Technical Note

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P01	10/06/26	Stage 2 Issue	Maria Doyle	Grant Humphrey	Noel Gorman
P03	23/09/26	Stage 3 Issue	Maria Doyle	Grant Humphrey	Noel Gorman

1. Introduction

1.1. Overview

DBFL Consulting Engineers (DBFL) have been commissioned to prepare an overview statement relating to civil infrastructure in support of the proposed planning amendment of a permitted mixed-use development on a brownfield site at the Royal Liver Assurance Retail Park, Old Naas Road, Dublin 12.

The subject development site already benefits from the parent planning permission (DCC REG. REF. 4238/19; An Bord Pleanála (ABP) REF. 307804-20) and as amended by DCC Ref.:4436/23 & 5050/26) which includes the demolition of the existing Royal Liver Assurance Retail Park and its replacement with a mixed-use development across c. 9 No. buildings comprising a mix of residential apartments (including Build to Rent units and Shared Accommodation Bedrooms), Office, Crèche, Community, Retail, Café / Restaurant / Bar uses plus ancillary car / bicycle parking areas at ground and basement levels. The current scheme will be referenced throughout this technical note as the “previously permitted scheme”.

For a complete description of the proposed amendments, please refer to the Statutory Notices including the full package of civil infrastructure information lodged as part of the permitted scheme (DCC REG. REF. 4238/19; An Bord Pleanála (ABP) REF. 307804-20 and as amended by DCC Ref.:4436/23 & 5050/26) to which this application makes minor amendments to the previously granted infrastructure.

The development will consist of amendments to a previously permitted mixed-use development (DCC Reg. Ref.: 4238/19; ABP Ref. PL29S.307804, as amended by DCC Ref.: 4436/23 and DCC Reg. Ref.: 5050/26). The proposed amendments relate solely to the permitted Blocks B1, B2, C1, C2, D1 & D2 (identified as Phase 2). No amendments are proposed to any other permitted blocks.

1. The proposed alterations result in an overall increase of 2 no. units increasing the total overall units from 1196 to 1198. The proposed amended residential development of Block B1, B2, C1, C2, D1 & D2 will consist of a total of 635 no. residential apartments (an increase from 633 no. as permitted), which includes 38 No. Studios, 269 No. 1-Bed, 288 No. 2-Bed- 4-Person and 40 No. 3-Bed- 5-Person, units as follows:
    - Alteration of Block B1 from a permitted 11-12-storey building providing for 90 no. apartment units to a 10-storey building providing for 107 no. apartments.
    - Alteration of Block B2 from a permitted 10 storey building providing for 90 no. apartment units to a 10-storey building providing for 89 no. apartments.
    - Alteration of Block C1 from a permitted 10-storey building providing for 171 no. apartment units to a 10-storey building providing for 144 no. apartments.
    - Alteration of Block C2 from a permitted 10-storey building providing for 89 no. apartment units to a 10-storey building providing for 98 no. apartments.
    - Alteration of Block D1 from a permitted 9-storey building providing for 87 no. apartment units to a 9-storey building providing for 123 no. apartments.
    - Alteration of Block D2 from a permitted 8-storey building providing for 106 no. apartment units to an 8-storey building providing for 74 no. apartments.
2. The reconfiguration of internal layouts of each of the blocks has resulted in the minor shift in the block footprints. The permitted podium between Block B2 and Block C1 is removed with additional public realm and connection to the south proposed. The block amendments result in amendments to permitted communal amenity space with the removal of roof terraces on Blocks C1, C2 and D1 and amendment to roof terraces on Block B1 and B2.
3. Façade modifications are proposed to respond to the revised internal layouts including minor relocation of windows, balconies etc. and a revised approach to the Naas Rd frontage.

4. Alteration of the permitted uses and facade at ground floor level and removal of permitted BTR tenant amenity spaces located in Blocks B1, B2, C1 & C2 to provide for a ground floor level that includes:
    - Blocks B1-B2: 1 no. retail/café/restaurant unit, 1 no. café unit, 1 no. community unit, a creche (relocated from Block D1) and associated cycle parking, plant areas and entrances.
    - Block C1-C2-D1-D2: 1 no. retail unit, 2 no. retail/cafe/restaurant units, own door residential units, undercroft parking and associated cycle parking, plant areas and entrances.
5. Alterations to the permitted undercroft and basement parking areas under Blocks B1, B2, C1, C2, D1 & D2 to include for alterations to permitted layouts of car parking, cycle parking, plant, waste stores and substation locations.
6. Amendment of Condition 3 (a) of the parent permission (DCC Reg. Ref.: 4238/19; ABP Ref. PL29S.307804) relating to the Build to Rent (BTR) covenant, and its removal as it relates to Blocks B1, B2, C1, C2 & D1.

2. Roads

2.1. External Road Infrastructure

Proposals align with the previously permitted scheme, furthermore DBFL has engaged with the DCC Transportation Department on the proposed external roadworks to ensure alignment with transport schemes including but not limited to:

- NTA Greater Dublin Area (GDA) Cycle Connects
- BucConnects Core Bus Corridor (Clondalkin/Tallaght Scheme)

These updates and alignment to the schemes are further addressed in the DBFL Traffic and Transportation Impact Assessment, 260024-X-90-X-XXX-RP-DBFL-CE-0001.

For further information regarding external road proposals, please refer to DBFL Layouts, as submitted, namely:

- DBFL Roads Layout: 260024-04-Z00-DTM-DR-DBFL-CE-1201

Please refer to Henry J. Lyons proposed taking in charge layout, PRL-HJL-ZZ-00-DR-A-0015, as submitted, in which all constructed infrastructure within the indicated area is proposed to be

taken-in-charge. Further information regarding the taking-in-charge strategy of road infrastructure is further discussed in Section 2.3.

2.2. Road Infrastructure Phasing Strategy

Refer to Henry J. Lyon's Phasing Plan Layout (PRL-HJL-ZZ-ZZ-DR-A-0050A), as submitted for the phased Phasing Diagram.

It is now proposed that the phasing diagram submitted during the recent 2026 granted amendment (DCC Reg 5050/26) be rationalised further in terms of practicability and buildability, therefore a small portion of Phase 1 Public Road Works has been deferred and included within Phase 2 works:

- 3 Parking Bays adjacent to the access off Old Naas Road serving Phase 2 basement

An extract of the phasing plan is provided in Figure 2-1.

There is currently no proposed road infrastructure within Phase 3 as it solely pertains to the construction of the Tower Block A.

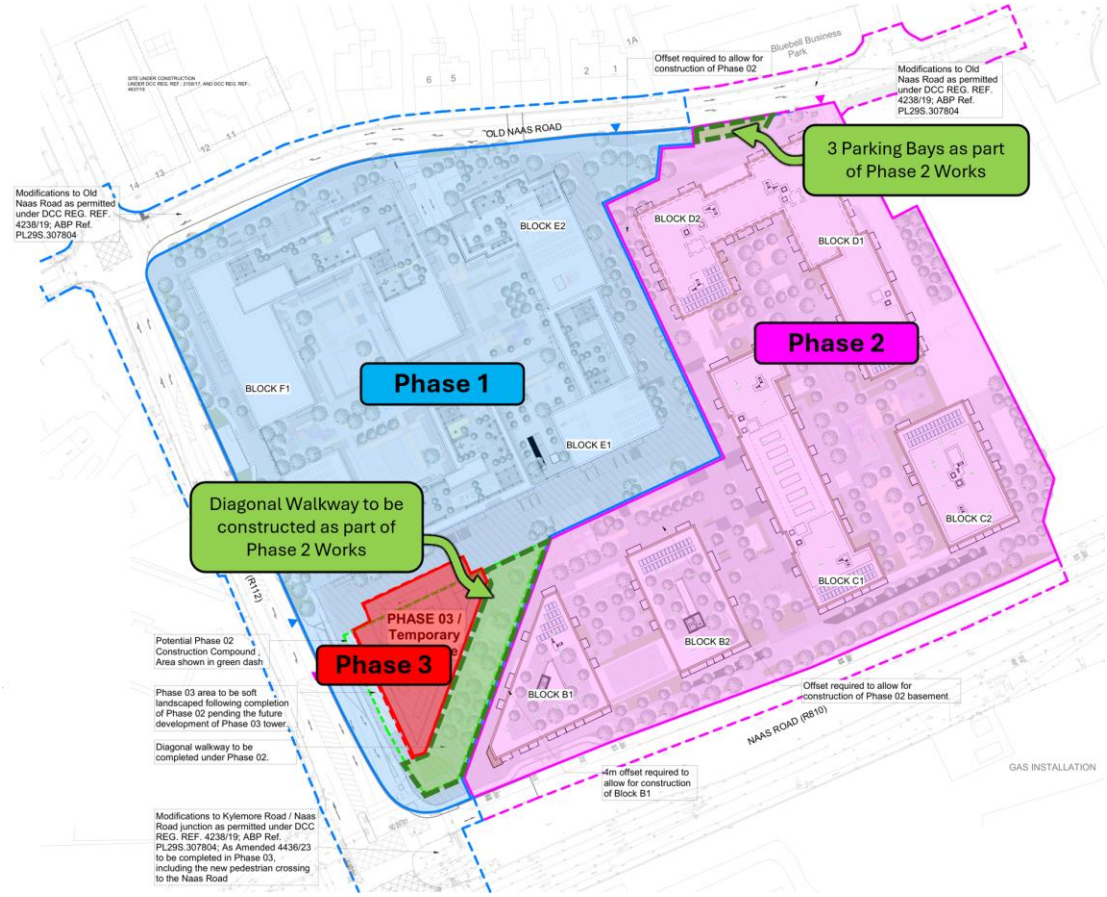


Figure 2-1 : Proposed Phasing Plan

For further information, please refer to the DBFL Roads Drawing, 260024-04-Z00-DTM-DR-DBFL-CE-1200, as submitted .

Proposed external road infrastructure will be phased as follows:

Phase 1 (Granted 2026 Planning Amendment (Reg. Ref. 5050/26)

- Upgrade of Kylemore Road and Old Naas Road including provision of a new footpath and cycletrack adjacent to the proposed development.
- Upgrade of existing Old Naas Road and Kylemore Road Junction.
- Modification of existing Naas Road and Kylemore Road Junction.

Phase 2

- Construction of remaining Old Naas Road infrastructure.
- Modification to existing entrance off Old Naas Road
- Provision of 3 Parking Spaces adjacent to modified entrance
- Temporary Landscaping within Phase 3 Site Area

2.3. Taking-In-Charge Strategy for Road Infrastructure

All road infrastructure that is proposed to be taken-in-charge will be constructed as per the current Construction Standards for Road and Street Works in Dublin City Council, 2016.

Please refer to Henry J. Lyons proposed taking in charge layout, PRL-HJL-ZZ-DR-A-0015, as submitted.

For further information, please refer to the DBFL Roads Package submitted as part of this application, in which areas to be taken in charge are further detailed, namely:

- DBFL Roads Layout: 260024-04-Z00-DTM-DR-DBFL-CE-1200

For additional road construction details, refer to the engineering package submitted as part of the previously permitted scheme.

2.4. Access Strategy

The proposed entrance for Blocks D1,D2,C1 and C2's basement and ground floor Parking is accessed off Old Naas Road. In addition, it now proposed that the basement parking provided under Blocks B1 and B2 is also accessed via the same entrance provided off Old Naas Road.

For further detail refer to the DBFL Traffic and Transportation Impact Assessment, 260024-X-90-X-XXX-RP-DBFL-CE-0004, submitted as part of the application.

Proposed external road infrastructure is also detailed in DBFL Roads Layout, 260024-04-Z00-DTM-DR-DBFL-CE-1200, as submitted. For internal vehicular tracking, please refer to DBFL Layout, 260024-04-Z00-DTM-DR-DBFL-CE-1211, as submitted.

3. Surface Water

Response to LRD Stage 2 Opinion

Please find responses to Section 3 of the Dublin City Council's LRD Opinion Document, regarding received comments from the DCC's Drainage Division.

Item 3a: There are a number of queries in relation to the management of surface water. It is noted that there is an overall increase in attenuation volume and therefore the applicant is requested to consider the provision of blue roof as part of the amendment, in order to align the design more closely with current policies and climate change challenges.

DBFL Response to Item 3a:

Current proposals are intended to align with the original planning permission in which only green roofs were proposed. However, the proposed amendment application intends to provide a significant amount of additional green roof areas in comparison to the previously permitted scheme as discussed within Section 3.1 of this report and HJL's proposed roof level site layout plan,PRL-HJL-ZZ-00-DR-A-0014A, as submitted.

In addition, typical green roof build-ups are proposed to be a Biodiverse Green Roof Systems in-leu of typical sedum planted extensive green roofs, providing significant positive environmental impact. Biodiverse Roof Systems are designed to be self-sufficient and low-maintenance compared to typical extensive buildups. Refer to Section 3.1.1 for information relating to proposed green roof buildup.

Item 3b : The applicant is also encouraged to explore improving SUDS features and reducing proposed underground attenuation tanks, where feasible.

DBFL Response to Item 3b:

There is a significant increase in surface-based SuDS structures proposed including permeable paving, tree pits and bioretention areas throughout. For more information, please refer to Section 3.1 to 3.6 and DBFL's Proposed Surface Water Strategy, 260024-91-Z00-DTM-DR-DBFL-CE-1350 and Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, respectively, as submitted.

Item 3c : **The applicant is requested to ensure there are no inconsistencies between the Architectural, Engineering and Landscape drawing sets.**

DBFL Response to Item 3c:

Noted

Item 3d : **There are concerns regarding the proposed taking-in-charge boundary and demarcation, particularly in relation to the potential for public footpath areas to drain into privately managed lands. Clarification is also required regarding the drainage proposals along the Old Naas Road, where certain amendments appear to incorporate Phase 1 drainage infrastructure. The Applicant is requested to clearly identify and explain the direction of pipework draining towards Block E2 and to provide comprehensive details regarding drainage responsibilities and the interface between public and private drainage infrastructure.**

DBFL Response to Item 3d:

Please refer to Section 3.6 and DBFL's Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, as submitted for further information regarding the interface between private and public infrastructure proposed.

The drainage strategy of the incorporation of Phase 1 including Block E2 is further detailed in Section 3.2 of the DBFL Civil Engineering Design Note, 260024-X-X-XXX-RP-DBFL-CE-0001 and DBFL's Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, as submitted.

Item 3e : **The Applicant is advised to contact the Drainage Division prior to the submission of the planning application regarding the proposed new surface water sewer on the Old Naas Road. Details regarding demarcation, ownership and maintenance responsibilities for public and private drainage infrastructure should be clarified and agreed.**

DBFL Response to Item 3e:

Acknowledged and confirmed.

For further information regarding the taking-in-charge strategy and demarcation of public surface water infrastructure, including the diversion and realignment of surface water infrastructure

within Old Naas Road, please refer to Section 3.6 and the DBFL Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, as submitted.

3.1. Green Roof Strategy

Reference should be made to the submitted architectural drawings attached for the permitted and proposed roof layouts, namely, PRL-HJL-00-20-DR-A-0014 SITE LAYOUT PLAN - ROOF LEVEL - Existing Permitted and PRL-HJL-ZZ-00-DR-A-0014A-Site Layout Plan - Roof Level - Proposed.

Figure 3-1 shows the extent of green roofs as per the previously permitted scheme.

It is proposed that rooftop amenity areas that were included as part of the previously permitted scheme, specifically blocks C1,C2 and D1 are to be rather optioned as green roof areas, which will designate an additional 24% of the total area of Phase 2.

The proposed overall sitewide green roof strategy includes both the recently granted planning amendment specific to Phase 1: Block E1 (Reg. Ref. 5050/26) and the remaining blocks within Phase 2 layout as indicated in Figure 3-2. Table 3-1 summarises the quantum of green roof comparison between the previously permitted scheme and the proposed green roof strategy as described, additional roof areas proposed are highlighted within the provided table.

In summary, the quantum of green roofs in the proposed planning amendment provides an additional 2,127m^2 from the parent planning , with the overall coverage within Phase 2 significantly increasing from 13% to 48%. It shall be noted that the green roof percentages provided therein excludes quantum related to the intensive podium and rooftop amenity areas that include intensive roof planting.

The overall green roof coverage, including the recently approved amendment (DCC Reg. Ref. 5050/26) and the proposals under this application, amounts to 33% total coverage, representing an increase of over 154% in comparison to the original parent scheme.



Figure 3-1: Previously Permitted Parent Sitewide Green Roof Strategy (2019)



Figure 3-2 : Proposed Sitewide Green Roof Strategy

Table 3-1 : Proposed Sitewide Green Roof Strategy

		Permitted Scheme (2023)			Proposed Scheme (2026)			
	Block	Green Roof m^2	Total Roof Area m^2	Coverage	Green Roof m^2	Total Roof Area m^2	Coverage	Overall Increase
Phase 1 (Reg 5050/26)	Block E1	0	925	0%	165	977	19%	19%
	Block E2	0	973	0%	0	973	0%	0%
	Block F1	880	2363	37%	880	2363	37%	0%
	Block F2	0	1699	0%	0	1699	0%	0%
	Total Phase 1	**880**	**5960**	**15%**	**1045**	**6012**	**17%**	**+2%**
Phase 2 (Proposed)	Block B1	0	723	0%	120	849	14%	+14%
	Block B2	0	843	0%	77	826	9%	+9%
	Block C1	0	1511	0%	703	1400	50%	+50%
	Block C2	0	839	0%	549	826	66%	+66%
	Block D1	0	923	0%	399	683	58%	+58%
	Block D2	834	1429	58%	1113	1580	70%	+12%
	Total Phase 2	**834**	**6268**	**13%**	**2961**	**6164**	**48%**	**+35%**
Site Total		**1714**	**12228**	**13%**	**4006**	**12176**	**33%**	**+20%**

3.1.1. Proposed Green Roof Typical Buildup

In response to comments from the Stage 2 LRD Meeting with regards to the aversion of typical sedum planted extensive sedum green roofs, it is proposed that green roof areas within the development will predominantly typically compromise of a Biodiverse Green Roof System. This green roof system typically consists of a biodiverse growing medium typically 100mm to a 150mm thick, suitable for a range of surfaces including a vegetation layer (wildflower seed and plug plants), installed over a geocomposite drainage and reservoir layer. Refer to Figure 3-3 for a typical example. Biodiverse Roof Systems are designed to be self-sufficient and low-maintenance compared to both Extensive and especially Intensive Roof buildups.

A biodiverse roof is also designed to replicate the ecological needs of the local environment. It creates natural habitats that support a diverse range of plants, birds, animals, and invertebrates by including natural undulating substrates, stone and dead wood piles, bare sandy areas and localised dew ponds. Refer to Figure 3-4 for typical examples of habitat creation.

Compared to Extensive Roof Systems (Sedum Planting), Biodiverse Roof Systems have increased load implications compared to Extensive Green Roof Systems, with typical loads ranging from 100 – 200kg per m^2.

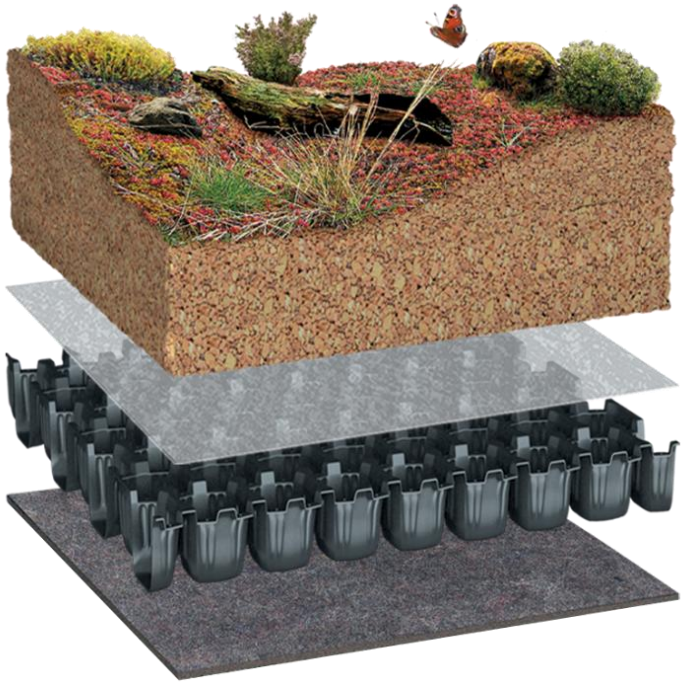


Figure 3-3 : Typical Bio-Diverse Buildup (Source: BauderBIODIVERSE Green Roof)



Figure 3-4 : Typical examples of habitat creation (Source : AGB Geosynthetics)

3.2. Surface Water Management Plan

3.2.1. Referenced Surface Water Strategy

The proposed internal surface water management strategy remains compliant with the requirements set out within previously permitted scheme, specifically the incorporation of the recently approved 2026 amendment (DCC Reg. Ref. 5050/26). However, due to the interconnectivity of phases within the permitted scheme's surface water management strategy, it requires that surface water strategy proposals discussed within this submission shall address the entire scheme, beyond the specific changes proposed within this proposed planning application.

Proposed internal surface water infrastructure within the recently approved 2026 amendment enabled it to be fully constructed within Phase 1 and proposed multiple blank connections within the private surface water network acting as tie-in points to enable successful future construction

of subsequent adjacent blocks within Phases 2 and 3. The proposals set out herein, specific to Phase 2, further develop the sitewide surface water strategy.

3.2.2. Surface Water Strategy

Refer to the overall surface water strategy for the development within the DBFL Surface Water Strategy Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1350, as submitted, which sets out the proposed site-wide approach to surface water management. Further subsections of the Surface Water Management Plan will detail the wider overall site implications discussed thereof, including:

- Site Discharge
- Site Runoff
- Surface Water Infrastructure including Attenuation Volumes

For more specific details related to infrastructure proposed within Phase 2, please refer to DBFL's Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, as submitted.

3.3. Site Discharge Strategy

As mentioned previously, the intention of the approved 2026 planning amendment's surface water management strategy was to enable infrastructure to be fully constructed within Phase 1, with minimal interference envisaged following the construction stages of Phase 2, as proposed. Aligning with these strategies, the proposed surface water catchment areas have been revised to reflect these changes.

The overall site discharge for the development remains unchanged from the permitted planning scheme. However, the proposed amendments within Phase 1, including revisions to Blocks E-F generally relating to the removal of basement areas as part of the planning amendment application, has altered the drainage distribution across the site. This has allowed for more feasible areas to provide attenuation storage within Phase 1. Therefore, the drainage strategy intends on redistributing final discharge rates evenly based on catchment size in order to optimise attenuation design. As both catchments are similar in size, balancing the discharge rates equitably allows a larger proportion of the required storage volumes to be captured within Catchment 2 in comparison to the previously permitted 2019 application and avoids unfeasible attenuation tanks in already constrained areas within Phase 1 such as the Diagonal Walkway between Blocks A and B1. The overall discharge rate for the site remains unchanged from the permitted rate, as discussed with DCC's Drainage Department as part of the Phase 1 planning amendments

discussions. The proposed attenuation volumes and design taking account of proposed discharge rates is further discussed in Section 3.5.

The overall discharge for the development remains at **12.9 l/s** as per the previously permitted scheme, which was the calculated mean annual average equivalent discharge of a greenfield the development site area, known as $Q_{BAR.}$

The development is divided into internal two surface water catchment areas, which drain towards two separate outfalls, as shown in Figure 3-5.

- Catchment Area 1 : Fully Capturing Phases 1 & 3 and Portion of Phase 2 draining south-east before discharging into the 225mm surface water outfall within Naas Road draining to the east.
- Catchment Area 2 : Capturing the remaining Phase 2 draining north before discharging into the 375mm surface water outfall within Old Naas Road draining to the east.

The surface water management plan is specific to the internal strategy of infrastructure proposed, as illustrated in Figure 3-5. External catchments include road infrastructure proposed as part of a developing integration of transport schemes mentioned in Section 2 and are subject to change.



Figure 3-5: Surface Water Catchment Strategy

The drainage strategy, at a minimum, is designed to mimic the natural drained environment by considering and recognising natural flow paths. The proposed infrastructure will emulate and optimise the management of surface water through an integrated site layout and drainage infrastructure design. Please refer to the DBFL Surface Water Drainage Drawing, 260024-91-Z00-DTM-DR-DBFL-CE-1330, for further details on the proposed Sustainable Drainage Systems (SuDS) features, including the attenuation volumes required to discharge at recommended greenfield runoff rates.

As previously noted, the proposed internal surface water infrastructure within the recently approved 2026 amendment was designed to facilitate full construction of Phase 1. However, surface water runoff from the vehicular ramps adjacent to Block E2 on Old Naas Road was proposed to be discharged temporarily to the proposed surface water outfall on Old Naas Road, as this infrastructure was intended to form part of the developing Catchment Area 2, which is now proposed as part of the Phase 2 amendments. The current proposals include the diversion of the surface water collected within the aforementioned area within Catchment Area 2's surface water

network and will be fully attenuated upon completion of the remaining proposed works. Figure 3-6 indicates the prior proposals indicated from the approved 2026 amendment. Figure 3-7 indicates the current proposals to divert the captured area.

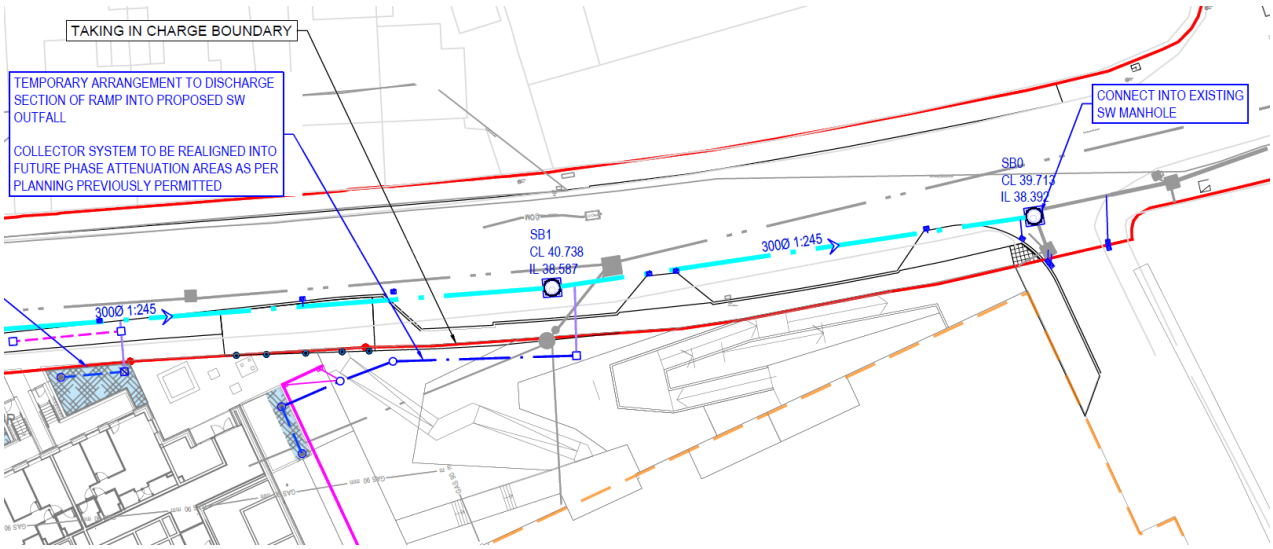


Figure 3-6 : Previously submitted Temporary Arrangement for Vehicular Ramp Area adjacent to Block E2 (DCC Reg. Ref. 5050/26)

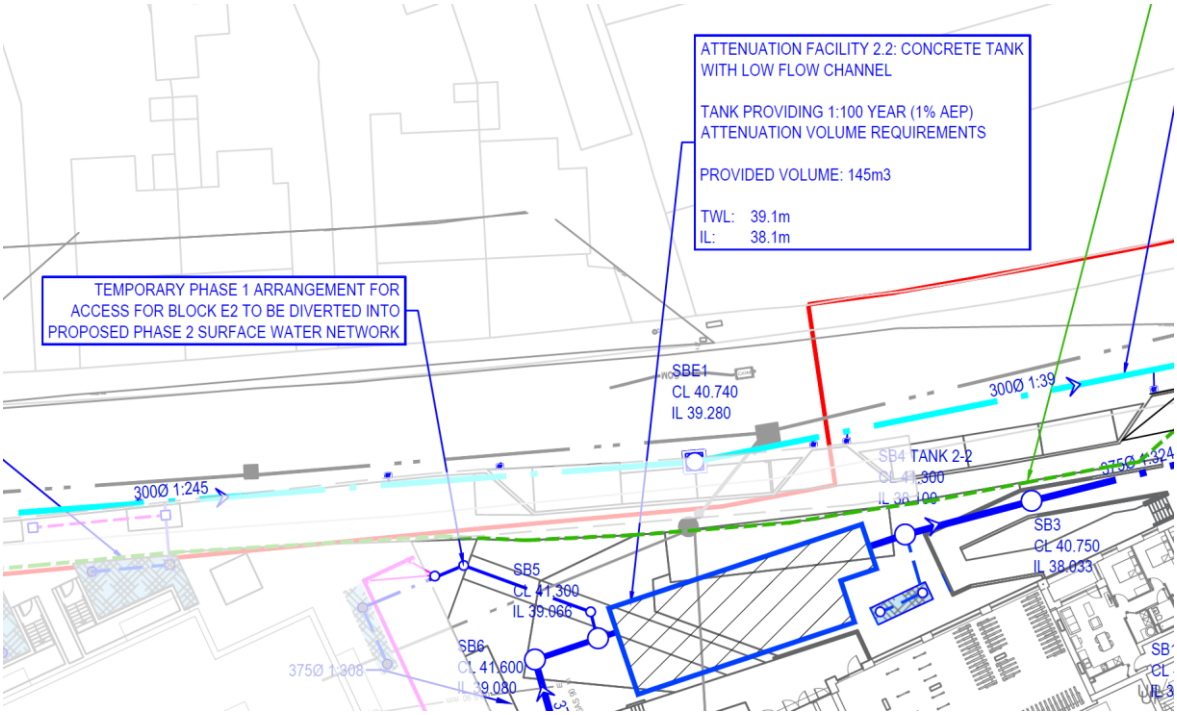


Figure 3-7: Current Proposal showing area diverted into Catchment 2 Surface Water Network

The summary of both permitted and proposed greenfield runoff rates discharging from each catchment to the existing surface water infrastructure is provided in Table 3-2. Catchment 1 will

discharge at 6.8 l/s, compared with the permitted planning scheme rate of 10.9 l/s. Catchment 2 will discharge at 6.1 l/s, which is higher than permitted planning scheme discharge rate of 2 l/s. As mentioned previously, this redistribution of flow has been adopted to optimise attenuation design, further discussed in Section 3.5. As mentions previously, The overall previously permitted planning scheme discharge rate for the development remains at **12.9 l/s**.

Table 3-2: Summary of Catchment Areas

Catchment Drainage Areas	Permitted		Proposed	
	Catchment Area	Discharge Rate	Catchment Area	Discharge Rate
Catchment 1 Naas Road	2.11 ha	10.9 l/s	2.03 ha	6.8 l/s
Catchment 2 Old Naas Road	1.20 ha	2.0 l/s	1.28 ha	6.1 l/s
Total	**3.31 ha**	**12.9 l/s**	**3.31 ha**	**12.9 l/s**

3.4. Site Runoff Management

SuDS features are designed to reduce runoff velocities at sources, thereby modifying the input hydrograph and reducing peak inflows for attenuation design.

In addition, rainfall initially wets the surface of SuDS elements, allowing water to be stored within the micro- and macro-textures of the surface. A proportion of this water will be lost to evapotranspiration, resulting in a reduction in runoff volume. As runoff drains to these SuDS features, the aggregate and soil surfaces will also wet, providing additional volume reduction through evapotranspiration and natural storage within the SuDS feature.

Table 3-3 contains the runoff coefficients that have been applied across the development within the permitted planning scheme. These were revised following discussions with Dublin City Council's Drainage Department during the planning process for the recent approved amendment application (DCC Reg. Ref. 5050/26).

It was agreed during discussions with DCC's Drainage Department as part of the recent 2026 permitted Phase 1 planning amendment that the podium areas runoff coefficient would increase to 60% from 50% and the amenity terrace increase to 90% from 70%, as a more conservative approach. In addition, permeable paving has been introduced in the courtyard area, which has a proposed runoff coefficient of 60%. Within Phase 2, parts of the podium are over the basement, with reduced stone buildups below, a factor of 75% has been proposed. Relative surface types with their associated runoff coefficients are shown below for both the permitted and proposed schemes.

Table 3-3: Runoff Coefficients

Surface Type	Runoff Coefficient	
	Permitted	Proposed
Roofs – Type 1 (Draining to Gullies)	100%	100%
Roofs – Type 2 (Biodiverse Green Roof)	70%	70%
Paved Areas – Type 1 (Draining to SuDS Features)	60%	60%
Paved Areas – Type 2 (Draining to Gullies)	80%	80%
Podium	50%	60% (INCREASE)
Grassed Areas	37%	37%
Amenity Terrace	70%	90% (INCREASE)
Permeable Paving	NOT USED	60% (NEW)
Permeable Paving (Podium)	NOT USED	75% (NEW)

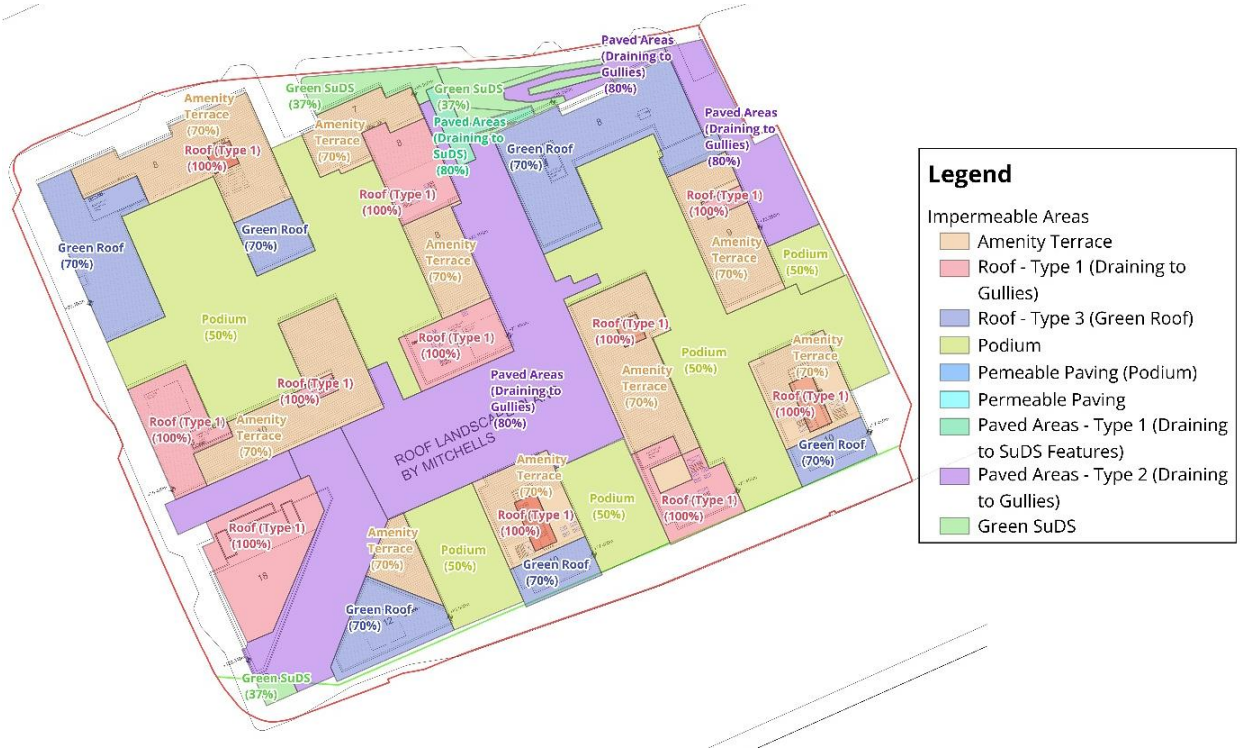


Figure 3-8: Permitted Planning Scheme Surface Types and Runoff Coefficients

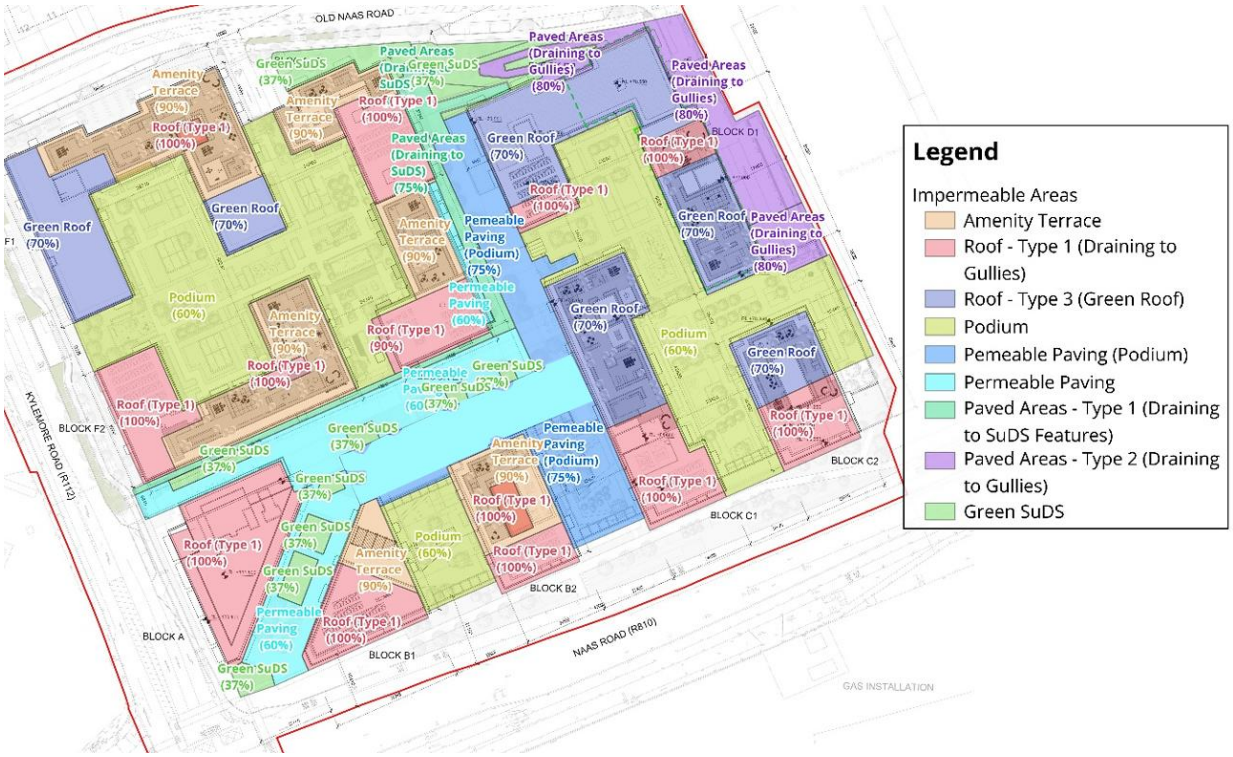


Figure 3-9: Proposed Scheme Surface Types and Runoff Coefficients

**Phase 3 is based on Emerging Preferred Layout*

A summary of the impermeable areas in within Catchment Areas 1 & 2 of the proposed scheme are provided in Table 3-4 and Table 3-5.

Table 3-4: Proposed Scheme: Catchment 1 Effective Drained Area Summary

Catchment 1 : Draining into Naas Road			
Description	**Reduction Factor**	**Gross Area (ha)**	**Effective Drained Area (ha)**
Green Roof	70%	0.133	0.093
Roof Areas (Type 1)	100%	0.413	0.413
Amenity Areas	90%	0.448	0.403
Grassed Areas	37%	0.050	0.018
Paved Areas (Draining to SuDS Features)	75%	0.047	0.035
Permeable Paving	60%	0.343	0.206
Permeable Paving (Podium)	75%	0.083	0.062
Podium	60%	0.523	0.314
TOTAL	**75.73%**	**2.039**	**1.544**

Table 3-5: Catchment 2 Effective Drained Areas Summary

Catchment 2: Draining into Old Naas Road			
Description	**Reduction Factor**	**Gross Area (ha)**	**Effective Drained Area (ha)**
Green Roof	70%	0.267	0.257
Standard Roof	100%	0.158	0.158
Grassed Areas	37%	0.126	0.047
Paved Areas (Draining to SuDS Features)	75%	0.027	0.016
Paved Areas (Draining to Gullies)	80%	0.243	0.195
Permeable Paving (Podium)	75%	0.099	0.074
Podium	60%	0.362	0.217
TOTAL	**75.19%**	**1.282**	**0.964**

Table 3-6: Scheme Summary (Sitewide)

Scheme	Gross Area (ha)	Effective Drained Area (ha)	Runoff Coefficient
Permitted	**3.31**	**2.20**	**66.4%**
Proposed	**3.32**	**2.50**	**75.3%**

In summary, the proposed scheme accounts for an additional 3000 m^2 of drained area in comparison to the previously permitted scheme. Final attenuation volumes reflecting these changes are discussed in Section 3.5.

3.5. Surface Water Design including Attenuation Storage

3.5.1. Overview

Refer to DBFL Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, for full details of SuDS structures proposed, including the provision of multiple raingardens/tree pit areas, filter drains and attenuation tanks.

The proposed attenuation volumes and flow control rates assume the complete construction of the development as per Henry J. Lyon's Phasing Plan Layout (PRL-HJL-ZZ-DR-A-0050A) Figure 2-1.

The surface water pipe networks and attenuation structures have been modelled within the Causeway Design Software and a copy of the calculations are provided in Appendix A.

The placement of SuDS structures was done in coordination with both architectural and landscape masterplans as part of this planning package submittal. This includes the provision of filter drains intended to collect surface water captured within the permeable paving as proposed within the landscape masterplan.

3.5.2. Attenuation Volume Design

Attenuation Volume requirements for the site were calculated using Causeway Software Suite and are provided in Appendix A. The proposed scheme has resulted in an additional volume capture of circa 73 m^3 over the storage provided in the previously permitted planning scheme, as summarised below in Table 3-7. There is a minimal increase of captured attenuated volumes attributed to both additional impermeable areas in comparison to the parent scheme as discussed in Section 4 balanced with the the significant increase of SuDS structures such as permeable paving, filter drains and raingardens throughout within both the 2026 granted amendment and the current amendment application proposed, in addition coupled with the improved efficiency of the hydrobrakes from 2.0 l/sec to 6.8 l/sec within Catchment 2. Volumes were calculated within the Causeway Drainage Suite, provided in Appendix A.

Table 3-7: Permitted and Proposed Attenuation Systems and Volumes Summary

Catchment Area	Permitted			Proposed		
	Attenuation System	**Attenuation Volume**	**Discharge Rate**	**Attenuation System**	**Attenuation Volume**	**Discharge Rate**
Catchment Area 1	Attenuation System 1.1	443 m^3	10.9 l/s	Attenuation System 1.1	500 m^3	6.8 l/s
	Attenuation System 1.2	173 m^3		Attenuation System 1.2	295 m^3	
Catchment Area 2	Attenuation System 2.1	424 m^3	2.0 l/s	Attenuation System 2.1A	90 m^3	6.1 l/s
	Attenuation System 2.2	56.7 m^3		Attenuation System 2.1B	140 m^3	
				Attenuation System 2.2	145 m^3	
	Total Permitted	**1097m^3**	**12.9 l/s**	**Total Proposed**	**1170m^3**	**12.9 l/s**

A high level overview of the attenuation volumes and discharge rates of the original parent scheme and the proposed scheme are provided in Figure 3-10 and Figure 3-11, respectively.



Figure 3-10: Permitted Planning Scheme Attenuation Volume and Site Discharge Strategy

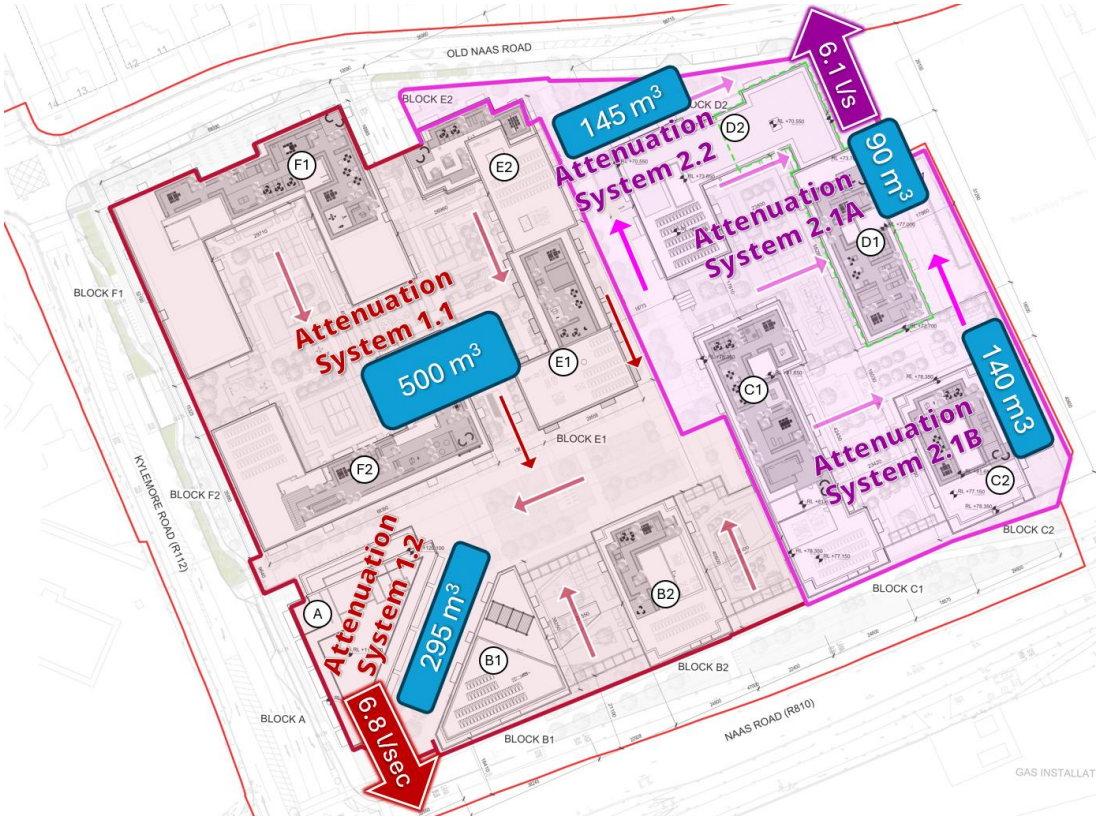


Figure 3-11 : Proposed Scheme Attenuation Volume and Site Discharge Strategy

3.6. SuDS Systems / Taken-in-Charge Strategy

Please refer to Henry J. Lyons proposed taking in charge layout, PRL-HJL-ZZ-DR-A-0015, as submitted, in which all constructed infrastructure indicated within the area is proposed to be taken in charge and to DBFL's Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, as submitted, and included in Appendix C for further detail of all surface water infrastructure proposed.

As illustrated in Figure 3-5, there is a limited proportion of public infrastructure proposed to be included as part of this scheme, relating to proposed external roadworks to ensure alignment with transport schemes including but not limited to:

- NTA Greater Dublin Area (GDA) Cycle Connects
- BusConnects Core Bus Corridor (Clondalkin / Tallaght Scheme)

All proposed infrastructure is compliant with the Greater Dublin Regional Code of Practice (GDRCoP) for Drainage Works: Version 6.0, as per the permitted planning scheme. In addition, all proposed surface water infrastructure that is intended to be taken-in-charge will be specifically compliant with DCC's own Drainage Standards/Requirements, referenced throughout the GDRCoP. These requirements indicate construction materials appropriate within DCC, such as, but not limited to provision of block-built or cast-in-situ manholes/ inspection/gully chambers, and the sole use of concrete or clay pipe material.

The SuDS / surface water treatment train components were evaluated on a component-by-component basis to determine the suitability of each measure for the proposed development.

Within Phase 2, the 3 public bays are proposed to be constructed as permeable paving, which includes compliant block-built chambers and perforated clay pipes which is specifically compliant with DCC's own Drainage Standards.

For more details regarding the location and extent of SuDS Structures within the development refer to DBFL Surface Water Drainage Layout : 260024-91-Z00-DTM-DR-DBFL-CE-1330, provided within Appendix C.

Final outfall manholes, which include a hydrobrake flow control devices are compliant to Section 16.1 of the GDRCoP.

In addition, there is a minor private amenity area serving Block B2 fronting Naas Road, that is unfeasible to be collected within Catchment Area 1 & 2 due to existing levels. The amenity area will drain into provided private biofiltration areas, a final block built outfall chamber will be provided in order to tie-into the existing Ø450mm surface water within Naas Road. This area is shown in Figure 3-12 below.

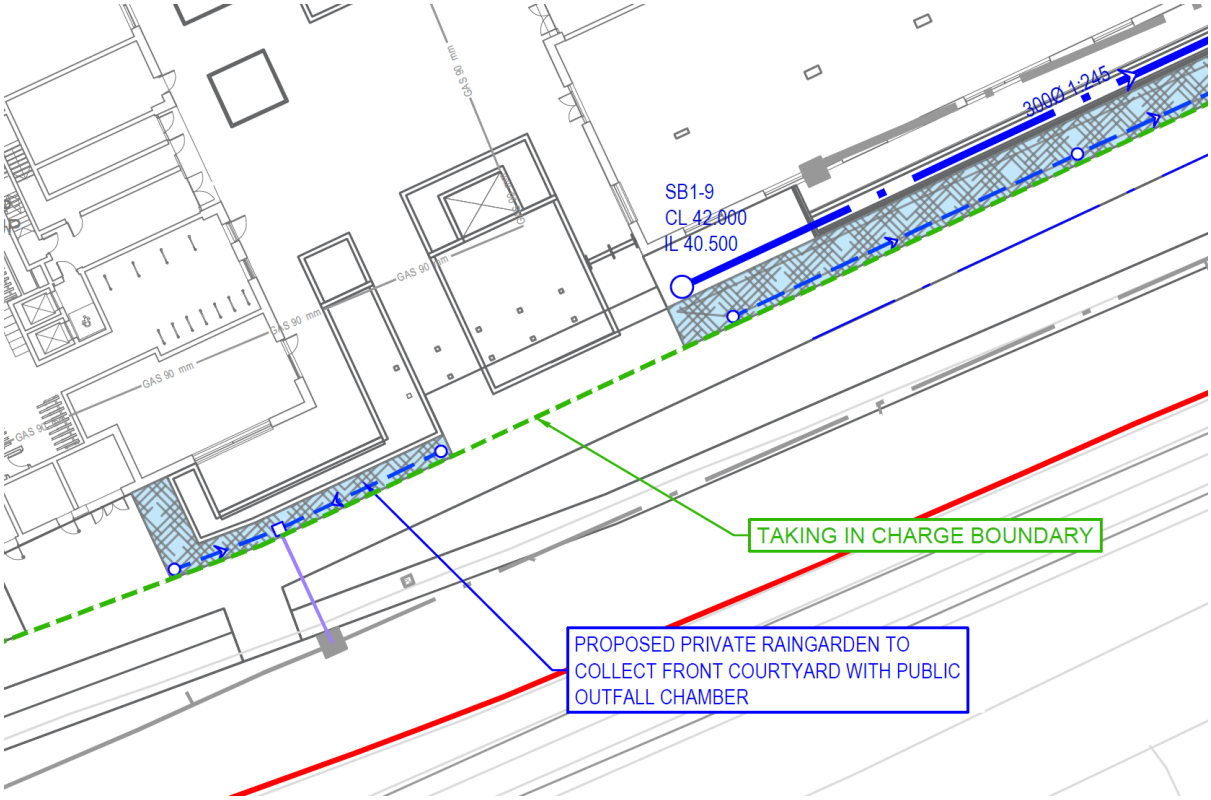


Figure 3-12: Raingarden draining into public surface water outfall

3.6.1. Old Naas Road Surface Water Infrastructure

As previously noted, Catchment Area 2 is proposed to discharge an attenuated flow of 6.1 l/s to the existing 375 mm outfall in Old Naas Road. However, following review of the Apex Survey utility information, the existing tie-in manholes MH176 and MH182 were found to be in poor condition, with significant silt deposits, while Manhole 212, located downstream appeared to be in acceptable working condition. The invert levels of MH176 and MH182 were also noted to be relatively high, with depths of less than 1.2 m and a steep gradient to the downstream Manhole 212. This creates challenges for optimising tank sizes, as there is insufficient cover to achieve the proposed tank

depths required for the necessary storage volumes. Therefore, it is proposed to divert this section of surface water drainage so that it can be appropriately dropped and graded, in accordance with the GDRCoP, before tying back into the existing outfall via a new manhole. This would align, and tie-in upstream with the required new Surface Water Network proposed as part of Phase 1 proposals.

Refer to DBFL Proposed Surface Water Drainage Layout, 260024-91-Z00-DTM-DR-DBFL-CE-1330, for the proposed realignment of the outfall within Old Naas Road, and Figure 3-10 below. Photographs of surface water manholes MH176,MH182 and MH212 are provided in Figure 3-14.

The intention is that the full realignment of the public surface water infrastructure within Old Naas Road will be included as part of Phase 1's construction. This will be included as part of the Surface Water Network Connection Application to DCC's Drainage Department as part of the compliance submission required for the recently granted amendment application (DCC Ref.: 5050/26). Provision will be made additionally with a blinded connection downstream of the proposed Catchment 2's final discharge manhole to enable successful phasing of Phase 2.

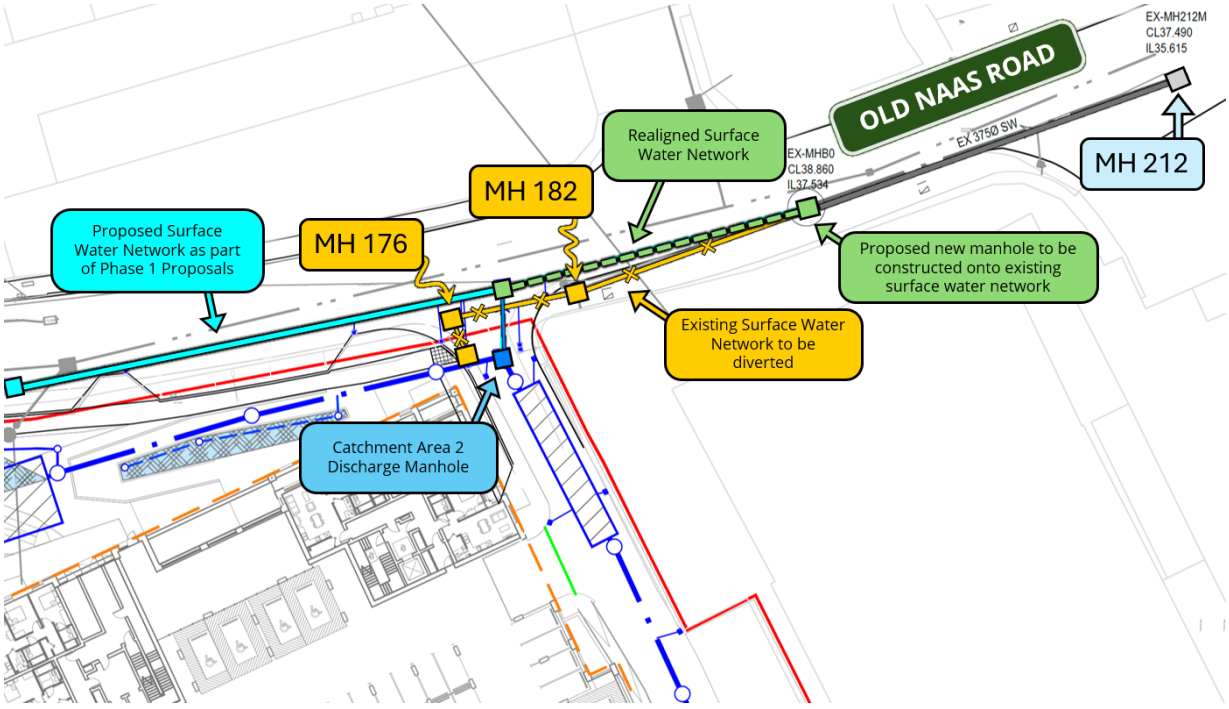


Figure 3-13: Proposed Realignment of Old Naas Road Surface Water Outfall



Figure 3-14: Manholes MH176, MH182 and MH212

3.7. Flood Risk

The proposed development's site area and finished floor level (FFL) remain consistent with those approved under the previously permitted scheme. The site is located within Flood Zone C, as identified in the OPW's 2017 Eastern CFRAM Study flood mapping for the River Camac, and therefore considered appropriate in the context of the applicable flood zone classification. The current scenario CFRAM flood risk maps are reproduced in Figure 3-15.

Furthermore, the subject site is also identified as being within Flood Zone C on the "Area Assessment Map 19 (Upper Camac: Old Naas Road Boundary on Davitt Road)" provided within Appendix C of the Strategic Flood Risk Assessment of the Dublin City Development Plan (2022-2028). The assessment area map is included in Appendix B of this document.

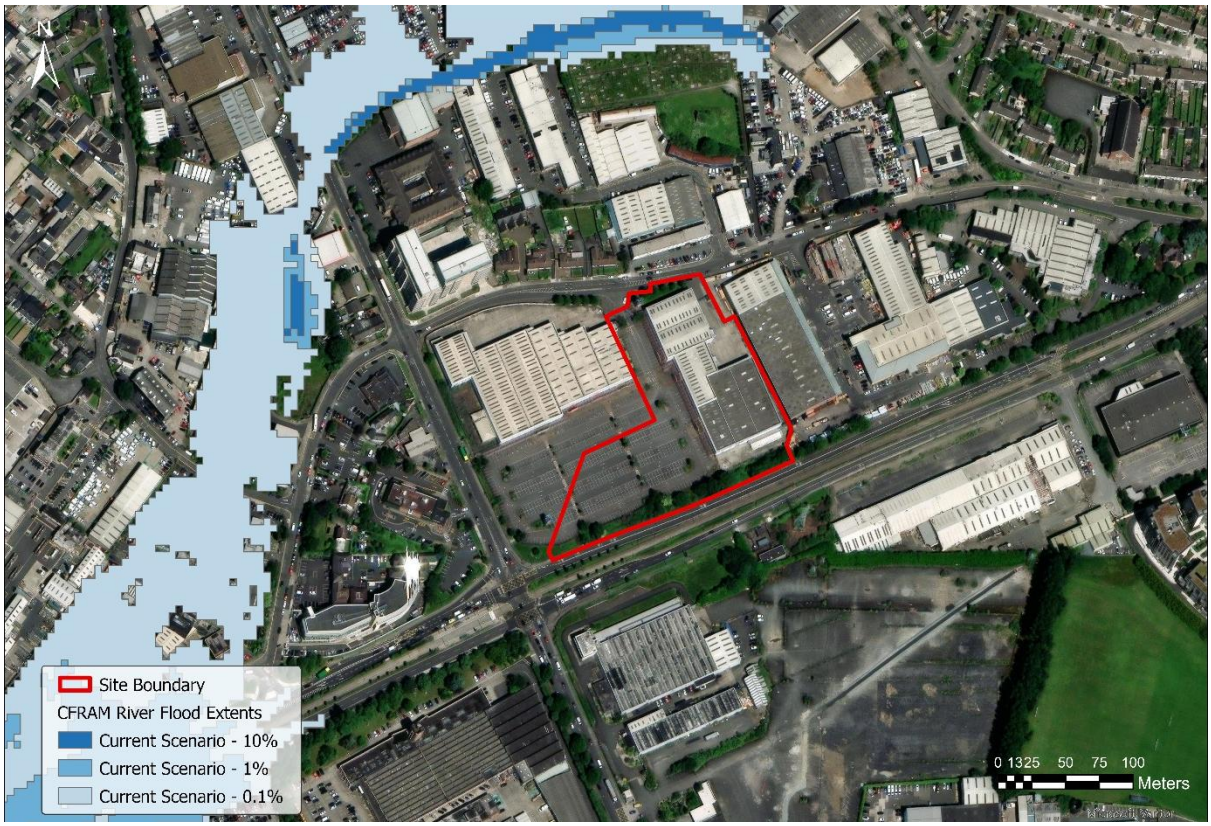


Figure 3-15: CFRAM Current Scenario 10-, 100-, and 1000-Year Flood Extents

4. Uisce Éireann Infrastructure

4.1. Wastewater Drainage

A Pre-Connection Enquiry for Phase 2 (CDS26001573) was submitted to Uisce Éireann, with confirmation of feasibility received on the 25th of May 2026, in which Uisce Éireann has indicated that a wastewater connection is feasible without an upgrade. A copy of the confirmation of feasibility is provided in Appendix C.

Internal wastewater infrastructure is proposed to tie into Phase 1 Infrastructure's foul outfall within Naas Road as part of the current connection offer, CDS2400563501.

For wastewater infrastructure proposed to serve the development, refer to DBFL Drainage Layout, 260024-05-Z00-DTM-DR-DBFL-CE-1300, as submitted.

4.2. Water Supply

A Pre-Connection Enquiry for Phase 2 (CDS26001573) was submitted to Uisce Éireann, with confirmation of feasibility received on the 25th of May 2026, in which Uisce Éireann has indicated that a water connection is feasible subject to infrastructure upgrade of an external watermain connection. A copy of the confirmation of feasibility is provided in Appendix B.

Internal water infrastructure is proposed to tie into Phase 1 Infrastructure part of the current connection offer, CDS2400563501.

Required external infrastructure upgrades indicated by Uisce Éireann shall be constructed by UE and implemented through additional contributory costs associated within the development's final UE Connection Offer following stages of planning. There is currently no additional watermain infrastructure that will be taken in charge within Phase 2.

It is intended that DBFL will continue to liaise with UE after the planning stage, ensuring that the design of the network aligns with UE's overall future plan.

For water infrastructure proposed to serve the development, including external water infrastructure upgrades required as indicated by Uisce Éireann, refer to DBFL Watermain Layouts 1-2, 260024-93-Z00-DTM-DR-DBFL-CE-1311 to 1312, as submitted.

Appendix A : Surface Water Calculations

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	5	Maximum Rainfall (mm/hr)	100.0
Additional Flow (%)	20	Minimum Velocity (m/s)	1.00
FSR Region	Scotland and Ireland	Connection Type	Level Soffits
M5-60 (mm)	16.400	Minimum Backdrop Height (m)	0.200
Ratio-R	0.276	Preferred Cover Depth (m)	0.900
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
SB0-4		5.00	40.738	1200	710471.046	732243.716	1.458	39.280
SB9	0.155	5.00	42.500	1350	710487.631	732160.931	2.000	40.500
SB8	0.026	5.00	42.500	1350	710474.457	732189.182	2.173	40.327
SB7	0.065	5.00	42.500	1350	710461.284	732217.432	3.000	39.500
SB6	0.031	5.00	41.600	1350	710458.295	732227.899	2.520	39.080
SB5	0.030	5.00	41.300	1350	710463.321	732229.591	3.157	38.143
SB4 TANK 2-2	0.046	5.00	41.000	1350	710487.832	732237.886	2.900	38.100
SB3			41.000	1350	710497.933	732240.574	2.932	38.068
SB2			40.000	1350	710516.523	732245.257	1.991	38.009
SB1-9	0.125	5.00	42.000	1200	710523.234	732096.595	1.500	40.500
SB1-8	0.073	5.00	42.000	1200	710588.298	732127.044	1.799	40.201
SB1-7	0.006	5.00	42.400	1200	710588.218	732131.272	2.217	40.183
SB1-6	0.034		42.000	1200	710575.367	732159.801	2.500	39.500
SB1-5 (TANK2-1B)		5.00	42.000	1200	710567.164	732176.422	2.500	39.500
SB1-4	0.050	5.00	42.000	1200	710560.483	732173.306	2.537	39.463
SB1-3	0.048	5.00	41.025	1350	710545.253	732205.919	1.975	39.050
SB1-2	0.159	5.00	40.000	1350	710535.699	732226.527	2.169	37.831
SB1-1 (TANK 2-1A)		5.00	40.250	1350	710525.037	732244.232	2.450	37.800
SB1	0.024	5.00	39.900	1350	710523.634	732246.949	2.110	37.790
TIE-IN			38.830	1350	710556.356	732262.916	1.482	37.348
SB0			39.600	1200	710523.716	732254.292	1.928	37.672
EX-MH182		5.00	39.690	1350	710531.295	732254.202	1.250	38.440
EX-MH212M			37.490	1350	710596.128	732276.757	1.875	35.615

Simulation Settings

Rainfall Methodology	FSR	Skip Steady State	x
Rainfall Events	Singular	Drain Down Time (mins)	720
FSR Region	Scotland and Ireland	Additional Storage (m³/ha)	20.0
M5-60 (mm)	16.400	Starting Level (m)	
Ratio-R	0.278	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x
Analysis Speed	Detailed		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
100	20	0	0

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Node SB1 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	37.790	Product Number	CTL-SHE-0111-6100-1300-6100
Design Depth (m)	1.300	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	6.1	Min Node Diameter (mm)	1200

Node SB1-3 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	39.050	Product Number	CTL-SHE-0067-2400-1535-2400
Design Depth (m)	1.535	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.4	Min Node Diameter (mm)	1200

Node SB1-5 (TANK2-1B) Tank Storage Structure

Invert Level (m)	39.500	Time to half empty (mins)	560	Analyse flow through structure	x

Inlets

SB1-6

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	120.7	1.250	120.7

Node SB4 TANK 2-2 Tank Storage Structure

Invert Level (m)	38.100	Analyse flow through structure	✓	Main Channel Slope (1:X)	500.0
Time to half empty (mins)	405	Main Channel Length (m)	21.300	Main Channel n	0.012

Inlets

SB5

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	144.4	1.300	144.4

Node SB1-1 (TANK 2-1A) Tank Storage Structure

Invert Level (m)	37.800	Analyse flow through structure	✓	Main Channel Slope (1:X)	500.0
Time to half empty (mins)	735	Main Channel Length (m)	15.600	Main Channel n	0.012

Inlets

SB1-2

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	65.0	1.350	65.0

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Results for 100 year +20% CC Critical Storm Duration. Lowest mass balance: 99.95%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	SB0-4	1	39.280	0.000	0.0	0.0000	0.0000	OK
15 minute winter	SB9	10	40.674	0.174	60.6	0.5185	0.0000	OK
15 minute winter	SB8	11	40.495	0.168	70.0	0.2812	0.0000	OK
15 minute winter	SB7	11	39.771	0.271	93.5	0.5045	0.0000	OK
15 minute winter	SB6	11	39.371	0.291	105.7	0.4899	0.0000	OK
600 minute winter	SB5	570	39.102	0.960	14.3	0.0000	0.0000	OK
600 minute winter	SB4 TANK 2-2	570	39.103	1.003	9.4	145.0086	0.0000	SURCHARGED
600 minute winter	SB3	570	39.103	1.035	5.6	1.4805	0.0000	SURCHARGED
600 minute winter	SB2	570	39.103	1.094	5.3	1.5649	0.0000	SURCHARGED
15 minute winter	SB1-9	11	40.675	0.175	48.9	0.4892	0.0000	OK
480 minute winter	SB1-8	456	40.652	0.451	10.8	0.8778	0.0000	SURCHARGED
480 minute winter	SB1-7	456	40.652	0.469	11.2	0.5544	0.0000	SURCHARGED
480 minute winter	SB1-6	456	40.652	1.152	13.1	0.0000	0.0000	OK
480 minute winter	SB1-5 (TANK2-1B)	464	40.645	1.145	7.8	138.0663	0.0000	SURCHARGED
480 minute winter	SB1-4	464	40.645	1.182	3.1	1.8060	0.0000	SURCHARGED
480 minute winter	SB1-3	464	40.645	1.595	3.0	3.0524	0.0000	SURCHARGED
600 minute winter	SB1-2	570	39.103	1.272	9.4	0.0000	0.0000	OK
600 minute winter	SB1-1 (TANK 2-1A)	570	39.103	1.303	5.6	89.2165	0.0000	SURCHARGED
600 minute winter	SB1	570	39.103	1.313	6.7	2.1736	0.0000	SURCHARGED
15 minute winter	TIE-IN	192	37.380	0.032	6.1	0.0459	0.0000	OK
15 minute winter	SB0	192	37.732	0.060	6.1	0.0679	0.0000	OK
15 minute winter	EX-MH182	1	38.440	0.000	0.0	0.0000	0.0000	OK
15 minute winter	EX-MH212M	192	35.647	0.032	6.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	SB0-4	1.000	SB0	0.0	0.000	0.000	0.0000	
15 minute winter	SB9	6.000	SB8	59.7	1.223	0.402	1.5223	
15 minute winter	SB8	6.001	SB7	69.5	1.515	0.381	1.4314	
15 minute winter	SB7	6.002	SB6	94.1	1.216	0.846	0.8402	
15 minute winter	SB6	6.003	SB5	106.0	1.270	0.941	0.4409	
600 minute winter	SB5	Tank	SB4 TANK 2-2	7.3	0.036	0.000		
600 minute winter	SB4 TANK 2-2	2.000	SB3	5.6	0.488	0.050	1.1529	
600 minute winter	SB3	2.001	SB2	5.3	0.448	0.048	2.1145	
600 minute winter	SB2	2.002	SB1	4.9	0.482	0.045	0.8063	
15 minute winter	SB1-9	5.000	SB1-8	47.1	0.819	0.660	4.0625	
480 minute winter	SB1-8	5.001	SB1-7	10.9	0.684	0.151	0.2978	
480 minute winter	SB1-7	5.002	SB1-6	11.2	0.732	0.157	2.2034	
480 minute winter	SB1-5 (TANK2-1B)	7.000	SB1-4	-2.9	0.433	-0.037	0.5191	
480 minute winter	SB1-4	7.001	SB1-3	2.5	0.456	0.031	2.5347	
480 minute winter	SB1-3	7.002	SB1-2	2.5	0.853	0.007	1.3515	
600 minute winter	SB1-2	Tank	SB1-1 (TANK 2-1A)	5.6	0.031	0.000		
600 minute winter	SB1-1 (TANK 2-1A)	3.000	SB1	3.5	0.047	0.031	0.3373	
600 minute winter	SB1	2.003	SB0	6.1	0.699	0.153	0.0637	
15 minute winter	TIE-IN	1.002	EX-MH212M	6.1	1.353	0.015	0.1889	156.0
15 minute winter	SB0	1.001	TIE-IN	6.1	0.621	0.086	0.3300	
15 minute winter	EX-MH182	4.000	TIE-IN	0.0	0.000	0.000	0.0599	

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Appendix B : Strategic Flood Risk Assessment Map

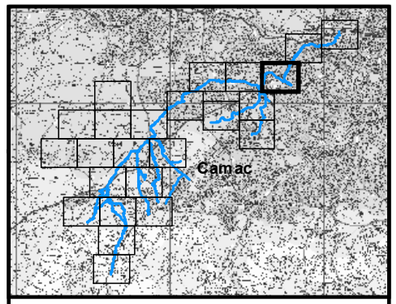
Node Label	Water Level (OD) 10% AEP	Flow (m³/s) 10% AEP	Water Level (OD) 1% AEP	Flow (m³/s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m³/s) 0.1% AEP
09CAMM00417J	30.26	24.03	30.64	36.10	30.92	47.69
09CAMM00356	25.55	N/A	26.09	N/A	26.83	N/A
09CAMM00513J	37.58	N/A	38.13	N/A	38.81	N/A
09CAMM00404	29.3	26.6	29.8	40.510	30.18	55.72
09CRUM00035J	34.55	1.34	34.73	2.48	34.95	4.38
SO10312826	39.63	22.21	40.44	33.18	41.7	46.05
SO10327209	34.02	N/A	34.53	N/A	36.16	N/A

310200 310400 310600 310800 311000 311200 311400 311600 311800

232800 232600 232400 232200 232000 231800 231600

09CAMM00356
09CAMM00513J
SO10327209
09CAMM00404
SO10312826
09CAMM00417J
09CRUM00035J

0 50 100 200 300 400 500 Metres



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

Legend

- 10% Fluvial AEP Event
- 1% Fluvial AEP Event
- 0.1% Fluvial AEP Event
- Modelled River Centreline
- AFA Extents
- Embankment
- Wall
- Defended Area
- 1% AEP / 1% AEP — Standard of Protection of Flood Defence (Walls / Embankments)
- Node Point
- Node ID — Node Label

FINAL

REV:	NOTE:	DATE:
01	SOP label updated (Pg 21) Removal of Def. Area (Pg 21)	13/11/2017

EASTERN CFRAM STUDY
CATCHMENT FLOOD RISK ASSESSMENT AND MANAGEMENT

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Map: Camac Fluvial Flood Extents

Map Type:	EXTENT
Source:	FLUVIAL
Map Area:	HPW
Scenario:	CURRENT
Drawn By :	C.McG. Date : 13 November 2017
Checked By :	A.S. Date : 13 November 2017
Approved By :	S.P. Date : 13 November 2017
Drawing No. :	E09CAM_EXFCD_F1_22
Map Series :	Page 22 of 24
Drawing Scale :	1:5,000 @A3

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Appendix C : Confirmation of Feasibility

CONFIRMATION OF FEASIBILITY

Gideon Ong'Era
DBFL
Ormond House
Upper Ormond Quay
Dublin 7
Dublin
D07W704

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

Uisce Éireann
PO Box 448
South City
Delivery Office
Cork City

www.water.ie

25 May 2026

Our Ref: CDS26001573 Pre-Connection Enquiry Royal Liver Retail Park, Old Naas Road, Dublin 12, Dublin

Dear Applicant/Agent,

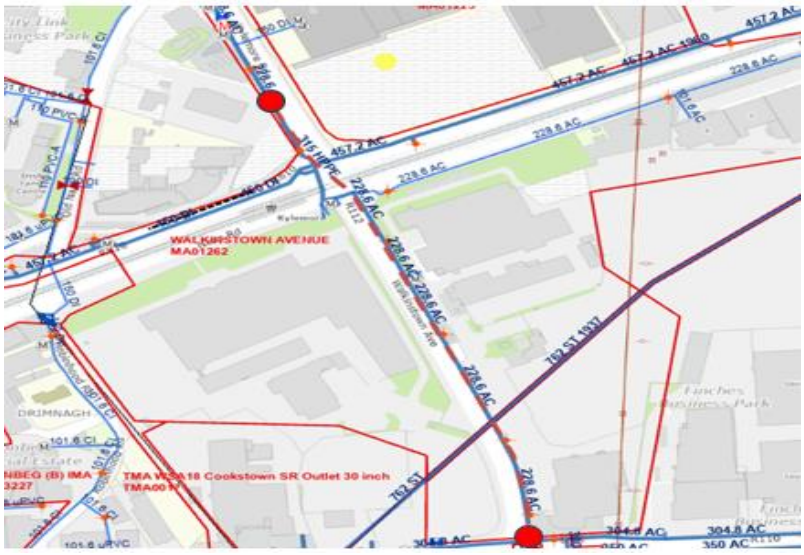
We have completed the review of the Pre-Connection Enquiry.

Uisce Éireann has reviewed the pre-connection enquiry in relation to a Water & Wastewater connection for a Multi/Mixed Use Development of 652 unit(s) at Royal Liver Retail Park, Old Naas Road, Dublin 12, Dublin, (the **Development)**.

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

- **Water Connection** - Feasible Subject to upgrades

- In order to accommodate the proposed connection at the development, upgrade works are required to the existing water network. Upgrade distribution main from 220.8mm to 400mm for approximately 415 metres, please see figure. These upgrade works are not currently on Uisce Éireann investment plan therefore, the applicant will be required to fund these local network upgrades. At connection application stage, the network upgrade requirements will be reviewed, and you will be provided with a quote for these works.



Stiúrthóirí / Directors: Jerry Grant (Cathaoirleach / Chairperson), Niall Gleeson (POF / CEO), Douglas Millican, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Michael Walsh, Rena O'Sullivan and Orlagh Nevin.
Oifig Chláraithe / Registered Office: Teach Colvill, 24-26 Sráid Thalbóid, Baile Átha Cliath 1, D01 NP86 / Colvill House, 24-26 Talbot Street, Dublin, Ireland D01NP86
Is cuideachta ghníomhaíochta ainmnithe atá faoi theorainn scaireanna é Uisce Éireann / Uisce Éireann is a designated activity company, limited by shares.
Cláraithe in Éirinn Uimh.: 530363 / Registered in Ireland No.: 530363

- **Wastewater Connection**
  - Feasible without infrastructure upgrade by Uisce Éireann

- Proposed connection to Uisce Éireann infrastructure is via a private infrastructure. Please be advised that at connection application stage you must provide written confirmation from the owner of the infrastructure that you have received a legal permission to connect to and that the infrastructure has capacity and integrity to cater for the additional demand from the Development.

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

As the network capacity changes constantly, this review is only valid at the time of its completion. As soon as planning permission has been granted for the Development, a completed connection application should be submitted. The connection application is available at www.water.ie/connections/get-connected/

Where can you find more information?

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

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

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

Yours sincerely,

Dermot Phelan

Dermot Phelan
Connections and Developer Services

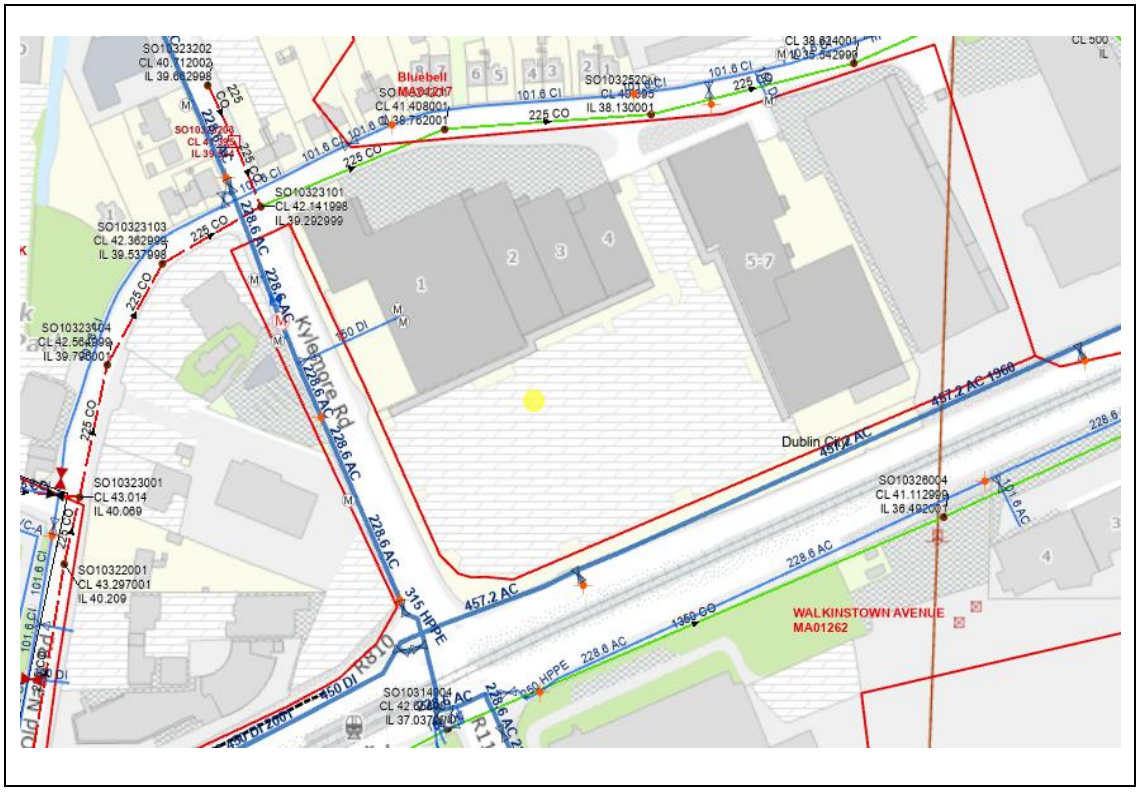
Section A - What is important to know?

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

What are the design requirements for the connection(s)?	• The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this Development shall comply with ***the Uisce Éireann Connections and Developer Services Standard Details and Codes of Practice,*** available at www.water.ie/connections
Trade Effluent Licensing	• Any person discharging trade effluent** to a sewer, must have a Trade Effluent Licence issued pursuant to section 16 of the Local Government (Water Pollution) Act, 1977 (as amended). • More information and an application form for a Trade Effluent License can be found at the following link: https://www.water.ie/business/trade-effluent/about/ **trade effluent is defined in the Local Government (Water Pollution) Act, 1977 (as amended)

Section B – Details of Uisce Éireann's Network(s)

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



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

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