Environmental Impact Assessment Screening Report

Pope's Hill

Residential Development

Doherty Environmental Consultants Ltd

April 2026

EIA Screening Report

Pope's Hill Residential Development

Cork

Document Stage	Prepared by
Final	Pat Doherty MSc, MCIEEM

Table of Contents

1.0 INTRODUCTION

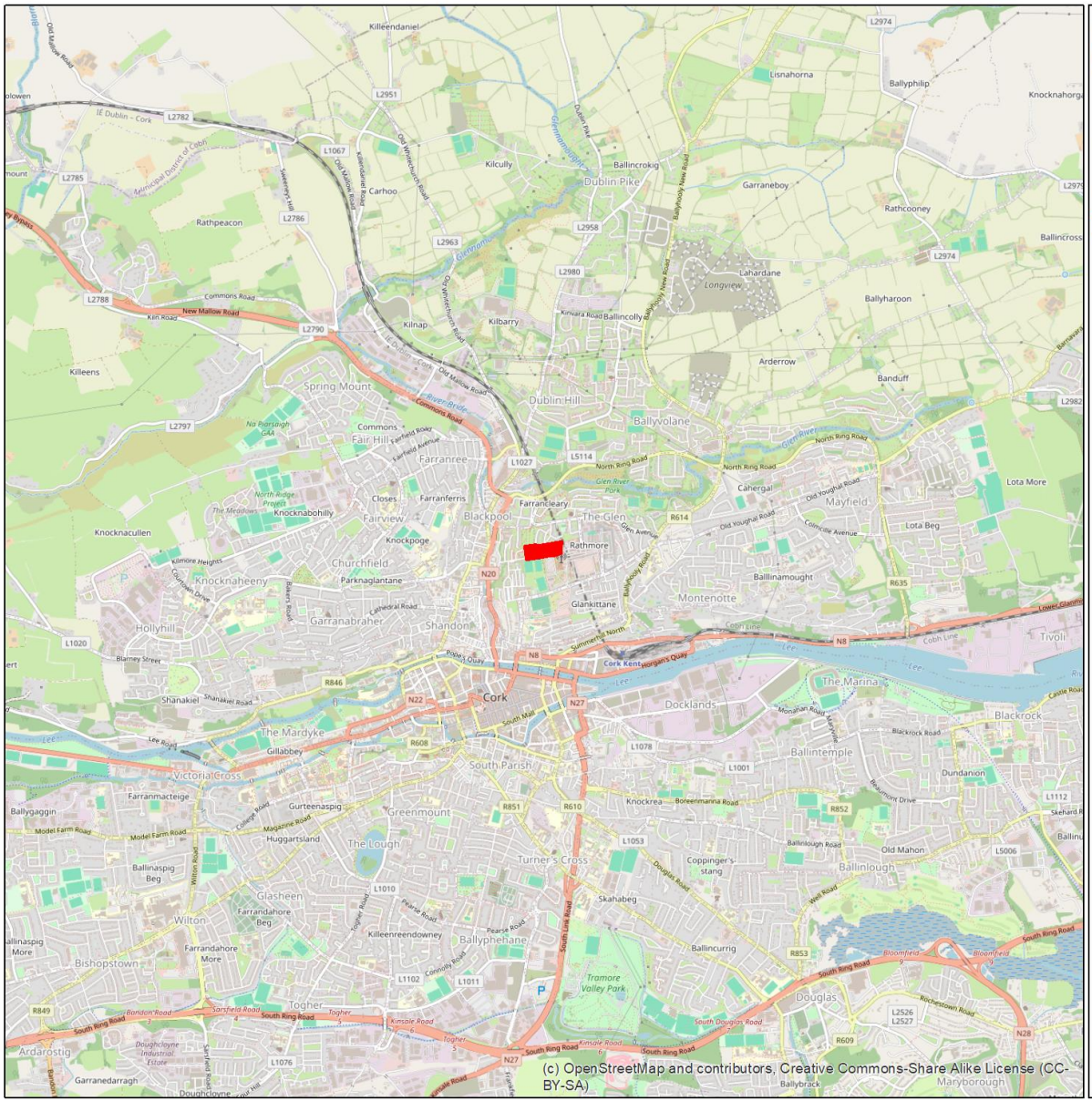
Doherty Environmental Consultants (DEC) Ltd. has been commissioned by Pontarac Limited to prepare an Environmental Impact Assessment [EIA] Screening Report for a proposed residential development at Pope's Hill, Cork (see Figure 1.1 for the location of project site and Figure 1.2 for an aerial view of the project site).

The findings of the EIA Screening assessment for the residential development (i.e. "the project") are presented in this report.

1.1 PURPOSE OF THIS REPORT

This EIA screening report contains necessary information to enable the competent authority, in this case Cork City Council ("the planning authority"), to undertake an EIA screening in order to determine whether an EIA is required for the project.

The purpose of this Report is to determine whether or not the project is likely to have significant effects on the environment and, as such, requires an EIA to be carried out and an EIAR to be prepared. This screening report provides an overview of the project (section 3), the existing baseline environment (section 4) and then assesses the potential environmental impacts (Section 5) posed by the proposed project.



Pope's Hill Residential Development

Figure 1.1

Project Site Location

Project Site

N
W E
S

0 0.325 0.65 1.3 Km

Drawn By	PD
Date	11/08/2025
Data Source	Bing

Pope's Hill Residential Development

Figure 1.2

Aerial View of the Project Site

Site Boundary

N
W E
S

0 0.015 0.03 0.06 Km

Drawn By	PD
Date	11/08/2025
Data Source	Bing

2.0 LEGISLATIVE & GUIDANCE CONTEXT

Directive 2011/92/EU as amended by Directive 2014/52/EU (the EIA Directive) sets out the requirements for environmental impact assessment ("**EIA**"), including screening for EIA. Projects listed in Annex I of the EIA Directive require a mandatory EIA while projects listed in Annex II require screening to determine whether an EIA is required. The project does not require a mandatory EIA under the provisions of the EIA Directive as it is not a project listed in Annex I.

EIA requirements derive from EU law and Irish implementing legislation on the assessment of the effects of certain public and private projects on the environment. The purpose of this Environmental Impact Assessment Screening Report is to provide information to the planning authority to enable that competent authority to determine whether or not this project has the potential to have significant effects on the environment.

The prescribed classes of development, and thresholds or criteria that trigger the need for an EIA, are set out in Schedule 5 to the Planning and Development Regulations, 2001, as amended ("Schedule 5"). The project does not fall into any of the classes described in Schedule 5, Part 1 of the 2001 Regulations and, accordingly, an EIA is not mandatory.

A review of the classes of development listed in Schedule 5, Part 2 was carried out to determine whether the project falls into any of those classes of prescribed development. The classes of development set out in Part 2 that are relevant to residential developments are listed in Table 2.1 below and an examination is provided as to whether these prescribed classes of development are relevant to the current project.

Class Reference	Class Description	Relevance	Is EIA Triggered by the Specified Class
2(10)(b)(i)	Construction of more than 500 dwelling units	The project comprises a residential development with a total of 104 no. dwelling units. This does not meet the threshold for an EIA and therefore, a mandatory EIA as prescribed under Part 2 of Schedule 5 is not required.	EIA is not triggered
2(10)(b)(ii)	Construction of a carpark providing more than 400 spaces, other than a carpark provided as part of, and incidental to the primary purpose of, a development.	The project comprises the provision of 107 no. car parking spaces as such the project does not meet the threshold for an EIA and therefore, a mandatory EIA as prescribed under Part 2 of Schedule 5 is not required.	EIA is not triggered
2(10)(b)(iv)	Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere. (In this paragraph, "business district" means a district within a city or town in	The project is not located within a business district. The project will cover a Site area of c. 2.6ha, situated within the city environs of "other parts of a built-up area", which is below the threshold of 10 ha in the case of other parts of a built-up area. This does not meet the	EIA is not triggered

	which the predominant land use is retail or commercial use.)"	threshold for an EIA and therefore a mandatory EIA, as prescribed under Part 2 of Schedule 5, is not required.	
2(10)(dd)	All private roads which would exceed 2000 metres in length.	The project does not include a private road and, therefore, does not exceed the threshold prescribed in Part 2 10 (dd) of Schedule 5.	EIA is not triggered
2(14)	Works of demolition carried out in order to facilitate a project listed in Part 1 or Part 2 of this Schedule where such works would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7.	As set out above, the project does not comprise development prescribed in Part 1 or Part 2 of Schedule 5 and the demolition works associated with the project will not be related to such a project (i.e. a project listed in Part 1 or Part 2 of Schedule 5). It is noted that the demolition works required for the project are considered further with respect to Part 2, Class 15 of Schedule 5. It is further noted that the project will not entail any demolition of protected structures.	EIA is not triggered

Given that the project does not fall under a class of development prescribed in Part 1 or Part 2 of Schedule 5, a mandatory EIA has therefore not been triggered under the requirements of the 2001 Regulations.

In light of the above it is clear that the project does not exceed any of the thresholds specified in the Regulations and is, therefore, a "sub-threshold" project. In that context, the purpose of this screening report is to provide information to assist the planning authority with a determination as to whether or not the project falls under Part 2, Class 15 of Schedule 5. Class 15 requires EIA for any project listed in Part 2 that does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have a significant effect on the environment, having regard to the criteria set out in Schedule 7.

According to European Commission Guidance (2017[1])

> *"Screening has to implement the Directive's overall aim, i.e. to determine if a Project listed in Annex II is likely to have significant effects on the environment and, therefore, be made subject to a requirement for Development Consent and an assessment, with regards to its effects on the environment. At the same time, Screening should ensure that an EIA is carried out only for those Projects for which it is thought that a significant impact on the environment is possible, thereby ensuring a more efficient use of both public and private resources. Hence, Screening has to strike the right balance between the above two objectives."*

[1] Environmental Impact Assessment of Projects Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU). European Commission 2017. Page 23.

Guidelines from the Department of Housing, Planning and Local Government (2019) [2] in relation to EIA screening state:

> *"3.1. Screening is the initial stage in the EIA process and determines whether or not specified public or private developments are likely to have significant effects on the environment and, as such, require EIA to be carried out prior to a decision on a development consent application being made. A screening determination is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative.*
>
> *3.2. Screening must consider the whole development. This includes likely significant effects arising from any demolition works which must be carried out in order to facilitate the proposed development. In the case of transboundary developments, screening must consider the likely significant effects arising from the whole project both sides of the boundary. A screening determination that EIA is not required must not undermine the objective of the Directive that no project likely to have significant effects on the environment, within the meaning of the Directive, should be exempt from assessment."*

The Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2017) also provide guidance with respect to the screening of projects for EIA. This guidance noted that "where a project is of a specified type but does not meet, or exceed, the applicable threshold then the likelihood of the project having significant effects on the environment needs to be considered…..This is done by reference to the criteria specified in Annex III of the amended Directive".

[2] **Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment**

Annex III of the EIA Directive (as amended) – which is transposed into Irish law in this context by Schedule 7 to the 2001 Regulations – sets out the criteria for determining whether a project should be subject to EIA.

Annex IIA of the EIA Directive (as amended) – which is implemented into Irish law in this context by Schedule 7A to the 2001 Regulations – sets out the information to be provided for the purposes of EIA Screening, grouped under three main headings:

Annex IIA requirements	Relevant section of this screening report
A description of the project, including in particular – a description of the physical *characteristics* of the whole project and, where relevant, of demolition works, and a description of the *location* of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected	Section 3 of this Report describes the *characteristics* of the project and provides an assessment against the relevant criteria contained in Schedule 7A. Section 4 provides a description of the *location* of the project with regard to environment receptors and the relevant criteria contained in Schedule 7A.
A description of the aspects of the environment likely to be significantly affected by the project	Section 4 of this Report describes the aspects of the environment that may be affected by the project
A description of any likely significant effects, to the extent of the information available on such effects, of the project 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	Section 5 of this Report describes the characteristics of the project and provides an assessment against the relevant criteria contained in Schedule 7A.

In considering the assessment of the aspects of the environment likely to be significantly affected by the project, and the description of any likely significant effects on the environment, current Transport Infrastructure Ireland (TII) assessment guidelines have been relied upon. While it is acknowledged that the project does not represent a national road scheme, the various environmental assessment guidelines published by TII (together with guidance published by other bodies such as the EPA) represent best practice guidance for environmental assessment

of a project. As such, these guidelines have been relied upon during the preparation of this Screening Report.

3.0 CHARACTERISTICS OF THE PROJECT

3.1 OVERVIEW

The proposed development will consist of a Large-Scale Residential Development (LRD) on a site at Pope's Road, Blackpool, Cork which will include the demolition of a terrace of 4no. existing dwellings, 3no. of which are derelict, and ancillary sheds and their replacement with 1no. single-storey 3-bed detached bungalow accessed via a modified private driveway; and the construction of 103no. dwellings to include 50no. townhouses and 53no. duplex apartments. A total of 104no. dwellings (18no. 1 bed, 9no. 2-beds, 69no. 3-beds, and 8no. 4-beds) are proposed, accessed via Pope's Road. The proposed development will also include a crèche with rear garden and front set down area; 104no. car parking spaces; 128no. cycle spaces; internal roads and pathways; hard and soft landscaping, including boundary treatments; retaining walls; 2no. pedestrian connections with Glentrasna Park to the north;; and all associated site development, landscaping and boundary treatment and drainage works, including SuDS. .

3.2 SURFACE WATER MANAGEMENT

3.2.1 Existing Stormwater Drainage

There is an existing surface water network discharging water from Popes Hill and Popes Road located west of the proposed development site. This network was identified based on utilities surveys, inspections and record drawings provided by Cork City Council and Uisce Éireann. This network however discharges into an existing combined storm sewer network. In accordance with the confirmation of feasibility issued by Uisce Éireann, no surface water runoff from the site will be discharged into this network.

There is a separate surface water and foul water network within the Glentrasna area to the north of the site, which was picked up in an extended topographical survey carried out in November 2025 in Glentrasna.

The 225mm surface water pipework extends to the boundary of the Popes Hill site with an existing manhole in the hammerhead of the Glestrasna Crescent and a 225mm spur pipe left out of the manhole in the direction of the site. The 225mm pipework drains through Glentrasna and onto Glen Avenue. This network is suitable for an attenuated outfall for the proposed site.

3.2.2 Proposed Stormwater Drainage

The proposed surface water drainage system will be designed using Causeway Flow software in accordance with the Department of Environment and Local Government's guidance document "Recommendations for Site Development Works for Housing Areas", Further design parameters and guidance were adopted from the following documents:

Table 3.1 describes the stormwater drainage design parameters which have been used in design.

Table 3.1: Stormwater Drainage Design Parameters

Description	Value	Standard Reference / Notes
Site Area (Ha)	2.368 Ha	Redline Boundary
Return period target	Pipe Design 1 in 5-year. Network Design 1 in-30 year + CC. Check 1 in 100-year + CC for flooding.	GDSDS
Climate Change	20%	GDSDS
M5-60	18.500	Met Éireann Rainfall Data (2023 Model)
Ratio R	0.264	Met Éireann Rainfall Data (2023 Model)
SAAR	1152mm	Met Éireann Rainfall Data (2023 Model)
SOIL type	2 (sandy gravelly clay)	Site Investigation
Soil value	0.3	Site Investigation
Infiltration Rate	6.23 x 10^{-6}m/s (22.4 mm/hr) TP03 1.598 x 10^{-5}m/s (57.2 mm/hr) TP07 6.53 x 10^{-6}m/s (23.5 mm/hr) TP09	Site Investigation.
Flow reduction parameter	QBAR	Institute of Hydrology report No. 124

Controlled Outflow	Hydrobrake Detention Basin I= 2.91l/s Hydrobrake Detention Basin II= 6.81l/s	
Flow restriction method	Hydrobrake	
Attenuation Storage Volume	Soakaway I = 18 m^3 Detention Basin I = 324m^3 Detention Basin II= 346m^3 Total volume storage= 688m^3	BRE365 & SUDS Guidance
Permeable paving	186.58m^3 (Porosity = 0.3)	
Interception Volume	N/A	Interception treatment requirement satisfied by detention basins and upstream Suds features.
Treatment Volume	N/A	Treatment volume requirement satisfied by detention basins and upstream Suds features.
Max. velocity at pipe full	3.0 m/s	
Min. velocity	1.0 m/s 0.75 m/s where not practicable	GDSDS Table 6.4
Minimum cover	1.2m under roadways 0.9m elsewhere	GDSDS Table 6.4
Rougness – ks	0.6mm	GDSDS Table 6.4

3.3 PROPOSED STORMWATER OUTFALL

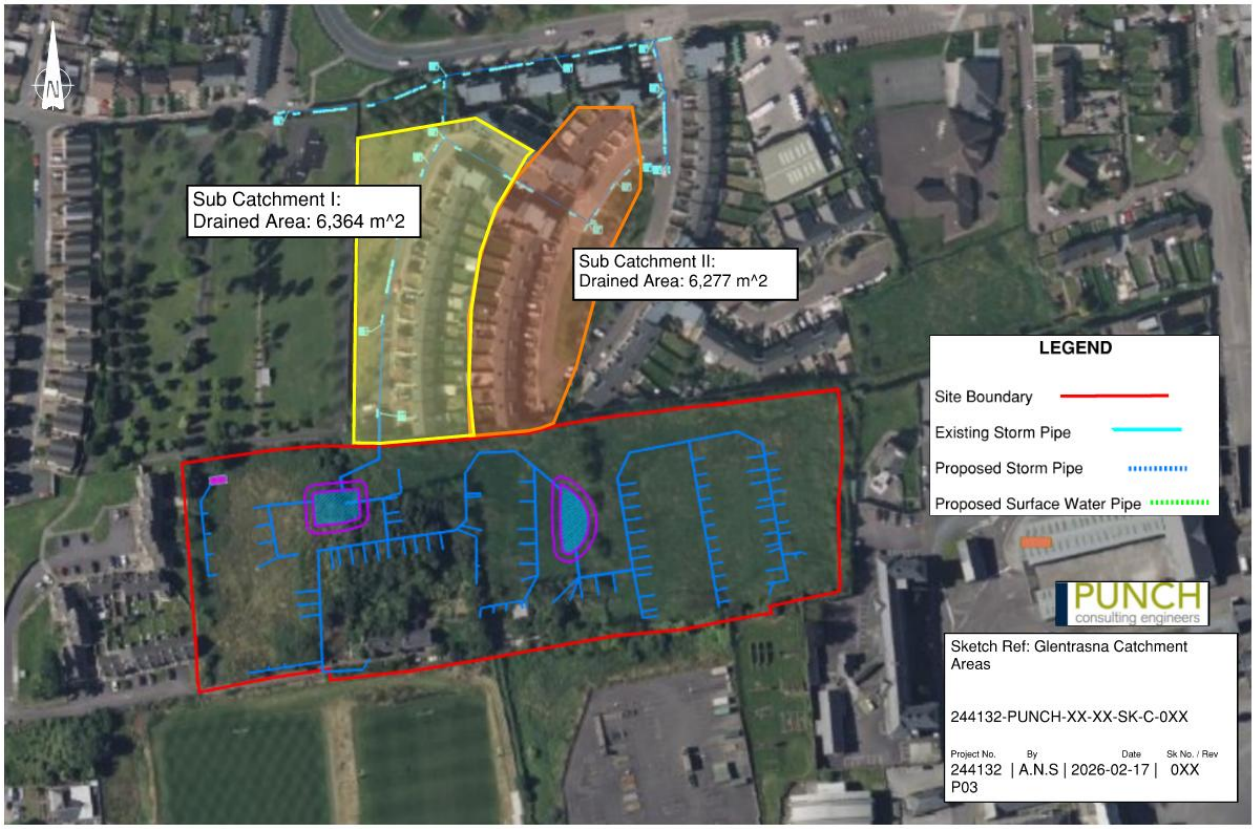
Surface water from the proposed development is designed to discharge to the existing surface water network within Glentrasna Estate. As part of the capacity assessment, the contributing drainage catchment entering the relevant pipes in the estate were split into Sub-Catchment I, with a contributing area of 6,364 m², and Sub-Catchment II, with a contributing area of 6,277 m². Refer to Figure 3.1 below for the mapping.

To confirm the feasibility of this connection, the capacity of the existing surface water sewer network in the Glentrasna Estate has been reviewed. The existing pipe network has an estimated capacity of 165 l/s at the outfall from Glentrasna to Glen Avenue where the pipework is at a

gradient of 1/10 with a flow of 114l/s from Glentrasna based on a conservative rainfall intensity of 50 mm/hr (50 mm/hr is greater than a 1 in 120 year event) – refer to calculation below for Catchment Areas 1+2. Gradients on Glen Avenue are also c. 1/10.

The calculated QBAR for the proposed development is 6.81 L/s, which is 4% of the pipework capacity of the existing network of 165 l/s at the outfall from Glentrasna to Glen Avenue. Further up the Glentrasna Estate in Catchment I, the surface water pipework flattens to a gradient 1/70 between manholes MH 101 & MH 103, however the existing drainage area is much less with a capacity calculation for this section of pipework also included below. Therefore, the Glentrasna Estate drainage system is capable of accommodating the greenfield flow from the proposed development.

Figure 3.1: Glentrasna Outfall Catchments



3.4 PROPOSED SURFACE WATER DRAINAGE NETWORK

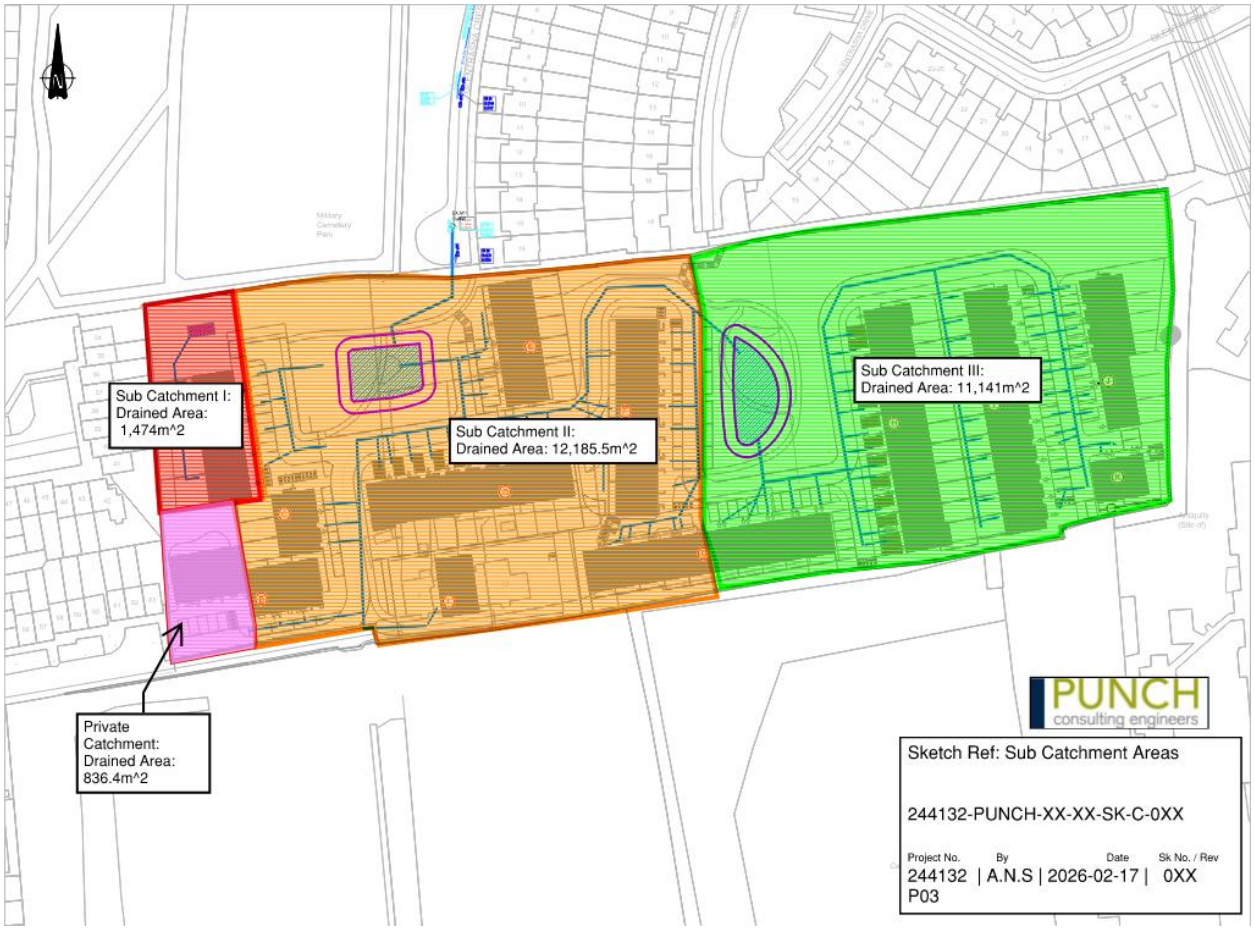
The surface water drainage strategy for the proposed development will adhere to the principles of Sustainable Drainage Systems (SuDS). It is noted in the Uisce Éireann Confirmation of Feasibility included that surface water generated from the proposed site is not permitted to discharge into the Uisce Éireann network at this location. A new surface water sewer network, entirely separate from the foul water sewer network, will be provided for the development.

The overall strategy involves collecting runoff from the roofs, impermeable road, footpath and parking surfaces to a series of tree pits and bioretention areas and interconnecting filter drains. The drainage systems will allow for some infiltration at source through a Nature Based Solution approach with the filter drain pipework collected to buried surface water pipework. The buried surface water pipework will also collect runoff from the residential properties and private permeable parking areas and together with the runoff collected from filter drainage pipework all will be directed to two detention basins in areas of the site which will be levelled off to

provide public parks. Soakaways are proposed to the west of the site to cater for the lower areas of the site. The design ensures outflow is limited to QBAR calculated on the basis of the effective drained area only such as impermeable areas. The combined attenuated outflow will then connect to the surface water pipe network within Glentrasna Estate.

The site is split in three main sub-catchments with a private catchment for the Creche building as shown below in Figure 3.2. Site investigations have been carried out on site which show that the existing ground conditions typically comprise original material, which is topsoil on firm sandy gravelly Clay on Gravel soils over weathered bedrock. In conjunction with the Site Investigations, soakaway tests to BRE 365 were completed at 3 locations on the site installations.

Figure 3.2: Drainage Sub-Catchment Strategy



The majority of the surface water runoff from the proposed development will be collected through a series of Suds systems to a piped network and brought to two landscaped detention basins, where a portion of the runoff will infiltrate naturally into the ground through the Suds systems and the detention basins. The southwest portion of the site, which includes a creche, siting at a significantly lower level relative to the main drainage network. Therefore, this area will drain to both a private soakaway with the front of the property and road surface and to an outfall to the adjacent road to the west which currently caters for runoff from the existing roadway.

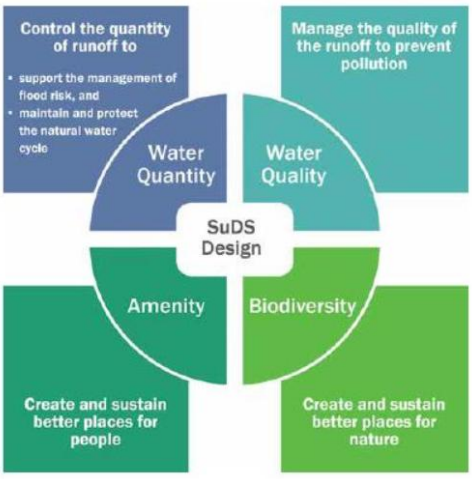
The minimum diameter of the mainline surface water sewers is 225mm. The minimum horizontal and vertical separation distances between the proposed drainage and other services are as per the Uisce Éireann Code of Practice.

The surface water drainage network has been analysed for the risk of flooding for a 1 in 5-year flood event, 1 in 30-year rainfall event and a 1 in 100-year rainfall event by means of simulating such events in the drainage model with no flooding occurring. An increase of 20% in rainfall has been included to account for climate change.

3.5 SUDS STRATEGY

SuDS decrease the negative impact developments have on the environment by providing amenity and biodiversity, while also reducing runoff. There are 4 main objectives which are critical to meet in the design of SuDS. The objectives comprise of water quality, water quantity, Amenity and Biodiversity. Refer to Figure 3.3 below:

Figure 3.3



To expand on the four principles:

- **Water Quality:** Water Quality to be improved by providing treatment to the storm water prior to discharge
- **Water Quantity:** Infiltration to be encouraged where appropriate, and peak flows to be attenuated for in the design
- **Amenity:** The design must be functionable for the end users of the site
- **Biodiversity:** The design should provide habitat to wildlife so that they can co-exist with people. This is particularly important for flora and fauna near watercourses for feeding and nesting.

3.6 COMPLIANCE WITH GDSDS & SUDS PRINCIPLES

The proposed development is designed in full accordance with the principles of Sustainable Drainage Systems (SuDS) as recommended by the Greater Dublin Strategic Drainage Study (GDSDS). The GDSDS promotes sustainability by requiring designs to comply with specific drainage criteria that aim to minimize the impact of urbanization by replicating the runoff characteristics of the greenfield site. These criteria ensure a consistent approach to managing the increase in both the rate and volume of runoff, as well as protecting the environment from pollution caused by roads and buildings. The drainage design criteria are as follows:

- Criterion 1: River Water Quality Protection

- Criterion 2: River Regime Protection
- Criterion 3: Level of Service
- Criterion 4: River Flood Protection

To satisfy SuDS requirements, developments typically incorporate:

- Interception storage
- Treatment storage (unnecessary if interception storage is adequate)
- Attenuation storage
- Long-term storage (unnecessary if QBAR growth factors are not applied in attenuation storage design)

In this case, surface water discharge will be managed entirely through infiltration via 2 no. detention basins to the east and one smaller soakaway to the northwest of the site, which are equipped to handle attenuation storage needs for storm events up to the 1% AEP event. This approach negates the need for off-site surface water discharge, ensuring full interception storage within the site and eliminating the requirement for treatment or long-term storage.

3.6.1 Criterion 1 GDSDS – River Water Quality Protection

Natural greenfield areas typically contribute minimal pollution and sediment to rivers, as most rainfall percolates into the ground, preventing direct runoff to rivers during most rainfall events. In contrast, urban areas with pipe drainage systems experience runoff from almost every rainfall event, often carrying higher levels of pollution, especially during the initial phase of runoff, with minimal percolation into the ground. To manage this, Criterion 1 mandates the provision of interception storage and/or treatment storage to replicate the runoff characteristics of pre-development greenfield sites.

3.6.1.1 Interception Storage

Interception storage should ensure that at least the first 5mm of rainfall is retained on-site and does not reach receiving waters. For the subject site, surface water discharge will be managed via infiltration through two large detention basin systems, one small soakaway and private soakaway systems, ensuring by default compliance with the 5mm interception requirement.

3.6.1.2 Treatment Storage

According to the GDSDS, interception and treatment storage are interchangeable. Since full interception storage is provided through the detention basins and soakaway systems, additional treatment storage is not necessary.

3.6.2 Criterion 2 GDSDS – River Regime Protection

Unchecked runoff from developed sites through traditional pipe networks discharges into receiving waters at rates significantly higher than pre-development levels, causing flash flows that can lead to scour and erosion in rivers and streams, as such the following requirements are to be met:

1. "Discharge rate equal to 1 – year Greenfield site peak runoff rate or 2 l/s/ha, whichever is the greater. Site critical duration storm to be used to assess attenuation storage volume".

2. "Discharge rate equal to 1 in 100-year Greenfield site peak runoff rate or 2 l/s/ha, whichever is the greater. Site critical duration storm to be used to assess attenuation storage volume".

No runoff shall be leaving the site, with all runoff being collected by proposed stormwater drainage and ultimately infiltrating into the ground, therefore the development meets the requirements of Criterion 2.

3.6.3 Criterion 3 GDSDS – Level of Service (Flooding) for the site

The GDSDS states that no flooding should occur on-site for storms up to and including the 1 in 30-year event. The pipe network and attenuation storage volumes must be sufficient to prevent site flooding, though partial surcharging is acceptable as long as it does not lead to flooding.

For the 1 in 100-year + 20% climate change (CC) event, the pipe network can fully surcharge and cause site flooding, but the peak water level must be at least 500mm below any vulnerable internal floor levels, and floodwaters must be contained within the site. The top water level in any attenuation device during this event must also be at least 500mm below any vulnerable internal floor levels.

The stormwater drainage calculations included in Appendix A of the Drainage Impact Assessment prepared by Punch Consulting Engineers (provided under separate cover with the planning application documentation), including detention basin volumes, demonstrates that the detention basin systems will not flood during the 1 in 100-year + 20% CC event. The peak volume for this event is as follows for the three sub-catchments:

1. Sub-Catchment I – 17.5m³ for the sub-catchment I, corresponding to a depth of 0.5m in the soakaway structure, resulting in a top water level of 55.300, which is more than 500mm below any adjacent floor levels.

2. Sub- Catchment II- 346m³ for the sub-catchment II, corresponding to a depth of 0.8m in the detention basin, resulting in a top water level of 62.427m, which is more than 500mm below any adjacent floor levels fronting onto the open space area where the soakaway is located.

3. Sub- Catchment III – 324 m³ for the sub-catchment III, corresponding to a depth of 0.8in the detention basin, resulting in a top water level of 71.214m, which is more than 500mm below any adjacent floor levels fronting onto the open space area where the soakaway is located.

Therefore, Criterion 3 is satisfied.

3.6.4 Criterion 4 GDSDS – River Flood Protection

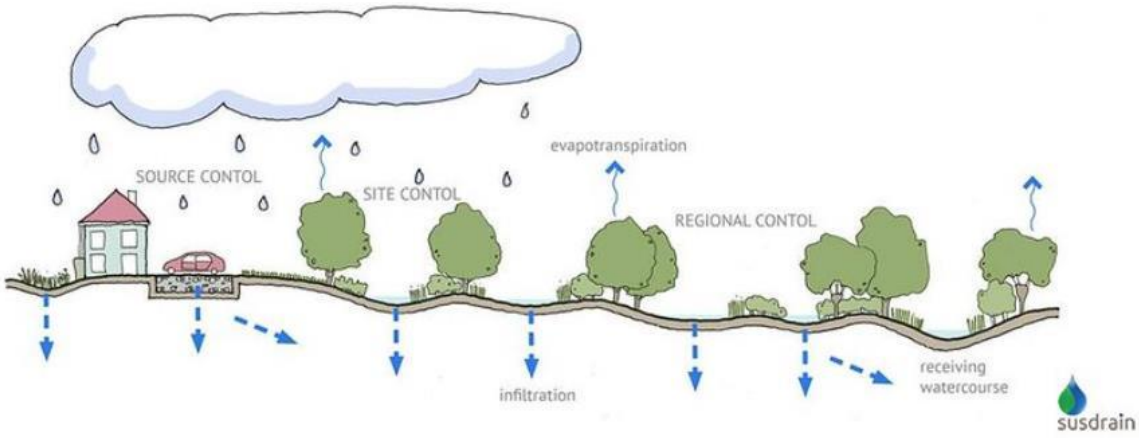
Criterion 4 aims to prevent flooding of the receiving system or watercourse by either limiting the runoff volume to pre-development levels using "long-term storage" (Option 1) or by limiting the runoff rate for the 100-year storm to QBAR without growth factors using "extended attenuation storage" (Option 2).

As the proposed development includes two detention basins and a soakaway that manage all surface water on-site, there will be no discharge to river networks. The detention basins and soakways have been designed to provide sufficient storage thus meeting design Criterion 4.

3.7 SUDS MANAGEMENT TRAIN

A suds management train system was used during the design of the surface water drainage system. The main principles involve source control and prevention of overland flow from a site, and to improve the water quality of a site. Refer to Figure 3.4 below:

Figure 3.4: SuDS Principles Infographic (ref: sdcc.ie)



3.8 SUDS PROPOSALS

The proposed development has been assessed in relation to Sustainable Urban Drainage Systems (SuDS). A variety of SuDS measures may be adopted to comply with Council recommendations. All SuDS measures are to be implemented with reference to the UK SuDS Manual and Cork City Council drainage requirements.

SUDS measures will be provided to ensure interception storage of the first 5 to 10mm of rainfall for all storm events. Relatively small volumes of rainwater collected on the respective SuDS devices will enter the public sewer network during typical low intensity storms. SuDS measures will retain rainwater until it is either used via evapotranspiration in the green areas or discharged into the proposed surface water infrastructure network.

The SuDS processes will decrease the impact of the development on the receiving environment by providing amenity and biodiversity in many cases. Regular maintenance of the SuDS proposals will be required to ensure they are operating to their optimal level throughout their design life, refer to Section 6 for detailed information on the maintenance of SuDS in this proposed development.

Figure 3.5 demonstrates the selection process for SuDS measures.

Figure 3.5: SUDS Selection Hierarchy for Large Scale Development

SuDS Measure	Measures to be used on site	Rational for selecting/ not selecting measure	Area of feature (m^2)	Attenuation volume feature (m^3)
Swales	No	The contours of the site with road gradients of typically 5% are not suitable for road drainage to swale installations	-	-
Integrated constructed tree pits	yes	Roadside tree planting will be availed of to treat surface water runoff	26 No. x 1.5m2 = 39 m2	Not accounted for
Rainwater Butts	yes	Considered suitable in private areas.	-	Not accounted for
Downpipe Planters	yes	Considered suitable in private areas.	-	Not accounted for
Rainwater Harvesting	No	Considered unsuitable for proposed development.	-	-
Soakaways	Yes	Allowing for delayed release and reducing the immediate pressure on stormwater infrastructure.	Soakaway I = 21m2 Private Soakaway = 15m2	Soakaway I = 18m3
Infiltration trenches	No	Soakaway system addresses SuDs requirements	-	-
Permeable pavement	Yes	Providing treatment and storage.	287m2	Not accounted for
Green Roofs	No	Considered unsuitable for proposed development.	-	N/A
Green wall	No	Considered unsuitable for proposed development.	-	-
Filter Strips	No	Considered unsuitable for proposed development.	-	-
Rain Gardens	Yes	Considered suitable in private areas.	-	Not accounted for
Bio-retention	Yes	Soakaway system addresses SuDs requirements	73.9m2	Not accounted for
Blue Roofs	No	Considered unsuitable for proposed development.	-	-
Filter Drains	Yes	Providing treatment and storage.	207.1m length x 0.6m wide = 124.26m2	Not accounted for
Detention Basins	Yes	Allowing for delayed release and reducing the immediate pressure on stormwater infrastructure.	Detention Basin I = 522m2 Detention Basin II= 524m2	$324m^3$ $346m^3$
Ponds	No	Considered unsuitable for proposed development.	-	-

SuDS Measure	Measures to be used on site	Rational for selecting/ not selecting measure	Area of feature (m^2)	Attenuation volume feature (m^3)
Wetlands	No	Considered unsuitable for proposed development.	-	-
Petrol Interceptor	No	Considered unnecessary for the proposed development with a treatment train provided for the road and parking runoff.	-	-
Attenuation Tank	No	Considered unsuitable for proposed development.	-	-

3.8.1 Bio-Retention Systems

Bio-retention systems have been included in the design of the SuDS system. The bio-retention areas will incorporate drainage stone and subsoil. The basin will allow stormwater to percolate downwards through a carefully selected filter medium, facilitating the removal of suspended solids and other finer contaminants. The performance of the bioretention system can vary based on the particle size and composition of the filter media, with different qualities achievable depending on specific site requirements. To prevent lateral seepage and ensure controlled infiltration, the base and sides of the system will be lined.

As outlined in CIRIA C753 (The SuDS Manual), bio-retention areas are highly effective in managing runoff by promoting natural infiltration and groundwater recharge. Table 24.6 specifies that interception designs for infiltration systems can be assumed to provide complete interception, with zero runoff expected from the first 5 mm of rainfall for 80% of events during the summer and 50% in winter. This applies to systems designed to infiltrate runoff from events exceeding a 1-month return period, contributing to significant runoff reduction for smaller, more frequent storms.

Refer to Figures 3.6-3.8 for an illustration of the components of a bioretention system, section through a permeable pavement system and example photos of bioretention features in a development.

Figure 3.6: Components of a bioretention system (ref: CIRIA SuDS Manual)

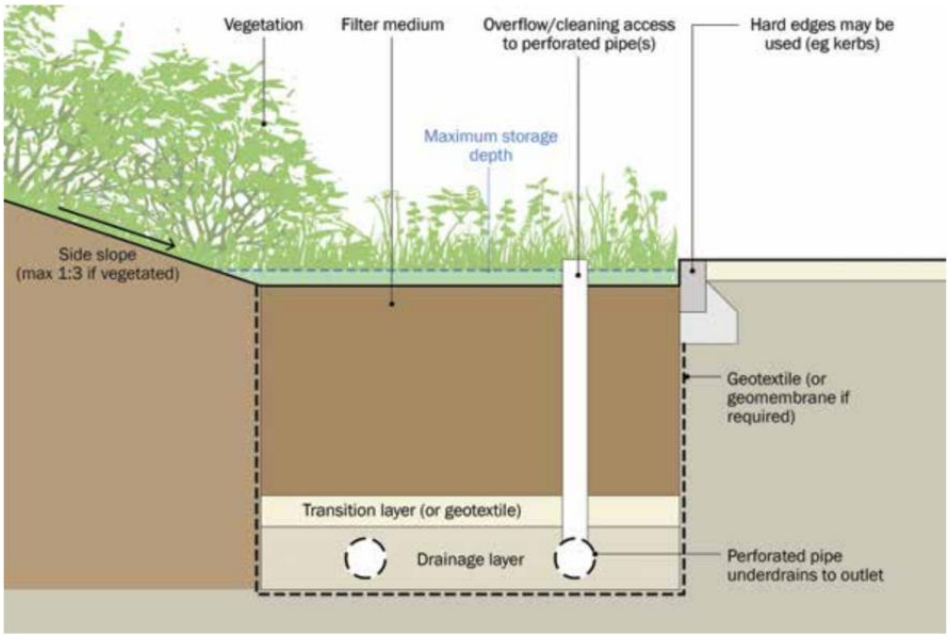


Figure 3.7: Section through a typical permeable pavement system (ref: CIRIA SuDS Manual)

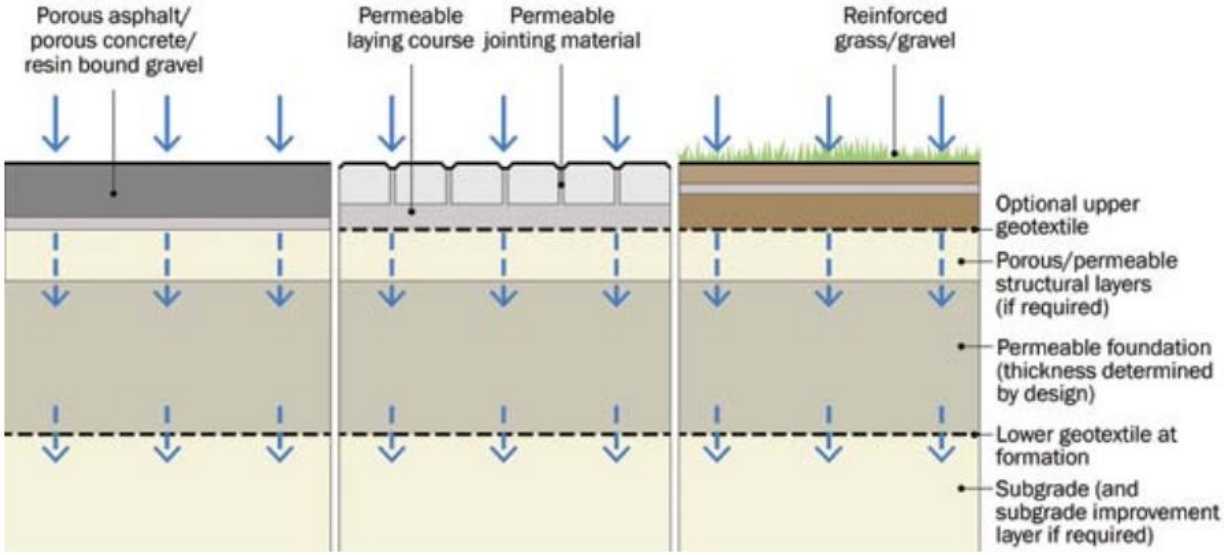


Figure 3.8: Bioretention Systems and Rain Gardens (ref: CIRIA SuDS Manual)

Figure 10.5 Bioretention systems and rain gardens (courtesy Illman Young)

3.8.2 Soakaways

The rate at which water can be infiltrated depends on the infiltration capacity (permeability) of the surrounding soils. Soakaways are below-ground infiltration structures designed to collect and disperse surface water runoff into the surrounding soil. They provide attenuation and promote infiltration, helping to mimic natural drainage processes and reduce the volume of water entering the drainage network. The proposed soakaway will provide an additional level of attenuation storage within the voids in the stone within the proprietary cellular storage system.

The base and sides of the soakaway will be lined and a high-level overflow within the build-up will accommodate removal of excess water to the drainage network. The proposed soakaway will accommodate the 1% AEP (annual exceedance probability) rainfall event with an allowance for 20% climate change, using an infiltration rate of TP03, 22.4 mm/hr according to a specific site investigation carried out on 09th of July 2025, following the requirements of the (BRE Digest 365 – Soakaway design, 2016).

The proposed soakaway will be made up of geocellular AquaCell Core-R type modular unit, which has been designed for use in deep applications and long-lasting solutions with the following measurements:

- Soakaway = volume 17.5m³ - 7m long by 3m wide by 0.5 m deep

The soakaway will have a voids ratio of approximately 95%. Additionally, the soakaway will have a 0.5m sump located upstream of the soakaway inlet.

A private Soakaway is also proposed within rear gardens to the creche to cater for the runoff from the rear roofs of these units.

The design proposed follows guidelines set out in Infiltration systems Guidelines: CIRIA SuDS Manual 2015, chapter 13. Refer to Figure 3.9 for an illustration of components of soakaways system.

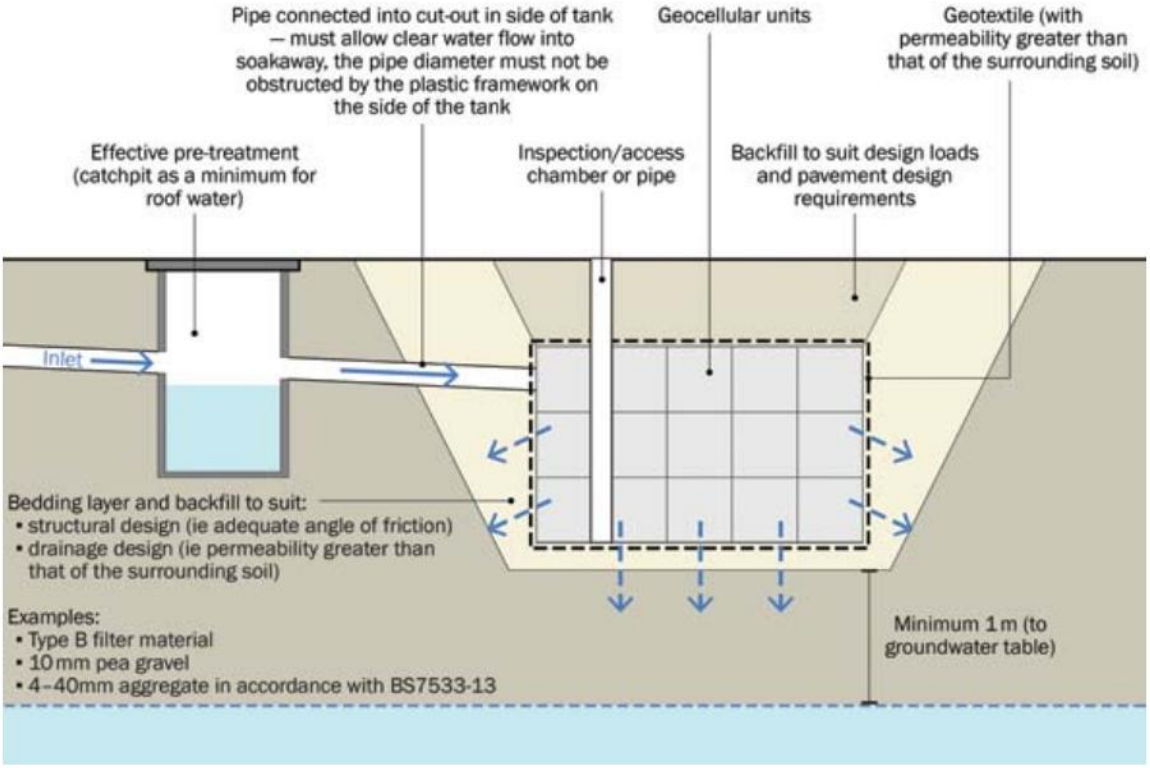


Figure 3.9 Indicative components of soakaways system

3.8.3 Tree Pits

Tree pits act as bioretention systems, allowing stormwater to filter down through engineered soil or bioretention media, which removes pollutants and promotes water infiltration. The proposed tree pits will serve both as landscape elements and as stormwater management features, providing a dual function of urban greening and surface water attenuation. Proposed surface water along the development's landscaped paved areas where possible will discharge to a SuDS element such as tree pits for interception and treatment prior to entering the drainage network.

According to CIRIA C753 (The SuDS Manual), tree pits contribute to sustainable urban drainage by capturing and retaining the first flush of stormwater, particularly for smaller, more frequent rainfall events. As per Table 24.6 of CIRIA C753, tree pits designed for interception can retain the first 5 mm of rainfall, reducing runoff for 80% of summer events and 50% of winter events, in alignment with SuDS principles. The design ensures zero runoff for many smaller events, making tree pits an effective solution for urban stormwater management.

The tree root systems will incorporate drainage stone/subsoil and will provide a level of additional attenuation. The base and sides of the tree root system will be lined to prevent lateral infiltration into surrounding structures, ensuring water is directed into the subsoi**l.** A high-level overflow and underdrain will be incorporated to ensure excess water is effectively drained away to the stormwater network, preventing waterlogging.

The surface water runoff from areas of the road, footpath and parking will be collected to gullies or through gaps in the road kerbing and drained to tree pits. Filter pipework will run in line with the trees pits and discharge to the piped surface water system to allow for some infiltration at source enroute to the detention basins. For the purpose of the outline design, as a conservative measure, no attenuation storage has been assumed within tree pits. Refer to Figure 3.10 Tree Pit Schematic – Cross Section (ref: DMURS Advice Note 5) a tree pit schematic diagram.

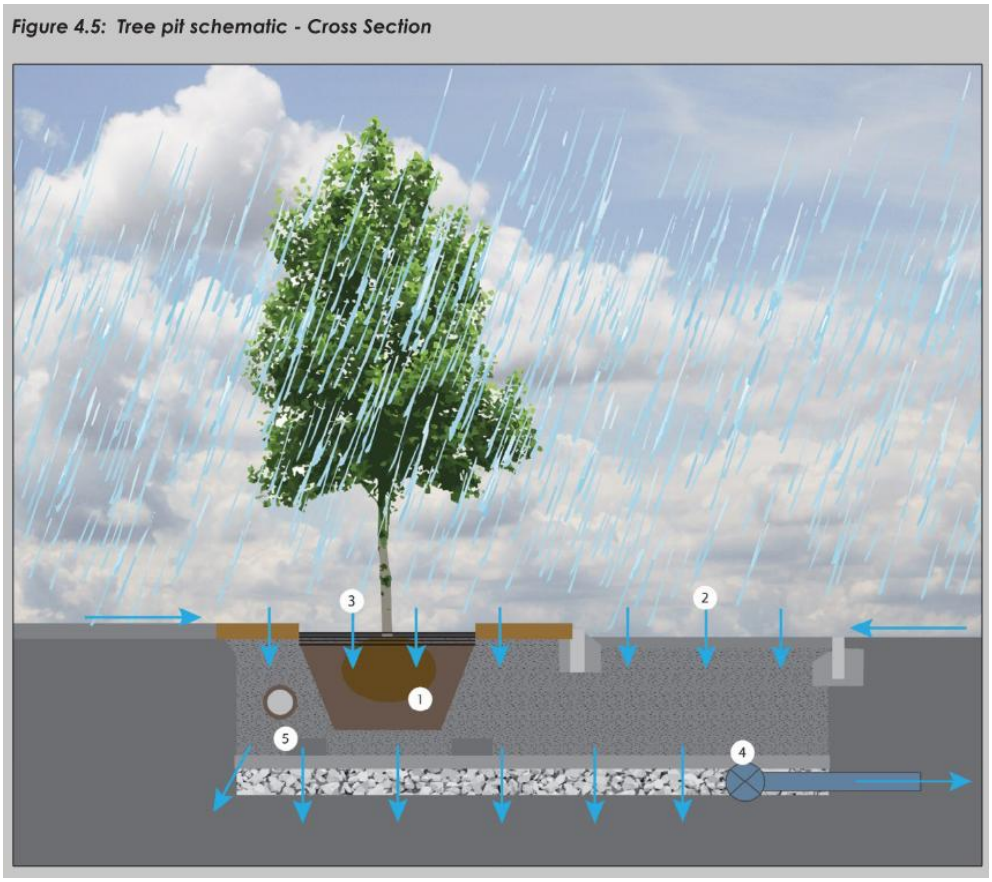


Figure 3.10 Tree Pit Schematic – Cross Section (ref: DMURS Advice Note 5)

3.8.4 Permeable Paving

Permeable pavements allow rainfall and surface runoff to infiltrate through the surface into a permeable sub-base, where it is temporarily stored, treated, and either infiltrated or conveyed away at a controlled rate. Permeable pavements are a multifunctional SuDS measure providing source control, attenuation, water-quality treatment, and reduced surface flooding. Typical systems include permeable block paving, porous asphalt, and permeable concrete surfaces.
Permeable block paving is proposed for the private car parking bays within the site. The treatment processes that occur within permeable block paving build ups include:

- Filtration of silt and the attached pollutants – the majority of silt is trapped within the top 30mm of the jointing material between the blocks.
- Biodegradation of organic pollutants, such as petrol and diesel within the pavement construction.
- Adsorption of pollutants (pollutants attach or bind to surfaces within the construction) which depends on factors such as texture, aggregate structure and moisture content.

- Settlement and retention of solids.

The use of permeable block paving for the private driveways is proposed. The use of permeable block paving for this purpose is supported by the treatment processes outlined above. CIRIA C753 (The SuDS Manual) notes that regarding interception design of permeable pavements, studies have shown that runoff typically does not occur from permeable pavements for rainfall events up to 5 mm. For the purpose of the outline design, as a conservative measure, no attenuation storage has been assumed within the sub-base of the parking areas.

3.8.5 Detention Basins

Detention basins will form part of the site's sustainable stormwater strategy, providing both attenuation and water-quality benefits. Designed as shallow, landscaped depressions, detention basins temporarily store runoff during rainfall events before releasing flows at a controlled rate through a restricted outlet, in accordance with CIRIA C753 guidance. During storms they fill to provide effective peak-flow attenuation. Where vegetated, the basin base filters runoff as it passes across the surface, supporting sediment removal and improving water quality. This approach aligns with SuDS principles by using a nature-based solution to manage runoff close to source, reducing peak discharge rates, and integrating a functional drainage component within the landscaped environment. Refer to Figure 3.11 for an indicative cross-section of a detention basin, and refer to Figure 3.12 for an example of a detention basin within a residential development.

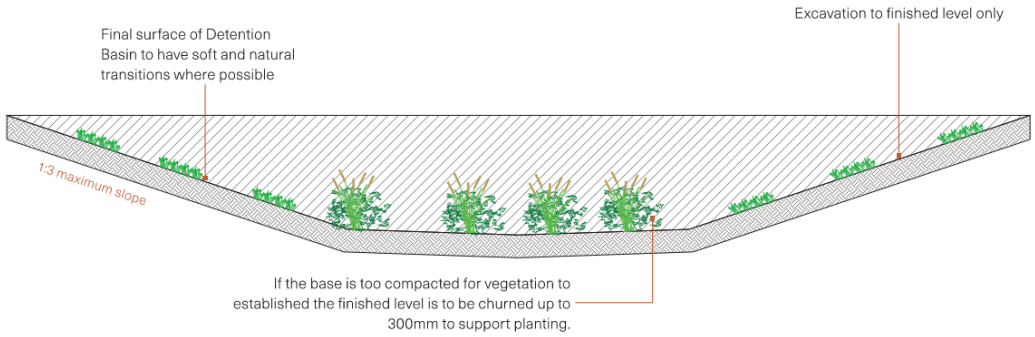


Figure 3.11 Indicative Detention Basin Cross Section

Figure 3.12 Detention Basin Example (ref: SUDS Manual)

Trial pits, soakaway tests and boreholes have been carried out as part of the ground investigation works at the locations of the detention basins to examine the underlying ground conditions including the infiltration characteristics, sub-soil characteristics, groundwater levels and depth to bedrock.

Detention basin I at the centre of the site has a minimum invert level of 70.475mOD. Rotary Borehole BH03 was drilled at this location which indicates the top of the weathered sandstone at 66.66mOD, approx. 3.8m below the detention basin. The highest ground water level was found at 67.82mOD, approx. 2.65m below the detention basin. Refer to Figure 3.13 for a section through proposed Detention basin I.

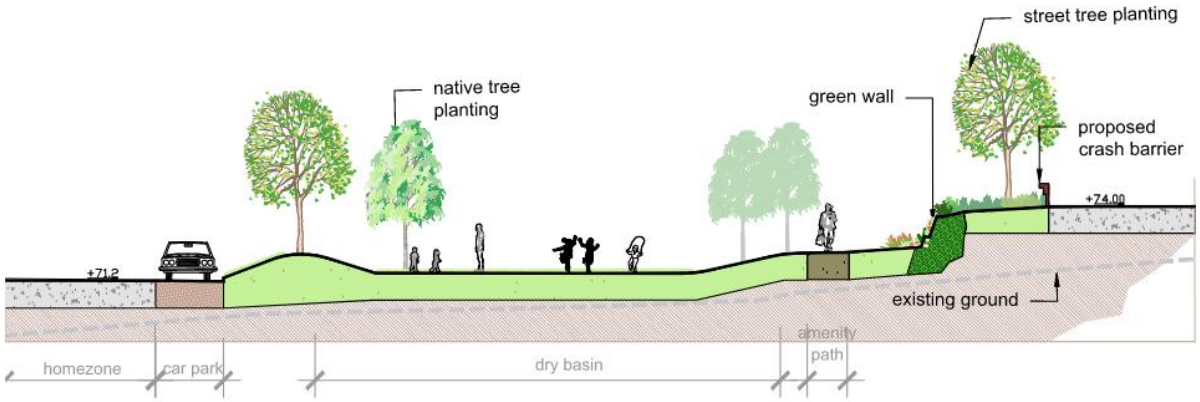


Figure 3.13 Detention Basin I Section

Detention basin II is located at the northwest boundary of the site has a minimum invert level of 61.590mOD. Rotary Borehole BH02 was drilled at this location which indicates the top of the weathered sandstone at 59.02mOD, approx. 2.6m below the detention basin. The ground water level was found at approx. 5.6m below ground level (55.92Mod), approx. 5.67m below the detention basin.

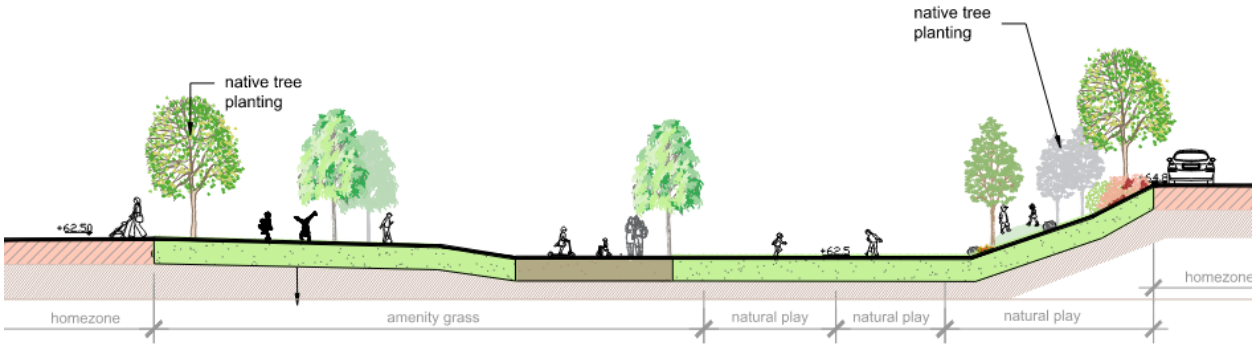


Figure 3.14 Detention Basin II Section

3.8.6 Flow Control Devices

Flow control devices are required at the outlet of each detention basin to ensure that discharge from the proposed development is restricted to the QBAR and that the downstream capacity within the receiving surface water network at Glentrasna is not exceeded. Each unit has been sized to regulate flows during the 1-in-100-year storm event including 20% climate change allowance ensuring that attenuation storage within the basins is fully utilised before discharge begins to increase.

The following are the proposed Hydrobrakes:

- Detention basin I has a proposed hydrobrake with a design flow of 2.91l/s. The cover level is 71.275m, and the invert level is 70.475m.
- Detention basin II has a proposed hydrobrake with a design flow of 6.81l/s. The cover level is 62.390m, and invert level is 61.590m.

3.9 FOUL WATER DRAINAGE

3.9.1 Existing Foul Water Drainage

On-site inspections, utilities surveys and a review of record drawings provided by Cork City Council and Uisce Éireann indicate that the existing 150mm foul sewer network running east-west direction on the western side of the site located on Popes Road servicing the residential development. There is also a 150 mm diameter combined sewer extending in an east-west direction.

It is noted on the northern boundary of the site in the Glentrasna residential estate, ramifications (Drive, Avenue, and Hill), there are three 225 mm diameter dedicated foul sewer drainage lines flowing in a south-north direction.

An extract from Cork City Council and Uisce Éireann Record Drawings illustrating the existing foul water drainage arrangement is shown in Figure 3.15 below.

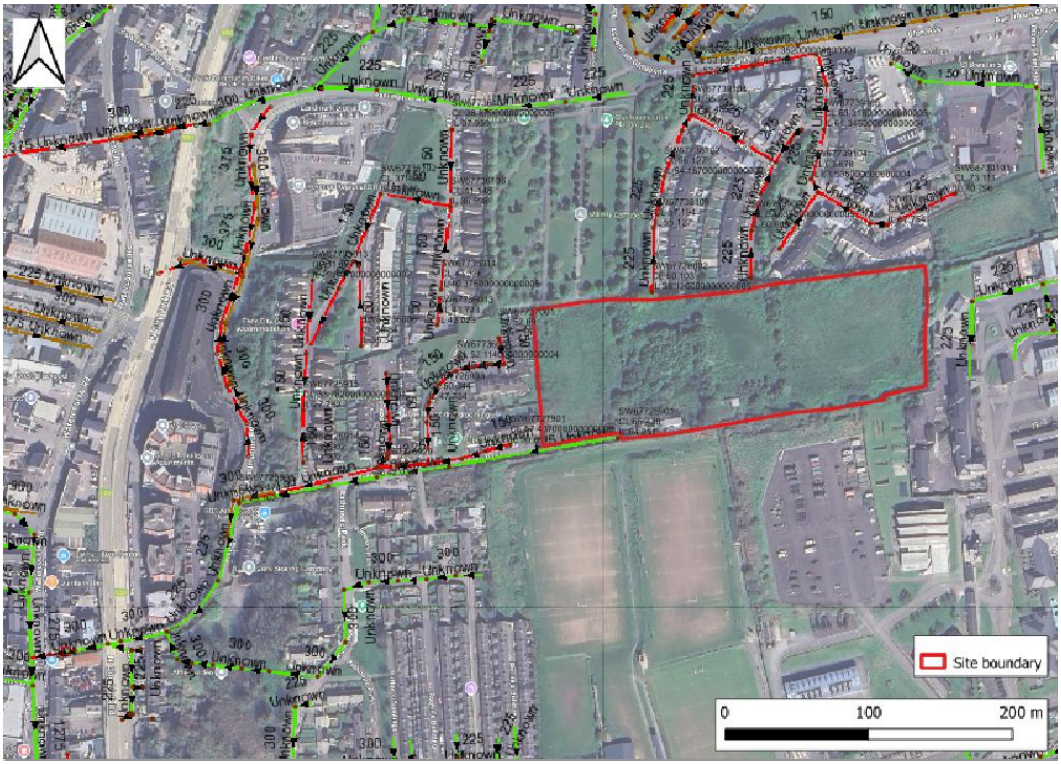


Figure 3.15: Existing foul drainage adjacent to site (extract from IW records, site boundary outlined in red)

3.9.2 Proposed Foul Water Drainage

The proposed foul water sewers will be designed using Causeway Flow software in accordance with the DOE's "*Recommendations for Site Development Works for Housing Areas*". The foul loading will be calculated in accordance with "Code of Practice for Wastewater Infrastructure" (particularly clause 36, Appendix C and Appendix D) published by Uisce Éireann.

It is proposed that the foul sewer will be discharged by gravity to the existing foul sewer network located on Popes Road flowing east-west. A Confirmation of Feasibility Ref. CDS25009768 has been received from Uisce Éireann noting that the connection is feasible subject to upgrades to the foul drainage network. It is required to upsize approximately, 60 meters of sewer pipes downstream of the proposed development from 300mm to 450mm in diameter.

All relevant foul water information for the proposed development was included as part of a Design Submission for review by the Uisce Éireann Quality Assurance team. Following a pre-

planning meeting under section 247 of the Planning and Development Act 2000, that took place on 10th of January 2025 to discuss the scope of the proposed development, it was agreed with Cork City Council that the planning submission could proceed prior to receiving the Statement of Design Acceptance from Uisce Éireann. PUNCH contacted Uisce Éireann in relation to progress of the review of the Design Submission on the 10th March 2026 and were advised that the review was on-going.

Figure 3.16: Foul Water Drainage Design Parameters

Sector	Value
Residential Flow Rate	150 l/person/day
Persons per Dwelling	2.7
Infiltration	10% (New development)
Peaking Factor	6 (Residential)
Minimum Self Cleansing Velocity	0.75m/s
Minimum Pipe Diameter	150mm

3.9.3 Proposed Foul Water Flows

Figure 3.17 summarises the proposed foul flows for the development. The daily foul loading for the proposed development has been calculated as 48.972m³. The dry weather flow has been calculated as 0.566l/s. The sewers are designed for a peak flow of 6 times dry weather flow (6*DWF) 3.355 l/s.

Figure 3.17: Foul Water Drainage Calculations

Category	Quantity	Flow Rate (l/per/day)	Daily Flow (l/day) +10% infiltration	DWF (l/s)	Design Peak Flow (6 * DWF) (l/s)
Standard residential	104	150	46,332	0.536	3.217
Creche	13 Staff 38 Children	50	2,640	0.030	0.138
Total			**48.972**	**0.566**	**3.355**

3.10 WATER SUPPLY

It is proposed to construct 1 new watermain line of 150mm diameter, also ramifications of 100mm and 90mm diameter to serve the proposed development. The proposed watermains will connect to the existing mains on Popes Road. Watermain sizing is in accordance with the Uisce Éireann Code of Practice for Water Infrastructure.

This feed will provide potable and firefighting water to the proposed development. A bulk water meter shall be provided at the site boundary at the location of the proposed connection to the existing watermain. The watermain layout will be designed in accordance with "Uisce Éireann Code of Practice for Water Infrastructure". All watermains are to be constructed in accordance with Uisce Éireann Code of Practice and the Local Authority's requirements. Fire coverage is to be reviewed and certified by the fire consultant.

To reduce the water demand on Local Authority water supplies and to reduce the foul discharge from the development, water conservation measures will be incorporated in the sanitary facilities throughout the development, e.g. dual flush toilets, monobloc low volume push taps and waterless urinals.

A Confirmation of Feasibility Ref. CDS25009768 has been received from Uisce Éireann. The proposed water connection to an external existing network is Feasible subject to infrastructure upgrade on the existing 3-inch diameter cast iron watermain located along Pope's Road. It is required to upsize approximately 80m of the existing 3-inch diameter cast iron watermain to a minimum of 150mm internal diameter to connect from a 6-inch diameter watermain pipe.

All relevant watermain information for the proposed development was included as part of a Design Submission for review by the Uisce Éireann Quality Assurance team. Following a pre-planning meeting under section 247 of the Planning and Development Act 2000, that took place on 10th of January 2025 to discuss the scope of the proposed development, it was agreed with Cork City Council that the planning submission could proceed prior to receiving the Statement of Design Acceptance from Uisce Éireann. PUNCH contacted Uisce Éireann in relation to progress of the review of the Design Submission on the 10th March 2026 and were advised that the review was now on-going.

3.11 CONSTRUCTION PHASE

Details of the approach to the construction phase are set out in the following subsections below. The approach to the construction phase will be subject to agreement with the construction contractor upon appointment. The agreed approach to the construction phase will be required to adhere to all standard best construction practices set out in the following subsections below.

3.11.1 Construction Sequence

As set out in more detail below, the construction of the project will be carried out in the following phases:

- Phase 1: Site Setup.
- Phase 2:Groundworks and Foundations.
- Phase 3: Superstructure Construction.
- Phase 4: Internal Works
- Phase 5: Landscaping and External Works.
- Phase 6: Testing, Commissioning and Inspections
- Phase 7: Final Handover and Occupation

3.11.2 Site Hoarding

The site area will be enclosed with hoarding details of which are to be agreed with CCC. Hoarding panels will be maintained and kept clean for the duration of the works. This will involve erecting hoarding around the proposed site perimeter in line with the finished development extents. A waterproof membrane will be fixed to the base of the hoarding and the ground. The available site footprint will enable the Contractor to set up the site compound within the site boundary.

3.11.3 Site Access

An existing vehicular access to the site is located on Pope's Road, at the western boundary. This will serve for all demolition, clearance, piling, and excavation works on the site.

Security personnel will be present at the entrance/exit of the site to ensure all exiting traffic will do so safely. A self-contained wheel wash system will be installed at the exit from the site, to minimise dirt being carried out into the public road. Side baffles prevent the dispersal of washed dirt, and an inbuilt reservoir collects all runoff from the wheel wash system. Water is filtered and recirculated within the system, reducing water usage. All washed solids are segregated by settlement and are either reused on site or removed and disposed of in the same manner as other spoil material.

A road sweeper will be employed as required to keep public roads around the site clean.

3.11.4 Excavation

The construction works will involve the excavation of material from the site.

All excavated material will need to be removed offsite for appropriate reuse, recovery and/or disposal. If material is removed off-site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Regulation 27 of the European Communities (Waste Directive) Regulations 2011, as amended, which requires that certain conditions are met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received. The potential to reuse material as a by-product will be confirmed during the course of the excavation works, with the objective of eliminating any unnecessary disposal of material. Clean inert material may be used as fill material in other construction projects or engineering fill for waste licensed sites. Beneficial reuse of surplus excavation material as engineering fill may be subject to further testing to determine if materials meet the specific engineering standards for their proposed end use.

It should be noted that a trial pit excavation report was completed by Ground Investigation Ireland Ltd, and it was found that no hydrocarbon contamination was present in all the soil samples collected from the site.

3.11.5 Site Compound

The compound area will be of hardstanding material.

All materials will be stored within the site compound. Any temporary stockpiles stored onsite will be covered to prevent runoff.

3.11.6 Work on Public Roads

Works on public roads outside the site will be co-ordinated and will be co-ordinated with Cork City Council and the adjoining businesses and residents. These works include: footpath replacement and/or repair works; public lighting; and improved public realm works. Any existing dropped kerbs, not intended to serve as a vehicle access route or pedestrian crossing, are to be removed and replaced with full height kerbs.

3.11.7 Hours of Work

Working hours during site clearance and construction shall be restricted to 08:00-18:00 hours on Monday to Fridays and to 08:00-16:00 hours on Saturdays. Activities outside these hours shall require the prior approval of the Planning Authority.

3.11.8 Demolition

The demolition stage will involve the demolition and removal of 4 no. existing buildings on site. The demolition areas are identified in the planning drawings provided with this application.

3.11.9 Construction Phase Water Management

During the construction phase surface water will drain to ground at existing greenfield areas surrounding the footprint of areas under construction. All surface water pooling in excavations etc will be pumped to a holding tank to be provided on site. From here the water will be pumped to a series of settlement tanks. These tanks will act as primary and secondary settlement. The settlement tanks will be of sufficient number and size to allow the necessary retention time for solids to settle. The discharge water from the final tank will be routed to the existing surface water system with approval from the local authority. Only settled and clean water will be permitted to be released from the settlement tanks to the existing surface water system. Visual checks of the pumping and settlement system will be carried out on a daily basis.

A self-contained wheel wash will be provided on site as per Section 3.5.3 above.

In addition to the above the following suite of standard and generic construction measures will be put in place to protect against the generation of contaminated waters at the project site during the construction phase:

- Storage – all equipment, materials and chemicals will be stored a minimum distance of 25m away from any surface water body. Chemical, fuel and oil stores will be sited on impervious bases and within a secured bund of 110% of the storage capacity, within the lay down area.

- The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall also be tested and demonstrated.

- All fuel oil fill areas will have an appropriate spill apron and spill kits will be provided on site.

- Vehicles and refuelling – standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refuelling of vehicles and machinery will be carried out on an impermeable surface in designated areas, well away from any surface waterbody.

- Maintenance – maintenance to construction plant will not be permitted on site, unless vehicles have broken down necessitating maintenance at the point of breakdown. All necessary pollution prevention measures will be put in place prior to commencement of maintenance in this instance;

- Concrete - Wet concrete operations will be carried out in dry conditions. Runoff from wastewaters or contaminated surface water runoff will be directed to construction phase surface water drainage system to be installed on site;

- Mess, sanitation and welfare facilities will be required during construction and will be located at the construction compound. Foul effluent will make use of chemical facilities with periodic removal for offsite disposal.

3.12 ASSESSMENT OF THE CHARACTERISTICS OF THE PROJECT

An assessment of the potential characteristics of the project, as described above, against the criteria outlined in Schedule 7A to the 2001 Regulations is set out in Table 3.2 below and a conclusion and rationale are provided to determine whether these characteristics have the potential to result in likely significant effects to the environment.

Table 3.2: Assessment of Characteristics of the Project

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
(a) the size and design of the whole project	The overall project site is c. 2.6ha in area. All construction works, aside from those occurring on the public road in the immediate vicinity of the project site, will be restricted to the footprint of the project site and will be completed within an estimated 24-month period. The construction phase works will adhere to best practice construction measures, the implementation of which will provide sufficient protection for surrounding environmental receptors such that the potential for likely significant environmental effects is eliminated. A landscape design has been prepared for the project, which includes for the retention of boundary habitats, the establishment of additional boundary woodland habitat and the meadow grassland habitat. Other areas will also be retained as open space for recreation. The scale of the proposed development is in keeping with the scale of surrounding residential land use in terms of size and design. The project site is located within the urban environs of Cork City and is well served by amenities and is close to public transport.
(b) cumulation with other existing and/or approved projects;	A review of Cork City Council online planning portal was completed in April 2026 to identify other existing or approved projects in the vicinity of the project, with which the project could combined to result in cumulative effects to the surrounding environment.

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	Following this review no other existing or approved projects, within the last 5 years have been identified. As such the project will not have the potential to combine with other existing or approved projects to result in cumulative significant effects to the environment.
(c) the nature of any associated demolition works	The nature of the demolition works required for the project are set out in Section 3.11.8 above. The demolition works will involve the careful demolition of the existing dwellings on site. This will be completed on a section-by-section basis in accordance with a sensitive approach informed by best practice. The following will be implemented as part of the approach to the demolition works: Plant and machinery with low inherent potential for generating noise and/ or vibration will be selected for all demolition and construction works. The inside of the existing dwelling will be soft stripped (i.e. the boundary walls and windows will be retained during the stripping of internal wall, ceilings, built-in units etc. No explosive blasting will be undertaken as part of the demolition works. All spoil arising from demolition works will be disposed of offsite. All solid waste arising from the site including construction waste, demolition waste, site clearance waste, rock, waste oil etc. will be recycled as far as possible. All material exported from the site for recovery, recycling or disposal shall be managed at an approved licenced waste facility. All relevant best practice measures outlined in the guideline prepared by Dublin City Council's Air Quality Monitoring and Noise Control

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	Unit's Good Practice Guide for Construction and Demolition[3] will be implemented during the demolition works associated with the project. These good practice measures will be incorporated into the final CEMP to be submitted for the written agreement of Cork City Council prior to the commencement of development, in the event of a grant of planning permission.
(d) the use of natural resources, in particular land, soil, water and biodiversity;	Construction related activities will be largely restricted to the footprint of the project site. Soil that will be excavated within the project site will be reused for landscaping and filling. Surplus soil material will be disposed of at an approved facility. Water required for the construction phase and operation phase of the project will be supplied by the existing mains water supply. Uisce Eireann has confirmed that a connection to the public water supply is feasible subject to infrastructure upgrade on the existing 3-inch diameter cast iron watermain located along Pope's Road. No significant effects to biodiversity will arise as a result of the construction or operation of the project. Mitigation measures have been provided in the accompanying EcIA Report to ensure there is no

[3] Guide available at

https://www.dublincity.ie/sites/default/files/2024-09/construction-and-demolition-good-practice-guide-13-08-2024-updated.pdf

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	loss of or significant disturbance to foraging bat habitat and nesting bird habitat in surrounding woodland habitats. The EcIA report examined the potential for the project to result in negative impacts to NHAs and pNHAs in the wider surrounding area and has found that the project will not have the potential to undermine such conservation areas. The potential for the project to result in adverse effects to European Sites has also been examined and the results of this examination are detailed in the Screening Report for Appropriate Assessment prepared for the project, provided under separate cover. This has found that the project will not have the potential to result in likely significant effects to European Sites. Natural resources in the form of hydrocarbons will be required for energy and electricity during the construction phase and operation phase of the project. Other building raw materials will be required during the construction phase. However the natural resources required will be typical of those required for the development and operation of a residential development and their provision will not have the potential to result in significant negative effects.
(e) the production of waste;	Solid inert waste in the form of soil and stone will be produced during construction but materials will be only ordered as required. Any wastes from the construction process will either be reused within the scheme, or recycled/disposed of at an authorised waste facility. During the construction phase the waste management hierarchy will be implemented onsite, which prioritises the prevention and minimisation of waste generation. During the operation phase the waste generated will be typical of a residential development. All waste generated will be disposed of by a licenced waste contractor. Wastewater generated during the operation phase will be directed to the existing Uisce Éireann wastewater infrastructure, and Uisce

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	Éireann has confirmed that a connection to the wastewater network is feasible subject to upgrades to the foul drainage network.
(f) pollution and nuisances;	The construction phase presents the greatest risk of pollution to water resources. Potential sources of water pollution include fuel, lubricants, suspended solids and concrete. Silt-laden surface runoff could arise during vegetation stripping. However as no surface watercourse occurs within the development footprint and given the approach to the construction phase of the project the potential impact to surrounding surface water quality during the construction phase has been assessed as being imperceptible. Similarly, given the design measures to be implemented for the operation phase of the project, potential pollution to receiving water resources downstream of the project during the operation phase is considered to be imperceptible. The construction phase has the potential to result in nuisance to surrounding receptors as a result of noise, vibrations and dust generated during construction activities. In order to minimise any potential for noise and vibration nuisance mitigation measures will be implemented during the construction phase. These measures will adhere to the best practice guidelines outlined in BS5228: Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise (2009 + A1 2014). These standard guidelines offer detailed guidelines on the control of noise and vibration from construction activities. The following mitigation measures will be implemented during the construction phase of the proposed development to ensure noise and vibration limit values are complied with: • The hours during which site activities are likely to create high levels of noise will be limited to a set time period; • Where construction activity takes place in the vicinity of residential properties, it will be restricted to the stipulated hours of operation identified above.

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	• Construction site hoarding will be erected along noise sensitive boundaries where works are taking place in proximity to existing residential properties where no substantial screening exists. Such hoarding will be provided around the perimeter of the project site. • During the construction phase a clear line of communication will be established between the contractor/developer, Local Authority and residents; • A site representative will be appointed to take responsibility of all matters relating to noise and vibration; • A complaints procedure will continue to be operated by the contractor's representative throughout the construction phase and all efforts should be made to address any noise issues at the nearest noise sensitive properties; • Noise monitoring will be undertaken during the construction phase, particularly during critical periods and at sensitive locations; • All site access roads will be kept even to mitigate the potential for noise and vibration from lorries. • The potential for any item of plant to generate noise will be assessed prior to the item being brought onto the site. The least noisy item should be selected; • If replacing a noisy item of plant is not a viable or practical option, consideration will be given to noise control "at source". This refers to the modification of an item of plant or the application of improved sound reduction methods in consultation with the supplier. For example, resonance effects in panel work or cover plates can be reduced through stiffening or application of damping compounds; rattling and

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	grinding noises can often be controlled by fixing resilient materials in between the surfaces in contact. • Where required noise barriers will be erected around items such as generators or high duty compressors; • Noisy plant will be sited as far away from sensitive properties as permitted by site constraints. • Mobile plant will be switched off when not in use and will not be left idling. • All items of plant will be subject to regular maintenance. Such maintenance can prevent unnecessary increases in plant noise and can serve to prolong the effectiveness of noise control measures. With the implementation of these measures, it is predicted that the nuisance impact of noise generated during the construction phase will be of a short-term, slight, negative nature. There is the potential for dust emissions arising during construction, particularly during dry and/or windy weather conditions. Dust emissions may also be exacerbated by the presence of dry surfaces and uncovered stockpiles during the construction. The quantity of dust is likely to be relatively small and dust emissions would be temporary in nature. Dust effects are likely to create nuisance in the immediate locale rather than significant environmental effects. Best practice mitigation measures will be put in place to minimise adverse effects. In order to minimise dust emissions during construction the following measure will form part of that plan and will be implemented during the construction phase: • Site access routes shall be regularly cleaned and maintained as appropriate. Hard surface areas shall be swept to remove mud and aggregate materials from their surface while any un-surfaced areas shall be restricted to essential site traffic only.

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	Furthermore, any area that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions. • The roads will be monitored throughout the works and a road sweeper will be employed when required for the duration should the roads become dirty. • Before entrance on to public roads, trucks will be adequately inspected to ensure no potential for dust emissions. • Public roads outside the site shall be regularly inspected for cleanliness, and cleaned as necessary. • Bowsers or suitable watering equipment will be available during periods of dry weather throughout the construction period. • During periods of very high winds (gales), activities likely to generate significant dust emissions shall be postponed until the gale has subsided. • Vehicles on site shall have their speed restricted, and this speed restriction will be enforced rigidly. Vehicles delivering or removing material with dust potential shall be enclosed or covered with tarpaulin at all times to restrict the escape of dust. • There will be no stockpiling of materials in public areas within the project footprint. • Weekly dust monitoring will be carried out using a handheld Microdust Pro-Automatic dust monitoring unit. • During working hours, dust control methods will be monitored as appropriate, depending on the prevailing meteorological conditions.

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	• The name and contact details of a person to contact regarding air quality and dust issues shall be displayed on the site boundary, this notice board should also include head/regional office contact details; • Community engagement will be undertaken before works commence on site explaining the nature and duration of the works to local residents and businesses; • A complaints register will be kept on site detailing all telephone calls and letters of complaint received in connection with dust nuisance or air quality concerns, together with details of any remedial actions carried out; • It is the responsibility of the contractor at all times to demonstrate full compliance with the dust control conditions herein; • At all times, the procedures put in place will be strictly monitored and assessed. With the implementation of these dust minimisation measures in addition to a construction management plan including dust mitigation fugitive emissions of dust from the site will be insignificant and will not pose a nuisance at nearby sensitive receptors
(g) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;	The construction phase of the project will be managed to adhere to standard HSE operating procedures and guidelines. Accordingly, the risk of a major accident or disaster occurring is negligible. The proposed building will be subject to standard regulatory management requirements during the operation phase, the effective implementation of which will avoid the potential for a major accident event to occur.

Screening Question	**Response**
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
(h) the risks to human health (for example due to water contamination or air pollution).	Item 1(f) of this Table details measures that will be implemented to ensure that the project does not result in nuisance generated by noise, and vibration, air emissions and traffic. All best practice mitigation measures outlined in Appendix 1 of this screening report will be implemented and represent the minimum requirement to be implemented as part of the project. With the effective implementation of these measures, there is no potential for the project to cause a significant effect on human health.

Conclusion: No potential for significant effects on the environment to arise from the characteristics of the proposed development.

Rationale: The scale and extent of the works proposed are representative of a project in keeping with recent and recently consented developments in the vicinity and is consistent with Cork City Council land use policy. The project site is located in an area of low ecological value in an area of representative urban land cover and high levels of human activity. Design measures that form part of the project will ensure protection of the receiving environment. These design measures include the implementation of storm water management and SuDS. The implementation of best practice measures to manage noise and vibration levels and dust emissions at sensitive receptors will also ensure that the project does not result in nuisance to the receiving population.

4.0 LOCATION OF THE PROJECT

4.1 INTRODUCTION

The location of the proposed development is described in accordance to with the aspects of the environment likely to be significantly affected by a proposed development as outlined in Schedule 6 of the Planning and Development Regulations, 2001, as amended. These aspects of the environment are:

- Population & Human Health
- Biodiversity
- Soil & Geology
- Water
- Noise
- Air/climatic factors
- Landscape
- Cultural heritage, including the architectural and archaeological heritage and cultural heritage
- Material assets
- The inter-relationship between the above factors.

A summary of each of the above topics as they relate to the location of the project is provided in the following sub-sections.

4.1.1 Population & Human Health

The project site lies within the Cork City Council administrative area. The National Planning Framework (NPF) First Revision identifies Cork as being located within the Southern Region and sets out a target population growth for the city. The NPF specifies an objective to regenerate and rejuvenate Cork City focused on compact growth, with increased residential population and enhanced amenity and design quality.

An assessment is set out below of potential impacts to the receiving population in terms of:

- Land use
- Human health
- Population & economic activity
- Local amenity impacts

In terms of land use, the project is consistent with the land use zoning for the project site.

With regard to human health, the examination set out in this screening report with respect to noise and vibration, air emissions and traffic enable an assessment to be carried out by the competent authority as to whether or not the project has the potential to result in significant effects to human health. For the reasons set out elsewhere in this report, including the effective implementation of best practice measures, with respect to noise and vibration, air quality and traffic management, as set out in Appendix 1, it is concluded that there is no potential for significant effects to human health from the project.

In terms of the operational phase, from the perspective of human health, it is considered that the increase in the local population density that will arise as a result of the project will not impact on amenities of existing or future residents.

In terms of population and economic activity, the construction phase of the project is expected to result in a short-term increase in local economic activity, whilst the residential population supported by the project will have the potential to contribution to longer-term sustained increases in economic activity.

With regard to local amenities, the construction phase will not have the potential to result in any significant effect to local amenities given that construction activities will be largely confined to the footprint of the project site. The operational phase of the project will contribute towards local amenities in the area.

4.1.2 Biodiversity

The project site is located at a remote distance from the nearest European Site, Natural Heritage Areas (NHAs) and proposed NHAs (pNHAs). A Screening Report for Appropriate Assessment and an Ecological Impact Assessment (EcIA) have been completed by DEC Ltd. and these have concluded that the project will not have the potential to result in likely significant effects to the qualifying features of interest and Conservation Objectives for European Sites. The EcIA has found that the project will not have the potential to result in likely significant effects to NHAs and pNHAs.

The project site is comprised of habitats of low ecological value within the project site whilst boundary habitats of high, local ecological value bound the site. No protected mammals were identified as using the project site as a breeding or resting places. Commonly occurring bird species were recorded using treelines and woodland bounding the site for nesting.

DEC Ltd have completed bat surveys for the project site. No bat roosting occur within the project site. Mature trees associated with woodland habitat bounding the project site were surveyed for their potential to function as bat roosts. No bats were found to be roosting in structures within the project site and the trees occurring within and bounding the project are of low bat roost potential.

The project will not result in any direct impacts to sensitive biodiversity receptors.

4.1.3 Soils & Geology

The bedrock geology in the vicinity of the site as indicated on geological maps is sandstone with mudstone and siltstone of the Gyleen Formation. The quaternary geomorphology at and surrounding the project site is characterised by a glaciofluvial terrace of the Bridge River system. The GSI have mapped the quaternary sediments at the project site as comprising a mix of gravels derived from Devonian sandstones in the greenfield areas of the project site, with urban landcover occurring along the existing dwellings that made up Sandy Hill Terrace.

The project site is representative of a residential and greenfield site with no contaminated ground expected to occur at the site.

4.1.3.1 Land & Subsoils

4.1.3.2 Geological Heritage Sites and Protected Habitats

There are no recorded geological heritage sites in the close proximity to the study area.

4.1.3.3 Historic Landfills and Illegal Dumping

A review of EPA data on waste licence and unlicensed sites has confirmed that there are no known historic landfills or illegal landfills in the vicinity of the project site.

4.1.3.4 Quarrying

There are no quarries in the vicinity of the project site.

4.1.4 Water

The project site is located within the River Bride sub-catchment (Water Framework Directive (WFD) catchment code: Kiln_SC_010). No artificial drainage ditches or natural streams or rivers occur within or bounding the project site. The Glen River is the nearest natural watercourse to the project site and is located approximately 500m to the north. A subterranean culverted section of the Bride River flows from north to south, approximately 300m to the west of the project site. The Glen River from east to west through the Glen Vally Park to the north of the project site before passing through a culverted section upstream of its confluence with the Bride River. The Glen River drains into the Bride River which flows through an existing pipe culvert under the Ballyhooly Road flows east to west and drains into the Bride River at Blackpool. The Glen River drains into the Cork City section of the Bride River to the west of Blackpool Shopping Centre. The Cork City section of the Bride River flows south from Blackpool, through culverted sections and drains into the River Lee at Christy Ring Bridge.

It is noted in the Uisce Éireann Confirmation of Feasibility that surface water generated from the proposed site is not permitted to discharge into the Uisce Éireann network at this location. A new surface water sewer network, entirely separate from the foul water sewer network, will be provided for the development. Surface water from the proposed development is designed to discharge to the existing surface water network within Glentrasna Estate. The majority of the surface water runoff from the proposed development will be collected through a series of SuDS systems to a piped network and brought to two landscaped detention basins, where a portion of the runoff will infiltrate naturally into the ground through the SuDS systems and the detention

basins.

4.1.5 Noise

A review of the EPA noise maps indicates that the project area is not located in an area subject to elevated noise levels. Elevated noise levels are mapped by the EPA to the west of the project site along the North City Link Road. A noise range of 55 to >75dB has been recorded at and adjacent to this national road corridor and this has been attributed to day time noise generated by road traffic. The construction phase will not result in any long-term changes in noise levels in the vicinity of the project. Incidental noise will occur during construction but this will be short-lived and will be minimised with the application of best practice measures and mitigation as outlined above. The main potential operation phase noise source is considered to relate to the generation of additional traffic to and from the site as a result of the new residential buildings. Noise generated from residential traffic is not expected to generate any significant noise sources over and above those which form part of the existing environment at neighbouring residential areas (road traffic noise, estate vehicle movements, children playing, etc.) and, hence, no significant impact are predicted for the operation phase.

4.1.6 Air & Climatic Factors

4.1.6.1 Air

The existing baseline conditions in the vicinity of the project site were assessed and equate to what the Environmental Protection Agency (EPA) would consider Zone B, Cork Conurbation. The following levels of Particulate Matter (PM2.5) have been determined from an ambient analyser at Cork City. The air quality index for this project would be considered as Good - Class 1. Values outlined for PM2.5 from the EPA air quality Station 21 at UCC during September 2025 were 2.04ug/m3. The data indicates that the area is compliant with the Ambient Air Quality Standards and Cleaner Air for Europe (CAFE) Directive 2000/50/EC.

4.1.6.2 Climate

The Climate Action and Low Carbon Development Act was enacted by government in December 2015. The Act sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050. The Act provides

for the preparation of a National Mitigation Plan and Sectoral Plans that will specify policies to reduce greenhouse gas emissions for each sector.

The first National Mitigation Plan, which was issued in July 2017, outlines the existing mitigating measures in place and additional measures to be implemented for each of the following sectors ‑ Electricity Generation, the Built Environment, Transport, Agriculture and Forestry. In accordance with the Act, successive National Mitigation Plans will be prepared, at least every five years. Ireland has set a target to reduce non ‑ Emissions Trading Scheme (ETS) sector emissions by 30% by the year 2030, compared to the 2005 emission levels. Non-ETS sectors include agriculture, transport, residential, commercial, non-energy intensive industry, and waste.

In addition, the Act refers to the National Adaptation Framework (NAF). Irelands first NAF was published in January 2018 and sets out the national strategy to reduce the State's vulnerability to the negative effects of climate change and avail of the positive impacts. The NAF complements the work already carried out under the National Climate Change Adaptation Framework, which was published in December 2012. The aim of the NCCAF is to ensure adaptation measures are taken across different sectors at a local level to reduce Irelands susceptibility to climate change which were identified as:

- increase in average temperatures;
- more extreme weather conditions including storms and rainfall events;
- an increased likelihood of river and coastal flooding;
- water shortages, particularly in the east of the country;
- changes in types and distribution of species; and
- the possible extinction of vulnerable species.

The most recently published Climate Action Plan 2025 sets out Ireland's plan to address climate disruption and the impact it has on the environment, society, economy and our natural resources. In addition to reducing Ireland's greenhouse gas emissions, many of the changes proposed in the Plan will have positive economic and societal co-benefits, including cleaner air, warmer homes, and a more sustainable economy for the long term

4.1.7 Landscape & Visual

The local area has a strong residential character with extensive existing housing development extending along the valley slopes, notably to the north and west of the subject site. The western two-thirds of the project site is located in an "Area of High Landscape Value" as shown on Map 04 of the Cork City Development Plan 2022-2028. Objectives 6.13 Areas of High Landscape Value of the Cork City Development Plan states: *To conserve and enhance the character and visual amenity of Areas of High Landscape Value (AHLV) through the appropriate management of development, in order to retain the existing characteristics of the landscape, and its primary landscape assets. Development will be considered only where it safeguards to the value and sensitivity of the particular landscape. There will be a presumption against development where it causes significant harm or injury to the intrinsic character of the Area of High Landscape Value and its primary landscape assets, the visual amenity of the landscape; protected views; breaks the existing ridge silhouette; the character and setting of buildings, structures and landmarks; and the ecological and habitat value of the landscape.*

A Landscape & Visual Impact Assessment (LVIA) of the proposed development has been completed (see CSR, 2026) and this has identified the Landscape sensitivity at and surrounding the proposed development to be Medium. Medium Landscape Sensitivity is described as:

Areas where the landscape has certain valued elements, features, or characteristics but where the character is mixed or not particularly strong. The character of the landscape is such that there is some capacity for change in the form of development. These areas may be recognised in landscape policy at local or county level and the principal management objective may be to consolidate landscape character or facilitate appropriate, necessary change.

Key considerations with respect to the Area of High Landscape Value (AHLV) occupying the western portion of the project site include:-

- Visual amenity
- Protected views
- The existing ridge silhouette
- The character and setting of building structures and landmarks

- The ecological and habitat value of the landscape

4.1.8 Cultural Heritage

No area of Architectural Conservation Area (ACA) as shown on Map 04 of the City Development Plan falls within the project site.

There are no Sites and Monuments Records or structures listed on the National Inventory of Architectural Heritage (NIAH) occurring within the project site. The nearest NIAH structure to the project site is the Collins Barracks : hospital/infirmary located approximately 16m to the east of the project site. The nearest structure associated with the project will be situated approximately 25m from this hospital/infirmary. It will be separated from the hospital/infirmary by an existing bank and vegetation to the retained and the works associated with the project will not have the potential to disturb this NIAH structure.

4.1.9 Material Assets

4.1.9.1 Transportation

The principal road in the vicinity of the project site is Pope's Roads. Pedestrian permeability will be provided from the project site to the Glentrasna residential estate to the north.

4.1.9.2 Utilities

A review of all utility constraints within the surrounding area has been completed. This review identified the following utilities in the wider area surrounding the project site:

- ESBI & ESB – Power Supply
- Gas Networks Ireland (GNI) - Gas Supply
- Eir - Telecommunications
- Virgin Media - Telecommunications
- Uisce Éireann - Storm Water & Foul Wastewater
- Uisce Éireann – Water Supply and Sewerage

4.2 ASSESSMENT OF THE LOCATION OF THE PROPOSED DEVELOPMENT

Table 4.1 below provides information on the location of the proposed development with respect to the assessment criteria provided in Schedule 7 of the Planning and Development Regulations 2001, as amended.

Table 4.1: Location of the Proposed Development

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
(a) the existing and approved land use;	The existing land use within the project site is residential and greenfield land use. The Cork City Development Plan has zoned the project site ZO 1 Sustainable Residential Neighbourhood. The proposed residential development at the project site is consistent with the land use zoning for the site.
(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground	The project site is currently subject to residential occupation and is not sensitive in terms of natural resources. The overall design of the project has included landscaping and lighting designs that will aim to protect the high landscape value of the area as well as providing features for urban biodiversity. The proposed development will not have a significant effect on the relative abundance, availability, quality and regenerative capacity of natural resources.
(c) the absorption capacity of the natural environment, paying particular attention to the following areas:	The potential for the proposed development to significantly affect the absorption capacity of the environment, with respect to the parameters listed in Column 1 opposite are outlined below.

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
(i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;	(i) no works are proposed that will affect wetlands, riparian areas or river mouths. (ii) not applicable, the project is located at a remote distance from the coastal zone. (iii) not applicable, the project is located at a remote distance from mountainous and forested areas. (iv) not applicable, the project is located at a remote distance from any nature reserves and parks. (v) The Screening Report for Appropriate Assessment that accompanies the proposed development application has examined the potential for likely significant effects of the project on the conservation objectives of European Sites and has concluded, that the project will not have the potential, alone or in-combination with other plans or projects, to result in likely significant effects to European Sites. An EcIA of the proposed development has assessed the potential for the likely significant effects to NHAs and pNHAs and local biodiversity and has concluded that the project does not have the potential to result in likely significant effects to these conservation areas or local biodiversity.
(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;	(vi) Surface water quality within the wider area has been assessed by the EPA to be of good status and are not currently failing to meet environmental quality standards. Environmental Quality Standards for Noise and Air have been reviewed as part of this EIA Screening and no existing exceedances in these standards have been reported.

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
	The design of the project and the best practice mitigation measures that will be required to be implemented during the construction phase and operation phase, as detailed in the accompanying EcIA and Landscape Masterplan and as set out in Appendix 1, will ensure that the project does not perturb the long-term quality of the environment in the area surrounding the project site.
(vii) densely populated areas;	The project site is located within Cork City. The potential for the project to result in significant effects to the local population has been considered in Section 4.1.1 and it has been concluded that there is no such potential effects arising from the project to the local population.
(viii) landscapes and sites of historical, cultural or archaeological significance	As set out in Section 4.1.6 the project site is situated in an area of Medium Landscape Sensitivity. In the accompanying LVIA (CSR, 2026) the magnitude of change to the receiving landscape that is predicted to arise as a result of the proposed development will be Medium, whilst the landscape effect resulting from a Medium landscape sensitivity and a Medium magnitude of change, is considered to be Moderate**.** However the overall landscape effect, when considered in light of visual amenity; protected views; ridge silhouette; building structures or landmarks; and ecological and habitat value of the site, the overall landscape effect is determined to be Neutral. Furthermore the LVIA concluded that there will be no visual effects arising in respect of the strategic views or landmarks identified in Cork City Council's View Management Framework. Absence of any significant landscape and visual impacts associated with the proposed development has been achieved through the careful consideration of scale and height in the context of the receiving environment and the selection of colour finishes for elevations and roof structures which assist integration in the challenging sloping topography of the subject site. In addition remedial mitigation is provided in the form of tree and hedgerow planting on the site, to supplement existing retained trees and hedgerows, which will provide screening and have a softening effect as it matures in the medium to long term.

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
	As set out in Section 4.1.7 above no SMRs occur at or in the vicinity (i.e. zone of notification) of the project site. The nearest NIAH structure (Collins' Barracks) to the project site is located approximately 25m to the east and the project will not have the potential to result in disturbance to this receptor.

Conclusion: No significant effects likely to arise associated with the location of the proposed development.

Rationale: The site is not located in an area of high biodiversity value. It is located in an area of high landscape value and the approach to the landscape design of the project has satisfied the requirements of Objectives 6.13 of the City Development Plan with respect to development in high landscape value areas. For the reasons set out above the project will not have the potential to result in likely significant effects to the receiving environment. Effective measures that are considered to be representative of standard measures to manage nuisance such as noise and vibration, air emissions and traffic will be implemented during the construction phase. These measures are set out in Section 3 above and Appendix 1 and their effective implementation will ensure that there is no real likelihood of significant effects on the environment.

5.0 CHARACTERISTICS OF POTENTIAL IMPACTS

Having considered the above environmental factors the aim of this section is to address likely impacts on the environment resulting from the project. Whether an EIA should or should not be deemed necessary, relevant to the scale of the project and the environment, will then be examined.

An assessment of the likely significant effects of a project on the environment must be considered with regard to the factors specified in Article 3(1) of the Directive and Section 171A(b)(i)(I) to (V) of the Planning and Development Act as amended, taking into account:

(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);

(b) the nature of the impact;

(c) the transboundary nature of the impact;

(d) the intensity and complexity of the impact;

(e) the probability of the impact;

(f) the expected onset, duration, frequency and reversibility of the impact;

(g) the cumulation of the impact with the impact of other existing and/or approved projects;

(h) the possibility of effectively reducing the impact.

The factors outlined in Article 3(1) of the Directive are presented in Table 5.1 below under the heading of "Environmental Factor". The results of the assessment provided in Table 5.1 are then used to inform an assessment against the criteria evaluating the characteristics of potential impacts.

Table 5.1: Characteristics of Potential Impacts on Environmental Factors

Environmental Factor	Potential Impact
Populations & Human Health	As set out in Section 3 and 4 above, best practice measures that are considered to be representative of standard measures to manage nuisance such as noise and vibration, air emissions and traffic will be implemented

Environmental Factor	Potential Impact
	during the construction phase. These measures are set out in Appendix 1 and their effective implementation will ensure that the project does not have the potential to result in likely significant effects to the receiving population and human health.
Biodiversity	The project will not result in any direct impacts to sensitive biodiversity receptors.
Soil and Geology	There will be no significant impact to soils or geology.
Water	The project site is not located in close proximity to any major watercourse and no surface waters occur within the footprint of the project. The project site is underlain by a sensitive aquifer of local importance. All design and mitigation measures outlined in this screening report with regard to managing water on site during the construction phase and operation phase will be implemented. These measures are representative of best practice guidelines for preventing pollution to water and their implementation will eliminate or at minimum reduce to an insignificant level the risk of pollution to waters. The project site is not located within a flood zone and is not at risk of flooding. The project will be connected to the existing sewer and all foul water generated at the project site during the operation phase will be directed to the Uisce Éireann WWTP for treatment. This will eliminate the potential for the emission of wastewater to the surrounding aquatic environment.
Air Quality and climate	As noted above, the project will require demolition works and limited excavations. These activities will have the potential to generate dust.

Environmental Factor	Potential Impact
	A range of best practice measures are to be implemented such that the potential for dust to be generated during the construction phase and act as a nuisance offsite is mitigated so that any significant residual nuisance effects are eliminated. The best practice measures to manage dust during the construction phase are set out in Appendix 1: Air Quality. With regard to air emissions from construction traffic, they do not have the potential to result in significant effects to the environment.
Noise and Vibration	As set out in Section 3 above, noise and vibration during the construction works phase will not have the potential to result in any significant change to baseline noise and vibration levels at surrounding receptors. Noise and vibration will be further minimised through best practice and the implementation of measures outlined in Appendix 1 to this screening report. With the effective implementation of these measures during the construction phase, the project will not have the potential to result in significant noise nuisance to sensitive receptors.
Cultural Heritage	There are no protected SMRs or NIAH structures occurring within the project site. There are no SMRs occurring within the zone of notifications surrounding the project site. There is 1 no. NIAH structure occur a 25m distance of the project site, located within the adjacent Collin's Barracks. This structure will be separated from the project by an existing bank and vegetated boundary and will not have the potential to result in disturbance to it.
Landscape & Visual	As per the findings set out in Section 3 and 4 above, the project will not have the potential to result in likely significant effects to receiving high value landscape and will not result in any significant visual impacts.

Table 5.2: Characteristics of the potential impacts

The potential effects of project in relation to criteria set out below are informed by the results of the assessment provided in Table 5.1 above	**Potential Impact**
(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);	Minor and localised temporary impacts are identified primarily at construction stage only.
(b) the nature of the impact;	The nature of the impact associated with the proposed development to environmental parameters have been set out in Tables 3.1; 4.1; and 5.1 above. It has been concluded that in circumstances where the proposed mitigation measures are effectively implemented, the project will not have the potential to result in significant environmental effects.
(c) the transboundary nature of the impact;	Given the size, scale and location of the proposed development potential transfrontier impacts will not arise.
(d) the intensity and complexity of the impact;	The project is representative of project that is consistent with the current and ongoing evolution of urban fabric of Cork City centre. The construction phase will be of short-term duration being completed within an estimated timeframe of 24 months. With the effective implementation of the proposed construction phase measures, the project will not result in intense or complex impacts to the receiving environment.
(e) the probability of the impact;	Impacts during the construction phase associated with disturbance to fauna and nuisance to sensitive receptors will be low and will not have the potential to be significant. The

	effective implementation of the proposed construction phase measures will ensure that any disturbance/nuisance effects are a brief and short-lived.
(f) the expected onset, duration, frequency and reversibility of the impact;	It is estimated that the construction phase will last for approximately 24 months. This will represent a short-term impact and any minor construction phase effects would arise during this phase of the project. There is no potential for long-term or permanent significant impacts to arise as a result of the construction phase of the project.
(g) the cumulation of the impact with the impact of other existing and/or approved projects;	As outlined in Table 3.1 above the project does not have the potential to combine with other projects to cause significant cumulative effects to the surrounding environment. In addition, as set out in Table 3.1, the project is consistent with the residential land use zone as set out in the Cork City Development Plan.
(h) the possibility of effectively reducing the impact.	Measures are detailed in this screening report that will, upon effective implementation, avoid any potential for the project to result in significant effects to the environment. These measures have been proven to be effective at removing the potential for environmental impacts to occur. In addition, a range of design measures have been incorporated into the project to ensure the avoidance of potential environmental effects. These "mitigation by design" measures include the proposed approach to surface water and wastewater management during the construction phase and operational phase, the high-quality approach to the design and the proposed landscape and streetscape design for the operation phase of the development.

Conclusion: No potential significant effects will arise from the project on environmental parameters.

Rationale: As outlined in Table 5.1 the proposed development will not have the potential to result in significant effects to any environmental factor.

6.0 CONCLUSION

The project at Pope's Hill does not trigger the threshold for mandatory EIA/EIAR as set out in the 2001 Regulations and has, accordingly, been assessed as a sub-threshold project.

Potential impacts to biodiversity; land and soils; water; air quality; noise and vibration are not considered to be significant and will be further mitigated through the implementation measures, as set out in Appendix 1, that are considered to be representative of standard, best practice measures at development site.

In view of the findings set out in this screening report it is concluded that the characteristics of the project are not significant, due to the scale and nature of the project and its footprint, the characteristics and sensitivities of the receiving environment and design and best practice measures that will be implemented as part of the construction and operational phase of the project.

The European Guidance on EIA Screening[4] provides a checklist to assist with the decision as to whether or not an EIA is required based on the characteristics of a project and its environment. This screening checklist is presented in Table 6.1 below and has been informed by the various assessments that have been set out in Sections 2, 3 and 4 above.

Table 6.1: Screening Checklist

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality	Yes	No likelihood of significant effect. The changes that will arise as a result of the project are in keeping with the planning policy for the project site and surrounding area and is consistent with the

[4] Environmental Impact Assessment of Projects: Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU). European Commission 2017.

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
(topography, land use, changes in waterbodies, etc.)?		ongoing evolution of the urban fabric of Cork City centre.
2. Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes	No likelihood of significant effect. The project will require natural resources in the form of standard construction materials. The quantities to be used as part of the project will be relatively small given the scale of the project.
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes	No likelihood of significant effect. Standard construction materials will be used during construction. Best practice construction will be implemented during the construction phase and all such materials will be stored in secure locations and will be handled in accordance with accepted construction procedures.
4. Will the Project produce solid wastes during construction or operation or decommissioning?	Yes	No likelihood of significant effect. Waste in the form of construction material wrappings and pallets etc. will be generated during the project. In addition, waste generated by site operative at the site canteen etc. will be generated. All solid waste will be managed in accordance with relevant waste legislation and all waste would be removed by the site by a licensed contractor and disposed of at a licensed facility. Efforts will be made to reuse as part of the project's construction phase wherever possible soil material generated during excavations at the project site. Where materials cannot be reused they will be transferred off site by a licensed contractor and disposed of at a licensed facilities. The movement of an soil material from the project site will be subject to the control measures.

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?	Yes	No likelihood of significant effect. It is expected that dust and emissions from construction vehicles, plant and equipment may be released temporarily during construction. Whilst dust and noise emissions generated by the project will not present a risk of significant effects to the environment, measures as outlined in Appendix 1 of this Screening Report will be implemented to manage dust and noise emissions during the construction phase of the project. All emissions will be kept within standard air and noise quality limits outlined in the relevant legislation.
6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes	No likelihood of significant effect. It is expected that noise and vibration of a minor and short-lived scale being restricted to the construction phase of the project. Whilst dust and noise emissions generated by the project will not present a risk of significant effects to the environment, measures as outlined in Appendix 1 of this Screening Report will be implemented to manage dust and noise emissions during the construction phase of the project. All emissions will be kept within standard air and noise quality limits outlined in the relevant legislation.
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal wasters or the sea?	Yes	No likelihood of significant effect. Standard, best practice measures, in accordance with the Objectives of the Cork City Development Plan, as outlined in Section 3 above, will be implemented during the construction phase to manage and treat all surface water generated on site during this phase of the project. Only clean water will be discharged from the project site to receiving waterbodies.
8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	Yes	No likelihood of significant effect. Construction activities would be undertaken with due regard to occupational health and safety. The site manager will be responsible for the management of health and safety on site during construction.
9. Will the Project result in social changes, for example, in	No	No likelihood of significant effect. The project will result in a change to local demography and

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
demography, traditional lifestyles, employment?		employment. However, these changes have no real likelihood of significant effects. It will not have the potential to result in changes to traditional lifestyles.
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes	No. The project will not have the potential to combine with other projects or land uses to result in any significant cumulative impacts to the environment.
11. Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	No	Cork Harbour SPA, Great Island Channel SAC, Cork Lough pNHA and the Douglas River Estuary pNHA are located in the wider vicinity of the project. The potential for impact to these designated and proposed conservation areas have been examined in the Screening Report for Appropriate Assessment and the EcIA and it has been found that it can be excluded that the project will result in any adverse effects to the qualifying interests of these designated conservation areas. The project will not result in any potential for significant effects to the receiving cultural environment The project will not have any potential to diminish the value of the high value landscape of the surrounding area.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	No	The habitats occurring within the project site are dominated by artificial land cover and low value grassland and woodland of low local value, with boundary habitats of high local value also occurring. Local high value boundary habitats will be largely retained and enhanced through additional planting as part of the Landscape Masterplan prepared for the proposed development.
13. Are there any areas on or around the location which are used by protected, important or	No	See response to Q. 11 and 12 above.

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?		
14. Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	No	No such features occur at or in the immediate vicinity of the project.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	No	No.
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	No	A Traffic Management Plan will be implemented during the construction phase to ensure that no significant disruption to traffic flows occur during the construction phase. Given that no additional car parking is to be provided as part of the project, it will not have the potential to result in significant changes to traffic patterns during the operation phase.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes	A Traffic Management Plan will be implemented during the construction phase to ensure that no significant disruption to traffic flows occur during the construction phase. Given that no additional car parking is to be provided as part of the project, it will not have the potential to result in significant changes to traffic patterns during the operation phase.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes	No. For reasons set out in Section 4 above the project will not have the potential to result in significant effects to the environment as a result of its high visibility to many people.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes	No likelihood of significant effect. One NIAH structure is located c. 25m from the project site. For reasons set out in Table 4.1 above the project will not have the potential to result in likely significant

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
		effects to this structure and cultural heritage at and surrounding the project site.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	Yes	No likelihood of significant effect. The project site is located in a man-made, developed environment.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes	No likelihood of significant effect. As outlined in this Report, measures that will be implemented to manage the project will provide safeguards in terms of ensuring no potential for significant effects to existing land uses in the vicinity of the project site.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	No	No.
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes	No likelihood of significant effect. The construction phase works will be restricted to the project site and the adjacent public road and with the effective implementation of all measures outlined in this Report, there is be no potential for significant effects to the population occurring in the surrounding area.
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	Yes	Yes. Given that the construction phase will be restricted to the project site and the adjacent public road and with the effective implementation of all measures outlined in this Report there will be no potential for significant effects to the population occurring in the surrounding area.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater,	No	No.

Questions to be Considered	Yes / No? Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?		
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No	No.
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No	No.

Given the scale and nature of the project, which is consistent with the site's land use zoning and the ongoing evolution of the urban fabric of Cork City, and taking account of all available information, the overall probability of impacts on the receiving environment arising from the project (during the construction or operational phases) is considered to be low, as summarised in Table 6.1 above.

No significant environmental impacts will occur and, furthermore, best practice measure in construction and design have been outlined in this Report to further eliminate the potential for any minor disturbances to arise. These measures are representative of standard industry environmental management that will be effectively implemented to further minimise the impact of projects to the environment.

The information provided in this EIA Screening Report can be used by the competent authority, Cork City Council, to conclude and determine that an EIA is not required for the project at Pope's Hill as there will be no significant environmental effects.

Article 4(5) of the EIA Directive states that:

> *"The competent authority shall make its determination, on the basis of information provided by the developer in accordance with paragraph 4 taking into account, where relevant, the results of preliminary verifications or assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The determination shall be made available to the public and:*
>
> *(a) where it is decided that an environmental impact assessment is required, state the main reasons for requiring such assessment with reference to the relevant criteria listed in Annex III; or*
>
> *(b) where it is decided that an environmental impact assessment is not required, state the main reasons for not requiring such assessment with reference to the relevant criteria listed in Annex III, and, where proposed by the developer, state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment."*

The project has been assessed as a sub-threshold EIA project. This EIA Screening Assessment has concluded that the characteristics of the proposed development are not significant due to the compatibility of the project with the current evolution of the urban environment, the characteristics and sensitivities of the receiving environment and design and mitigation measures that will be implemented as part of the construction and operational phase of the proposed development.

The overall conclusion for this screening exercise is that there is no likelihood of significant effects on the environment arising from this sub-threshold development and that, therefore, the planning authority can conclude that an EIA of the project is not required.

APPENDIX 1: SCHEDULE OF ENVIRONMENTAL PROTECTION MEASURES

Environmental protection measures which will be implemented during the construction phase of the project, with respect to relevant environmental parameters, are set out in the following subsectons. These measures will be required to be set out in the final construction and environmental management plan to be prepared by the contractor in advance of construction works. For the avoidance of any doubt, the contractor will be required to implement these measures, as necessary, throughout the construction phase.

WATER

The construction phase of the project will adhere to best practice guidance, particularly the CIRIA guidance document C532 Control of water pollution from construction sites. The construction approach will also adhere to the requirements set out in the Inland Fisheries Ireland guidance document *Requirements for the Protection of Fisheries Habitat during Construction and Development Works and Development Sites*.

During construction key requirements for control of chemical pollution risk will include:

- It will be a condition of the contract between proponent and the Main Contractor that the Construction & Environmental Management Plan (CEMP) specifies how materials with the potential to affect surface water quality, for example diesel and oil, will be stored and handled in a manner that minimises the risk of accidental spills or leaks. The storage of such materials is already set out in the Outline Construction & Environmental Plan prepared by the project engineers Punch Engineers. The final CEMP will include these measures as well as all other measures below that aim to safeguard surface water quality runoff from the construction footprint. The CEMP will also ensure that spill containment and clean-up equipment is provided and maintained during the construction phase of the development.

- Storage – all equipment, materials and chemicals will be stored a minimum distance of 25m away from any surface water body. Given the absence of such features at the project this will be automatically achieved. Chemical, fuel and oil stores will be sited on impervious bases and within a secured bund of 110% of the storage capacity, within the lay down area.

- The integrity and water tightness of all the bunding structures and their resistance to penetration by water or other materials stored therein shall also be tested and demonstrated.

- All fuel oil fill areas will have an appropriate spill apron and spill kits will be provided on site.

- Designated fuel filling points will be put in place at secure locations, with appropriate oil and Petrol Interceptors to provide protection from accidental spills. Oil-absorbent materials shall be provided as an emergency measure in the event of a fuel spill.

- Maintenance – maintenance to construction plant will not be permitted on site, unless vehicles have broken down necessitating maintenance at the point of breakdown. All necessary pollution prevention measures will be put in place prior to commencement of maintenance in this instance;

- All vehicles and plant will be regularly inspected for fuel, oil and hydraulic fluid leaks. Suitable equipment to deal with spills will be maintained on site.

- Collection systems will be used to prevent any contaminated drainage entering surface water drains, watercourses or groundwater, or draining onto the land.

- Concrete - Wet concrete operations will be carried out in dry conditions. Runoff from wastewaters or contaminated surface water runoff will be directed to construction phase surface water drainage system to be installed on site;

- Mess, sanitation and welfare facilities will be required during construction and will be located at the construction compound. Foul effluent will make use of chemical facilities with periodic removal for offsite disposal.

- Damaged, leaking or empty drums will be removed from site immediately and disposed of via a registered waste disposal contractor.

- Mobile plant will be refuelled in a designated area, on an impermeable base away from drains or watercourses.

- A wheel-wash will be installed for use by all construction vehicles leaving site, and the waste water disposed off site.

- Pollutant collection sumps will be provided to deal with water run off throughout the construction phase.

- A road-sweeper will be used to remove dirt and debris from roads.

- Silt traps will be located around the site to collect run off, with settled solids removed regularly and water recycled and reused where possible.

NOISE & VIBRATION

The scheme contractor will be obliged to give due regard to BS5228, which offers detailed guidance on the control of noise from construction activities. In particular, it is proposed that various practices be adopted during construction, including:

- Limiting the hours during which site activities likely to create high levels of noise are permitted.
- Establishing channels of communication between the contractor/developer, local authority and residents.
- Appointing a site representative responsible for matters relating to noise.
- Ensuring all site access roads are kept as even as possible so as to mitigate the potential for vibration from lorries.
- Monitoring typical levels of noise during critical periods at sensitive locations.

Furthermore, it is necessary for a variety of practicable noise control measures to be employed as follows:

- Selection of plant with low inherent potential for generation of noise.
- Siting of noisy plant as far away from sensitive properties as permitted by site constraints.
- Continual monitoring of vibration at the adjacent Navigation Square buildings.

Vibration from construction activities will be limited to the values set out in Table A1.1 but will likely be far below these values. It should be noted that these limits are not absolute, but provide guidance as to magnitudes of vibration that are very unlikely to cause cosmetic damage. Magnitudes of vibration slightly greater than those in the table are normally unlikely to cause

cosmetic damage, but construction work creating such magnitudes should proceed with caution. Where there is existing damage, these limits may need to be reduced by up to 50%.

Table A1.1: Allowable Vibration During Construction Phase

Allowable vibration (in terms of peak particle velocity) at the closest part of any sensitive property to the source of vibration, at a frequency of:		
Less than 10Hz	10 to 50Hz	50 to 100Hz (and above)
3 mm/s	3 to 8 mm/s	8 to 10 mm/s

AIR QUALITY

In order to ensure that dust nuisance does not occur, a series of preventative measures and a dust management plan will be formulated for the demolition and construction phase of the project. The proposed measures to be implemented during the demolition / construction stage include:

- Hard surface roads are to be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic;
- Any road that has the potential to give rise to fugitive dust will be regularly watered, as appropriate, during dry and/or windy conditions;
- Vehicles using site roads will have their speed restricted, and this speed restriction must be enforced rigidly. On any un-surfaced site road, this will be <15kph, and on hard surfaced roads as site management dictates;
- Vehicles delivering or removing material with dust potential (soil, aggregates) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust;

- Public roads outside the site will be regularly inspected for cleanliness, and cleaned as necessary;
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind;
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods;
- Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for nuisance dust emissions exist;
- Scaffolding, where required, will be erect around the site where necessary during construction along with hoardings at ground level;
- Mesh netting will be erect around scaffolding during construction where necessary to minimise dust emissions from the site;
- At all times, these procedures will be strictly monitored and assessed by a designated site manager;
- In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust would be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations;
- All environmentally significant raw materials (fuels, etc.) are to be stored in certified containers and tanks which are fully secured with a 'no open lid policy' in place for materials in storage. This prevents fugitive emissions and will minimise losses from the installation;
- Effective training programmes are to be implemented for construction personnel for the duration of the construction programme;
- A strategy for ensuring effective communication with authorities and stakeholders will be implemented;
- Bergerhoff dust monitoring gauges will be installed for the duration of the project at predetermined locations;
- Digital dust analysers will be used to monitor dust levels both on and off site for the demolition and construction programmes

Construction vehicles, generators etc., may give rise to some CO_2 and NO_2 emissions. However, due to the short- term and temporary nature of these works the impact on climate change will not be significant and would not require any mitigation measures.

These mitigation measures will be incorporated into a final Construction Environmental Management Plan (CEMP) prepared by the appointed contractor, prior to the construction of the development.

6.1 WASTE MANAGEMENT

- All excavated material will be removed from the site to an appropriately licenced facility. Soil for disposal from the site are classified as waste and must comply with waste management legislation. The relevant legislation is the EU council decision (2003/33/EC) which has been implemented in all member states and sets out the criteria for the acceptance of waste at Landfills.

- Final certification for all materials removed off site will require to be provided by the main contractor on completion of the excavation works.

- During construction of the proposed development, there will be construction waste generated.

- The main non-hazardous and hazardous waste streams that will be generated by the construction and demolition activities at the site are described in Section 3.3.11 above.

- A temporary segregation bay will be constructed at the site for the duration of the construction phase of the development. The bay will include segregated areas for recyclable waste streams, such as gypsum (plasterboard), cardboard, timber, concrete/blocks/tiles etc.

- Cardboard will be segregated on site. The cardboard will be flattened and placed in a covered skip or tied and covered, to prevent the card getting wet. A recycling contractor will collect it as required.

- There will be a separate skip for plasterboard at the site. There are a number of specialist contractors that recycle plasterboard and they will be contracted to address this matter.

- Reprocessed gypsum powder, which makes up to 94% of the plasterboard, shall insofar as is practicable, be reprocessed into new plasterboard or converted for use in soil conditioners for the agricultural industry. The paper, which makes up to 6% of the plasterboard, shall insofar as is practicable, be reused.

- Excess excavated soil will be disposed of off-site. Soil will be removed and disposed of by contractors licensed under the Waste Management Act of 1996, the Waste

Management (Permit) Regulations of 1998 and the Waste Management (Collection Permit) Regulations of 2001. This material will be used for fill material on other sites, or capping purposes on site, e.g. at a landfill.

- As plastic is now considered a highly recyclable material, plastic generated during construction shall, insofar as is practicable, be diverted from landfill and recycled. Clean plastic will be segregated at source and kept as clean as possible and stored in a dedicated covered skip.

- There will be timber waste generated from the construction work as off-cuts or damaged pieces of timber. Timber that is uncontaminated, i.e. free from paints, preservatives, glues etc, shall insofar as is practicable be recycled. It will be stored on site in a designated skip, and collected by a recycling contractor.

- Steel is a highly recyclable material. A segregated skip will be available for steel storage on site pending recycling.

- Tracking and Documentation Procedures for Off-Site Waste

- All waste will be documented prior to leaving the site.

- Any contractor who takes waste materials from the site will be compliant with all applicable waste management legislation and regulations, including holding waste collection permits. The foreman on the site will have a copy of the waste collection permits.

- All information will be entered in a waste management system maintained on the site by the building contractor. This will maintain accurate records on the quantities of waste/surpluses arising, locations for disposal and recycling of waste and the permitted contractors used in the process.

- There will be a general skip or receptacle for C&D waste not suitable for reuse or recovery. This skip will include polystyrene, contaminated cardboard, plastic etc. Site operatives shall insofar as is practicable recycle as much municipal waste as possible, i.e. cardboard, plastic, metals and glass. General wet waste will be presented separately for recovery. Food waste will be segregated with separate receptacles for collection and disposal.

- Prior to removal, the municipal waste receptacle will be examined by either the foreman or a member of his team to ascertain that recyclable materials have not been placed in there. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly.

- During the operational phase, the waste generated will be typical of a commercial/business development. The management of waste generated on site will

follow the waste management hierarchy of reduce, reuse and recycle followed ultimately by disposal.

- All waste generated will be disposed of by a licensed waste contractor.