Client: Lidl Ireland GmbH

Project: PROPOSED LICENSED RETAIL DISCOUNT FOODSTORE AT MAIN STREET UPPER, NEWCASTLE, CO. DUBLIN.

Document Title: PRELIMINARY CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN - (CEMP)

Project No.: 22058

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Contents

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Document Title Sheet:

Client:	Lidl Ireland GmbH, Main Road, Tallaght, Dublin 24, D24 PW6K & Lidl RDC (Regional Distribution Centre), Robinstown (Levinge), Mullingar, Co. Westmeath, N91 P921.
Project:	1) The construction of a single storey Discount Foodstore Supermarket with ancillary off-licence use (with mono-pitch roof and overall building height of c. 6.74 metres) measuring c. 2,207 sqm gross floor space with a net retail sales area of c. 1,410 sqm; 2) Construction of a vehicular access point to Main Street Upper and associated works to carriageway and including partial removal of boundary wall / façade, modification of existing footpaths / public realm and associated and ancillary works including proposed entrance plaza area; 3) Demolition of part of an existing rear / southern single storey residential extension (and related alterations to remaining structure) of 'Kelly Estates' building. The original 'Kelly Estates' building (a protected structure - Eircode: D22 Y9H7) will not be modified; 4) Demolition of detached single storey accommodation / residential structure and ancillary wall / fence demolitions to rear of existing 'Kelly Estates' building; 5) Demolition of existing single storey (stable) building along Main Street and construction of single storey retail / café unit on an extended footprint measuring c. 118 sqm and associated alterations to existing Main Street boundary façade; 6) Renovation and change of use of existing (vacant) two storey vernacular townhouse structure to Main Street, and single storey extension to rear, for retail / commercial use (single level throughout) totalling c. 62 sqm; 7) Repair and renewal of existing Western and Eastern 'burgage plot' tree and hedgerow site boundaries; and, 8) Provision of associated car parking, cycle parking (and staff cycle parking shelter), pedestrian access routes and (ramp and stair) structures (to / through the southern and western site boundaries to facilitate connections to potential future development), free standing and building mounted signage, free standing trolley bay cover / enclosure, refrigeration and air conditioning plant and equipment, roof mounted solar panels, public lighting, hard and soft landscaping, boundary treatments and divisions, retaining wall structures, drainage infrastructure and connections to services / utilities, electricity Substation and all other associated and ancillary development and works above and below ground level including within the curtilage of a protected structure.
Project. No.	22058

Disclaimer:

Document Control Sheet:

PROJECT No:	22058				
PROJECT NAME:	Proposed Lidl Licenced Retail Discount Foodstore at MAIN STREET UPPER, NEWCASTLE, CO. DUBLIN.				
DOC. REF:	22058-Preliminary CEMP-Rev 01.docx				
REVISION		DESCRIPTION	Preliminary Construction Environmental Management Plan		
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			PREPARED	CHECKED	ISSUED
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1. PREFACE

This "Preliminary Construction Environmental Management Plan" (CEMP) is prepared based on the design and drawings presented for this scheme in the statutory planning application documents. Any modifications or changes that may be required by the planning authority for this proposal will have to be reviewed for compliance with the requirements of this document. Subject to a successful decision from the planning authority and or An Bord Pleanála, the Clients appointed Main Contractor will prepare their own site specific "Construction Environmental Management Plan" for the approved works which can be made available to the authority if so required.

2. INTRODUCTION

In conjunction with the appointed multi-disciplinary design team, we have been instructed by our clients, Lidl Ireland GmbH, to prepare the "Preliminary Construction Environmental Management Plan" (CEMP Plan) has been developed to outline commitments and mitigation measures to be implemented by the client and their contractors and sub-contractors, during the construction of this proposed Licenced Retail Discount Foodstore on this site at Main Street Upper, Newcastle, Co. Dublin along with all other ancillary and associated site development works above and below ground level to complete this project to the standards required by the building regulations and the conditions of planning permission required for this project.

This Preliminary CEMP describes the proposed works and defines the environmental measures that shall be implemented for the construction works to manage, minimise, or mitigate any potential environmental impacts that may arise because of the proposed development. A detailed description of the proposed development is provided below. This Preliminary CEMP is produced as part of the statutory planning application submission, and it is intended that it will be updated to include more site-specific information once the required statutory permissions are obtained, and the Construction Management Team (CMT) are appointed.

The Preliminary CEMP is an integral part of the Site Safety, Health, Environmental and Quality Management System and constitutes a component of the Construction Health and Safety Plan documentation. The Preliminary CEMP is also subject to the requirements of the site quality management system with respect to documentation control, records control and other relevant measures.

The primary distribution list for this document will include the following personnel:

- Clients Project Manager (PM)
- Appointed Main Contractor (MC)
- Construction Manager (on site) (CM)
- Construction Management Team (CMT)
- Environmental Officer (EO)
- Environmental Consultant (EC)

- Site Supervisors (SS)
- Local Authority (LA)
- Other Relevant Personnel

The Client seeks to comply with all legislation relevant to Environmental Management and requires all appointed Contractors and Sub-Contractors to conduct their work in such a manner that unnecessary risks and disturbance to the environment are avoided. Compliance with the requirements of the Environmental Management System will be a condition of employment on all contracts and is important in the prevention of legal action being taken against the Client and its Contractors and Sub-Contractors.

Should the project secure planning permission, the Preliminary CEMP will be updated in line with all relevant conditions and obligations which apply to the grant of planning permission. The CEMP should be read in conjunction with all approved statutory documents and submitted planning drawings. The CEMP will also require updating by the appointed Main Contractor to identify, assess and satisfy the contract performance criteria as set out by the various stakeholders. The Preliminary CEMP, due to its structure and nature, will also require constant updating and revision throughout the construction period as set out below. Therefore, this is a "live working document" and will be developed further prior to and during the construction stage.

Triggers for amendments to the CEMP will include but are not limited to:

- When there is a perceived need to improve performance in an area of environmental impact.
- As a result of changes in environmental legislation applicable and relevant to the project.
- Where the outcomes from auditing establish a need for change.
- Where Work Method Statements identify changes to a construction methodology to address high environmental risk.
- As a result of an incident or complaint occurring that necessitates an amendment.

This report provides the environmental management framework to be adhered to during the pre-commencement, construction and operational phases of the proposed development and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur.

This Preliminary CEMP identifies the key planning and environmental considerations that must be adhered to and delivered during site construction and operation. This report is intended as a single, amalgamated document that will be used during the future phases of the project, as a single consolidated point of reference relating to all construction, environmental and drainage requirements for the Planning Authority, Developer and Contractors alike.

The CEMP is subject to change based on the following:

- Additional compliance requirements from the local authority pre/during works
- Compliance requirements from the Inland Fisheries Ireland

- Requirements by other state bodies
- Concerns raised by residents affected by the works
- Issues raised by contractors pre/during works.

The CEMP prepared for this development will be subject to periodic reviews as part of the management of the construction process.

2.1 Objectives

The Preliminary CEMP provides a framework for the effective, site-specific procedures and mitigation measures to monitor and control environmental impacts throughout the Construction Phase of the project and ensure that construction activities, in so far as is practical, do not adversely impact the environment, sensitive receptors, potential zone of influence including amenity and traffic in the surrounding area and how these will be protected and the resulting impact of the proposed works. Construction is considered to include all site preparation, site set-up, enabling works, materials delivery, materials and waste removal, construction activities and associated engineering works. The objective of this document is to set out and communicate the procedures, standards, management responsibilities and key environmental obligations that apply to all contractor organisations, their sub-contractors, and employees to address and prevent potential environmental effects that may arise from the construction of the proposed development. The following Preliminary CEMP outlines the potential impacts of the development, details the sensitive receptors, environmental controls, project staging and the mitigation measures that will be implemented to minimise impacts on the ecology.

This Preliminary CEMP has been prepared to support the planning application documents for the proposed development at the site on Main Street Upper, Newcastle, Co. Dublin

2.2 Scope of Preliminary CEMP (CEMP)

This Preliminary CEMP defines the approach to environmental management during implementation and roll-out of the Construction Phase of the project. Compliance with the Preliminary CEMP, the procedures, work practices and controls is mandatory and must be adhered to by all personnel and contractors employed on the construction of the proposed development.

This Preliminary CEMP has been prepared to provide a strategy for the management of the environmental impacts of the construction phase. This report will consider the construction activities required to complete the scheme, possible impacts on receptors and outline the proposed mitigation, management, and monitoring of those impacts. It is intended that the appointed Main Contractor will adopt this management strategy and adapt it to suit the final construction programme for these works. This Preliminary CEMP seeks to promote best environmental practices on-site for the duration of the Construction Phase and provides details on the Environmental aspects of the project, the sensitive ecological receptors within the potential zones of influence and details how these will be protected and the resulting impacts of the proposed works.

This Preliminary CEMP will provide a framework to:

- Comply with all relevant conditions attached to the Grant of Planning Permission by the statutory authority, either the Local Authority Planning Department or An Bord Pleanála (once issued).
- Comply with all relevant conditions attached to the Grant of Fire Safety Certificate by the statutory fire authority of the Local Authority Fire Office (once issued).
- Promote best environmental on-site practices for the duration of the Construction Phase.
- Describe the programme for environmental management during the construction stage.
- Implement those monitoring and mitigation measures identified.
- Outline the principles and minimum standards required during the development of the CEMP (and associated Method Statements) and throughout the construction stage.
- Identify the relevant roles and responsibilities for developing, implementing, maintaining, and monitoring environmental management.
- Outline the procedures for communicating and reporting on environmental aspects of the proposed development throughout the construction phase.

The appointed Main Contractor will be required to develop more specific "Method Statements" for the proposed construction activities, equipment and plant and an environmental monitoring plan for the proposed development. This CEMP should not be considered a detailed "Construction Method Statement" as it will be the responsibility of the appointed Main Contractor to undertake the individual works and to implement the appropriate procedures and progress this documentation prior to commencement of construction. This CEMP outlines the range of potential types of construction methods, plant and equipment which may be used by the appointed Main Contractor to enable their effects to be assessed for the purposes of the planning authority's environmental impact assessment and appropriate assessment prior to determining whether to grant planning permission.

2.3 Document Structure

This Preliminary CEMP is based on measures to ensure legal compliance and established good management practice on-site and includes the following sections:

- Section 1& 2 introduces the proposed development and outlines the purpose of this document.
- Section 3 describes the proposed development and site description in detail.
- Section 4 sets out the framework and mechanisms through which environmental requirements will be managed.
- Section 5 outlines the procedures to be employed during construction to manage environmental aspects including procedures for recording and reporting and taking remedial action in the event of any non-compliance.

- Sections 6 and 7 describe in detail the measures to be implemented to minimise likely significant negative effects, as far as practicable, during the construction of the proposed development.
- Section 8 describes the measures to be implemented to minimise the likely significant effects of COVID-19 (Coronavirus) on the proposed development as required by the CIF and current government requirements.

2.4 'Live Document'

This Preliminary CEMP is considered a "live" document and as such will be reviewed on a regular basis. Updates to this Preliminary CEMP may be necessary due to any changes in environmental management practices and/or contractors, in addition to further mitigation measures that may be identified as part of detailed design and review in terms of Environmental Impacts.

As detailed in later sections, the procedures agreed in this Preliminary CEMP will be audited throughout the project roll-out phase to ensure compliance. All documentation required by this Preliminary CEMP such as plans, programmes, operating procedures should, once received by the appointed contractors, be appended to this document, and reviewed and updated as part of the overall CEMP for the proposed development.

The appointed Main Contractor will be required to update this Preliminary CEMP to ensure that it:

- Is in accordance with all/any conditions that may be scheduled on the grant of planning permission or other statutory consent(s) for the proposed development.
- Where practicable the Contractor should seek to identify opportunities for further reducing significant negative environmental effects and to implement best practice in as far as reasonably practicable, i.e., take every reasonable effort to reduce and prevent negative effects, while enhancing benefits.
- Will have regard to the guidance contained in the handbook published by Construction Industry Research and Information Association (CIRIA).

Further, the following plans, and any others considered relevant, will be incorporated into the Final CEMP:

- Construction Traffic Management Plan.
- Noise and Vibration Management Plan.
- Dust Management Plan.
- Construction Compound Management Plan.
- Emergency Incident Response Plan.

It is expected that amendments to the Preliminary CEMP may be necessary to reflect changes in the project scope, contract scheduling, contractor appointments, environmental management policies, practices or regulations and developments on the site. These reviews and updates are necessary to ensure that environmental performance is subject to continual improvement and that best practice is implemented throughout the construction stage of this project.

3. SITE & PROJECT DETAILS

3.1 Site Description

The application site is located on the southern side of at Main Street Upper, Newcastle, Co. Dublin and has a site area of approximately 1.04hectares (2.5acres). The application site is currently a greenfield site and is bordered to the north by the townhall on Main Street upper, to the west a residential development (St. Finian's way) and to the east by a primary school (St. Finian's National school)

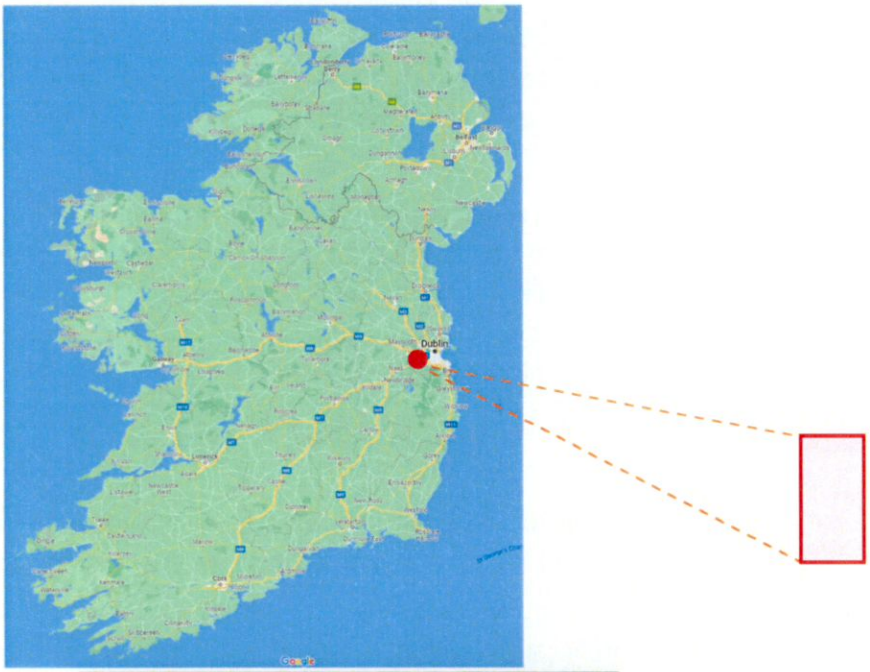


Figure 2.1.1 – Development Location

Figure 2.1.1(a) – Site Location showing the site in Newcastle

Figure 2.1.2 – Aerial Image of the proposed development site at Main Street Upper, Newcastle, Co. Dublin

3.2 Description of the Proposed Project

Lidl Ireland GmbH (the Applicant/Client) are applying for planning permission at this site at Main Street Upper, Newcastle, Co. Dublin.

The proposed development will consist of:

1) The construction of a single storey Discount Foodstore Supermarket with ancillary off-licence use (with mono-pitch roof and overall building height of c. 6.74 metres) measuring c. 2,207 sqm gross floor space with a net retail sales area of c. 1,410 sqm;

2) Construction of a vehicular access point to Main Street Upper and associated works to carriageway and including partial removal of boundary wall / façade, modification of existing footpaths / public realm and associated and ancillary works including proposed entrance plaza area;

3) Demolition of part of an existing rear / southern single storey residential extension (and related alterations to remaining structure) of 'Kelly Estates' building. The original 'Kelly Estates' building (a protected structure - Eircode: D22 Y9H7) will not be modified;

4) Demolition of detached single storey accommodation / residential structure and ancillary wall / fence demolitions to rear of existing 'Kelly Estates' building;

5) Demolition of existing single storey (stable) building along Main Street and construction of single storey retail / café unit on an extended footprint measuring c. 118 sqm and associated alterations to existing Main Street boundary façade;

6) Renovation and change of use of existing (vacant) two storey vernacular townhouse structure to Main Street, and single storey extension to rear, for retail / commercial use (single level throughout) totalling c. 62 sqm;

7) Repair and renewal of existing Western and Eastern 'burgage plot' tree and hedgerow site boundaries; and,

8) Provision of associated car parking, cycle parking (and staff cycle parking shelter), pedestrian access routes and (ramp and stair) structures (to / through the southern and western site boundaries to facilitate connections to potential future development), free standing and building mounted signage, free standing trolley bay cover / enclosure, refrigeration and air conditioning plant and equipment, roof mounted solar panels, public lighting, hard and soft landscaping, boundary treatments and divisions, retaining wall structures, drainage infrastructure and connections to services / utilities, electricity Substation and all other associated and ancillary development and works above and below ground level including within the curtilage of a protected structure.

The proposed development site as presented comprises of the following schedule of areas:

Development Areas Schedule	
Application Site Area	10399m2 (1.04 ha / 2.5 acres)
Proposed Development Gross Floor Space	2,207 m^2
Proposed Licence Retail Foodstore (GFA)	2200m^2
Proposed Net Retail Sales Area	1420m^2
Proposed ESB Sub-Station	24m^2
Proposed Car Park Facilities:	Regular Parking Spaces: 76 spaces Disable Parking: 6 spaces Parent & Child Parking: 5 spaces EV Parking Spaces: 6 Total Parking: 93 Bicycle Parking: 40 spaces

Table 3.2.1: Proposed Development Areas Schedule

3.3 General Construction Operations

The proposed development as presented will be carried out in a phased development with the initial phase including for the site set up and the engineering enabling works preceding the second stage construction of the proposed licenced retail discount foodstore and associated site development works.

The second stage of the works will be the construction of the new licenced retail discount foodstore and associated site development works with all associated facilities and services

and hard and soft landscaping to complete. While the proposed works will be carried out in stages, we now outline the following non-exhaustive list of primary construction activities that will be carried out for the construction of this development:

- Site set up
- Enabling works to include the diversion of the existing drainage ditch into the proposed 300mm diameter culvert.
- Construction of Retaining wall to allow for reduction of site levels to acceptable gradients for retail carpark use.
- Construction of the new headwall for the surface water culvert high side of proposed retaining wall.
- Site preparation works to the car park and new building footprint area
- Construction of foundations for the new building
- Construct new building superstructure
- Construct roof structures and complete all roof coverings and rainwater services
- Install primary drainage and utility services through the building area
- Service connections to public services and utility networks
- Enclose building and complete all external walls
- Fit windows and doors to new building
- Mechanical and electrical fit out
- Internal building fit out and finishes to all units
- Construction of new site boundaries
- Formation of new external car parking spaces and access road
- Landscaping and finished pavement surfaces.

3.4 Site Preparation and Clearance

The proposed development is presented with following main building elements.

(a) Enabling works to lower the ground level of the entire site area for the proposed development.

(b) Demolition of part of an existing rear / southern single storey residential extension (and related alterations to remaining structure) of 'Kelly Estates' building. The original 'Kelly Estates' building (a protected structure - Eircode: D22 Y9H7) will not be modified;

(c) Demolition of detached single storey accommodation / residential structure and ancillary wall / fence demolitions to rear of existing 'Kelly Estates' building;

(d) Demolition of existing single storey (stable) building along Main Street and construction of single storey retail / café unit on an extended footprint measuring c. 118 sqm and associated alterations to existing Main Street boundary façade;

(e) Renovation and change of use of existing (vacant) two storey vernacular townhouse structure to Main Street, and single storey extension to rear, for retail / commercial use (single level throughout) totalling c. 62 sqm;

(f) The construction of the new Licenced Retail Discount Foodstore and associated site development works and landscape works.

Having regard to the existing ground levels on the application site of circa. +90.0m.O.D. - +94.75m.O.D. and the proposed average site levels of circa. +90.00m.O.D. – 93.00m.O.D. and FFL in the proposed building of +92.00m.O.D. the volume of excavated materials will be circa 16,500m^3 as the proposed development will require circa. 4,800m^3 of imported engineering materials to achieve the proposed finished site levels and . The organic material over the entire site area will be removed from site with some being retained for site landscaping and selected imported engineered fill will be used to achieve the site formation level and grades. The topsoil that will be retained for final landscaping will be stockpiled and sealed with the remaining topsoil and sub-soil materials being removed to a licenced facility by a permitted haulier only and records will be retained for this operation.

3.5 Enabling Works

As part of the enabling works required for this proposed development on this site, the existing open surface water ditch will be piped in a new 300mm diameter culvert. The 300mm pipe is collecting runoff from the existing spring located along the western boundary. This culvert will collect surface water at a new headwall located to the rear of the new retaining wall and will divert around the footprint new pedestrian access and flow to the existing 300mm culvert located along the western boundary of this site.

This ditch is required to be diverted to accommodate the proposed new site access to the southwest corner as presented for this development whilst maintaining the ditch servicing the retaining site to the south.

The ditch that flows along the western boundary in a south to north direction is the only hydrological feature in the area. The existing 300mm culvert will be re-routed thorough the site and a headwall will be installed to minimise flood risk. The existing spring and its connection to the culvert will be maintained within the proposed development.

3.6 Surface Water

Pluvial flooding is the result of rainfall-generated flows that arise before run-off can enter a watercourse or pipeline and is usually associated with high-intensity rainfall events. The proposed works may give rise to a very low risk of pluvial flooding occurring during the construction stage, primarily during the excavation process on the proposed development site area as the levels may be lowered slightly initially to achieve construction formation level, but the area will then be filled with imported engineered stone fill material to achieve the required design levels for the proposed development. During this process, the Main Contractor will need to have suitable mitigation measures, such as temporary pumps, available to deal with any build-up of water in excavation areas. It would be expected that this site will have a low-water table level in general so any excavation works for this development should be completed in suitable weather conditions.

Fluvial flooding is because of a river/estuary flooding. River/estuary flood events are classified into three categories of:

- Low Probability:
- Medium Probability
- High Probability

Low Probability flood events have an indicative 1-in-a-1000 chance of occurring or being exceeded in any given year. This is also referred to as an Annual Exceedance Probability (AEP) of 0.1%. The Present-Day scenario is referred to as the Current Scenario in the Maps and Plans. The Present-Day maps were generated using methodologies based on historic flood data, without taking account of potential changes due to climate change. The potential effects of climate change have been separately modelled and reported on.

Medium Probability flood events have approximately a 1-in-a-100 chance of occurring or being exceeded in any given year. This is also referred to as an Annual Exceedance Probability (AEP) of 1%.

The Present-Day scenario is referred to as the Current Scenario in the Maps and Plans. The Present-Day maps were generated using methodologies based on historic flood data, without taking account of potential changes due to climate change. The potential effects of climate change have been separately modelled and reported on.

High Probability flood events have approximately a 1-in-a-10 chance of occurring or being exceeded in any given year. This is also referred to as an Annual Exceedance Probability (AEP) of 10%.

The Present-Day scenario is referred to as the Current Scenario in the Maps and Plans. The Present-Day maps are generated using methodologies based on historic flood data, without taking account of potential changes due to climate change.

From our review of the Flood Risk Assessment report prepared by JBA Consulting for this project, we understand that the flood risk associated with the proposed development site would be "Low" and would be appropriate for development under "The Planning System and Flood Risk Management" Planning Guidelines.

The proposed development is to be completed with a new surface water collection network including new gullies, rainwater gardens and permeable tarmac in the car park area. These will collect all surface water from the hardstanding surfaces and discharge through the new designed pipe network to a new petrol/oil interceptor located on the inlet side of the surface water attenuation tank. This permeable tarmac subbase and attenuation tank have been designed for a 1 in a 100-year storm event + 20% climate change allowance and will provide 618m3 storage capacity. The discharge rate will be controlled with an inline Hydro-Brake fitted in the outlet manhole from the new attenuation tank and will control flow to discharge at 2.08 l/s to the adjacent open drainage culvert.

Construction Stage:

The appointed Main Contractor will ensure that fully detailed records are maintained of any incident / event likely to cause non-compliance and / or harm to the environment. Environmental incidents / near misses should be reported and recorded. Appropriate protection bunds may be required for the storage of fuel and chemicals during the construction stage. It would be advisable to store these materials away from any excavated, low-lying areas on the site and to include a response plan for construction personnel if flooding were to occur.

The appointed Main Contractor will be made aware of the risk of a high-water table in deep excavation areas associated with this proposed development and that they will have to have suitable mitigation measures in place to handle surface water for the duration of the works.

As a minimum measure, we will require that the appointed Main Contractor will have to identify a suitable location on the site that will not interfere with the proposed development, to install a temporary surface water settling lagoon/ holding pond (see Figure 3.6.1 below) that can be pumped from the excavation areas to retain and settle any excess surface water for a minimum period of 24 hours on this site. The settlement lagoon/ pond will ensure that all surface water run-off from the active working areas will be discharged to these to allow for all silts and solids to settle before being allowed to discharge to the adjacent water courses.

This will mean that the temporary settlement system can be maintained by the appointed Main Contractors so as to remove all silt from any discharges from site during the construction stages.

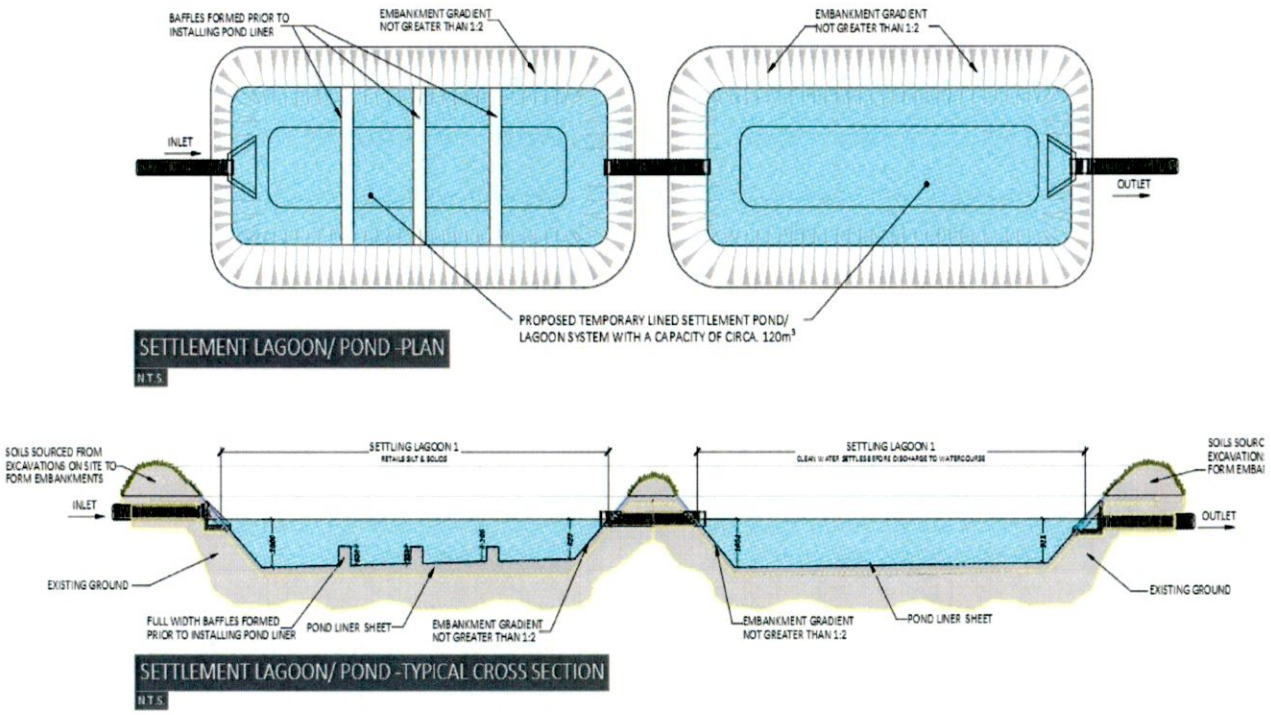


Figure 3.6.1: Example of a Typical Temporary Settlement Lagoon/ Pond

Post Construction

The proposed development will be completed with a new surface water collection network that will include a new on-site attenuation system that has been designed in accordance with the requirements of the SuDS Manual (CIRA Publication C697). It is also proposed to install a suitable flow control device (Hydrobrake or similar approved device) in the outlet manhole to maintain a controlled discharge rate from this site in order to adequately address any potential risks from this discharge to the existing collection network. The attenuation volume and the discharge rate from this proposed development are provided in the Services Design Report prepared for this submission and provided under separate cover. All works to this service will be carried out in accordance with Irish Water's requirements and details.

3.7 Groundwater

Groundwater flooding results from high sub-surface water levels that impact upper levels of the soil and overland areas that are normally dry and even though the GSI groundwater vulnerability mapping indicated a "Moderate" to "High" risk to the groundwater at this location, there is no record of historic groundwater flooding here. Similarly, there were no predictive groundwater flooding extents identified within a 2km radius of the existing site, so we conclude that the risk of groundwater flooding has been screened out at this stage.

3.8 Foul Sewers

As there are no existing services on this application site area the new store will be serviced with a new foul sewer collector line that is proposed to be connected to the existing public foul sewer located along Main Street Upper. The discharge volumes from the proposed development are provided in the Services Design Report prepared for this submission and provided under separate cover. All works to this service will be carried out in accordance with Irish Water's requirements and details. The connection to the existing public foul sewer will be agreed with Irish Water.

3.9 Water Supply

The proposed development will be provided with a new connection to the existing public watermain infrastructure with a new bulk meter provided to the development along Main Street Upper. Three (3) new fire hydrants will be provided to serve this development and be compliant with the requirements of the fire regulations. All works to this service will be carried out in accordance with Irish Water's requirements and details – (see Drg. No. 22058-1026-PL1).

3.10 Development Works

Lidl Ireland GmbH, if successful with this planning application will appoint an experienced Main Contractor for the construction phase of this proposed development. The appointed Main Contractor for the works will be required to comply with this Preliminary Construction Environmental Waste Management Plan (CEMP) and any revisions made to this document in the preparation of method statements for the various elements of the construction phase of the proposed development. An overview of the proposed Construction Methodologies is provided below in this non-exhaustive list of primary construction activities:

- Site set up, construction compound

- Site clearance and associated specialist works
- Protection of existing live services
- Enabling Works
- Excavation operations
- Construction of foundations for main building
- Construction of new building superstructure
- Construction of new roof structure and coverings
- Fitting windows, doors, and screens to new building
- Mechanical and electrical fit out
- Internal buildings fit out and finishes, painting, decorating etc.
- Construction of on-site drainage and utility pipe networks
- Markings to new car parking areas
- Landscaping, boundaries and finished pavement surfaces. etc.

3.11 Building Construction

The proposed development of the Lidl licenced retail discount foodstore with ancillary off-licence area will be constructed on a foundation designed specifically by the appointed structural engineers, who will have considered the loading requirements for this superstructure. The superstructure will be constructed using either a concrete framed structure or steel framed structure and all walls will be non-load bearing panels completed to the finishes proposed by the project architect and as presented on the submitted planning drawings. The windows and doors are proposed to be double glazed, thermally broken, aluminium units to a selected approved colour. The proposed building will be completed externally to the selected finishes proposed with a metal deck roof covering to the retail area in a light grey colour. The roof over the proposed licenced discount retail area will be constructed on a glue-laminated fish-bellied roof beams that will support the selected Kingspan insulated roof covering that will carry the proposed photovoltaic solar panel units.

4. ENVIRONMENTAL MANAGEMENT POLICY

The Client, Lidl Ireland GmbH, recognises and seeks to minimise the impacts of its business on the environment. The appointed Main Contractor will be committed to:

- Carrying out the project in full compliance with all applicable environmental regulations and to other statutory and project-specific requirements.
- Implementing good environmental practice as part of designs, e.g., carry out design reviews, risk assessments, etc. on all relevant parts of the project.

- Preventing pollution from activities through a system of operational controls that include written instructions and staff training appropriate to the environmental requirements of their work.
- Continually improving project environmental performance by setting objectives and targets and implementing them through an environmental programme.
- Informing all project employees about environmental policy and explaining what they should do to protect the environment.
- Implementing this policy through the successful operation of the CEMP. This policy will be reviewed periodically, considering current and potential future business issues.

As part of the environmental management policy, contractors will have to comply with all relevant environmental legislation and take account of published standards, accepted industry practice, national guidelines, and codes of practice appropriate for the proposed development.

The Contractor will be required to develop and implement an Environmental Management System (EMS) that follows the principles of ISO14001. The Contractor's EMS should include an environmental policy, operational, monitoring and auditing procedures to ensure compliance with all environmental requirements and to monitor compliance with environmental legislation and the environmental management provisions outlined in the relevant documentation.

4.1 Responsibilities:

- Employer – (E)

Lidl Ireland GmbH will be the employer responsible for ensuring that competent parties are appointed to undertake the construction works and that sufficient resources are available to facilitate the appropriate management of risks to the environment identified for this project.

- Employer's Representative – (ER)

Lidl Ireland GmbH and/or the Employer's Representative (ER) appointed by them will be responsible for monitoring compliance with the CEMP. The ER may be required to appoint temporary or permanent specialists with appropriate skills and experience as required to implement on-site procedures and monitor construction on behalf of the employer, i.e., competent experts in biodiversity and architecture, archaeology and heritage, noise, vibration, dust, waste, land, soils, contamination and/or water.

- Construction Management Team – (CMT)

Lidl Ireland GmbH will appoint a Construction Management Team (CMT) who will be responsible for managing the design information for the proposed works. THE CMT will attend site meetings and carry out works inspections in accordance with the BCAR inspection plan and the requirements of the current Building Regulations and conditions of planning for the proposed development.

- The Main Contractor – (MC)

The Main Contractor (MC) appointed will be responsible for the organisation, direction, and execution of environmental related activities during the detailed design and construction of the proposed development. The Contractor is required to undertake all activities in accordance with the relevant environmental requirements, including the consent documentation and other regulatory and contractual requirements.

- Site Manager – (SM)

The Site Manager (SM) will be appointed by the Main Contractor to oversee the day-to-day management of working areas within the site and ensure that effective, safe, planned construction activities are delivered on an ongoing basis to the highest standards. The Site Manager will be a suitably qualified, competent, and experienced professional who will oversee site logistics, communicate regularly with construction staff, accommodate project-specific inductions for staff on site and ensure that all work is compliant with the relevant design standards and health and safety legislation.

- Environmental Manager – (EM)

An Environmental Manager (EM) will be appointed by the Contractor to ensure that the CEMP is effectively implemented. The Environmental Manager will be a suitably qualified, competent, and experienced professional who will perform the necessary tasks, review environmental procedures, and consult with the members of the construction team and stakeholders as required. The Environmental Manager will be responsible for:

- Preparing, maintaining, and implementing the CEMP.
- Establishing, implementing, and maintaining the EMS in line with ISO 14001.
- Conducting regular environmental inspections and audits as specified in the contract and checking adherence to the CEMP.
- Ensuring that construction occurs in accordance with the relevant environmental requirements and that such compliance is adequately recorded and documented.
- Completing a site inspection and compiling an environmental compliance as agreed and specified in the CEMP.
- Attending site and stakeholder meetings as required.
- Keeping up to date with relevant environmental best practice and legislative changes.
- Liaising with the relevant staff to prepare Method Statements and relevant plans for all activities where there is a risk of environmental damage.
- Having a detailed level of knowledge on all aspects of environmental information associated with the proposed development.
- Ensuring all personnel have undertaken adequate environmental inductions, awareness briefings and training (including subcontractors).
- Dealing with environmental complaints.

- Managing and responding to environmental incidents and ensuring that all incidents are recorded and reported in an appropriate manner.
- Liaison Manager – (LM)

A liaison manager (LM) will be appointed and will be responsible for managing such tasks as the following:

- Briefing residents/ neighbours on progress and issues as necessary.
- Liaising with the local authority and emergency services as appropriate; and
- Liaising with local Gardaí, particularly in relation to traffic movements and permits where necessary.

Contact details for the liaison manager will be posted on all construction site notice boards and on any other information or correspondence, which may be distributed from time to time.

- Environmental Specialists engaged by the Contractor – (ES)

To fulfil its obligations under the CEMP and to support its Environmental Manager, the Contractor will be responsible for engaging suitably qualified and experienced professionals including, where necessary, the following (i.e., depending on the scope of the contract) competent experts:

- Project Archaeologist.
- Project Ecologist.
- Noise and vibration specialist.
- Air quality and dust specialist.
- Land, soils, and contamination specialist.

The primary distribution list for all documentation for this project will include the following:

- Client (E)
- Client's Project Manager (ER)
- Appointed Main Contractor (MC)
- Construction Site Manager (SM)
- Construction Management Team (CMT)
- Environmental Manager/Officer (EM)
- Environmental Consultant (ES)
- Liaison Manager (LM)
- Site Supervisors
- Other Relevant Personnel

4.2 Site Environmental Awareness

The following general site Environmental Rules will apply. These general rules will be communicated to all site personnel via the site induction training, and they will be posted across the site at strategic locations, such as the site entrance, canteen and near the entrances to buildings.

GENERAL SITE ENVIRONMENTAL RULES

DO	Report any signs of pollution or environmental damage to the manager, no matter how small.
DO	Report any spills, incidents or near misses that occur on site immediately to the site foreman.
DO	Refuel only in designated areas with spill kits available.
DO NOT	Dispose of anything into a drain or onto land. All waste must be sent to the designated site waste management areas.
DO NOT	Throw litter. All waste must be sent to the site waste management contractor.
DO NOT	Drive plant or machinery outside the authorised working boundaries of the site.

IF IN DOUBT, ASK THE CMT SITE SUPERVISOR AND/OR ENVIRONMENTAL OFFICER FOR FURTHER INFORMATION.

UNDER NO CIRCUMSTANCES WILL BURNING OF MATERIALS OR PACKAGING BE PERMITTED ON SITE

The Main Contractor will develop Environmental Procedures to control the potential impacts from the construction phase of the development. These procedures together with the site Environmental Policy are to be made available in the main site offices. The training of the site construction staff is the responsibility of the Main Contractor. An environmental training programme will be organised for onsite personnel to outline the CEMP and to detail the site environmental policy.

A brief outline of this CEMP will be incorporated into the site induction course. Contractors shall verify the competency of their drivers and sub-contractor drivers. Where practical, employers are encouraged to identify a pool of drivers who would regularly be used to service the project.

4.3 Communication

The Main Contractor will appoint a Project Liaison Manager (LM) who will take all reasonable steps to engage with stakeholders in the local community, focusing on those who may be affected by the construction works including residents, businesses, community resources and specific vulnerable groups. Communication with the local community, local authority and other relevant stakeholders shall be undertaken at an appropriate level and frequency

throughout construction. Where communications are related to environmental issues the Environmental Manager (EM) will be informed and engaged with, as appropriate.

Lidl Ireland GmbH recognises the importance of effective community liaison to reduce nuisance to residents, to ensure public safety and welfare and to help ensure the smooth running of construction activities. Important issues in ensuring good relations are:

- Providing information for the public during the construction phase, (particularly nearby sensitive receptors).
- Providing the correct points of contact and being responsive; and
- Ensuring good housekeeping in all aspects of the operations.
- A 'good neighbour' policy will be implemented, as far as possible. Key aspects of this policy include:
- Early implementation of the policy, i.e., from the commencement of construction.
- Reduction of nuisance factors.
- Maintaining access to neighbouring premises and businesses.
- Clear and concise information; and
- Undertaking timely liaison with stakeholders.

The Main Contractor will ensure that local residents, businesses, occupiers, general users of the area and stakeholders are informed in advance of construction activities that may affect them. Relevant obligations and procedures in relation to advance notice of works will be identified in the updated CEMP.

All notifications will detail the nature, estimated duration and working hours. All notifications will include a project-specific contact number to which any enquires can be directed. The Main Contractor will be responsible for preparing and issuing the notifications subject to the relevant approval and consents.

4.4 Communication – Construction Personnel

In addition to site inductions provided by the Main Contractor, sub-contractors will be obliged to conduct safety meetings / toolbox talks on relevant EHS topics for all employees in their care on a weekly basis. Details of all safety meetings / toolbox talks, including topics and attendees, must be submitted to the Main Contractor's appointed safety consultant/officer.

4.5 Emergency Contacts

An emergency contact list will be established and made available to all construction staff employed. The contact list shall be displayed prominently on site as well as at suitable locations where construction activity is being carried out around working areas. The contact list will include key environmental representatives who may need to be contacted in the event of an incident also. (See Appendix No. 1)

4.6 Enquiries and Complaints

The Contractor will establish a process for handling all enquires including complaints. All enquires will be recorded and include details of the response and action taken. This will be available upon request for inspection by the local authority. All enquiries, whether a query or a complaint, will be dealt with in a timely manner. The Environmental Manager (EM) will be immediately informed of any environmental-related issues that have been raised. Where appropriate, the Environmental Manager (EM) will be responsible for informing the local authority, relevant stakeholders, and statutory bodies.

5. ENVIRONMENTAL MANAGEMENT PROCEDURES

5.1 Environmental Management

Environmental impacts during construction will be mitigated or reduced where possible. In this regard, the Main Contractor will be required to produce an environmental management plan for approval prior to commencing any works on this site. The Main Contractor's CEMP will be a development of this Preliminary CEMP.

This plan will deal with issues such as noise and dust mitigation measures, hours of operation, traffic management, waste management, environmental management (including debris from construction traffic, noise, dust, air quality and the like), demolition, protection of trees, works to protected structures, etc.

5.2 Training, Awareness and Competence

The Main Contractor will be selected with due consideration of relevant qualifications and experience in similar types of projects. The Main Contractor will be required to employ construction staff with appropriate skills, qualifications, and experience appropriate to the needs of the works to be carried out during construction.

A site induction will be provided to all construction staff before they commence work on site. Where appropriate, the Contractor will identify specific training needs for the construction workforce and will ensure that appropriate training requirements are fulfilled.

The Main Contractor will establish an Environmental Training and Awareness Programme and ensure that all personnel receive adequate training prior to the commencement of construction activities. A baseline level of environmental awareness will be established through the site induction programme. Key environmental considerations and objectives will be incorporated into this induction specifically, site inductions will cover the following as a minimum:

- Introduction to the Environmental Manager.
- Description of the CEMP and consequences of non-compliance.
- The requirements of due diligence and duty of care.
- Overview of conditions of consents, permits, and licences.
- Requirements associated with community engagement and stakeholder consultation.
- Identification of environmental constraints and notable features within the site; and

- Procedures associated with incident notification and reporting including procedures for dealing with damage to the environment.

Nobody will work on site without first receiving the environmental induction training. Signed records of environmental training will be maintained and made available to the Employer's Representative (ER). Site briefings and talks will be carried out on a regular basis to ensure that construction staff have an adequate level of knowledge on environmental topics and community relations and can effectively follow environmental control procedures throughout construction phase.

5.3 Implementation of Controls

The appointed Main Contractor and all sub-contractors shall be responsible for the implementation of operational control measures identified. Sub-contractors will comply with the requirements of the Main Contractor to document and seek approval for Method Statements, permits and other site-generated documentation as requested.

This CEMP will form part of tender and contract documentation for each works contract. Requirements and responsibilities will be reviewed with each sub-contractor at site kick-off meetings and at weekly progress meetings.

Any contractor submitting a tender for the project must inform the Client of any legal proceedings with a regulatory authority, including the Environmental Protection Authority (EPA) or environmental agencies of other jurisdictions.

Contractors shall ensure that any sub-contractors working under their remit are supplied with a copy of the CEMP, receive sufficient environmental training and are aware of their environmental obligations on the project.

Environmental requirements identified will be controlled as follows:

- Procedures and control measures as set out in this CEMP
- Approved Method Statements and Risk Assessments from contractors which shall address all potential environmental impacts for the specific task
- Detailed contractor plans for specific environmental aspects
- Emergency response plans
- Specific induction training before commencing work.

In summary, it is expected that all contractors will follow good environmental practice throughout all activities.

5.4 Planning Conditions

It is normal practice for the local authority or An Board Pleanála (if appealed) to include a number of specific environmental conditions as part of their grant of planning permission for the proposed development. The compliance with the environmental conditions and the proposed control / mitigation measures will be included in the next version of the CEMP once these are known.

5.5 Meetings

The Employer's Representative (ER) will arrange regular meetings to discuss environmental matters and ensure effective coordination throughout the construction phase. The Environmental Manager will be responsible for arranging monthly meetings and site walk overs with the Employer's Representative. The Environmental Manager will develop and distribute minutes of the monthly meetings and distribute them accordingly. All matters raised must also be included in all monthly site management meetings.

5.6 Monitoring, Audits, and Inspections

For the duration of the construction phase the environmental performance of the Main Contractor and sub-contractors will be monitored through site inspections and audits. The programme for monitoring, inspections and audits shall be specified in the contract and it is likely to be a combination of internal inspections and independent external audits. Records of all inspections carried out should be recorded on standard forms and all actions should be closed out in a reasonable time. The updated CEMP will include further details of inspection procedures.

Routine inspections of the construction activities will be carried out by the Environmental Manager daily to ensure all necessary environmental measures relevant to the construction activities are being effectively implemented by all construction staff, ensuring legal and contractual conformity. More detailed inspections will be undertaken by the Environmental Manager on a weekly basis. The weekly inspections would be appropriately documented by the Environmental Manager and copies of these records and any action required to be undertaken should be made available to the Employer's Representative.

Periodic inspections by the Main Contractor will address environmental issues including dust, litter, noise, traffic, surface water, waste management and general housekeeping.

The frequency of these audits (weekly / monthly / other) will be based on the nature of contractor activity ongoing at the specific time.

Each month one of the weekly inspections will include a review of environmental documentation and records. The monthly inspection will be recorded on a standard form and reported to the Employer's Representative within five days of the inspection taking place. This standard form will address the following as a minimum:

- Summary of compliance/non-compliance with the current CEMP.
- Results and interpretation of all monitoring programmes.
- Key issues noted in inspections and/or audits.
- Summary record of non-conformities, incidents, and corrective actions.
- Summary of environmental complaints and queries received in relation to environmental matters; and
- Summary record of environmental training undertaken by all staff.

5.7 Keeping of Records

The Main Contractor will ensure that fully detailed records are maintained of any incident / event likely to cause non-compliance and / or harm to the environment. Environmental incidents / near misses should be reported and recorded.

Complaints and follow-up actions on the construction site will be managed by the Main Contractor and sub-contractors will ensure that all complaints are recorded according to these requirements.

Each sub-contractor will be responsible for ensuring that a full record and copy of all Safety Data Sheets (SDS) pertaining to their works is kept on file and up to date in their site offices. The Main Contractor will also retain a duplicate copy of all SDSs held by the sub-contractors.

The Main Contractor will be responsible for monitoring the movement and treatment of all waste during the construction phase of the project. This will entail recording the nature, quantities and off-site destination of all waste materials produced.

5.8 Non-Conformance and Corrective and Preventative Action

Corrective actions are measures to be implemented to rectify any non-conformances (i.e., exceedance of criteria or targets) identified during monitoring, inspections and/or audits. In the first instance, an investigation should be undertaken by the Environmental Manager to identify the cause of any non-conformances. Appropriate remedial measures shall be identified and implemented as soon as practicable to prevent further exceedances. If necessary, the appropriate statutory authority and stakeholders will be notified.

Where new or amended measures are proposed, the relevant CEMP will be updated accordingly by the Environmental Manager and the Employer's Representative should be informed at the earliest opportunity.

Corrective Action Reports (CARs) will be issued to ensure that prompt action is agreed and committed to, with a view to the effective resolution of any deviations from the CEMP requirements or any environmental issues.

The Corrective Action Report will describe in detail the cause and effect of a non-conformance on site and describe the recommended corrective action that is required to remedy it. An appropriate timeline for closing out the corrective actions will be identified by the Contractor as well as arrangements for the Environmental Manager verifying the Corrective Action Report and informing appropriate authorities and stakeholders in a timely manner.

CARs may be raised as a result of:

- An internal or external communication
- An internal audit
- A regulatory audit or inspection
- A suggestion for improvement
- An incident or potential incident.

All corrective action requests will be numbered and logged.

6. GENERAL REQUIREMENTS

A "good housekeeping" policy will be employed by the Main Contractor at all times. This will include, but not necessarily be limited to, the following requirements:

- General maintenance of working areas and cleanliness of welfare facilities and storage areas.
- Provision of site layout map showing key areas such as first aid posts, material storage, spill kits, material and waste storage, welfare facilities, etc.
- Maintain all plant, material and equipment required to complete the construction work in good order, clean, and tidy.
- Keep construction compound, access routes and designated parking areas free and clear of excess dirt, rubbish piles, scrap wood, etc. at all times.
- Provision of adequate welfare facilities for site personnel.
- Details of site managers, contact numbers (including out of hours) and public information signs (including warning signs) will be provided at the boundaries of the working areas.
- Installation of appropriate security, lighting, fencing and hoarding at the working area.
- Effective prevention of oil, grease or other objectionable matter being discharged from the working area.
- Provision of appropriate waste management facilities and regular collections to be arranged.
- Excavated material generated during construction will be reused on site as far as practicable and surplus materials/soil, should it be deemed a by-product, shall be recovered or if considered to be waste material, disposed of to a suitably authorised waste facility site.
- Effective prevention of infestation from pests or vermin, including arrangements for regular disposal of food and material attractive to pests will be implemented.
- Maintenance of self-contained wheel washing facilities at the construction compound and other contaminant measures as required.
- No discharge of site runoff or water without agreement of the relevant authorities and an appropriate discharge licence, if relevant.
- Open fires will be prohibited at all times.
- The use of less intrusive noise alarms which meet the safety requirements, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms.

- Maintenance of public rights of way, diversions and entry/exit areas around working areas for car users, pedestrians and cyclists where practicable and to achieve inclusive access.
- Material handling and/or stockpiling of materials, where permitted, will be appropriately located to minimise exposure to wind; and
- Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods.

6.1 Construction Health and Safety Health and Safety

The Contractor will be required to ensure all Health & Safety requirements are agreed with the local authority. This is to protect the public who will be accessing this area during the construction phase of the works and will include all suitable temporary signage, barriers and hoarding as necessary.

All construction staff and operatives will be inducted into the security, health and safety and logistic requirements on site prior to commencing work. All contractors will be required to progress their works with reasonable skill, care and diligence and to proactively manage the works in a manner most likely to ensure the safety, health and welfare of those carrying out construction works, all other persons accessing this area and interacting stakeholders.

Contractors will also have to ensure that, as a minimum, all aspects of their works and project facilities comply with legislation, good industry practice and all necessary consents. Particular cognisance will be taken by the Contractor of managing the use of machinery in the public environment.

The requirements of the Safety, Health and Welfare at Work Act 2005 (Government of Ireland, 2005), the Safety, Health and Welfare at Work (Construction) Regulations, 2013 (Government of Ireland, 2013), as amended, (the "Regulations") and other relevant Irish and EU safety legislation will be complied with at all times.

As required by the Regulations, a Health and Safety Plan will be formulated which will address health and safety issues from the design stages through to completion of the construction and maintenance phases. This plan will be reviewed and updated as required, as the development progresses. In accordance with the Regulations, a "Project Supervisor Construction Stage" will be appointed as appropriate. The Project Supervisor Construction Stage will assemble the Safety File as the project progresses.

6.2 Welfare Facilities

Welfare facilities will be provided, as appropriate, for construction staff and site personnel, such as locker rooms, toilets, showers, kitchen, etc. The construction compound will be used as the location for worker welfare facilities.

Potable water will be made available by installing a temporary construction water connection. Where an increase in foul flows during the construction phase cannot be accommodated by the adjacent wastewater treatment plant, the Contractor will arrange for the foul water to be stored on site and removed as required by a licenced haulier only.

6.3 Hoarding and Fencing

A site boundary in the form of hoarding or approved fencing system will be established around the full perimeter of the site before any significant construction activity commences. The hoarding/fencing will be a minimum of 2.4m high to provide a secure boundary to what can be a dangerous environment for those that have not received the proper training and are unfamiliar with construction operations. Site hoarding also performs an important function in relation to minimising nuisance and effects including:

- Noise emissions (by providing a buffer);
- Visual impact (by screening the working areas, plant and equipment); and
- Dust minimisation (by providing a buffer).

The erection of hoarding would be of a similar nature to what is carried out on most construction sites. Mounting posts would be erected and the posts will be set in concrete or otherwise secured. The size and nature of the posts and hoarding would depend on the requirements for any acoustic mitigation as well as preferences that the Contractor may have. Where practicable, hoarding and fencing would be retained, re-configured and re-used between working areas as the construction activities progress.

The following measures will be applied in relation to hoarding and fencing:

- Maintenance of adequate fencing and hoardings to an acceptable condition to prevent unauthorised access to working areas and provide noise attenuation, screening, and site security where required;
- Appropriate sight lines/visibility splays will be maintained around working areas to ensure safety of both vehicles and pedestrians is preserved;
- Use of different types of fencing and hoarding (e.g., mesh fence of solid hoarding including hoardings used for noise control);
- Temporary fences may be used in certain areas, such as for short term occupation of working areas;
- Display information boards with out of hours contact details, telephone helpline number (for comments/complaints) and information on the works;
- Erect notices on site boundaries to warn of hazards on site such as deep excavations, construction access, etc.;
- Signage to be displayed which direct pedestrians and convey "Business as Usual" for adjoining businesses;
- Keep hoarding and fencing free of graffiti or posters;
- Retain existing walls, fences, hedges and earth banks as far as reasonably practicable; and
- Appropriate positioning of the fencing or hoarding to minimise the noise transmitted to nearby receptors or from plant, equipment and vehicles entering or leaving the working area.

6.4 Site Compound/Welfare Facilities

The proposed site compound shall be located within the site boundary and positioned to ensure that deliveries, staff parking and visiting vehicles do not wait on the public road before entering the site insofar as is practicable. The appointed Main Contractor is to confirm details and location of the proposed works compound before proceeding on site.

The compound shall be a secured area containing all welfare facilities required for completion of the works. Construction of the compound shall be from clean materials and the Contractor shall ensure that run-off from potentially contaminating surfaces, i.e., parking or material stockpiles, is contained and treated appropriately in a either a temporary, on-site settling pond or a holding tank. 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 all be within the confines of the development site. Adequate statutory warning signs will be on display to illustrate the required PPE and risks associated when entering the construction site.

The site shall be appropriately hoarded prior to commencement of the works and the hoarding shall display an emergency out of hours contact telephone number for the Main Contractor at the main entrance.

6.5 Working Hours

Working hours of the site shall be restricted in accordance with the requirements of granted planning permission to minimise any disruption. Normal core construction working hours for the proposed development will be:

- Monday – Friday: 07:00 – 19:00 -(7am – 7pm)
- Saturday: 08:00 – 16:00 -(8am – 4pm)

Although no significant rock breaking is envisaged on this site, if it is required, all rock breaking activities will be undertaken during daytime hours. The removal of waste material off site by road and regular deliveries to site would be generally confined to daytime hours but outside of peak traffic hours (i.e., between 10am to 4pm).

The construction shift times will ensure any staff travelling to the site by car will have limited impact on the peak periods of 08:00 - 09:00 in the morning and 17:00 - 18:00 in the evening as it is envisaged most construction staff will arrive to work before 08:00 in the morning and leave after 18:00 in the evening.

It may be necessary in exceptional circumstances to undertake certain activities outside of the core construction working hours. Any construction outside of the core construction working hours will be agreed in advance with the local authority and scheduling of such works will have regard to nearby sensitive receptors.

6.6 Parking

The site set-up shall allow for adequate parking for all site staff within the confines of the proposed site boundary. No site vehicles will be permitted to park along the public roads or outside the working site boundary. The Main Contractor will provide a suitable secure area for all site personnel vehicles for the duration of the works.

6.7 Vehicle Movements

Construction traffic shall route to site via Station Road. Haulage contractors will be notified of this main access route and alternative haul routes if required.

Construction vehicles should, where possible, adhere to the following principles:

- Avoid peak hour movements
- Vehicles should endeavour for two-way use if possible
- Ensure part loads are avoided to minimise trips.

Signage should be provided by the Main Contractor on approach roads to the site to notify the public of the site entrance ahead. Traffic management and on-site signage shall indicate clear routes for construction vehicles.

The existing site entrance will be used for all construction access to the site. New temporary signage advertising construction access ahead will be provided along the Station Road access roads primarily.

Adequate measures shall be provided to minimise tracking of dirt and debris onto the public roads network. Precautions shall be taken to control run-off from any washing facilities and a road sweeper shall be utilised to clean roads and car park surfaces when required.

The construction works will generate additional traffic which will use the public infrastructure around the site. It is anticipated that deliveries will be continuous throughout the build process, but certain peaks will be expected for the following activities:

- Topsoil export
- Import of fill materials
- Superstructure
- Car Park and site development works.

In general, all deliveries to the site should be scheduled to avoid traffic congestion and be programmed for non-peak traffic flow periods.

The on-site earthworks operations require no significant import/export of materials to generate vehicle movements. Additional traffic will primarily be generated by construction workers travelling to and from the site. The additional traffic generated by the construction site daily will not represent a significant increase on existing traffic levels.

To ensure the safe access of all construction vehicles to the development site the Client will instruct the appointed Main Contractor to provide a site specific "Construction Traffic Management Plan" for this project to the local authority for approval prior to works proceeding. In general, all materials used for the construction of this type of building are delivered in regular sized HGV or rigid vehicles except for the delivery of the main roof beams, which are imported glulam members that are circa. 25m long. The delivery of these items requires a specific road haulage licence to be obtained from the Port of Delivery to the subject site, through whatever jurisdictions they travel to this site, and this is the responsibility of the Main Contractor and his appointed specialist supplier to manage.

6.8 Emergency Access

The Main Contractor will be required to maintain emergency access routes throughout construction and identify site access points for each working area. This should be developed in partnership with the emergency services and documented as part of the Emergency Incident Response Plan.

6.9 Materials Storage

The Main Contractor shall ensure that all materials are stored in an appropriate and safe fashion and that run-off from materials storage areas is managed in accordance with the nature of the materials. Run-off from earthworks and materials stockpiles shall be contained to prevent silt from entering the watercourse. Topsoil stockpiles shall have sealed surfaces to stabilise them.

6.10 Site Lighting

During the construction stage the appointed Main Contractor will provide temporary site lighting that would typically be mobile tower mounted units, that reflects downward using 1000W metal halide floodlights directed at the main construction area of the site only. These floodlights will be cowled/louvered and angled downwards to minimise light spillage to surrounding properties and roads. These floodlights would only be used during normal construction working hours on this site and a secondary security lighting system would be operational outside these hours for the duration of the works. The following measures will be applied to these systems in relation to the site lighting system:

- Lighting will be provided with the minimum luminosity sufficient for safety and security purposes. Where practicable, precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpaths, roads, and amenity areas;
- Motion sensor lighting and low energy consumption fittings will be installed to reduce usage and energy consumption; and
- Lighting will be positioned and directed as not to unnecessarily intrude on adjacent HSE Helipads, buildings, businesses, ecological receptors, and structures used by protected species, or to cause distraction or confusion to passing motorists along the Iveragh Road.

The arrangement, design, and number of external lampposts to be provided in the final scheme shall be established in light level calculations to be provided by an approved Car Park Lighting Supplier to the Main Contractor and agreed in writing with the Client. A minimum lux level of Em=10 lux and a uniformity level of 0.25 shall be achieved. The height of the light heads in the car park area will be no more than 8m maximum.

A lux sensor shall be mounted on the building to control the external lighting scheme and the position of the sensor will be site specific but will generally be located on a north-facing wall of the proposed new building. Exact positioning is to be advised by the appointed BMS subcontractor before commencing construction.

All site lighting will be controlled through a Building Management System and the site lighting system will remain on for up to thirty (30) minutes after closing times only. Appropriate access lighting that can achieve 7 lux is to be installed at the backside of the

building leading to the plant areas and escape doors and this system shall be fitted with a motion detection sensor.

All site lighting to the proposed car park area will be fitted with cowls and/or louvers and will be angled downwards to minimise light spillage to the surrounding environment and eliminate any light spill upwards.

6.11 Concrete/Mortar Washout

There will be a designated area for the washout of concrete wagons, shoots and mortar bins at each work site. This will be either a lined skip or a pit lined with an impervious membrane to prevent the escape of the alkaline and silty waters entering groundwater or surface water. These pits will be located in areas of low groundwater sensitivity. Excess concrete remaining in the delivery wagon at the end of a pour will be returned to a designated collection area. Once each worksite has been completed any solid concrete in the washout area will be broken out and used either as suitable fill or disposed of to a licensed waste facility

The following mitigation measures are proposed to avoid release of cement leachate from the site:

- No batching of wet-cement products will occur on site;
- Ready-mixed supply of wet concrete products and where possible, emplacement of pre-cast elements, will take place. Where possible pre-cast elements for culverts and concrete works will be used;
- No washing out of any plant used in concrete transport or concreting operations will be allowed on-site except into a designated lined skip;
- Where concrete is delivered on site, only chute cleaning will be permitted, using the smallest volume of water possible. No discharge of cement contaminated waters to the construction phase drainage system or directly to any artificial drain or watercourse will be allowed.
- Use weather forecasting to plan dry days for pouring concrete;
- Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event;
- The small volume of water that will be generated from washing of the concrete lorry's chute will be directed into a concrete washout area/lined skip. At the end of a concrete pours, any of the remaining liquid contents are tankered off-site. Any solid contents that will have been cleaned down from the chute will have solidified and can be broken up and disposed of along with other construction waste.

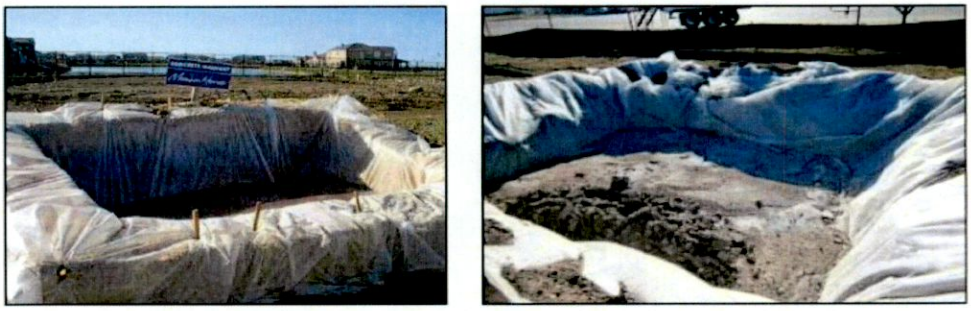


Figure 5.13.1; Example of a simple lined concrete washout skip.

6.12 Cranage

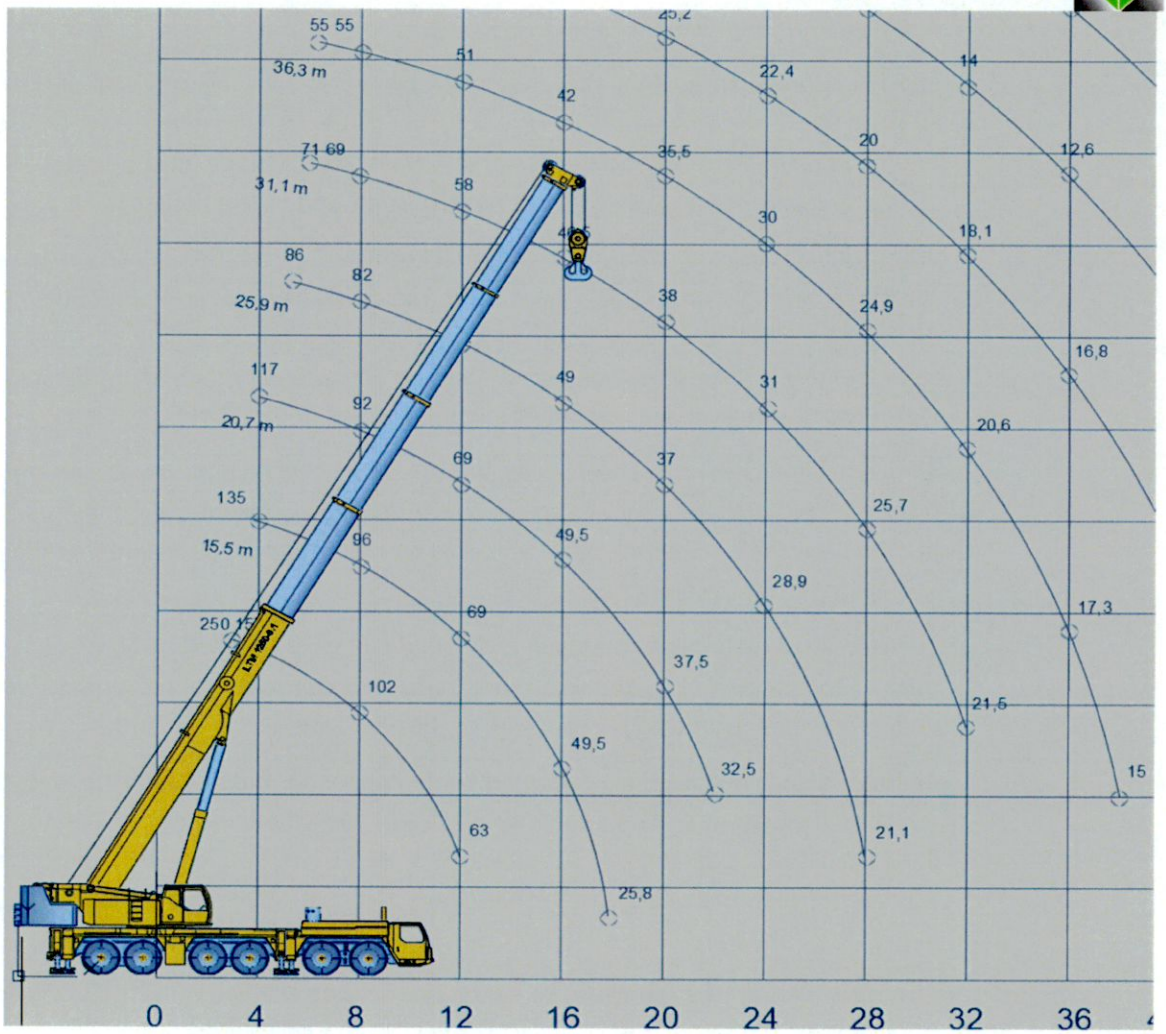
The mobile crane will be required for the erection of the roof structure and the roof cladding on the new store. The roof structure on this proposed building is to be constructed using glue-laminated timber roof beams that span the full width of the sales floor area with matching timber purlins and wind bracing. These primary roof members over the proposed sales floor area will be circa. 23m long with shorter beams to be installed over the proposed warehouse (c. 12m) and bakery areas (c. 6m).

The size of the mobile crane will be determined by the size and weight of the roof beams required on this store. The specialist supplier of these beams will provide a site-specific lifting plan to the Main Contractor showing details of the size and location for the crane on this specific site.

To fit these members, a suitable crane will be required for a short period of time. The roof manufacturers have confirmed that they would require a mobile crane (GMK3055) for this installation that would be positioned on the proposed sales floor area of the new store to fit these members. This 55-tonne crane would lift the roof members from a delivery vehicle that would be parked parallel to the proposed new store and the boom lift height to clear the structure and install these beams would be 22.63m over the finished ground level.

Transport of these large building elements on the road network to and from the working areas will be restricted to outside of peak hours and will be confirmed by the Main Contractor to the relevant local authorities.

This operation will require no more than 15 working days (3 weeks) to erect the roof structure and then the roof sheeting will be loaded onto the completed area to seal the building. The loading of the roof sheeting would normally be completed by the same crane system, and this would require circa. five (5) days to complete.



Mobile Crane Activity with Max 29.6m Boom

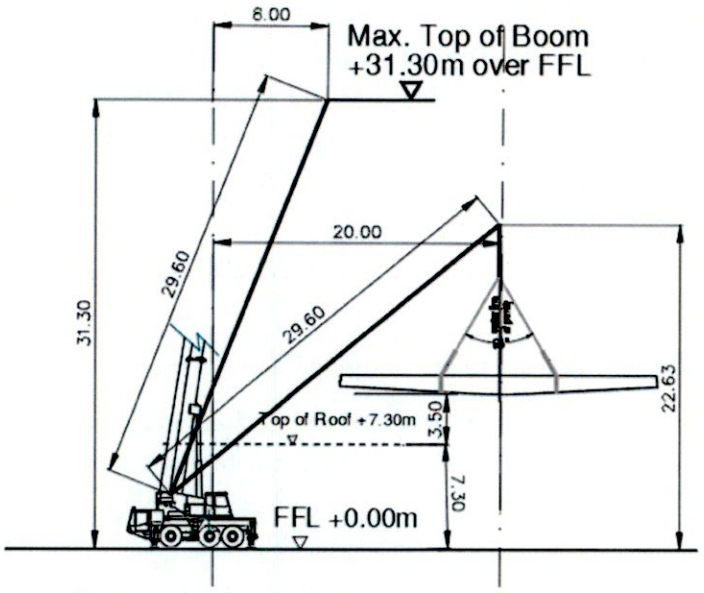


Figure 6.12.1: Lifting Heights for Roof Beams

6.13 Fuel, Oil and Chemical Storage

Bulk fuel storage areas should be adequately protected with the provision of appropriate bunding to provide a minimum storage volume of 110% of total fuel storage capacity with the provision of a spill kit and the use of drip trays. Fuel storage must be sited away from any watercourse or on-site services as far as possible and have a designated area.

Where sub-contractors are required to refuel vehicles on-site, this will be carried out at a central refuelling location only. The sub-contractor will be required to make the necessary arrangements with the Main Contractor to access and purchase fuel oil from a central supply. All refuelling areas will be on areas of hard standing only at designated agreed locations. Open valves will not be left unattended.

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. Storage tank levels will be checked before delivery to prevent overfilling and to ensure that the product is delivered to the correct tank.

The storage of materials in the main compound and work sites will be controlled in such a manner to ensure that materials are not damaged prior to use either through vehicle or people movements or through exposure to the elements.

All fuel, oil and chemicals will be stored on an impervious base within a bunded area and secured. The bund shall have a capacity of 110% of the volume of the products stored within it. All tanks and containers will be kept in a secure compound and be protected from vandalism and will be clearly marked with their contents. Stores shall be located at least 10 metres from any watercourse.

All mobile plant will be refuelled in a designated area on an impermeable surface and away from drains. In case of any spillages, there will be a spill response kit available at each refuelling point and within each machines working area. Where it is impractical to refuel within a bunded area, a drip tray will be available to catch any spills caused by over fuelling.

6.14 Spill Control Measures

Every effort will be made to prevent pollution incidents associated with spills during the construction of the proposed development. The risk of oil/fuel spillages will exist on the site and any such incidents will require an emergency response procedure. Given the scale and extent of the proposed development all contractors will carry spill kit materials in their site cabins.

The following steps provide the procedure to be followed in the event of an oil/fuel spill occurring on site:

- Identify and stop the source of the spill and alert people working in the vicinity;
- Notify the Environmental Manager immediately giving information on the location, type and extent of the spill so that they can take appropriate action;
- If applicable, eliminate any sources of ignition in the immediate vicinity of the incident;

- Contain the spill using the spill control materials, track mats or other material as required. Do not spread or flush away the spill;
- If possible, cover or bund off any vulnerable areas where appropriate such as drains, watercourses and/or sensitive habitats;
- If possible, clean up as much as possible using the spill control materials;
- Contain any used spill control material and dispose of used materials appropriately using a fully licensed waste contractor with the appropriate permits so that further contamination is limited;
- The Environmental Manager shall inspect the site as soon as practicable and ensure the necessary measures are in place to contain and clean up the spill and prevent further spillage from occurring; and
- The Environmental Manager will notify the appropriate stakeholders, such as the local authority, National Parks and Wildlife Service, Department of Communications, Climate Action and Environment and Department of Housing, Planning and Local Government and/or the EPA.

Environmental incidents are not limited to just fuel spillages, therefore, any environmental incident must be reported, recorded, and investigated in accordance with the procedures described.

6.15 Emergency Planning & Response

In accordance with the requirements of the Safety Health and Welfare legislation, a PSCS will be appointed for the project and will ensure that works are carried out consistent with all existing emergency response plans and procedures. The emergency management procedure ensures that emergencies such as fires, explosions, accidents, leaks, sabotage, or emergencies caused by force majeure occur as little as possible; if they do, however, occur, it ensures that all countermeasures proceed in a controlled manner so that greater damages are avoided and the possible effects upon persons, the environment and property are avoided or limited.

The Contractor will maintain an emergency response action plan which will cover all foreseeable risks, i.e., fire, spill, flood, etc. Appropriate site personnel will be trained as first aiders and fire marshals. In addition, appropriate staff will be trained in environmental issues and spill response procedures. Equipment and vehicles will be locked, have keys removed and be stored securely in the works area.

6.16 Major Accidents and Disasters

The proposed development will be designed and built-in line with best international current practice and, as such, mitigation against the risk of major accidents and/or disasters will be embedded throughout the design.

The risk of a fire and/or explosion during the construction phase is considered unlikely. However, where electricity lines/infrastructure exist, there is always a risk of a fire and/or explosion.

The storage of fuels and oils in contained and bunded areas will mitigate 'by prevention' the risk of fire/explosion resulting from the potential spillage of fuels or oils. As a further means of mitigation 'by remedy,' portable fire extinguishers will be available for use at each of the refuelling locations.

The proposed development will be subject to a fire safety risk assessment which will assist in the identification of any major risks of fire on site, and mitigation of identified risks during the construction phase.

The Main Contractor will be required to ensure that all fire safety requirements are provided for in co-ordination with the local authority. Appropriate site personnel will be trained as first aiders and fire marshals. The Contractor will also be required to maintain an emergency response plan which will cover all foreseeable risks, i.e., fire. In preparing this plan the Main Contractor will be required to liaise with the emergency response services.

6.17 Emergency Contact Details

Emergency contact details are included in draft in the attached appendix and this table will be posted at suitable noticeboards/welfare facilities on site for the duration of the works.

In the event of an environmental emergency, a procedure for Environmental Emergency Preparedness and Response will be developed prior to commencement of construction and can be implemented by the Main Contractor to minimise environmental impacts. An environmental emergency at the site may include:

- Discovery of a fire within the site boundary
- Uncontained spillage / leakage / loss of containment action
- Discharge concentration of potential pollutants in excess of environmental trigger levels.

The general required emergency response actions will be posted at strategic locations, such as the site entrance, canteen and near the entrances to buildings. As an example of emergency response actions required, in the event of a spillage, the following procedure shall be followed:

1) IF SAFE (USE PPE), stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
2) IF SAFE (USE PPE), contain the spill using the absorbent spills material provided. Do not spread or flush away the spill.
3) Cover or bund off any vulnerable areas where appropriate.
4) If possible, clean up as much as possible using the absorbent spills materials.
5) Do not hose the spillage down or use any detergents.
6) Contain any used absorbent material so that further contamination is limited.
7) Notify the Environmental Officer so that used absorbent material can be disposed of using a licensed waste contractor.
8) An accident investigation should be performed in accordance with procedures and the report sent to the Environmental Officer.

9) Other actions: -

6.18 Site Security

The development site shall be secured with minimum 2.4m high anti-intruder fence/hoarding to prevent unauthorised access to the works site area and protect the public from any site dangers. Adequate security will be provided to prevent unauthorised entry to or exit from the working areas also. The following measures may be used to prevent unauthorised access:

- Install CCTV and alarm systems where required;
- CCTV and security systems will be sited and directed so that they do not intrude into occupied residential properties;
- Provide adequate security guards and patrols if required;
- When there is no site activity, close and lock site gates and set appropriate site security provisions in motion;
- Consult with neighbouring properties, local businesses and local crime prevention officers in An Garda Síochána and the local authority on site security matters as required; and
- Prevent access to restricted areas and neighbouring properties by securing equipment on site such as scaffolding and ladders.

6.19 Extreme Weather Events

The Main Contractor will consider the effects of extreme weather events and related conditions during construction. The Main Contractor will use a short to medium range weather forecasting service from Met Eireann or other approved meteorological data and weather forecast provider to inform short to medium term programme management, environmental control, and mitigation measures.

All measures deemed necessary and appropriate to manage extreme weather events will be considered and will specifically cover training of personnel and prevention and monitoring arrangements for staff. As appropriate, method statements will also consider extreme weather events where risks have been identified, e.g., construction works adjacent to public roads and business premises.

6.20 Unexpected Discoveries

Appropriate procedures will be put in place in the event of encountering unexpected archaeological or cultural heritage assets or subsurface contamination during intrusive ground works.

Appropriate procedures will be developed as part of the CEMP and the Environmental Manager will ensure that specialists (e.g., archaeologist) are facilitated to ensure management in accordance with industry best practice and effective compliance with the relevant legislation. All unexpected discoveries will be reported to the appropriate authorities and documented in an appropriate manner.

7. ENVIRONMENTAL / OPERATIONAL CONTROL MEASURES

It should be noted that the measures in this CEMP provide a summary of minimum requirements that will be developed as the project progresses. It is intended that the measures set out herein will be discussed in more detail with relevant stakeholders as required to support the identification of any additional measures to be taken account of during construction.

7.1 Work Phasing

The proposed development will be carried out in a staged development with site set up and enabling works preceding the construction of the main building unit. As part of the enabling works, the provision of the surface water culvert and the construction of the new ESB sub-station will be constructed. The second stage of the works will be the construction of the new store development structure and associated facilities and finishes with all services and all hard and soft landscaping to complete.

The Client proposes to ensure that all wastes arising during the initial stage that includes the demolition works and the construction phase of this project will be managed and disposed of in a way that ensures compliance with the provisions of the Waste Management Acts 1996–2013 and the associated Regulations and the Southern Region Waste Management Plan 2015-2021. It will also ensure that optimum levels of waste reduction, re-use and recycling are achieved.

The Client seeks to comply with all legislation relevant to Environmental Management and requires all appointed contractors and sub-contractors to conduct their work in such a manner that unnecessary risks and disturbance to the environment are avoided. Compliance with the requirements of the Environmental Management System is a condition of employment on all contracts and is important in the prevention of legal action being taken against the Applicant/Client and its contractors/sub-contractors.

7.2 Check for Hazards

Prior to commencing works, buildings and/or structures to be demolished will be inspected and checked for any likely hazards including asbestos-containing materials, electric power lines or cables, gas reticulation systems, telecommunications, unsafe structures, and fire and explosion hazards, e.g., combustible dust.

All work involving materials composed of or containing asbestos requires a written risk assessment and management plan to be prepared under The Safety, Health and Welfare at Work (Construction) Regulations, 2006 and The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations, 2006 amended.

Due to the age and construction of the building proposed to be demolished, asbestos-containing materials are not anticipated to be found within the existing building structure or finishes. Asbestos-containing materials must be identified prior to works proceeding during the demolition inspection and appropriate disposal methods will be employed to handle these materials.

7.3 Contaminated Lands

The current legislation sets out strict criteria for classification of polluted soil and the treatments permitted depend on the classification. The risk-based approach in the EPA

guidance document is considered best practice for the assessment and remediation of contaminated land. This consistent approach will ensure that the standard of works undertaken is adequate, that issues are understood and dealt with appropriately and that both operators and the EPA achieve the aim of closing issues out in an efficient manner.

The risk assessment methodology follows a staged approach, designed to ensure that key elements are addressed in succession and only as needed. The three main stages are:

- STAGE 1: -Site Characterisation & Assessment
- STAGE 2: -Corrective Action Feasibility & Design
- STAGE 3: -Corrective Action Implementation & Aftercare.

A critical element of the methodology and something that underpins the entire process is the establishment and use of a Conceptual Site Model (CSM) for the land and groundwater environment.

Most brownfield sites are likely to contain soil that will fall into several different categories depending on the underlying cause of the pollution, and the nature and extent of the contamination. Various treatment and disposal solutions are available. These include licensed landfills, thermal treatment and soil washing.

A full site assessment must be carried out to confirm what areas are contaminated with either oils, hydrocarbons, or other contaminants. If areas are identified to be contaminated then soil samples should be taken for a full chemical analysis and the oil/hydrocarbons must be classified as hazardous, non-hazardous, or inert and assigned the relevant EWC code. Based on the waste classification, a specialist licenced waste handler must be appointed by the Main Contractor/Client to recommend the appropriate treatment or recovery process available and suitable. Understanding the soil properties and contamination levels are essential to minimise the costs associated with treating these areas.

There are many technologies available for treatment of oil contaminated soils. The decision about choosing the specific method and equipment is made with consideration for site characteristic, soil condition, type and amount of contaminant, age of contamination, regulatory requirements, costs, and time.

Contaminated soil can be treated using a combination of processes, which include:

- Bio-remediation – Living organisms are used to remove pollutants, including hydrocarbons, from the soil. This soil remediation treatment can be carried out ex-situ allowing for the immediate removal of soil and ensuring that site development can continue as planned and on schedule.
- Stabilisation – Soil stabilisation is a chemical and physical immobilisation technique, incorporating the use of specially formulated reagents that cause a chemical reaction in organic and inorganic pollutants.
- Soil and aggregate washing

A licenced waste oils handler must be engaged to deal with all works relating to the remediation of the affected areas including all logistics, transfer forms and Transfrontier Shipping (TFS) documentation associated with the transfer of contaminated soils. Full

traceability of waste from start to finish of the recovery process must be provided to the Client upon completion to include:

- Chain of custody documentation
- Hazardous waste transfer forms
- Transfrontier Shipment notifications and supporting documentation required for the export of hazardous waste
- Disposal / Recovery certification

The Contractor's appointed Environmental Officer will be the single point of contact for the administration and approval for this work and must provide the required certification that the site area is clear of all contaminated soils before construction works proceed.

"Refer to the EPA Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites"

7.4 Materials and Waste

The appointed Main Contractor shall ensure that all waste materials generated are disposed of in an appropriate manner. Surplus earthworks arising shall be stored in stockpiles and separated so far as is reasonably practicable. Where possible, materials should be re-used on site. Where off-site disposal is required, an appropriate licenced receptor site shall be identified before considering landfill.

The Main Contractor shall ensure that all materials are stored in an appropriate and safe fashion and that run-off from materials storage areas is managed in accordance with the nature of the materials. Run-off from earthworks and materials stockpiles shall be contained to prevent silt from entering the watercourse. Topsoil stockpiles shall have sealed surfaces in order to stabilise them. Stockpiles should be positioned as far away from sensitive receptors as possible and suitable measures implemented to prevent run-off and dispersion if left for any length of time. Any powders should be stored in sealed bags or silos prior to use. All deliveries of dry powder materials should be undertaken in a manner to minimise dust emissions.

Bulk fuel storage areas should be adequately protected with the provision of appropriate bunding to provide a minimum storage volume of 110% of total fuel storage capacity, with the provision of a spill kit and the use of drip trays. Fuel storage must be sited away from any watercourse or on-site services as far as possible and have a designated area. In addition to the inherent design measures during the construction phase the following mitigation measures are proposed:

- The Contractor will minimise waste disposal so far as is reasonably practicable.
- Waste from the proposed project will be transported by authorised waste collectors in accordance with the Waste Management (Collection Permit) Regulations, 2007 as amended.
- Waste from the Proposed Project will be delivered to authorised waste facilities in accordance with the Waste Management Acts 1996 as amended.

- Source Segregation: Where possible metal, timber, glass, and other recyclable material will be segregated during construction works and removed off site to a permitted/licensed facility for recycling. Waste stream colour coding, and photographs of wastes to be placed in each container as required, will be used to facilitate segregation. Where waste generation cannot be avoided this will maximise the quantity and quality of waste delivered for recycling and facilitate its movement up the waste hierarchy away from landfill disposal and reduce its environmental impact:
- Material Management: 'Just-in-time' delivery will be used so far as is reasonably practicable to minimise material wastage; and
- Supply Chain Partners: The Contractor will engage with the supply chain to supply products and materials that use minimal packaging, and segregate packaging for reuse.
- Waste Auditing: The Main Contractor will record the quantity in tonnes and types of waste and materials leaving site during the construction phase.
- Material assets – utilities.

The Contractor will be obliged to put measures in place to ensure that there are no interruptions to existing services and all services and utilities are maintained unless this has been agreed in advance with the relevant service provider and local authority. All works in the vicinity of utilities apparatus will be carried out in ongoing consultation with the relevant utility company and/or local authority and will be in compliance with any requirements or guidelines that they may have. Where new services are required, the Contractor will apply to the relevant utility company for a connection permit where appropriate and will adhere to their requirements.

7.5 Material Assets

The following measures in relation to material assets during construction will be implemented by the Main Contractor:

- Undertake their own surveys to establish full extent of underground and overground services prior to the commencement of construction to support any surveys already undertaken as part of early design work and statutory consent applications;
- Put measures in place to ensure that there are no interruptions to existing utilities and services unless this has been agreed in advance with the relevant service provider;
- All utilities and services diversions will be agreed and undertaken as part of the enabling works and in advance of the commencement of construction activities;
- All construction activities in the vicinity of existing services and utilities will be carried out with ongoing consultation with the relevant service provider and undertaken in compliance with any requirements or guidelines that they may have;

7.6 Traffic and Transportation

The following measures will be implemented in relation to traffic and transportation during construction:

- Deliveries of materials will be planned and programmed to ensure that the materials are delivered only as they are required where possible will avoid peak hours for set-up and removal of equipment;
- Works requiring multiple vehicle deliveries, such as concrete pours, will be planned to ensure there will no queuing on the public roadways around the working site;
- Deliveries of materials will be limited to outside of peak hours on the existing road network and/or likely peak commuter movement times;
- All trucks entering and exiting the working areas which are carrying materials which could become windborne will be covered with tarpaulin;
- Trucks will not be allowed to park on public roads either outside the working areas or on any of the approach roads leading to the site area;
- All trucks entering the working areas will be restricted to suitable speed limits and will be directed to the relevant area by the site manager;
- Trucks required to wait at the working areas will switch off engines to avoid unnecessary fuel usage and noise;
- All trucks exiting the construction compounds will be required to pass through a wheel wash. All water from the wheel wash will be collected, treated to remove silt or other contaminants, and removed from site;
- Roads outside the working areas will be visually inspected daily and power swept and washed as and when required;
- Adequate parking will be provided within the site compound to avoid queuing at the site entrances and prevent disruption to neighbouring businesses and residences;
- A Construction Traffic Management Plan will be prepared by the Main Contractor in advance of the commencement of the construction will be implemented in full.
- As the existing Lidl Foodstore will remain open during the construction phase of the new access road and new store, the CTMP will clearly indicate the designated areas for members of the public and construction personnel, segregated pedestrian and vehicle routes, speed limits, parking arrangements, etc.

7.7 Air Quality and Climate

Emissions to air during construction will occur, although the prevailing weather, the extent of the works and the distance from sensitive receptors will determine the extent of the effects. The focus of the control procedures will therefore be to reduce the generation of airborne material. 'Standard mitigation' measures will be implemented, as per guidance

presented in the TII document Guidelines for the Treatment of Air Quality during the Planning and Construction of National Road Schemes (TII, 2011). These will include the following:

- Spraying of exposed earthwork activities, temporary stockpiles and site haul roads during dry weather;
- Public roads outside the site will be regularly inspected for cleanliness, and cleaned as necessary
- Provision of wheel wash facilities at the site entrance;
- Covering of temporary stockpiles;
- Control of vehicle speeds, speed restrictions and vehicle access; and
- Sweeping of hard surface roads.

In addition, the following measures will be implemented. These measures are based on best practice as outlined in the British Research Establishment (BRE) document "Controlling particles, vapour and noise pollution from construction sites" (BRE, 2003) and the Institute of Air Quality Management (IAQM) document "Guidance on the assessment of dust from demolition and construction" (IAQM, 2016).

A Dust Minimisation Plan for the project will be included in the CEMP pre-commencement of any construction activities. The primary risks to air quality from the proposed works will be dust generation by construction activities and materials transportation. An air quality assessment may be carried out which should contain a detailed assessment of risk activities and detail on mitigation. The construction activities should seek to comply with normal control measures as a minimum which are:

- Exhaust emissions from vehicles operating within the working areas, including trucks, excavators, diesel generators or other plant equipment, will be controlled by the Contractor through regular servicing of machinery;
- During dry periods when dust generation is likely or during windy periods, working areas and vehicles delivering material with dust forming potential will also be sprayed with water, as appropriate;
- Areas where materials will be handled and stockpiled will be designed to minimise their exposure to wind – all temporary stockpiles shall be kept to the minimum practicable height with gentle slopes;
- There shall be no long-term stockpiling within the working areas and storage time will be minimised;
- Stockpiles of material shall be sealed during long periods without use. During long dry spells the surfaces of open stockpiles shall be wetted to minimise spread. Materials that have a high potential for dust generation should be removed from site as soon as possible.
- Delivery vehicles containing materials likely to be subject to wind whipping shall be covered where possible.

- An adequate water supply for effective dust/particulate matter suppression shall be provided. Non-potable water sources should be used where appropriate.
- Drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment should be minimised, and fine water sprays used for dust suppression where appropriate. Enclosed chutes and conveyors should be used for long duration activities.
- Dust generating activities, such as saw cutting, shall be accompanied by appropriate wetting or dust extraction methods to minimise dust spread to the surrounding atmosphere.
- No burning of waste materials on site shall be permitted.
- Waiting or inactive vehicles should switch off their engines wherever possible.
- All jetting and washing activities shall take care not to discharge surface water to the public roads network.
- Access gates should be positioned a suitable distance from the public road and other receptors. Water assisted sweepers should be used on the local roads to remove any tracked material. Dry sweeping of large areas should always be avoided.
- Monitoring may be required during dry conditions or when undertaking operations prone to dust generation.

Employee awareness is also an important way that dust may be controlled on any site. Staff training and the management of operations will ensure that all dust suppression methods are implemented and continuously inspected. The following mitigation measures will be implemented during the construction phase of the development to minimise CO_2 emissions:

- A Construction Traffic Management Plan to be prepared by the Main Contractor in advance of the commencement of the construction which will be implemented in full. This will minimise congestion and encourage car sharing and the use of public transport, where practicable;
- Materials will be handled efficiently on site to minimise the waiting time for loading and unloading, thereby reducing potential emissions;
- Engines will be turned off when machinery is not in use; and
- The regular maintenance of plant and equipment will be carried out.

Construction vehicles, generators, etc., may give rise to some CO_2 and N_2O emissions. However, due to short-term and temporary nature of these works the impact on climate will not be significant.

7.8 Noise and Vibration

The following section describes typical measures to minimise the potential for noise and vibration disturbance to the surrounding area which will be employed by the Contractor to

ensure the construction noise and vibration criteria outlined in Tables 7.13.1.A. and Table 7.13.2.B. are not exceeded.

Environmental noise arising from activities on the construction site shall be controlled in accordance with the requirements of BS 5228 and 2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites: Noise and vibration (BSI, 2014) and the European Communities (Noise Emission by Equipment for Use Outdoors) Regulations, 2001 (EC, 2001).

A construction noise assessment may be required and should be undertaken in accordance with BS 5228:2009, which should demonstrate that noise from daytime construction activity on the site is not considered to be significant. Several mitigation measures should be used to keep construction site noise to a minimum. The following practices are detailed in BS 5228-1:2009 and those most appropriate to this site are outlined below:

Source Noise Control - wherever possible noise should be controlled at source:

- Avoid unnecessary revving of engines and switch off equipment when not required
- Keep internal haul routes well maintained and avoid any steep gradients
- Use rubber linings in, for example, chutes and dumpers to reduce impact noise
- Minimise drop height of materials
- Start-up plant and vehicles sequentially rather than all together.

The activities that create the most noise should be scheduled for when the fewest people and neighbouring businesses/residential dwellings will be affected. In relation to vibration, the right equipment should be selected for the task. Use low vibration level equipment.

As far as is reasonably practicable, sources of significant noise should be enclosed or screened. The extent to which this can be done depends on the nature of the plant / machinery or process to be enclosed and their ventilation requirements. For maximum benefit, screens should be close to the source of noise.

The following specific measures will be implemented during the construction phase to ensure noise and vibration effects are minimised:

- Site representatives shall be appointed to be responsible for matters relating to noise and vibration;
- Equipment will be switched off when not required;
- Internal haul routes will be well maintained;
- Rubber linings shall be used in chutes and dumpers, etc. to reduce impact noise;
- Drop heights of materials will be minimised;
- Plant and vehicles will be started sequentially rather than all together;
- Construction plant and activities to be employed on site will be reviewed to ensure that they are the quietest available for the required purpose;
- Generators will be located away from sensitive receivers and will be enclosed;

- Where required, improved sound reduction methods, e.g., enclosures, shall be used.
- For all construction works likely to generate off-site vibration, the Contractor will be required to meet the vibration limits set out in BS 5228.
- Site equipment will be located away from noise sensitive areas, as much as is feasible.
- Regular and effective maintenance by trained personnel will be carried out to reduce noise and/or vibration from plant and machinery.
- Acoustic barriers will be provided around construction works to minimise the effects of noise and vibration generating activities in the vicinity of sensitive locations.
- Typically, site activities will be limited to 7am – 7pm, Monday to Friday; and 8am – 4pm, Saturday. It may also be necessary in exceptional circumstances to undertake some other types of activities outside of normal construction core working hours. Any such working hours outside the normal construction core working hours will be agreed with local authority (working times to be confirmed in the statutory grant of planning permission). The planning of such works will have regard to nearby sensitive receptors; and
- A Community Liaison Plan shall be prepared to provide for effective community liaison to help ensure the smooth running of construction activities and to address any issues that may arise.

A regular and effective maintenance programme operated by trained personnel is essential and will do much to reduce noise from plant and machinery. Increases in plant noise are often indicative of future mechanical failures.

7.9 Control of Noise Generation

The following noise control measures shall be implemented by all contractors:

- The hours of construction will be limited in accordance with working times that will be confirmed in the statutory grant of planning permission for this development and night-time works will require prior agreement with the local authority.
- All contractors will ensure that the plant and construction methods employed are the quietest available for the required purpose insofar as is practicable.
- All contractor vehicles will use existing site access roads, the contractor car park and construction compound area (surfaces of hard standing).
- Site roads will be maintained in a clean condition and the site speed limit of 15 km/hr will be strictly adhered to.
- Significant sources of noise will be enclosed.
- Plant will be used and serviced regularly in accordance with manufacturers' instructions.

- Cranes will be shut down during work periods / throttled to minimum when not in use.
- Machinery having rotating parts will be serviced according to suppliers' recommendations to prevent friction-induced sound.
- Machines should have silencers where possible.
- Noise absorbing materials or insulation should be used if possible.
- Materials should be lowered, not dropped, as far as reasonably practicable.
- All sub-contractors will notify the Main Contractor in advance of any critical periods arising for noisy activities.
- Temporary acoustic screening will be employed by the Main Contractor/sub-contractor where excessive noise is foreseen over extended durations.

7.10 Noise and Vibration Monitoring

Noise and vibration monitoring will be undertaken during critical periods of construction work, including rock breaking, should it arise, and during foundation excavation. The noise and vibration levels will be compiled in a technical report available for inspection, along with comment on applicable noise limits. Where necessary, measures for the reduction of construction noise and vibration levels will be defined by the local authority and adhered to by the Main Contractor and sub-contractors working on-site.

The following section describes typical measures to minimise the potential for noise and vibration disturbance to the surrounding area which will be employed by the Contractor to ensure the construction noise and vibration criteria outlined in Tables 7.13.1.A and Table 7.13.2.B are not exceeded

The Contractor will take specific noise abatement measures and comply with the recommendations of BS 5228 and the European Communities (Noise Emission by Equipment for Use Outdoors) Regulations, 2001.

BS 5228 includes guidance on several aspects of construction site practices, including, but not limited to:

- Selection of quiet plant and the control of noise sources – the use of proprietary acoustic enclosures and the quietest plant, where possible;
- Selection of the method of excavation to ensure there is no likelihood of structural or cosmetic damage to neighbouring buildings;
- Screening – the effectiveness of screening is based on the location, height, and length of the barrier;
- Liaison with the public – a designated liaison officer will be appointed to deal with any complaints relating to noise.

Assessment Category and Threshold Value Period L_{Aeq}	Threshold Value in Decibels (dB)		
	A[A])	B[B])	C[C])

Night (23:00-07:00hrs)	45	50	55
Evening [D])	55	60	65
Day (07:00-19:00hrs)	65	70	75

Tables 7.13.1.A – BS5228 (Part 1) ABC Assessment Categories and Thresholds (BSI, 2014)

[A]) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are less than these values

[B]) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as Category A values

[C]) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are higher than Category A

[D]) 19:00 – 23:00hrs weekdays, 13:00-23:00hrs Saturdays and 07:00-23:00hrs Sundays

Assessment Category and Threshold Value Period L_{Aeq}	Threshold Value in Decibels (dB)
Night (23:00-07:00hrs) (L_{Aeq}, dB)	55
Evening (19:00-23:00hrs) (L_{Aeq}, dB)	65
Day (07:00-19:00hrs) (L_{Aeq}, dB)	75

Table 7.13.2.B. - Noise Limits to be Applied Based on BS5228 Criteria

7.11 Working Methods

Where reasonably practicable, quiet working methods should be employed, including use of the most suitable plant, and economy and speed of operations to ensure all works are completed in the quietest way possible.

7.12 Scheduling of Works

No works for the construction of the development shall be undertaken on Sundays or Public Holidays. On all other days no construction work shall be undertaken outside the approved workings hours.

7.13 Training

All operatives should be trained to employ appropriate techniques to keep site noise to a minimum and should be effectively supervised to ensure that best working practice in respect of noise reduction is followed. All employees should be advised regularly of the following, as part of their training:

- The proper use and maintenance of tools and equipment

- The positioning of machinery on site to reduce the emission of noise to the neighbourhood and to site personnel
- The avoidance of unnecessary noise when carrying out manual operations and when operating plant and equipment
- The protection of persons against noise, e.g., appropriate hearing protection
- The operation of sound measuring equipment (selected personnel).

Special attention should be given to the use and maintenance of sound-reduction equipment fitted to power tools and machines.

The urban nature of the site means that noise should not be a significant issue. Widespread use of piling is not anticipated on this development so no specific measures are considered necessary; however, measures to control noise at source should still be considered. In the event of piling, vibration monitors must be installed at sensitive locations in the vicinity of the proposed development at agreed locations and sensitive properties.

All construction personnel will be required to complete contractor induction and be certified with FÁS SafePass or equivalent. It is also required that non-specialist contractor personnel are Construction Industry Federation registered.

7.14 Plant Location

The plant and activities to be employed on the site should be reviewed to ensure that they are the quietest available for the required purpose; this is in accordance with best practice. For an existing operational site, where reasonably practicable, noisy plant or activities should be replaced by less noisy alternatives if noise problems are occurring. Noise from existing plant and equipment can often be reduced by modification or by the application of improved sound reduction methods, but this should only be carried out after consultation with the manufacturer. Suppliers of plant will often have ready-made kits available and will often have experience of reducing noise from their own plant.

7.15 Archaeology

The development site is not identified as an area of archaeological significance/interest so the stripping of topsoil, bulk excavation and excavation for services or foundations should not require the services of a licenced archaeologist by the National Monuments Service, Department of the Environment, Heritage and Local Government and approved by the National Museum of Ireland (NMI).

If any archaeological materials are uncovered during excavation works, the area must be cordoned off for further examination by a licenced archaeologist. No further construction work can take place within the cordoned area until a mitigation strategy is agreed and implemented. Should it be required, these works must be carried out under licence and the archaeologist will need to prepare paperwork to be forwarded to the National Monuments Service with details of the archaeological material to be excavated and for the necessary

licence to be issued. Following completion of monitoring on site, a report detailing the findings must be prepared and submitted to the National Monuments Service and the local authority.

7.16 Biodiversity

Construction management measures specifically related to the protection of surface water quality are listed below:

- Any stockpiles of construction material shall be stored on impermeable surfaces and covered using tarpaulins;
- Good housekeeping (daily site clean-ups, use of disposal bins, etc.) on the site during construction, and the proper use, storage and disposal of these substances and their containers will prevent groundwater contamination;
- For all activities involving the use of potential pollutants or hazardous materials, there will be a requirement to ensure that material such as concrete, fuels, lubricants and hydraulic fluids will be carefully handled and stored to avoid spillages. Potential pollutants shall also be adequately secured against vandalism and will be provided with proper containment according to codes of practice. Any spillages will be immediately contained, and contaminated soil removed from the site and properly disposed of;
- The risk of water pollution will be minimised by the implementation of good construction practices. Such practices will include adequate bunding for silos, oil containers, wheel washers and dust suppression on site roads, and regular plant maintenance. The Construction Industry Research and Information Association (CIRIA) provides guidance on the control and management of water pollution from construction sites in their publication "Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors" (Masters – Williams et al, 2001). A contingency plan for pollution emergencies will also be developed by the appointed Main Contractor prior to the commencement of the works and regularly updated, which will identify the actions to be taken in the event of a pollution incident;
- In accordance with recommendations in the CIRIA document, a contingency plan for pollution emergencies will be prepared which will address the following:
    - Containment measures;
    - Emergency discharge routes;
    - List of appropriate equipment and clean-up materials;
    - Maintenance schedule for equipment;
    - Details of trained staff, location, and provision for 24-hour cover;
    - Details of staff responsibilities;
    - Notification procedures to inform the Environmental Protection Agency (EPA) or Environmental Department of the local authority;

- Audit and review schedule;
- Telephone numbers of statutory water consultees; and
- List of specialist pollution clean-up companies and their telephone numbers.

Environmental protection measures (of relevance in respect of any potential ecological effects) will be implemented throughout the project, including the preparation and implementation of detailed method statements. The works will incorporate the relevant elements of the guidelines outlined below:

- The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads. National Roads Authority, Dublin.
- Control of water pollution from construction sites. Guidance for consultants and contractors (C532). CIRIA. H. Masters-Williams et al (2001)
- Control of water pollution from linear construction projects. Technical guidance (C648). CIRIA. E. Murnane, A. Heap and A. Swain. (2006).

7.17 Protection of Habitats

To prevent incidental damage by machinery or by the deposition of spoil during site works, any habitats earmarked for retention nearby will be securely fenced or signposted early in the construction phase. These will be clearly visible to machine operators.

Habitats that are damaged and disturbed will be left to regenerate naturally or will be rehabilitated and landscaped, as appropriate, once construction is complete. Disturbed areas will be seeded or planted using appropriate native grass or species native to the areas where necessary.

Mature trees, particularly over mature trees with the potential to provide bat roosts will be avoided. Any hedgerows/scrub habitat disturbed during construction will be replanted using a suitable mix of native species.

Tree root systems can be damaged during site clearance and groundworks. No materials should be stored within the root protection area of mature trees that are to be retained. Materials, especially soil and stones, can prevent air and water circulating to the roots. Retention of the existing networks of woodland/ treelines/ hedgerows will provide natural screening and help to maintain biodiversity.

7.18 Ecology

All works should be contained within the proposed development site area only. The appointed Main Contractor must ensure that no materials are stockpiled outside of the defined site boundary.

Measures should be undertaken to avoid any risk to existing wildlife habitats within the proposed development site during the clearance of topsoil /overburden operation. However, given the potential presence of low numbers of animals in this area it is not expected to be a major concern.

A site-specific Appropriate Assessment Screening has been completed for this development site and all recommendations from this report will be implemented by the appointed Main Contractor. There shall be on-going monitoring of wildlife near the construction site and any unusual species, dead species or damaged habitats should be reported immediately to the Construction Manager and/or Environmental Officer. Where unexpected ecological habitats are uncovered, the habitats protection protocol will be adhered to by site contractors.

Protection Protocol

This protocol is designed to ensure that ALL persons working on the construction site are fully aware of their legal obligations under the Wildlife Act 1976, as amended. This Act affords protection to a range of wildlife in Ireland including wild birds, animals, and plants. Whilst the project will have received permission from the Government to proceed under the statutory planning process, this does not override certain laws that prevent wilful harm to protected species.

Protected species that may be found in the project area could include:

- All wild birds and their eggs, nests and young, except for certain species, are protected under the Wildlife Acts.
- Certain animals including all bat species.

7.19 Flora & Fauna

There shall be on-going monitoring of wildlife in the vicinity of the construction site and any unusual species, dead species or damaged habitats should be reported immediately to the Construction Manager and/or Environmental Officer. Where unexpected ecological habitats are uncovered, the habitats protection protocol will be adhered to by site contractors.

Protection Protocol

This protocol is designed to ensure that "ALL" persons working on the construction site are fully aware of their legal obligations under the Wildlife Act 1976, as amended. This Act affords protection to a range of wildlife in Ireland including wild birds, animals and plants. Whilst the project has received permission from the Government to proceed under the statutory planning process, this does not override certain laws that prevent wilful harm to protected species.

Protected species that may be found in the Project Area could include:

- All wild birds and their eggs, nests and young, with the exception of certain species, are protected under the Wildlife Acts.
- Certain animals including all bat species.

7.20 Invasive species - (for reference only)

Japanese knotweed is listed as Invasive Alien Plant Species in Part 1 on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011 as amended).

In addition, soils and other material containing Japanese Knotweed, and its hybrids, are classified in Part 3 of the Third Schedule as vector materials and are subject to the same strict legal controls. Failure to comply with the legal requirements set down can result in either civil or criminal prosecution, which may carry very severe penalties. The relevant sections of the regulations are reproduced below.

> *49(2) Save in accordance with a licence granted* [by the Department of Arts, Heritage and the Gaeltacht]*, any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place* [a restricted non-native plant]*, shall be guilty of an offence.*
>
> *49(3) ... it shall be a defence to a charge of committing an offence under paragraph (1) or (2) to prove that the accused took all reasonable steps and exercised all due diligence to avoid committing the offence.*
>
> *50(1) Save in accordance with a licence, a person shall be guilty of an offence if he or she [...] offers or exposes for sale, transportation, distribution, introduction or release—*
>
> *(a) [any restricted non-native animal or plant species],*
> *(b) anything from which an animal or plant referred to in subparagraph (a) can be reproduced or propagated, or*
> *(c) a vector material listed in the Third Schedule, [which includes] soil or spoil taken from places infested with Japanese Knotweed (Fallopia japonica)*

It is an offence under regulations 49(2) and 50(1) to spread, or cause to spread, Japanese Knotweed and its hybrids. An offence may be avoided only if the relevant party can prove that they took all reasonable steps to avoid causing an offence under the legislation. Therefore, in compliance with these regulations, this management plan will rely solely on methodologies necessary to ensure strict compliance with the legislation.

Avoidance of the high impact invasive species (Japanese Knotweed) is the key measure which will be enforced to prevent effects from spread of such species due to the proposed works. A repeat survey will be carried out prior to the commencement of construction to assess up to date distribution. If at that point invasive species cannot be avoided, then the Client will ensure a detailed invasive species management plan is prepared.

This will provide details on the current distribution of high-risk invasive species and guidelines/recommendations for treatment including methods of treatment, site hygiene and follow up treatment and monitoring. In particular, the plan will specify outline methodologies for the treatment of the high-risk species Japanese Knotweed via mechanical and chemical treatment if required. The method for the elimination of these species on the site will be implemented with reference to the relevant codes of practice and guidelines.

In Ireland, Japanese knotweed is classed as a 'controlled waste' under the Environmental Protection Act. This requires disposal at licenced landfill sites.

7.21 Characteristics of Japanese Knotweed

Japanese Knotweed is an herbaceous perennial plant that can grow to heights of 2-4m. In summer it produces dense bushes of purplish bamboo-like stems with large, triangular leaves. In winter the herbaceous material dies back, leaving only its dead canes. It has

robust creeping rhizomes (roots) that can spread up to 7m horizontally from the parent plant. Rhizomes can extend vertically underground to a depth of 3m, and up to over 6m in ground which has been subject to disturbance or placement of imported material.

In its native Japan it usually grows in harsh rocky habitats, including cliffs faces and active volcanoes. It was introduced to Europe in the 19th Century as an ornamental plant, favoured for its adaptability and rapid growth. However, due to its excessive growth and persistence it quickly gained a reputation as a nuisance plant. In the latter part of the 20th century, it was spread throughout the UK and Ireland, primarily by illegal dumping and/or movements of building materials. It is now widespread in Ireland.

Japanese Knotweed is spread primarily by fragmentation and dispersal of its roots or stems. Its flowers cannot produce viable seed, as only female Japanese Knotweed plants have been recorded to date in Ireland. Fragments of the plant will set root and grow to form new plants, allowing the plant to spread very quickly in areas that are frequently disturbed, notably in quarries, building sites and hedges that are cut using flails. New plants can grow from root fragments weighing as little as 0.7g and buried material can occasionally regrow from depths of up to 6m. If buried in a location from which it cannot regrow, plant material can remain dormant for many years.

As a result of its highly invasive characteristics and vigorous growth, Japanese Knotweed is recognised as a significant constraint on construction sites. It can easily be spread by the movement of earth, gravel or rocks, and by snagging on construction vehicles, machinery, equipment, tools, materials and workwear. Viable rhizome and plant fragments can also force their way to the surface through weak surfaces such as tarmac and permeable paving, as well as through joints between building materials and via control / expansion joints in concrete surfaces.

The most cost-effective method to control of Japanese Knotweed is with herbicide, usually requiring between 3 and 5 years to achieve successful eradication. If there is insufficient time to complete a herbicide treatment programme the infected material may be moved to an undisturbed location, placed in an underground cell or be disposed of off-site.

Important points to note are:

- Japanese Knotweed thrives on disturbance and invades environments where soils are routinely disturbed and transported.
- Do not strim, cut, flail or chip the plants as tiny fragments can regenerate new plants and make the infestation harder to control.
- Do not attempt to dig out Japanese Knotweed, this can encourage the plant into growing faster, therefore colonising an area more aggressively.
- Do not move or dump soil which may contain plant material, as this may also add to its spread.
- Do not attempt to pull the plant out of the ground, as this can expose part of the infectious crowns, stimulating growth.
- Do not use unlicensed herbicides close to any watercourses, plants or wildlife.

- Do not compost any part of the plant, as due to the resilient nature of Knotweed it could survive and grow when the compost is ready for use.
- Do not dispose of Japanese Knotweed in garden waste allotments, as this just transports the plant to new locations.
- Do not spread any soil that has been contaminated with Japanese Knotweed rhizomes as new plants will sprout.
- Do not do break the law. Remember it is an offence if you cause the spread of Japanese Knotweed either intentionally or unintentionally.

Figure 6.24.1: Japanese Knotweed Data Sheet.

7.22 Knotweed Code of Practice principles

In order to help specifiers, consultants and contractors to select the most appropriate treatment option, some excerpts from the UK Environment Agency (2013) The Knotweed Code of Practice: Managing Japanese Knotweed on development sites; Version 3 are reproduced below. The code of practice has been developed by experts in the control of knotweed and is based on the successes and failures of hundreds of knotweed management plans in the United Kingdom. As such, it represents the best available guidance on the different treatment options.

- Unless an area of Japanese knotweed is likely to have a direct impact on the development, you should control it in its original location with herbicide over a suitable period of time, usually two - five years.
- You should only consider excavating Japanese knotweed as a last resort, and if so, you should keep the amount of knotweed excavated to a minimum.
- Soil containing Japanese knotweed material may be buried on the site where it is produced to ensure that you completely kill it. In this case, you must bury material at least 5m deep.
- Where local conditions mean you cannot use burial as an option, it may be possible to create a Japanese knotweed bund. The purpose of the bund is to move the Japanese knotweed to an area of the site that is not used. This 'buys time' for treatment that would not be possible where the Japanese knotweed was originally located.
- Sometimes, due to shortage of time and location, landfill is the only reliable option, but it should be treated as a last resort. Landfill is very expensive for the development industry, and needs haulage, which increases the risk of Japanese knotweed spreading.
- When you transport soil infested with Japanese knotweed to landfill, it is essential to carry out strict hygiene measures. If you do not follow these standards, this may lead to Japanese knotweed spreading. Japanese knotweed is a particular problem along transport corridors, where it interferes with the line of vision and can cause accidents."

Lack of awareness about how the plant spreads has meant that hedge-cutting contractors, developers, and people in general have been spreading it unwittingly for years. Every Japanese Knotweed plant in Ireland is female; the only way that it can spread is through rhizomes or fragments of its own vegetation breaking off and re-growing. Cutting it to try to get rid of it, actually helps it to form new plants and continue to spread.

The Main Contractor will be required to provide a detailed plan for handling the removal of any Japanese Knotweed or other listed invasive species if found on this site. These proposals will be provided to the planning authority for approval prior to work proceeding on this site.

At the time of completing this report, no invasive species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011 were identified on this site.

7.23 Bird Mitigation Measures

The Wildlife Act 1976, as amended, provides that it is an offence to cut, grub, burn or destroy any vegetation on uncultivated land, or any such growing in any hedge or ditch from the 1st of March to the 31st of August. Exemptions include the clearance of vegetation in the course of road or other construction works or in the development or preparation of sites on which any building or other structure is intended to be provided. Nonetheless, it is recommended that vegetation be removed outside of the breeding season. Retention of the native treelines, hedgerows and woodland along the site boundaries will reduce the loss of breeding and nesting habitat for birds. NRA guidelines on the protection of trees and hedges prior to and during construction should be followed (NRA, 2006b).

7.24 Inland Fisheries Ireland

Inland Fisheries Ireland has in the past requested from similar projects to provide "A comprehensive and integrated approach for achieving river protection during construction and operation (in line with international best practice). All works will be completed in line with a Construction Management Plan (CMP) which ensures that good construction practices are adopted throughout the construction period and contains mitigation measures to deal with potential adverse impacts identified in advance of the project. The CMP should provide a mechanism for ensuring compliance with environmental legislation and statutory consents.

7.25 Liaison with NPWS Conservation Officer

The primary contact in the event of any damage to setts or injury or death of any protected species for that area is the District Conservation Officer for the Southern Region at the National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, 7 Ely Place, Dublin 2.

7.26 Protection of Soil & Groundwater

Surface water and groundwater can be impacted by construction activities if measures to contain materials and run off are not implemented. Adequate measures to prevent contaminating sediment entering watercourses should be included to reduce the risk of such an occurrence. The use of temporary settlement lagoons with outflow control measures should be used for all surface water exiting the works area to the existing drainage network or adjacent watercourse if required.

Where necessary, active control can be maintained by re-circulation of surface water within the development footprint, should the water quality not achieve the minimum discharge standard required.

Protective fencing will be used to prevent encroachment by site operators/construction workers into any temporary settlement ponds/lagoons and along the top of any open ditches required in order to prevent any injury or damage to ditch/lagoon structures.

If water ingress into excavations is encountered, then the Main Contractor should ensure that the groundwater is not exposed to hazardous materials. If removal of the groundwater is required then this should be stored, treated and disposed of appropriately. If disposal of

groundwater to the public sewer is required, then the necessary approval and license should be sought from Irish Water.

Material storage and handling measures will be implemented to contain potential sources of soil/groundwater pollution. This may include measures such as stockpiling materials on geotextiles, membranes or temporary berms to interrupt flow routes. Contractors will ensure that spill kits will be accessible to construction personnel at all times and all spills will be reported to the Main Contractor. All sub-contractors shall be responsible for ensuring the following measures are implemented:

- All liquids, solids and powder containers will be clearly labelled and stored appropriately in sealable containers.
- All liquid and hazardous materials will be stored in a designated and temporarily bunded area with appropriate signage. This area should be within the construction compound or at an alternative location agreed with the Main Contractor.
- Bunding must have a minimum capacity of 110% of the volume of the largest tank or 25% of the total storage capacity, whichever is the greater. Bunding shall be impermeable to the substance that is being stored in the tank.
- Where a contractor is responsible for materials stored in a bunded area, that contractor shall implement measures for the regular inspection of bunds and emptying of rainwater (when uncontaminated).
- Material storage areas will be at a safe distance from live construction activities.
- Spill kits will be provided in areas where liquids are stored and refuelling areas.
- Chemicals / fuels / materials brought on-site must be accompanied by a Safety Data Sheet (SDS). A copy of the SDS should be provided to the Main Contractor.
- Materials will be stored in accordance with any specific requirements of the SDS.
- A complete register of all SDSs in use on-site will be maintained and copies of all SDSs retained on-site.
- Careful ordering of materials to minimise quantities present on-site.
- Excess materials will not be stored on-site for extended periods.
- Contractors will be responsible for ensuring the regular maintenance of construction plant and equipment, to prevent leaks.

The following best practice water management measures will be implemented during the construction phase:

- Temporary measures will be put in place to ensure only clean water is discharged from site i.e., in advance of excavation activities, temporary interception bunds and drainage ditches will be constructed up slope of the excavation to minimise surface runoff ingress into it. The interception bunds and drainage ditches will be subject to daily inspection to ensure they remain adequate and effective.
- Silt traps will be employed and maintained in appropriate locations;

- A filter drains and silt pits will be located at the base of all embankments, settled solids will be removed from the silt pits regularly.
- Temporary stockpiles will be surrounded by silt fencing;
- Excavation and earthworks will be suspended during and immediately following periods of heavy rainfall to minimise sediment generation and soil damage.
- Oil, petrol and other fuel containers will be double-skinned and bunded to be able to contain 110% volume to guard against potential accidental spills or leakages entering local watercourses.
- A spill kit including an oil containment boom and absorbent pads will be on site at all time;
- A designated bunded refuelling area on an impermeable surface will be provided at a minimum distance of 15m away from any watercourse. No vehicles will be left unattended when refuelling;
- Dedicated fuel storage areas will be introduced on-site which will be a minimum of 15m from watercourses or drains or, alternatively, fuelling will take place offsite.
- All vehicles and plant will be regularly maintained, washed and inspected for fuel, oil and hydraulic fluid leaks.
- Machinery including hand-tools will never be washed in watercourses or drainage ditches or within 15m of watercourses or drainage ditches.
- Concrete pouring will not take place during heavy rain when run off is likely due to excess water. Shuttering will be designed to accommodate small increases in the volume of material contained within the shuttered area due to rainfall. Pre-cast concrete will be used if possible; otherwise, all cast-in-place concrete will be isolated from flowing water for a minimum of 48 hours to allow pH to reach neutral levels.
- Wash down and washout of concrete transporting vehicles will not be permitted at the location of construction. Such wash down and washout activities will take place at an appropriate facility off site or at the location where concrete was sourced.
- Oily water associated with construction activities will pass through an oil separator before discharging into the surface water drainage system which discharges into the local drainage ditch to the northwest of the site.

As part of the assessment of the required construction mitigation, best practice construction measures which will be implemented for the proposed development were considered. A summary of the measures relevant to hydrology are provided as follows and are in accordance with CIRIA guidance.

- Construction compound to be located in areas that are at minimal risk of flooding (outside 1:100-year flood zone);
- A monitoring regime/programme for water quality will be put in place;

- There will be no tracking of machinery within watercourses;
- Silt fences/swales shall be provided at all locations where surface water run-off may enter/leave the working areas, and adjacent to the haul roads;
- All works undertaken will be fully consolidated to prevent run-off of silt;
- Access/haul roads shall be set back from watercourses by at least 10m where possible.

7.27 Foul Drainage

The foul drainage associated with the temporary welfare facilities in the construction compound includes a canteen, toilets, showers and hand wash basins only. Wastewater will be disposed of by removal from site to an appropriately licensed treatment facility by a licenced haulier/operator.

7.28 Flooding

The following best practice construction measures relevant to the hydrological regime and flooding will be implemented for the duration of the construction phase:

- Temporary works will be designed not to affect the connectivity between the relevant channel and the floodplain to maintain adequate flood storage during the construction phase;
- No construction materials or temporary stockpiles will be stored in flood plains or in areas which would impede flood flow paths; and
- In relation to effects of extreme weather events and related conditions the contractor will use a short to medium range weather forecasting service from Met Eireann or other approved meteorological data and weather forecast provider to inform short to medium term programme management, environmental control and mitigation measures.

7.29 Socio-Economics

Mitigation measures for traffic/pedestrians relate primarily to maintaining access to businesses, which will minimise disruption during the construction phase. Changes to traffic, public transportation and access to the town core will be clearly communicated to the residents and visiting public.

7.30 Establishing Manufacturing Practice

Contractors are required to meet current Good Manufacturing Practice (cGMP) standards. These standards ensure that products manufactured on-site are made in such a way that they can be guaranteed as safe, pure and effective. Accordingly, a high standard of housekeeping is expected on all areas of site, including those areas outside of manufacturing. All sub-contractors will be required to operate on-site using good housekeeping practices. Work areas shall be left in a clean state by all construction

personnel. The Main Contractor's site induction communicates the requirement for site housekeeping and tidiness. Further to measures described in the previous sections, the following measures shall be implemented to maintain site tidiness.

- Construction works will be carried out according to a defined schedule, with regard to the hours of work outlined above. Any delays or extensions required will be notified at the earliest opportunity to Main Contractor.
- Contractors will ensure that road edges and footpaths are swept on a regular basis.
- All contractors shall be responsible for the clearance of their plant, equipment and any temporary buildings upon completion of construction. The site will be left in a safe condition.
- All flammable waste materials, such as timber, should be removed regularly to reduce risk of fire.

A risk assessment and method statement must be provided by the Main Contractor prior to commencing works.

- Fences will be erected around areas of infestation, as confirmed by test pits and warning signs shall be erected.
- A designated wash-down area will be created, where power-washed material from machinery can be contained, collected and disposed of with other contaminated material. This area will contain a washable membrane or hard surface.
- Stockpile areas will be chosen to minimise movement of contaminated soil.
- Stockpiles will be marked and isolated.

Plant and equipment which is operated within an area for the management of materials in contaminated areas should be decontaminated prior to relocating to a different works area. The decontamination procedures should take account of the following:

- Personnel may only clean down if they are familiar with the plant and rhizome material and can readily identify it.
- Decontamination will only occur within designated wash-down areas.
- Vehicles will be cleaned using stiff-haired brush and pressure washers, paying special attention to any areas that might retain rhizomes e.g., wheel treads and arches.
- All run-offs will be isolated and treated as contaminated material. This will be disposed of in already contaminated areas.

7.31 Monitoring

Monitoring of various environmental impacts will/may be limited to visual assessment for the majority of the construction due to the location of the site and the nature of the receptors. Formalised quantitative monitoring may be required if the levels of any particular aspect are noted to be excessive, but this is not anticipated at this stage.

Dust control should be assessed to ensure that airborne particulates are not leaving the site to such an extent as to cause issue and to ensure that suppression measures are being implemented effectively.

A visual inspection of all stockpiles and containment areas should be undertaken regularly to ensure that the bunding and run-off restraint systems are complete and operating correctly.

A piling risk assessment may be required to identify the most appropriate piling method, if piling is required, and any potential hazards associated with that method. Any monitoring recommended as an outcome of that risk assessment should be implemented.

7.32 Emergency Planning & Response

In accordance with the requirements of the Safety Health and Welfare legislation, a PSCS will be appointed for the project and will ensure that works are carried out consistent with all existing emergency response plans and procedures. The emergency management procedure ensures that emergencies such as fires, explosions, accidents, leaks, sabotage or emergencies caused by force majeure occur as little as possible; if they do, however, occur, it ensures that all countermeasures proceed in a controlled manner so that greater damages are avoided and the possible effects upon persons, the environment and property are avoided or limited.

7.33 Emergency Contact Details

Emergency contact details are included in draft in Appendix 1 below and this table will be posted at suitable noticeboards/welfare facilities on site for the duration of the works.

Environmental Emergency

In the event of an environmental emergency, a procedure for Environmental Emergency Preparedness and Response will be developed prior to commencement of construction and can be implemented by the Main Contractor in order to ensure to minimise environmental impacts. An environmental emergency at the site may include:

- Discovery of a fire within the site boundary
- Uncontained spillage / leakage / loss of containment action
- Discharge concentration of potential pollutants in excess of environmental trigger levels.

The general required emergency response actions will be posted at strategic locations, such as the site entrance, canteen and near the entrances to buildings. As an example of emergency response actions required, in the event of a spillage, the following procedure shall be followed:

1) IF SAFE (USE PPE), stop the source of the spill and raise the alarm to alert people working in the vicinity of any potential dangers.
2) IF SAFE (USE PPE), contain the spill using the absorbent spills material provided. Do not spread or flush away the spill.
3) Cover or bund off any vulnerable areas where appropriate.

4) If possible, clean up as much as possible using the absorbent spills materials.

5) Do not hose the spillage down or use any detergents.

6) Contain any used absorbent material so that further contamination is limited.

7) Notify the Environmental Officer so that used absorbent material can be disposed of using a licensed waste contractor.

8) An accident investigation should be performed in accordance with procedures and the report sent to the Environmental Officer.

9) Other actions: -

7.34 Consents & Permissions

There are no additional permissions other than the statutory permits of Planning Permission, Fire Safety Certificate and Disability Access Certificate or other consents required for the extent of works currently proposed. The appointed Main Contractor must liaise with the local authority/Irish Water/ESB Networks or other regulatory bodies to complete the works proposed in accordance with all regulations.

The appointed Main Contractor may need temporary licenses to accommodate some working methods, such as for disposal of extracted groundwater to a public sewer or removal of excessive materials off site, and connections to the public services – (Irish Water).

7.35 Public Relations

The Contractor should endeavour to notify all adjacent property owners & users in advance of potentially disruptive activities that may arise and should record and respond to any complaints received due to the works.

In general, the longer the duration of activities on a site, the more likely it is that noise from the site will prove to be an issue. In this context, good public relations and communication are important. The hours of working should be planned and disseminated. There will be a need to adhere strictly to the stated schedule and ensure that the community is informed of their likely durations or disruptions.

8. COVID 19 (Coronavirus)

COVID-19 is a new illness that can affect your lungs and airways. It is caused by a new (novel) Coronavirus called Coronavirus SARS-CoV-2. Current evidence suggests that the virus is significantly more infectious than the flu that circulates every winter. Viruses can be easily spread to other people and patients are normally infectious until all the symptoms have gone. COVID-19 may survive on surfaces for up to 72 hours. A combination of good personal hygiene and management of social distancing can protect from infection.

It is paramount that construction projects operating during the Coronavirus (COVID-19) pandemic ensure they are protecting their workforce and minimising the risk of spread of infection. The CIF have prepared a guidance document that is intended to introduce standardisation on sites of all sizes in line with the Government's and HSE recommendations on the management of COVID-19. Every project should devise a plan considering this guidance, for implementation on site in consultation with all affected parties.

The normal health and safety requirements of any construction activity must not be compromised at this time – there is no derogation to the usual health and safety legislative requirements. If an activity cannot be undertaken safely, it should not take place.

Site management should monitor the implementation of these Standard Operating Procedures in tandem with site specific health and safety procedures and remind the workforce at every opportunity that their purpose is to protect the workers, their colleagues, their families and the Irish population.

The Construction Industry Federation (CIF) provide an online Covid-19 Induction that should be completed by all workers before attending on site before. They also provide a Return-to-Work resource pack that contains all the current national requirements. This resource pack provides guidance on how companies should prepare in advance of any future announcement. Going back to work prematurely, can undermine the Government's efforts to stop the spread of COVID-19 and ultimately damage our industry and the wider economy.

The 'Return to Work' resource pack includes a range of key guidance notes, circulated to CIF members on a regular basis.

There are several key areas covered in the document summary, including:

- Health and Safety
- Industrial Relations
- Contractual issues
- Sub-contractor issues
- Virtual Construction and Design
- Planning and development

8.1 Key Control Measures

The following are key control measures required for managing the spread of the virus on construction projects.

8.2 Symptoms

IF YOU THINK THAT YOU MAY HAVE COVID-19 YOU MUST STAY AT HOME.

- Fever (temperature),
- Cough,
- Shortness of breath,
- Breathing difficulties.

No-one with any of the above symptoms should be allowed to enter the site. Any persons displaying symptoms must contact their doctor, self-isolate at home and not attend work for 14 days or until all symptoms have cleared (whichever is longer). Also, any person living with someone who is self-isolating or awaiting a COVID-19 test/results must restrict their movements for 14 days. It should be noted that COVID-19 may be spread by people who are not showing symptoms.

YOU MUST STAY AT HOME UNTIL ALL SYMPTOMS HAVE CLEARED.

8.3 General Health

Personnel living with "at risk groups" as defined by the HSE, must consider if there is a heightened risk from attending work.

8.4 Travel

Persons returning to the island of Ireland should refer to national advice issued by the HSE / the Department of Foreign Affairs.

8.5 Hand Hygiene

Ensure everyone is washing hands regularly and thoroughly or sanitizing and sufficient facilities are provided throughout the work site and maintained to allow this to happen.

8.6 Social Distancing

Ensure workers maintain the 2-metre (2m) separation insofar as is possible while working, when using toilets, canteens, drying rooms, etc. Also, promote social distancing when travelling to and from work (public transport, vans, etc.), and in their daily lives, in order to limit exposure.

8.7 Cough Etiquette / Respiratory Hygiene

Please ensure that personnel practice good hand hygiene, cough etiquette and respiratory hygiene. All site personnel must adhere to the HSE guidelines to prevent the spread of this virus. Sanitise or wash hands thoroughly (for at least 20 seconds) and regularly to avoid contamination, in particular:

- After coughing and sneezing,
- Before and after eating,
- Before and after preparing food,
- If in contact with someone who is displaying any COVID-19 symptoms,

- Before and after being on public transport (if using it),
- Before and after being in a crowd,
- When arriving and leaving the workplace/other sites,
- Before having a cigarette or vaping,
- When hands are dirty,
- After toilet use.

All staff and visitors are required to use the hand sanitisers that will be provided before entering the site or the welfare facilities.

Ensure that all personnel cover their mouth and nose with a tissue or sleeve when coughing or sneezing, discard all used tissues appropriately in the appropriate bin and wash your hands.

Avoid touching eyes, nose or mouth with unwashed or unclean hands.

8.8 Cleaning

Ensure that all frequently touched objects and surfaces are regularly cleaned and disinfected

For the most up to date information on this pandemic please refer to the HSE Website and the CIF websites before proceeding with any work. The CIF have produced a guidance document "Construction Sector C-19 Pandemic; Standard Operating Procedures" that should be referenced for all works. Please refer to the CIF website to ensure that you are referring to the most current version.

8.9 PPE

Suitable Personal Protection Equipment (PPE), washing facilities and hand sanitisers must be provided by the Main Contractor at agreed locations on the site, for deliveries and in the site compound area.

8.10 Risk Assessment

The appointed Main Contractor works for the Clients under a construction contract and, in most instances, compliance with the CIF Standard Operating Procedures involves changes to the schedule or delivery programme for construction projects. Therefore, the implementation of these new SOP's must have the support of the Client and be implemented in accordance with the necessary contractual instructions from Clients.

The Main Contractor cannot operate unilaterally, and each site and project is unique in terms of its design and the tasks associated with its construction. The Client will accept that adapting and complying with the good practice illustrated in the CIF's Standard Operating Procedures has productivity and cost implications. It is therefore recommended that before construction proceeds on site, a full risk assessment is conducted by the Client and Main Contractor to ensure that the project can commence with delivery schedules agreed, work programmes agreed and/or any necessary contractual instructions are issued by the Client which make it possible to comply with these SOP's.

8.11 Return to Work

All persons returning to work after being in isolation or living with someone in isolation must complete the required return to work form fully. This form must be signed and returned to the Main Contractor's appointed person three days before returning to work on site.

If there are any yes answers to any of the questions, then this person must seek and follow all medical advice before returning to work. If there are any yes answers to any of these questions, this person must not return to site until such time as they have received a negative COVID 19 test result and recovered from the illness fully or have been advised their doctor that it is safe to do so.

QUESTION	YES	NO
1. Do you have symptoms of cough, fever, high temperature, sore throat, runny nose, breathlessness, or flu-like symptoms now or in the last 14 days?		
2. Have you been diagnosed with confirmed or suspected COVID-19 infection in the last 14 days?		
3. Are you currently awaiting the results of a test for a suspected COVID-19 infection?		
4. Are you a close contact of a person who is a confirmed or suspected case of COVID-19 in the past 14 days (i.e., less than 2m for more than 15 minutes accumulative in 1 day)?		
5. Have you been advised by a doctor to self-isolate at this time?		
6. Have you been advised by a doctor to cocoon at this time?		
If there are any other circumstances relating to COVID-19 that have not been included on this form but that you think may need to be disclosed to allow your safe return to work, please note these below.		

8.12 Return to Work -Vaccinated Workers

All persons who have received an approved vaccination must provide the appointed Main Contractor with a copy of the "Covid-19 Vaccination Record Card" that are supplied by the HSE. The appointed Main Contractor must maintain these records over the course of the project and may be required to provide information to HSE contact tracing should an outbreak occur.

Covid-19 Reference Documents:

CIF Construction Sector C-19 Pandemic SOP - V8 - Highlighted Changes

BSI Standards Publication: Occupational Health and Safety Management - General guidelines for safe working during the COVID-19 pandemic (ISO/PAS 45005:2020(E)).

(Please refer to the CIF & HSE websites for the most up to date publications regarding the ongoing Covid-19 Pandemic response and actions)

APPENDIX 1: - Sample Emergency Contact Details.

Table 1: -Sample Emergency Contact Details

Emergency Service	Contact Numbers
Ambulance	999 or 112
Fire Brigade	999 or 112
Kerry County Council Environment Section County Buildings, Ratass, Tralee, Co. Kerry	(066) 718 3500
EPA Headquarters Johnstown Castle Estate Co. Wexford	(053) 916 0600
Inland Fisheries	(01) 8842693
ESB Emergency	1850 37 29 99
BGE Emergency	1850 20 50 50
First Aid Officer	TBA by Main Contractor
National Monuments Service, Department of Arts, Heritage, and the Gaeltacht	(01) 888 2000
National Parks & Wildlife Service 90 King Street North Dublin 7	(01) 888 3200
Health & Safety Authority	1890 289 389
Local Hospital: Kerry University Hospital, Ratass, Tralee, Co. Kerry. V92 NX94	(066)-718 4000
Local Garda Stations: Killorglin Garda Station (24 hrs) Upper Bridge St, Castleconway, Killorglin, Co. Kerry, V93 Y563	(066)-979 0500

Note: All numbers must be verified by the Main Contractor before posting on site.

APPENDIX 2: - Sample Criteria for Ecological Evaluation.

Ecological Valuation Criteria
International Importance: • 'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation. • Proposed Special Protection Area (pSPA). • Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended). • Features essential to maintaining the coherence of the Natura 2000 Network.[1] • Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive. • Resident or regularly occurring populations (assessed to be important at the national level)[2] of the following: o Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and / or o Species of animal and plants listed in Annex II and/or IV of the Habitats Directive. • Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971). • World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972). • Biosphere Reserve (UNESCO Man & The Biosphere Programme). • Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979). • Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979). • Biogenetic Reserve under the Council of Europe. • European Diploma Site under the Council of Europe. • Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).[3]
National Importance: • Site designated or proposed as a Natural Heritage Area (NHA). • Statutory Nature Reserve. • Refuge for Fauna and Flora protected under the Wildlife Acts. • National Park. • Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park. • Resident or regularly occurring populations (assessed to be important at the national level)[4] of the following: o Species protected under the Wildlife Acts; and/or o Species listed on the relevant Red Data list. • Site containing 'viable areas'[5] of the habitat types listed in Annex I of the Habitats Directive.

1. See Articles 3 and 10 of the Habitats Directive.

2. It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population, or the species is at a critical phase of its life cycle.

3. Note that such waters are designated based on these waters' capabilities of supporting salmon (Salmo salar), trout (Salmo trutta), char (Salvelinus) and whitefish (Coregonus).

4. It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population, or the species is at a critical phase of its life cycle.

5. A 'viable area' is defined as an area of a habitat that, given the characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

Ecological Valuation Criteria
County Importance: • Area of Special Amenity.[6] • Area subject to a Tree Preservation Order. • Area of High Amenity, or equivalent, designated under the County Development Plan. • Resident or regularly occurring populations (assessed to be important at the County level)[7] of the following: o Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; o Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; o Species protected under the Wildlife Acts; and/or o Species listed on the relevant Red Data list. • Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance. • County important populations of species or viable areas of semi-natural habitats or natural heritage features identified in the National or Local Biodiversity Action Plan (BAP) if this has been prepared. • Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county. • Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.
Local Importance (higher value): • Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared; • Resident or regularly occurring populations (assessed to be important at the local level)[8] of the following: o Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; o Species of animal and plants listed in Annex II and/or IV of the Habitats Directive; o Species protected under the Wildlife Acts; and/or o Species listed on the relevant Red Data list. • Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality; • Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.
Local Importance (lower value): • Sites containing small areas of semi-natural habitat that are of some local importance for wildlife; • Sites or features containing non-native species that are of some importance in maintaining habitat links.

6. It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

7. It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County importance where the population forms a critical part of a wider population, or the species is at a critical phase of its life cycle.

8. It is suggested that, in general, 1%of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population, or the species is at a critical phase of its life cycle.