



COMHAIRLE CONTAE FHINE GALL FINGAL COUNTY COUNCIL

Appendix 8

Storm Water Taking in Charge Specification

November 2020



Appendix 8 - Fingal County Council: Storm Water Taking In Charge Specification

Application for Taking in Charge Storm Water Assets

The Water Services Department in Fingal County Council is responsible for the Taking in Charge of Storm Water infrastructure. It should be noted that the Water Services Act 2007 states that “storm water” means run off rainwater that enters any pipe.

The Developer is required to complete assigned parts of the Storm Water Infrastructure TIC Form, as contained in ‘Appendix 8 - FCC TIC_Storm Water Infrastructure Checklist’, and to provide all of the relevant information to support the assessment of the Schedule by the FCC.

Please note the following in relation to the Taking in Charge of water and wastewater infrastructure: For all applications with planning permission granted after the 1st of April 2019 the Taking in Charge Process will be undertaken directly by Irish Water; the Developer is required to contact Irish Water to commence the Taking in Charge process for all water and wastewater infrastructure.

Storm Water Infrastructure

The Developer shall design and complete all storm water drainage and infrastructure to comply with the requirements of the “Greater Dublin Regional Code of Practice for Drainage Works”

In addition to the relevant Code of Practice and associated standards, the following key requirements should be noted:

1. The standards affecting storm water drainage infrastructure are:
 - Regional Code of Practice for Drainage Works V6.0 - FCC April 2006, or the most recent version.
 - Greater Dublin Strategic Drainage Study and Sustainable Urban Drainage Systems.
 - The SuDS Manual, CIRIA C753, or most recent version.
 - DOEHLG Recommendations for Site Development Works in Housing Areas.
2. The design of storm water networks, and in particular the associated operational or maintenance requirements, are to be agreed in consultation with Fingal County Council, at Pre Planning Stage. This is to ensure that the assets are suitable for Taking in Charge by Fingal County Council (FCC). It should be noted that failure to agree the details in advance of the works, may result in an inability for these assets to be Taken in Charge by FCC.
3. Drawings are to be submitted in both GIS (compatible with FCC standards) and AutoCAD compatible (dwg/dxf) format, with the storm water infrastructure shown on a separate layer and a standard legend included. Refer to the relevant section in the main Taking in Charge Policy Document/Appendix 12 for details. This will also outline the format in relation to colours, legends etc, required.

All Drawings to be geo-coordinated & Scaled to the Ordnance Survey Ireland Irish National

Grid (ING) and all levels related to fixed Ordnance Survey Datum (Malin Head). As constructed drawings shall be provided for the storm water network showing all pipe sizes, manhole invert and cover levels and connections or discharge points. Plan scales should be in common use, i.e. 1:500, 1:1000, or 1:2500 as appropriate.

These drawings shall contain the following information:

- Manhole, pipe, service connection and all other infrastructure locations to +/- 100mm accuracy in the horizontal plane, with dimensions relating to fixed Ordnance Survey co-ordinates;
 - Cover level and invert levels relating to fixed Ordnance Survey Datum (Malin Head) to an accuracy of +/- 20mm;
 - Longitudinal sections, to an exaggerated vertical scale, (such as 1:1000 horizontal and 1:100 vertical) showing pipe installed levels, finished ground levels, pipe invert levels, pipe sizes, bedding type, haunch and surround details, backfill details, together with manhole locations, fitting and inspection chamber locations, chainages, gradients, pipe materials, etc. All manholes should be identified and provided with a location to an Irish National Grid co-ordinate (Information in Tabular Format on a Schedule of Manholes)
 - Residential or commercial building numbers, with details of any services and structures on the site, existing and proposed, especially those in close proximity to the Works.
 - Utility layout plan showing the layout of all wastewater, water and utility infrastructure (ESB Networks, Gas Networks Ireland, telecommunication provider ducting, etc.)
4. A full CCTV and manhole survey is to be carried out prior to the taking in charge process, by a competent surveying contractor procured by the Applicant/Contractor/Developer. CCTV and manhole survey information should be submitted in accordance with current Water Research Centre (WRc) specifications, and the following (to ensure compatibility with Irish Water standards for the Wastewater network):
- Sewer Condition Classification Format for each survey shall be undertaken in accordance with the WRc Manual for Sewer Condition Classification (MSCC) 5th Edition.
 - Sewer Condition Scoring Scheme will be in accordance with the Sewerage Risk Management (SRM) Manual 5 produced by WRc.
 - Qualifications and Training Requirements – all personnel involved in the classification shall have completed relevant training and achieved successful accreditation. Evidence of appropriate training and qualifications shall be provided upon request.
 - Calibration of Equipment – all plant and equipment used during surveys shall be maintained and calibrated in accordance with the manufacturer's requirements. Calibration certificates shall be made available when requested.
 - CCTV Recording – recordings shall show a continuous record of data displayed
 - Camera Speed – the speed of the camera shall be limited to 0.10m/s for pipelines

of diameter less than 200mm, 0.15m/s for diameters exceeding 200mm but not exceeding 300mm and 0.20m/s for those exceeding 300mm, or such other speed as agreed with FCC, to ensure all details are captured by the DVD recording.

- Digital colour photographs shall be taken at the following points in all surveys:
 - General condition at 20m intervals.
 - Service connections (photograph taken at a right angle to service connections to identify obstructed service connections).
 - Protruding pipework; defective connections and junctions; debris; cracks; fractures; broken pipes; deformation; open joints; displaced joints.
 - At the point where the survey is required to be abandoned.

Photographs must show clear definition and accurately reflect what is shown on the monitor, which shall be in proper adjustment. Photographs shall be of sufficient quality to enable clear interpretation of the defect on a screen or A4 print out. The photographs shall clearly identify the following:

- Automatic update of the camera's position in metres along the pipeline.
 - Sewer dimensions
 - Upstream and downstream manhole references
 - Direction of the survey
 - Photograph reference number in the report and date of photograph
 - Reason for the photograph
- Manhole Condition Surveys shall be completed in accordance with the WRc Manual of Sewer Classification 5th edition. Survey report cards should include:
 - Grid reference of manhole, to Irish National Grid Coordinates
 - Cover material and integrity
 - Biscuit integrity
 - Chamber material and size and chamber integrity, with confirmation of no infiltration
 - Material and diameter of all incoming and outgoing pipes, and a diagram clearly illustrating the location of these pipes
 - Benching quality
 - Step material and integrity
- Manhole Condition Survey Photographs shall be submitted in digital 'jpeg' or similar suitable format, with a minimum resolution of 1024 x 768 pixels.
- Manhole Survey Format – data collection during the survey shall be available in a format compatible with InfoNet.
- Applicant Quality Control Responsibility – before submitting CCTV and manhole survey information, the Applicant is responsible for checking that no defects or debris has been identified by the survey and that any such defects identified are rectified, followed by the generation of final survey reports.
- Reporting and Deliverables – the Final Reports and Deliverables provided shall include the following:
 - CCTV Survey footage: files in 'xml' format and submitted on a CD or DVD or USB in accordance with MSCC 5th Edition and compatible with InfoNet.

- CCTV Reports: reports submitted identifying that no defects exist are to be submitted on CD or DVD or USB format.
- Manhole Survey Reports: Reports submitted identifying that no defects exist. Reports submitted in 'csc' format on CD or DVD. Manhole referencing shall be consistent with the 'As Constructed' drawings (to Irish National Grid Coordinates to +/- 100mm accuracy in the horizontal plane, with dimensions relating to fixed Ordnance Survey coordinates)
- Certification from the Applicant's Consultant Engineer, that confirms a quality control regime has been implemented with the result that no defects exist in either the pipelines or manholes.

All CCTV and manhole reports will be reviewed by FCC and will include visual site inspection against the information submitted. It is the responsibility of the Applicant to ensure that defects do not exist. Should the Applicant fail in their responsibility to adequately enforce quality checking ahead of the submission to FCC, then a charge may be levied by FCC for additional review of CCTV and manhole reports.

In the event of the identification of deficiencies in the works, repairs of these deficiencies shall be carried out by the Applicant and confirmation obtained that the repairs achieved an adequately watertight system by a re-run of the CCTV survey at the defect location.

If the Applicant does not carry out the CCTV and manhole surveys or does not undertake required repairs of any deficiencies then FCC retains the right not to take in charge the infrastructure.

5. It is the responsibility of the Contractor/Developer to ensure that all appropriate licences and permits in relation to storm water management and discharges are in place, including EPA discharge licences where relevant.
6. All design plans and design criteria utilised shall be provided for storm water infrastructure. Detailed 'As-Built' Plans and drawings are to be provided, along with clear operational and maintenance requirements.
7. A Safety File is to be provided, in accordance with current Safety and Health Construction Regulations.
8. The Developer shall furnish evidence that all necessary wayleaves for pipelines and services are in place and that access to wayleaves for inspection and maintenance has been provided for, and that such access shall be kept free of any development. The Developer shall indicate restrictions, if any, imposed on the use or development of land within a wayleave, that have been or are to be imposed on the owners or occupiers of land within such wayleaves
9. Inspection of construction may be inspected by the relevant Inspectorate within the Planning/Building Control Authority.
10. The Calendar of Inspections should include key stages or milestones which should be rigorously met at the earliest possible time and certainly no later than the commissioning/ connection/ occupancy stage.

Requirements and Standards for Storm Water Pumping Stations

1. General

- 1.1 This document is for use by Developers/Contractors who are planning, designing and constructing a pumping station with the intention that it be taken-in-charge by Fingal County Council. This excludes wastewater pumping stations to be transferred to Irish Water.
- 1.2 Pumping stations are expensive to operate and maintain; and will only be considered as an alternative to a gravity sewer if the Developer/Contractor can clearly demonstrate to the satisfaction of Fingal County Council, that a gravity pipeline is an uneconomic option based on whole life-cycle costs.
- 1.3 The use of temporary Pumping stations and rising mains should be avoided. Where unavoidable or where permanent pumping is required the Developer must confirm through deed or letter of guarantee absolute unrestricted access/exclusive control over land for wayleaves and for construction of pump station for the required duration of operation.
- 1.4 These requirements shall be fully complied with except where Fingal County Council has formally agreed, subject to sound technical reasoning, to alternative equipment/installation proposals. Unapproved modification will not be accepted for taking-in-charge.
- 1.5 Should a Developer/Contractor decide retrospectively to request Fingal County Council to take a pumping station in-charge, the responsibility rests with the Developer/Contractor for any additional works that may be necessary to bring the pumping station to the taking-in-charge standard current at the time of application.
- 1.6 The Developer/Contractor shall provide evidence at the commissioning stage that a contract maintenance agreement is in place for the pumping station. Fingal County Council on taking-in-charge of the pumping station may decide to dispense or continue with this agreement.
- 1.7 Fingal County Council is committed to the promotion of products, services and construction which have the lowest and safest impact on the environment and humans, in terms of natural resources, consumables, performance, operation and waste. Pumping stations shall therefore, be constructed and designed to operate with the minimum negative environmental impact.

2. Procedure

- 2.1 The Developer/Contractor shall discuss the pumping station proposal with Fingal County Council as early as possible. The layout arrangements should be agreed in principle before a planning application is made.
- 2.2 On receipt of planning permission the Developer/Contractor shall ensure the following information is available to the Water Services Department:
 - Site Plan showing: levels, site boundary, pumping station site, rising mains, sewers, manholes.
 - Pumping Station Construction showing: general arrangement, wet well, valve

chamber, storage tanks, control building/kiosk

- Pumping Station Design Information: pump flow, static head, rising main (length, diameter, material), wet well capacity, storage tank capacity, pump curve, pump cut-in cut-out levels, agreed emergency overflow, surge calculations, control philosophy, control panel diagram.

- 2.3 During the pumping station maintenance period (normally 18 months) and no sooner than 12 months from the date of commissioning, and provided that the planned network is complete, the Developer/Contractor may apply to Fingal County Council to have the pumping station taken-in-charge.
- 2.4 Within an appropriate timeframe of receiving the request to have the pumping station taken-in-charge, Fingal County Council, will jointly inspect the pumping station with the Developer/Contractor and Maintenance Contractor. Subject to the handover of the Safety File and of the Operation and Maintenance Manuals (in soft copy and hard copy), Fingal County Council will issue a certificate confirming that there are no outstanding works. Fingal County Council will also confirm their intention to formally take the pumping in-charge subject to there being no land/legal matters outstanding.

3 Inspection

- 3.1 During construction of the pumping station, at the stage when the pump pedestals, risers, guide rails, valves and penstock(s) have been installed, the Developer/Contractor will notify Water Services Department, that the pumping station is ready for initial inspection. If the installation is found to be defective with regard to materials, workmanship or not to be in compliance with the agreed layout, the Developer/Contractor will be requested (in writing) to remedy the defects without delay.
- 3.2 The Developer/Contractor or his representative should be present during this inspection. The Developer/Contractor shall provide all necessary attendance, plant and equipment to ensure that these inspections are carried out in full compliance with current Health and Safety Regulations.
- 3.3 When the pumping station is at the commissioning stage, Fingal County Council will inspect and function test the pumping system. If the installation is found to be defective with regard to materials, workmanship or not to be in compliance with the specified performance, the Developer/Contractor will be requested (in writing) to remedy the defects without delay.
- 3.4 Once commissioned Fingal County Council will connect the pumping station to its telemetry system and monitor the operational performance of the station. Should the observed trend indicate defects in the sewer network the Developer/Contractor will be requested (in writing) to investigate and remedy the defects without delay.
- 3.5 At each inspection stage, the Developer/Contractor will make available to the Fingal County Council Inspector the Safety File. The File must include all relevant documentation, drawings, standards and certificates that will allow the Inspector to satisfy himself that the equipment and material installed in the pumping station or stored on site comply with the requirements

and standards of this document and any other relevant standards set down by Fingal County Council.

4 Design

- 4.1 These requirements apply to small and medium size submersible pumping stations up to 30 kW or a pump weight of 500kg, with a site constructed concrete or precast sump, valve chamber and control building.
- 4.2 Axial flow pumps or centrifugal pumps should be considered for suitability. If the pumps are designed for dry-well installation, the requirements should be discussed separately with Fingal County Council.
- 4.3 The pumping station should be designed to cater for calculated storm water requirements during wet weather. The design flow should take account of Climate Change, as set out in the GDSDS Technical Document. Fingal County Council requires that drainage system rainfall intensities should be factored up by 20%. However, design flows must be agreed with Water Services Department as variations may be required depending on the catchment.
- 4.4 In cases where the pumped flow is less than 2 l/sec approved propriety pumping systems may be used. These small package pumping stations must comply with the requirements of this document except where the use of macerating pumps and a rising main diameter less than 100mm has been agreed with Fingal County Council.
- 4.5 The equipment and installation must comply with all Statutory Regulations and the latest editions of all relevant Irish and harmonized European Standards. The pumping station must also comply with any special conditions that Fingal County Council may set down from time to time.
- 4.6 The electrical installation must comply with the current requirements of Safe Electric, including, but not limited to:
- i) National Rules for Electrical Installations, current edition and including all amendments.
 - ii) ESB Networks - National Code of Practice for Customer Interface, current edition
- 4.7 The pumping system shall be so designed as to ensure maximum energy efficiency and minimum life cycle costs by optimising the selection of pumps, rising main diameter and control systems.
- 4.8 The layout and positioning of equipment should facilitate its safe and efficient maintenance.
- 4.9 The land on which the pumping station is constructed and the right of access, shall be transferred to Fingal County Council as part of the taking in charge procedure

5 Location

- 5.1 The site shall be chosen so as to provide access for maintenance vehicles (mobile pump and 3/4 axle vacuum tanker) reasonable security and access to the power and telecommunications network.

- 5.2 The pumping station shall not be located closer than 35 metres from any habitable buildings and shall not give rise to noise or odour nuisance.
- 5.3 The type of security fencing, gates and landscaping shall be agreed with Fingal County Council.

6 Sump and Valve Chamber

- 6.1 The sump and valve chamber which are classified as Hazardous Zone 1, shall be of concrete construction, circular or rectangular in design.
- 6.2 The sump design shall allow a free flow to the pumps without the formation of vortices and have an effective volume so as to limit the number of pump starts to ten (10) per hour.
- 6.3 The inflow to the sump shall incorporate a screen.
- 6.4 The sump floor shall be suitably benched to achieve maximum self- cleaning.
- 6.5 Both the sump and valve chamber shall be adequately ventilated.
- 6.6 Access to the sump and valve chamber should minimise the requirement for confined space entry or ladder access.

7 Additional Storage

- 7.1 Any inclusion of additional storage should be discussed and agreed with Fingal County Council in advance of a planning application.

8 Rising Main

- 8.1 The rising main diameter shall be designed to be appropriate to the application.
- 8.2 In certain circumstances, a separate chemical dosing system may be required.
- 8.3 The rising main shall be adequately braced at any change in direction with provision for air valves at high points.
- 8.4 Consideration shall also be given at the design stage to ensure that the effects of hydraulic surge are within the pressure rating of the pipes and fittings. Appropriate equipment should be installed to mitigate significant surge or transients issues.

9 Pumps

- 9.1 Axial flow pumps or centrifugal pumps should be considered for suitability for the required duty/standby pumps.
- 9.2 The pumps shall operate at a maximum speed of 1500 rpm.
- 9.3 The impellers to be keyed to the motor shaft and provide a solids passage of 90mm minimum.

- 9.4 The integrally coupled squirrel cage induction motors to be suitable for a 400v, 3ph, 50hz supply, designed for use in a Hazardous Zone 1 area, with protection as defined in BS EN 60079.
- 9.5 The pumps shall operate near maximum efficiency at the duty point.
- 9.6 The pumps to be equipped with quick release couplings complete with stainless steel guide rails to grade 316L, stainless steel lifting chains, cable suspenders and chain hooks, all to 316L. Oversized loops shall be included on all lifting chains. providing a larger 50mm link at 1m intervals to assist with pump lifting.

10 Pipework and Valves

- 10.1 The pumping station pipework shall be cast iron double flanged PN 16 (minimum).
- 10.2 All pipework shall be adequately braced and assembled with zinc plated bolts, nuts, washers and gaskets.
- 10.3 The pump discharges shall be fitted with gate valves (clockwise closing) and non- return valves BS EN 12334 located in a valve chamber adjacent to the pump sump.
- 10.4 Dismantling joints may be used where appropriate to facilitate valve removal.
- 10.5 The valve chamber shall also house a by-pass connection to the rising main fitted with a gate valve and Bauer coupling.

11 Chamber Covers

- 11.1 The sump and valve chamber access covers shall be hinged, lockable, gas or spring assisted and provide a clear opening of at least 600mm to enable the removal of each pump vertically.
- 11.2 A hinged safety grid shall be provided below the covers.
- 11.3 Where sensors, or other similar small equipment, are included and required to be accessed, appropriate openings shall be included in the hinged safety grid, to avoid the need to open the grid.
- 11.4 The covers shall be capable of taking vehicular traffic, if required, as per D400 Standard.

12 Lifting Equipment

- 12.1 Appropriate lifting equipment shall be provided, suitable for the safe lifting of pumps, covers, and other equipment, where relevant. Lifting equipment should be rated to lift twice the weight of each pump unit / item, subject to a safe working load of 500kg.
- 12.2 Lifting equipment shall be load tested in situ and a test certificate shall be provided.

13 Magnetic Flowmeter

- 13.1 A Magnetic Flowmeter (IP68) shall be installed in a separate chamber adjacent to the valve chamber.
- 13.2 The instrument display shall be mounted in the same enclosure as the ultrasonic unit.
- 13.3 The meter shall record both forward and reverse flow and transmit outputs to telemetry. A daily total shall be recorded by the telemetry system.

14 Control Building / Kiosk

- 14.1 The power supply and pump control panel will be located in a control building or kiosk adjacent to the pump sump, at an adequate level for flood protection.
- 14.2 The building / kiosk shall be sized to accommodate all electrics, telemetry, on site equipment storage, with flexibility for the provision of potential additional future pump controls. It shall be compatible with the surrounding environment/buildings or as directed by Fingal County Council.
- 14.3 Provision shall be made for a meter cabinet(s), main switch fuse, distribution board and earthing as required.
- 14.4 All cables shall be run on cable tray or in trunking within the control building.
- 14.5 A twin 13amp socket outlet, twin polycarbonate fluorescent fitting, 2kw convector heater (with timer) and undersink water heater (for wash-hand basin) shall be provided.
- 14.6 All supplies to this equipment shall be run in 20mm galvanized conduit BS 4568.
- 14.7 Ducting shall be provided for the ESB supply and telephone line (telemetry) to the control building. The ducts between the sump and the control building (minimum cover 600mm) shall be adequately sealed at the sump so as to preserve the control building as a non-hazardous area.
- 14.8 A hose reel shall be located in the control building, or in appropriate proximity to the pumps, to facilitate the washing down of the pumps.
- 14.9 In certain circumstances it may be required to install a w.c. in the control building.

15 Pump Control Panel

- 15.1 The pump operation (duty/standby) or (duty/assist) shall be controlled by means of an ultrasonic level controller with the transducer head mounted in a convenient location in the pump sump. For pumps larger than 5kw, the control panel should be of Form 4 type. Level sensors shall be installed on hinged brackets for ease of access, where not located directly at an opening's edge.
- 15.2 Pump cabling shall be PVC /SWA/PVC to NSAI ETC TC 14 Standards.

- 15.3 Pump and control cables shall be terminated in enclosures to comply with BS 5345 located in a minipillar adjacent to the sump. Enclosure should open away from sump and should not obstruct access to the sump by persons or machinery carrying out maintenance or interfere with the lifting of the pump.
- 15.4 Pump lock-stops shall also be located in this minipillar and shall be ATEX rated.
- 15.5 The control panel shall be a dust and damp-proof enclosure IP 54 as defined in BS 5420, wall mounted. The pump control equipment shall be to BS 4941: Parts 1,2,3 or 4 as appropriate.
- 15.6 An integrated VSD pump control system may be required in certain circumstances.
- 15.7 Control circuit drawings must be approved by Fingal County Council before the manufacture of the control panel. Larger pump stations may be required to be PLC controlled, backed up by UPS and have a HMI. The control panel shall incorporate the following equipment as a minimum:
- Main interlocked isolator
 - DOL or ASD Contactors and Overloads- Drives greater than 5 kW to have ASD starters
 - Ammeters
 - Hours run meters
 - Run lights
 - Trip lights
 - Hand-off-Auto switches
 - Duty select by ultrasonic unit (flip/flop)
 - Reset buttons
 - Moisture/Overheat indicators
 - Ultrasonic control unit
 - Voltmeter c/w select switch
 - Main H.C.R.fuses
 - Control fuses
 - Low voltage transformer 240/24volt
 - Anti condensation heater
 - Phase Failure relay
 - Generator connection /changeover facility
- 15.8 Power Factor equipment (correction to 0.95) to be located in separate enclosure fixed to the main control panel, in instances where VSDs are installed this may not be required.
- 15.9 The power supply to the ultra sonic controller shall be fitted with a surge suppressor.
- 15.10 The telemetry equipment, ultrasonic controller and magnetic flowmeter display units shall be located in a separate enclosure fixed to the main control panel.
- 15.11 The panel(s) shall be complete with labeling, heat shrink cable number and a circuit diagram.

15.12 A Completion Certificate shall be provided for the electrical installation.

16 Telemetry

16.1 The telemetry enclosure shall be fitted with relays to give volt-free contacts, where there is no PLC. Wago blocks will also be needed in this instance. If a PLC is installed it shall be compatible directly with an MMIM.

The following conditions should be included:

- | | |
|------------------------|-------------------------------|
| 1. Pump no.1 run | 7. Pump no.2 overheat |
| 2. Pump no.2 run | 8. Pump no.1 moisture |
| 3. Pump no.1 trip | 9. Pump no.2 moisture |
| 4. Pump no.2 trip | 10. Sump Approaching overflow |
| 5. Phase Failure | 11. Sump overflow |
| 6. Pump no. 1 overheat | |

16.2 Signals from the magnetic flowmeter shall be available at terminals in the telemetry enclosure.

17 Replacement Pump

17.1 A replacement pump of equivalent specification to the duty pumps shall be supplied.

Schedule 2 - Inspection Form

Storm Water Infrastructure TIC Form FCC Taking in Charge Requirements

Notes:

1. To be completed jointly by the Developer & FCC Water Services - This inspection form is to assess condition and compliance with standards of Water Services assets for the transfer of assets to FCC on conclusion of the taking in charge process. It is a visual survey and unless otherwise indicated no testing of the infrastructure was undertaken.
2. All drawings are to be submitted in accordance with the drawing specification outlined in FCC's Guidance document for Taking in Charge.
3. Works are required to be designed and completed in accordance with the Greater Dublin Strategic Drainage Study (GDSDS), 2005, and any subsequent revisions, and the requirements set out in Greater Dublin Regional Code of Practice for Drainage Works.

Completion Colour Code:

Developer

FCC Water Services Section

Planning Authority:

Fingal County Council

Planning Ref. No(s)

Development Name:

Number of Units:

Length of Roadway (if available):

Geo References (Site Centroid):

Development Address:

Name of Developer :

Application Received from:

Is there a current Bond in Place:

Yes ☐

No ☐

If Yes, Value of Bond

Phase of Bond, if relevant:

Bond type, Cash/Insurance/Other:

Expiry Date of Bond Claims:

Name of Financial Institution:

Date of Inspection:

Initial:

Follow up:

The table hereunder is a checklist to be utilised to assist in the site inspection and is a measure of the information on storm water infrastructure.

Engineers and Architects Certificates	Available			Inspection		Comment
	Yes	No	N/A	Pass	Fail	
Copies of submitted certificates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Developer to provide
Copies of submitted reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Developer to provide
General - As Constructed Drawings	Available			Inspection		Number
	Yes	No	N/A	Pass	Fail	
Electronic copy submitted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Developer to provide original drawing format (DXF/DWG) and PDF version
Hard Copies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Developer to provide
General - Site Layout Drawings	Available			Inspection		Comment
	Yes	No	N/A	Pass	Fail	

Schedule 2 - Inspection Form

Indicate extent of roads and lands and infrastructure to be taken in charge						Developer to provide original drawing format (DXF/DWG) and PDF version
Indicates House Numbers, where applicable						Developer to provide
Details pre-existing topography, services, water courses etc.						Developer to provide
Existing wayleaves or other burdens on lands						Developer to provide
Storm Water Network - As Constructed	Available			Inspection		Comment
	Yes	No	N/A	Pass	Fail	
Plan of storm water network						Developer to provide original drawing format (DXF/DWG) and PDF version
Longitudinal sections showing gradient of pipeline, pipe diameter and pipe type						Developer to provide original drawing format (DXF/DWG) and PDF version
Route, diameter and class of pipelines indicated						Developer to provide
Location of manholes including finished ground/cover level and invert level are identified on plan						Developer to provide
Summary of manhole type, grade, standard and condition of all covers and frames						Developer to provide
Gully Details (Frame, grating, connections, positioning, spacings) to be provided to the Roads Department						Developer to provide
Connection and discharge points noted. Indicate location and route of any connections from individual properties to storm water network						Developer to provide
Details of storm water network abandonment, if applicable						Developer to provide
Assessment on the need for petrol interceptors						Developer to provide
Test Certificates	Available			Inspection		Comment
	Yes	No	N/A	Pass	Fail	
Pipelines - Air tests to BE EN 1610						Developer to provide
Surveys	Available					Comment
Storm Water Network	Yes	No	N/A			
CCTV Survey-with reports including classification of all defects and defect grading (in line with current Water Research Centre (WRc) specifications)						Developer to provide
Manhole Survey-visual check on benching, infiltration, cover and biscuit integrity and flushness with surface, accessibility, subsidence, cracking, ponding.						Developer to provide
Dye tests- 1 in 10 premises to be subject to dye test						Developer to provide
Pressure testing of storm water rising mains - Testing of rising mains shall be undertaken in accordance with ING 4-01-03 Guide to Testing of Pressure Pipes and Fittings for Use by Public Water Suppliers.						Developer to provide
Random check of manholes for presence of foul sewage. (1/10).						

Schedule 2 - Inspection Form

	Water sample to be taken from the outfall / end connection point of the storm water main and tested for the presence of any contamination which may indicate misconnections with the foul sewer.						
	Wayleaves and Easements	Available			Inspection		Comment
		Yes	No	N/A	Pass	Fail	
	Copies of all wayleaves, burdens, land transfers and other document pertinent to development to be submitted.						<i>Developer to provide</i>
	Service History	Available			Inspection		Comment
		Yes	No	N/A	Pass	Fail	
	Detail significant sewer blockages / bursts / issues						
	Flooding risk or potential						
	Overflow / Discharge locations						
	Pumping Stations, if applicable	Available			Inspection		Comment
		Yes	No	N/A	Pass	Fail	
	Storm Water Pumping Station site plan showing levels, site boundary, manholes and pipelines						<i>Developer to provide</i>
	As constructed drawings and specifications to include type and size of pumps; pump capacity and pump curve, emergency overflow, wiring diagrams for control panel and switch gear; telemetry system; lifting equipment including certification of same.						<i>Developer to provide</i>
	Reports associated with supervision of installation						<i>Developer to provide</i>
	Provide results of testing of all pumping stations sumps, wet wells, and other water retaining structures						<i>Developer to provide</i>
	Operational Arrangements (Council/Developer/Service Contract)						<i>Developer to provide</i>
	Performance issues-Where Council have intervened						<i>Developer to provide</i>
	MPRN and Account Holder Details from electricity account						<i>Developer to provide</i>
	Actual or estimated annual consumption from Electricity bill.						<i>Developer to provide</i>
	Sketches Attached (optional): <div> <div>Yes</div> <div></div> </div> <div> <div>No</div> <div></div> </div>						
	Conclusion: <div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>						
	Recommended time frame for execution of water service remedial works: <div> <div></div> <div></div> </div>						
	Anticipated costs for remedial works to water service infrastructure: <div> <div></div> <div></div> </div>						

Schedule 2 - Inspection Form

<input type="checkbox"/>	Proceed to take in charge:	<input type="checkbox"/>
	<i>or</i>	
<input type="checkbox"/>	Works required prior to taking in charge:	<input type="checkbox"/>
<input type="checkbox"/>	Signed: _____	<i>By Senior Engineer, Water Services</i>
<input type="checkbox"/>	Grade: _____	
<input type="checkbox"/>	Date: _____	

Note: Please attach copies of all reports, drawings, surveys etc with completed forms.