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Appendix A
Construction Environmental Management Plan

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Construction Environmental Management Plan - Updated

Herbata Data Centre Campus

Naas, County Kildare
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Foreword

This revised document highlights (in red text) the proposed amendments to the initial report submitted for planning submission following the Request to Further Information (RFI).

This report is an updated version of a report previously submitted to Kildare County Council (KCC) as part of a planning submission Ref: 2460740, for Herbata Ltd for their proposed data centre campus (the Proposed Development) at Jigginstown near Naas, Co. Kildare.

HDR had been commissioned by Herbata Ltd to undertake an assessment of the Proposed Development against Ireland's current national, and local energy, climate, and planning policies.

In response to the planning submission, a series of Request to Further Information (RFI) have been made by KCC, a number of which relate to Energy Policy; Herbata has therefore asked HDR to review these requests and update this report accordingly.

This report has been updated to reflect changes made to the proposed sitewide layout. Those changes are as follows:

CCGT & Water Demand

The inclusion of Combined Cycle Gas Turbines has necessitated the addition of supporting service compounds to the masterplan, specifically at the rear of DC1-3, DC5, and DC6. For DC4, the service compound has been integrated within the building envelope. This modification has affected the placement of the Sprinkler Tank and Fuel Compounds. Additionally, the introduction of Combined Cycle Gas Turbines has led to the incorporation of rainwater harvesting drainage and underground water storage units to meet the Industrial Process Water Demand.

DC 4 Hall

Following additional archaeological survey studies, an additional archaeological feature was identified at the southern corner of the previously designated location of DC4. As a result, the size of DC4 has been significantly reduced in size and shape, leading to necessary adaptations to the perimeter road, attenuation pond, fence line, and the main access road running through the site.

Cycle and Pedestrian areas

Following consultation with Transportation Infrastructure Ireland, the cycle and pedestrian lane along the R409 have been revised to pass behind the proposed bus stop. Additionally, the alignment of the cycle and pedestrian lane has been set back from the main entrance and egress of the site, enhancing visibility for passing vehicles intending to enter.

This report has been updated to address RFI Item No 11 in response to KCC's requests, please red text in the following sections for detail:

RFI Item No. 11

Figures 6- 6 to 6-8 - Updated to reflect most up to date masterplan overlay

2 Summary of Mitigation Measures – EIAR Addendums cross referenced.

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1 Introduction

This document comprises a Construction Environmental Management Plan (CEMP) for the Herbata Data Campus Project. It is a 'live' document and will be updated as the project progresses, including incorporating the requirements of conditions attached to statutory consents granted in respect of the Herbata Data Campus Project.

A Construction Environmental Management Plan provides a framework from which a final Construction Environmental Management Plan (CEMP) will be developed to avoid, minimise, or mitigate any construction effects on the environment. The Contractor is required to develop and implement this Construction Environmental Management Plan to help ensure that construction activities are planned and managed in accordance with the environmental requirements identified within and the relevant guidance and legislation.

The Project Manager/Construction Manager would have overall responsibility for the construction of the proposed development. A full-time Environmental Manager would be responsible for developing and implementing the Final CEMP (and its various potential iterations as it is a 'live' document) during construction. Other members of the project team would be assigned specific roles to assist the Project Manager in the implementation of the Final CEMP and individual specialists would be appointed to provide expert advice.

This CEMP sets out the minimum requirements which will be adhered to during the construction phase of the Herbata Data Campus Project. Herbata seeks to achieve the highest possible standards of environmental management during both the construction and operation of the proposed Data Campus infrastructure redevelopment.

The CEMP comprises two main parts.

- Summary of Mitigation Measures (Chapter 2)
- Management of Environmental Impact (Chapter 3)

All mitigation measures and monitoring requirements proposed within the Environmental Impact Assessment Report (EIAR) are contained in Chapter 2.

The CEMP will form part of the Contract Documents for the construction stage to ensure that the Contractor undertakes the works required to implement the mitigation measures.

The objective of Chapter 3 of the CEMP is to prepare a suite of Construction Phase Management Plans which will be finalised upon the grant of development consents. The content of these Management Plans is presented in the CEMP, submitted in support of the planning application. A Final CEMP, including the designation of an Environmental Manager for the development, shall submitted to, and agreed in writing with the KCC; this is anticipated as a condition of any forthcoming planning approval.

The Final CEMP shall contain, as a minimum, all the mitigation, and avoidance measures to be employed as outlined in the EIAR. Mitigation measures will be implemented by the contractor who will construct the development in accordance with the requirements listed within the Final CEMP. The appointed contractor will be named and take ownership of the Final CEMP.

This document also references in the provision of utility supplies to the site and discusses both the on-site and off-site (highways) work that is to be carried out.

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1.1 Environmental Guidance - Guidance for Pollution Prevention (GPP) and Pollution Prevention Guidelines (PPGs)

The mitigation measures implemented by the contractor will refer to the construction management procedures for best practice regarding the following, recognised international guidelines:

- Good practice guidelines on the control of water pollution from construction sites developed by the Construction Industry Research and Information Association (CIRIA, 2001);
- Control of Water Pollution from construction sites, Guidance for consultants and contractors (C532);
- Environmental Good Practice on Site (3rd edition) (C692); and
- Guidelines on Protection of Fisheries During Construction Works and Adjacent to Waters (2016).

In addition, it is good practice to take note of the Guidance for Pollution Prevention (GPPs) documents (although these are United Kingdom based documents) as these GPPs have detailed best practice with regards to managing risks to the water environment. The proposed works will demonstrate adherence to good working practices as detailed in current guidance in the GPP and PPGs below:

GPP 1: Understanding your environmental responsibilities - good environmental practices.

A basic introduction to pollution prevention, with signposts to other PPGs and publications. (October 2020)

GPP 2: Above ground oil storage tanks

For above ground oil storage, excluding oil refineries and distribution depots. (January 2018)

GPP 3: Use and design of oil separators in surface water drainage systems.

For identifying where an oil separator is required and, if so, what size and type of separator is appropriate. (March 2022)

GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer.

For selecting the correct sewage disposal, treatment and disposal options, and maintenance and legal requirements. Also, for what to have in mind, in terms of wastewater treatment, when buying a house. (November 2017)

GPP 5: Works and maintenance in or near water

For construction or maintenance works near, in, or over water. (February 2018)

PPG 6: Working at construction and demolition sites.

For the construction and demolition industry. (2012)

PPG 7: Safe storage - The safe operation of refueling facilities.

For operators of liquid fuel refueling facilities, it applies to all types of fixed refueling facilities. (July 2011)

GPP 8: Safe storage and disposal of used oils

For storing and disposing of used oils. Applies to activities ranging from a single engine oil change to those of large industrial users. (July 2017)

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PPG 18: Managing fire water and major spillages.

For identifying equipment and techniques available to prevent damage to the water environment caused by fires and major spillages. (June 2000)

GPP 20: Dewatering underground ducts and chambers.

For dewatering underground ducts and inspection chambers. (January 2018)

GPP 21: Pollution incident response planning

For producing emergency pollution incident response plans to deal with accidents, spillages, and fires. (June 2021)

GPP 22: Dealing with spills.

For anyone who is responsible for storing and transporting materials that could cause pollution if they spill. (October 2018)

PPG 26: Safe storage - drums and intermediate bulk containers

For site operators of industrial and commercial premises storing and handling drums and intermediate bulk containers (IBCs) containing oil, chemicals, or potentially polluting substances. (February 2019).

PPG 27: Installation, decommissioning and removal of underground storage tanks.

For installing, removing, and decommissioning all underground storage tanks (USTs), including those containing petroleum, diesel, fuel oil, aviation fuel, waste oil, domestic heating oil and other potentially polluting materials such as organic solvents. (April 2002).

2 Summary of mitigation measures (Chapter 2)

The EIAR assesses the likely significant impacts arising from the Herbata Data Campus Project. Integration of the engineering design team with the planning and environmental team from an early stage in the Project. This has enabled mitigation and or reduced impact to the environment during the stage 2 design stage.

Table 2-1 summarises the mitigation measures and monitoring as recommended within the EIAR.

Table 2-1. Mitigation measures and monitoring recommended within the EIAR.

Potential Impact	Summary of Proposed Mitigation
EIAR Chapter 5 Biodiversity	
Risk of disturbance or damage to nesting birds	All vegetation works (clearance and/or felling of trees and vegetation) are between 1st March and 31st August (nesting season) is prohibited.
Risk of disturbance or damage to roosting bats	• Demolition of any building with a known bat roost will take place between March - mid- May or September - October inclusive to avoid the bat maternity and hibernation seasons. • A NPWS bat roost derogation/roost exclusion licence will be obtained prior to the commencement of demolition. • Prior to the demolition of any structure on site a licenced ecologist will thoroughly search for the presence of roosting bats using an endoscope and torch. If bats are found to be present during demolition, species rescue and translocation will be carried out using gloves, and the bat(s) carefully transported to a nearby artificial bat roost. If a bat(s) is found roosting where it cannot be safely removed by hand, or where there are features with potential to conceal a roosting bat which cannot be sufficiently searched to confidently confirm that roosting bats are absent from the cavity, a bespoke designed bat exclusion device will be fitted around the roost entrance. • All trees which have been confirmed to have Moderate or High bat roosting suitability will either have a dawn re-entry survey carried out or be inspected using an endoscope by a licenced ecologist immediately prior to felling. If any bats are found and cannot be safely removed by hand, the same measures stated above for structures will be applied. • Bat roost boxes and bat house structures are proposed to compensate for the loss trees with bat roost potential. • Artificial lighting will only be installed where and when necessary. There will be no direct illumination of any artificial bat roosts. Lighting will be avoided in areas where existing trees are to be retained and in areas proposed for native woodland buffer planting
Risk of disturbance or damage to other protected species	Whilst no other protected species were identified during baseline habitat surveys in 2022 – 2023, an updated survey will be undertaken by an appropriately qualified ecologist, in advance of (Phase 1) construction works.
Risk of sediment and / or pollution ingress into watercourse impacting upon good ecological status and downstream salmonid waters.	See mitigation set out under EIAR Chapter 7 Water Quality and Hydrology
EIAR Chapter 6 Lands, Soils and Hydrogeology	
Risk of sediment and / or pollution ingress into watercourse	The 10m riparian protection zone should be clearly demarcated in advance of (Phase 1) construction work with demarcation maintained throughout construction phase. No construction works (including excavation, stockpiling, storage of plant or materials) shall occur within the riparian buffer zone. The open cut crossing to facilitate construction of the foul sewer / fibre cable connection will be undertaken in dry conditions.
Export of spoil material	A cut and fill balance should be achievable across the site with the no excavated material being removed from the site.
Contamination	No contaminated land was identified during the pre-construction SI works; if any hitherto unknown contamination is discovered during construction phase, updated and specific proposals will be prepared as part of a revised CEMP. This will facilitate the management of any contaminated material if it is unexpectedly excavated as part of the construction works.

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EIAR Chapter 7 Water Quality and Hydrology	
Risk of sediment and / or pollution ingress into watercourse impacting upon good ecological status and downstream salmonid waters.	• Drainage and measures to control run-off will be employed to manage sediments prior to any works to be undertaken at the site. • The site shall be surveyed to identify all existing drainage features and waterbodies. • Work to culverts will be undertaken in dry conditions utilising open-cut methodology with temporary damming and fluming of the relevant lengths of watercourse. • Works within the channel of a watercourse with sensitive fish present will be carried out during the period July to September; any requirement for works to be conducted earlier will seek approval from IFI. • To ensure that the biological elements of the ecological status are not impacted the risk of the potential loss or crushing of sensitive fish in the vicinity of the culvert crossings should be mitigated before in-channel works commence by their capture and translocation distantly away from the works area. Authorisation via Section 14 of the Fisheries Act will be required from IFI and should be conducted using a competent fisheries expert, with the application made at least 12 weeks prior to works commencement. • Silt fencing will be installed at strategic locations around the perimeter of the site. • There will be no direct pumping of silty water from the works directly to any watercourse. All water from excavations must be treated by infiltration over lands or via settlement areas, silt busters etc. • During the construction phase of the development, all silt/ pollution removal strategy structures shall be constructed/ installed outside the extent of the riparian buffer which has been determined as 10m from the Bluebell Stream bank
Risk of concrete and cement pollution ingress into watercourse impacting upon good ecological status and downstream salmonid waters.	• A concrete washdown area will be provided on site for trucks to use after delivery of concrete or on return to the batching plant. This area will be adequately bunded. Concrete trucks are to be washed down within the concrete truck washdown area after delivery of concrete, prior to exiting the site. Washdown runoff will be appropriately treated prior to discharge; • Wash-out areas on site will be designed with an impermeable line to contain all cement laden water. No wash-out of ready-mix concrete vehicles shall be located within 10 meters of any temporary or permanent drainage features. Signage shall be erected to clearly identify the wash-out areas. • The installation of the box and pipe culverts, including the concrete required for the binding will be undertaken in dry conditions through the damming and fluming of the minor water course, to prevent wet concrete from entering the aquatic environment.
Risk of pollution ingress from general construction works into watercourse impacting upon good ecological status and downstream salmonid waters.	• Management and auditing procedures, including toolbox talks to personnel, will be put in place to ensure that any works which have the potential to impact on the aquatic environment are being carried out in accordance with the contactor's environmental controls, which will be consistent with an approved CEMP and any planning conditions; • New metal gerry cans with proper pouring nozzles will be used to move fuel around the site for the purposes of refueling items of small plant on site. Metal gerry cans and any other items of fuel containers will be stored in certified metal bunded cabinets. • Drip trays will be always used under items of small plant. Any waste oils etc. contained in the drip trays or the bunded area will be emptied into a waste oil drum, which will be stored within the bund. • No bulk chemicals will be stored within the active construction areas. Temporary oil and fuel storage tanks may be kept in the material storage area in suitable containers and will be stored on appropriately bunded spill pallets as required. • Spill protection equipment such as absorbent mats, socks and sand will be available to be used in the event of an accidental release during refueling. Training will be given to appropriate site workers in how to manage a spill event. A hazardous bin will also be available to contain any spent sand or soak pads. • Refueling will be undertaken off site where possible; • Where mobile fuel bowsers are used the following measures will be taken: – Any flexible pipe, tap or valve will be fitted with a lock and will be secured when not in use; – The pump or valve will be fitted with a lock and will be secured when not in use; – All bowsers to carry a spill kit and operatives must have spill response training; and – Portable generators or similar fuel containing equipment will be placed on suitable drip trays
EIAR Chapter 8 Air Quality	
Construction phase has the potential to result in impacts upon sensitive receptors in respect of dust	A Dust Management Plan (DMP) will be prepared by the appointed contractor. The DMP will at a minimum include the following mitigation measures listed below to minimise and manage potential dust emissions in respect of earthwork.
Dust & Air Quality Impacts Communications	With respect to communications, the following will be implemented: • Develop and implement a stakeholder communications plan that includes community engagement; • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the Site Manager; • Appropriate training will be provided to all staff to ensure that they are aware of and understand the dust control and other environmental control measures; and, • Display the head or regional office contact information.

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Dust & Air Quality Impacts Site Management -General provisions	With respect to site management, the following will be implemented: • Daily visual inspections of the site and site boundary for evidence of dust depositions will be made. A dust inspection of the site will be undertaken by a suitable person, trained, and nominated by the site manager. Increase frequency of site inspections will be undertaken when activities with a high potential to produce dust are being carried out, such as earthworks activities, power tool use and during prolonged windy or dry condition. • Recording of all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. • Complaints record available to the relevant regulatory authorities as necessary. • Record any exceptional incidents that cause dust and/or air emissions, either on or offsite, and the action taken to resolve the situation in an environmental logbook. • Avoid site runoff of water or mud. • Use covered skips. • No bonfires and burning of waste materials on site. • Passive monitoring at site boundary for the duration of the demolition earthworks • Keep surfaces such as site fencing, and barriers clean using wet methods.
Dust & Air Quality Impacts Earthworks	With respect to earthworks, the following will be implemented: • Disturbance of the ground will be kept to a minimum wherever possible; • Soil handling should be restricted during adverse weather conditions such as high winds or exceptionally dry spells – depending on outcome of walk over survey identifying any potential issues; • Minimise drop heights from loading or handling equipment/materials and use fine water sprays on such equipment wherever appropriate; • Dampening methods will be used where necessary; and, Methods and equipment will be in place for immediate clean-up of spillages of dusty or potentially dusty materials.
Dust & Air Quality Impacts and emissions due to traffic	See EIAR Chapter 12 Traffic and Transportation
EIAR Chapter 9 Noise and Vibration	
Construction phase has the potential to result in impacts upon sensitive receptors in respect of associated noise and vibration	British Standard BS5228:2009+A1:2014 - Noise and vibration control on construction and open sites. The measures, which will be applied, include: • Ensuring mechanical plant and equipment used for the purpose of the works are fitted with effective exhaust silencers and are maintained in good working order, • Careful selection of quiet plant and machinery to undertake the required work where available, • All major compressors will be sound reduced models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, • Any ancillary pneumatic percussive tools will be fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, • Any ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers, • Machines in intermittent use will be shut down in the intervening periods between work, • Ancillary plant such will be placed behind existing physical barriers, and the direction of noise emissions from plant including exhausts or engines will be placed away from sensitive locations, • Audible warning systems will be switched to the minimum setting required by the Health and Safety Authority
EIAR Chapter 10 Cultural Heritage	
Construction phase has the potential to impact upon previously unrecorded subsurface archaeological remains through excavation and earthworks, placement of plant and materials and / or other construction activities	No construction works shall be undertaken before implementation of an agreed Program of Archaeological Works (PoAW) which will comprise of the following measures: • Works will be undertaken under licence from National Monument Service (NMS). • Works will be undertaken under supervision of an appropriately qualified archaeologist. • Topsoil stripping of test trenches shall be undertaken by a 360° track machine fitted with a toothless ditching bucket under supervision. • Topsoil will be stripped in a controlled manner to the uppermost archaeological horizon or natural geology, whichever is encountered first. Should any substantial archaeological discoveries be made, the archaeologist will have the authority to take the necessary time to conduct a preliminary evaluation of the character of the find (by hand). During this time, the area may be cordoned off and access will be denied until the find has been resolved. The archaeologist will also be afforded a suitable amount of time to undertake the appropriate level of recording, which will ultimately depend on the nature and extent of the find. All archaeological features identified will be cleaned, photographed, recorded in plan and all surface finds (artefacts) collected. If isolated archaeological features are identified the archaeologist shall be able to investigate such features. Full excavation and record of features shall only be done in agreement with NMS.

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Impact to archaeological remains	• The fulacht fia (KD019-028----) located within the development area will be preserved *in situ* as an undeveloped greenspace. A minimum 5m buffer from the outer edge of the archaeological site will be established prior to any construction works commencing within the site. • The c.5m buffer around fulacht fia (KD019-028----) will be fenced-off prior to the commencement of construction to protect the site during works. This fence shall remain in place until all development works have been completed. The fencing will be erected under archaeological supervision and no construction related activities, such as machine movements, dumping of spoil or storage of materials will occur within the fenced-off area.
EIAR Chapter 11 Landscape and Visual	
Proposed development has the potential to impact upon sensitive (residential) receptors during construction phase	The clearance of the existing site and subsequent construction works will be restricted to land within the site boundary. Construction phasing will be structured where possible to allow the early completion of landscape areas facilitating the establishment of planting and screening, ensuring the early establishment of the overall site.

EIAR Chapter 12 Traffic and Transportation	
Construction phase has the potential to cause disruption to the surrounding road network through the delivery of materials and plant, movement of plant and machinery and the movement of construction workers	With respect to vehicle movement and vehicle emissions, the following will be implemented: • Implement a wheel washing system until earthworks are completed. Wheel wash system should have an adequate amount of hard surface between it and the Site exit; • Transportation of dusty/fine materials will be conducted in enclosed or sheeted vehicles; • An onsite speed limit (to be displayed) will be implemented by the main contractor that will be appropriate to the types of construction plant utilised; • Regular cleaning and maintenance of site roads as appropriate. Hard surface roads should be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic only; • Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary; • Ensure all vehicles switch off engines when stationary and not in immediate use - no idling vehicles (emissions to air controlled); • All plant utilised should be regularly inspected (emissions to air controlled); • Visual monitoring of plant will include: Ensuring no black smoke is emitted other than during ignition (emissions to air controlled); • Ensuring exhaust emissions are maintained to comply with the appropriate manufacturers' limits (emissions to air controlled); and, • Vehicle exhausts will be directed away from the ground and other surfaces and preferably upwards to avoid road dust being re-suspended to the air. • Avoid the use of diesel- or petrol-powered generators where possible, using mains electricity or battery powered items where practicable; • Impose and signpost a speed limit of 20 km/hr on sealed surfaces and 15 km/hr on unsealed surfaces.

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EIAR Chapter 13 Material Assets - Built Services	
Impacts from Surface Water	See EIAR Chapter 7 Water Quality and Hydrology
Impact to Foul Drainage	During construction, all new sewers shall be pressure tested and CCTV surveyed in accordance with the Uisce Eireann Standards to identify potential defects and such defects should they arise, shall be repaired prior to the connection
Impact to Water Supply	During construction, the watermains shall be tested in accordance with the requirements of Irish Water prior to connection.
EIAR Chapter 14 Population	
Impact to the local population	The main impacts relating to population are associated with water, air quality, noise, and traffic during the construction phase. Refer to EIAR Chapter 8 Air Quality, EIAR Chapter 9 Noise and Vibration and EIAR Chapter 12 Traffic and Transportation

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EIAR Chapter 15 Human Health	
Impact to Transport modes, access, and connections	• During construction advertise lane closures in advance so road users are forewarned and can manage commute to work effectively. Ensure that early and ongoing sharing with emergency and healthcare services regarding any temporary road closures, diversions, or lane closures. This measure would be secured by a Construction Travel Management Plan. • Ensure suitable pedestrian access is maintained for diversions of any temporary route closures and provide appropriate wayfinding information for temporary diversions during construction and decommissioning, such as being advertised online and signposting, including approximate journey times on the routes. Wayfinding for circular walks or to destinations should be clearly signposted. This measure would be secured by a Construction Travel Management Plan.
EIAR Chapter 16 Climate Change	
	Materials will aim to reflect local sustainable manufacturing sources and support low carbon green initiatives, such as: • All timber and wood-based products will be responsibly sourced (e.g. FSC or PEFC); • Insulation materials and building services will be specified with low embodied environmental impact; • Locally sourced construction materials will be preferentially used, with priority to the use of prefabricated elements where possible; • Specification of recycled and reused materials will be a main design consideration where feasible; • The buildings will be 'designed for robustness' to ensure that damage to the building due to wear and tear, for example in areas of heavy usage, are minimised and can be repaired with minimal environmental or cost impact; • Construction of components off-site and use of prefabricated elements where feasible; • Concrete for certain types of foundations and preparatory foundations works can be specified with recycled aggregates where feasible; and • Where available, reinforcement for concrete is to be specified with 95% recycled content. • Similarly, steelwork will be specified with a 95% recycled content where available.

Further reference should be made to the EIAR Addendums relevant to those summarised chapters above, they are:

- FI_EIAR Chapter 1 Introduction and Need for the EIAR Addendum D.06
- FI_EIAR Chapter 4 Description of the Project and Need for the Project D.07
- FI_EIAR Chapter 5 Biodiversity D.05
- FI_EIAR Chapter 9 Noise and Vibration D.06
- FI_EIAR Chapter 10 Cultural Heritage D.08
- FI_EIAR Chapter 11 Landscape and Visual D.05
- FI_EIAR Chapter 12 Traffic an Transportation D.04
- FI_EIAR Volume I Main Text_Cover & Contents Page D.01

3 Management of Environmental Impact (Chapter 3)

3.1 Roles and Responsibilities

Herbata intends to appoint a Contractor(s) to undertake each phase of the works. Mitigation measures set out in the CEMP will form part of the Contract Documents for the construction stage to ensure that the Contractor undertakes the works required to implement the mitigation measures.

Herbata is to establish a liaison group for the Herbata Data Campus Project which includes representatives of Herbata, the Contractor, KCC and The Department of Housing, Planning and Local Government (DHPLG). The group is proposed to meet at quarterly intervals each year with an agenda and minutes taken of the meetings. It is proposed that this liaison group will also provide environmental oversight of the construction phase of the Herbata Project.

Herbata is to appoint a suitably qualified person to the role of Environmental Facilities Manager (Environmental Clerk of Works) to monitor the Herbata Data Campus Project construction works. The Environmental Facilities Manager is to provide monthly reports to the members of the liaison group.

The Environmental Facilities Manager will collaborate closely with the contractor's site supervisors to monitor activities and ensure that all relevant environmental legislation is complied with and that the requirements of the CEMP are implemented. The Environmental Facilities Manager will have the authority to review method statements, oversee works and instruct action, as appropriate, including the authority to require the temporary cessation of works, where necessary.

3.2 Hours of Working

Where construction activity takes place for the development in the vicinity of residential properties, the activities will operate between the hours of 08:00 and 18:00 on Monday to Fridays, between 08:00 and 13:00 on Saturdays and there will be no activity on Sundays or Bank Holidays in accordance with the requirements of the EIAR.

Where additional or alternative working hours are required, a request for derogations to work outside the permitted working hours will be submitted to KCC at least five working days in advance. The request will be supported by a detailed case including an Engineering report explaining the requirement to work outside the permitted working hours and listing proposed dates with commencement and finishing times.

All affected residents and stakeholders shall be notified on receipt of any approved derogations including the rationale for the extended working hours.

3.3 Environmental Management System

3.3.1 Background

To safeguard local amenities and protect the environment, the Herbata Project will be operated and managed in accordance with a comprehensive Environmental Management System (EMS). An annual audit report for the EMS will be made publicly available.

This section sets out the systems already in place.

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3.3.2 EMS Certification

Herbata will have a comprehensive Environmental Management System (EMS) in place before the construction phases commence, which will be certified to international standard ISO 14001. An EMS Manager is to oversee the implementation of the system.

The EMS is comprised of the following elements:

- Planning: identification of legal requirements, objectives and targets and establishment of management program.
- Implementation and operation: training of appropriate personnel, record keeping and establishment of emergency planning.
- Checking and Corrective action: auditing EMS, implementing corrective actions.
- Management review: assessment of EMS (i.e., objectives and targets) relevant to operations and defined policy.

The Herbata Project will be incorporated into the scope of the EMS.

3.3.3 EMS Purpose

The ISO 14001 internationally certified Environmental Management System operated by Herbata provides a comprehensive framework within which Herbata conducts its operations and activities to the highest environmental standards and in a sustainable manner. It is a systematic framework to manage the immediate and long-term environmental impacts of Herbata's products, services, and processes. Its ongoing implementation ensures that Herbata's environmental footprint is minimised, the risk of pollution incidents is diminished, and ensures compliance with relevant environmental legislation.

Herbata's Environmental Management Manual (EMM) describes in detail how the EMS identifies and manages significant environmental issues associated with Herbata's activities and will include the Herbata Project, and consequently how it applies environmental awareness and responsible decision making in all its procedures. The EMM and associated documented procedures are intended to facilitate effective and efficient management of the environmental aspects.

Herbata is committed to implementing this EMS in relation to all its activities to prevent any significant adverse environmental effects.

3.3.4 Environmental Facilities Manager

Herbata will appoint an Environmental Facilities Manager (Environmental Clerk of Works) to monitor and to assess the environmental implications of all construction works associated with the Herbata Project. The Environmental Facilities Manager will collaborate closely with the Contractors' site supervisors to monitor activities and ensure that all relevant environmental legislation and EMS protocols are complied with, and that the requirements of the CEMP are implemented.

The Environmental Facilities Manager will review method statements, oversee works and instruct action, as appropriate, and has the authority to require the temporary cessation of works, where necessary.

3.3.5 Herbata Data Campus Project – EMS Implementation

The Herbata EMS Manager will provide EMS induction to the Environmental Facilities Manager once appointed.

Relevant documents will be reviewed by the Environment Facilities Manager in the context of the Herbata Data Campus Project. This review will identify further new environmental considerations to be considered arising from the Herbata Data Campus Project. The objective is to identify additional aspects and controls for inclusion in the Environmental Aspects register and revise the environmental audit checklist to ensure comprehensive coverage of the Herbata Project scope of work.

The environmental legal register will be reviewed and additional legislative requirements to the Herbata Project identified at the later stages.

As part of the ongoing implementation of the EMS in relation to the Herbata Project, the Environmental Facilities Manager will participate in Herbata's Capital Projects Internal Audit and will fully implement the EMS and engage in all EMS procedures and protocols as required.

3.3.6 EMS Scope

The Environmental Management Manual sets out the scope of the EMS and specifically includes management, maintenance, and development of port infrastructure: including roads, ramps, drainage system, selected utilities under the roads alignment (mains water supply), buildings, piles, and hydrographical surveys.

3.3.7 EMS Implementation and Operation

The EMS is managed by the Environment, Health and Safety Specialist and relevant management personnel. The Environmental Management Manual sets out the overall structure for implementation and defines the roles and responsibilities of personnel in relation to the EMS.

The Herbata Project will be supported by its own dedicated Environmental Management Team. Additional expertise will be available as required when phased project elements come on-stream over the lifetime of the project.

The Environmental Facilities Manager will be the designated point of contact with the EMS Management Team. An Environmental Compliance Process Flow Diagram will be prepared by Herbata's Program Management Office for the Herbata Project. It will outline the stages in the process of environmental planning, assessment, and reporting for Herbata Data Campus Project construction activities.

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The process begins at the procurement tendering stage and covers the process of environmental management plan development and approval, the audit and inspection schedule roles, and reporting mechanisms. All Contractors will be made aware of Herbata's environmental policy, the EMS and Herbata environmental point of contacts.

The Environment, Health and Safety Specialist will conduct an internal environmental audit of the Herbata Data Campus Project every six months. Additional audits of Herbata Data Campus Project construction activities will be completed by the Environmental Facilities Manager every three months initially. However, if many non-conformances are identified, this frequency will be increased in consultation with the EHS Specialist.

3.3.8 EMS Documentation

EMS specific documentation is maintained by the EMS Manager. This documentation is subject to periodical review and amendments to reflect new operations or activities carried out by Herbata, changes in legal requirements and development of the system. Such a review process will be undertaken at the beginning of the Herbata Data Campus Project and will be ongoing throughout the life of the project.

3.3.9 EDEN

Herbata are registered on Environmental Data Exchange Network (EDEN) portal.

Herbata are aware that all information submitted via the Eden system can be viewed by members of the public on request at any EPA office. Some information such as environmental reporting is made available on the EPA licensing web page. The EPA will be informed if any information submitted is deemed to be confidential.

4 Approach to Community Engagement

This section sets out Herbata's approach to community engagement with respect to the Herbata Data Campus Project

4.1 Arrangements to Engage with Neighbouring Communities

A Community Liaison Committee (CLC) is to engage with the neighbouring communities. The CLC provides an opportunity to inform the neighbouring communities of the Herbata Data Project. Campus Project, to communicate work programs and to engage with community representatives to resolve any potential concerns or issues arising.

A separate River Users Group is to be setup to co-ordinate activities and to resolve any potential issues arising between Herbata and other users of the Bluebell Stream.

Both above forums are well established, are working to the satisfaction of the local communities and provide strong lines of communication between Herbata and the neighboring communities to the Herbata Data Campus Project.

4.2 Herbata Data Campus Project Liaison Group

Herbata has an established liaison group for the Herbata Data Campus Project. It comprises the following representatives:

- Herbata.
- KCC.
- Main Contractor when appointed.
- Environmental Facilities Manager; and
- Herbata Environment, Health & Safety Manager.

The objective of the liaison group is to provide a forum to discuss the progress of the construction works, program and any issues arising. The group meets quarterly with an agenda and minutes taken of the meetings.

5 Construction Environmental Management Plans

The Contractor once appointed is to update the CEMP for their construction phase of the Herbata Project. The appointed contractor will be named and take ownership of the Final CEMP.

The Final CEMP shall contain as a minimum all the mitigation, and avoidance measures to be employed as outlined in the EIAR. Mitigation measures will be implemented by the contractor who will construct the development in accordance with the requirements listed within the Final CEMP.

The Final CEMP shall submit to and agreed in writing with the KCC; this is anticipated as a condition of any forthcoming planning approval.

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6 Construction Phase Surface Water Management

There are several activities during construction that pose a high risk of surface water impact as indicated below in *Table 6-1* which is an extract from 'Control of water pollution from linear construction projects' by Murnane et al (2006).

Table 6-1 Foul Drainage Catchments Extract from 'Control of water pollution from linear construction projects.

Pollution risk		Hazards
1	Activities that provide a pollution source	❖ Uncontrolled sediment erosion and contaminated silty runoff ❖ refuelling facilities, chemical and waste storage or handling areas ❖ polluted drainage and discharges from site ❖ contaminated groundwater from dewatering of contaminated sites
2	Activities that cause significant variations in natural flow	❖ Unregulated and poorly considered abstractions and discharges eg dewatering ❖ changes to the existing drainage network including interception and redirection of natural and artificial watercourses (eg field drains) ❖ discharge of groundwater to surface water ❖ increased runoff from cleared and capped areas (relative to greenfield values)
3	Activities that significantly modify or destroy physical habitats	❖ Watercourse crossings ❖ works within water ❖ outfall points

Construction works are required to take place adjacent to the Bluebell Stream, therefore there is significant risk of pollution to the existing stream and other existing on-site watercourses arising from the proposed development. Outlined below are the proposed mitigation strategies that will be adopted to reduce and prevent impact on the surrounding areas during the construction phase of works.

6.1 Construction Phase

To mitigate against the potential impacts outlined in the table above, the following measures are proposed for the construction stage of the project:

Groundwater or run-off that collects in excavations or foundation trenches will be drained or pumped to a construction site water treatment arrangement. The water is to be directed into a proprietary settlement tank, with a proprietary 'silt bag' to intercept bulk silt volumes. This process entails sediment-laden water being pumped into a filter bag, which traps the solids inside and allows the filtered water to flow freely out through the Geotextile fabric to disperse into the collection point. The proposed collection point shall be a series of silt trap fences and filter drain arrangements, adjacent to constructed pond which will act as temporary settling ponds during the construction The water and silt within the pond are to be emptied into water vacuum tanker and is to be disposed of off-site to a licensed facility.

Figure 6-1. Typical Example of Silt Bag

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Figure 6-2. Typical Example of Settlement Tanks

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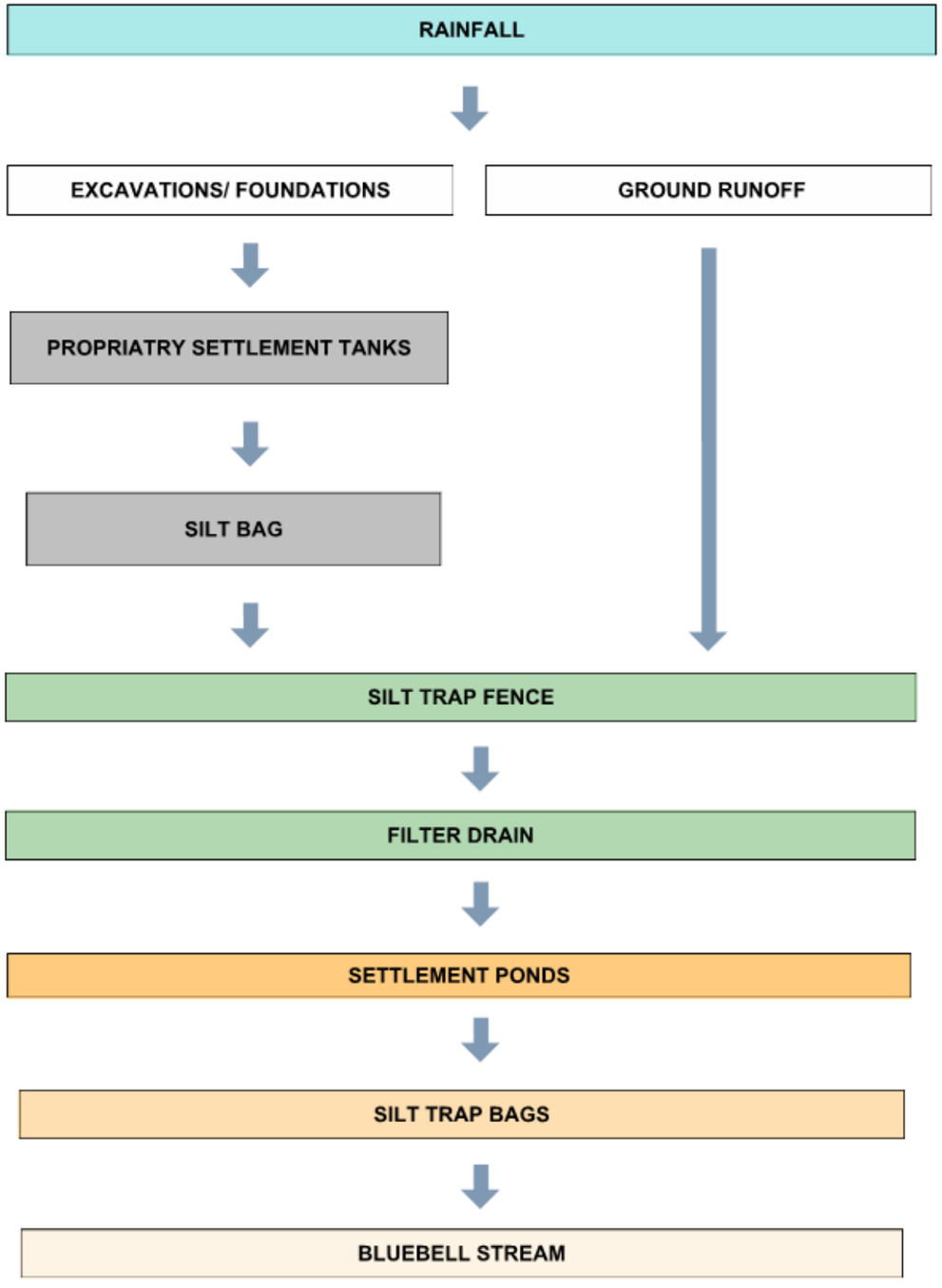
Due to the sloping nature of the existing topography, there is a risk of silt/ sediment accumulating/ discharging towards the Bluebell stream. To mitigate against unwanted silt discharge, Silt traps in the form of silt fences or hay bale structures will be adopted across lengths of the site as indicated in Figures 6-5 to 6-7 to intercept runoff and provide a stage of treatment and runoff filtration.

Figure 6-3. Typical Example of a Silt Trap fence

Runoff filtered through the silt trap fence shall be then intercepted by a temporary filter drain which will run directly parallel to the downstream side of the silt trap fence. The collected, filtered runoff shall discharge to the constructed ponds which shall act as temporary settlement structures during the construction phase. The use of filter drains, and temporary settlement ponds shall further treat any potential contaminated/ polluted runoff prior to discharge to a Silt Bag arrangement which will provide maximum treatment of surface water runoff entering the Bluebell stream.

During the construction phase of the development, all silt/ pollution removal strategy structures shall be constructed/ installed outside the extent of the riparian buffer which has been determined as 10m from the Bluebell Stream bank. A summary of the proposed series of silt/ pollution prevention has been provided in Figures 6-3 and 6-4.

Figure 6-4. Silt prevention Strategy Summary



Figures 6-5 to 6-8 below indicate the proposed lengths of silt trap fences and filter drains to be installed during each construction phase throughout the entire phasing strategy referring to Figure 6-5 for structure legend.

(Note: Please refer to Legend indicated in Figure 6-5 for confirmation of structures proposed for each phase of development)

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Figure 6-5. Predevelopment Overland Flows

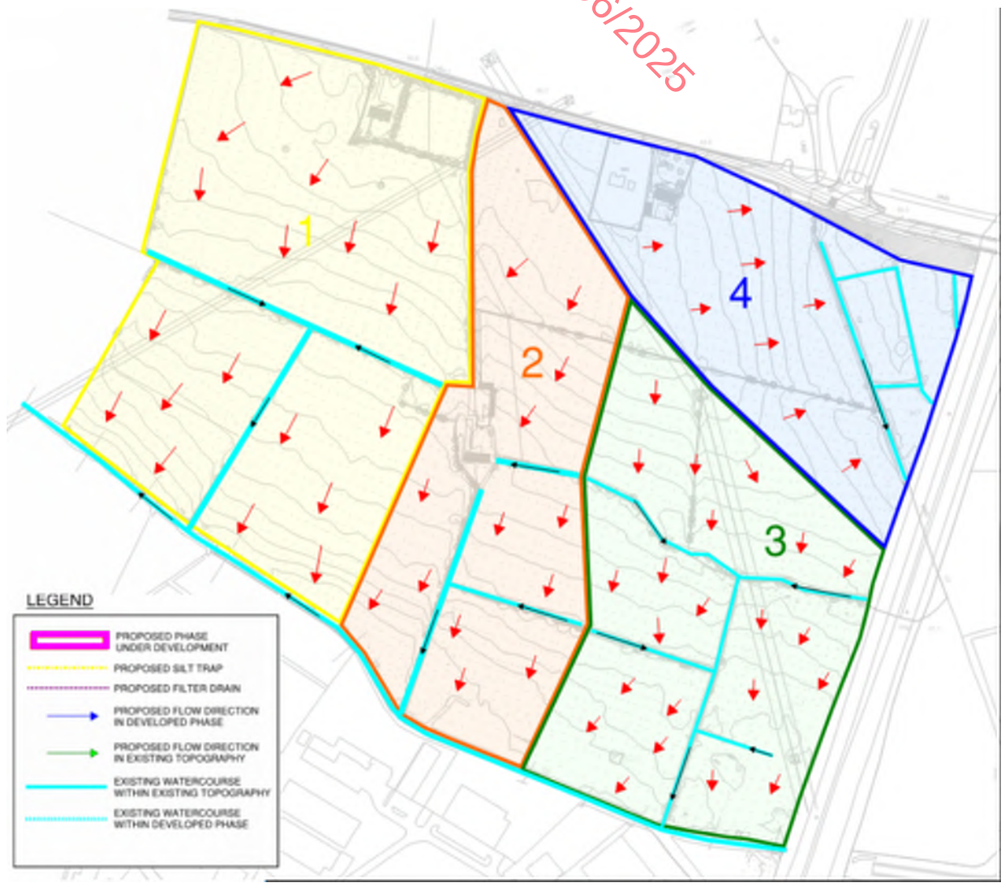

Figure 6-6 Phase 1 Overland Flow Strategy

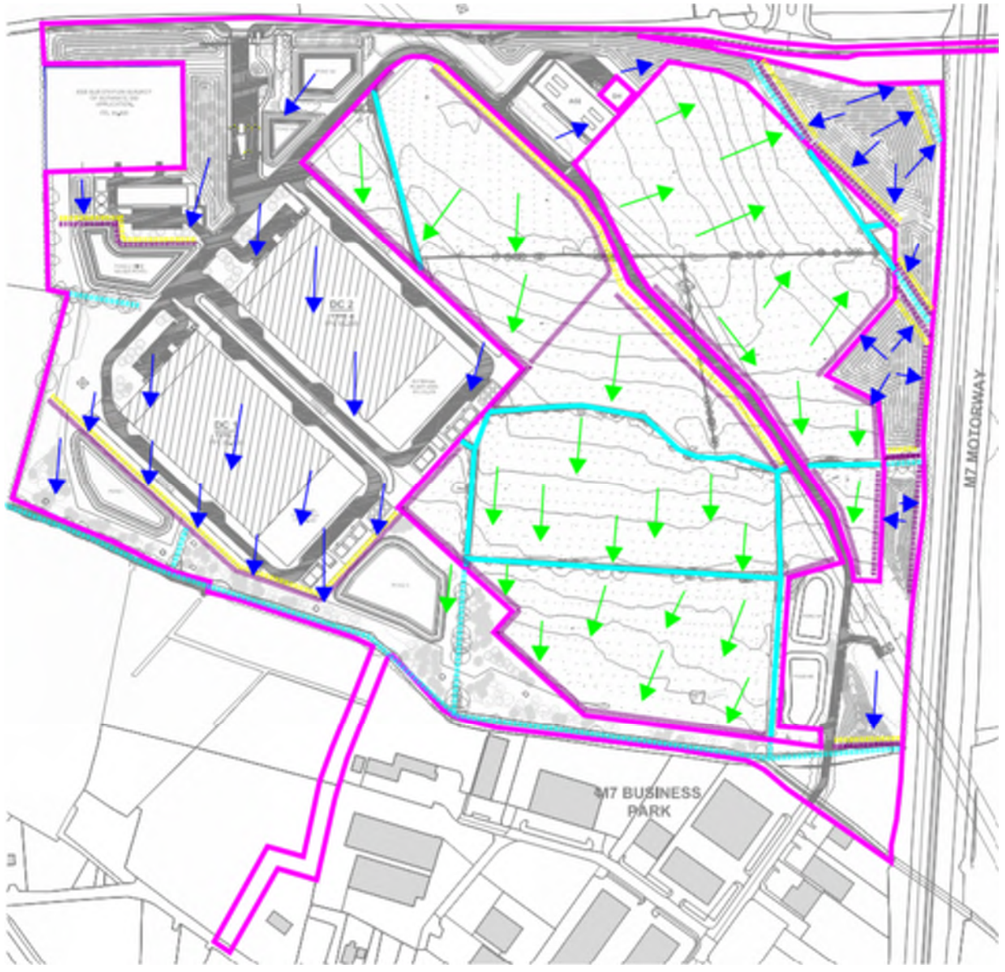

Figure 6-7 Phase 2 Overland Flow Strategy

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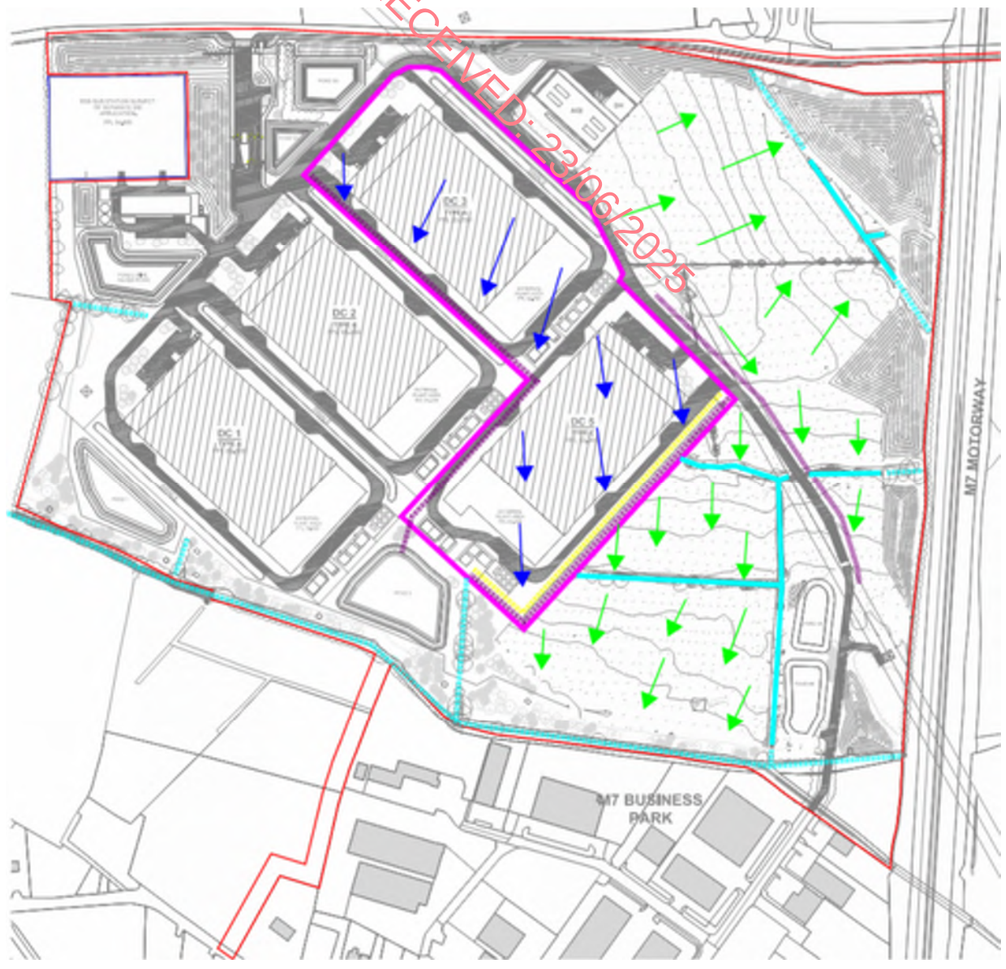

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Figure 6-8 Phase 3 Overland Flow Strategy

7 Site Safety

The Site safety is to be progressed following the appointment of the contactor. The contractor is to formally submit their Site Safety documentation and procedures for approval that are to adhere to all the planning documentation requirements.

8 Utilities

The Herbata data centre campus requires connection to various primary supply utilities (foul and surface water installations are dealt with separately), these include electricity, gas, water, and fibre connections. Both have impacts in construction terms on-site and off-site and are each discussed below: -

8.1 Electricity Connection

A new grid substation is to be constructed which will be eventually taken over by ESB/Eirgrid to add to their network. A separate report entitled “110kV Grid Substation and Transmission Line Report” provides more detail, all of which is to be covered by a separate Strategic Infrastructure Development (SID) planning application. In terms of construction, the on-site and off-site works will be, in summary:

On-site Works – provision of ducting for new 110kV cables, construction of the grid substation and transformer compound, replacement of existing lattice tower and dual pole wooden tower and removal of intermediate wooden towers. All the works in the ground are to be carried out by the Contractor under his safety requirements for trenching and concrete usage. Crossing the site currently are both 110kV (to be removed) and 220kV (retained) overhead power lines, the Contractor will therefore have to be take great care with all works nearby and underneath these lines and accord with ESB’s code of practice, see link below.

https://www.esbnetworks.ie/docs/default-source/publications/code-of-practice-for-avoiding-danger-from-overhead-electricity-lines.pdf?sfvrsn=15dde44_13

Off-site Works – The off-site works are limited but critical to the completion of the overall scheme. ESB on behalf of Eirgrid will need to re-conductor the 110kV overhead lines to the point to where there are changed to underground cables, likewise, they will need to install 110kV cables in the ducts provided to the new grid substation. All this work will be carried out to ESBs own safety and installation procedures used throughout the Country.

8.2 Gas Connection

Two new gas pressure reduction stations, commonly referred to as Above Ground Installations (AGIs), and a bio-methane injection station are proposed for the Herbata data centre campus with ongoing distribution to the individual data centre buildings. The AGI infrastructure and bio-methane infrastructure will be installed by Gas Networks Ireland (GNI) within the designated compounds to their standards and codes of practice. In terms of construction, the on-site and off-site works will be, in summary:

On-site Works – from the AGIs, all trenching and pipework installations will be provided by the Contractor to the Irish and gas standards and specifications provided. All trenching and removal of material will be provided in accordance with standards and risk assessments advised elsewhere. GNI have provided guidelines to Contractors for the installation of gas systems for commercial sites, see link below.

https://www.gasnetworks.ie/docs/corporate/information-for-rgi/Guidelines-for-Designers-and-Builders-Domestic-Sites.pdf

Off-site Works – The two AGIs will need to be supplied from new high pressure gas pipework that is to be installed by GNI. Aside from the installation from the road to the AGIs, the R409, there is also pipework to be installed by GNI from an existing transmission connection point that is approximately 8km away. The proposed routing to make this connection is contained in Appendix A of this report.

The process, agreement, and management of the installation of this gas pipeline(s) are governed by current within GNI’s license as provided and managed by the Commission for Regulation of Utilities (CRU), GNI will therefore go through their normal process of liaising approval from Kildare County Council and seeking approval from Kildare County Council to install gas pipelines in accordance with their license.

https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/CRU20172d-Current-GNI-distribution-system-operator-licence.pdf

https://www.gasnetworks.ie/docs/business/safety-in-the-business/GNI-Code-of-Practice-for-Working-in-Vicinity-of-Tx-Network-2021.pdf

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8.3 Water Connection

A water connection has been agreed with Irish Water to provide supplies to the domestic elements within each building. In terms of construction, the on-site and off-site works will be, in summary:

On-site Works – from the metering and isolation point entering the site, all trenching and pipework installations will be provided by the Contractor to the Irish Water supply standards and specifications provided. All trenching and removal of material will be provided in accordance with standards and risk assessments advised elsewhere. Irish Water have provided guidelines to Contractors for the installation of water systems for commercial sites, see link below.

https://www.water.ie/docs/connections/faqs/Water-Code-of-Practice.pdf

Off-site Works – The works required off site are limited to making connections to existing infrastructure with the R409 road. The process, agreement, and management of the installation of this water supply are governed Irish Water's license and will include go through their normal process of liaising and seeking approval from Kildare County Council to install water connections in accordance with their license.

8.4 Fibre Connections

Three positions for making fibre connections to a range of fibre providers in the area have been identified. In terms of construction, the on-site and off-site works will be, in summary:

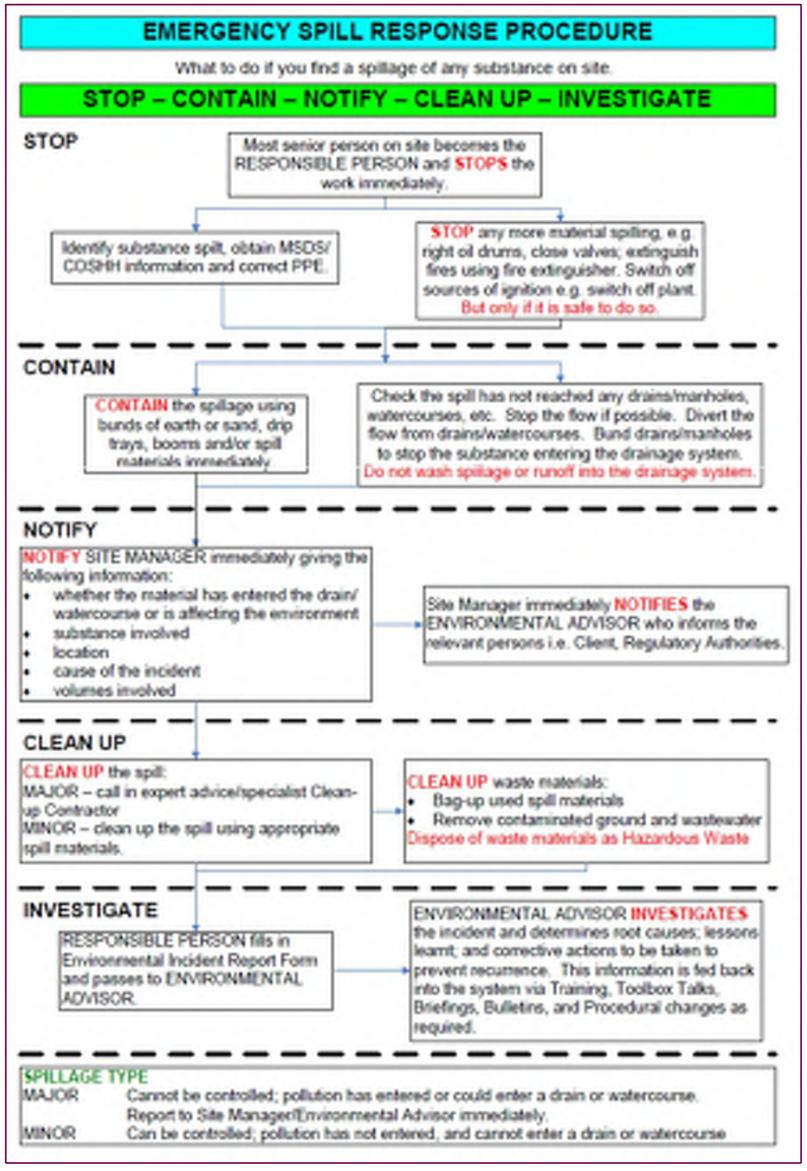
On-site Works – from the duct entry points entering the site, all trenching and pipework installations will be provided by the Contractor to telecom/fibre provider standards and specifications provided. All trenching and removal of material will be provided in accordance with standards and risk assessments advised elsewhere. The National Broadband Ireland organistation have provided guidelines to Contractors for the installation of fibre ducting for commercial sites, see link below.

https://nbi.ie/wp-content/uploads/2020/10/Premises-Infrastructure-Document.pdf

Off-site Works – The works required off site are limited to laying ducts in local highways including the R409 to fibre points of presence (POPs). The process, agreement, and management of the installation of these fibre ducts in highways are governed by the installer's license and will include go through their normal process of liaising and seeking approval from Kildare County Council to install fibre ducts in accordance with their license.

9 Outline emergency response plan

Figure 9-1 Emergency Response Flow Chart



The contractor will be responsible for the preparation and implementation of the spillage response procedure. The key issues to consider for the spillage response procedure include:

1. If the main contractor already has a standard spill response procedure in operation, then this should be amended to reflect the local conditions on site.
2. It will be important to ensure that the Environmental Manager is notified of all incidents where there has been a breach in agreed environmental management procedures.
3. As a rule, the following principles should apply in case of an environmental emergency:
4. If SAFE, stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers. Inform Engineer immediately.
5. IF SAFE (USE PPE), contain the spill using the absorbent spill material provided. Do not spread or flush away the spill. Cover or bund off any vulnerable areas where appropriate.
6. If possible, clean up as much as possible using the absorbent spills materials. Do not hose the spillage down or use any detergents.
7. Contain any used absorbent material so that future contamination is limited.
8. Notify the Construction Project Manager and environmental officer so that used absorbent material can be disposed of using a specialist contractor.
9. The Construction Manager, in conjunction with the contractor's environmental manager, will develop and test, through exercises, the Emergency Spillage Procedure to ensure that appropriate measures to prevent and mitigate damage due to accidents and spillages are in place.
10. Testing of the Emergency Spillage Procedure shall be recorded on the relevant environmental control form.
11. Inform all personnel about the spill response procedure through toolbox talks and/or induction training. Consider the need for refresher training on long-term construction projects.
12. Use reminder posters, identifying the key essential elements of the spill response procedure, located in appropriate areas such as fuel storage areas, mess cabins, security points or on the back of toilet doors.

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Table 9-1. Example control containment measures for different pollutants.

Control / Containment measures	Pollutants				
Spill on ground	**Concrete / cement**	**Paints**	**Oils**	**Silt**	**Detergents**
Sand	✓	✓	✓	×	✓
Straw bales	×	×	✓	✓	×
Absorbent granules	×	×	✓	×	×
Geotextile fence	✓	×	×	✓	×
Drip trays	×	✓	✓	×	×
Pads/rolls	×	×	✓	×	×
Drain seal	✓	✓	✓	✓	✓
Earth bunds	✓	✓	✓	✓	✓
Spill in water					
Straw bales	×	×	✓	✓	×
Pads/rolls	×	×	✓	×	×
Booms	×	×	✓	×	×
Stop further spill contain and inform appropriate personnel immediately	✓	✓	✓	✓	✓

*In case of a significant spill contact the **EPA Phone Number: 0818 33 55 99***

It will be important to incorporate the names and telephone numbers of others you need to inform (includes alerting people out of hours) and who should contact them within the spillage response plan.

Further issues to be considered when the main contractor is preparing an emergency spill response plan include:

- Details of a professional 24-hour call-out clean-up service e.g.: Alpha Environmental Systems Ltd. Tel: 028 7035 4435 (Example clean up company)
- Ensure sufficient types and quantities of spill response equipment are available on site. Keep spill kits where spills may occur, e.g., at refueling points or on plant working near a watercourse.
- Material safety data sheets and COSHH assessments will assist in identifying appropriate spill measures for dealing with hazardous materials.
- Dispose of used spill response material appropriately, e.g., oily granules or pads should be bagged up and placed in the designated waste skip.

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10 Draft CMS's

The Appointed Contractor is aware of Environmental Protection Agency Act 1992 (as amended). Protection of the Environment Act 2003 (as amended). Local Government (Water Pollution) Acts 1977 to 1990 and will ensure the following measures are taken:

1. The handling, use and storage of hazardous materials will be undertaken in line with the Pollution Prevention Guidelines (e.g., PPG2 above Ground Oil Storage Tanks).
2. All site operatives will receive a Site Induction which includes Health & Safety, Waste & Environmental details (Pollution Prevention Requirements) and Quality Management Procedures.
3. Regular Environmental Toolbox talks will be delivered on site - at least one per week.
4. **A named person** has been nominated as the responsible person for pollution prevention on site.
5. **The Appointed Contractor** will have spill kits on site, and all concerned will be briefed during site inductions on the contents and their use.
6. **The Appointed Contractor** will manage any waste arising on site and ensure it is kept to a minimum.
7. **The Appointed Contractor** will continuously review weather forecasts throughout the project and take appropriate action.
8. Daily site inspections will be carried out to check for pollution incidents and/or potential problems.
9. Times for deliveries will be controlled to avoid major disruption to neighbouring traffic.
10. The site manager/site supervisor will be on hand to supervise deliveries.
11. Any drums, containers and/or tanks whether used for deliveries to site or on site will be inspected and verified as fit for purpose before accepted to site or used on site.
12. Any plant wheel and/or boot washing will be sited at least 10 metres from the waterbody on the site periphery.
13. Appropriate fuel transfer techniques will be employed such as fuel transfer pumps, drip trays and spill kits.
14. The Appointed Contractor will Inspect and maintain on a regular basis all temporary and permanent drainage systems and water courses.

10.1 Protection of Surface Waters

During construction, protection measures to control the risk of pollution to surface waters will be adopted, these will include:

a) Any containers of contaminating substances on site will be leak proof and kept in a safe and secure building or compound from which they cannot leak, spill or be open to vandalism.
b) Vehicles will not be left unattended during refueling.
c) Only construction equipment and vehicles free of oil/fuel leaks which could cause contamination will be permitted on site.
d) There will be regular inspections of machinery on site.

10.2 Preventing Contamination

During construction of culverts, the watercourse will be managed to always allow for clear unobstructed flows. This would effectively mitigate suspended solids entering the existing watercourse.

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10.3 Water Pollution Prevention Controls During Culvert Construction

Water pollution will be prevented during the construction phase of the proposed development by following good working practices. Specific controls that will be in place during construction are outlined in *Table 10-1* below.

Table 10-1 Water Pollution Prevention Controls

TASK	RESPONSIBILITY
General:	
All water bodies **that occur in areas proposed for site compounds and storage facilities** will be fenced off to a minimum distance of 10m. Appropriate sediment control measures in line with guidance provided in Pollution Prevention Guidelines and/or updated GGP's and CIRIA guidelines will be installed to ensure silt laden or contaminated surface runoff from the compound does not discharge directly to a water body	Project Manager/ Environmental Advisor/ Foreman
Toolbox talks and water quality awareness training will be given to all site personnel and subcontractors	Project Manager/ Environmental Advisor
Drip trays must be placed under all mobile plant & equipment.	Foreman
Oils and diesels must be stored on drip trays (incl. when in vans).	Foreman
Locate plant & equipment as far away as possible from drains.	Foreman
Do not refuel near drains. Refuel at a designated area on impermeable surface and do not leave the activity unsupervised	All Staff
Check the plant, equipment & vehicles for leaks on a regular basis, and at least twice daily if working in or near waterways.	All Staff
Stand small plant that is leaking in drip trays.	All Staff
If plant & equipment is leaking report to your supervisor.	All Staff
Arrange for leaking plant to be taken out of service and maintained.	Project Manager
A permit to pump, permit to dig and permit to refuel system will be used to ensure the appropriately trained personnel undertake these tasks to ensure these activities do not impact on water quality.	Project Manager/Environmental Adviser
Check for underground services before starting to excavate.	Project Manager/ Construction Manager
Never pump silt laden water into a watercourse.	All Staff
Do not disturb water in excavations to prevent stirring up silt.	All Staff
Use the lowest corner of the excavation as a pump sump.	All Staff

Position the pump off the bottom of the excavation.	All Staff
Remove light contamination with absorbent pads from your spill kit.	All Staff
Store water heavily contaminated with oil in containers & tanker off-site.	Project Manager/ Environmental Advisor/ Foreman
When disposing of silt laden water from pumping out excavations/ dewatering: ▪ Pump via a settlement tank/ lagoon (with sufficient retention time to settle any silt) ▪ Obtain permission from the landowner and then pump onto grasslands / fields. Monitor pump to prevent scouring and generation of suspended solids. ▪ Obtain permission from relevant body discharge to surface watercourse/ surface water drain if required. **Note:** It is recommended the Environmental Adviser is contacted for advice first.	Project Manager/ Environmental Advisor/ Foreman
For very small quantities of water in excavations – pump onto grassland with the landowners' permission pprovided there is no potential from preferential flow paths and overland flow to the aquatic environment.	All Staff
Never pump silt laden water into the watercourse.	All Staff
Watercourse banks will be left intact where possible to prevent soils from entering the watercourse.	All Staff
Silt fences or other suitable measures will be installed where the working area encroaches within 10m of a watercourse (except for dedicated water course crossing points) and the local topography indicates there is potential for run-off to directly enter the watercourse. Silt fences will be monitored to ensure working effectively.	All Staff
Keep all materials, plant & equipment over 10m away from the watercourse.	All Staff
Excess material stockpiles will be managed to prevent siltation of water bodies through run-off and overland flow during rainfall events.	All Staff
Where the soil stockpiles represent a particular risk of runoff an interception ditch (cut-off) or silt fencing will be deployed to contain and direct run-off to a treatment area will be provided.	All Staff
Do not re-fuel within 10m of a watercourse or 50m of a borehole without the prior agreement of the EPA.	All Staff
Prevent vehicles & plant from entering watercourses	Foreman
Where possible, place a boom across the watercourse directly downstream of where you are working.	Foreman
The volume of water entering the construction site shall be reduced to decrease the volume of silt laden water that could be generated.	Foreman
Keep a spill kit handy.	All Staff.
Allocate a designated wash-out area at least 10m from the water body.	Environmental Manager/ Foreman
Only wash-out concrete in the designated, contained wash-out area.	All Staff
Forward a copy of the Consent to the Project Manager/Quality Manager.	Environmental Adviser/ Client (if applicable)
Inform the Agent/Team Leader of the consent conditions and any required controls.	Environmental Adviser
Follow the additional controls as required.	Construction Manager/ Foreman

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10.4 Existing Watercourses

Pollution prevention measures detailed below will be incorporated during the construction phase to prevent any possibility of sediments and other pollutants entering any nearby watercourses or surface drainage systems. The following measures must be implemented.

1. Dedicate specific areas for oil storage and refuelling, providing bunds sized to contain 110% of fuel storage capacity.
2. The contractor will use fill point drip trays, bunded pallets and secondary containment units.
3. The site will be enclosed and secured, and fuel storage areas will be secondarily secured.
4. All fuel, oil and chemical deliveries will be supervised by a responsible person who will be trained to deal with any spillage to prevent a pollution problem occurring.
5. Storage of COSHH items is not permitted and only brought to site as required, fuel is provided by client from an existing bunded static supply, where small portable machines are to be fuelled up a drip tray is used.

11 Indicative contractors compound locations and construction phases

The construction site will operate within a secure hoarded compound site in line with CDM 2015 Regulations and will be controlled by the General Contractor. All access will be monitored and recorded. All construction support activities will be controlled within the site construction compound including office facilities, toilets, canteen etc. Materials and waste handling and storage will be within the confines of the site. The work area will be always protected from the public. CCTV may be installed, and compliant Health & Safety information signs will be installed.

The external façade of the solid hoarding panels will have a mix of Health & Safety warning signs. *Refer to the Construction Traffic Management Plan (CTMP) reference 10360452-HDR-XX-XX-RP-T-000002 for the construction phasing sequences and programme. The CTMP also provides the indicative contractor compound location and layout with the associated control measures. The CTMP includes a detailed list of construction machinery or estimate of numbers.*

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12 Spill kit details, complaint form or environmental incident record plan

Spill kit must be kept on site with sand, earth, or commercial products for the containment of fuel and other material spillages. All staff will receive appropriate training in the use of these kits and are to be made aware of where the kit is stored.

In the event of a spillage of oils or chemicals resulting in contamination of water courses or damage to habitats, the following procedure will be adopted:

- The appropriate spill kit is to be deployed immediately and the site manager is to be informed.
- The incident is to be recorded within the site logbook; and
- In the event of contaminants being discharged directly to water courses, or in the event of significant spillage (exceeding 10 liters), the Environment Protection Agency (EPA) is to be contacted on **0818 33 55 99**.

Figure 12-1 Example Spill Kit

12.1 Complaints Form

	Complaints Form
	Make the complaints log available to the local authority when asked
1.	**Have any complaints been received? If so please detail**
2.	**The name and contact details of the complainant:**
3.	**Date and time of the complaint:**
4.	**Nature of complaint:**
5.	**Action taken to resolve issues:**
6.	**Date of complaint handover:**
7.	**Name of person addressing the complaint:** **Company:** **Signature:**

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12.2 Incident Report Form

INCIDENT DATE	INCIDENT TIME	REPORT DATE	REPORT TIME
INCIDENT OWNERSHIP			
DIVISION	SUB-DIVISION	UNIT OR DEPTARTMENT	
DESCRIPTION OF WHAT HAPPENED			

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EXACT INCIDENT LOCATION

On or Off Site		Location	Sub-Area

12.3 Person involved.

CATEGORY OF PERSON [✓]							
Employee	[ ]	Contractor	[ ]	Visitor	[ ]	Environmental	[ ]	Mem of. Public	[ ]

NATURE OF INVOLVEMENT [✓]					
Witness	[ ]	First Person on Scene	[ ]	Other	[ ]

PERSON'S NAME					
Name:	Mr/Mrs/Miss/Ms	First Name:		Last Name:	

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12.4 Other information

Site Manager in attendance (if applicable)	
Reported in Duty Log/Site Book?	Yes [ ] No [ ] N/A [ ]

TYPE OF INCIDENT [✓]					
Breach of Limits/Licence Cond.	[ ]	Oil & Chemical Storage	[ ]	Spillage/Spillage Response	[ ]
Waste Storage & Disposal	[ ]	Serious Public/Other Complaint	[ ]	Water Abstraction/Disposal	[ ]
Third Parties and Supply Chain	[ ]	Smoke, Fumes & Odours	[ ]	Natural Envnment & Wildlife	[ ]
Light Pollution	[ ]	Noise Nuisance	[ ]	Other	[ ]

If “Other” please describe:

Is this a reportable incient?	Yes [ ] No [ ] Unknown [ ]
If ”Yes” which agency	

What are the actual or foreseeable potential consequences known at this time? [✓]					
Prosecution	[ ]	Enforcement Notice (Imp/Proht)	[ ]	Civil Claim	[ ]
Clean-up/Restoration	[ ]	Breach of Licence Requirements	[ ]	Adverse Publicity/Reaction	[ ]
Adverse Customer Reaction	[ ]	Contamination of Water	[ ]	Habitat or Species	[ ]
Health Effects	[ ]				

Please provide any other relevant information

What immediate actions have been taken?

INCIDENT REPORTED BY		
Name	Telephone No.	Date

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13 Summary of Environmental Management Plans

The *Table 13-1* provides a summary to the list of environment management plans, which may be implemented prior to or during the construction stage.

The *Table 13-2*provides a summary of the proposed environmental program for water quality, air quality, dust, and noise with their proposed frequencies of monitoring and action thresholds.

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Table 13-1. Types of Environmental Management Plan

Type of Environmental Management Plan	Ongoing Mitigation Required	Ongoing Mitigation Specific Requirements	Ongoing Monitoring/ Auditing Required	Timing of Ongoing Monitoring	Reporting Requirements	Reporting Procedures	Ongoing Liaison Required	Other Specific Requirements
CONSTRUCTION TRAFFIC MANAGEMENT PLAN	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	Agreed in the construction traffic management plan.	-
INVASIVE ALIEN SPECIES MANAGEMENT PLAN	No No IS identified during site surveys)	-	-	-	-	-	-	-
NOISE MANAGEMENT PLAN	Yes	Construction works to be undertaken in line with an agreed Noise Management Plan to include measures set out in *BS5228:2009+A1: 2014 - Noise and vibration control on construction and open sites*	Yes	Daily checks	Internal / contractor communications and recording of incidents	Internal / contractor circulation	No	-
DUST MANAGEMENT PLAN	Yes	Construction works shall be undertaken in line with an agreed Dust Management Plan	Yes	Daily checks	Internal / contractor communications and recording of incidents	Internal / contractor circulation	No	-
BIRDS ECOLOGY MANAGEMENT PLAN	No No clearance of vegetation/trees permitted between 1st March and 31st August	-	-	-	-	-	-	-
BATS ECOLOGY MANAGEMENT PLAN	Yes	Demolition / removal of roosts to be undertaken (under a derogation license) in months of September – November and/or March – April	Yes	During demolition / vegetation removal To occur during September – November and/or March – April	Post demolition / vegetation removal, license return report	To be issued to NPWS post completion of demolition / vegetation removal works	No	-
PROTECTED SPECIES ECOLOGY MANAGEMENT PLAN	Yes	Pre-construction Phase 1 ecology survey to confirm absence of protected species	No	Pre-Construction	Only in event of new protected species being identified	In the event of new protected species being identified Phase 1 Survey Reporting	Consultation with NPWS in event of new protected species being identified	-

ARCHAEOLOGY AND CULTURAL HERITAGE MANAGEMENT PLAN	Yes	Construction works shall be undertaken in line with an agreed PoAW – site clearance works will supervise under license by qualified archaeologist	Yes	During site clearance works	Post completion of site clearance works license return report	To be issued to NMS post completion of site clearance works	No	-
WATER QUALITY MANAGEMENT PLAN	Yes	Construction works shall be undertaken in line with an agreed Water Quality Management Plan	Yes	Throughout construction phase	Internal / contractor communications and recording of incidents	Internal / contractor circulation	Liaison with Inland Fisheries / NPWS in event of serious pollution incident	-
POLLUTION INCIDENT RESPONSE PLAN	Yes	Pollution Incident Response Plan to be implemented during construction works	Yes	Throughout construction phase Daily checks	Internal / contractor communications and recording of incidents	Internal / contractor circulation	Liaison with statutory bodies (as relevant) in event of serious pollution incident	-

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Table 13-2. Summary of Environmental Monitoring Program

Monitoring Programme	Monitoring Element	Frequency of Monitoring	Location	Parameters Measured	Surveyors / Support	Sampling Constraints	Action Threshold	Monitoring and Reporting	Report / Frequency
WATER QUALITY	Drainage Systems	To be agreed with Inland Fisheries	Throughout site	Sediment build-up	Contractor / Specialist sub-consultants	N/A	Blockages caused by sediment	Internal / contractor circulation	Monthly
	Water Quality in Bluebell Stream	To be agreed with Inland Fisheries	To be agreed with Inland Fisheries	Water quality sampling	Contractor / Specialist sub-consultants	N/A	Suspended solids and/or hydrocarbons	Internal / contractor circulation	Monthly
AIR QUALITY AND DUST	Dust Deposition	Daily	Hardstand surfaces throughout site Dust gauge's locations at boundary and/or relative to activity and/or receptors	Visual inspections Dust gauge at site boundaries	Contractor / Specialist sub-consultants	N/A	Excess deposition – airborne movement of sediment and exceedances of (EPA) gauge level	Internal / contractor circulation	Monthly
	Vehicle and plant emissions	Daily	Throughout site	Visual inspections	Contractor	N/A	Irregular emissions (*black smoke*) Excessive speed Over idling	Internal / contractor circulation	Monthly
	Material storage (dust, sand, cement etc)	Daily	Throughout site	Visual inspections	Contractor	N/A	Excess deposition – airborne movement of sediment	Internal / contractor circulation	Monthly
NOISE	Construction noise levels (plant, vehicles, piling, material movements etc)	Daily	Throughout site	Attending monitoring Adherence to BS5228:2009+A1	Contractor / Specialist sub-consultants	N/A	3rd party complaints Local authority engagement Breaches / *nuisance* noise levels Adherence to planning conditions (TBC)	Internal / contractor circulation	Monthly

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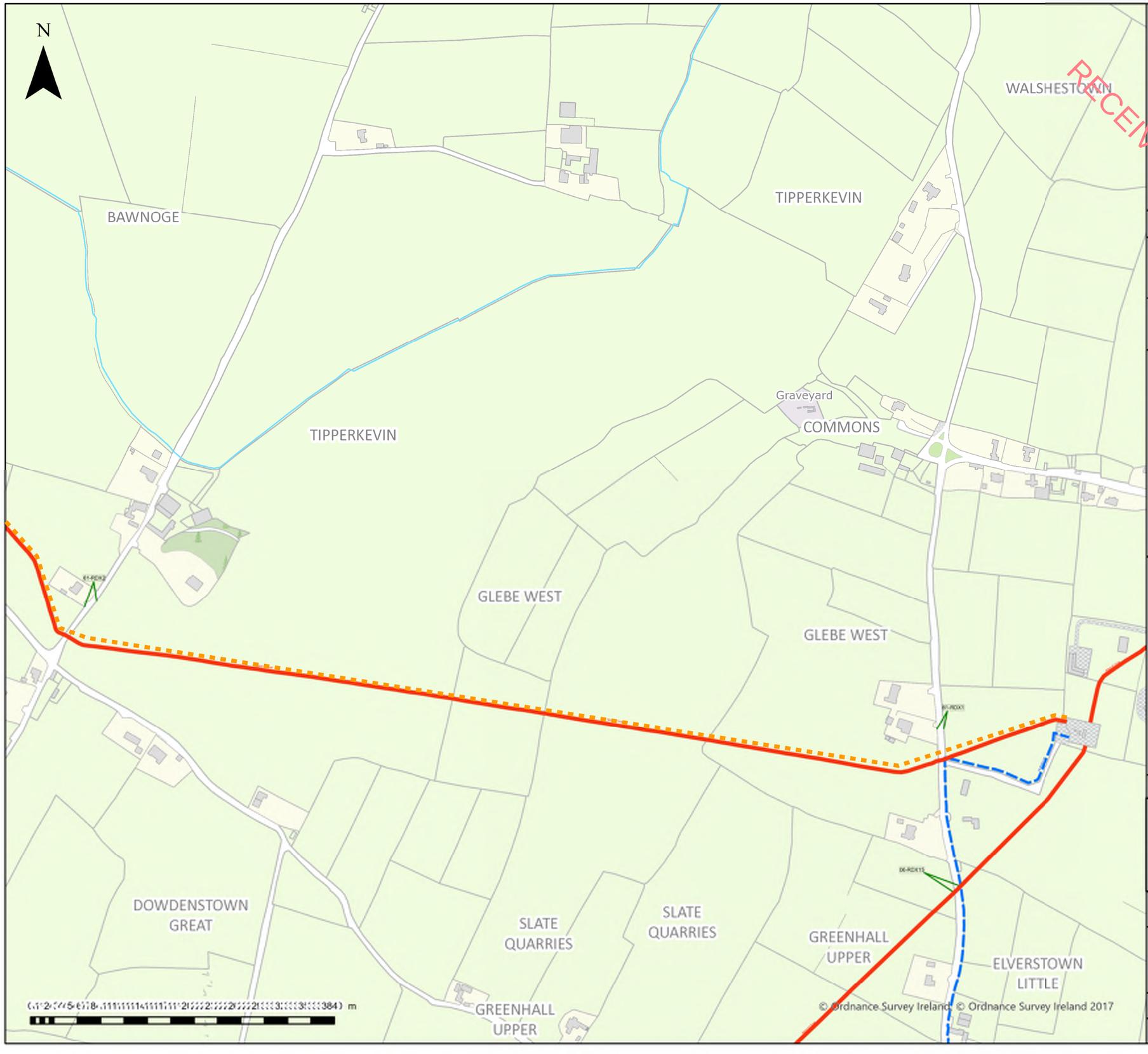
Appendix

Appendix A. Proposed Gas Connection Route



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- Transmission Pipe (Construction Issue)
- Distribution Pipe (Medium Pressure)
- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

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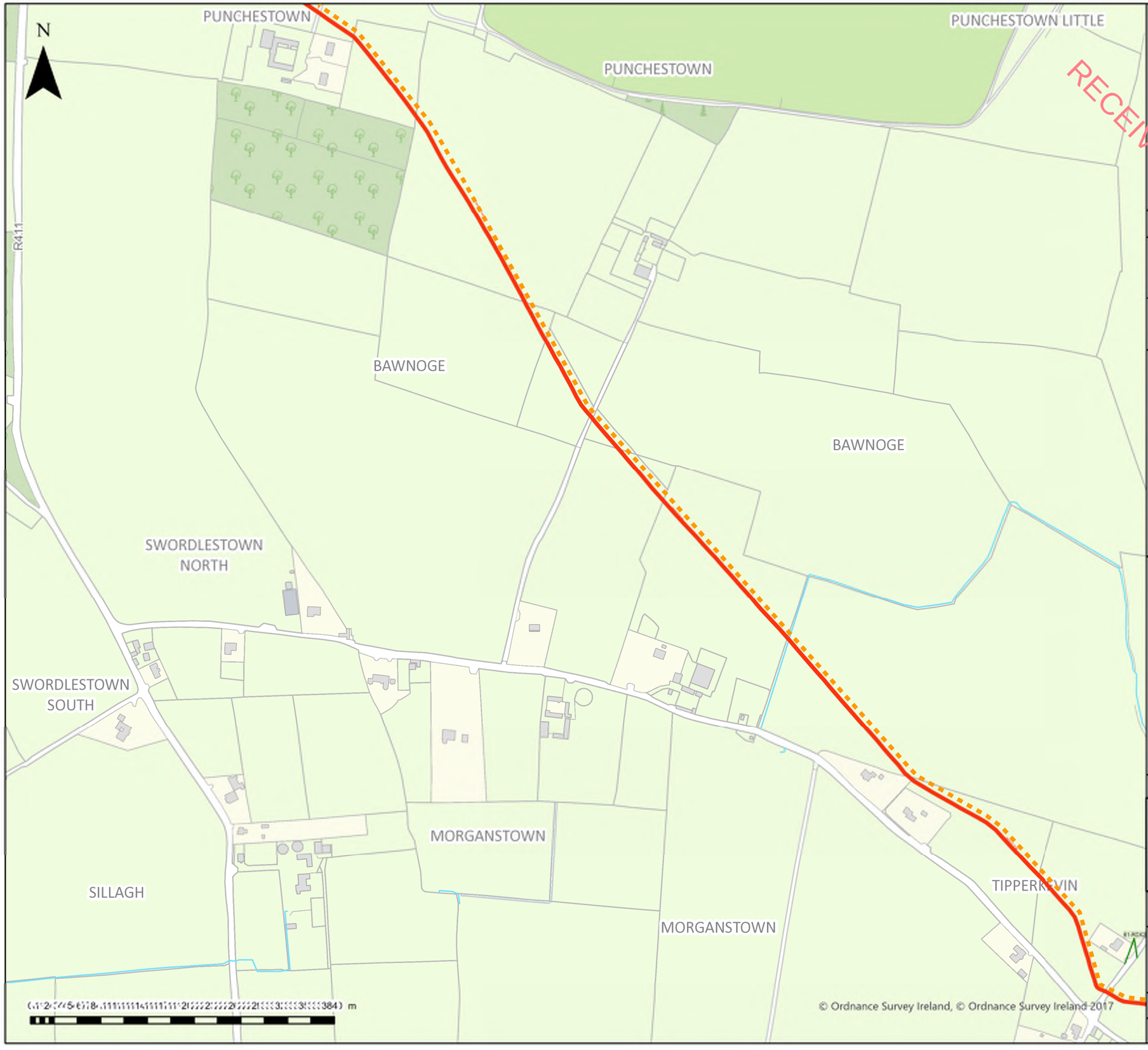
GAS NETWORK INFORMATION

Description: 1

Location: 693142,714243

Plot Date: 25/10/2023 14:59	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023145910*



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- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

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GAS NETWORK INFORMATION

Description: 2

Location: 691806,714701

Plot Date: 25/10/2023 15:09	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023150915*

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	Installation		Service Terminator
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	Mains Verification**		Transition

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GAS NETWORK INFORMATION

Description: 2

Location: 691018,715881

Plot Date: 25/10/2023 15:21	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023152120*

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	Valve		Tee
	Mains Verification**		Transition

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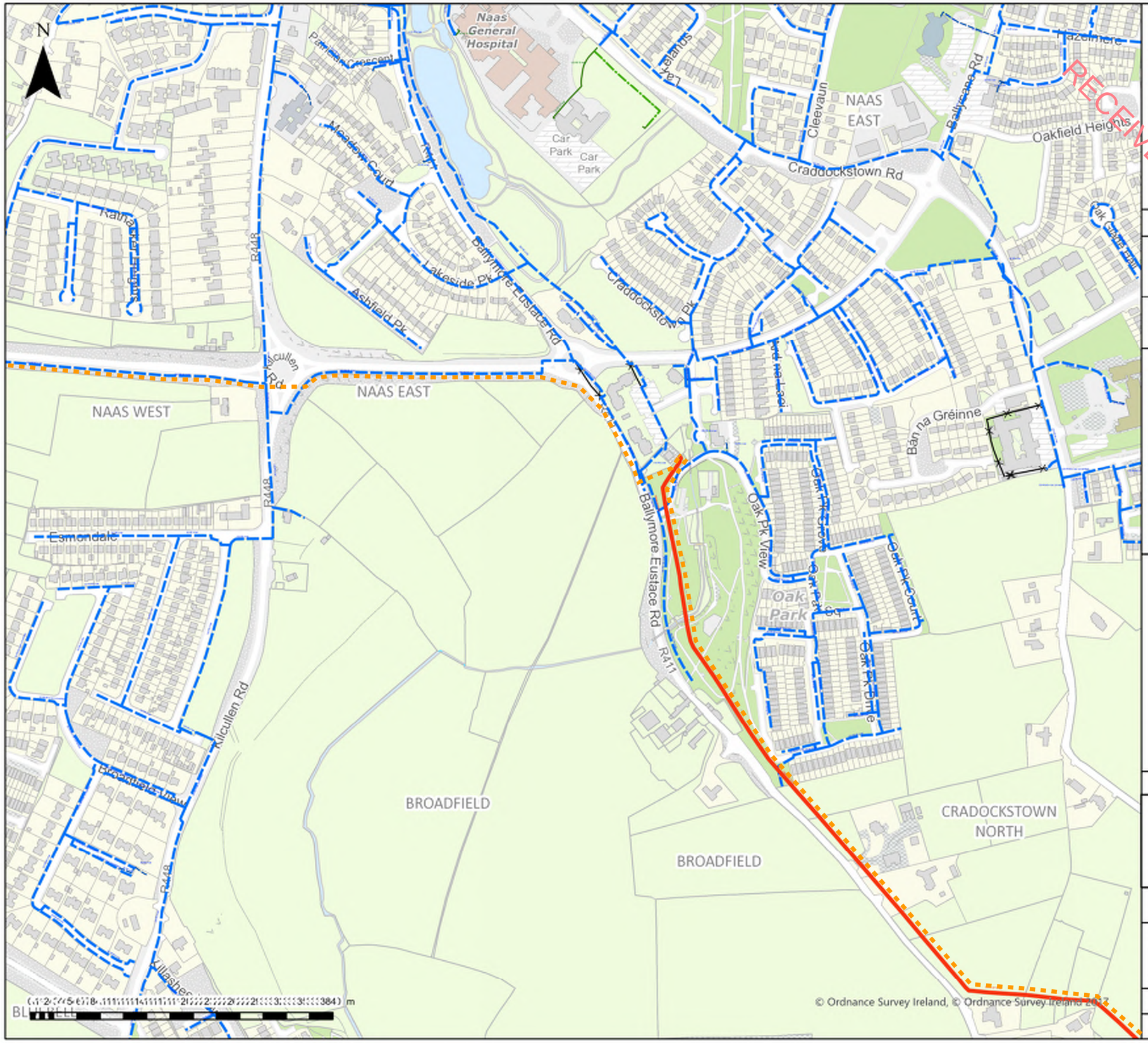
GAS NETWORK INFORMATION

Description: 2

Location: 690166,716982

Plot Date: 25/10/2023 15:25	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023152555*



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	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

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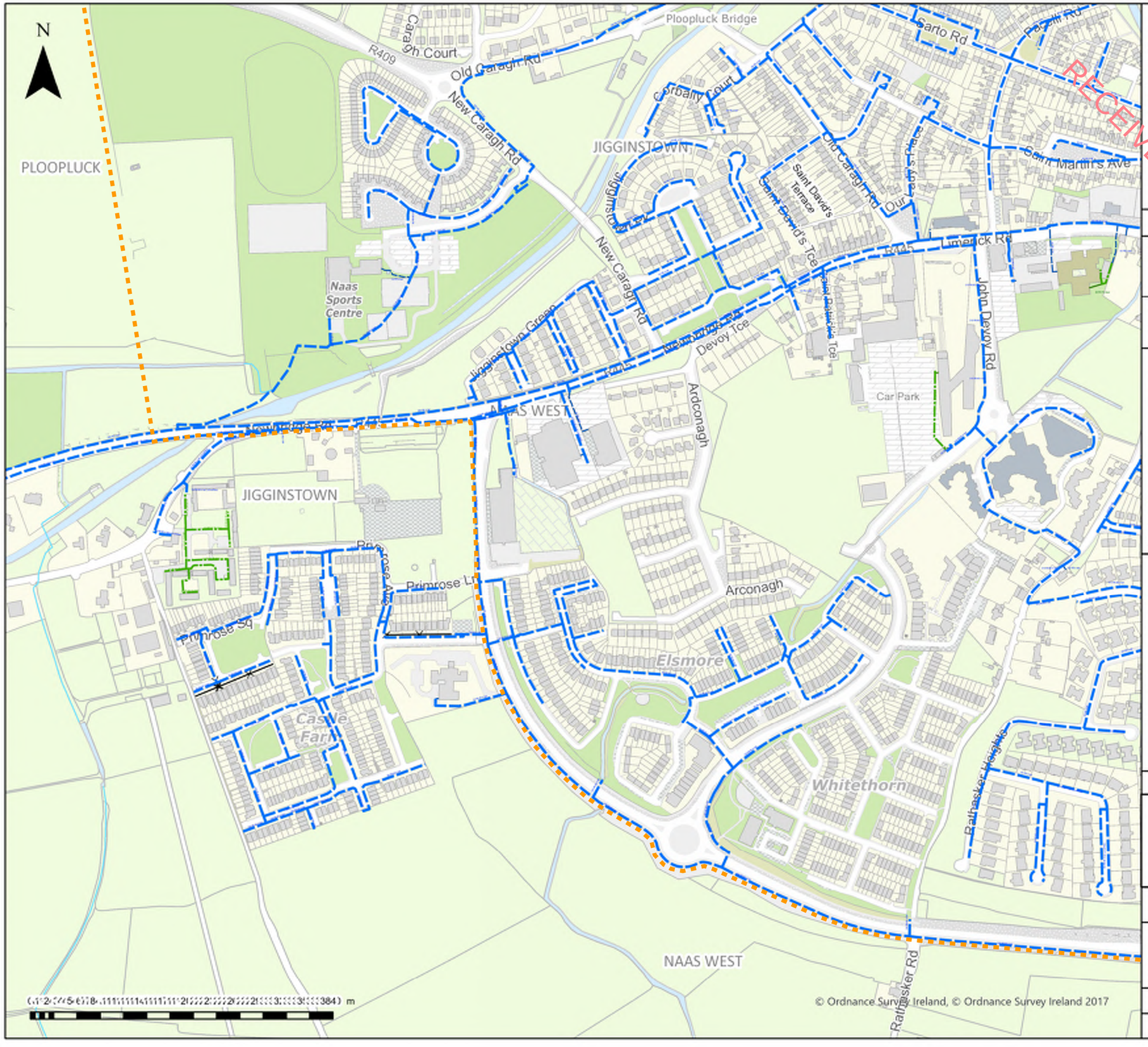
GAS NETWORK INFORMATION

Description: 2

Location: 689467,718117

Plot Date: 25/10/2023 15:43	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023154323*



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	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

** Please contact GNI on 1800-427747 for specific information

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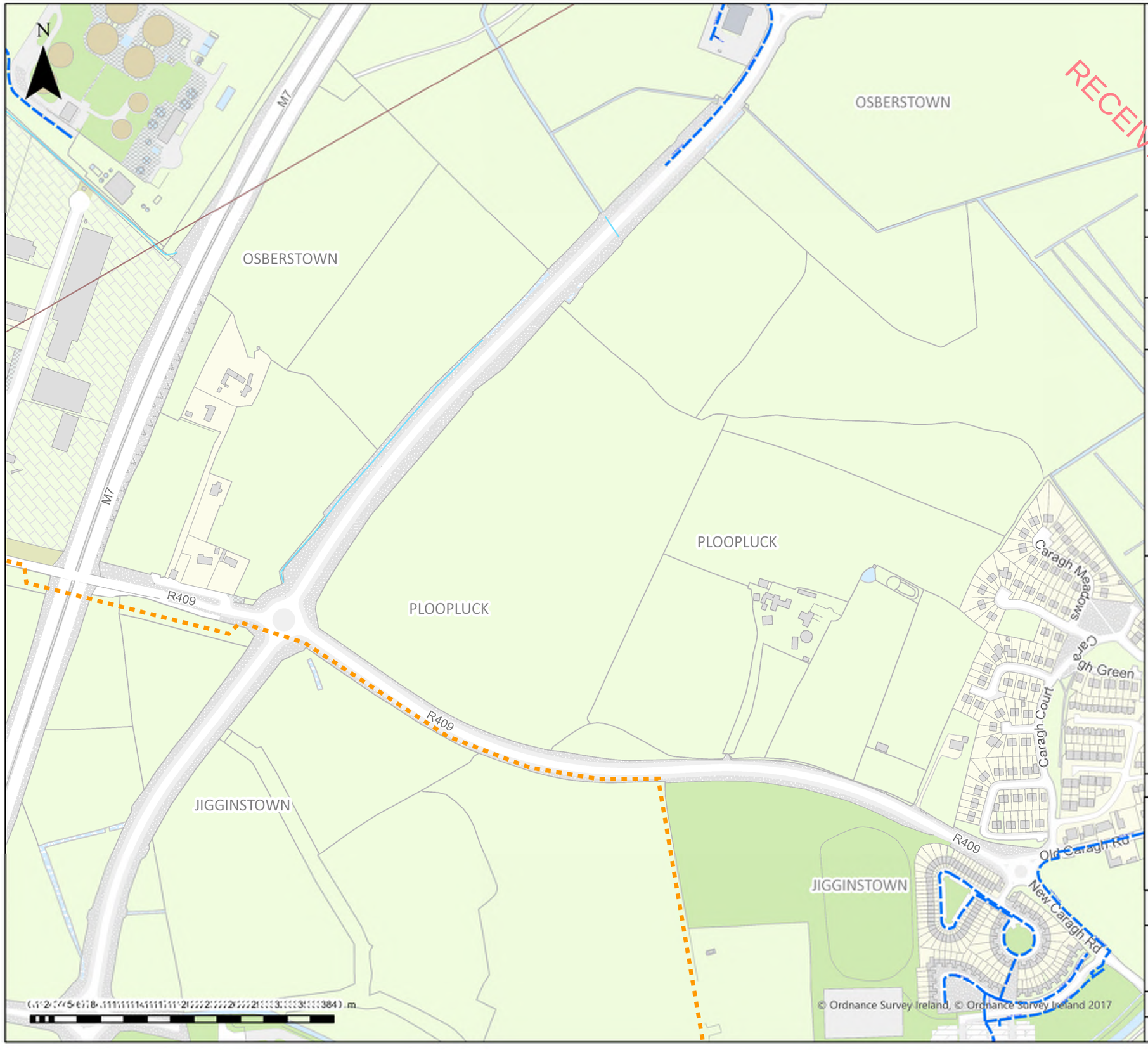
GAS NETWORK INFORMATION

Description: 2

Location: 688216,718885

Plot Date: 25/10/2023 15:46	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023154656*



RECEIVED: 31/06/2025

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High pressure transmission pipelines are shown in red. If a transmission pipeline is identified within 10m of any intended excavations then work must not proceed before GNI has been consulted. The true location and depth of a transmission pipeline must be verified on site by a representative of GNI. Contact can be made through 1800 427 747.

All work in the vicinity of the gas network must be completed in accordance with the current edition of the Health and Safety Authority publication, 'Code of Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (0818 289 389) or can be downloaded at www.hsa.ie.

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- Aurora Telecom Duct
- Aurora Telecom Sub Duct
- Aurora Telecom Inserted Gas Pipe

Aurora TELECOM

Aurora Telecom Queries - 01-8926166 (Office Hours)
Aurora_Network_Queries@gasnetworks.ie
Aurora Telecom Emergency Only 1800 427399 / 01 2030120

- Transmission Pipe (High Pressure)
- Transmission Pipe (Construction Issue)
- Distribution Pipe (Medium Pressure)
- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

** Please contact GNI on 1800-427747 for specific information

DIAL BEFORE YOU DIG 1800 42 77 47
In Emergency call 1800 20 50 50 Gas Networks Ireland

Gas Networks Ireland

GAS NETWORK INFORMATION

Description: test

Location: 687476,719873

Plot Date: 25/10/2023 16:00	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023160008*

RECEIVED: 13/06/2025

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Aurora Telecom Emergency Only 1800 427399 / 01 2030120

- Transmission Pipe (High Pressure)
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- Distribution Pipe (Medium Pressure)
- Distribution Pipe (Low Pressure)
- Service Pipe (Medium Pressure)
- Service Pipe (Low Pressure)
- Strategic Pipe (Medium Pressure)
- Strategic Pipe (Low Pressure)
- Inserted
- Abandoned Pipe

C=?	Cover (depth in metres)		Pressure Monitor
CP	CP Test Point		Protection (Slabbing)
	End Cap		Protection (Sleeve)
	Hot Tap		Reducer
	Installation		Service Terminator
	Valve		Tee
	Mains Verification**		Transition

** Please contact GNI on 1800-427747 for specific information

DIAL BEFORE YOU DIG 1800 42 77 47
In Emergency call 1800 20 50 50 Gas Networks Ireland

Gas Networks Ireland

GAS NETWORK INFORMATION

Description: test

Location: 686230,719760

Plot Date: 25/10/2023 16:08	Scale: 5000 @ A3
Plotted By: 4632	Ref ID: *4632_25102023160624*