
- Accommodate a new Luas stop on the Naas Road, located to the west of the Hamburger junction
- Potential to direct the proposed Luas Kimmage line through City Edge and accommodate stops around Walkinstown and Calmount Road
- Create new interchanges and associated hubs at Kylemore station and Naas Road Luas stop that coordinate with new development
- Accommodate BusConnects stops and set up interchanges with other modes
- Create interchanges between modes and with the proposed orbital connections
- Use the interchanges to catalyse development around them, promoting Transport Orientated Development

5. WATER SUPPLY

This section describes the existing water supply network in the vicinity of the site and summarises the proposed watermain infrastructure required to serve the proposed development.

5.1 Existing Water Supply

Water supply records obtained indicate that there is existing water supply infrastructure within the vicinity of the site. The records show existing 6” watermains within the site and a 30” trunk main within the Parkmore Industrial Estate (immediately east of the site).

Refer to Appendix B for existing drainage and watermain records.

5.2 Proposed Water Supply

The development is to be connected to the existing 6" dia. cast iron watermain located within the industrial estate. It is proposed to provide a new 225mm dia. watermain connection from the existing industrial estate watermain network to serve the proposed development. To facilitate the development, a section of an existing 6" dia. cast iron watermain that currently crosses the site will be locally diverted. A diversion application was submitted to Uisce Éireann on the 21st June 2024. All measures required by Uisce Éireann to facilitate the diversion will be incorporated into the detailed design of the development.

A Confirmation of Feasibility Letter was received from Uisce Éireann in September 2024 which outlined that a connection to the existing water supply network is feasible without infrastructure upgrade by Uisce Éireann. A Statement of Design Acceptance was subsequently received in February 2025.

The daily demand has been calculated as 204.972m^3/day, refer to section 6.2.1 below.

All watermains will be constructed in accordance with Uisce Éireann requirements.

Refer to Appendix B for Watermain Records provided by South Dublin County Council.

Refer to Appendix C for Irish Water Correspondences including Confirmation of Feasibility Letter and Statement of Design Acceptance.

Refer to Appendix D for proposed Water Supply Layout.

6. FOUL DRAINAGE

It is proposed to provide new separate surface water and foul drainage systems to serve the proposed development. This section describes the existing foul drainage services on or near the site and summarises the additional foul drainage infrastructure required to serve the proposed development.

6.1 Existing Foul Drainage

Foul drainage records obtained indicate that there is existing foul and combined drainage infrastructure within the vicinity of the site. The records show an existing 225mm diameter foul sewer immediately east of the site within the industrial estate access road. This foul sewer discharges to a 225mm diameter combined sewer located immediately northeast of the site on Long Mile Road.

Refer to Appendix B for existing drainage and watermain Records.

6.2 Proposed Foul Drainage

It is proposed to construct a new foul sewer network to serve the development. Foul discharge from the site will discharge to the existing 225mm dia. foul sewer located within the existing access road to the east of the site. Runoff from cleaning operations in the basement car park will also be conveyed to the foul network in accordance with the Greater Dublin Regional Code of Practice for Drainage Works.

A Confirmation of Feasibility Letter was received from Uisce Éireann in September 2024 which outlined that a connection to the existing foul network can be facilitated if infrastructure upgrades are carried out on the wider foul network. To facilitate a foul connection from the proposed development, approximately 360m of network extension will be carried out along regional road R112 (between regional roads R110 and R810) to divert flow from an existing 225mm diameter sewer to the 9B trunk sewer. These foul upgrade works fall within the Dublin City Council, county boundary and as such, a separate planning application has been lodged to Dublin City Council for these Uisce Éireann infrastructure upgrade works. A Statement of Design Acceptance was received in February 2025.

Refer to Appendix C for Irish Water Correspondences including Confirmation of Feasibility Letter and Statement of Design Acceptance.

Refer to Appendix D for the proposed Foul Drainage Layout

6.2.1 Hydraulic & Organic Loading

Daily foul discharge has been estimated based on proposed dwelling numbers and sizes in accordance with Uisce Éireann guidelines.

The projected total wastewater discharges are indicated in Table 6.1 below:

Table 6.1 Hydraulic and Organic Loading

Dwelling	No. Of Units	Population Equivalent (Average 2.7 persons per dwelling)	l/person/day	l/day	BOD (g/day per person)	Organic Loading (g/day BOD5)
Apartments	436	1178	150	176,700	60	70,680
Commercial Units	Uisce Éireann IW-CDS-5030-03 Section 2.2.6 – 16% of Domestic Wastewater Flow Rates			28,272	60	11,309

In accordance with Section 3.6 of the Uisce Éireann Code of Practice for Wastewater Infrastructure (July 2020), a 10% of unit consumption allowance has been made for infiltration.

Max Design Flow:
= 204,972 x 1.1 = 225,470 litres per day.

Assuming 3 times dry weather flow (DWF) in accordance with Section 2.2.5 "Domestic Wastewater Peaking Factors" of the Uisce Éireann Code of Practice for Wastewater Infrastructure, the peak hydraulic discharge arising from this development is: 7.83 l/second.

The pipe network has been designed to ensure that sufficient hydraulic capacity and cleansing velocities are achieved, in accordance with the Uisce Éireann Code of Practice.

Max Organic Load:
= 81.99 kg (BOD_5)/day.
Population Equivalent Value:
= 1367 P.E.

All foul drainage will be constructed in accordance with Greater Dublin Regional Code of Practice for Drainage Works and Uisce Éireann requirements.

7. SURFACE WATER DRAINAGE

It is proposed to provide new separate surface water and foul drainage systems to serve the proposed development.

This section outlines the existing surface water drainage infrastructure onsite and the proposals for the additional surface water drainage requirements as part of the development.

7.1 Existing Surface Water Drainage

Surface water drainage records obtained indicate that there is existing surface water drainage infrastructure within the vicinity of the site. The records show existing 225mm diameter surface water gravity drainage pipes immediately north, east and west of the site.

7.2 Proposed Surface Water Drainage

As part of the development, a number of different SuDS measures are proposed to minimise the impact on water quality and water quantity of the runoff and maximise the amenity and biodiversity opportunities within the site.

The site topography will allow for the site to drain by gravity to the existing surface water pipe network located in the existing industrial estate access road and Robinhood Road. It is proposed to construct a new surface water drainage system for the development to collect runoff and convey it to the outfall locations. The site will be served by a new network consisting of surface water pipes, blue / green roofs, rain gardens and conveyance swales. The rain gardens and blue/green roofs will provide for the attenuation storage requirements on site as a result of the residential development.

7.2.1 SUDS Approach

As part of the development, a number of different SuDS measures are proposed to minimise the impact on water quality and water quantity of the runoff and maximise the amenity and biodiversity opportunities within the site. These measures have been chosen and designed in accordance with the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022.

The proposed SuDS measures will include Source Control measures as part of a Management Train whereby the surface water is managed locally in small sub-catchments rather than being conveyed to and managed in large systems further down the catchment. The combination of the SuDS measures listed below will maximise the potential for surface water attenuation, reducing the impact on the existing surface water drainage network downstream. The proposed techniques will offer high level of treatment processes and nutrient removal of the runoff, particularly during the ‘first flush’. Finally, the various measures will offer significant amenity and biodiversity opportunities compared to other drainage systems.

In line with the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022, flow route analysis for the site has been undertaken

for both the existing and proposed development scenarios. The flow route analysis mapping can be found within Appendix D of this report.

It is proposed to provide the following SuDS measures:

- Blue/green roof systems to all building blocks and areas above basements
- Rain Gardens to manage runoff at the surface from the central pathway through the site
- Vegetated swales
- Flow control devices to limit discharge

In line with Chapter 11 of the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022, a SuDS Management Plan has been prepared which describes the SuDS development proposals and associated operation and maintenance requirements. The SuDS Management Plan can be found in Appendix F of this report.

The following parameters have been adopted in the design of the surface water network:

- Return Period – 1 in 100 Year Event
- Climate Change Factor – 20% (Section 8.4.6.4 of the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022)
- Urban Creep Allowance – 0% (Apartment Blocks Section 8.4.7 of the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022)
- SAAR – 757.2mm (Met Éireann 1991 – 2020 Annual Average Rainfall Grid)
- SOIL Factor – 0.4 (Based on site specific ground investigations – Refer to Section 3.5 of Report)

The total attenuation requirement for the 1 in 100-year event (including 20% for climate change) for the proposed development is approximately 1,108m^3, with a maximum allowable outflow (QBAR) of 4.6l/s. A total of 2,153.93m^3 of storage will be provided as part of the development. This storage will be provided according to Table 7.1 below. Refer to Microdrainage outputs in Appendix E for attenuation calculations.

The existing drainage regime will be maintained for runoff from the footpath areas along Robinhood Road, Long Mile Road and the Parkmore Industrial Estate Road and as such these areas will continue to drain to the existing storm water network. SuDS retrofit including conveyance swales along the Parkmore Industrial Estate Road will be undertaken to convey and treat runoff from the footpath and road before discharging to the existing surface water network.

Table 7.1 Surface Water Attenuation Provisions

Location	Attenuation Measure	Total Area (ha)	Total Area (m^2)	Runoff Co-efficient	Drainage Area (m^2)	Attenuation Volume Required (m^3)	Attenuation Volume Provided (m^3)	Max Permitted Discharge Flow Rate (l/s)
Roof Block A & B	Blue / Green Roof	0.3255	3255	1.0	3255	290.1	568.1	1.2
Roof Block C	Blue / Green Roof	0.1177	1177	1.0	1177	104.4	195.5	0.4
Roof Block D	Blue / Green Roof	0.2446	2446	1.0	2446	222.6	464.4	0.9
Podium Above Block A, B, C Car Park	Blue / Green Roof	0.2498	2498	1.0	2498	226.3	441.5	0.9
Podium Above Block D Car Park	Blue / Green Roof	0.1890	1890	1.0	1890	168.3	362.0	0.7
Central Public Open Space (Hardstanding)	Rain Gardens	0.0963	963	1.0	963	96.1	122.4	0.5
Central Public Open Space (Landscaping)		0.0709	709	0.5	355			
Total						**1107.8**	**2153.9**	**4.6**

The rate of surface water discharge shall be restricted to QBAR (3.73l/s/ha) for the 1 in 100 year rainfall event in accordance with GDSDS Volume 2 New Development. This equates to a total permitted discharge of approximately 4.6l/s from the site. Hydraulic simulations were undertaken for each of the SuDS features indicating a maximum outflow of 3.3l/s. The provision of SuDS measures to convey, store and manage the discharge of surface water to the receiving surface water network will aid in managing flood risk.

The proposed Blue/Green Roofs will be located over buildings and car parking areas and the half-drain times of these features will exceed 24 hours. As such, the depth of these SuDS components have been designed to ensure that there is adequate capacity to receive a follow up 30 Year storm after the 1 in 100 year event. These are summarised in Table 7.2 below. The 1 in 30 Year simulation outputs are outlined in Appendix E.

Table 7.2 SuDS Component Storage Depths

Blue / Green Roof Location	Storage Depth Required (m) – 1 in 100 Year	Storage Depth Required (m) – 1 in 30 Year	Storage Depth Provided in Structure (m)
Roof Block A & B	0.128	0.105	0.250
Roof Block C	0.133	0.109	0.250
Roof Block D	0.120	0.099	0.250
Podium Above Block A, B, C Car Park	0.128	0.106	0.250
Podium Above Block D Car Park	0.116	0.096	0.250

7.2.2 Blue/Green Roofs

Blue/Green roofs are proposed as part of the scheme for each of the apartment blocks and for the podium slabs above the basement car parks. Direct access to the Blue/Green roofs on the apartment blocks for maintenance purposes will be via the buildings core stairwell that extends to roof level.

Photovoltaic (PV) Panels are proposed as part of the development. These will be located on the roof level of the buildings. The PV panels will be mounted over the extensive green roof area, where the substrate and vegetation will provide the ballast to secure the array. A typical cross section of the mounting system proposed is outlined in Figure 7.1 below. The Bauder Biosolar system (or similar) will be implemented on this scheme. Vegetation seeding at the locations where PV panels are proposed shall be as per the systems manufacturer requirements.

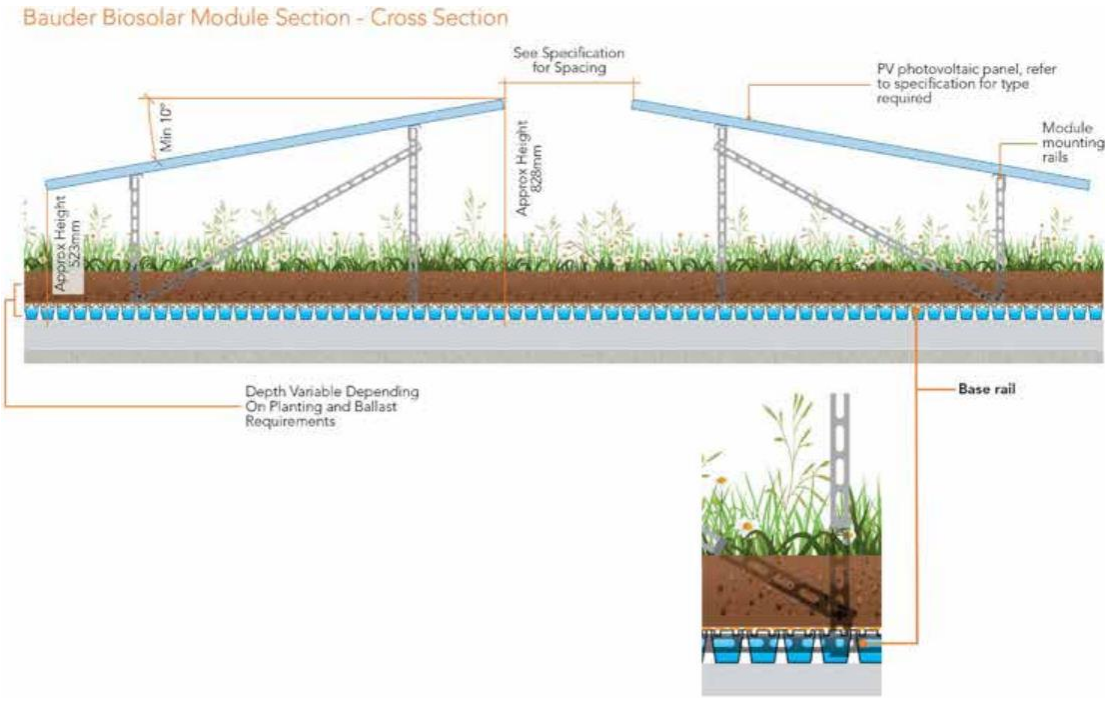

Figure 7.1 Typical Section showing PV Panels integration with Extensive Green Roof (Bauder Biosolar System)

7.2.3 Interception

Interception of the first 5mm of rainfall events will be provided on site by the proposed Blue/Green roofs, rain gardens and roadside conveyance swales. Table 24.6 of the CIRIA SuDS Manual C753 outlines that for Green / Blue Roofs that 5mm interception losses are to be expected. Table 24.6 of the CIRIA SuDS Manual C753 outlines that for swales with the longitudinal gradient of the vegetated area at less than 1:100, are suitable for interception delivery for impermeable surface areas up to 5 times the base of the vegetated surface area receiving the runoff. The conveyance swales proposed will follow the existing longitudinal gradient of the estate road which is relatively flat (greater than 1:300). The catchment area of the existing road and proposed footpath that will fall towards this swale is approximately 1159m^2. The vegetated plan area of the proposed conveyance swale is approximately 232m^2 which is less than 5 times the catchment area. Table 24.6 of the CIRIA SuDS Manual C753 outlines that for unlined rain gardens, 5mm interception losses can be assumed where the impermeable surface area is less than 5 times the vegetated surface area of the rain garden. The impermeable surface area of the central pathway is 963m^2. The vegetated plan area of the rain gardens and the landscaping adjacent to the area is 355m^2 which is less than 5 times the impermeable catchment area. As such, interception losses have been accounted for through the selection of these SuDS components and no further interception storage is required to serve these areas. Landscaped areas will also offer a degree of infiltration and evapotranspiration on site.

7.2.4 Treatment

Treatment to surface water runoff will be provided by the SuDS components proposed as part of the development. These include:

- Blue / Green Roofs (Apartments)
- Blue / Green Roofs (Above Basements)
- Rain Gardens
- Roadside Conveyance Swale

The blue/green-roof, rain garden and swale components will be constructed in accordance to CIRIA Report C753. The treatment required will provide the following processes:

- Filtration of silt and the attached pollutants
- Biodegradation of organic pollutants, such as petrol and diesel within the pavement construction
- Adsorption of pollutant due to a suitable texture of the surface
- Settlement and retention of solids
- Removal capability of atmospherically deposited urban pollutants

The Simple Index Approach has been used to assess the treatment capabilities of the proposed SuDS components.

The pollution hazard level for the proposed development has been classified as 'Low' (individual property driveways, residential car parks, low traffic roads and non - residential car parking with infrequent change) for the entire catchment of the proposed development in accordance with CIRIA C753 Table 26.2. The associated pollution hazard indices are outlined in Table 7.3.

Table 7.3 Proposed Development Hazard Level and associated indices

COMPONENT	TSS	Metals	Hydrocarbons
LOW hazard level	0.5	0.4	0.4

The SuDS pollution mitigation indices for each SuDS component proposed are outlined below in Table 7.4. These have been selected in accordance with CIRIA C753 Table 26.3. The substrate used in the construction of the blue/green roofs will not add pollutants to the rainfall that percolates through it. The pollutant hazard associated with the blue/green roofs will only be dependent on the atmospheric pollution and will therefore tend to be lower than from hard surfaces. The physical, biological and chemical treatment process within the soil and root uptake zone will filter airborne pollution and pollutants entrained within rainwater, ultimately reducing the amount of pollution being delivered to the drainage network.

Table 7.4 Indicative SuDS mitigation indices for discharges to surface water

COMPONENT	TSS	Metals	Hydrocarbons
Rain Garden	0.8	0.8	0.8
Swale	0.5	0.6	0.6

As the treatment indices for the proposed SuDS components are greater than the associated pollution hazard indices, the measures proposed are deemed to be sufficient in terms of water treatment.

Refer to Appendix D for the proposed Surface Water Drainage Layout.
Refer to Appendix E for supporting Calculations.
Refer to Appendix H for Correspondences with SDCC Drainage Department.

All surface water drainage shall be constructed in accordance with Greater Dublin Regional Code of Practice for Drainage Works, CIRIA C753 SuDS Manual and the

South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022.

8. UTILITIES

8.1 Existing Utilities

A request for existing utility records from all major utility providers in Ireland was made for the purpose of this planning engineering report. The following utility providers had responded to confirm that existing services are within the vicinity of the development site:

- Records obtained from Aurora Telecoms and Gas Networks Ireland show existing Aurora infrastructure located along the Naas Road, approximately 520m west of the development site.
- Records obtained from Gas Networks Ireland indicate that there are several existing low pressure distribution pipes throughout the vicinity of the development site.
- ESB records indicate that there is existing ESB infrastructure located within the vicinity of the development site.
- Records obtained from Eir indicate that there is existing Eir underground Infrastructure within the vicinity of the development site.
- Virgin Media records indicate that there is existing Virgin Media infrastructure located along the Naas Road, approximately 520m west of the development site. The records also show existing Virgin Media infrastructure located in the Walkinstown area, approximately 600m east of the development site.
- Vodafone plant records indicate that there is existing Vodafone infrastructure located within the vicinity of the development site. The records show underground Vodafone infrastructure located along the Naas Road, approximately 520m west of the development site and in the Walkinstown area, located approximately 600m east of the development site.

As part of the development, utility infrastructure will be provided to serve the subject site. Consultations at detailed design stage will be undertaken with the relevant utility providers.

Refer to Appendix G for Existing Utility Records.

9. SUMMARY

This report has outlined the engineering issues that will be associated with a proposed residential development at Parkmore Industrial Estate, Long Mile Road, Dublin 12. The findings are summarised as follows:

- The development is to be connected to the existing 6” dia. cast iron watermain located within the industrial estate. It is proposed to provide a new 225mm dia. watermain connection from the existing industrial estate watermain network to serve the proposed development. To facilitate the development, a section of an existing 6” dia. cast iron watermain that currently crosses the site will be locally diverted.
- Separate foul and surface water drainage systems will be constructed to serve the site.

- It is proposed to construct a new foul sewer network to serve the development. Foul discharge from the site will discharge to the existing 225mm dia. foul sewer located within the existing access road to the east of the site. Runoff from cleaning operations in the basement car park will also be conveyed to the foul network in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. Upgrades to the existing Uisce Éireann foul drainage network will be undertaken to facilitate a foul connection for this development.
- The site will incorporate a number of SuDS measures in accordance with the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022.
- Surface water from the site will be collected and attenuated on site, with a peak discharge rate of 3.73l/s/ha for the 1 in 100 year rainfall event in line with GDSDS and the South Dublin County Council Sustainable Drainage Explanatory, Design & Evaluation Guide 2022, which equates to a total permitted discharge rate of 4.6l/s.
- Attenuated surface water flows will discharge to the existing 225mm dia. surface water pipes located to the east of the site within the existing access road and to the west of the site at Robinhood Road.
- As part of the development, utility infrastructure will be provided to serve the subject site. Consultations at detailed design stage will be undertaken with the relevant utility providers.