

# CS CONSULTING GROUP

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Land Use, Planning & Transportation Department

South Dublin County Council

County Hall Tallaght, Dublin 24.

D24 YNN5

Sent By: Post

Job Ref: D092

A - MM/NB

Date: 25-Nov-22

RE: Further Information Response in relation to Planning Reference SD22A/0035 at St. Mary's Priory,
Old Greenhills Road, Tallaght, Dublin 24

## INTRODUCTION

This further information response document has been prepared by Cronin & Sutton Consulting Engineers (CS Consulting) on behalf of the applicant St. Mary's Medical (Tallaght) Ltd in relation to Planning Reference SD22A/0035 at St. Mary's Priory, Old Greenhills Road, Tallaght, Dublin 24.

This document addresses **Item 3**, **Item 4**, and **Items 5** of the request for further information issued on the 7<sup>th</sup> of February 2022 by South Dublin County Council in respect of the above development application, and should be read in conjunction with the following drawings that accompany it:

- D092-CSC-ZZ-XX-RP-C-0005\_SUDS Design Statement
- D092-CSC-XX-SK-C-0003\_Flood Map
- D092-CSC-XX-DR-C-0003 Proposed Drainage Layout
- D092-CSC-XX-DR-C-0004\_ Proposed Watermain Layout
- D092-CSC-XX-DR-C-0005 Proposed SUDS Layout
- D092-CSC-XX-DR-C-0014\_ Proposed SUDS Details
- D092-CSC-XX-DR-C-0017\_Existing Flow Route Analysis
- D092-CSC-XX-DR-C-0018\_Modified Flow Route Analysis

The following documents are appended to this response document;

- Appendix A Irish Water Records
- Appendix B Irish Water Confirmation of Feasibility
- Appendix C Pre-Connection Enquiry Form

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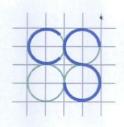
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# ITEM 3 OF THE REQUEST FOR ADDITIONAL INFORMATION

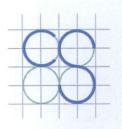
The applicant is requested to provide an outline SuDs Strategy, which should match the Landscape Plan and Engineering drawings submitted (and revised as may be). Additional natural SuDS features shall be incorporated into the proposed drainage system for the development such as blue roofs, rain gardens, detention basins, filter drains, rills, swales, rainwater features etc. The strategy should include an outline layout and calculations to show that greenfield run-off rates from the site outside of major weather events are to be maintained without the need for underground water storage. The applicant is advised to consult the SDCC Sustainable Drainage Design & Evaluation Guide 2022.

# **RESPONSE TO ITEM 3 OF THE RFI**

CS Consulting has prepared a SUDS Design Statement (D092-CSC-ZZ-XX-RP-C-0005) which outlines the revised SuDS strategy which ties in with the objectives described in the SDCC Sustainable Drainage Design & Evaluation. This document provides further information about the proposed management train maximising the benefits of the SUDS philosophy. This document also contains additional information regarding the rationale followed in the calculation of the greenfield runoff rates, the long-term storage and a summary of the results of the hydraulic simulation. Refer to CS drawings D092-CSC-XX-DR-C-0003, -005, -0014, -0017 & -0018 for further details.

# ITEM 4 OF THE REQUEST FOR FURTHER INFORMATION

- (a). The applicant has submitted limited surface water drainage plans for the proposed development. The applicant is requested to submit a detailed drawing showing existing and proposed surface water drainage layouts up to and including the point of connection to the public surface water sewer from proposed developments. The drawing shall include the location of all Aj's, manholes, pipe size, material type and direction of flow. Maps of surface water drainage networks may be obtained, if available, for required locations in South Dublin County Council by emailing servicemaps@sdublincoco.ie.
- (b). (i). The applicant is requested to submit a drawing and report to show how much surface water attenuation is provided in m3. The proposed attenuation calculation of 348m3 required is 30% undersized for a 1 in 30 year storm event and undersized by 42% for a 1 in 100 year storm event. Show how SAAR (Standard Annual Average Rainfall) was calculated.
- (ii). Submit a revised report and drawing showing increased surface water attenuation provided. Attenuation shall be provided by SuDS (Sustainable Drainage System) as a first option and only where SuDS cannot provide enough attenuation should an arched type attenuation be considered.
- (iii). The applicant should contact Water Services Department of South Dublin County Council prior to submission of revised report and drawing/s.



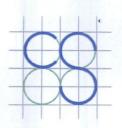
(c). The applicant is requested to submit a report and drawing to show the location of proposed development superimposed on a CFRAM OPW flood map. This is required to show what if any flood risk there is as a result of proposed development.

### **RESPONSE TO ITEM 4 OF THE RFI**

a) Refer to CS Consulting drawing D092-CSC-XX-XX-DR-C-0003 for detailed information about existing and proposed surface water infrastructure. This drawing includes the location of all AJs, manholes, pipe sizes, materials, and gradients. CS Consulting has also obtained records of the existing surface water infrastructure present on site from Irish Water which have been included in the supporting information.

b)

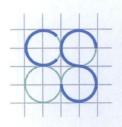
- i. Refer to Appendix B of CS Document D092-CSC-ZZ-XX-RP-C-0005 (SUDS Design Statement) for further information about attenuation storage calculations. Based on the site characteristics and the information provided by the Design Team, a revised estimate of 556m³ was deemed necessary for the critical storm of the 100-year event. Refer to Table 3 of the SUDS Design Statement and CS Consulting drawing D092-CSC-XX-XX-DR-C-0003 for further details of the attenuation provided throughout the scheme. A significant amount of the required storage is provided by the newly introduced SUDS elements in the scheme in line with SDCC recommendations. Additionally, the site has been hydraulically modelled with Microdrainage 2020.1 to ensure that there is no flooding on site for the design event. Appendix C of the same document contains a summary of the results of the hydraulic simulation. Site specific SAAR values have been obtained from <a href="https://www.met.ie/climate/services">https://www.met.ie/climate/services</a> choosing a SAAR value of 824mm which is the closest to site coordinates.
- ii. CS Consulting has carried out an assessment in order to maximise the attenuation volume provided on surface by SUDS elements. Additional SUDS elements have been introduced in the scheme in order to achieve those figures. The newly introduced SUDS elements provide a significant amount of this storage refer to CS drawings D092-CSC-XX-XX-DR-C-0003 & D092-CSC-XX-XX-DR-C-0005 and Table 3 of D092-CSC-ZZ-XX-RP-C-0005 (SUDS Design Statement) for further details. The north-west portion of the site shall remain unchanged due to the ecological value of the trees in the area, meaning that this area is not available for on-site attenuation purposes. CS Consulting had no other option than proposing a below ground Stormtech tank to provide the remainder of the attenuation in order to meet the required discharge rate.



- iii. On 24th November 2022 a meeting was held between CS Consulting and Mr. Brian Harkin from South Dublin County Council via MS Teams. The meeting covered the actions taken by CS Consulting in order to address the observations made by SDCC in item 4 of the RFI document. As a result of this meeting, the design principles were agreed and some amendments were made following Mr Harkin's comments and have been addressed in this final application.
- c) Refer to D092-CSC-XX-SK-C-0003\_Flood Map which shows the location of the development superimposed on the CFRAM OPW Flood Map for the area in question. The development is away from the flood zones shown in the map and due to the nature of the works, which shall represent a minimum impact to the existing ground levels, it is not envisaged that the proposed development represents a flood risk for the surrounding area.

# ITEM 5 OF THE REQUEST FOR FURTHER INFORMATION

- (a). The applicant is requested to:
- (i). Submit a pre connection enquiry with Irish Water for proposed development.
- (ii). Obtain a letter of confirmation of feasibility of proposed development and submit same to Water Services South Dublin County Council Planning Authority.
- (iii). Submit a drawing showing the watermain layout of proposed development. Maps of the public watermains networks may be obtained, if available, for required locations in by emailing: datarequests@water.ie.
- (b). The applicant is requested to:
- (i). Submit a pre connection enquiry with Irish Water for proposed development.
- (ii). Obtain a letter of confirmation of feasibility of proposed development and submit same to Water Services South Dublin County Council Planning Authority.
- (iii). Submit a drawing showing the waste water layout of proposed development. Maps of the public wastewater networks may be obtained, if available, for required locations in by emailing: datarequests@water.ie.



# **RESPONSE TO ITEM 5 OF THE RFI**

a)

- Refer to the pre connection enquiry accompanying this RFI response submitted to Irish
   Water on May 2022
- ii. See Irish Water Confirmation of feasibility received in June 2022 submitted with this response document
- iii. Refer to **D092-CSC-XX-XX-DR-C-0004\_Watermain Layout** submitted with this response document.

b)

- Refer to the pre connection enquiry accompanying this RFI response submitted to Irish Water on May 2022
- ii. See Irish Water Confirmation of Feasibility received in June 2022 submitted with this response document
- Refer to D092-CSC-XX-XX-DR-C-0003\_Drainage Layout submitted with this response document.

# Marc Montrull

Civil Engineer

MEng, GMICE

for Cronin & Sutton Consulting



# APPENDIX A - Irish Water Records

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# ÉIREANN : IRISH

### Legend

- A Pump Stations
- Irish Water

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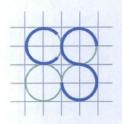
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APPENDIX B - Irish Water Confirmation of Feasibility



Marc Montrull CS Consulting 19-22 Dame Street Dublin 2 D02 E267 Ireland

1 June 2022

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

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

www.water.ie

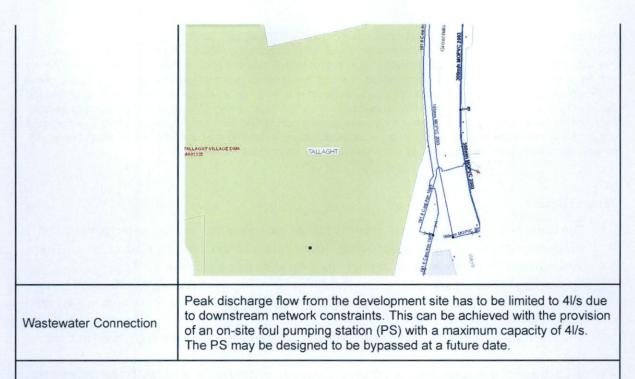
Re: CDS22003416 pre-connection enquiry - Subject to contract | Contract denied

Connection for Multi/Mixed Use Development of 39 Apartments and a 106 bed Residential Care Home at "Lands at St. Mary's Priory, Greenhills Road, Tallaght, Dublin"

Dear Sir/Madam,

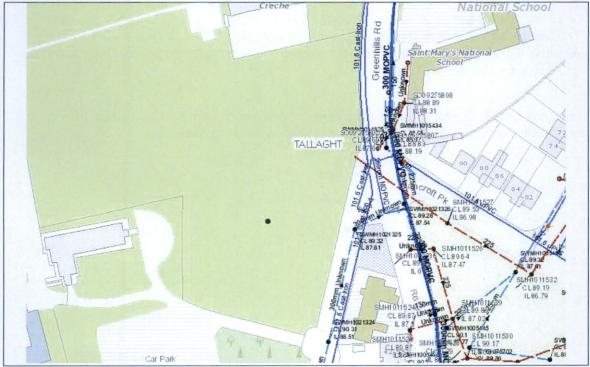
Irish Water has reviewed your pre-connection enquiry in relation to a Water & Wastewater connection at "Lands at St. Mary's Priory, Greenhills Road, Tallaght, Dublin" (the **Premises**). Based upon the details you have provided with your pre-connection enquiry and on our desk top analysis of the capacity currently available in the Irish Water network(s) as assessed by Irish Water, we wish to advise you that your proposed connection to the Irish Water network(s) can be facilitated at this moment in time.

SERVICE	OUTCOME OF PRE-CONNECTION ENQUIRY  THIS IS NOT A CONNECTION OFFER. YOU MUST APPLY FOR A CONNECTION(S) TO THE IRISH WATER NETWORK(S) IF YOU WISH TO PROCEED.
Water Connection	Feasible without infrastructure upgrade by Irish Water
Wastewater Connection	Feasible without infrastructure upgrade by Irish Water
	SITE SPECIFIC COMMENTS
Water Connection	The new 150mm ID connection should be made to the 160mm MOPVC main on Greenhills Road.



The design and construction of the Water & Wastewater pipes and related infrastructure to be installed in this development shall comply with the Irish Water Connections and Developer Services Standard Details and Codes of Practice that are available on the Irish Water website. Irish Water reserves the right to supplement these requirements with Codes of Practice and these will be issued with the connection agreement.

# The map included below outlines the current Irish Water infrastructure adjacent to your site:



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Whilst every care has been taken in its compilation Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland to Irish Water. Irish Water can assume no responsibility for and give no guarantees, undertakings or warranties concerning the accuracy, completeness or up to date nature of the information provided and does not accept any liability whatsoever arising from any errors or omissions. This information should not be relied upon in the event of excavations or any other works being carried out in the vicinity of the Irish Water underground network. The onus is on the parties carrying out excavations or any other works to ensure the exact location of the Irish Water underground network 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.

## General Notes:

- 1) The initial assessment referred to above is carried out taking into account water demand and wastewater discharge volumes and infrastructure details on the date of the assessment. The availability of capacity may change at any date after this assessment.
- 2) This feedback does not constitute a contract in whole or in part to provide a connection to any Irish Water infrastructure. All feasibility assessments are subject to the constraints of the Irish Water Capital Investment Plan.
- The feedback provided is subject to a Connection Agreement/contract being signed at a later date.
- 4) A Connection Agreement will be required to commencing the connection works associated with the enquiry this can be applied for at <a href="https://www.water.ie/connections/get-connected/">https://www.water.ie/connections/get-connected/</a>
- 5) A Connection Agreement cannot be issued until all statutory approvals are successfully in place.
- 6) Irish Water Connection Policy/ Charges can be found at https://www.water.ie/connections/information/connection-charges/
- Please note the Confirmation of Feasibility does not extend to your fire flow requirements.
- 8) Irish Water is not responsible for the management or disposal of storm water or ground waters. You are advised to contact the relevant Local Authority to discuss the management or disposal of proposed storm water or ground water discharges
- 9) To access Irish Water Maps email <a href="mailto:datarequests@water.ie">datarequests@water.ie</a>
- 10) All works to the Irish Water infrastructure, including works in the Public Space, shall have to be carried out by Irish Water.

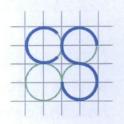
If you have any further questions, please contact Kevin McManmon from the design team at kmcmanmon@water.ie For further information, visit **www.water.ie/connections.** 

Yours sincerely,

Gronne Hassis

Yvonne Harris

**Head of Customer Operations** 



APPENDIX C - Pre-Connection Enquiry Form

# **Pre-connection enquiry form**



# Business developments, mixed use developments, housing developments

This form is to be filled out by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure. If completing this form by hand, please use BLOCK CAPITALS and black ink. Please note that this is a digital PDF form and can be filled in electronically

Please refer to the **Guide to completing the pre-connection enquiry form** on page 14 of this document when completing the form.

\* Denotes mandatory/ required field. Please note, if mandatory fields are not completed the application will be returned.

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9.2	Please provide the maximum expected occupancy in number of people, according to the proposed development you selected, e.g. Number of office workers, number of nursing home residents, maximum
	pub occupancy, number of hotel beds, number of retail workers:
10	*Approximate start date of proposed development:
11	*Is the development multi-phased? Yes No 🗸
	If 'Yes', application must include a master-plan identifying the development phases and the current phase number.
	If 'Yes', please provide details of variations in water demand volumes and wastewater discharge loads due to phasing requirements.
12	*Please indicate the type of connection required by ticking the appropriate box below:
	Both Water and Wastewater   Please complete both Sections D and E
	Water only Please go to Section D
	Wastewater only  Please go to Section E
	Reason for only applying for one service (if applicable):

Sec	tion D   Water connection and deman	d details	<b>党企会放弃建松排出了</b>
13 13.1 13.2	*Is there an existing connection to public wat If yes, is this enquiry for an additional connection If yes, is this enquiry to increase the size of an ex	n to one already installe	Yes No Ved? No
14	Approximate date water connection is require	ed:	01/01/2024
15	*What diameter of water connection is requir	ed to service the deve	1 5 0 mm
16 17	*Is more than one connection required to the to service this development?  If 'Yes', how many?  Please indicate the business water demand (see the connection required to the to service this development?		Yes No ✓ No ✓ No ✓ No ✓
	Post-development peak hour water demand	0.601	l/s
	Post-development average hour water demand	3.006	l/s
18	Please include calculations on the attached sheet in the water demand profile, please provide all s	iuch details.  (industry-specific wat	er requirements):
	Post-development peak hour water demand	N/A	l/s
19	Please include calculations on the attached sheet in the water demand profile, please provide all s  What is the existing ground level at the properties of	such details.	ection point (if known) above Malin
20	What is the highest finished floor level of the p	roposed development	above Malin Head Ordnance Datum?
21	Is on-site water storage being provided?		Yes 🗸 No 📗
	Please include calculations on the attached shee	et provided.	

22	Are there fire flow requirements?			Yes	No 🗸
	Additional fire flow requirements over and a those identified in Q17-18	bove		l/s	
	Please include calculations on the attached Fire Authority.	sheet provided, ar	nd include confirma	ation of requiremen	ts from the
23	Do you propose to supplement your pota	ole water supply fr	om other sources?	Yes	No 🗸
	If 'Yes', please indicate how you propose to (see <b>Guide to completing the application</b>				
Sec	tion E   Wastewater connection a	nd discharge d	etails		
24	*Is there an existing connection to a pu	blic sewer at the s	ite?	Yes	No 🗸
24.1	If yes, is this enquiry for an additional con	nection to the one a	lready installed?	Yes	No
24.2	If yes, is this enquiry to increase the size of	an existing connec	ction?	Yes	No
25	*Approximate date that wastewater co	nnection is requir	ed: 0 1	/01/2	0 2 4
26	*What diameter of wastewater connecti	on is required to s	ervice the develop	oment? 2	2 5 mm
27	*Is more than one connection required to service this development?  If 'Yes', how many?	o the public infras	tructure	Yes	No 🗸
28	Please indicate the commercial wastewar	er hydraulic load (	shops, offices, scho	ools, hotels, restau	rants, etc.):
	Post-development peak discharge	0.661		l/s	
	Post-development average discharge	3.968		l/s	
	Please include calculations on the attached	sheet provided.			
29	Please indicate the industrial wastewat	er hydraulic load	(industry-specific	discharge require	ements):
	Post-development peak discharge	N/A		l/s	
	Post-development average discharge	N/A		l/s	

Please include calculations on the attached sheet provided.

30	Wastewater	organic	load:
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-	naract	eristic					Max (mg/		ncen	itrat	ion				era g/l)	ge c	onc	enti	ati	on		Maxi (kg/d			aily	load	d	
Bio	ochem emand	ical ox (BOD)	yger	n																								
	nemica OD)	loxyg	en d	ema	and																							
Su	spend	ed sol	ids (	SS)				10,5																				
То	tal nitr	ogen	(N)																									
То	tal pho	ospho	rus (	P)																								
Ot	ther																											
Те	empera	ature	rang	ge																								
рН	l range	e																										
If ^	Yes' n	lease	give	rea	asor	n for	dis	cha	rge	and	cor	nm	ent	on a	ide	ตบลเ	-V 0	f SU	DS	/att		es [	me	asu	res		No	
If '\	Yes', pl	lease	give	rea	asor	n for	dis	cha	rge	and	cor	mme	ent	on a	de	qua	у о	f SU	DS	/atte			me	asu	res			
If ^	Yes', pl	lease	give	rea	asor	for	dis	cha	rge	and	cor	mme	ent	on a	ide	qua	су о	f SU	DS	/atte			me	easu	res			
If $\gamma$	Yes', pl	lease	give	rea	asor	for	dis	cha	rge	and	cor	mme	ent	on a	de	quad	у о	f SU	DS	/atte			me	easu	res			
Pleawith	ase su h this a	bmit	deta	nilecon	d cal	lcula	ation	ns o	on di	ischa	arge	e vol	lum	es, p	pea	k flo	ws	and	att	enu	atio	ation			res	pro		e
Pleawith *Do	ase such this a	bmit applic	deta deta aatio	nilecon to p	d cal	np t	he v	ms o	on di	ischa vate	arge	e vol	lum	es, p	pea n w	k flo	ws	and	att	enu	ation Y	n vol	lum	es		pro	pos	e [
Pleawith *Do	ase su h this a	bmit applic	deta	to pude	oum just	lcula ifica	he v	ms o	on di	ischa vate	arge	e vol	lum	es, p	pea n w	k flo	ws	and	att	enu	ation Y	n vol	lum	ees wn)	) ab	ove	pos	e
Pleawith *Do	ase su h this a b you 'es', pla	bmit application properties in the existence of the exist	deta deta atio	to pude	pum just groum?	lcula ifica	he v	was n fo	on di	vate ur p	arge	ped	lum sol	ees, pluster	n w	k flo	ws	and	att	enu enu	ation Y	n vol	lum	ees 8	) ab	ove	No Ma	e [
Pleawith *Do	ase such this a your fest, plot at is the ad Order	bmit application properties in the existence of the location in the location i	deta deta atio	to pude	pum just grou um?	np t	he v	was n fo	an di	vate ur p	arge	ped	solum	lutio	n w	k flo	ws this cold O	and	att	enu enu	ation Y	res [	cno 0	ees 8	) ab	ove	No Ma	e

# Section F | Supporting documentation Please provide the following additional information (all mandatory): Site location map: A site location map to a scale of 1:1000, which clearly identifies the land or structure to which the enquiry relates. The map shall include the following details: i. The scale shall be clearly indicated on the map. ii. The boundaries shall be delineated in red. iii. The site co-ordinates shall be marked on the site location map. Details of planning and development exemptions (if applicable). > Calculations (calculation sheets provided below). > Site layout map to a scale of 1:500 showing layout of proposed development, water network and wastewater network layouts, additional water/wastewater infrastructure if proposed, connection points to Irish Water infrastructure. Conceptual design of the connection asset from the proposed development to the existing Irish Water infrastructure, including service conflicts, gradients, pipe sizes and invert levels. Any other information that might help Irish Water assess this pre-connection enquiry. Section G | Declaration I/We hereby make this application to Irish Water for a water and/or wastewater connection as detailed on this form. I/We understand that any alterations made to this application must be declared to Irish Water. The details that I/we have given with this application are accurate. I/We have enclosed all the necessary supporting documentation. Any personal data you provide will be stored and processed by Irish Water and may be transferred to third parties for the purposes of the water and/or wastewater connection process. I hereby give consent to Irish Water to store and process my personal data and to transfer my personal data to third parties, if required, for the purposes of the connection process. If you wish to revoke consent at any time or wish to see Irish Water's full Data Protection Notice, please see https://www.water.ie/privacy-notice/ 3 0 5 2 0 2 2 Signature: Date:

Irish Water will carry out a formal assessment based on the information provided on this form.

Any future connection offer made by Irish Water will be based on the information that has been provided here.

Please submit the completed form to newconnections@water.ie or alternatively, post to:

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U

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Irish Water PO Box 860 South City Delivery Office Cork City

R

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Your full name (in BLOCK CAPITALS):

ON

Please note that if you are sending us your application form and any associated documentation by email, the maximum file size that we can receive in any one email is 35MB.

# Please note, if mandatory fields are not completed the application will be returned.

Irish Water is subject to the provisions of the Freedom of Information Act 2014 ("FOIA") and the codes of practice issued under FOIA as may be amended, updated or replaced from time to time. The FOIA enables members of the public to obtain access to records held by public bodies subject to certain exemptions such as where the requested records may not be released, for example to protect another individual's privacy rights or to protect commercially sensitive information. Please clearly label any document or part thereof which contains commercially sensitive information. Irish Water accepts no responsibility for any loss or damage arising as a result of its processing of freedom of information requests.

# Calculations

Water demand

The development comprises of:

Nursing Home: 106 No. single bedroom

Blocks A & B: 39 No. single bedroom ILUs which can accommodate up to 2 no. residents.

35 No. Staff

The development is expected to have a potable water demand of:

- 350l/person/day for the nursing home element
- 150 l/person/day for the assisted living units
- Full time day staff (90 l/person/day)

The proposed development will have a daily potable water demand of 51,950 l/day = 51.95 m3/day. This equates to:

Average Water Demand (AWD) = 0.601 l/s Peak Demand (5 x AWD) = 3.006 l/s

# On-site storage

Water Storage to ensure within the proposed build	a 24-hour supply (a ings.	minimum of 48.8m3) is to be pro	ovided internally
Fire flow requirements  N/A			
IN/A			

# Foul wastewater discharge

The development comprises of:

Nursing Home: 106 No. single bedroom

Blocks A & B: 39 No. single bedroom ILUs which can accommodate up to 2 no. residents.

35 No. Staff

Therefore the total population is:  $106 + 2 \times 39 + 35 = 219$  residents

According to IW Wastewater Code of Practice Appendix C the flow rates to apply are as follows:

Standard Residential: 150 l/person/day

Residential old people/nursing homes: 350 l/person/day

Full time day staff: 90 l/person/day

An allowance of 10% has been made to take into consideration Urban Creep.

Daily Wastewater generation:  $(106 \times 350 + 2 \times 39 \times 150 + 35 \times 90) \times 1.1 = 57,145 \text{ l/day} = 57.15$ 

m3/day

Dry Weather Flow (DWF) = 0.661 l/s Peak Flow = 6 x DWF = 3.968 l/s

# Guide to completing the pre-connection enquiry form

This form should be completed by applicants enquiring about the feasibility of a water and/or wastewater connection to Irish Water infrastructure.

The Irish Water Codes of Practice are available at www.water.ie for reference.

# Section A | Applicant Details

- **Question 1:** This question requires the applicant or company enquiring about the feasibility of a connection to identify themselves, their postal address, and to provide their contact details.
- **Question 2:** If the applicant has employed a consulting engineer or an agent to manage the enquiry on their behalf, the agent's address and contact details should be recorded here.
- **Question 3:** Please indicate whether it is the applicant or the agent who should receive future correspondence in relation to the enquiry.

# Section B | Site details

- **Question 4:** This is the address of the site requiring the water/wastewater service connection and for which this enquiry is being made.
- **Question 5:** Please provide the Irish Grid co-ordinates of the proposed site. Irish grid positions on maps are expressed in two dimensions as Eastings (E or X) and Northings (N or Y) relative to an origin. You will find these coordinates on your Ordnance Survey map which is required to be submitted with an application.
- Question 6: Please identify the Local Authority that is or will be dealing with your planning application, for example Cork City Council.
- **Question 7:** Please indicate if planning permission has been granted for this application, and if so, please provide the planning permission reference number.
- Question 8: Please indicate if this development is affiliated with a government body/agency, and if so, specify

# Section C | Development details

- **Question 9:** Please specify the number of different property/premises types by filling in the tables provided.
- **Question 9.1:** Please provide additional details if your proposed business use are in the Food Processing, Industrial unit/ Manufacturing, Sports Facility or Other Categories.
- **Question 9.2:** Please indicate the maximum expected occupancy in numbers of people according to the proposed development you selected.
- Question 10: Please indicate the approximate commencement date of works on the development.
- **Question 11:** Please indicate if a phased building approach is to be adopted when developing the site. If so, please provide details of the phase master-plan and the proposed variation in water demand/wastewater discharge as a result of the phasing of the development.
- **Question 12:** Please indicate the type of connection required by ticking the appropriate box and proceed to complete the appropriate section or sections.

# Section D | Water connection and demand details

- **Question 13:** Please indicate if a water connection already exists for this site.
- Question 13.1: Please indicate if this enquiry concerns an additional connection to one already installed on the site.
- **Question 13.2:** Please indicate if you are proposing to upgrade the water connection to facilitate an increase in water demand. Irish Water will determine what impact this will have on our infrastructure.
- **Question 14:** Please indicate the approximate date that the proposed connection to the water infrastructure will be required.
- Question 15: Please indicate what diameter of water connection is required to service this development.

- **Question 16:** Please indicate if more than one connection is required to service this development. Please note that the connection size provided may be used to determine the connection charge.
- **Question 17:** If this connection enquiry concerns a business premises, please provide calculations for the water demand and include your calculations on the calculation sheet provided. Business premises include shops, offices, hotels, schools, etc. Demand rates (peak and average) are site specific. Average demand is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Water Infrastructure.
- Question 18: If this connection enquiry is for an industrial premises, please calculate the water demand and include your calculations on the calculation sheet provided. Demand rates (peak and average) are site specific. Average demand is the total daily volume divided by a 24-hour time period and expressed in litres per second (I/s). The peak demand for sizing of the pipe network will be as per the specific business production requirements. For design purposes, please refer to the Irish Water Codes of Practice for Water Infrastructure.
- Question 19: Please specify the ground level at the location where connection to the public water mains will be made. This is required in order to determine if there is sufficient pressure in the existing water infrastructure to serve your proposed development. Levels should be quoted in metres relative to Malin Head Ordnance Datum.
- **Question 20:** Please specify the highest finished floor level on site. This is required in order to determine if there is sufficient pressure in the existing water infrastructure to serve your proposed development. Levels should be quoted in metres relative to Malin Head Ordnance Datum.
- **Question 21:** If storage is required, water storage capacity of 24-hour water demand must usually be provided at the proposed site. In some cases, 24-hour storage capacity may not be required, for example 24-hour storage for a domestic house would be provided in an attic storage tank. Please calculate the 24-hour water storage requirements and include your calculations on the attached sheet provided. Please also confirm that on-site storage is being provided by ticking the appropriate box.
- Question 22: The water supply system shall be designed and constructed to reliably convey the water flows that are required of the development including fire flow requirements by the Fire Authority. The Fire Authority will provide the requirement for fire flow rates that the water supply system will have to carry. Please note that while flows in excess of your required demand may be achieved in the Irish Water network and could be utilised in the event of a fire, Irish Water cannot guarantee a flow rate to meet your fire flow requirement. To guarantee a flow to meet the Fire Authority requirements, you should provide adequate fire storage capacity within your development. Please include your calculations on the attached sheet provided, and further provide confirmation of the Fire Authority requirements.
- **Question 23:** Please identify proposed additional water supply sources, that is, do you intend to connect to the public water mains or the public mains and supplement from other sources? If supplementing public water supply with a supply from another source, please provide details as to how the potable water supply is to be protected from cross contamination at the premises.

# Section E | Wastewater connection and discharge details

- **Question 24:** Please indicate if a wastewater connection to a public sewer already exists for this site.
- Question 24.1: Please indicate if this enquiry relates to an additional wastewater connection to one already installed.
- **Question 24.2:** Please indicate if you are proposing to upgrade the wastewater connection to facilitate an increased discharge. Irish Water will determine what impact this will have on our infrastructure.
- **Question 25:** Please specify the approximate date that the proposed connection to the wastewater infrastructure will be required.
- Question 26: Please indicate what diameter of wastewater connection is required to service this development.
- **Question 27:** Please indicate if more than one connection is required to service this development. Please indicate number required.
- **Question 28:** If this enquiry relates to a business premises, please provide calculations for the wastewater discharge and include your calculations on the attached sheet provided. Business premises include shops, offices, hotels, schools, etc. Discharge rates (peak and average) are site specific. Average discharge is the total daily volume divided by a 24-hour time period and expressed in litres per second (l/s). For design purposes, please refer to the Irish Water Codes of Practice for Wastewater Infrastructure.

- Question 29: If this enquiry relates to an industrial premises, please provide calculations for the wastewater discharge and include your calculations on the calculation sheet provided. Discharge rates (peak and average) are site specific. Average discharge is the total daily volume divided by a 24-hour time period and expressed in litres per second (I/s). The peak discharge for sizing of the pipe network will be as per the specific business production requirements. For design purposes, please refer to the Irish Water Codes of Practice for Wastewater Infrastructure.
- Question 30: Please specify the maximum and average concentrations and the maximum daily load of each of the wastewater characteristics listed in the wastewater organic load table (if not domestic effluent), and also specify if any other significant concentrations are expected in the effluent. Please complete the table and provide additional supporting documentation if relevant. Note that the concentration shall be in mg/l and the load shall be in kg/day. Note that for business premises (shops, offices, schools, hotels, etc.) for which only domestic effluent will be discharged (excluding discharge from canteens/ restaurants which would require a Trade Effluent Discharge licence), there is no need to complete this question.
- Question 31: In exceptional circumstances, such as brownfield sites, where the only practical outlet for storm/ surface water is to a combined sewer, Irish Water will consider permitting a restricted attenuated flow to the combined sewer. Storm/surface water will only be accepted from brownfield sites that already have a storm/surface water connection to a combined sewer and the applicant must demonstrate how the storm/surface water flow from the proposed site is minimised using sustainable urban drainage system (SUDS). This type of connection will only be considered on a case by case basis. Please advise if the proposed development intends discharging surface water to the combined wastewater collection system.
- **Question 32:** Please specify if the development needs to pump its wastewater discharge to gain access to Irish Water infrastructure.
- **Question 33:** Please specify the ground level at the location where connection to the public sewer will be made. This is required to determine if the development can be connected to the public sewer via gravity discharge. Levels should be quoted in metres relative to Malin Head Ordnance Datum.
- **Question 34:** Please specify the lowest floor level of the proposed development. This is required in order to determine if the development can be connected to the public sewer via gravity discharge. Levels should be quoted in metres relative to Malin Head Ordnance Datum.
- Question 35: Please specify the proposed invert level of the pipe exiting the property to the public road.

# Section F | Supporting documentation

Please provide additional information as listed.

# Section G | Declaration

Please review the declaration, sign, and return the completed application form to Irish Water by email or by post using the contact details provided in Section G.

Notes		