

29/9/2021

From: Damian Maguire
Sent: Wednesday 29 September 2021 17:50
To: Jonathon Edgeworth; Sinéad Carey
Cc: John Joyce; Louise Best; Seamus Ryan
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

ByrneLooby / Damian Maguire
 (1W) / Jon. Edgeworth
 Sinéad Carey
 John Joyce
 Louise Best

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(1W) Seamus Ryan

Hi Johnathon,

I have checked with the Contractor regarding the expired SafePass and it is not an issue as long as you are in my company during the site visit.

Regards,

Damian Maguire

Resident Engineer

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From: Jonathon Edgeworth
Sent: Wednesday 29 September 2021 16:46
To: Sinéad Carey
Cc: John Joyce ; Damian Maguire ; Louise Best ; Seamus Ryan
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

Hi Sinéad

Thanks for your email, to confirm the attendees for the site visit will be.

Jonathon Edgeworth
 Seamus Ryan

29/9/21
 Sinéad Carey
 John Joyce
 Damian Maguire
 Louise Best
 S. Ryan
 Jonathon Edge
 Joanne Feehill

Joanne Frehill
David Conneran

Just to note, Joanne Frehill flagged to me that her Safe Pass has lapsed. Can you check if this will impact her attending the site visit?

I have circulated the induction details below and requested all attendees to complete as required. If you require anything further please let me know.

Kind Regards,

Jonathon Edgeworth
Senior Project Engineer – Major Projects

ervia

[REDACTED]

From: Sinéad Carey [REDACTED]

Sent: 29 September 2021 13:14

To: Seamus Ryan [REDACTED]

Olive Marshall [REDACTED]

Cc: Jonathon Edgeworth [REDACTED]

John Joyce [REDACTED]

Damian Maguire

[REDACTED]; Louise Best [REDACTED]

Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

29/9/2021

S. Ryan
Olive Marshall
J. Edge
J. Joyce
Damian Maguire
Louise Best

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Hi Seamus,

10am next Wed 6th Oct works for the BRDS team.

Below is a link that all attendees will need to complete ahead of attendance. Once this is completed, they will receive an email containing the site induction for BRDS.

[REDACTED]

They will also need to complete the CIF COVID-19 induction, if they have not completed it yet, the below info can be used:

<https://cif.ie/essential-induction/>

The password is outlined below, which is case sensitive:

CIFessential2020

On the day of the visit, we ask that they complete the COVID-19 self-declaration as well:

[REDACTED]

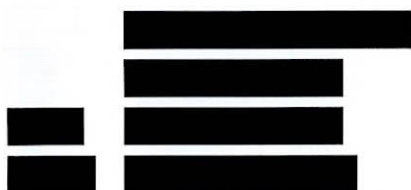
Damian's mobile number is [REDACTED] if you need to touch base with him directly regarding arrangements for the day.

Kind regards,

Sinéad Carey

Associate Director

BYRNELOOBY



Office: H5, Centrepont Business Park, Oak Rd
Dublin 12, D12 VW27, Ireland

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From: Seamus Ryan [REDACTED]
Sent: Wednesday 29 September 2021 11:29
To: Sinéad Carey [REDACTED]; Olive Marshall <[REDACTED]>
Cc: Jonathon Edgeworth [REDACTED]; John Joyce [REDACTED]; Damian Maguire [REDACTED]
[REDACTED] Louise Best [REDACTED]
Subject: RE: [EXTERNAL] RE: BRDS GDD Connection 1A

Thanks Sinéad,

Can I suggest 10am for next Wednesday 6th October and I would hope that 2 hours max will cover the visit. We can firm up names from the GDD team over the next couple of days if this is acceptable.

Kind Regards

Seamus Ryan

Project Manager – Major Projects

Mental Health First Aider



Colvill House, 24-26 Talbot St, Dublin 1
[REDACTED]

29/9/2021

S Kyan

Sinead Carey

Olive Marshall

Jon. Ed

J. Joyce

Damian Maguire

Louise

Best

28/9/21

From: Sinéad Carey [REDACTED]
Sent: 28 September 2021 14:30
To: Seamus Ryan [REDACTED]; Olive Marshall [REDACTED]
Cc: Jonathon Edgeworth [REDACTED]; John Joyce [REDACTED]; Damian Maguire [REDACTED]
[REDACTED]; Louise Best [REDACTED]
Subject: [EXTERNAL] RE: BRDS GDD Connection 1A

S Ryan
Olive Marshall
J. Edge
J Joyce
Damian Maguire
Louise Best

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Sinead Carey

Hi Seamus,

The PRE, Damian Maguire, is on annual leave from lunchtime next Wednesday until next Monday. Is it possible for your team to attend on Wed morning? Failing that could we suggest the following week.

Damian has suggested that a comfortable number of attendees would be 6-8.

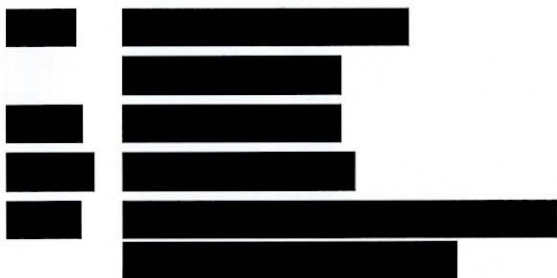
All attendees will be required to should bring their own PPE and complete the online CIF Induction and W&B online Covid-19 inductions in advance.

Once we confirm the date and time and attendees, we can forward on details of the inductions and directions to the site.

Kind regards,

Sinéad Carey
Associate Director

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From: Seamus Ryan <Seamus.Ryan@ervia.ie>

Sent: Tuesday 28 September 2021 11:58

To: Olive Marshall [REDACTED]; Sinéad Carey [REDACTED]

Cc: Jonathon Edgeworth [REDACTED]; John Joyce [REDACTED]

Subject: Re: BRDS GDD Connection 1A

28/9/21

Thanks Olive,

@Sinead,

Is it possible to arrange a site visit for next Wednesday, 6th October at 12:30pm? I can send you names during week once confirmed and will keep to small numbers.

Seamus Ryan

From: Olive Marshall [REDACTED]

Date: 17 September 2021 at 11:46:11 IST

To: Seamus Ryan [REDACTED]

Cc: Jonathon Edgeworth [REDACTED], John Joyce [REDACTED]

Subject: FW: BRDS GDD Connection 1A

17/9/21

Hi Seamus,

Please find details from Sinead Carey in BLP in relation to changes to specification. The building of the GDD chamber is ongoing so no as built drawings as yet.

Included some recent aerial shots of the site above.

As Sinead outlines below, they can facilitate site visit in small numbers.

Regards,
Olive

From: Sinéad Carey [REDACTED]

Sent: 16 September 2021 19:18

To: Olive Marshall [REDACTED]

Cc: Louise Best [REDACTED] John Joyce [REDACTED]

Subject: RE: BRDS GDD Connection 1A

16/9/21

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Hi Olive,

See below comments in red where minor changes have occurred since our last review. Remaining text appears to be as previously agreed.

We don't have As-Builts yet for the GDD chamber as it is still under construction. Attached are the Construction Status GA drawings, for information.

Damian and W&B are happy to facilitate a site visit, in reasonably small numbers, in the coming weeks. Let us know what suits the GDD team.

Come back to us if you require further information.

Kind regards,
Sinead

colours

GDD Connection 1A to the BRDS 9C

Connection CC001 is located at the head of Pipeline No.1 and will intercept the flows from the 9C sewer catchment at the BRDS pump station site. The connection shall be undertaken using trenchless methods to an existing 8m diameter shaft being constructed under the BRDS project. The details for the connection are as follows:

- The soft eye dimensions are 3.2m x 3.2m from a level of 40.1mOD to 43.3mOD; *IL of 39.90mOD on the soft eye. ie from a level of 39.90mOD to 43.10mOD*
- The invert level of the connection point is 40.75mOD; Invert level of the channel is 40.74mOD.
- The co-ordinates for connection are X =708106.256 Y = 738926.931; Co-Ordinates for the centre of the chamber are 708102.5145E, 738928.3445N
- As per the control philosophy provided in Appendix X, the BRDS Contractor shall undertake following works at BRDS infrastructure to facilitate connection/diversion works:
 - o close CSO and FBT penstocks to isolate the IF001 chamber;
 - o open low connection penstocks;
 - o operate storm return pumps as foul lift pumps;
 - o remove weir plate and bench structure 09 at completion of diversion/connection works.
- As per the control philosophy provided in Appendix X, the GDD Contractor shall undertake following works at BRDS infrastructure to facilitate connection/diversion works:
 - o remove pre-cast roof from the interface IF001 chamber;
 - o tunnel into the chamber;
 - o remove TBM from the chamber;
 - o remove existing benching in the chamber;
 - o provide new benching and a weir in the chamber;
 - o place roof back on the chamber;
 - o divert all flows from 9C sewer to the duplication sewer TS1;

All works shall be completed within the Sectional Completion timeframe with flows required to be turned in under Contract No.1.

Pipeline Construction Interface

BRDS Contractor

- The BRDS contractor will provide an 8m approx. internal diameter shaft with soft eye to enable tunnel connection.
- BRDS Contractor shall own the design philosophy to enable the diversion works
- BRDS contractor will facilitate the isolation of the GDD shaft following receipt of notification to commence works.
- The BRDS contractor will undertake the role of a lead PSCS should there be any interface during the construction works.

BRDS Operator

- Liaise with Contract No.1 to confirm ready to accept flows
- BRDS Operator will turn in flow at the start of the Contract No.1 commissioning phase.

GDD Contractor

The BRDS contractor is estimated for completion in 2022 with an operation period of 2 years following construction works. The GDD Contractor shall:

- Liaise with BRDS contractor;
- Submit insurances, method statements, risk assessments etc. in line with the connection requirements;
- Minimum 20 days' notice to BRDS Contractor prior to commencement of works to allow BRDS Contractor to divert flows in accordance with the control philosophy provided in **Appendix X**.
- Conduct any necessary inductions as required
- Follow requirements of the 'Permit to Work'
 - The BRDS connection works shall comprise removing the roof slab of the shaft, removal of the TBM and finishing works at the GDD shaft (Structure 06).
 - The BRDS connection works undertaken by the GDD Contractor shall be limited to the GDD shaft (Structure 06) and Pipeline Section 1A.
- The GDD Contractor shall undertake reinstatement.

Road Construction/ Access Interface

BRDS Contractor

- BRDS contractor will provide access to Contract No. 2 through the site as required.
- BRDS contractor will provide a suitable access road to cater for construction equipment necessary for tunnelling.

GDD Contractor

- The contractor shall upgrade/repair road as per details
- Access shall be permitted to the areas identified

Kind Regards

Seamus Ryan

Project Manager – Major Projects

ervia



I trained in
mental health first aid
IRELAND



Aurora
TELECOM



Gas
Networks
Ireland

UISCE
WATER

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14th February 2017

IW-ER-LT0325

Dear Karen,

**RE: Ringsend Waste Water Discharge Licence - Technical Amendment Application
D0034-01**

The Agency issued a Wastewater Discharge Licence for the Greater Dublin Area Agglomeration (D0034-01) on the 27th July 2010 and Technical Amendment 16th December 2016. Irish Water now requests a Technical Amendment under Section 33 (1) of the Waste Water Discharge (Authorisation) Regulations 2007, to amend *Schedule A.4 Storm Water Overflows*, to include an additional stormwater overflow as follows:-

Licence Code	SWO Discharge Location	Storm Water Overflow Location	Name of Receiving Water	WFD Code Receiving Water
D0034-01	308267 E 238976 N	WWTP Storm Tank Overflow	River Tolka	IE_EA_09T011150

Irish Water intends to install 4 No. underground storage tanks to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. It is expected that the storm water overflow will be operational by Q4 2020. The tanks provide a stormwater overflow to the River Tolka for return periods in excess of 5 years. Any overflow to the River Tolka will be screened prior to discharge. The overflow will be fully compliant with the DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'.

The additional storm water overflow discharges to the same water body (where the characteristics of the receiving water are similar, including the proximity of Natura 2000 sites) as a number of the current stormwater discharges which are already included in WWDL D0034-01.

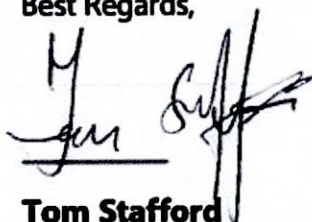
Irish Water has had regard to the EPA's publication *EPA Guidance for Irish Water on Requests for Alterations to a Waste Water Discharge Licence or Certificate of Authorisation* in compiling this submission for a Technical Amendment.

A screening report for Appropriate Assessment has been undertaken in relation to the Storm Water Overflow and which determined that a Stage 2 Appropriate Assessment is not required.

Please find enclosed:

1. Map of Stormwater Overflow Location
2. Appropriate Assessment Screening

Best Regards,



Tom Stafford

Environmental Regulation Manager

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Appendix 1. Map of Stormwater Overflow Location

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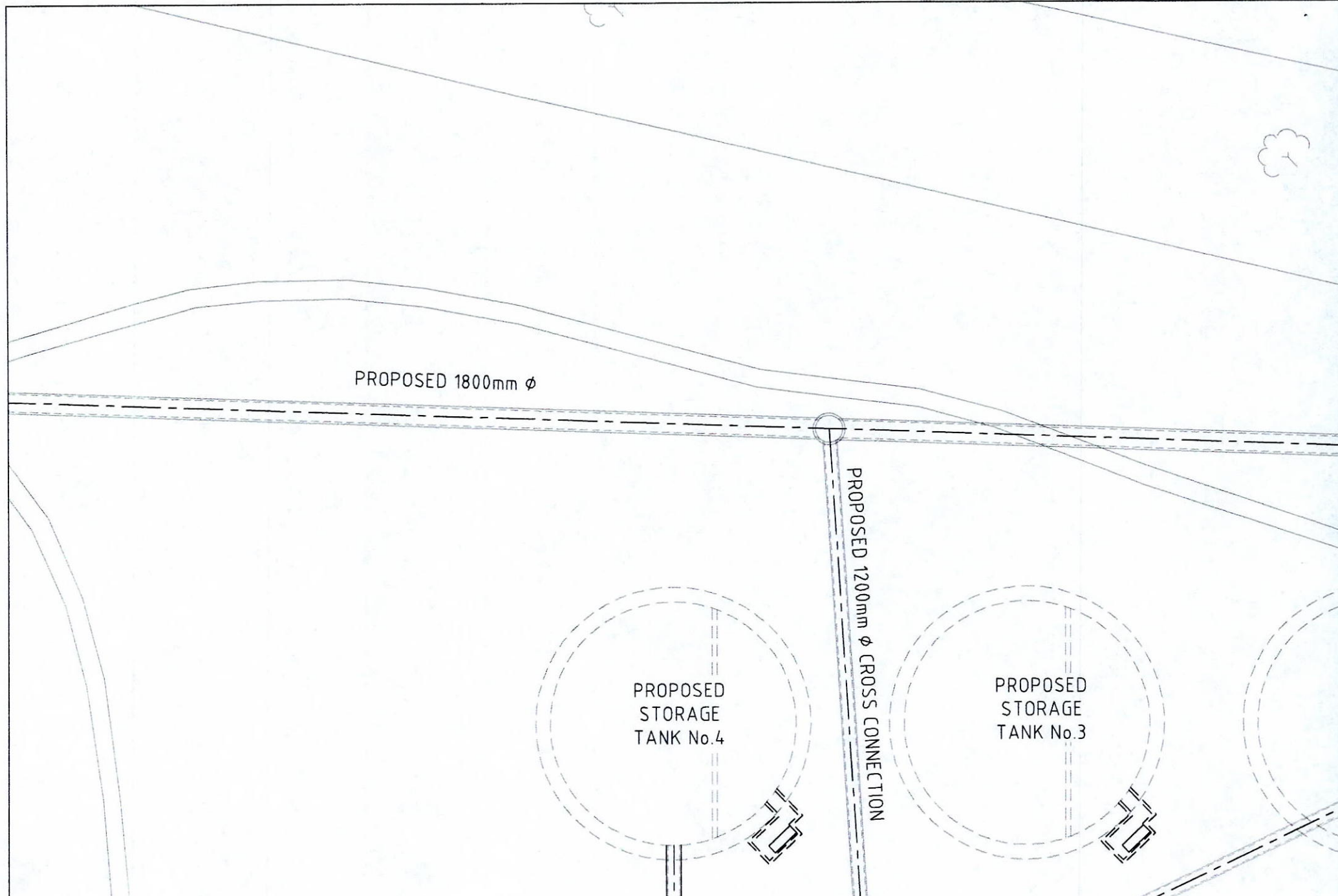
A1

PROPOSED 1800mm ϕ

PROPOSED 1200mm ϕ CROSS CONNECTION

PROPOSED
STORAGE
TANK No.4

PROPOSED
STORAGE
TANK No.3



Appendix 2. Appropriate Assessment Screening

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Introduction

This report provides an Appropriate Assessment (AA) Screening of an overflow to the River Tolka from proposed stormwater tanks which form part of the Blanchardstown Regional Drainage Scheme, for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007), as amended. It assesses whether the proposed operation of the overflow, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 Site(s) in view of best scientific knowledge and the conservation objectives of the site(s). Natura 2000 Sites are those identified as sites of European Community importance designated as Special Areas of Conservation under the Habitats Directive or as Special Protection Areas under the Birds Directive.

This report follows the guidance for AA published by the Environmental Protection Agency's (EPA) 'Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)' (EPA, 2009); and takes account of the Department of the Environment, Heritage and Local Government's guidelines 'Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities' (DoEHLG, 2009) and Circular L8/08 'Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments' (DoEHLG, 2008).

This Screening for Appropriate Assessment was carried out by a qualified ecologist working for Irish Water.

Legislative Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Article 6(4) states:

If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

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Methodology

Guidance Followed

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. The methodology followed in relation to this AA Screening has had regard to the following guidance:

- Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Environmental Protection Agency, (EPA, 2009).
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of Environment, Heritage and Local Government, (DoEHLG, 2010).
- Circular L8/08 – Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments. Department of Environment, Heritage and Local Government, (DoEHLG, 2008).
- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a).
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg, (EC, 2000b).
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels (EC, 2001).
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission. Office for Official Publications of the European Communities, Luxembourg, (EC, 2007).
- Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg (EC, 2006).
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document, National Parks and Wildlife Service, Dublin (NPWS, 2012).
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).

Stages Involved in the Appropriate Assessment Process

Stage 1: Screening / Test of Significance

This process identifies whether the stormwater tank overflow is directly connected to or necessary for the management of a Natura 2000 Site(s); and identifies whether the overflow is likely to have significant impacts upon a Natura 2000 Site(s) either alone or in combination with other projects or plans.

The output from this stage is a determination for each Natura 2000 Site(s) of not significant, significant, potentially significant, or uncertain effects. The latter three determinations will cause that site to be brought forward to Stage 2.

Stage 2: Appropriate Assessment

This stage considers the impact of the stormwater tank overflow on the integrity of a Natura 2000 Site(s), either alone or in combination with other projects or plans, with respect to (1) the site's conservation objectives; and (2) the site's structure and function and its overall integrity. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts

The output from this stage is a Natura Impact Statement (NIS). This document must include sufficient information for the EPA to carry out the appropriate assessment. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must consider alternatives (Stage 3) or proceed to Stage 4.

Stage 3: Assessment of Alternatives

This process examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 Site. This assessment may be carried out concurrently with Stage 2 in order to find the most appropriate solution. If no alternatives exist or all alternatives would result in negative impacts to the integrity of the Natura 2000 Sites then the process either moves to Stage 4 or the project is abandoned.

Stage 4: Assessment Where Adverse Impacts Remain

An assessment of compensatory measures where, in the light of an assessment of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

Stage 1: Screening / Test of Significance

In complying with the obligations under Article 6(3) and following the appropriate guidelines, this AA Screening has been structured as a stage by stage approach as follows:

- Description of the project;
- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of any effects on the Natura 2000 sites;
- Exclusion of sites where it can be objectively concluded that there will be no significant effects; and
- Screening conclusion.

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Screening

Description of the Project

Background Information on the BRDS Scheme

Irish Water intend to undertake the duplication of the existing 9C Sewer (9CS) and provide an associated pumping station and storage in Blanchardstown, Dublin 15. The proposed scheme will be referred to as the BRDS 9C Sewer Duplication and Storage Scheme, incorporating Tolka Valley Park Pumping Station. The proposed works are required to cater for inter alia future domestic population growth within the 9C catchment (including Fingal, Meath and Kildare areas), industrial growth within the 9C catchment and the significant industrial/manufacturing growth proposed in the adjacent Liffey catchment (Leixlip, Co. Kildare). The proposed scheme is also needed to reduce existing uncontrolled spills to the Tolka River as a result of surcharging and excess flows in addition to associated water pollution and odour issues.

The design philosophy for the BRDS 9C Sewer Duplication (9CSD) is to duplicate the existing 9C Sewer (9CS) for a distance of approximately 3.2 km through Tolka Valley Park, from Parslickstown Bridge to Waterville Park (immediately west of Mill Road) and provide 4 No. off line storage tanks and a pumping station within Waterville Park.

The 9CSD scheme proposal aligns with the Greater Dublin Drainage Study design parameters and has been tested using hydraulic modelling to ensure that the design proposal satisfies the requirement to limit a Combined Sewer Overflow (CSO) spill to the Tolka River to a 1 in 5 year return period storm event, and prevent manhole surcharging for a 1 in 30 year return period storm event.

An EIS and AA Screening is currently being prepared for the scheme and planning permission will be sought from Fingal County Council in 2017.

Stormwater Tank Overflow to the River Tolka

The 4 No. Underground Storage Tanks will be located within an existing park to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. The tanks provide emergency overflow facilities to the River Tolka for return periods in excess of 5 years in accordance with DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'. The proposed technical amendment to the Ringsend Licence (D0034-01) is for the addition of this overflow location.

Description of the Receiving Environment and Monitoring Results

EPA monitoring data from 2015 for the River Tolka upstream (Mulhuddart Br) and downstream (Abbotstown Br) of the proposed overflow is provided in Table 1.0. Results for Ammonia and BOD meet the Surface Water Regulations 'Good status' EQS's for these parameters. Orthophosphate measured is slightly above the EQS for Good status.

Table 1.0: River Tolka Monitoring Data

	Ammonia	BOD	Dissolved Oxygen	Ortho-Phosphate	Total Oxidised Nitrogen
SW Regs EQS	≤0.14 (good) ≤0.090 (high)	≤2.6 (good) ≤2.2 (high)		≤0.075 (good) ≤0.045 (high)	
Mulhuddart Br					
20/03/2015	0.07	0.5	97	0.06	2.12
26/06/2015	0.3	2	101	0.09	0.91
18/09/2015	0.08	0.5	94	0.1	0.86
11/12/2015	0.03	0.5	96	0.12	1.7
Abbotstown Br					
20/03/2015	0.07	0.5	98	0.06	2.12
26/06/2015	0.08	2	97	0.08	1.3
18/09/2015	0.05	0.5	107	0.09	1.17
11/12/2015	0.03	0.5	103	0.07	1.79

The EPA carry out biological water quality monitoring on the Tolka. The closest station upstream of the proposed outfall is currently assigned Bad status (Q2 in 2015), while the nearest downstream station is currently assigned Poor status (Q3 in 2013). The EPA class the Tolka Estuary as Potentially Eutrophic (2010-2012). In terms of Water Framework Directive Status¹, the River Tolka is currently classed as Bad upstream of Mulhuddart and Poor elsewhere in the catchment of the river within Dublin.

EPA reports suggest there has been a downward trend in the levels of total phosphorus and total nitrogen present in the River Tolka discharging into the Tolka Estuary (Bradley et al., 2015², Ní Longphuirt and Stengel, 2016³). Currently however, uncontrolled spills from the existing 9C sewer are likely to be contributing to water quality pressures in the River Tolka.

¹ <http://gis.epa.ie/Envision/> 2010-2015 Status

² Bradley, C., Byrne, C., Craig, M., Free, G., Gallagher, T., Kennedy, B., Little, R., Lucey, J., Mannix, A., McCreesh, P., McDermott, G., McGarrigle, M., Ní Longphuirt, S., O'Boyle, S., Plant, C., Tierney, D., Trodd, W., Webster, P., Wilkes, R. and Wynne, C., 2015. Water Quality in Ireland 2010-2012. Environmental Protection Agency, Johnstown Castle, Co. Wexford.

³ Ní Longphuirt, S. and Stengel, D.B., 2016. Assessing Recent Trends in Nutrient Inputs to Estuarine Waters and Their Ecological Effect. (2012-W-FS-9) EPA Final Report. Prepared for the Environmental Protection Agency by Botany and Plant Science, School of Natural Sciences, National University of Ireland Galway

Brief Description of the Natura 2000 Sites

This section of the screening process describes the Natura 2000 sites within a 15km radius of the stormwater tank overflow location. A 15km buffer zone has been chosen as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process, which is in line with Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities produced by the Department of the Environment, Heritage and Local Government.

Table 2.0 lists the SACs and Table 3.0 lists the SPAs that are within 15km of the overflow location, and Figure 1.0 shows their location in relation to the proposed stormwater tanks and the overflow location. The qualifying interests of each of the identified Natura 2000 Sites is also provided.

Table 3.0: SACs located within 15km of the stormwater tank overflow -

Site Code	Site Name	Qualifying Habitats	Qualify Species
000205	Malahide Estuary SAC	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Spartina swards (Spartinion maritima) [1320]</p> <p>Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]</p> <p>Mediterranean salt meadows (Juncetalia maritimi) [1410]</p> <p>Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120]</p> <p>Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]</p>	
000206	North Dublin Bay SAC	<p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p>Annual vegetation of drift lines [1210]</p> <p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330]</p> <p>Mediterranean salt meadows (Juncetalia maritimi) [1410]</p> <p>Embryonic shifting dunes [2110]</p> <p>Shifting dunes along the shoreline</p>	<i>Petalophyllum ralfsii</i> (Petalwort) [1395]

Site Code	Site Name	Qualifying Habitats	Qualify Species
		with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190]	
000210	South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] <i>Salicornia</i> and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	
001209	Glenasmole Valley SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410] Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	
001398	Rye Water Valley/Carton SAC	Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	<i>Vertigo angustior</i> (Narrow-mouthed Whorl Snail) [1014] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016]

Table 4.0: SPAs located within 15km of the stormwater tank overflow

Site Code	Site Name	Special Conservation Interests
004006	North Bull Island SPA	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Shelduck (<i>Tadorna tadorna</i>) [A048] Teal (<i>Anas crecca</i>) [A052] Pintail (<i>Anas acuta</i>) [A054] Shoveler (<i>Anas clypeata</i>) [A056] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Grey Plover (<i>Pluvialis squatarola</i>) [A141]

		<p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Curlew (<i>Numenius arquata</i>) [A160]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Turnstone (<i>Arenaria interpres</i>) [A169]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Wetland and Waterbirds [A999]</p>
004024	South Dublin Bay and River Tolka Estuary SPA	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p> <p>Sanderling (<i>Calidris alba</i>) [A144]</p> <p>Dunlin (<i>Calidris alpina</i>) [A149]</p> <p>Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>Redshank (<i>Tringa totanus</i>) [A162]</p> <p>Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Roseate Tern (<i>Sterna dougallii</i>) [A192]</p> <p>Common Tern (<i>Sterna hirundo</i>) [A193]</p> <p>Arctic Tern (<i>Sterna paradisaea</i>) [A194]</p> <p>Wetland and Waterbirds [A999]</p>
004025	Broadmeadow/Swords Estuary SPA	<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</p> <p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</p> <p>Shelduck (<i>Tadorna tadorna</i>) [A048]</p> <p>Pintail (<i>Anas acuta</i>) [A054]</p> <p>Goldeneye (<i>Bucephala clangula</i>) [A067]</p> <p>Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</p> <p>Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</p> <p>Golden Plover (<i>Pluvialis apricaria</i>) [A140]</p> <p>Grey Plover (<i>Pluvialis squatarola</i>) [A141]</p> <p>Knot (<i>Calidris canutus</i>) [A143]</p>

Potential Impacts of the Stormwater Tank Overflow and Likely Significant Effects on Natura 2000 Sites

The purpose of this section of the screening is to examine the possibility that the stormwater tank overflow, either individually or in combination with other plans and projects, may result in significant negative effects on the Conservation Objectives and the integrity of the Natura 2000 Sites identified.

The most apparent potential risk to a Natura 2000 Site(s) from a stormwater tank overflow is to the water quality of the receiving environment, and the assessment therefore needs to consider whether the receiving environments water quality has the potential to interact with the qualifying interests of the Natura 2000 Sites identified. Using the source-pathway-receptor model, only the qualifying interests and special conservation interests South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC the North Bull Island SPA and North Dublin Bay SAC were considered to have potential connectivity to the Tolka overflow. Sites at a further distance are not considered further in this assessment as they were either unconnected, or they are at a sufficient distance such that significant dilution/dispersion is considered available in intervening coastal waters.

The Conservation Objectives of these relevant sites were reviewed as part of this Screening Assessment:

- NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

The stormwater tank overflow to the River Tolka is not directly connected with or necessary to the management of the site for nature conservation.

Direct, Indirect or Secondary Impacts

The existing 9C Sewer is regularly subject to flows in excess of the original design capacity. As a result, uncontrolled spills to the Tolka River occur from time to time when surcharging occurs in the existing sewers and excess flows discharge to the surface via the existing manholes. The proposed 9CSD project will provide additional capacity and therefore reduce frequency of surcharge and the likelihood of uncontrolled spills. The stormwater tanks will provide 30,000 m³ of storage, which will limit such emergency discharges to storm events with a return period of greater than 5 years.

The overflow has been designed to be compliant with relevant guidelines. It is further noted that any overflow discharge would be very dilute due to the high volume of stormwater. It is expected that the BRDS scheme will result in an improvement in water quality in the River Tolka, and that as any stormwater overflow will occur so infrequently and be highly diluted, there will be no detrimental effect on water quality at a local scale.

The relevant Natura 2000 sites are located at a significant distance from the overflow location, the closest site being South Dublin Bay and River Tolka Estuary SPA over 10km downstream. With any dilute infrequent overflow not likely to impact locally, there is no potential for impacts to water quality in the Tolka Estuary given the distance involved. Furthermore, species for which the relevant sites are designated are adapted to nutrient and sediment rich environments and are not considered sensitive to such distant water quality pressures.

In accordance with the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007) the tank overflow to the River Tolka does not have the potential to impact the relevant qualifying interests identified, and therefore will not affect the conservation objectives of South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC the North Bull Island SPA and North Dublin Bay SAC. No significant adverse impacts on any Annex I habitat or Annex II species are anticipated as a result of the stormwater overflow.

No significant adverse impacts on the qualifying interests of the remaining Natura 2000 Sites identified within 15km of the overflow location is considered likely due to lack of hydrological connection between the overflow and the relevant terrestrial SACs and SPAs, or the dilution and dispersion provided by intervening coastal waters for remote coastal/marine SACs and SPA sites.

Possible Cumulative Impacts with other Plans and Projects in the Area

As part of Stage 1 Screening, in addition to the stormwater overflow, other relevant projects and plans in the relevant region must also be considered. This step aims to identify at this early stage any possible significant effects on the Natura 2000 Sites from the stormwater tank overflow in-combination or cumulative with other plans and projects. Existing plans which have been examined include:

- Fingal Development Plan 2011-2017
- Eastern River Basin District – River Basin Management Plan (ERBD, 2010)
- Fingal Biodiversity Action Plan 2010-2015

The above plans have been assessed in accordance with Article 6(3) of the Habitats Directive and Part XAB of the Planning and Development Act, 2000, and are not envisaged to result in significant effects on the integrity of the Natura 2000 network.

The potential cumulative/in-combination impacts with the existing Ringsend WwTP and wastewater network were also considered. As the proposed Tolka overflow is not likely to significantly impact water quality, or affect the QI's of any Natura 2000 site, there is no potential for in-combination effects with the ongoing discharges from Ringsend and the network. The Ringsend plant will be upgraded in the near future with an associated improvement in effluent

quality. The Greater Dublin Drainage Scheme will also lead to significant improvements in waste water quality entering the Dublin catchments and ultimately Dublin Bay.

A search for Planning Applications on the Fingal County Council Planning Search Website identified three proposed developments in the Tolka Valley area (FW15A/0156, FW16A/0122 and FW16A/0050). These projects do not have the potential to contribute to in-combination effects on any Natura 2000 sites with the proposed overflow to the Tolka.

Summary of Potential Impacts and Likely Significant Effects

Table 4.0 provides a summary of the likely significant impact of the proposed stormwater tank overflow on the conservation objectives of the Natura 2000 sites potentially linked to the stormwater tank overflow as identified in Tables 2.0 and 3.0.

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Table 5.0: Potential Significant Impacts on Natura 2000 sites from the Stormwater Tank Overflow

Site Name	Direct Impacts	Indirect/ Secondary	Resource Requirements (Drinking Water Abstraction Etc.)	Emissions (Disposal to Land, Water or Air)	Excavation Requirements	Transportation Requirements	Duration of Construction, Operation, Decommissioning
Malahide Estuary SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
North Dublin Bay SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
South Dublin Bay SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Glenasmole Valley SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Rye Water Valley/Cartron SAC	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
North Bull Island SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
South Dublin Bay and River Tolka Estuary SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest
Broadmeadow/Swords Estuary SPA	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest	No impact on qualifying interest

Likely Changes to the Natura 2000 Site(s)

The likely changes that will arise from the stormwater tank overflow have been examined in the context of a number of factors that could potentially affect the integrity of the identified Natura 2000 Sites. Overall, it has been found that the proposed stormwater overflow will not affect the integrity of the identified Natura 2000 Sites, alone or in-combination with other plans or projects.

Table 6.0: Likely Affect on Natura 2000 Sites

Site Name	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Density	Changes in Key Indicators of Conservation Value (Water Quality Etc.)	Climate Change
Malahide Estuary SAC	None	None	None	None	None	None
North Dublin Bay SAC	None	None	None	None	None	None
South Dublin Bay SAC	None	None	None	None	None	None
Glenasmole Valley SAC	None	None	None	None	None	None
Rye Water Valley/Cartron SAC	None	None	None	None	None	None
North Bull Island SPA	None	None	None	None	None	None
South Dublin Bay and River Tolka Estuary SPA	None	None	None	None	None	None
Broadmeadow/Swords Estuary SPA	None	None	None	None	None	None

Elements of the Project where the Impacts are Likely to be Significant

No elements of the proposed stormwater tank overflow are likely to cause significant impacts on NATURA 2000 Sites.

Screening Conclusion

The likely impacts that will arise from the proposed BRDS stormwater tank overflow to the River Tolka have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 network. None of the sites within 15km of the overflow location will be adversely affected. A finding of No Significant Effects Matrix has been completed and is presented in next section of this Screening Statement.

On the basis of the findings of this Screening for Appropriate Assessment of Natura 2000 Sites, it is concluded that the proposed BRDS stormwater tank overflow will not have a significant effect on the Natura 2000 network, alone or in-combination with other plans or projects, and a Stage 2 Appropriate Assessment is not required.

Finding of No Significant Effects Report Matrix

Name of project or plan	
Name and location of Natura 2000 site	South Dublin Bay and River Tolka Estuary SPA South Dublin Bay SAC North Dublin Bay SAC
Description of the project or plan	The project subject to AA Screening is an overflow to the River Tolka from proposed stormwater tanks which form part of the Blanchardstown Regional Drainage Scheme. Underground Storage Tanks will be located within an existing park to balance combined sewer flows before controlled discharge into the Existing 9C sewer network. The tanks provide emergency overflow facilities to the River Tolka for return periods in excess of 5 years in accordance with DOEHLG's 'Procedures and criteria in relation to Stormwater Overflows'. The proposed technical amendment to the Ringsend Licence (D0034-01) is for the addition of this overflow location.
Is the project or plan directly connected with or necessary to the management of the site?	No.
Are there other projects or plans that together with the project or plan being assessed could affect the site?	No.
The Assessment of Significance of Effects	
Describe how the project or plan (alone or in combination) is likely to affect the European Site(s).	<p>The existing 9C Sewer is regularly subject to flows in excess of the original design capacity. As a result, uncontrolled spills to the Tolka River occur from time to time when surcharging occurs in the existing sewers and excess flows discharge to the surface via the existing manholes. The proposed 9CSD project will provide additional capacity and therefore reduce frequency of surcharge and the likelihood of uncontrolled spills. The stormwater tanks will provide 30,000 m³ of storage, which will limit such emergency discharges to storm events with a return period of greater than 5 years.</p> <p>The overflow has been designed to be compliant with relevant guidelines. It is further noted that any overflow discharge would be very dilute due to the high volume of stormwater. It is expected that the BRDS scheme will result in an improvement in water quality in the River Tolka, and that as any stormwater overflow will occur so</p>

	infrequently and be highly diluted, there will be no detrimental effect on water quality at a local scale.
Explain why these effects are not considered significant.	The relevant Natura 2000 sites are located at a significant distance from the overflow location, the closest site being South Dublin Bay and River Tolka Estuary SPA over 10km downstream. With any dilute infrequent overflow not likely to impact locally, there is no potential for impacts to water quality in the Tolka Estuary given the distance involved. Furthermore, species for which the relevant sites are designated are adapted to nutrient and sediment rich environments and are not considered sensitive to such distant water quality pressures. On the basis of the findings of this Screening for Appropriate Assessment of Natura 2000 Sites, it is concluded that the proposed BRDS stormwater tank overflow will not have a significant effect on the Natura 2000 network, alone or in-combination with other plans or projects, and a Stage 2 Appropriate Assessment is not required.
List of agencies consulted: provide contact name and telephone or e-mail address.	N/A
Response to consultation.	N/A
Data Collected to Carry Out the Assessment	
Who carried out the assessment?	Qualified Ecologist, Irish Water
Sources of data	NPWS database; EPA database; WFD Ireland database; and Information from Irish Water.
Level of assessment completed	Desktop survey
Where can the full results of the assessment be accessed and viewed?	EPA
Overall Conclusion	Stage 1 Screening indicates that the proposed BRDS stormwater tank overflow will not have a significant negative impact on the Natura 2000 network. Therefore, a Stage 2 'Appropriate Assessment' under Article 6(3) of the Habitats Directive 92/43/EEC is not required.





BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMPING STATION

PLANNING APPLICATION

MAY 2017

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

BYRNELOOBY
PHM^cCARTHY

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BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMPING STATION

DRAWING LIST

W3036/3001 COVER
W3036/3002 DRAWING INDEX
W3036/3003 KEY MAP
W3036/3004 SITE LOCATION MAP SHEET 1 OF 3
W3036/3005 SITE LOCATION MAP SHEET 2 OF 3
W3036/3006 SITE LOCATION MAP SHEET 3 OF 3
W3036/3007 OVERALL SCHEME LAYOUT
W3036/3101 SITE PLAN & LONGSECTION SHEET 1 OF 6
W3036/3102 SITE PLAN & LONGSECTIONS SHEET 2 OF 6
W3036/3103 SITE PLAN & LONGSECTIONS SHEET 3 OF 6
W3036/3104 SITE PLAN & LONGSECTIONS SHEET 4 OF 6
W3036/3105 SITE PLAN & LONGSECTIONS SHEET 5 OF 6
W3036/3106 SITE PLAN & LONGSECTIONS SHEET 6 OF 6
W3036/3200 PUMPING STATION PLAN, SECTIONS AND ROOF PLAN
W3036/3201 PUMPING STATION ELEVATIONS
W3036/3202 PUMPING STATION ELEVATIONS WITH BOUNDARIES
W3036/3203 STORAGE TANKS PLANS AND SECTIONS
W3036/3219 PROPOSED SURFACE LEVEL COVER LAYOUT
W3036/3220 PROPOSED SITE LAYOUT INCLUDING LANDSCAPING
W3036/3301 MISCELLANEOUS DETAILS PROPOSED SITE ACCESS WATERVILLE DISTRIBUTOR ROAD
W3036/3302 MISCELLANEOUS DETAILS PROPOSED TELEMETRY KIOSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT



KEY MAP
SCALE 1:50,000

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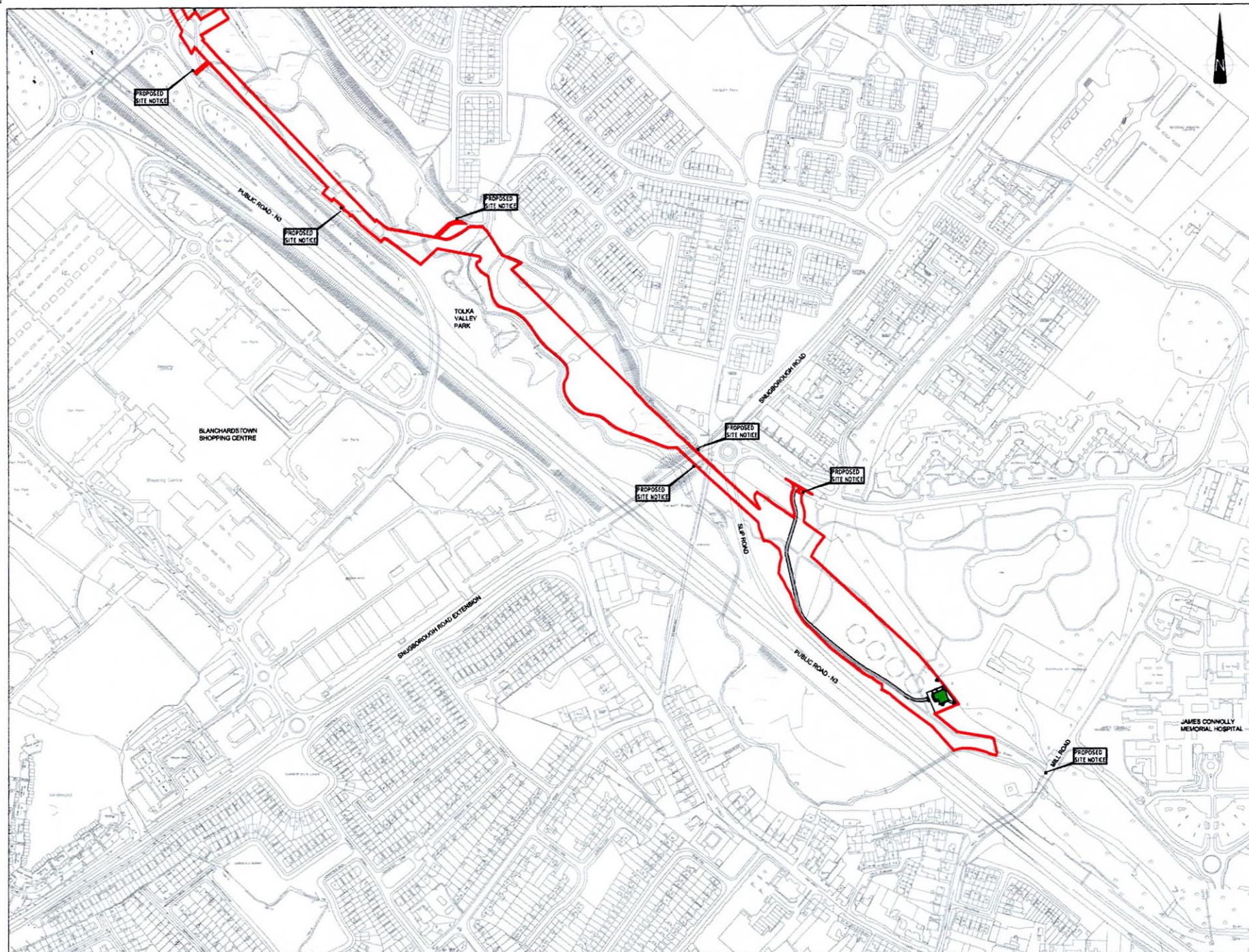
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11-05-17 FW17A/0083
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00 THE OFFENSE
0001-20
0001-C & D
0002-C
0003-09,04,07,08,09,10,12,13,14,15,17,18,19,20,22,23,24,25
0004-A,B & C
0005-A
0006-A,B & C

LEGEND



LEGEND

PROPOSED DEVELOPMENT
BOUNDARY

OS TILE REFERENCE

3885-25,
3885-C & D,
3882-C,
3129-A, 31, 37, 38, 39, 10, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25,
3129-A & B & C,
3131-W,
3131-A & C

11-05-17 FW17A/0083
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Rev	Date	Description	By	Chk	App

BYRNE LOOBY PHMCCARTHY



PROJECT
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C
SEWER DUPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE
SITE LOCATION MAP
SHEET 3 OF 3


STATUS
PLANNING

Date: W/17/17 Scale: AS SHOWN Drawn: RS Chk: AWT App: ES
Project No: W3836 Dwg. No: W3836/3006 Rev: P1

SITE LOCATION MAP
SCALE 1:2500

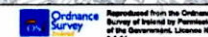
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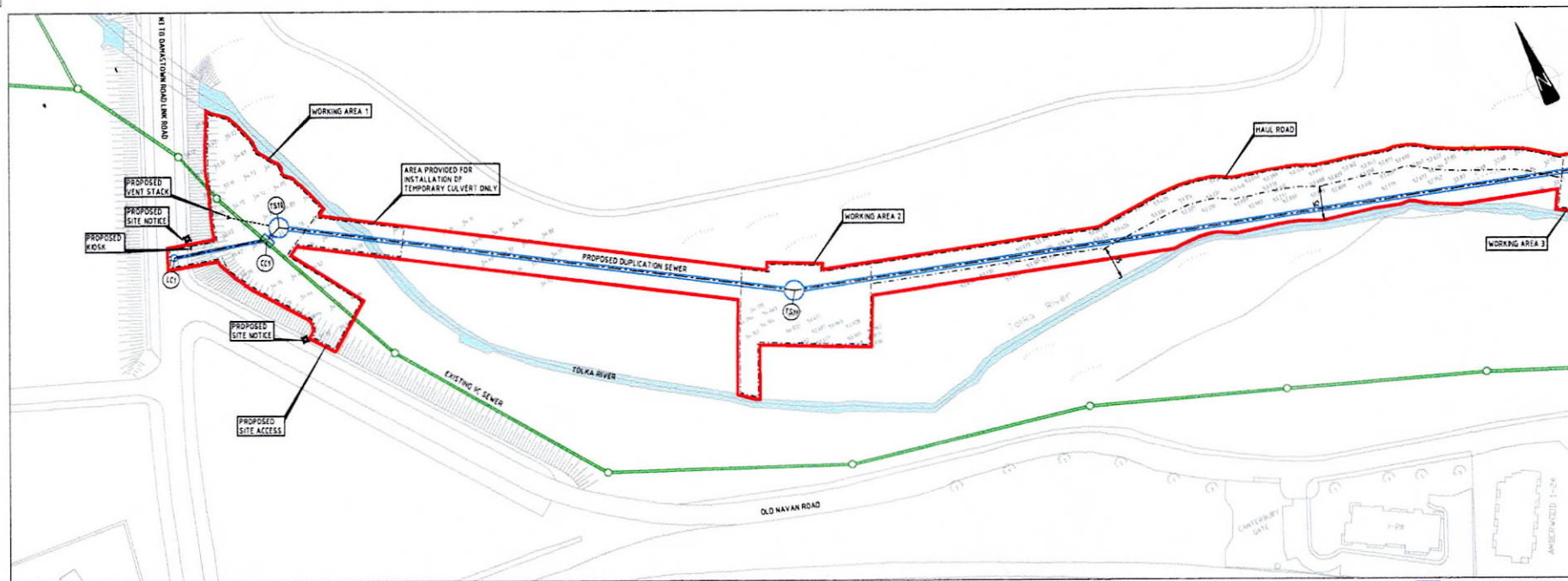
11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

No.	Date	Description	By	Chk	App
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CLIENT:					
PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME PC SEWER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE: OVERALL SCHEME LAYOUT					
STATUS: PLANNING					
Date: 10/10/17	Scale: as below	Drawn: MS	Chd. and:	App: JF	
Project No: W3936	Orig. No:	W3036/S007			P1

INSET A
SCALE 1:1000

KEYPLAN
SCALE 1:5000





SITE PLAN - 1 OF 6
SCALE 1:1000

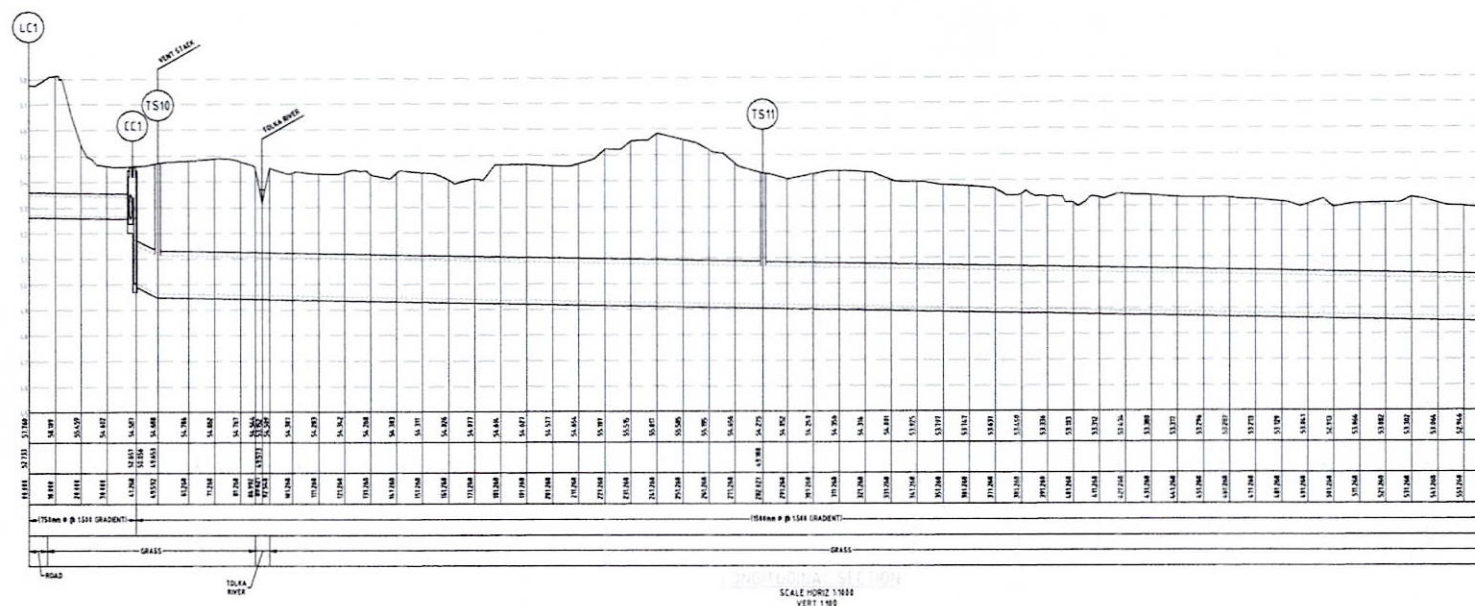
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LEGEND - PROPOSED

- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED 9C SEWER DUPPLICATION (TUNNELLED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING 9C PIPELINE



DATUM 45m O.D.

GROUND LEVEL
INVERT LEVEL
CHAINAGE
PIPE TYPE & GRADE
LOCATION

SCALE HORIZ 1:1000
VERT 1:100

11-05-17 FW17A/0083
FINGAL C. C.P.L. DEPT

Rev	Date	Description	By	Chk	App
1					

BYRNE LOOBY PHMCCARTHY


CLIENT: **UISCE**
URBAIN / RURAL WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTION
SHEET 1 OF 6

STATUS: PLANNING

Scale: 1:1000
Project No: W3836
Drawn: H. G. G.
Check: H. G. G.
App: H. G. G.

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PROPOSED DEVELOPMENT
BOUNDARY

PROPOSED HOARDING

PROPOSED 9C SEWER
DUPLICATION (TUNNELED)

PROPOSED VENT STACK

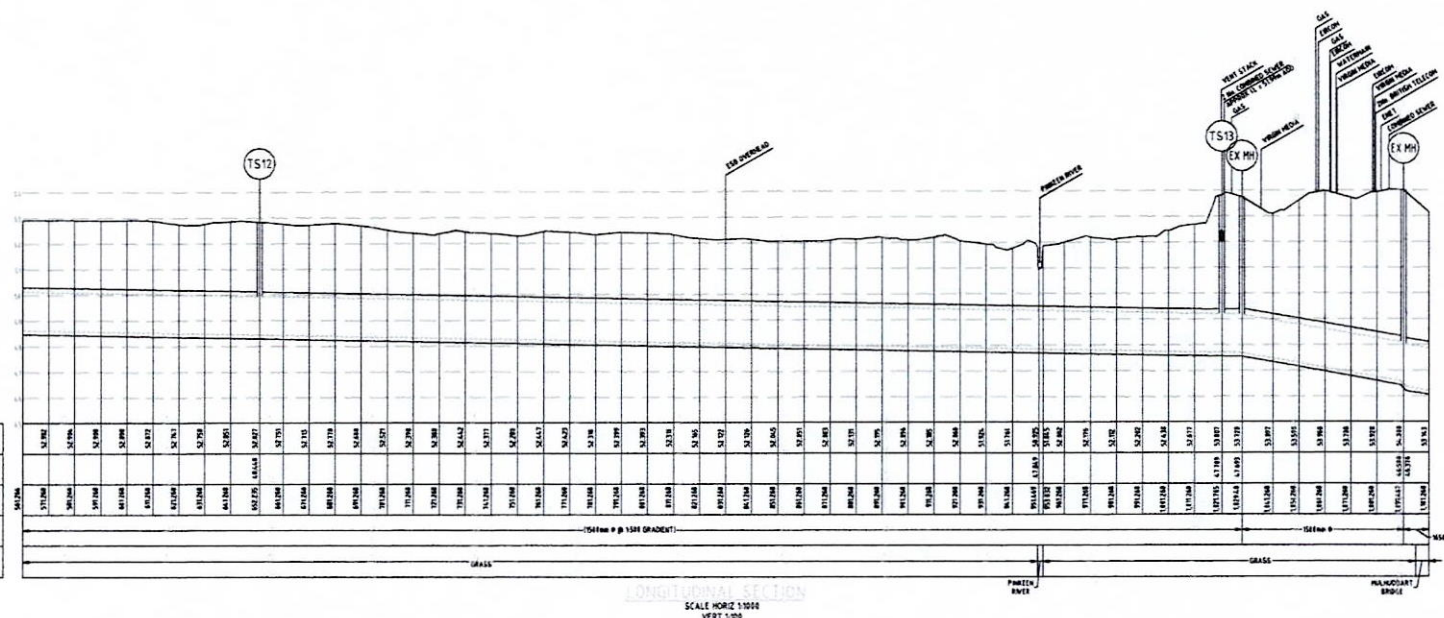
PROPOSED SITE NOTICE



PROPOSED KIOSK

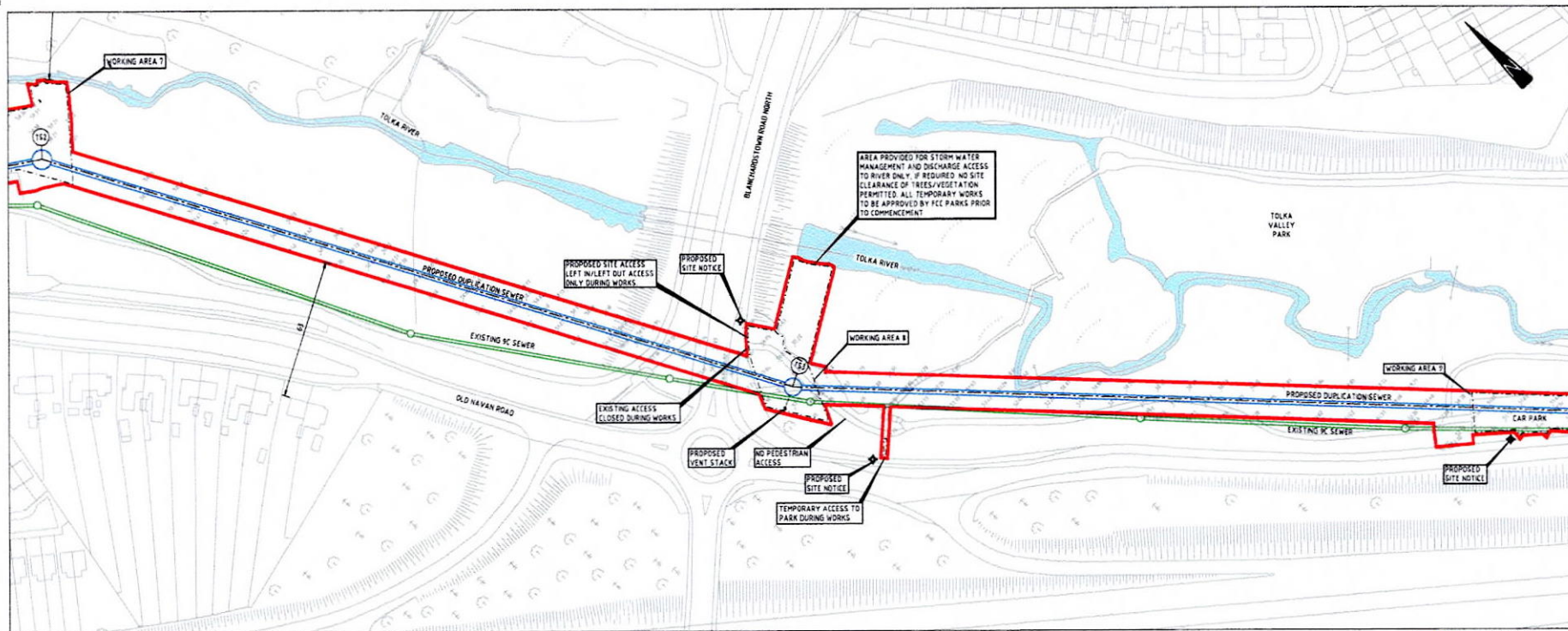
EXISTING SEWER
(AS CONSTRUCTED)

EXISTING GC PIPELINE

GROUND LEVEL
INVERT LEVEL
CHAINAGE
PIPE TYPE & GRADE
LOCATION



Day	Date	Description	By	Chk	App				
									
<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 20px;">CLIENT</div>  </div>									
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<p>DRAWING TITLE</p> <p>SITE PLAN & LONGSECTIONS SHEET 2 OF 6</p>									
<p>STATUS</p> <p style="text-align: center;">PLANNING</p>									
Date:	14/07/17	Scale:	As Issued	Drawn:	ME	Chk:	MEC	Iss:	ME
Project No:	M3936	Dep. No:			M3036/3102			Rev:	P1



LEGEND - PROPOSED

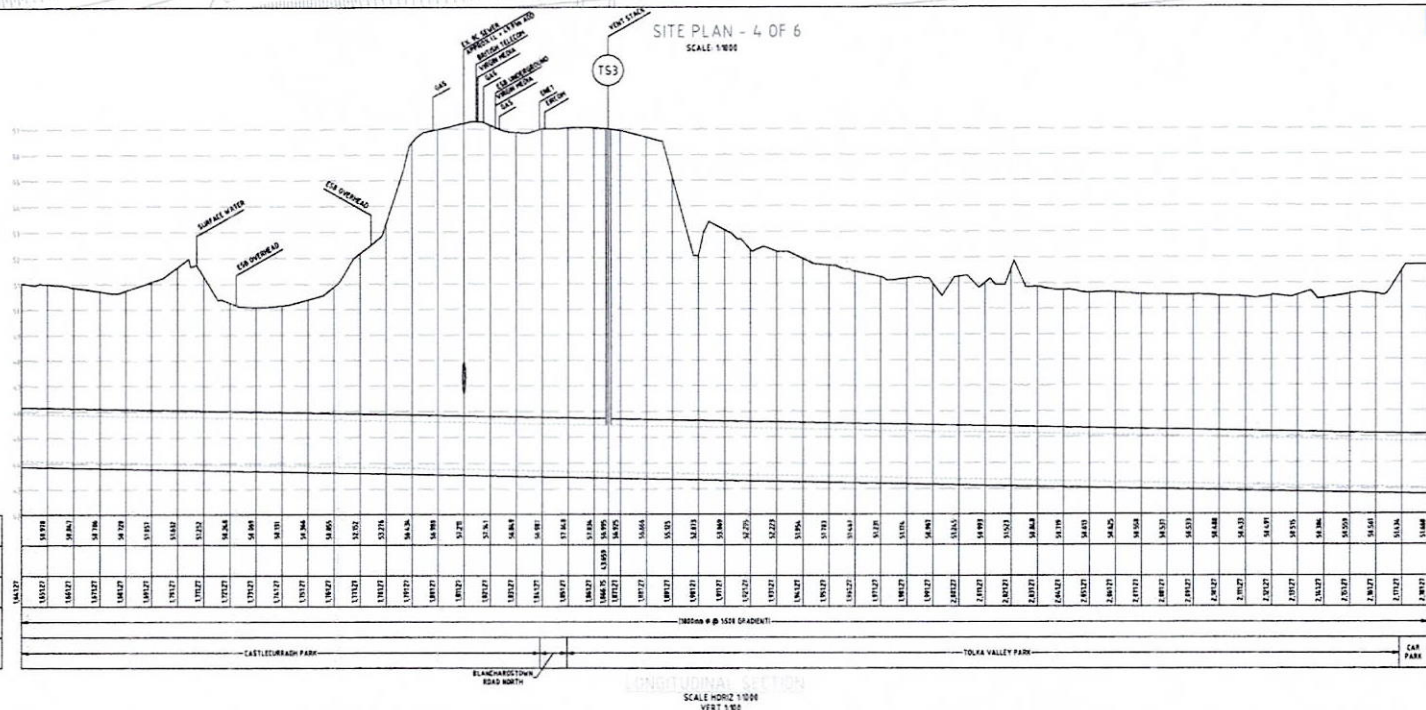
- PROPOSED DEVELOPMENT BOUNDARY
- PROPOSED HOARDING
- PROPOSED RC SEWER DUPLICATION (TUNNELED)
- PROPOSED VENT STACK
- PROPOSED SITE NOTICE
- PROPOSED KIOSK

LEGEND - EXISTING

- EXISTING SEWER (AS CONSTRUCTED)
- EXISTING RC PIPELINE

SITE PLAN - 4 OF 6
SCALE 1:500

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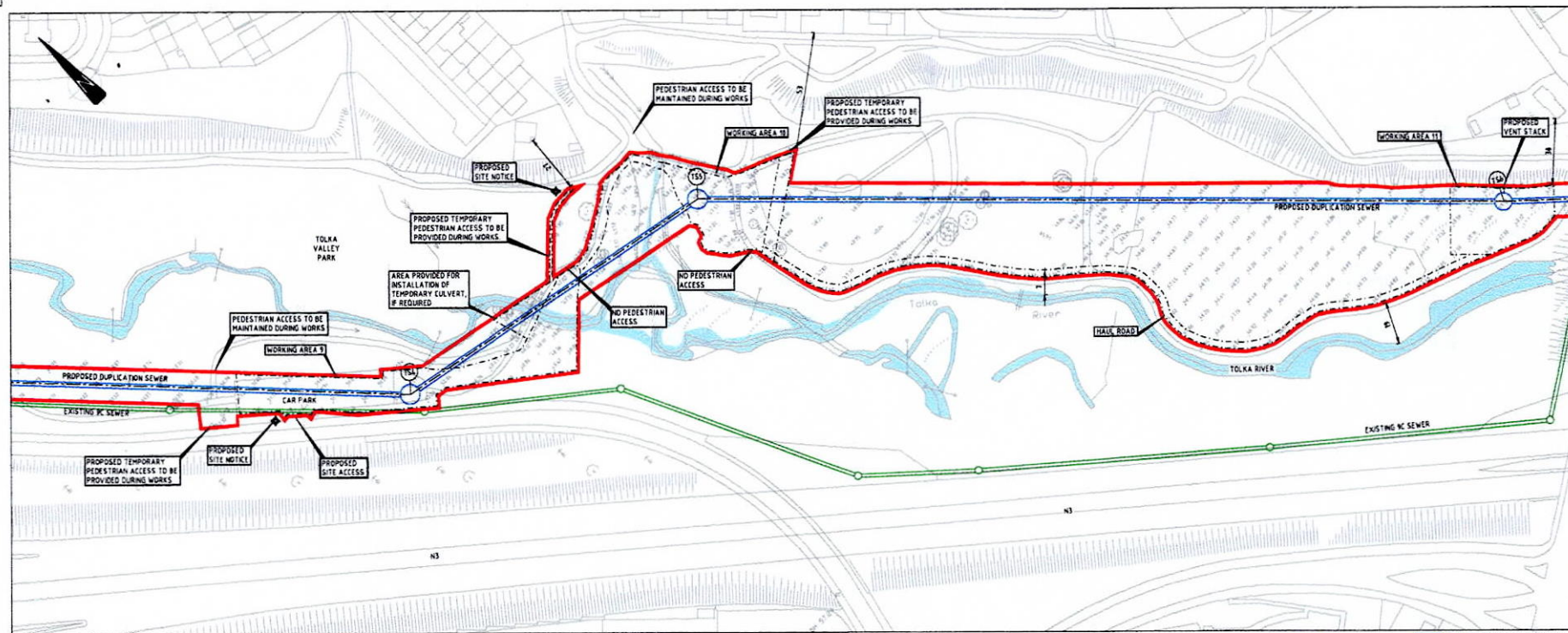


DATUM 42m O.D.

GROUND LEVEL
INVERT LEVEL
CHAINAGE
PIPE TYPE & GRADE
LOCATION

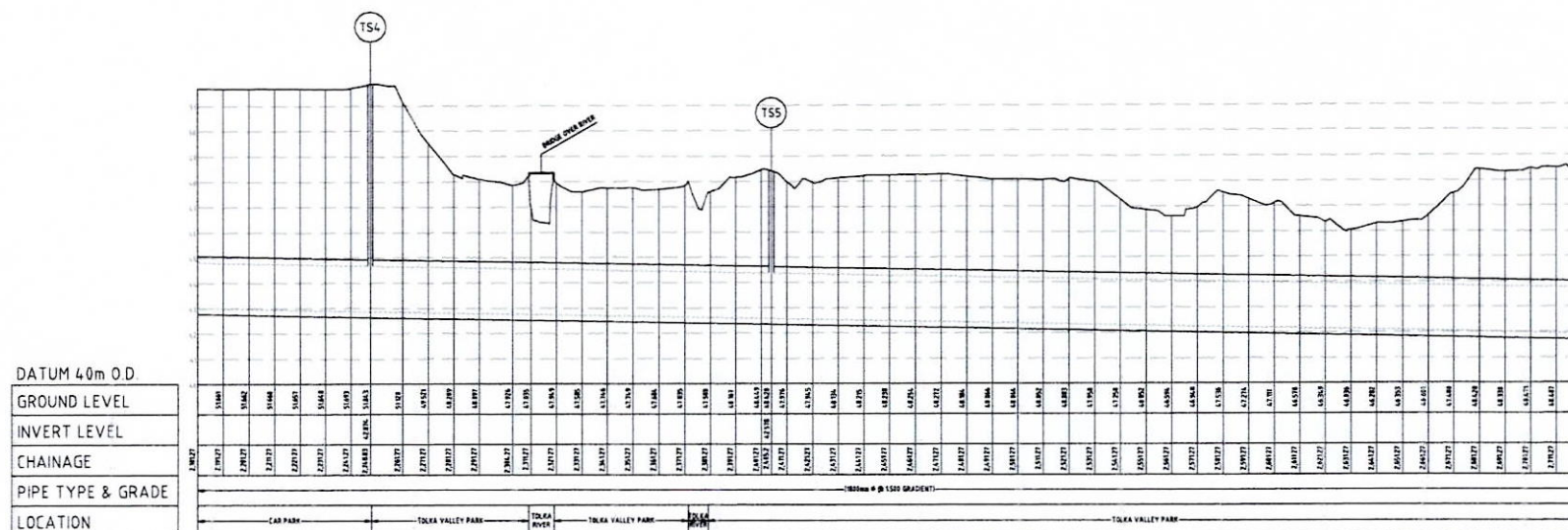
11-05-17 FW17A/0083
FINGAL C. C.P.L. DEPT

Rev	Date	Description	By	Chk	App
<p>BYRNE LOOBY PHMCCARTHY</p> <p>CLIENT</p> <p>UISCE IRELAND'S IRISH WATER</p> <p>PROJECT BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME RC SEWER DUPLICATION & TOLKA VALLEY PUMP STATION</p> <p>DRAWING TITLE SITE PLAN & LONGSECTIONS SHEET 4 OF 6</p> <p>STATUS PLANNING</p> <p>Date: 11/05/17 Scale: AS SHOWN Drawn: ME Chk: ANE App: TS Project No: W3036/0104 Rev: P1</p>					



SITE PLAN - 5 OF 6
SCALE: 1:500

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11-05-17 FW17A/0083
FINGAL C. C.P.L. DEPT

Rev	Date	Description	By	Chk	App
1	11-05-17	FW17A/0083			

BYRNE LOOBY PHMCCARTHY

CLIENT: **UISCE**
DRAINAGE / IRISH WATER

PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME SC SEWER DUPPLICATION & TOLKA VALLEY PUMP STATION

DRAWING TITLE: SITE PLAN & LONGSECTIONS
SHEET 5 OF 6

STATUS: PLANNING

Date: 11/05/17 Scale: AS SHOWN Drawn: ME Chk: HNS App: IS
Project No: W3536/3105 Rev: P1

PROPOSED DEVELOPMENT
BOUNDARY

PROPOSED HOARDING

PROPOSED PC SEWER
DUPLICATION (TUNNELED)

PROPOSED VENT STACK

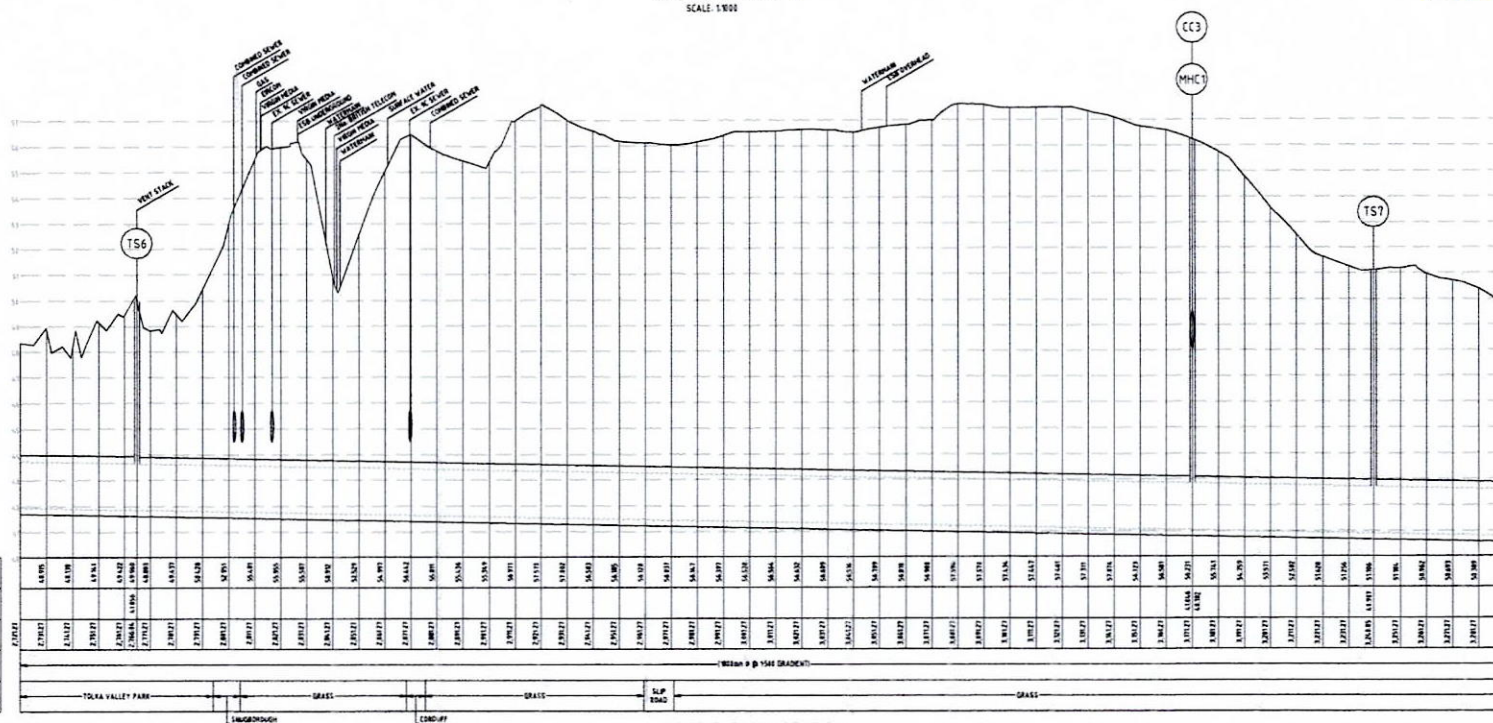
PROPOSED SITE NOTICE

PROPOSED KIOSK

EXISTING SEWER (AS CONSTRUCTED)

EXISTING SC PIPELINE


SITE PLAN - 6 OF 6
SCALE: 1/8"=1'-0"

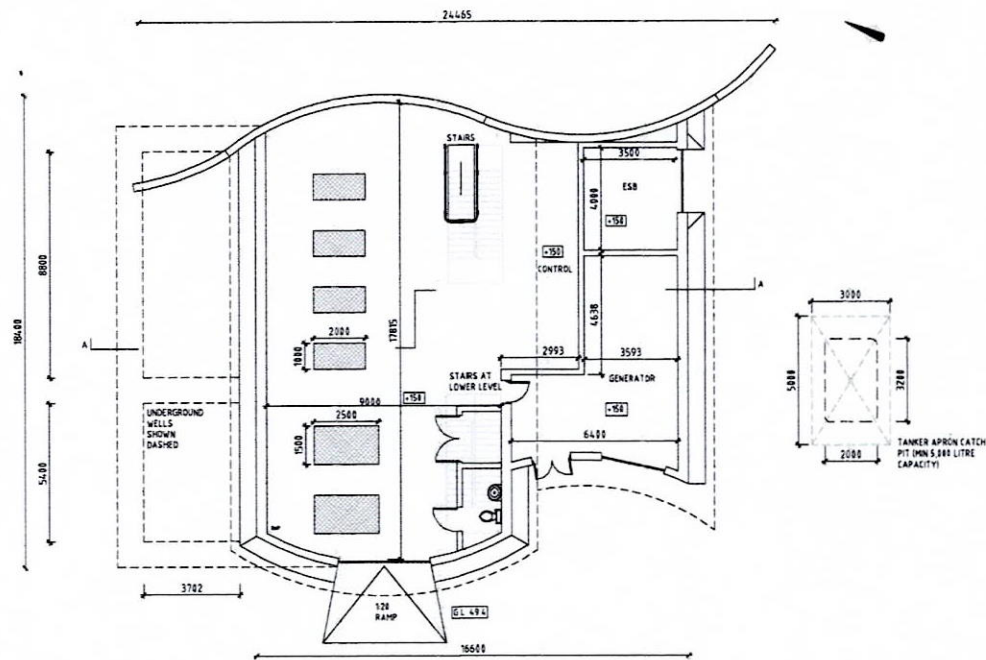


LOCATION _____

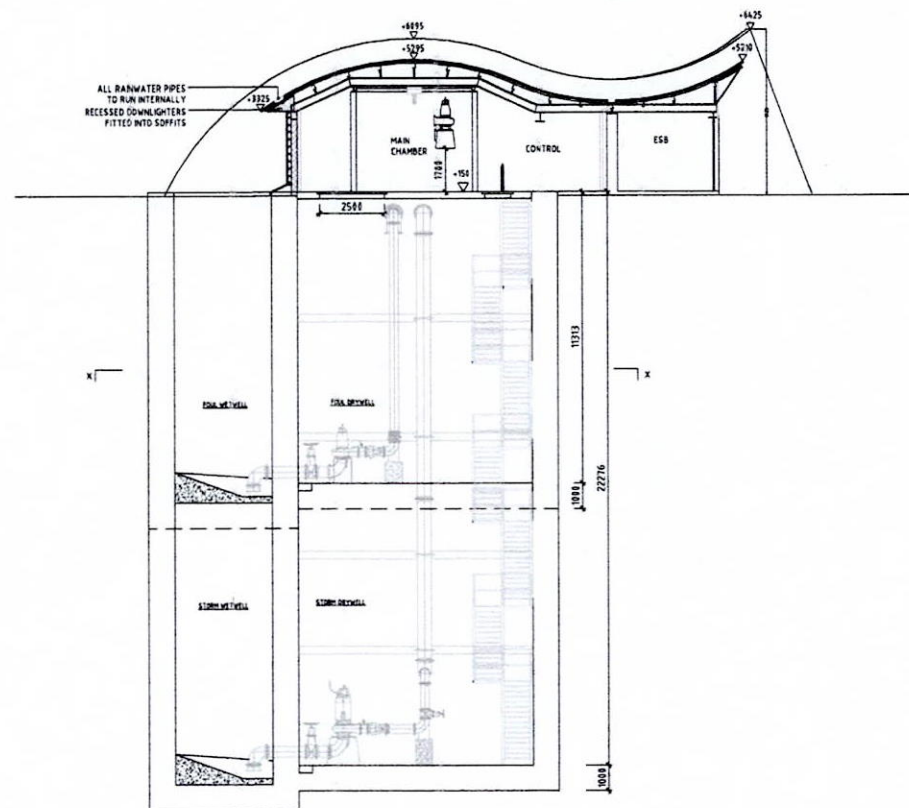
LONGITUDINAL SECTION
SCALE HORIZ 1:1000
VERT 1:100

16-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

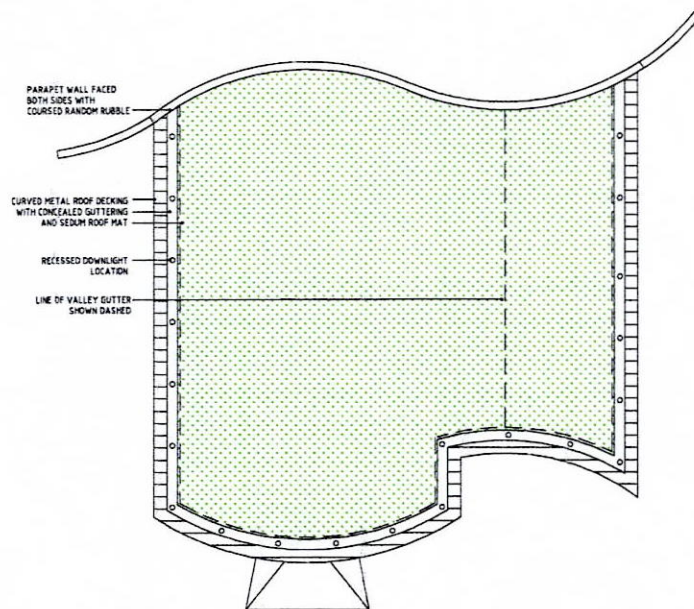
Rev	Date	Description	By	Cht	
BYRNE LOOBY PHMCCARTHY					
CLIENT					
					
PROJECT					
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 99 SEWER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE					
SITE PLAN & LONG SECTIONS SHEET 6 OF 6					
STATUS					
PLANNING					
Date:	Issued:	Scale:	As Issued	Drawn:	M.C.
Project No:	W3336	Drawn By:	W3336/3106	Checked:	P.



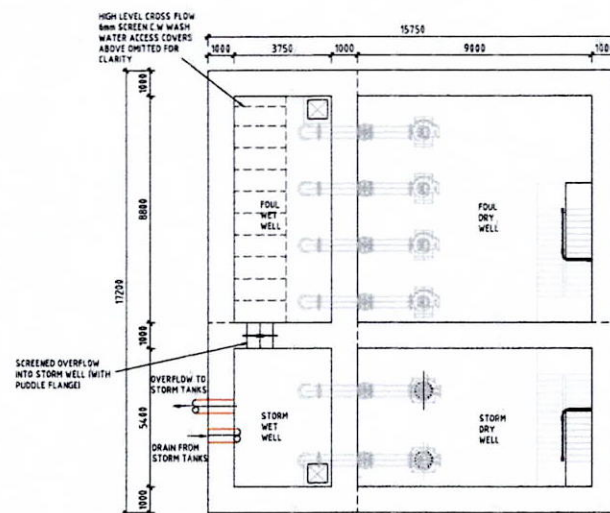
FLOOR PLAN
SCALE 1:100



SECTION A-A
SCALE 1:100





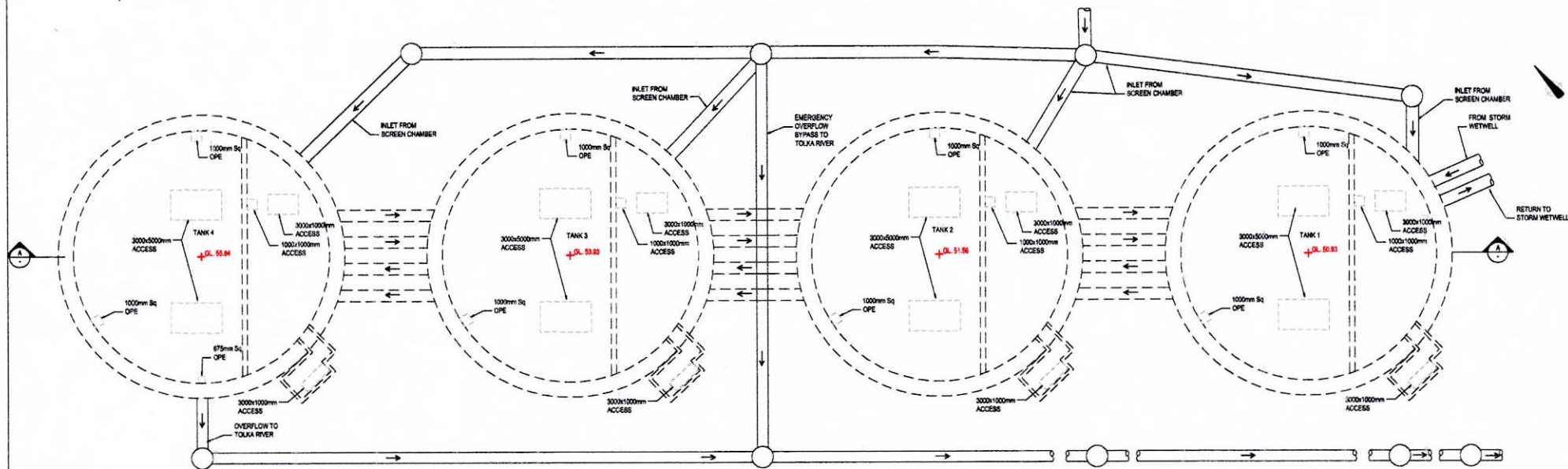
ROOF PLAN
SCALE 1:100



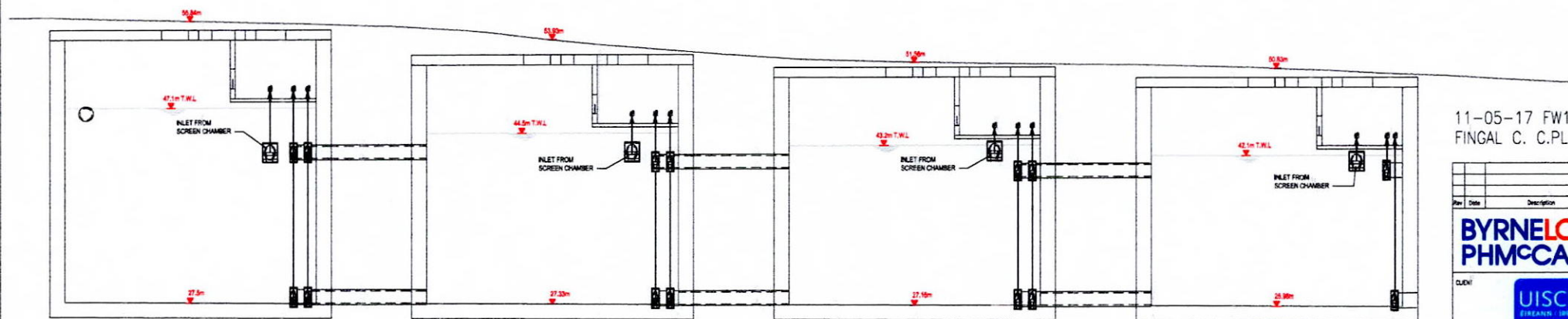
SECTION X-X
SCALE 1:100

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description							
<div style="text-align: center;"> <h1>BYRNE LOOBY PHMCCARTHY</h1> </div>									
ARCHITECT									
Paul O'Toole, Architects <small>10000 State Street, Suite 100, New York, NY 10001-2000</small>									
CLIENT									
									
PROJECT									
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION									
DRAWING TITLE									
PUMPING STATION PLAN, SECTIONS AND ROOF PLAN									
STATUS									
PLANNING									
Date: 10/1/11	Scale: AS SHOWN	Drawn: ME	Chk: WED	App: TS					
Project No: W3836	Draw. No: W3836/3202				Rev: P1				



LAYOUT PLAN
SCALE 1: 200



SECTION A-A
SCALE 1: 200

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Plan	Date	Description	By	Chk	App
BYRNE LOOBY PHMCCARTHY					
UISCE DRAINAGE & WASTEWATER					
PROJECT BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME SE SEWER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE STORAGE TANKS PLANS AND SECTIONS					
STATUS PLANNING					
Date: 10/11/17	Scale: 4:1 (Plan)	Drawn: ME	Chk: ANE	App: ES	
Project No: W3936	Draw No: W3936/3243				P1

LEGEND:

PROPOSED ACCESS ROAD

EXISTING FOOTPATH

PROPOSED REINFORCED GRASS SURFACING



PROPOSED MAN ACCESS BASKET (BURIED)

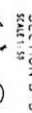
PROPOSED MANHOLE LID

NOTES:

1. ACCESS HATCHES FOR TANK 2, 3 & 4 IDENTICAL THOSE INDICATED ON TANK 1 WITH THE EXCEPTION OF THE OVERFLOW JETTING ACCESS & EQUIPMENT REMOVAL ACCESS IN STORAGE TANK No.1
2. REFER TO REINSTATEMENT PLAN APPENDIX 13.2 OF THE EIS FOR FULL REINSTATEMENT DETAILS.

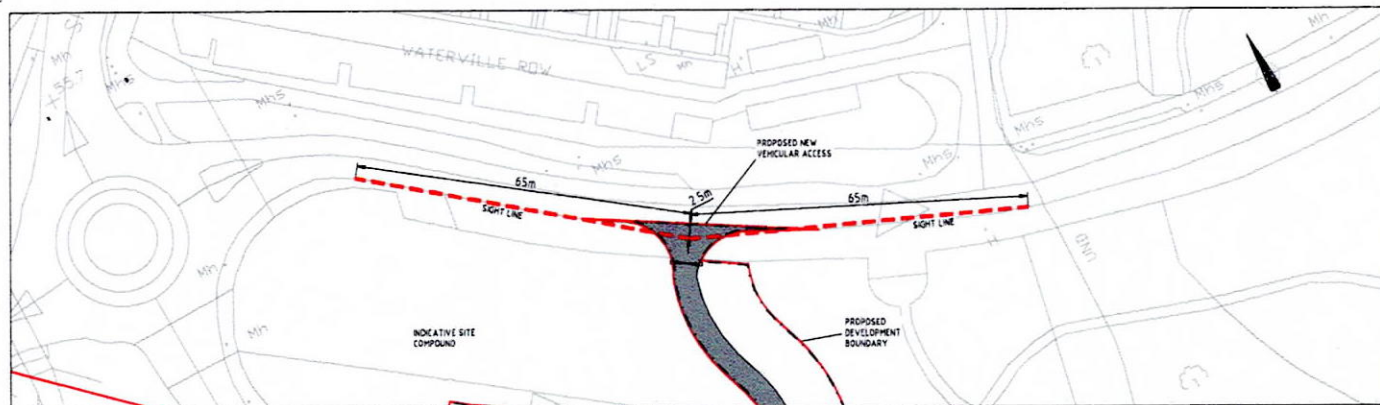
11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Cht.			
<div style="text-align: center;">  </div>							
CLIENT <div style="text-align: center;"></div>							
PROJECT BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME STATIONING AND SEWER DUPLICATION & TOLKA VALLEY PUMP STATION							
DRAWING TITLE PROPOSED SURFACE LEVEL COVER LAYOUT							
STATUS PLANNING							
Date:	16/03/17	Scale:	A3 Borehole	Drawn:	MS	Cht:	KML
Project No:	W3036	Drp. No:	W3036/3219			Appr:	P



Project No:	Drp No:
W3036	W3036/3220

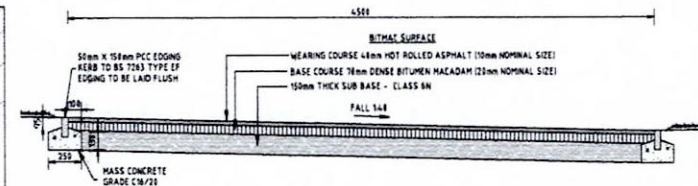
Port: Main	Scn: 45000	Draw: 16	Ch: 400	App: 10
Project No: W3036	Org No: W3036/3220			P1



PROPOSED PERMANENT VEHICULAR ACCESS - SIGHT LINES

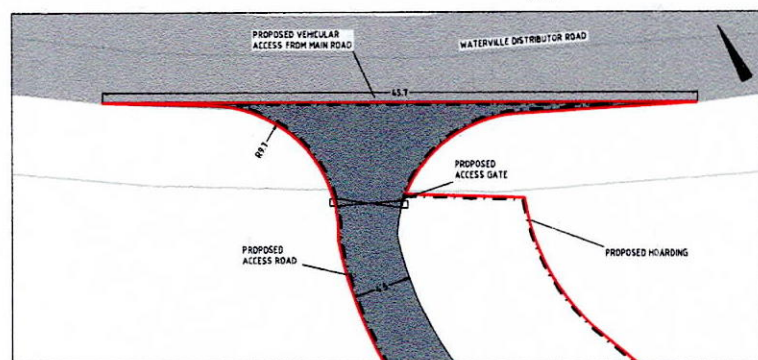
SCALE 1:100

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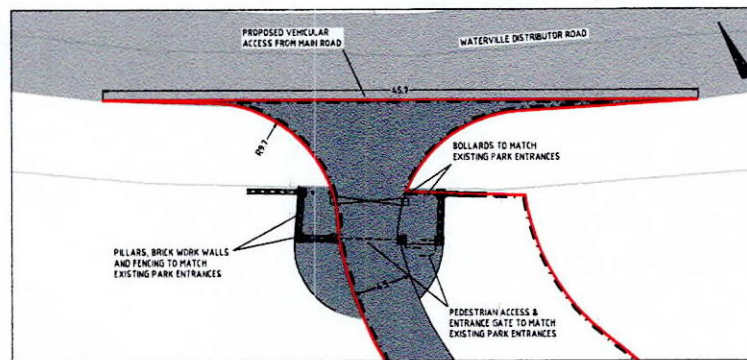
PROPOSED NEW ACCESS ROAD - CROSS SECTION

SCALE 1:20



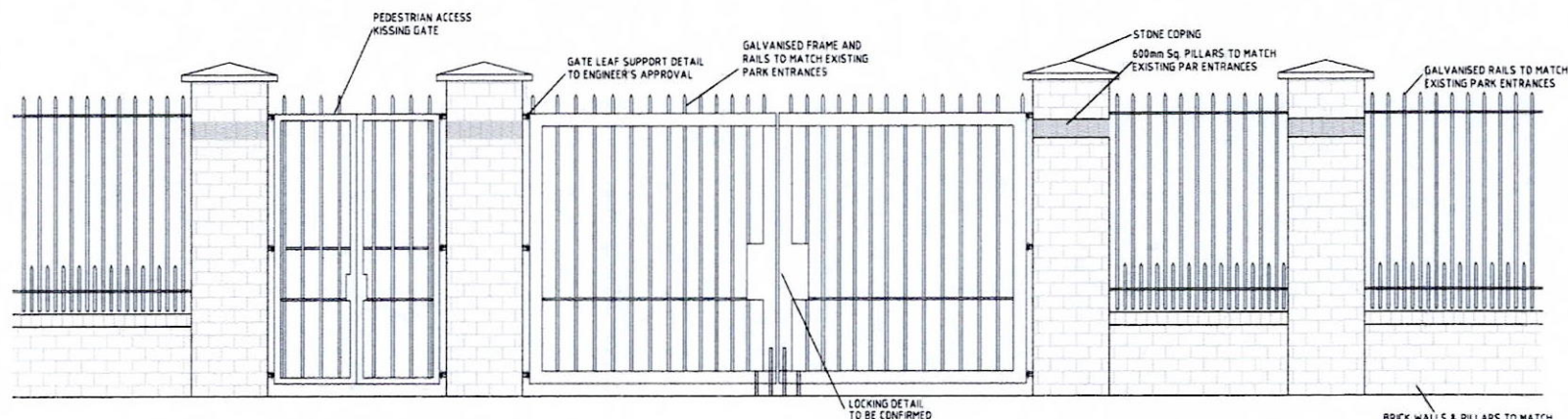
PROPOSED TEMPORARY VEHICULAR ACCESS - PLAN

SCALE 1:200



PROPOSED PERMANENT VEHICULAR ACCESS - PLAN


SCALE 1:200

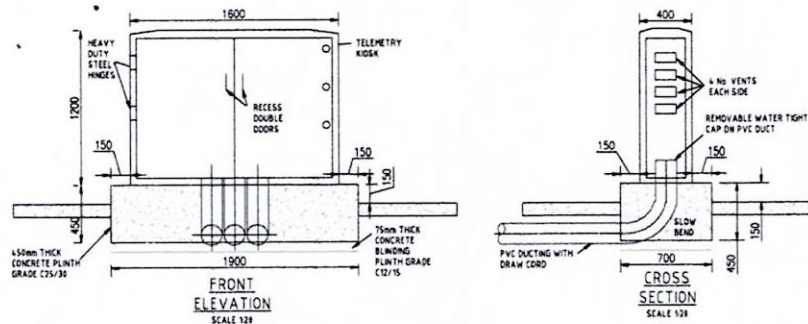


PROPOSED PERMANENT VEHICULAR ACCESS - ELEVATION

SCALE 1:20

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

No.	Date	Description	By	CHK	APP
BYRNE LOOBY PHMCCARTHY					
CLIENT 					
PROJECT BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME PC SEWER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE MISCELLANEOUS DETAILS PROPOSED SITE ACCESS WATERVILLE DISTRIBUTOR ROAD					
STATUS PLANNING					
Drawn: W3036 Project No: W3036	Scale: AS SHOWN Drawn By: W3036/3301	Check: W3036/3301 App: W3036/3301	Date: 11-05-17 Page: 13		

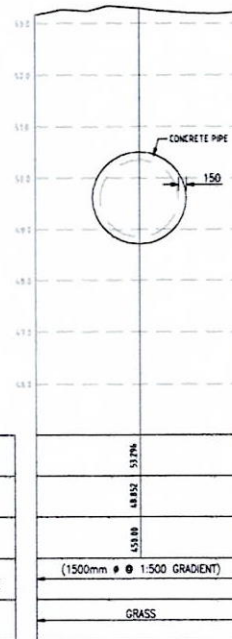
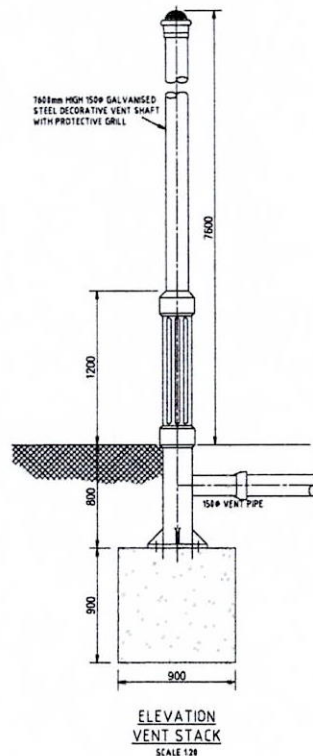
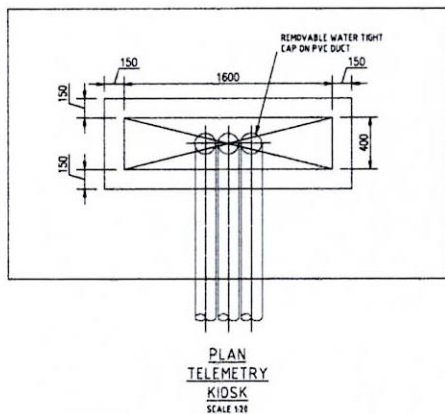


DATUM 45m O.D.

GROUND LEVEL	51.2%
INVERT LEVEL	48.852
CHAINAGE	45.88
PIPE TYPE & GRADE	(1500mm ϕ @ 1:500 GRADIENT)
LOCATION	GRASS

TYPICAL CROSS SECTION THROUGH PROPOSED
SEWER DUPLICATION TAKEN @ CH. 450

SCALE 1:50



DATUM 42m O.D.

GROUND LEVEL	54.5%
INVERT LEVEL	44.175
CHAINAGE	44.175
PIPE TYPE & GRADE	(1800mm ϕ @ 1:500 GRADIENT)
LOCATION	CASTLECURRAGH PARK

TYPICAL CROSS SECTION THROUGH PROPOSED
SEWER DUPLICATION TAKEN @ CH. 1605

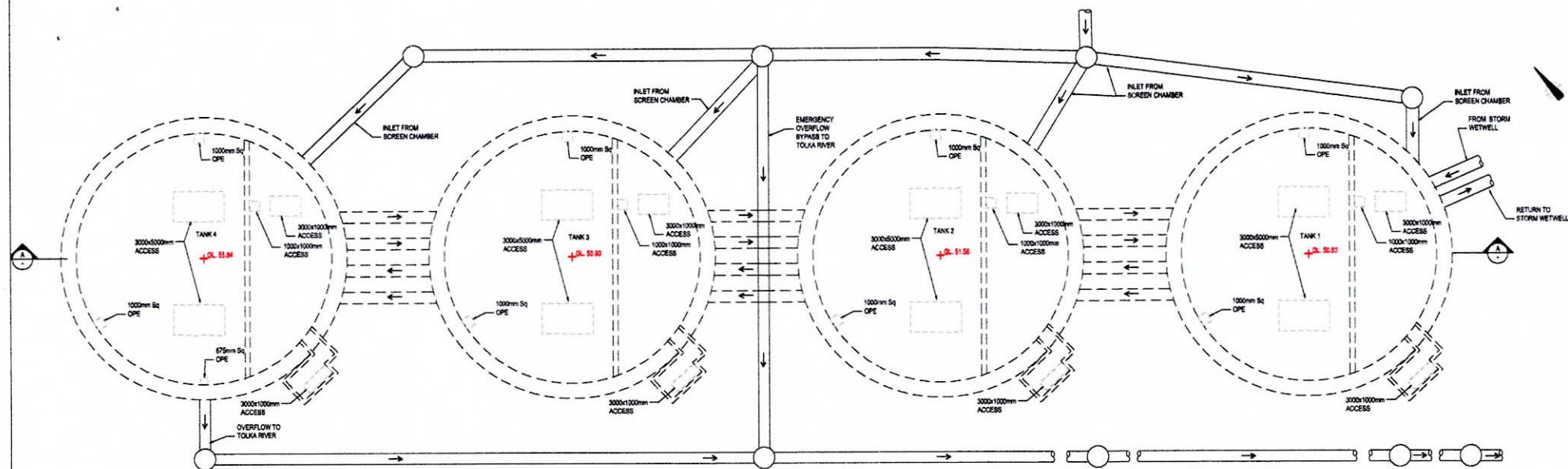
SCALE 1:50

NOTES:

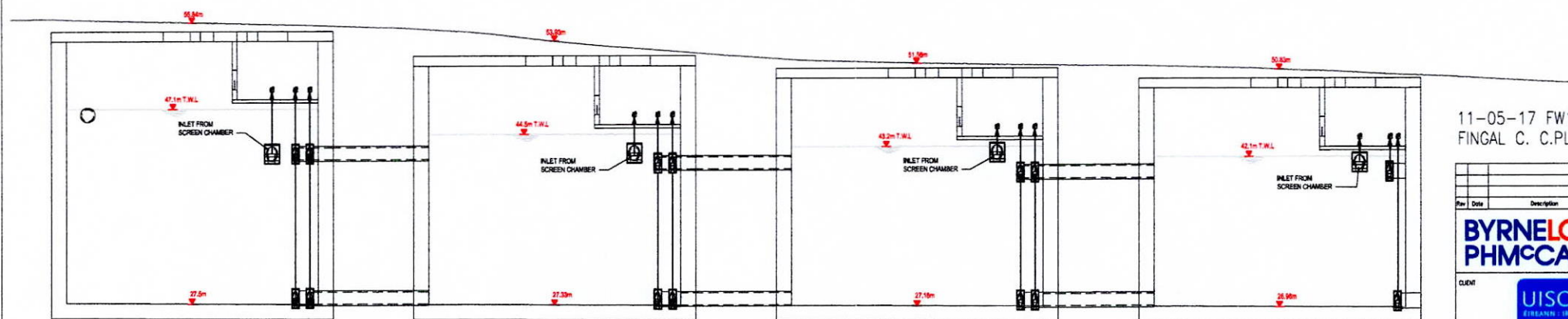
- ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE
- THE KIOSK SHALL BE LOCATED OFF THE FOOTPATH SO AS NOT TO IMPED PEDESTRIANS AND POSITIONED SO AS TO FACILITATE SAFE ACCESS FOR MAINTENANCE PERSONNEL
- KIOSK TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE MINIMUM 4mm THICKNESS TO BS EN 1461 STAINLESS STEEL OR NON-METALLIC MATERIALS, SUCH AS GLASS REINFORCED PLASTIC (GRP), MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH IRISH WATER
- COLOR TO BE HOLLY GREEN BS 4811 1/3 C39 INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY IRISH WATER
- THE QUALITY OF KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:
 - A THERMAL TRANSMITTANCE OF 15W PER M²K
 - A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES
 - AN IP RATING OF IP65 OR EQUIVALENT
- KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS
- THE BOTTOM FLANGE SHALL BE SEATED ON A NEOPRENE GASKET AND SEALED WITH MASTIC
- REAR WALL SHALL BE REINFORCED WITH STAINLESS STEEL SECTIONS TO WHICH A MARINE PLY WOOD 18mm THICK BOARD IS FIXED
- THE INTERNAL LAYOUT OF THE KIOSK SHALL BE SUBJECT TO IRISH WATER APPROVAL
- TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 4466 AND BS EN 1461
- ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESS SPECIFICATION
- THE ROOF OF THE KIOSK SHALL BE REMOVABLE (BOLTS) TO FACILITATE BACKBOARD REMOVAL
- ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING
- A 75mm WIDE x 150mm THICK FOOTPATH OF C25/30 CONCRETE ON 50mm SAND BLINDING ON 300mm CLAUSE 304 GRANULAR MATERIAL TO BE PROVIDED AROUND KIOSK
- ALL CONCRETE TO BE IN ACCORDANCE WITH BS EN 126

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

Rev	Date	Description	By	Chk	App
<p>BYRNE LOOBY PHMCCARTHY</p> <p>CLIENT: UISCE DUBLIN / IRISH WATER</p> <p>PROJECT: BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME PC SEWER DUPLICATION & TOLKA VALLEY PUMP STATION</p> <p>DRAWING TITLE: MISCELLANEOUS DETAILS PROPOSED TELEMETRY KIOSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS</p> <p>STATUS: PLANNING</p> <p>Date: 14/05/17 Scale: AS SHOWN Drawn: PG Chk: and App: GS Project No: W3836/3392 Page 01</p>					





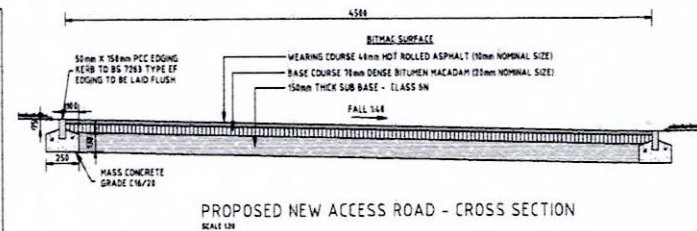
LAYOUT PLAN
SCALE 1 : 200



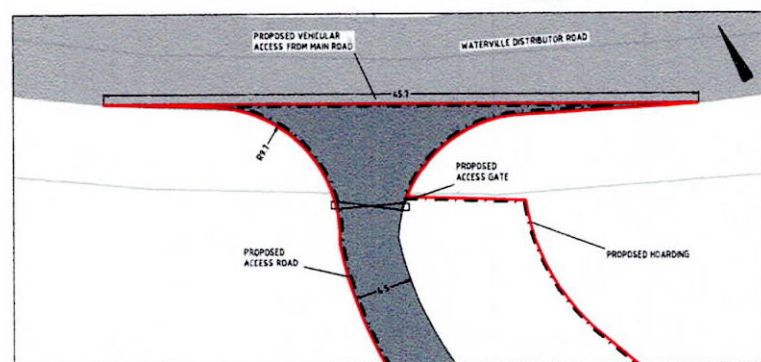
SECTION A-A
SCALE 1 : 200

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

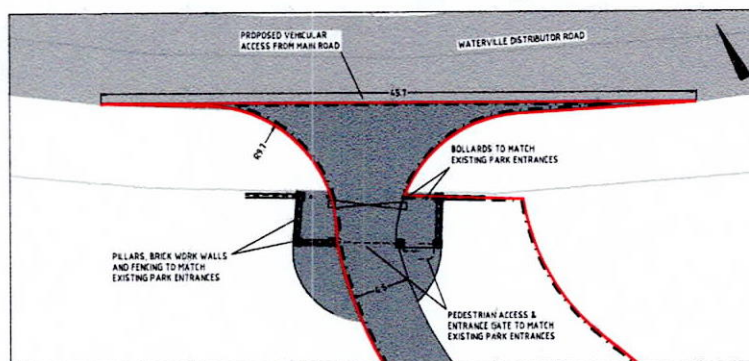
Plan	Date	Description	By	Chk	App				
<div style="text-align: center;">  </div>									
CLIENT									
									
PROJECT									
BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME PC SEWER DUPLICATION & TOLKA VALLEY PUMP STATION									
DRAWING TITLE									
STORAGE TANKS PLANS AND SECTIONS									
STATUS									
PLANNING									
Date:	14/1/17	Scale:	A4 Unrev	Drawn:	ME	Chk:	unv	App:	unv
Project No:	W3836	Proj. No:	W3836/3283				Rev:	P1	



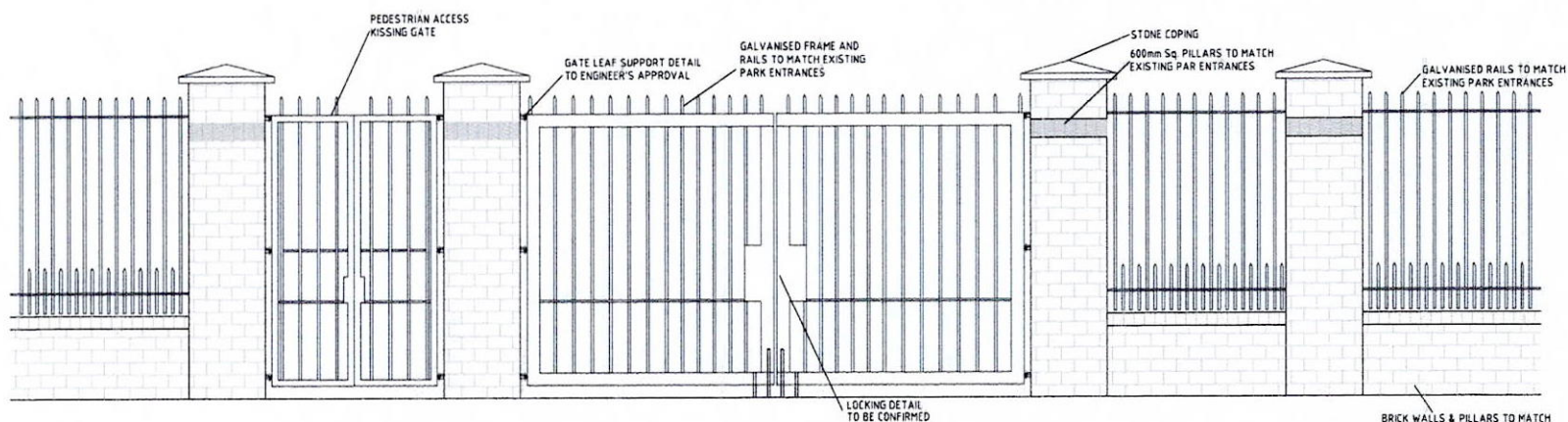
PROPOSED PERMANENT VEHICULAR ACCESS - SIGHT LINES
SCALE 1/200



PROPOSED TEMPORARY VEHICULAR ACCESS - PLAN
SCALE 1/200




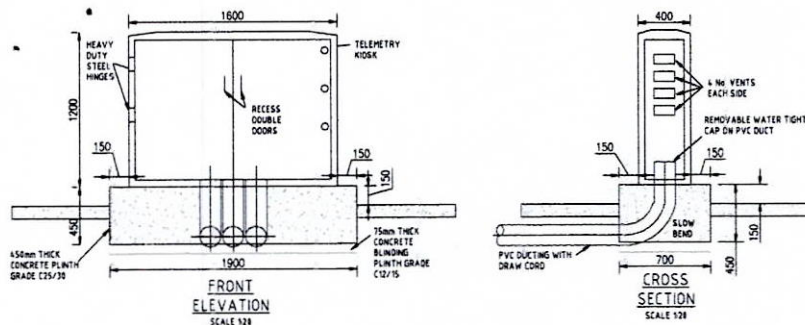
PROPOSED PERMANENT VEHICULAR ACCESS - PLAN
SCALE 1/200



PROPOSED PERMANENT VEHICULAR ACCESS - ELEVATION
SCALE 3/8"

11-05-17 FW17A/0083
FINGAL C. C.PL. DEPT

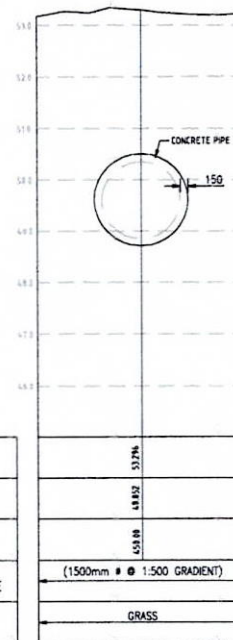
Day	Date	Description	Ry	Clsk	Ap
BYRNE LOOBY PHM^cCARTHY					
CLIENT					
					
PROJECT					
SEWARDSTOWN REGIONAL DRAINAGE SCHEME NC BEAVER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE					
MISCELLANEOUS DETAILS PROPOSED SITE ACCESS WATERVILLE DISTRIBUTOR ROAD					
STATUS					
PLANNING					
Date:	W/SHT:	Scale:	A4 Subm:	Dwgms:	Chk: Date:
Project No:	Dwg. No:				Appr: Date:
W/3936		W/3936/3301			P1



DATUM 45m O.D.

GROUND LEVEL	51.796
INVERT LEVEL	48.832
CHAINAGE	620.88
PIPE TYPE & GRADE	(1500mm Ø @ 1:500 GRADIENT)
LOCATION	GRASS

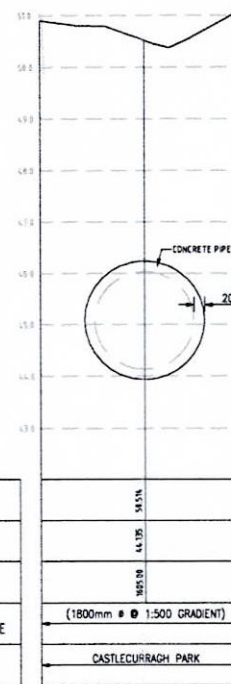
TYPICAL CROSS SECTION THROUGH PROPOSED
SEWER DUPLICATION TAKEN @ CH. 450
SCALE 1:50



DATUM 42m O.D.

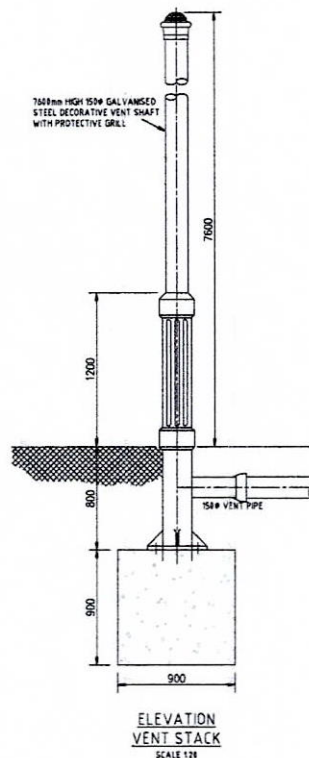
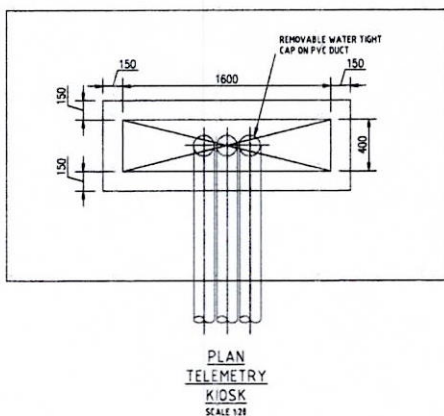
GROUND LEVEL	54.516
INVERT LEVEL	44.135
CHAINAGE	1602.199
PIPE TYPE & GRADE	(1800mm Ø @ 1:500 GRADIENT)
LOCATION	CASTLECURRAGH PARK

TYPICAL CROSS SECTION THROUGH PROPOSED
SEWER DUPLICATION TAKEN @ CH. 1605
SCALE 1:50



NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
- THE KIOSK SHALL BE LOCATED OFF THE FOOTPATH SO AS NOT TO IMPED PEDESTRIANS AND POSITIONED SO AS TO FACILITATE SAFE ACCESS FOR MAINTENANCE PERSONNEL
- KIOSK TO BE CONSTRUCTED FROM THERMOSETTING U.V. & WEATHER RESISTANT PLASTIC POWDER COATED & HOT DIPPED GALVANISED MILD STEEL PLATE MINIMUM 4mm THICKNESS TO BS EN 1045 STAINLESS STEEL OR NON-METALLIC MATERIALS, SUCH AS GLASS REINFORCED PLASTIC (GRP), MAY BE USED AS AN ALTERNATIVE KIOSK MATERIAL, PARTICULARLY IN SEVERE ENVIRONMENTS, SUBJECT TO AGREEMENT WITH IRISH WATER
- COLOR TO BE HOLLY GREEN BS 4811 N 339 INTERIOR FINISH TO BE WHITE UNLESS APPROVED BY IRISH WATER
- THE QUALITY OF KIOSK CONSTRUCTION SHALL ENSURE THAT THE FOLLOWING IS ACHIEVED:
(a) A THERMAL TRANSMITTANCE OF 15W PER M²K
(b) A FIRE RESISTANCE (RETENTION OF STABILITY, INTEGRITY AND INSULATION) EQUIVALENT TO CLASS 2 OF BS 476, WHEN TESTED IN ACCORDANCE WITH BS 476 FOR A PERIOD EXCEEDING 30 MINUTES
(c) AN R FATHOM OF 100 OR EQUIVALENT
- KIOSK TO BE BOLTED TO THE PLINTH THROUGH A BOTTOM FLANGE WITH GALVANISED MILD STEEL OR STAINLESS STEEL ANCHOR BOLTS
- THE BOTTOM FLANGE SHALL BE SEATED ON A NEOPRENE GASKET AND SEALED WITH MASTIC
- REAR WALL SHALL BE REINFORCED WITH A MARINE PLY WOOD 18mm THICK BOARD IS FIXED
- THE INTERNAL LAYOUT OF THE KIOSK SHALL BE SUBJECT TO IRISH WATER APPROVAL
- TELEMETRY DUCTING TO BE IN ACCORDANCE WITH BS 6841 AND BS EN 1461
- ELECTRICAL REQUIREMENTS TO BE IN ACCORDANCE WITH ESB SPECIFICATION
- THE ROOF OF THE KIOSK SHALL BE REMOVABLE (BOLTS) TO FACILITATE BACKBOARD REMOVAL
- ALL EXPOSED PIPEWORK TO BE ADEQUATELY INSULATED WITH PIPE LAGGING
- A 75mm WIDE x 18mm THICK FOOTPATH OF C25/30 CONCRETE ON 50mm SAND BLINDING ON 100mm CLAUSE 804 GRANULAR MATERIAL TO BE PROVIDED AROUND KIOSK
- ALL CONCRETE TO BE IN ACCORDANCE WITH IS EN 126



11-05-17 FW17A/0083
FINGAL C. C.P.L. DEPT

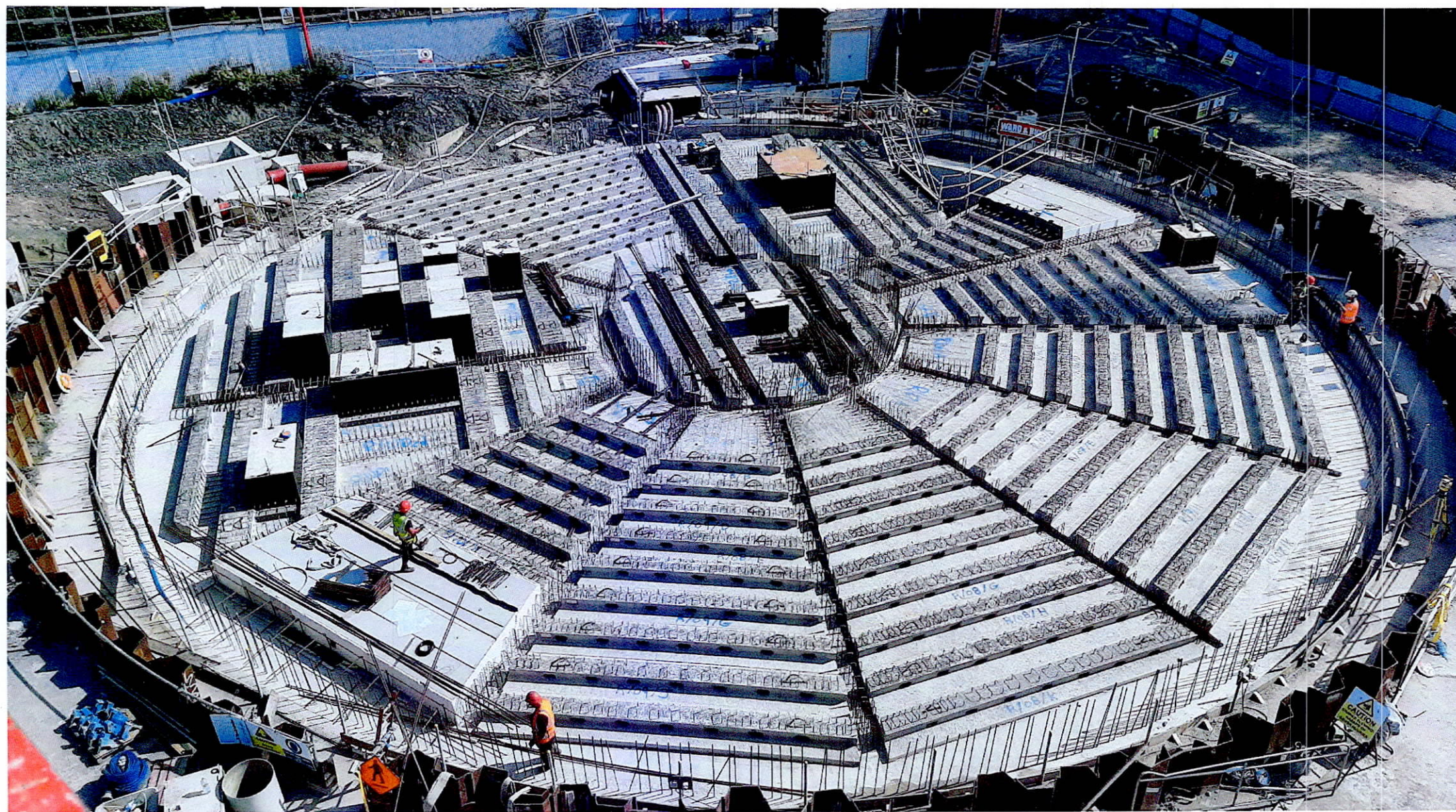
Rev	Date	Description	By	Chk	App
BYRNE LOOBY PHMCCARTHY					
CLIENT 					
PROJECT BLANCHARDSTOWN REGIONAL DRAINAGE SCHEME 9C SEWER DUPLICATION & TOLKA VALLEY PUMP STATION					
DRAWING TITLE MISCELLANEOUS DETAILS PROPOSED TELEMETRY KIOSK, VENT STACK & PIPE CROSS SECTION - TYPICAL DETAILS					
STATUS PLANNING					
Date: 09/05/17	Scale: AS SHOWN	Drawn: PG	Chk: and	App: RS	
Project No: W3836	Dwg. No: W3836/3382				P1



STORM
TANK
①

↳
GDD

Foul
Balancing
Tanks
↙



[← BACK TO YOUR SEARCH](#)

Blanchardstown Regional Drainage Scheme

Irish Water are progressing the Blanchardstown Regional Drainage Scheme incorporating the Tolka Valley Park Pumping Station. The project represents a major capital investment and will involve the upgrade of the existing sewer network currently serving Blanchardstown and the surrounding catchment areas. This infrastructure will expand the capacity of the wastewater network and will facilitate existing and future residential and commercial development. It will also reduce the frequency and volume of





Our Role

The Water Division at ByrneLooby Headquarters in Dublin were appointed by Irish Water as Consulting Engineers and Designers for the Blanchardstown Regional Drainage Scheme project. Designing the deep underground storage tanks with a total capacity of approximately 30,000m³, approximately 3.2km of large diameter pipeline and installing such using trenchless tunnelling techniques with the Tolka Valley Park Pumping Station. ByrneLooby prepared the Environmental Impact Statement (EIS) to accompany the planning application made by Irish Water. In July 2017 the project was granted planning permission by Fingal County Council and the project is expected to progress to construction by early 2019.



Got a Question? **Drop Us a Message!**



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Sectors

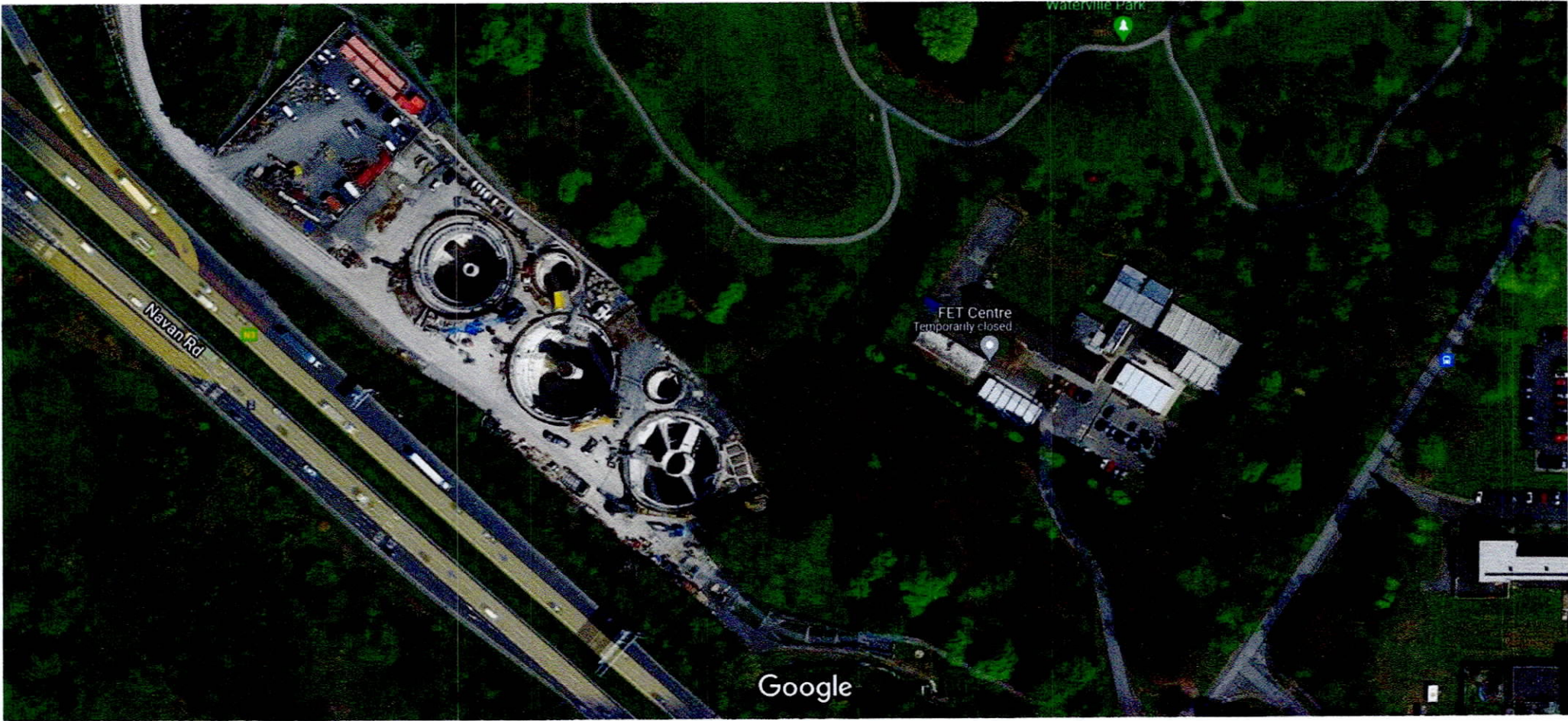
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- [Marine and Coastal](#)
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BRDS including GDDP Reception Chamber not included in any planning consent



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GDD Reception Chamber

15/3/21

BIM QUALITY SHEET No. : SMPQS-WBC-ZZ-QS-Z-1001

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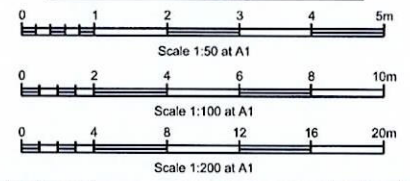
NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS IN METERS UNLESS NOTED OTHERWISE.
2. ANY QUERIES OR DISCREPANCIES TO BE REFERRED TO ENGINEER IMMEDIATELY.
3. DO NOT SCALE FROM DRAWING.
5. 3.2m x 3.2m SOFT EYE CONNECTION TO BE PROVIDED FOR FUTURE CONNECTION.
6. MAX HORIZONTAL LOAD ON SHAFT FROM CRANE MUST NOT BE GREATER THAN 290kN/m².

GDD - SETTING OUT POINTS		
LOCATION	Coordinates	
	Easting	Northing
SOP1	708102.5145	738928.3445
SOP2	708106.2560	738926.9310
SOP3	708099.8099	738931.2915
SOP4	708103.1583	738924.1518
SOP5	708101.4352	738927.7178
SOP6	708103.7350	738928.8204
SOP7	708104.7906	738931.6338
SOP8	708106.5144	738928.3715
SOP9	708106.4559	738927.6619

Health, Safety and Environmental Information

- Construction:
- i. Pressure relief placed in base if excess water at base.
 - ii. Working at height during construction.
 - iii. Working in excavation/cofined space.
 - iv. Excessive noise during construction.
- Maintenance and operation:
- i. Backfill tank.
- Decommissioning/demolition:
- i. Backfill tank.
- Those notes are based on the use of experienced and competent contractors carrying out the work using an approved safe method of working.



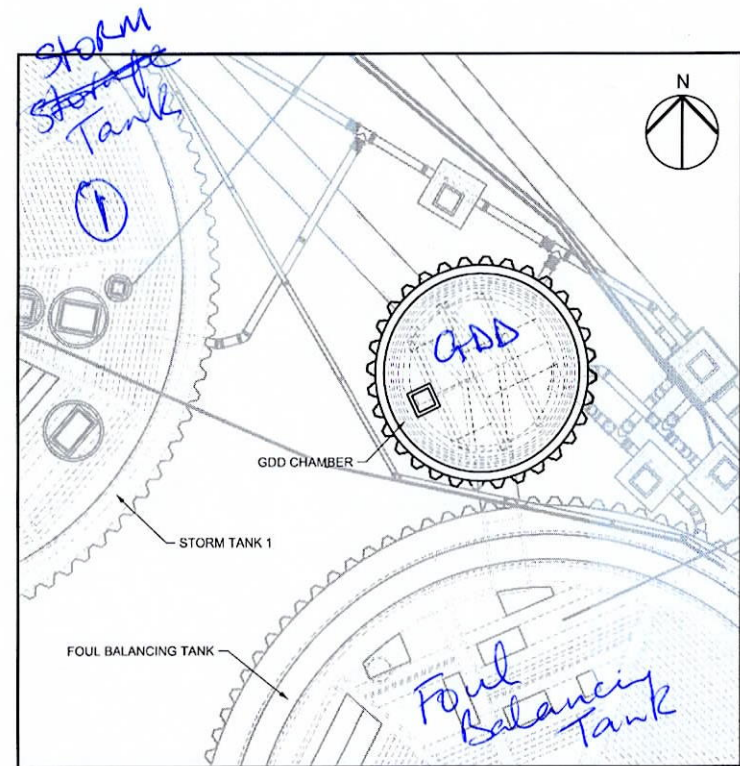
STATUS	REV	DATE	DESCRIPTION	IA	CHD	APP
A	C07	15/03/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C06	03/02/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C05	06/01/21	REVISED AS PER LATEST DESIGN	NP	RR	LM
A	C04	07/12/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C03	27/10/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C02	03/06/20	UPDATED AS PER LATEST DESIGN	NP	RR	LM
A	C01	14/02/20	FOR CONSTRUCTION	NP	RR	LM

REVISIONS

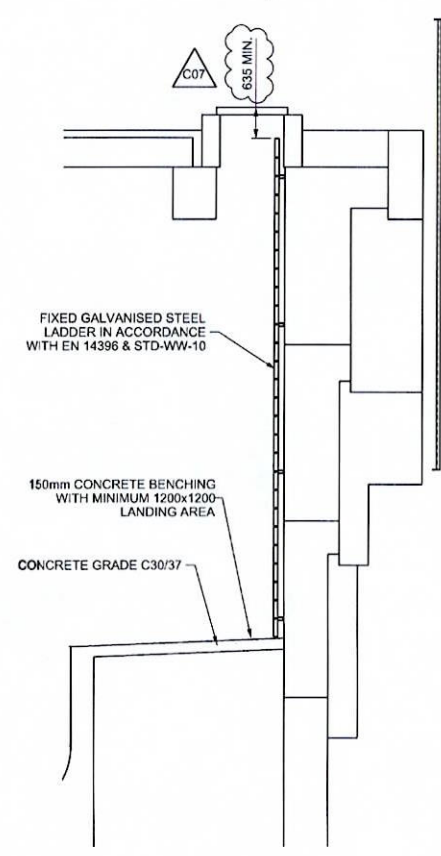


CONTRACT NUMBER:	C640
PROJECT CODE:	BLANCH
PROJECT TITLE:	BLANCHARDSTOWN SS DBO
CLIENT:	IRISH WATER
SITE LOCATION ID:	GENERAL ARRANGEMENT DRAWING
DRAWING TITLE:	CIVIL FUTURE GDD RECEPTION CHAMBER GA DRAWING
SHEET SIZE:	W&B DRAWING No: BLANCH-WBC-01-00-DR-W-10601
CLIENT DRAWING No:	-
CAD FILE:	BLANCH-WBC-01-00-M3-W-106
REV:	C07
SCALE:	AS SHOWN @ A1

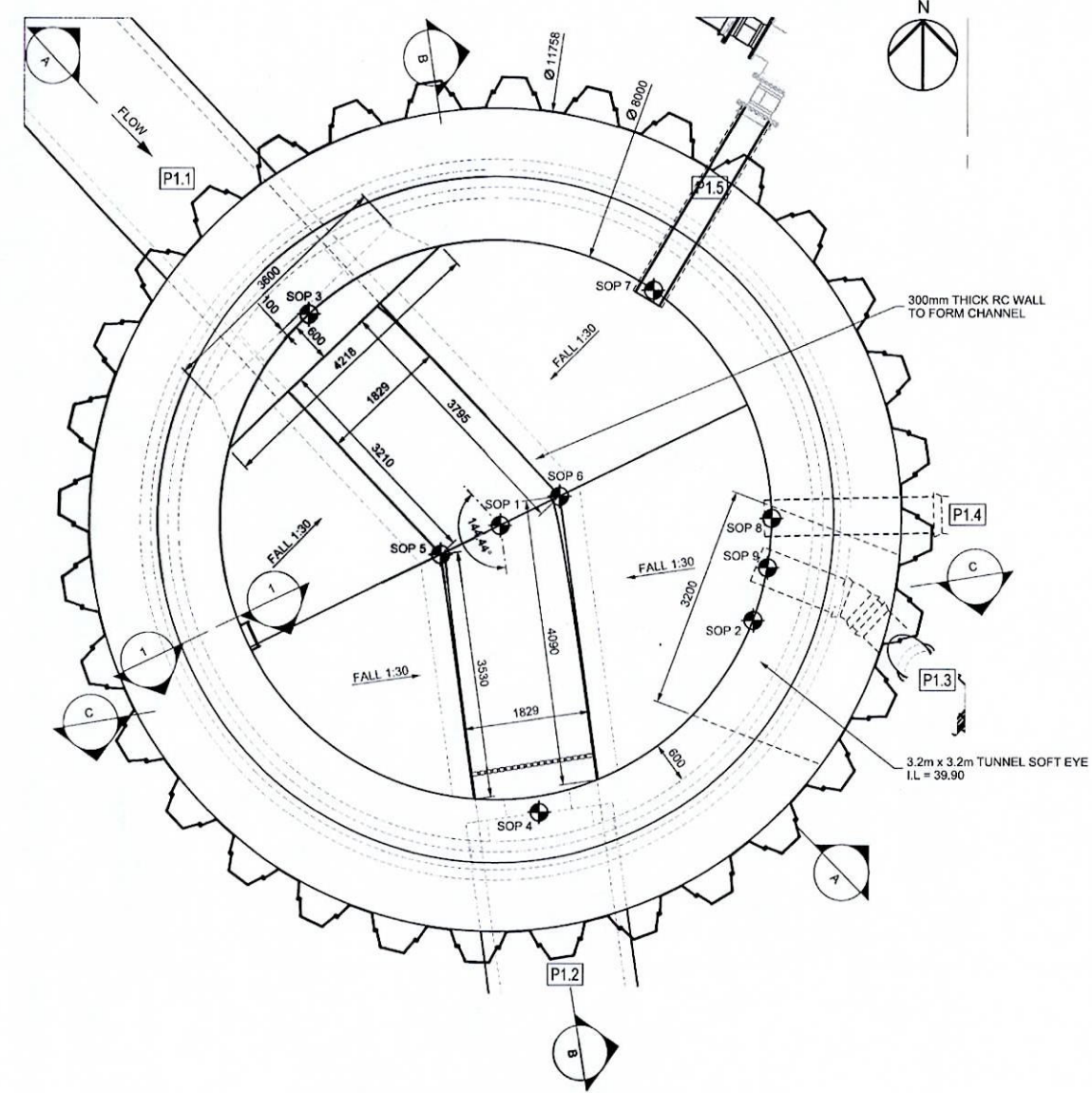
A=Issue For Construction



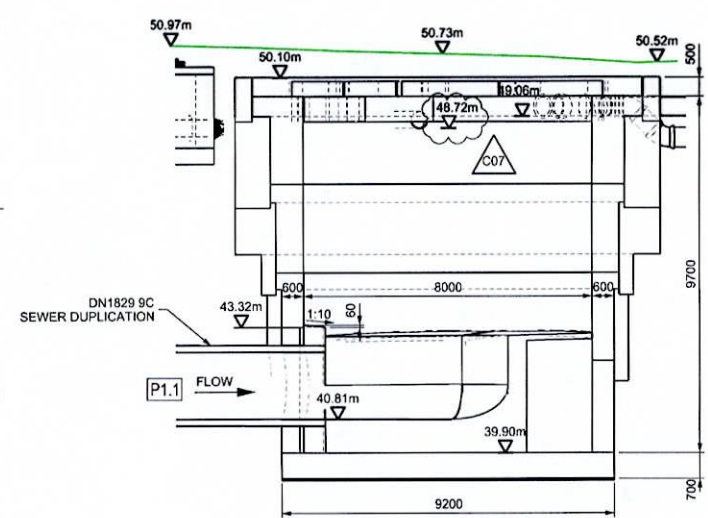
KEY PLAN
1:200



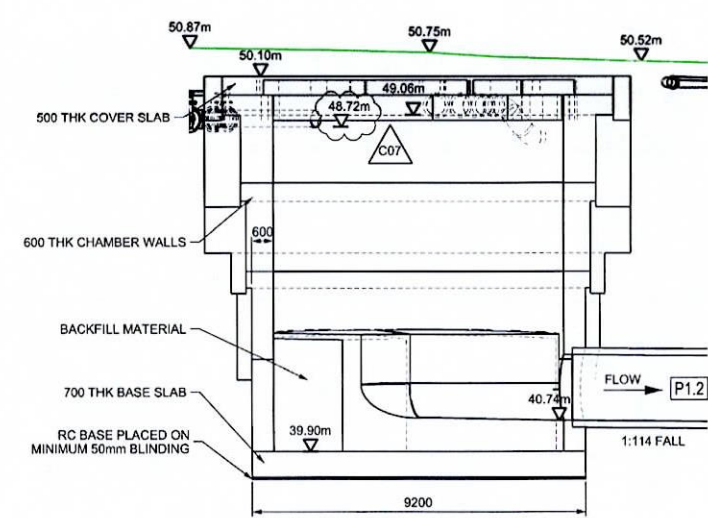
DETAIL 1-1
1:50



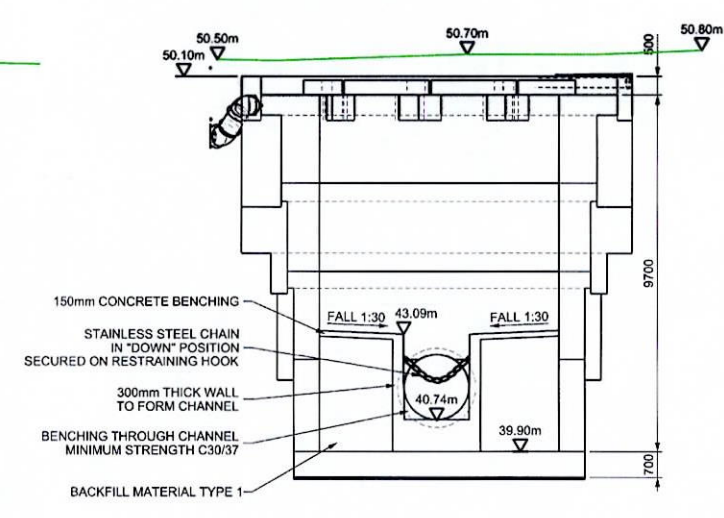
INTERNAL PLAN VIEW
1:50



SECTION A-A
1:100



SECTION B-B
1:100



SECTION C-C
1:100

NOTE: SHEET PILING REMOVED FROM SECTIONS FOR CLARITY

BOX OUT SCHEDULE		
REFERENCE	PIPE SIZE	BOX OUT SIZE
1.1*	1800 ID	3.6m x 3.6m
1.2	1800 ID	N/A
1.3	500 ID	1.6m x 0.8m
1.4	500 ID	Combined Box
1.5	450 ID	0.8m x 0.8m

* NOT BOX OUT THROUGH WALL - SOFT EYE FOR SEAL

Future
GDD
Roof
GA

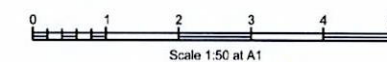
BIM QUALITY SHEET No. : SMPQS-WBC-ZZ-XX-QS-Z-1001

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NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS AND ALL LEVELS IN METERS UNLESS NOTED OTHERWISE.
2. ANY QUERIES OR DISCREPANCIES TO BE REFERRED TO ENGINEER IMMEDIATELY.
3. DO NOT SCALE FROM DRAWING.
4. FIGURED DIMENSIONS ONLY TO BE READ.
5. 100mm CONCRETE TOPPING TO BE REMOVED AND PRECAST SLABS CAN BE LIFTED OFF TO ACCESS CHAMBER

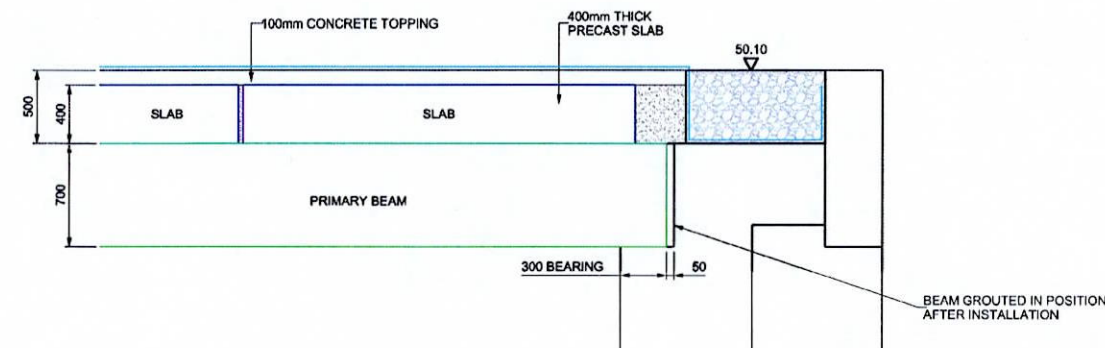
Health, Safety and Environmental Information	
Notes below are additional to those shown on drawings and are to be read in conjunction with the drawings.	
Construction:	
i. All concrete members to be placed on mortar bed.	
Maintenance and Operation:	
i. Roof designed to take Cat G loading in accordance with IS EN 1991-1-1:2002.	
ii. Backfill soil on roof must not be higher than shown in BLANCH-WBC-01-00-DR-W-70005	
iii. An additional soil loading of 250mm over entire tank has been allowed for as an accidental load case.	
Decommissioning/demolition:	
i. Those notes are based on the use of experienced and competent contractors carrying out the work using an approved safe method of working.	



3/2/21 For Construction

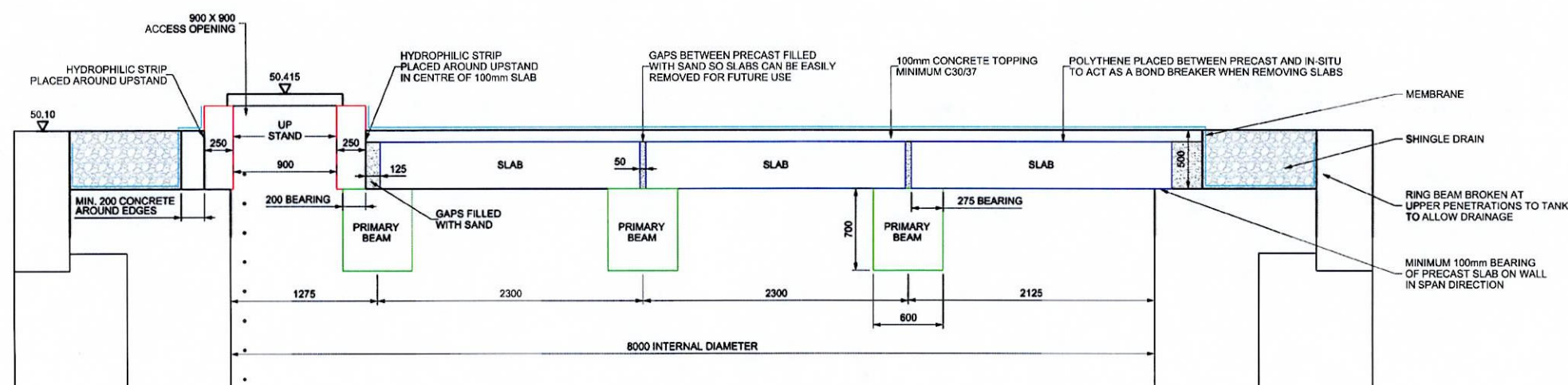
BEAM SCHEDULE		
BEAM TYPE	LENGTH	Nr.
PRIMARY BEAMS	8.60m - 6.92 LONG - 300mm BEARING EACH SIDE	3
PRECAST SLABS	PRECAST AROUND OPENINGS	12
PRECAST UPSTAND	AROUND ACCESS OPENING	1

GDD - SETTING OUT POINTS		
LOCATION	Coordinates	
	Easting	Northing
SOP1	708102.5145	738928.3445
SOP2	708098.8073	738929.8467
SOP3	708101.2824	738924.5390
SOP4	708100.4484	738931.7696
SOP5	708103.8103	738924.5602
SOP6	708102.7205	738932.3392
SOP7	708105.7071	738925.9346



SECTION A-A
1:25

PLAN VIEW - CHAMBER ROOF @ 50.00
1:50



SECTION B-B
1:25



CONTRACT NUMBER:		C640	
PROJECT CODE:		BLANCH	
PROJECT TITLE:		BLANCHARDSTOWN SS DBO	
CLIENT:		IRISH WATER	
SITE LOCATION ID:		GENERAL ARRANGEMENT DRAWING	
DRAWING TITLE:		CIVIL FUTURE GDD ROOF GA	
SHEET SIZE: W&B DRAWING No:		REV: C01	
A1 CLIENT DRAWING No:		SCALE: AS SHOWN @ A1	
CAD FILE: BLANCH-WBC-01-00-M3-W-106			

A=Issue For Construction