JODA
ENGINEERING CONSULTANTS
ESTD 1961

O'Flynn Construction Co. Unlimited Company.

LRD Old Fort Road, Ballincollig, Cork

Engineers Report

Prepared By
JODA Engineering Consultants
Ballycurreen House,
Ballycurreen,
Cork, T12 P4AY

3866-JODA-02-XX-RP-C-0001

www.joda.ie

DOCUMENT CONTROL

Project Title		**LRD Old Fort Gate**		
Document Title		**Engineers Report**		
File Ref		**3866 JODA-02-XX-RP-C-0001**		
Suitability		**U1**	Description	**Planning**
Revision	Date	Comments		Author
S01	**29/06/2026**	**Planning**		**JR**

Contents

1.0 Introduction 1
2.0 Existing Site 1
3.0 Existing Infrastructure 2
3.1 Existing Wastewater Infrastructure 2
3.1.1 Pre-Connection Enquiry Stage 2
3.2 Existing Water Supply Infrastructure 3
3.2.1 Pre-Connection Enquiry Stage 3
3.3 Existing Storm Water Infrastructure 4
3.4 Existing Electricity Infrastructure 5
3.5 Existing Telecommunications Infrastructure 5
4.0 Proposed Storm Infrastructure 6
4.1 Proposed SuDS Features 6
4.2 Maintenance Schedules 6
Appendix A 1

1.0 Introduction

JODA Engineering Consultants was engaged by O'Flynn Construction Co. Unlimited Company to design the site infrastructure engineering services for the proposed development of 3 apartment blocks and a creche at Old Fort Road, Ballincollig, Cork City. This Engineers report has been compiled to support the planning application for these buildings.

2.0 Existing Site

The existing site is a greenfield site on Old Fort Road. Ballincollig Town Centre is located to the south of the site, Ballincollig wastewater treatment plant (WWTP) to the north. The site has a high point at the south-east of the site of (+25mOD) and slopes to the north to a low point of (+17mOD) along the site boundary

There is an existing storm sewer of 900DIA running from the south-east to the north-west, the pipe enters the site at a slope of 1:31.5 for 30m then increases to 1:28.6 until it exits the site.

There is an existing wastewater pipe which enters the site alongside the storm pipe, a manhole is located just inside the site boundary where the pipe turns northwards and slopes down at 1:26.7. This wastewater pipes flows to the Ballincollig wastewater treatment plant .

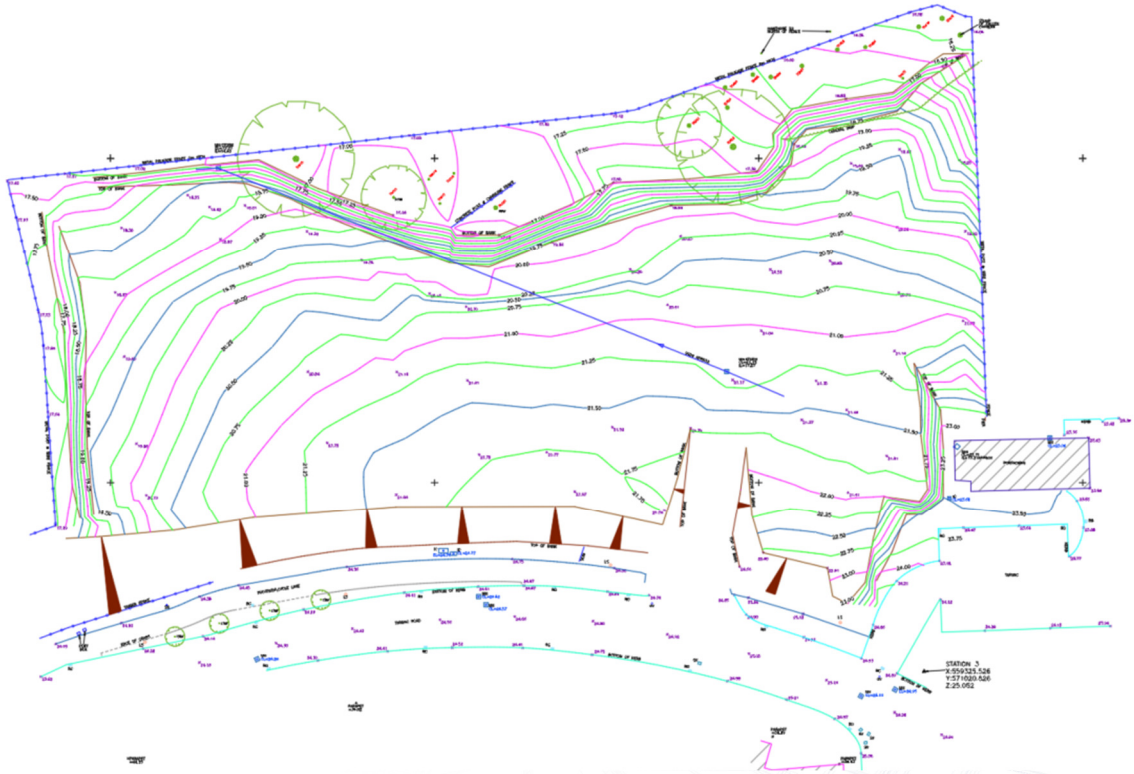


Figure 1 Existing Site

3.0 Existing Infrastructure

3.1 Existing Wastewater Infrastructure

There is an existing 225mm wastewater gravity sewer located at the south-east corner of the site which flows north to an existing manhole within the northern site boundary. The flow direction is west from the existing manhole towards the Ballincollig WWTP where the discharge point is. There is an existing way leave on the west flowing pipe which will be retained.

3.1.1 Pre-Connection Enquiry Stage

Uisce Éireann has issued a Confirmation of Feasibility (CDS25007197) regarding the capacity of the existing infrastructure, a copy of which is included in Appendix A to this document. The proposed developments wastewater infrastructure is designed in accordance with Uisce Éireann's codes of practice and standard details,
refer to drawing 3866-JODA-02-ZZ-DR-C-3001.

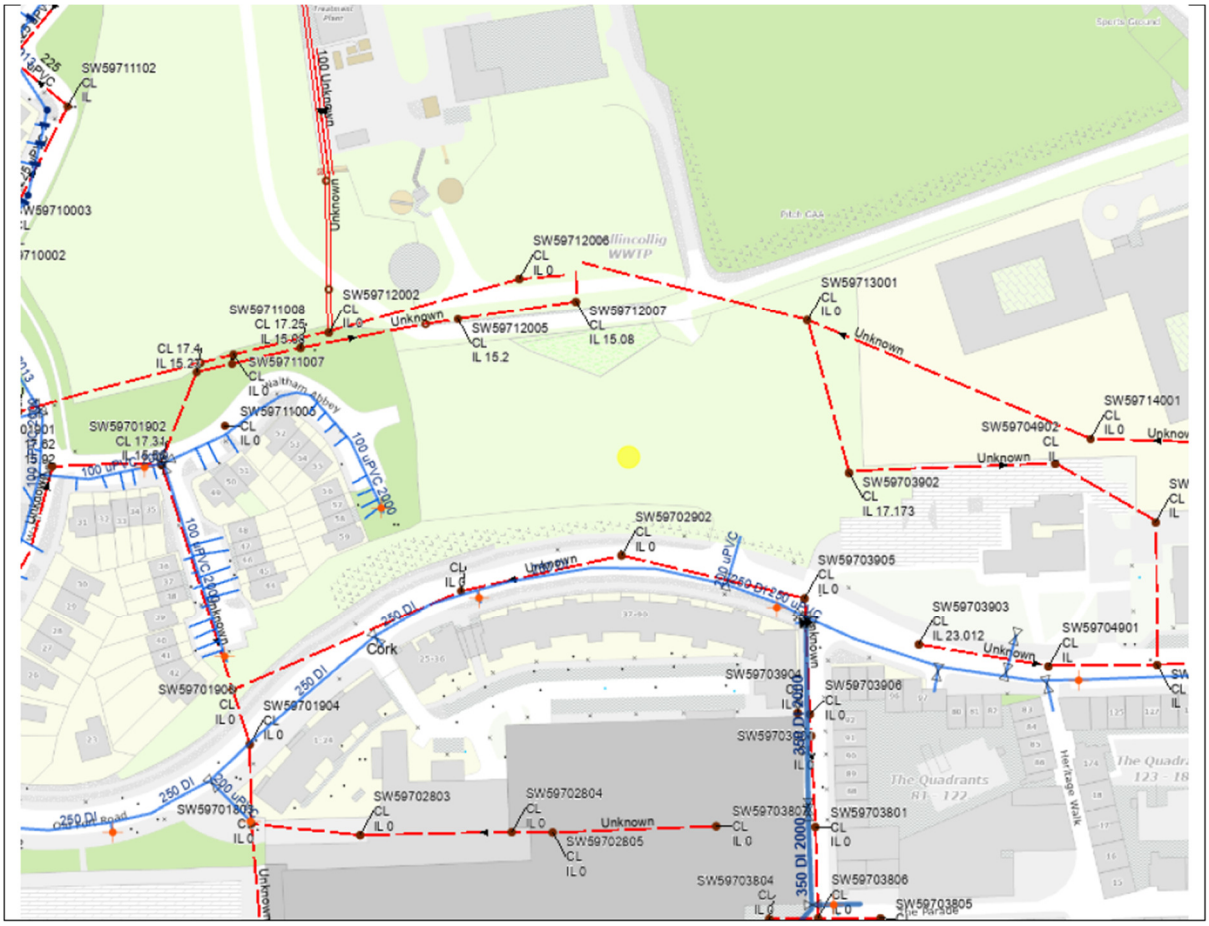


Figure 2 Existing Foul Shown in Red

3.2 Existing Water Supply Infrastructure

There is an existing 250DIA Uisce Éireann watermain on Old Forth Road supplied from the Inniscarra water supply reservoir.

3.2.1 Pre-Connection Enquiry Stage

Uisce Éireann has issued a Confirmation of Feasibility (CDS25007197) statement for the development, a copy of which is contained in Appendix A of this document. The proposed developments water supply infrastructure is designed in accordance with Uisce Éireann's codes of practice and standard details, refer to drawing 3866-JODA-02-ZZ-DR-C-4001.

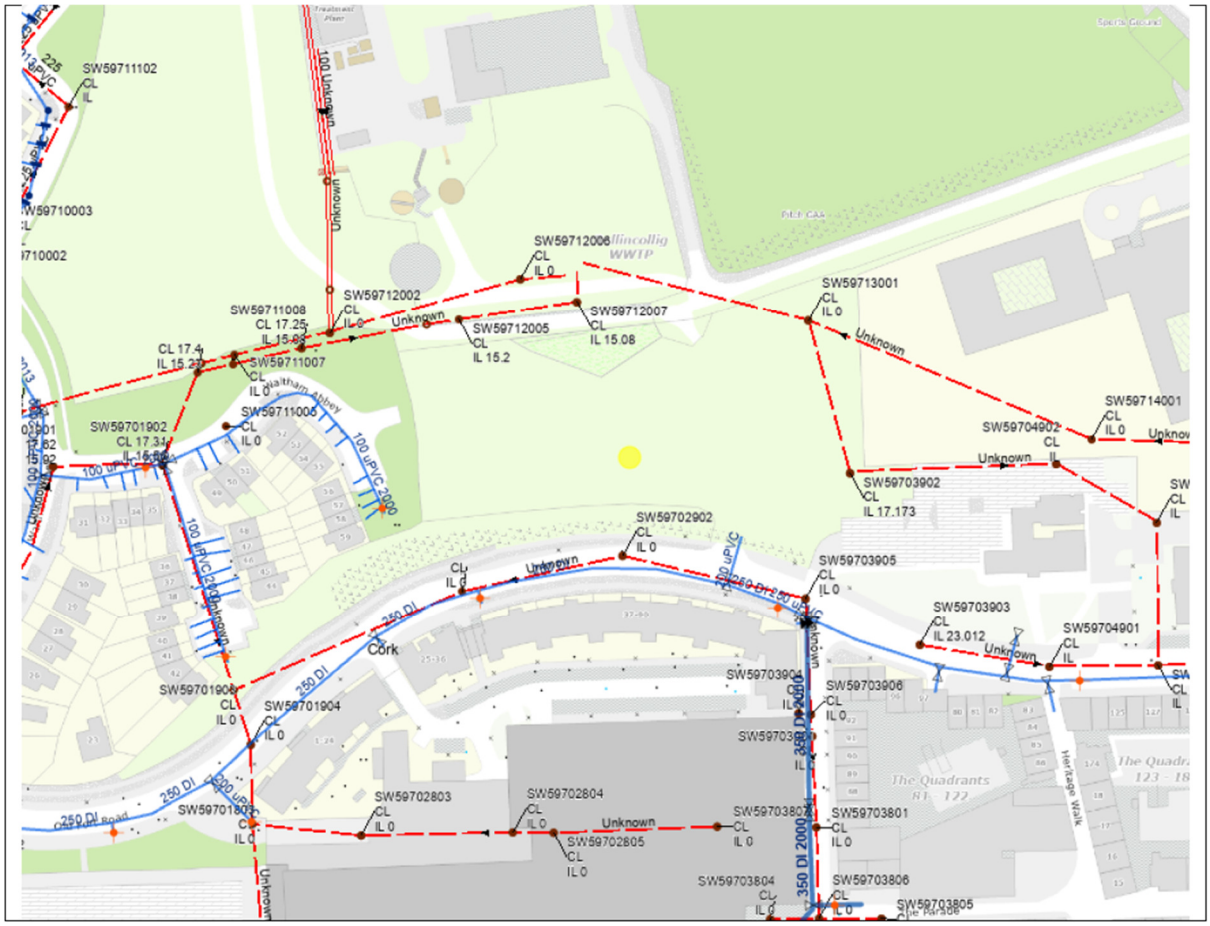


Figure 3 Existing Water Supply in Blue

3.3 Existing Storm Water Infrastructure

There is an existing 900DIA storm pipe which enters the site from the east and flows north-west and ultimately to its discharge point at the River Lee. This existing pipe will be diverted as it runs through apartment block B & C, the existing capacity of the storm pipe as it travels through the site is 3556l/s but immediately upstream of the site the gradient is ~1:350 with a capacity of 1061l/s. The diverted pipe has a decreased capacity from 3556l/s due to a longer run being required to avoid the apartment blocks and existing foul pipe, the main run of the diverted pipe slopes at 1:63 and has a capacity of 2513l/s which is larger than the upstream pipe and will not have a reduction to the capacity of the overall scheme. An existing way leave is present for the 900DIA pipe and a 10m way leave is present for the diverted run of pipe.

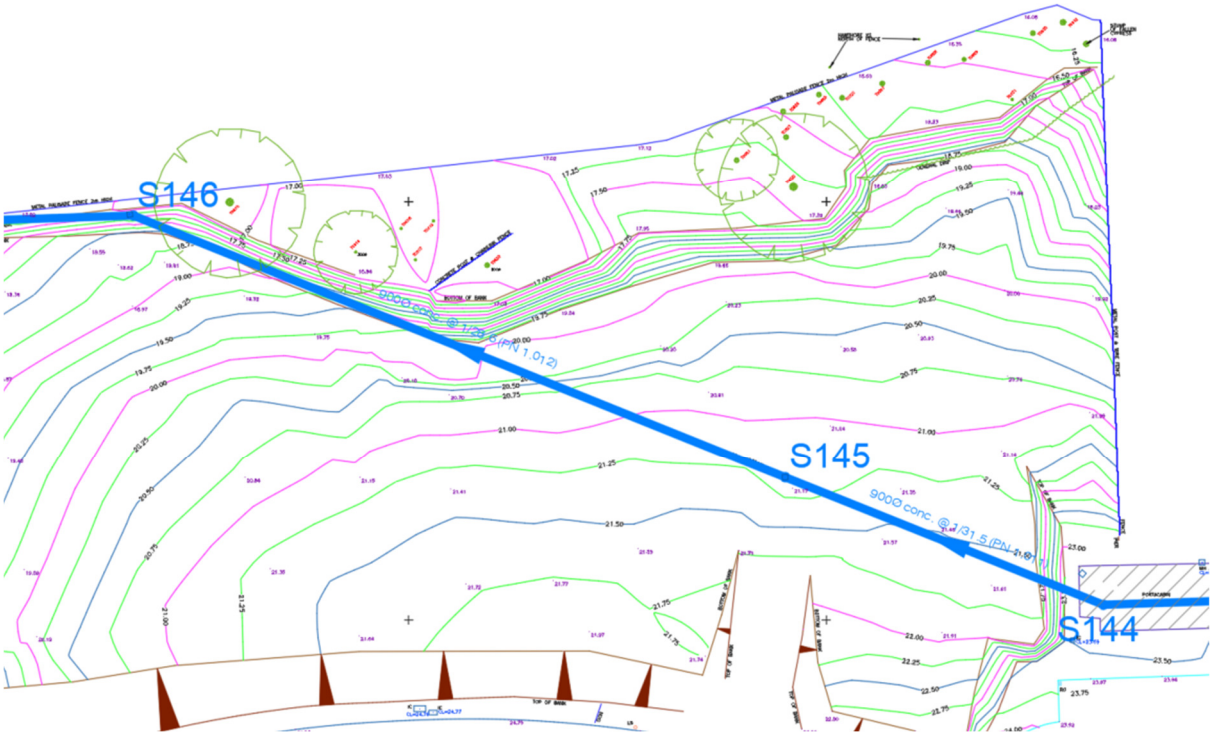


Figure 4 Existing 900DIA Storm Drain

3.4 Existing Electricity Infrastructure

Electrical infrastructure is available within proximity to the site and running along Old Fort Road. Below, Figure 5 shows the DSO supply points and ducting routes.

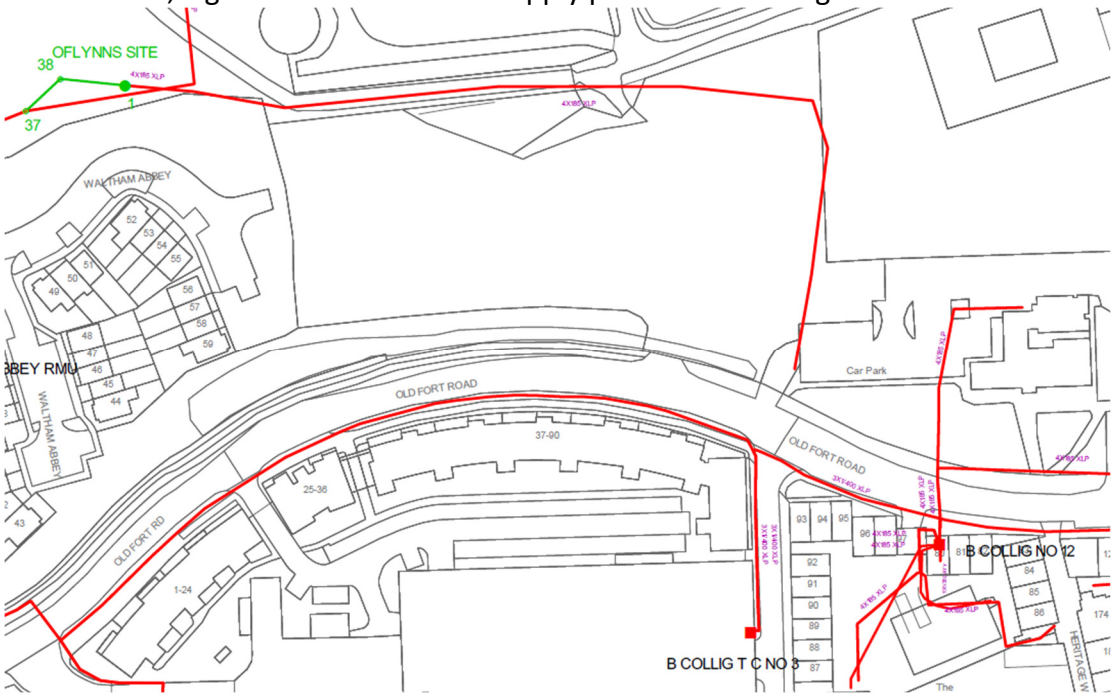


Figure 5 Existing DSO Supply Points and Ducting Routes

3.5 Existing Telecommunications Infrastructure

Telecommunications infrastructure is available within proximity to the site running along Old Fort Road and in an adjoining estate as shown in Figure 6 below.

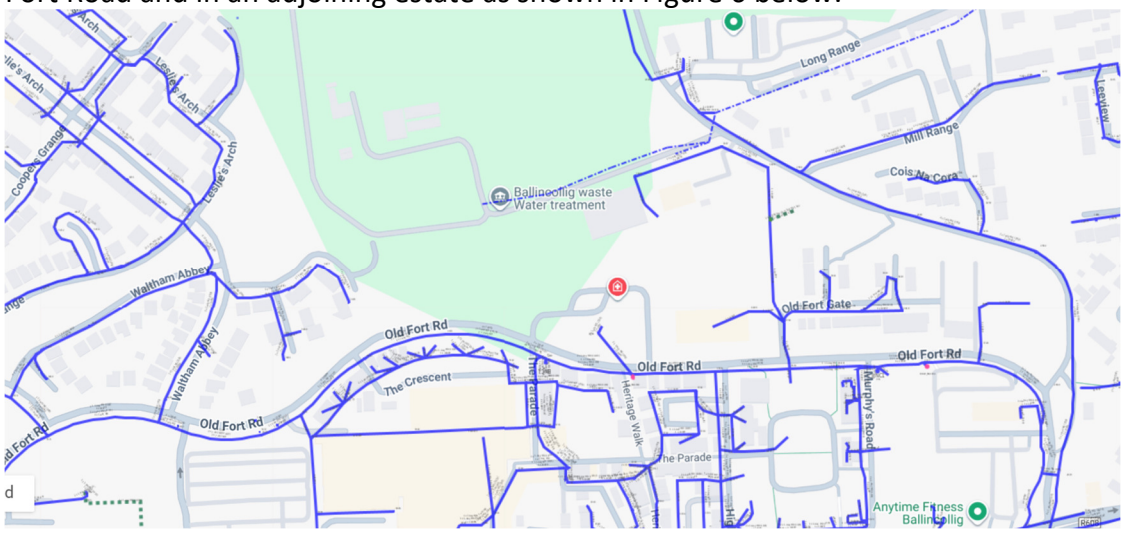


Figure 6 Existing Telecommunication Infrastructure

4.0 Proposed Storm Infrastructure

4.1 Proposed SuDS Features

Hydrocarbon Interceptor	Hydrocarbon Interceptor separates hydrocarbons and silt from surface water. This is to be located downstream of the road catchment as this is typically the most polluted run-off.
Raingarden	Raingardens are used to increase the water quality of runoff by means of filtration. Collected run off will percolate through the filter medium and infiltrate into the ground. These are located along Old Fort Road by the apartment block entrances
Percolation Area	Percolation areas provide considerable infiltration which reduces the volume of run-off discharge to the public sewer. The percolation areas are located between the apartment blocks and provide an interception depth of 22mm. Crushed rock achieving 30% voids to be used.
Blue Roof	Blue roofs provide a range of benefits such as evapotranspiration which reduces run-off volumes, provides a local cooling effect, treats run-off improving water quality and attenuates run-off reducing the stress on downstream networks. Three blue roof areas are proposed for each apartment block and will store and treat all roof run-off. BauderBLUE STORMcell or similar is to be used.
Filter Drain	Filter drains treat run-off, removing suspended solids and hydrocarbons while infiltrating run-off and conveying large flows to the conventional pipe network. This is located next to the pedestrian path to the west of apartment block A. Appropriate filter medium and crushed rock achieving 30% voids to be used.

4.2 Maintenance Schedules

Operation and maintenance requirements for filter drains		
Maintenance schedule	**Required action**	**Typical frequency**
Regular maintenance	Remove litter (including leaf litter) and debris from filter drain surface, access chambers and pre-treatment devices	Monthly (or as required)
	Inspect filter drain surface, inlet/outlet pipework and control systems for blockages, clogging, standing water and structural damage	Monthly
	Inspect pre-treatment systems, inlets and perforated pipework for silt accumulation, and establish appropriate silt removal frequencies	Six monthly
	Remove sediment from pre-treatment devices	Six monthly, or as required
Occasional maintenance	Remove or control tree roots where they are encroaching the sides of the filter drain, using recommended methods (eg NJUG, 2007 or BS 3998:2010)	As required
	At locations with high pollution loads, remove surface geotextile and replace, and wash or replace overlying filter medium	Five yearly, or as required
	Clear perforated pipework of blockages	As required

Figure 7 Operation and Maintenance Requirements for Filter Drains

Operation and maintenance requirements for soakaways		
Maintenance schedule	**Required action**	**Typical frequency**
Regular maintenance	Inspect for sediment and debris in pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	Annually
	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional maintenance	Remove sediment and debris from pre-treatment components and floor of inspection tube or chamber and inside of concrete manhole rings	As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean void fill, if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will require reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation	Monthly in the first year and then annually
	Check soakaway to ensure emptying is occurring	Annually

Figure 8 Operation and Maintenance Requirements for Soakaways / Percolation Areas

Operation and maintenance requirements for bioretention systems		
Maintenance schedule	**Required action**	**Typical frequency**
Regular inspections	Inspect infiltration surfaces for silting and ponding, record de-watering time of the facility and assess standing water levels in underdrain (if appropriate) to determine if maintenance is necessary	Quarterly
	Check operation of underdrains by inspection of flows after rain	Annually
	Assess plants for disease infection, poor growth, invasive species etc and replace as necessary	Quarterly
	Inspect inlets and outlets for blockage	Quarterly
Regular maintenance	Remove litter and surface debris and weeds	Quarterly (or more frequently for tidiness or aesthetic reasons)
	Replace any plants, to maintain planting density	As required
	Remove sediment, litter and debris build-up from around inlets or from forebays	Quarterly to biannually
Occasional maintenance	Infill any holes or scour in the filter medium, improve erosion protection if required	As required
	Repair minor accumulations of silt by raking away surface mulch, scarifying surface of medium and replacing mulch	As required
Remedial actions	Remove and replace filter medium and vegetation above	As required but likely to be > 20 years

Figure 9 Operation and Maintenance Requirements for Bioretention Systems (Rain Garden / Tree Pit)

Operation and maintenance requirements for green roofs		
Maintenance schedule	**Required action**	**Typical frequency**
Regular inspections	Inspect all components including soil substrate, vegetation, drains, irrigation systems (if applicable), membranes and roof structure for proper operation, integrity of waterproofing and structural stability	Annually and after severe storms
	Inspect soil substrate for evidence of erosion channels and identify any sediment sources	Annually and after severe storms
	Inspect drain inlets to ensure unrestricted runoff from the drainage layer to the conveyance or roof drain system	Annually and after severe storms
	Inspect underside of roof for evidence of leakage	Annually and after severe storms
Regular maintenance	Remove debris and litter to prevent clogging of inlet drains and interference with plant growth	Six monthly and annually or as required
	During establishment (ie year one), replace dead plants as required	Monthly (but usually responsibility of manufacturer)
	Post establishment, replace dead plants as required (where > 5% of coverage)	Annually (in autumn)
	Remove fallen leaves and debris from deciduous plant foliage	Six monthly or as required
	Remove nuisance and invasive vegetation, including weeds	Six monthly or as required
	Mow grasses, prune shrubs and manage other planting (if appropriate) as required – clippings should be removed and not allowed to accumulate	Six monthly or as required
Remedial actions	If erosion channels are evident, these should be stabilised with extra soil substrate similar to the original material, and sources of erosion damage should be identified and controlled	As required
	If drain inlet has settled, cracked or moved, investigate and repair as appropriate	As required

Figure 10 Operation and Maintenance Requirements for green/blue roofs

JODA ENGINEERING CONSULTANTS ESTD 1961

Appendix A

Uisce Éireann Irish Water

CONFIRMATION OF FEASIBILITY

Robert O' Driscoll

Beckett House
Barrack Square
Ballincollig
Cork
P31 FK2

2 December 2025

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

Our Ref: CDS25007197 Pre-Connection Enquiry
Site at, Old Fort Road, Ballincollig, Cork City

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 160 unit(s) at Site at, Old Fort Road, Ballincollig, Cork City, (the **Development**).

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

- **Water Connection** - Feasible without infrastructure upgrade by Uisce Éireann
  The proposed 150 mm dia connection DW point to the public water network should be onto the existing 250 mm water main on the public road to the South of the development on Old fort Road from Old Quarter (Ballincollig) DMA.
  The confirmation of feasibility to connect to the Uisce Éireann infrastructure does not extend to your fire flow requirements. Uisce Éireann cannot guarantee that the flow rates and residual pressures will meet the requirements of the Fire Authority.
- **Wastewater Connection** - Feasible without infrastructure upgrade by Uisce Éireann
  Please note that according to our records there is an existing sewer running through this site. It will not be permitted to build over any Uisce Éireann infrastructure. The layout of the development must ensure that this pipe is protected and adequate separation distances are provided between Uisce

Stiúrthóirí / Directors: Niall Gleeson (POF / CEO), Jerry Grant (Cathaoirleach / Chairperson), Gerard Britchfield, Liz Joyce, Michael Nolan, Patricia King, Eileen Maher, Cathy Mannion, Paul Reid, Michael Walsh.
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.

UE / LH / OP448 / 0323

Éireann infrastructure and any structures on site. Alternatively you may enter into a diversion agreement and divert the pipe to accommodate your development. If you wish to proceed with this option please make contact with Uisce Éireann. It will be necessary to provide a wayleave over this pipe to the benefit of Uisce Éireann and ensure that it is accessible for maintenance.

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
Connections Delivery Manager

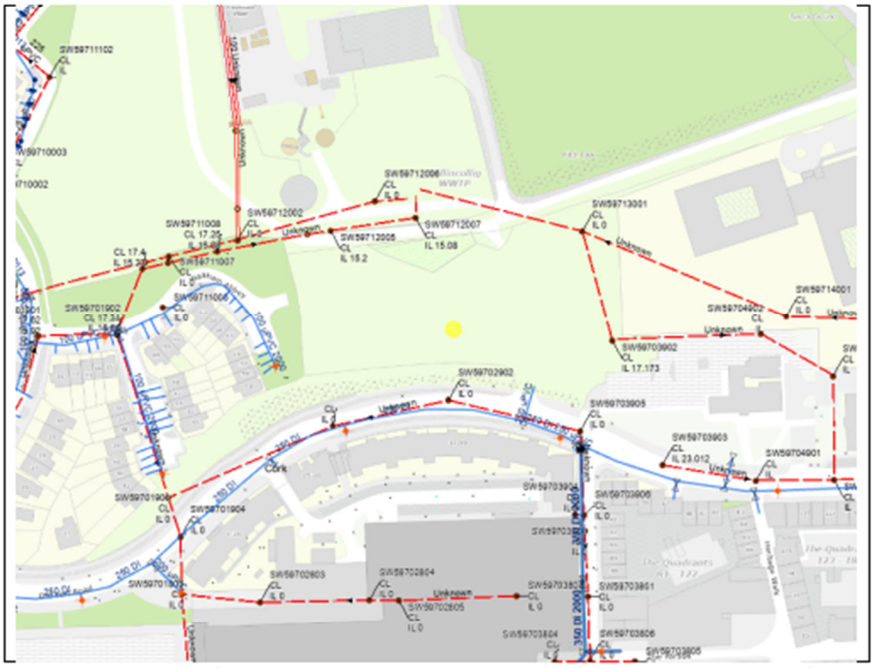
Section A - What is important to know?

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



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

Note: The information provided on the included maps as to the position of 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.

Borehole Log

GEOTECH

Drilled by GC/JC **Logged by** AJ **Checked by** AG	**Equipment and Methods** Inspection Pit from 0.00m to 1.20m. Cable Percussion 200 mm diameter from 1.20m to 3.50m. Rotary Cored 75 mm diameter from 3.20m to 6.20m.	**Ground Level** +24.80 m OD **National Grid Coordinates**	

Samples and Tests

Depth	Type & No.	Records	Date Casing	Time Water
0.20	D1		20/09/2002	
0.40 - 0.80	B2			
1.20 - 1.65	D4	S,N=8 2,2/2,2,2,2		
1.20 - 1.60	B3			
2.40 - 2.85	D6	S,N=19 3,3/3,5,5,6		
2.40 - 2.80	B5			
3.30 - 3.50	B7	C,50 25 for 50mm,/50 for 10mm	23/09/2002 3.20	
3.50 - 3.56				
3.20 - 4.70m	100 33 10 / NI 30 150			
4.70 - 5.30m	73 0 0 / NI			
5.30 - 6.20m	43 0 0 / NI		23/09/2002 3.20	

Strata

Description	Depth,Level (Thickness)	Legend
MADE GROUND: Grey sandy gravelly fill**	(0.40) 0.40 +24.40	g
At 1.20m: With occasional cobbles. Soft to firm brown slightly sandy becoming sandy gravelly CLAY. Gravel is angular to rounded fine to coarse. At 2.40m: Becoming stiff.	(2.80) 3.20 +21.60	
Moderately weak to moderately strong grey fine grained LIMESTONE. Fractures are closely to extremely closely spaced vertical to subhorizontal.	(1.50) 4.70 +20.10	
Moderately weak fine grained grey LIMESTONE. Fractures are extremely closely spaced vertical to subhorizontal.	(1.50pen) 6.20 +18.60	
EXPLORATORY HOLE ENDS AT 6.20 m.		

Groundwater
No groundwater encountered.

Remarks
Borehole terminated at 6.20m.
Chiselling : 3.45m to 3.50m 60minutes
Hole backfill ; 0.00m to 6.20m Grout (g).

Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.
Scale 1 : 50

Project SITE INVESTIGATION AT FORMER MURPHY BARRACKS
Project no. 172135
Carried out for John O'Donovan & Associates

Borehole BH11
Sheet 1 of 1

08/11/2002 15:03:11 ESGLog v2.11

Borehole Log

GEOTECH

Drilled by GC **Logged by** AJ **Checked by** AG	**Equipment and Methods** Inspection Pit from 0.00m to 1.20m. Cable Percussion 200 mm diameter from 1.20m to 2.25m.	**Ground Level** +16.80 m OD **National Grid Coordinates**	

Samples and Tests

Depth	Type & No.	Records	Date Casing	Time Water
0.40 - 0.80	B1		24/09/2002	
1.20 - 1.65	D3	S,N=43 5,12/10,9,12,12		
1.20 - 1.60	B2			
			24/09/2002	

Strata

Description	Depth,Level (Thickness)	Legend
TOPSOIL**	(0.30) 0.30 +16.50	a
Very stiff brown mottled reddish brown slightly sandy gravelly CLAY with occasional angular to rounded cobbles.	(1.95pen) 2.25 +14.55	
EXPLORATORY HOLE ENDS AT 2.25 m.		

Groundwater
No groundwater encountered.

Remarks
Chiselling : 2.00m to 2.25m 60minutes
Hole backfill : 0.00m to 2.25m Arisings (a).

Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.
Scale 1 : 50

Project SITE INVESTIGATION AT FORMER MURPHY BARRACKS
Project no. 172135
Carried out for John O'Donovan & Associates

Borehole BH12
Sheet 1 of 1

08/11/2002 15:03:16 ESGLog v2.11

Borehole Log

GEOTECH

Drilled by MD/JC Logged by AJ Checked by AL	Equipment and Methods Inspection Pit from 0.00m to 0.50m. Cable Percussion 200 mm diameter from 0.50m to 1.00m. Rotary Open Hole 100 mm diameter from 1.00m to 3.00m. Rotary Cored 75 mm diameter from 3.00m to 8.20m.	Ground Level +27.50 m OD National Grid Coordinates	

Samples and Tests

Depth	Type & No.	Records	Date Casing	Time Water
			24/09/2002	
0.60 - 1.00	B1			
			24/09/2002 1.00	
1.00 - 1.08	C 50,		27/09/2002 1.00 1.00	
1.00 - 3.00m		Open Hole		
3.00 - 4.50m	62 41 0			
4.50 - 5.20m	80 74 50			
5.20 - 6.10m	58 31 0			
6.10 - 6.50m	100 0 0			
6.50 - 7.80m	82 53 0			
7.80 - 8.20m	58 35 0		27/09/2002 3.00	

Depth	TCR SCR RQD	If	Records	Date Casing	Time Water
		Ni 120 210			

Strata

Description	Depth,Level (Thickness)	Legend
MADE GROUND**	(0.50)	g
At 0.50m: Driller reports boulder.		
MADE GROUND: Dense/stiff mixture of CLAY and limestone cobbles**	0.50 +27.00 (0.50)	
MADE GROUND: Hardcore, fill, clay, red bricks and boulders**	1.00 +26.50 (2.00)	
3.00m - 3.57m: Assumed zone of core loss		
MADE GROUND - Concrete: Lean mix with fine to coarse subangular to rounded multi-coloured GRAVEL. Voids approximately 10% with some limestone cobbles.	3.00 +24.50 (2.20)	
3.57m - 4.50m: Concrete.		
Possible highly fractured LIMESTONE (assumed zone of core loss)	5.20 +22.30 (0.40)	
Grey fine grained LIMESTONE with calcite bands.	5.60 +21.90	
5.80m - 5.95m: Non intact		
6.10m - 6.30m: Non intact		
Fractures: 1) Subvertical with clay infill planar rough. 2) Subhorizontal to 20°.	(2.60pen)	
6.88m - 7.02m: Non intact		
Fractures are close to medium spaced planar to stepped and rough. Some clay smearing evident.		
7.57m - 7.87m: Assumed zone of core loss		
EXPLORATORY HOLE ENDS AT 8.20 m.	8.20 +19.30	

Groundwater
No groundwater encountered.

Remarks
Chiselling : 0.95m to 1.00m 60minutes
Hole backfill : 0.00m to 8.20m Grout (g).

Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.
Scale 1 : 50

Project SITE INVESTIGATION AT FORMER MURPHY BARRACKS
Project no. 172135
Carried out for John O'Donovan & Associates

Borehole **BH15**
Sheet 1 of 1

08/11/2002 15:03:41 ESGLog v2.11

Borehole Log

GEOTECH

Drilled by MD Logged by Checked by AL	Equipment and Methods Inspection Pit from 0.00m to 1.20m. Cable Percussion 200 mm diameter from 1.20m to 3.55m.	Ground Level +16.00 m OD National Grid Coordinates	

Samples and Tests

Depth	Type & No.	Records	Date Casing	Time Water
			30/09/2002	
0.80 - 1.20	B1			
1.20 - 1.51		C,50 5,10/15,18,17 for 5mm	1.20	
1.80 - 2.00	B2			
2.30 - 2.60		C,50 10,18/20,20,10 for 3mm	2.30	
			30/09/2002 2.30	
			01/10/2002 2.30	
3.20 - 3.40	B3		01/10/2002 3.20	
3.20 - 3.43		C,49 10,16/17,32 for 6mm	3.20	

Strata

Description	Depth,Level (Thickness)	Legend
TOPSOIL with limestone cobbles.	(0.40)	a
	0.40 +15.60	
Brown sandy gravelly CLAY. Gravel is subangular to rounded fine to coarse	(1.10)	
	1.50 +14.50	
Dense to very dense very clayey becoming clayey sandy GRAVEL	(1.50)	
	3.00 +13.00	
Very dense SAND and GRAVEL.	(0.55pen)	
At 3.55m: Driller reports possible boulder.		
EXPLORATORY HOLE ENDS AT 3.55 m.	3.55 +12.45	

Groundwater
No groundwater encountered.

Remarks
Chiselling : 2.50m to 3.00m 60minutes, 3.50m to 3.55m 90minutes
Hole backfill : 0.00m to 3.55m Arisings (a).

Notes : For explanation of symbols and abbreviations see key sheet. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.
Scale 1 : 50

Project SITE INVESTIGATION AT FORMER MURPHY BARRACKS
Project no. 172135
Carried out for John O'Donovan & Associates

Borehole **BH16**
Sheet 1 of 1

01/11/2002 14:52:58 ESGLog v2.11





Core Photographs	Project Murphy's Barracks Ballincollig	Contract 172135
GEOTECH	Engineer: John O'Donovan & Associates	BH 15



Core Photographs	Project Murphy's Barracks Ballincollig	Contract 172135
GEOTECH	Engineer: John O'Donovan & Associates	BH 17





Trial Pit Photographs	Project Murphy's Barracks	Contract 172135
GEOTECH	Engineer : John O'Donovan & Associates	TP24