CHAPTER 14:

MATERIAL ASSETS - UTILITIES

14

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14.0 MATERIAL ASSETS - UTILITIES

14.1 INTRODUCTION

This chapter of the Environmental Impact Assessment Report (EIAR) evaluates the potential impacts that the Proposed Development may have on a range of Material Assets as defined in the EPA Guidelines '*Guidelines on the information to be contained in Environmental Impact Assessment Reports* (EPA, 2022).

The EPA Guidance (EPA, 2022) discuss material assets as follows: *" In Directive 2011/92/EU this factor included architectural and archaeological heritage. Directive 2014/52/EU includes those heritage aspects as components of cultural heritage. Material assets can now be taken to mean built services and infrastructure. Traffic is included because in effect traffic consumes transport infrastructure. Sealing of agricultural land and effects on mining or quarrying potential come under the factors of land and soils."*

The EPA Guidelines (EPA, 2022) specifically lists and provides sample headings and topics for material assets that include: Roads and Traffic, (Construction Phase, Operational Phase, Unplanned Events [i.e. Accidents]), Built Services (Electricity, Telecommunications, Gas, Water Supply Infrastructure, and Sewerage), Waste Management (Construction Waste, and Operational Waste).

The impact assessment presented in this chapter aims to identify potential impacts that have not been previously addressed in other sections of the EIA report.

The purpose of this chapter is to identify and evaluate any potential significant impacts that the Proposed Development may have on these utilities, such as damage to infrastructure or disruptions to essential services. By conducting this assessment, appropriate mitigation measures can be developed and implemented to minimise any negative impacts and ensure that the development project is carried out in an environmentally responsible manner.

14.2 METHODOLOGY

In this EIAR, the impacts on the material assets described in the above guidance have already been considered in the following chapters and therefore these aspects will not be addressed in specific detail within this chapter.

- Chapter 4 - Human Health and Populations;
- Chapter 5 - Land, Soils, Geology, and Hydrogeology;
- Chapter 6 – Hydrology;
- Chapter 8 - Air Quality;
- Chapter 9 – Climate;
- Chapter 10 – Noise and Vibration;
- Chapter 11 – Archaeological and Cultural Heritage;
- Chapter 12 - Traffic and Transportation;
- Chapter 13 – Material Assets – Waste; and
- EIAR Volume 3 - Landscape and Visual

This chapter assesses material assets major infrastructure and utilities which have not already been addressed elsewhere in this EIAR. The potential impacts, if any, are assessed in terms of the following:

- Land Use, Property, and Access.
- Power and Electrical Supply.
- Telecommunications.
- Surface water infrastructure.
- Foul drainage infrastructure.
- Potable Water infrastructure, and
- Natural Gas infrastructure

Detailed water supply and drainage design information and details of consultation with utility suppliers is provided in the *Engineering Services Report* prepared by CS Consulting Engineers, and the Telecommunications Report prepared by ISM, which accompanies the planning application. The assessment of impact on utilities is considered with respect to the availability and capacity within the utility network(s) and consultation with ESB Networks, Telecommunication Companies and Uisce Éireann.

14.2.1 Difficulties Encountered

Compiling the material assets (utilities) chapter of an EIAR can be a complex process, especially when it involves ongoing consultations with various service providers like Uisce Éireann, EirGrid, ESB Networks, and other relevant entities within the locality.

The finalisation of agreements related to utilities may only be concluded at the connection agreement stage after planning permission has been granted. This introduces an additional layer of complexity, as the terms and conditions of these agreements may not be fully known until later stages of the project, potentially impacting the accuracy and completeness of the assessment.

14.3 RECEIVING ENVIRONMENT

Land Use, Property, and Access

The land designated for this development spans approximately 0.9 hectares (8,859 m^2). The development site is presently occupied by the Citigroup Building, a six-storey, over-one-storey-basement office building, which shall be demolished as part of the Proposed Development. The office building is currently still in use. The immediate vicinity surrounding the proposed site shares a similar landscape, with existing commercial and residential buildings adjoin the site to the north and east.

The subject site falls into the River Liffey Conservation Area (CA), as the River Liffey is located immediately south of the proposed site.

The existing one-storey basement is accessible to vehicles via the car ramp on Clarion Quay.

The *Dublin City Development Plan 2022 - 2028* zoning designations have been reviewed. The Proposed Development is located within lands designated *Zone Z5 – City Centre*, a zoning *to consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen and protect its civic design character and dignity*.

The proposed use is permitted under this zoning designation in the DCC Development Plan 2022 – 2028. Chapter 14 of the DCC Development Plan 2022-2028 states that '*Ideally, a mix of uses should occur both vertically through the floors of buildings as well as horizontally along the street frontage'* – this landmark office development will contribute to the vertical expansion of the city.

Power and Electrical Supply

The existing site is served by the electrical network. There are existing substations on Commons Street and Clarion Quay respectively, directly adjacent to the development site.

Telecommunications

There are telecommunication lines in existence for telephone and broadband services in the area and fibre provisions for the Proposed Development. Connections will be made to the existing services locally.

Surface Water Infrastructure

As outlined in the Engineering Services Report (CS Consulting, 2023) (included with the planning application documentation), Uisce Éireann drainage and supply records indicate that the following relevant existing drainage infrastructure elements are in place surrounding the development site:

(A) An existing 375mm vitrified clay combined sewer running east to west in North Wall Quay, along the development site's southern boundary. This combined sewer turns north at the junction of North Wall Quay and Commons Street and continues to flow northward along the development's western boundary.
(B) An existing 225mm concrete foul sewer to the east and north of the development's site boundary.
(C) An existing 375mm storm sewer running west to east in North Wall Quay, along development site's southern boundary. This sewer connects to an existing 1870 brick storm sewer at the junction of North Wall Quay and Commons Street, which discharges into River Liffey. In addition, there is also an existing 525mm concrete storm sewer running east to west and then turning northwards in Clarion Quay along development site's northern boundary.

Hydraulic performance maps prepared by Dublin City Council as part of the 2005 Greater Dublin Strategic Drainage Study (GDSDS) indicate that the existing public combined sewers on North Wall Quay is under hydraulic pressure in the 2031 modelling scenario, surcharging for 1-year and 2-year storm events.

For further details on the existing stormwater infrastructure see the Engineering Services Report (CS Consulting, 2023) included with the planning application documentation.

Foul Drainage Infrastructure

Uisce Éireann drainage and supply records provided by Dublin City Council indicate that the following relevant existing drainage infrastructure elements are in place surrounding the development site:

(A) An existing 375mm vitrified clay combined sewer running east to west in North Wall Quay, along the development site's southern boundary. This combined sewer turns north at the junction of North Wall Quay and Commons Street and continues to flow northward along the development's western boundary.
(B) An existing 225mm concrete foul sewer to the east and north of the development's site boundary.
(C) An existing 375mm storm sewer running west to east in North Wall Quay, along development site's southern boundary. This sewer connects to an existing

1870 brick storm sewer at the junction of North Wall Quay and Commons Street, which ultimately discharges into River Liffey. In addition, there is also an existing 525mm concrete storm sewer running east to west and then turning northwards in Clarion Quay along development site's northern boundary.

As per the Engineering Services Report (CS Consulting, 2023), the foul sewer in Clarion Quay joins a 375mm diameter foul sewer flowing east to west in Mayor Street Lower, which in turn joins the combined sewer in North Wall Quay. This discharges to the Mayor Street Wastewater Pumping Station (WwPS), from which all effluent ultimately reaches the Ringsend Wastewater Treatment Plant (WwTP).

Potable Water Supply

As outlined in the CS Consulting Engineering Services Report (2023) (included with the application documentation), Uisce Éireann Drainage Records indicates an existing 200mm ductile iron and an existing 600mm cast-iron watermains along North Wall Quay to the development's site southern boundary. The records also indicate an existing 6-inch (150mm approx.) diameter cast-iron watermain is in place in Commons Street as well as the existing 150mm ductile iron watermain in place in Clarion Quay along the western and northern boundaries of the development site, respectively.

For further details on the existing potable water infrastructure see the Engineering Services Report (CS Consulting, 2023) included with the planning application documentation.

Natural Gas

The site currently has a gas connection, although this will not be required for the Proposed Development.

14.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

This section describes the built services and infrastructure for the Proposed Development during both construction and operation are described below.

Chapter 2 provides a detailed overview of the lifecycle of the project, including reference to the architectural and civil engineering, drawings, plans, reports, and other relevant document to define the Proposed Development.

14.4.1 Construction Phase

Land Use, Property, and Access

The Proposed Development site covers an area of c. 0.9 hectares.

In the development's construction phase, vehicular access to the development site is expected to be via a dedicated temporary access on Commons Street, at the site's western boundary. Heavy construction vehicles travelling to and from the site will be restricted to a designated route from/to the M50 motorway (Dublin Tunnel) via the north quays, as shown in Figure 17 and Figure 18 of the Traffic and Transport Assessment (CS Consulting, 2023).

Due to the location and restricted nature of the site, a maximum of 10 no. car parking spaces will be provided on-site for construction personnel. Construction personnel shall be encouraged to use public transport and information on local transportation will

be published on site. The expected peak construction staff will be c. 600 workers, as noted by the project engineers.

Access arrangements and potential traffic safety impacts are considered in Chapter 12 (Traffic and Transportation) and the Traffic and Transport Assessment (CS Consulting, 2023) included with the planning documentation.

Power and Electrical Supply and Telecommunications

During construction, contractors will require temporary power for onsite accommodation, and construction equipment /plant. The power requirements will be relatively minor.

Electricity will be provided to the site via the national grid, subject to the restrictions and requirements of ESB Networks.

Construction plant shall be powered by mains electricity wherever possible, rather than by generators.

Telecommunications

The construction site will require internet phone connectivity for external communication with clients, contractors, and suppliers. Mobile phones are expected to be used for this purpose. Internet connectivity will be achieved through the use of wireless networks.

This will involve installing additional chambers and ducts on the Common's road, North Wall Quay and on Clarion road.

Surface Water Infrastructure

Included in this application is the Surface Water Management Plan and the Outline Construction Management Plan (CMP) (CS Consulting, 2023). for further details on stormwater management during construction phase. A detailed CMP will be developed by the Applicant and the construction contractor prior to commencement of construction. The CMP will incorporate mitigation measures outlined in the EIA report as they relate to the construction phase.

Surface water discharge from the site will be managed and controlled for the duration of the construction works until the permanently attenuated surface water drainage system of the proposed site is complete. The lead Contractor will be required to secure a Trade Effluent Licence from Uisce Éireann, permitting the discharge of pumped groundwater to the public drainage network.

Measures will be employed to protect surface water in the receiving environment during construction, and to prevent its contamination by direct run-off or by infiltration from the development site. An Emergency Response Plan shall be prepared, and procedures outlined in a discharge licence will be followed. Measures have been included in the Outline Construction Management Plan prepared by CS Consulting (2024) to address the following:

- Overground oil/diesel storage
- Refuelling
- Concrete preparation, placement, and washout
- Soil movement

- Groundwater management
- Disposal of wastewater off site
- Road sweepers/cleaning
- Maintenance of existing gullies

During construction run-off from excavations/earthworks cannot be prevented entirely and is largely a function of prevailing weather conditions.

Foul Drainage Infrastructure

Welfare facilities will be provided for the construction workers on site during the construction works. It is anticipated that for the initial stages of construction portable sanitary facilities will be provided. The facilities will need to have the foul water collected by a licensed waste sewerage contractor. Wastewater will be disposed of off-site in an appropriate manner and in accordance with the relevant statutory regulations, to prevent the pollution of watercourses. A temporary connection for foul water drainage will be made to the public network. The locations and size of the temporary connection will be determined through consultation with Uisce Éireann and DCC and shall be subject to any restrictions and requirements they may impose.

Potable Water Supply

The Main Contractor will require a water source for the duration of the construction works. Water will be required for welfare facilities, dust suppression and general construction activities. For the construction phase, water supply to the site will be provided by means of a temporary connection to the public watermain.

Natural Gas

A connection to the natural gas mains is not required for the construction phase of the Proposed Development.

14.4.2 Operational Phase

Land Use, Property, and Access

The Proposed Development will deliver on the Z5 zoning objective of the site, which has a zoning objective '*to consolidate and facilitate the development of the central area, and to identify, reinforce, strengthen, and protect its civic design character and dignity'.*

Once the development is complete and operational, Vehicular access to the basement car park shall be via a two-car lift system, accessed from Clarion Quay at the north-east corner of the development site.

The Dublin City Development Plan 2022–2028 does not permit the provision of car parking spaces within new developments in Parking Zone 1, except for car-share parking and accessible car parking. The development shall include a total of 30 no. car parking spaces, 923 no. bicycle parking spaces and 6 no. motorbike spaces, all located internally at basement level -1. An additional 2 no. car parking spaces will be provided at ground level.

Existing pedestrian facilities on North Wall Quay, Commons Street and Excise Walk and neighbouring streets in the vicinity of the development site are of good quality and condition, with raised footpaths, public lighting and signal-controlled pedestrian

crossings are present at all nearby major junctions and at intermediate points along the Quays. Two bridges across the Liffey are within a 5-minute walk, one of which carries only pedestrian traffic.

Access arrangements and potential traffic safety impacts are considered in Chapter 12 (Traffic and Transportation) and the Traffic and Transport Assessment (CS Consulting, 2023) included with the planning documentation.

Power and Electrical Supply

Once in operation, electricity will be provided to the site via the national grid tying in with existing infrastructure. New electricity and services infrastructure will be put in place to serve the Proposed Development.

The combined electrical load for the development is estimated to be c. 5.5MW which works out to be approximately 80W/m^2.

A full connection application will be submitted to ESB following planning permission being received for the Proposed Development.

Telecommunications

Given the central positioning of the Proposed Development, several telecom providers operate in the vicinity of the site. The existing telecom ducts will undergo expansion to incorporate the site, necessitating the installation of extra chambers and ducts along Common's Road, North Wall Quay, and Clarion Road.

This will be carried out in accordance with the requirements of the various service providers / authorities.

Surface Water Infrastructure

Please refer to CS Consulting drawing no. 1NWQ-CSC-ZZ-00-DR-C-0104, 1NWQ-CSC-ZZ-B1-DR-C-0105, and 1NWQ-CSC-ZZ-B6-DR-C-0106 for details of the proposed surface water drainage network layout and connections.

The proposed stormwater drainage arrangements have been designed in accordance with *Part H of the Building Regulations 2010*, the *Greater Dublin Regional Code of Practice for Drainage Works (Version 6)*, and the *Greater Dublin Strategic Drainage Study (GDSDS)*.

Foul Drainage Infrastructure

As detailed in the Engineering Services Report (CS Consulting, 2023) It is proposed to discharge all foul effluent from the Proposed Development's ground floor and upper storeys by gravity to the existing 375mm combined sewer on Commons Street, as recommended by Uisce Éireann in its Confirmation of Feasibility.

The last private manhole within the site shall be in accordance with DCC and Uisce Éireann requirements and accessible for maintenance purposes.

All water drained from the development's basement levels, shall drain to 2 no. internal pumping chambers at the lower basement level (-2 level). From these, it shall be pumped via 2no. rising mains to the development's stand-off manhole at the ground

level, and subsequently discharged by gravity into the existing 375mm combined sewer on Commons Street.

An oil separator shall be installed prior to the inlet of the internal pumping chamber that collects runoff from the internal car parking areas.

Estimated foul water flows from the site have been calculated in accordance with The proposed foul drainage arrangements have been designed in accordance with Part H of the Building Regulations 2010, the Greater Dublin Regional Code of Practice for Drainage Works (Version 6), the Greater Dublin Strategic Drainage Study (GDSDS), Uisce Éireann Code of Practice for Wastewater Infrastructure and the Regional Code of Practice Drainage Works.

Based on the development's calculated population of 4,923 no. people, the peak effluent flow (Design Flow) has been calculated to be 11.489 litres per second (detailed calculations can be seen in the Engineering Services Report, CS Consulting, 2023).

A Pre-Connection Enquiry (CDS23006147) was submitted to Uisce Éireann in 2023. A Confirmation of Feasibility was received from Uisce Éireann in October 2023 as response.

Please refer to CS Consulting drawings nos. 1NWQ-CSC-ZZ-00-DR-C-0104, 1NWQ-CSC-ZZ-B1-DR-C-0105, and 1NWQ-CSC-ZZ-B6-DR-C-0106, included with this application, for details of the proposed foul drainage network layout.

Potable Water Supply

It is proposed to supply the development with potable water via a new 150mm diameter connection to the existing 150mm diameter ductile iron watermain in Clarion Quay, at the development site's north-eastern boundary, as recommended by Uisce Éireann in its Confirmation of Feasibility that was received October 2023 as response to the submitted Pre-Connection Enquiry (CDS23006147). CS Consulting drawing no. 1NWQ-CSC-ZZ-00-DR-C-0108 details the development's proposed water supply connection, which has been designed in accordance with the Uisce Éireann *Code of Practice for Water Infrastructure.*

The water metering arrangements at the connection location will be enhanced to align with Uisce Éireann criteria. A bulk water meter will be installed at the connection point to the public watermain at the development entrance, adhering to Uisce Éireann requirements. Water demand calculations have been conducted in accordance with the current Uisce Éireann Code of Practice.

The maximum average potable water demand was calculated as 2.553 l/s, with a peak demand of 12.765 l/s, as detailed in the calculations shown in the Engineering Services Report (CS Consulting, 2023).

Natural Gas

Upon receiving planning permission, an application to remove gas services from the site will be submitted to Gas Networks Ireland.

14.4.3 Do Nothing Scenario

In the event that the Proposed Development does not proceed, the specific need for this building would still exist for the intended occupier, and as such the Proposed

Development would need to be built elsewhere. The Proposed Development lands would remain as is, i.e. with the existing office building on the site.

14.4.4 Decommissioning

Should the site be decommissioned it is likely that the building will be redeveloped for an alternative use. Any change to design will have to be undertaken in compliance with planning requirements and an EIA undertaken if required.

14.5 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT

14.5.1 Construction Phase

Land Use, Property, And Access

The Proposed Development will result in the demolition of an existing office building and the construction of a new building.

To minimise nuisance for neighbouring properties, the Outline Construction Management Plan (OCMP) prepared by CS Consulting will be implemented and adhered to by the construction Contractor and will be overseen and updated as required if site conditions change by the Project Manager, Environmental Manager, Resource Manager, and Ecological Clerk of Works where relevant.

All mitigation measures outlined within this EIAR, and within the OCMP will be implemented during the construction phase. The construction contractor will update this CMP/CEMP to include any additional mitigation required to ensure compliance with any subsequent planning conditions relevant to the Proposed Development.

The potential impact associated with land use, property, and access for the construction phase will be, ***negative, not significant***, and ***short term***.

Power Supply And Electrical Supply

Any excavations within the vicinity of existing electrical services will be carried out in consultation with ESB Networks to ensure there is no impact on existing users. The electrical connection should have no disruptions to the national grid during connection works.

All utilities work shall be carried out in accordance with the relevant requirements of the respective service providers. These works will be carried out in a manner that is safe, and which minimises interruptions of service which might affect residents and businesses, and adjacent developments.

The potential impact associated with power and electrical supply for the construction phase in the absence of mitigation measures will be a ***negative, not significant,*** and ***short term.***

Telecommunications

The use of telecom lines will not be required during the construction phase. The locations of existing services (underground and overhead, where applicable) will be confirmed prior to the commencement of on-site works. The connection into the wider

telecommunications network will be undertaken by a statutory telecommunications operator.

The potential impact on telecommunications infrastructure during the construction phase in the absence of mitigation measures is ***neutral, not significant,*** and ***short term.***

Surface Water Infrastructure

During the construction phase, there is potential for rainfall run-off and dewatering water during the construction phase may contain increased silt levels or otherwise become polluted from construction activities. Suspended solids in runoff water may result in an increase in suspended sediment load, resulting in increased turbidity, which may in turn impact on local infiltration capacity, or downstream infrastructure or watercourses.

The potential impact of this is a possible increase surface water run-off and sediment loading which could potentially overwhelm existing drainage systems, leading to localized flooding. Run-off containing substantial amounts of silt can cause damage to surface water networks.

The potential impact on surface water networks during the construction phase in the absence of mitigation measures is ***negative, slight,*** and ***short term.***

Foul Drainage Infrastructure

Welfare facilities will be provided for the construction workers on site during the construction works; foul effluent will be appropriately managed and treated off site. The works contractor will be obliged to comply with any conditions of a temporary connection agreement with Uisce Éireann, if required, to control discharge quality and rate of flow and remove any wastewater collected on site.

The potential impact on foul drainage for the construction phase is ***negative, not significant,*** and ***short term.***

Potable Water Supply

The water demand during the construction phase will not be significant enough to affect existing pressures. The potential impact on potable water supplies and infrastructure during the construction phase is ***negative, imperceptible,*** and ***short term.***

Natural Gas

There is no requirement for natural gas connection, therefore during the construction phase there is no potential impact.

14.5.2 Operational Phase

Land Use, Property and Access

During the operational phase the Proposed Development is not anticipated to generate significant air (including odour), noise, water emissions or traffic impacts during normal operating conditions; these have been discussed further in the respective EIAR chapters, Chapter 6 (Hydrology), Chapter 8 (Air Quality and Climate) Chapter 10 (Noise and Vibration), and Chapter 12 (Traffic and Transportation).

The Proposed Development is consistent with the zoning of these lands.

The overall potential impact associated with land use, property, and access during the operational phase will be localised ***neutral, not significant****,* and ***long term***.

Power Supply and Electrical Supply

Once the Proposed Development is operational, electricity will be provided to the site via the national grid tying in with existing infrastructure in neighbouring areas, thus, the Proposed Development will increase the demand on existing power and electrical utilities. As detailed in Chapter 2 (Section 2.5.5) sustainable energy measures including PV (Photovoltaics) on the roof have been considered and incorporated into the design of the Proposed Development. The PV will reduce demand and effects on the mains network. Excess power generated from on-site PV has the potential to be feed back onto the electrical grid.

Maintenance of power and electrical utilities infrastructure on the site during the operational phase will be carried out in accordance with the relevant requirements of the utility supplier.

Based on these discussions on availability of supply, there is a ***neutral, slight,*** and ***long term*** effect on electrical supply during the operational phase of the Proposed Development.

Telecommunications

There will be an increase in demand on the local telecommunications network during the operation phase. Connections will be made to the existing services locally. This will be carried out in accordance with the requirements of the various service providers / authorities.

The connection into the wider telecommunications network will be undertaken by a statutory telecommunications operator. The potential impact on telecommunications infrastructure for the operational phase is ***neutral, imperceptible*** and ***long term***.

Surface Water Infrastructure

During operation, the primary risk of water quality impact is surface water runoff from roads, car parking and hardstand areas which can potentially contain elevated levels of contaminants such as hydrocarbons.

The potential impacts during the operational phase on surface water quality are ***neutral, imperceptible,*** and ***long-term.***

Foul Drainage Infrastructure

Foul water will be discharged in accordance with Uisce Éireann licence requirements. Considering the design of the wastewater infrastructure on and off site, the impact is expected to be ***neutral, imperceptible,*** and ***long-term.***

Potable Water Supply

The Proposed Development has considered the sustainable use of water within its design. Water saving devices are considered for use within the Proposed Development

units, to conserve the use of water, as part of the internal fit-out. A bulk water meter is to be provided at the connection to the public watermain, at the development entrance. All metering is to be provided in accordance with Uisce Éireann'ss requirements.

Based on the feasibility of connection issued by Uisce Éireann, the potential impact on potable water infrastructure for the operational phase is ***neutral, imperceptible,*** and ***long term.***

Natural Gas

There is no requirement for natural gas connection, therefore during the operational phase there is no potential impact.

14.6 MITIGATION MEASURES

14.6.1 Construction Phase

Consultation with Dublin City Council, Uisce Éireann, EirGrid, ESB Networks and other relevant service providers within the locality and compliance with any requirements or guidelines they may have will ensure a smooth construction schedule without disruption to local and business community. The works contractor will be obliged to put best practice measures in place to ensure, any planned interruptions are agreed in advance with the utilities suppliers.

The construction contractor will employ strict quality control measures will be undertaken while laying pipes and utilities to minimise or eradicate infiltration and ex-filtration.

Prior to commencing any construction activities, the contractor shall conduct a comprehensive utility locating survey using advanced technologies such as ground-penetrating radar (GPR) and electromagnetic induction methods. This survey will accurately identify the location and depth of all existing underground services, including high voltage (HV) cables, water and gas pipelines, and telecommunication lines. Based on the results of the utility locating survey, exclusion zones will be demarcated around identified utilities. These zones will indicate areas where construction activities are restricted or subject to specific safety protocols.

CS Consulting have prepared a Outline Construction Management Plan (OCMP) (2024) which is included with the planning application documentation. This outlines the construction techniques and methodologies which will be implemented during construction of the Proposed Development. The mitigation measures set out in this EIAR and the OCMP will be implemented and adhered to by the construction contractor and will be overseen and updated as required if site conditions change by the Project Manager, Environmental Manager, Resource Manager and Ecological Clerk of Works where relevant. All personnel working on the Site will be trained in the implementation of the procedures. The construction contractor will provide a detailed Construction Environmental Management Plan (CEMP) that will include any subsequent planning conditions relevant to the Proposed Development and set out further detail of the overarching vision of how the construction Contractor of the Proposed Development manage the Site in a safe and organised manner.

14.6.2 Operational Phase

A Pre-Connection Enquiry (CDS23006147) was submitted to Uisce Éireann in 2023 on the basis of an office development with a design population of 4,923 people on the subject site. A Confirmation of Feasibility was received in response, stating that a wastewater connection to the public system was feasible subject to upgrades and a potable water connection to the public system was feasible without infrastructure upgrade by Uisce Éireann.

The Proposed Development stormwater drainage network design includes sustainable drainage systems (SuDS) these measures by design ensure the stormwater leaving the site is of a suitable quality.

Water metering arrangements are to be implemented at the potable water connection location, in line with Uisce Éireann standards.

Any necessary maintenance or upgrades of on-site utilities infrastructure during the operational phase of the Proposed Development will be carried out in accordance with the specifications of the relevant service providers and facilitated by facilities management.

14.7 MONITORING OR REINSTATEMENT MEASURES

No additional monitoring or reinstatement is required.

14.8 RESIDUAL EFFECTS OF THE PROPOSED DEVELOPMENT

14.8.1 Construction Phase

The works contractor will be obliged to put best practice measures in place and work in accordance with the CEMP. The implementation of mitigation measures within each chapter of this EIA and measures detailed in Section 14.6.1 of this chapter will ensure that the residual impacts on the material assets considered in this chapter during the construction phase will be ***neutral, not significant,*** and ***short term***.

14.8.2 Operational Phase

The Proposed Development requires electrical power, water supply and connection to the stormwater and foul water networks, respectively.

The implementation of mitigation measures within each chapter of this EIA and detailed in Section 14.6.2 of this chapter will ensure that the residual impacts on the material assets considered in this chapter during the operational phase will be ***neutral, imperceptible,*** and ***long-term***.

14.9 CUMULATIVE IMPACTS OF THE PROPOSED DEVELOPMENT

The cumulative impact of the Proposed Development with any relevant other planned or permitted developments are discussed below. For details on the developments considered for cumulative impacts refer to Chapter 2 and Appendix 2.1 of this EIAR.

14.9.1 Construction Phase

The Proposed Development entails minimal use of public material assets (utilities) during construction therefore there is limited opportunity for the causation of cumulative impacts during the construction phase of the Proposed Development in combination with other planned or permitted developments (as described in Chapter 2).

This list of developments (Chapter 2, Appendix 2.1 of this EIAR) have been reviewed all developments are capable of combining with the Proposed Development and resulting cumulative effects on material assets. Coordination and consultation will be had between the construction contractor and relevant service providers within the locality to facility the Proposed Development. The Proposed Development will be in accordance with the requirements of statutory providers for electrical infrastructure, surface water drainage, foul drainage, and water infrastructure.

The implementation of mitigation measures during construction works as well as the compliance of adjacent development with their respective agreement with network providers (Uisce Éireann, ESB, and Telecoms) means that the Proposed Development in combination with other exiting and permitted development is not likely to result in prolonged utility disruption; notable extra demand on a utility; or medium-term disruption to a significant piece of infrastructure. It is unlikely that there will be significant cumulative effects with other planned or permitted developments (as described in Chapter 2).

The residual cumulative effects on the material assets during the construction phase for the Proposed Development will be ***negative, not significant,*** and ***short-term***.

14.9.2 Operational Phase

The Proposed Development and all permitted developments considered are required to engage with DCC, Uisce Éireann and ESB to ensure that there is sufficient capacity to cater for the increase in water, wastewater, and electricity requirements.

This list of developments (Chapter 2, Appendix 2.1 of this EIAR) have been reviewed all developments are capable of combining with the Proposed Development and resulting cumulative effects on material assets.

Consultations have been undertaken with Uisce Éireann, no significant supply constraints have been identified for development at this location. Consultation will take place with DCC and ESB subject to the grant of the planning application associated with the Propose Development. These National Authorities in considering future connections, take into consideration the environmental impacts of planned developments within the wider network. In developing long term plans for security of supply, these National Authorities for water and energy supply are required to develop resources in compliance with sustainable environmental planning. Therefore, the Proposed Development in combination with other exiting and permitted development is not likely to result in prolonged utility disruption; notable extra demand on a utility; or medium-term disruption to a significant piece of infrastructure. As such, there will therefore be no significant effects on material assets to the wider economy or environment.

Based on the above, it is predicted that the cumulative effects of the Proposed Development with other permitted, planned, and existing developments is, ***neutral***, ***imperceptible, and long-term*** and during the operational phase.