Central Dublin Substation Project

Outline Construction Environmental Management Plan

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1 Introduction

RPS has been appointed by EirGrid plc (hereafter EirGrid) to prepare a Strategic Infrastructure Development (SID) planning application under Section 182A of the Planning and Development Act 2000, as amended (the Act) for the Central Dublin Substation Project which comprises of the construction of a new transmission substation in East Wall, Dublin 3 (hereafter referred to as the "Proposed Development").

This Outline Construction Environmental Management Plan (CEMP) describes the approach that will be adopted to environmental management throughout the Proposed Development, with the primary aim of reducing any adverse effects from construction on the environment. This Outline CEMP comprises part of the SID planning application documentation submitted to An Coimisiún Pleanála.

1.1 Scope of the CEMP

The Outline CEMP contains all the mitigation measures that are set out in Planning and Environmental Considerations Report (PECR) for the Proposed Development, and it will be further updated with any conditions and/or modifications imposed by the Competent Authority, An Coimisiún Pleanála.

The following elements of the CEMP will be provided by the Contractor once appointed:

- Roles and responsibilities of the staff working for the Contractor based on the Contractor's organisational structure;
- Procedures for communicating with the public;
- Procedures for communicating with relevant site personnel;
- Procedures for Environmental Awareness Training for the Contractor's staff;
- Procedures for monitoring and responses to monitoring results, where it is contractually required; and
- Provide a system for audit to be effective during the construction phase.

1.2 Contractor's Environmental Policy Statement

Once appointed, the Contractor will include their Environmental Policy Statement to this section.

2 General Project Details

2.1 Site Location and Context

The subject 1.124ha site is located at East Wall Road (R131 regional road), East Wall, Dublin 3, as illustrated in **Figure 2-1**.

The majority of the site is owned by ESB, with a strip of land along the East Wall Road footpath being within the control of Dublin City Council. Letters of consent to include these lands are enclosed as part of the SID application pack.

The site is currently in use as a temporary surface car park for ESB Networks staff with an adjacent vacant brownfield site. Access to the site is via the East Wall Road with two gated entrances – only one of which is in operation. The security-controlled surface car park has been in operation at the location since 2016, as permitted by DCC (under Planning Reference 3052/16 and 2766/21) and will cease operating in August 2026.

As illustrated in **Figure 2-2**, the residential area of East Wall is located immediately to the southwest of the site and generally comprises two storey residential dwellings. The site is bounded to the west by the Portside Business Centre, to the east by a Dublin Port Company (DPC) Storage Site, to the north by the M50 and Port Tunnel Control building and Tolling facility.

The Eastpoint Business Park lies immediately to the north of the M50 and Port Tunnel which consists of numerous office buildings with access to the Business Park from two security-controlled access points from Alfie Byrne Road and Bond Road. Further afield to the northwest of the application site, the River Tolka flows out into the Dublin Bay Estuary. The M50 crosses the river near the estuary before entering the port tunnel.

The location is approximately 50m south from the Belcamp – Shellybanks 220 kV circuit which currently runs on the northern side of the M50. The proposed substation will connect into this 220 kV circuit via a trenchless crossing of the M50. This Grid Connection does not form part of the proposed SID planning application.

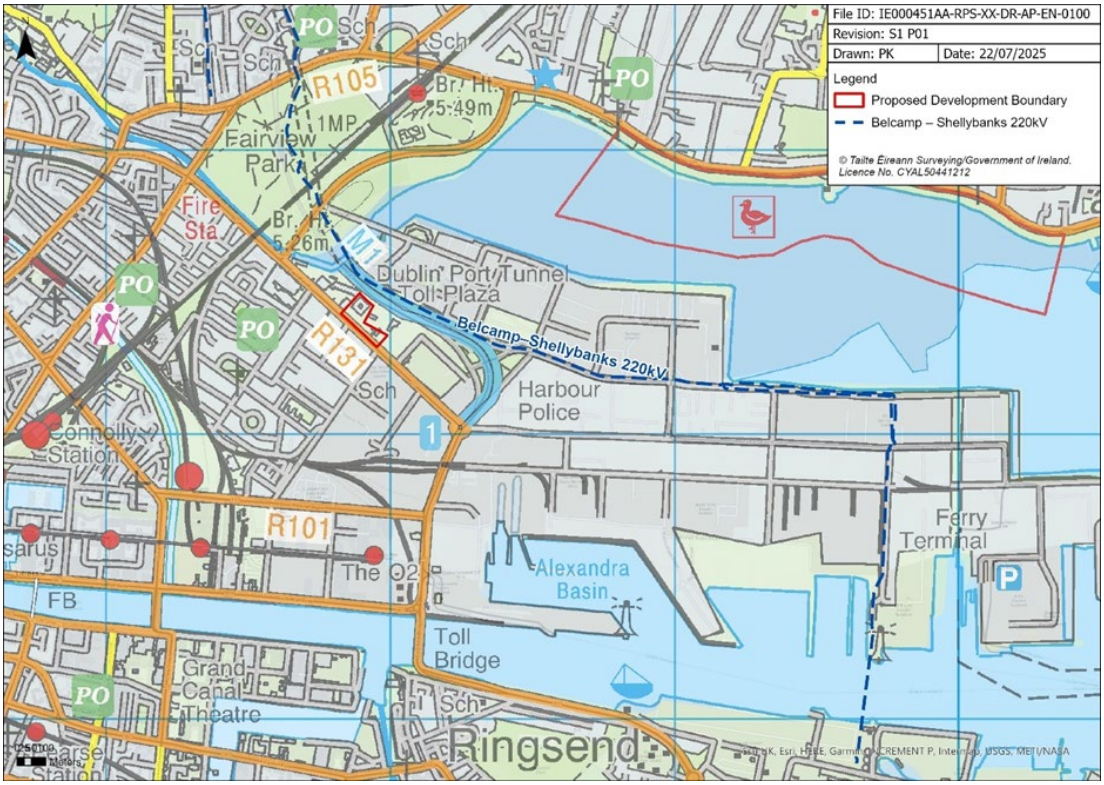

Figure 2-1 Site Location

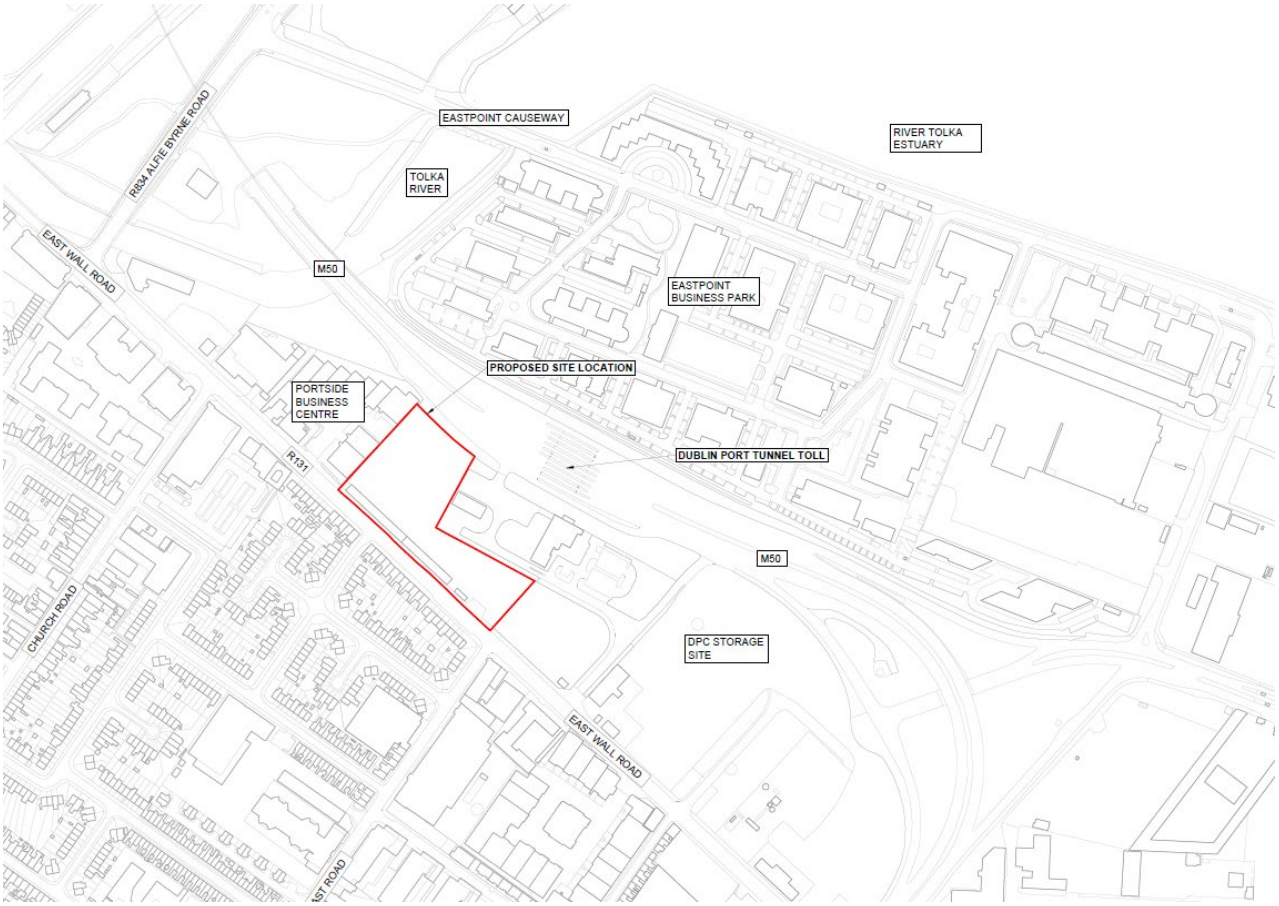

Figure 2-2 Site Context

2.2 Proposed Development Overview

The 1.124ha subject site at the ESB Gateway Car Park and adjoining lands, East Wall Road, East Wall, Dublin 3 is within the ownership of ESB and comprises of a temporary surface car park for ESB Networks staff, and an adjacent vacant brownfield site on the north side of East Wall Road (R131 regional road).

The Proposed Development comprises of:

- Change of use from car park to electricity infrastructure;
- Demolition of existing buildings, structures and general site clearance;
- 1 no. 2-storey 220kV Gas Insulated Switchgear (GIS) substation building occupying an area of c. 51.8m x 22.2m and 20m in height to include the GIS switchgear comprising of insulated circuit breakers, disconnectors and other high voltage equipment, an emergency diesel generator, all necessary welfare facilities, office spaces, and monitoring and control equipment required for the operation and maintenance of the substation;
- 1 no. 2-storey 110kV GIS substation building occupying an area of c. 51m x 15.9m and 16.5m in height to include the GIS switchgear comprising of insulated circuit breakers, disconnectors and other high voltage equipment, an emergency diesel generator, all necessary welfare facilities, office spaces, and monitoring and control equipment required for the operation and maintenance of the substations;

- 3 no. transformers to transform electrical power from 220kV to 110kV and associated acoustic enclosures (c. 5.3m in height) and c 1m high lightning protection rods extending to a height of c. 11m above ground level;
- Electrical cables located within the site boundary;
- Site lighting within the substation compound;
- Closure of all existing entrances to the site and the provision of new vehicular and pedestrian access from East Wall Road;
- Ancillary car parking spaces including internal access roads;
- 2.6 m high palisade security fence and associated gates;
- A public-facing fence and associated gates along East Wall Road varying in height from c. 2.4m to c. 3m;
- Public realm improvements including the provision of seating areas and landscaping;
- Associated utility connections including water supply, foul drainage and surface water drainage, including the provision of an underground storm water attenuation tank; and
- All other associated ancillary above and below ground development, including works comprising or relating to construction works, roadworks and excavation.

2.3 Site Compound

For the construction phase of the project, the temporary construction compound will be located within the Proposed Development site. No additional areas outside of the site have been identified for use as a temporary compound.

2.4 Construction Duration of the Development

The construction phase (site preparation and civil works) is expected to be 2 years in duration and this will be followed by a commissioning phase (electrical works and energisation) expected to be 1 year in duration.

A detailed construction programme will be developed by the appointed Contractor and will be included in this section.

2.5 Hours of Work

Having regard to the location of the site, adjacent to residential properties, it is envisaged that construction activities will be undertaken during normal working hours i.e., 07.00 to 19.00 hours Monday to Friday and 08.00 to 16.30 hours on Saturdays, with no working on Sundays and Public Holidays.

For some activities, there may be a need to schedule works outside the above e.g. to avoid additional traffic impacts. In these circumstances, works outside the above hours will only be undertaken with prior agreement with DCC's Traffic Department in accordance with relevant procedures.

3 Contact Sheets

It is crucial that environmental incidents (if any) are reported properly and in time during the construction phase, with any details of the responses undertaken and documented. For this purpose, it is required that the contact details of the relevant personnel employed at the site are available and updated on a regular basis. The following subsections provide examples on how the important contact information can be put on record.

3.1 Main Contractor's Details

Table 3.1 provides an example record of contact details of the main Contractor and its staff. Once appointed, the Contractor shall update the necessary details to this section.

Table 3.1: Contact Information of Main Contractor and Other Relevant Staff (Example)

Position Title	Name	Mobile Phone Number	Email
Project Manager			
Site Manager (Representative)			
Site Environmental Manager (Environmental Clerk of Works)*			
Contractor's Site Ecologist (CSE)			
Forepersons			
Safety Officers*			
Site Emergency Number*			
Other, as appropriate			

3.2 Employer Contacts

Table 3.2 provides an example record of contact details of the Employer for the Proposed Development.

Table 3.2: Contact Information of the Employer (Example)

Organisation	Position Title	Name	Mobile Phone Number	Email
Employers Representative	Project Resident Engineer			
Employer	Executive Engineer			
Employer	Senior Executive Engineer			
Employer	Liaison Officer			

3.3 Third Party Contacts

Table 3.3 provides an example record of contact details of any third parties.

Table 3.3: Contact Information of the Third-Party Personnel (Example)

Organisation	Position Title	Name	Mobile Phone Number	Email
Dublin City Council				
Transport Infrastructure Ireland				
ESB Networks				
National Parks and Wildlife Service				
Health and Safety Authority				
Environmental Protection Agency				
Emergency Services				
Others, as appropriate				

4 Organisational Structure / Roles and Responsibilities

4.1 Organisational Structure

The Contractor is required to develop an organogram to be added to this CEMP that will set out the roles and responsibilities of the relevant personnel.

4.2 Employer

ESB will be the employer responsible for procurement of the appointed Contractor and will involve the determination that the Contractor is competent to carry out the works.

The appointed Contractor will be required to plan and construct the Proposed Development in accordance with the Employer's requirements.

The Employer is responsible for ensuring that the Contractor manages the construction activities in accordance with this CEMP.

4.3 Contractor

The Contractor is responsible for implementing the CEMP, including updating the document to reflect any changes in environmental management and/or practices. The Contractor will use the CEMP to inform all Method Statements and ensure that Method Statements include the controls and mitigation measures outlined in this document. The Contractor is responsible for ensuring all necessary consents, licenses and permissions for all activities as required by the current legislation governing the protection of the environment have been obtained. The Contractor will consult with the Ecological Clerk of Works (ECoW) and Project Archaeologists as relevant regarding any derogation licence or archaeological monitoring license applications.

The Contractor will approve the CEMP and Method Statements which will also be approved by the ECoW prior to commencement of any works. The Contractor ensures that the ECoW is informed in a timely manner of all site activities, including all programme changes, to ensure advanced checks and monitoring can be arranged. This includes any preliminary works.

The Contractor will consider the mitigation measures and good practice construction methods detailed within this document in the Contractor's design and in any detailed environmental plans as required by the Contract.

Where the Contractor has standard documents within its own Environmental Management System or Environmental Management Plan, that cover a particular requirement of this CEMP, they will either be inserted or cross-referenced within the relevant section of the final CEMP.

4.3.1 Contractor's Environmental Manager

The Contractor shall appoint an Environmental Manager with appropriate experience and expertise for the duration of the construction phase to ensure that all the environmental design, control and mitigation measures outlined in the CEMP / Environmental Report and supporting planning documentation in relation to all aspects of the environment are implemented. The Environmental Manager together with an environmental team and in consultation with the ECoW, will be responsible for implementation of all mitigation measures and monitoring. This Environmental Manager will be awarded a level of authority to ensure that the CEMP is effectively implemented and will be allowed to stop construction activity if there is potential for adverse environmental effects to occur.

4.3.2 All Site Personnel

The following applies to all personnel attending the site:

- All personnel will attend Environmental Induction Training before commencing work on site.
- Personnel will adhere to the Environmental Control Measures and relevant site-specific Method.
- Personnel will report immediately to the Contractor's Environmental Manager any incidents where there has been a breach of agreed procedures including: a spillage of a potentially environmentally harmful substance; an unauthorised discharge to ground, water or air, damage to a protected habitat, etc. Depending on circumstances it may be appropriate for general operatives and machinery operators to report directly to their Foreperson who will then report to the Contractor's Environmental Manager.

4.4 Community Liaison Officer

The Community Liaison Officer (CLO) will be appointed by the Contractor and will be responsible for managing tasks such as the following:

- Alerting neighbouring residents of the works or activities commencing in their area;
- Briefing neighbours on progress and issues likely to affect them, such as traffic management measures, as necessary;
- Liaison with Dublin City and emergency services as appropriate; and
- Liaison with local Gardaí, particularly in relation to traffic movements and permits where necessary.

4.5 Community Engagement Manager

The Community Engagement Manager is employed by the Employer. The dedicated role is in place right through the Project phases to facilitate engagement with the community. The Community Engagement Manager will work closely with the CLO.

4.6 Correspondence and General Communication

The Contractor will provide a complete record of all relevant communication and reports associated with all aspects of environmental management and implementation of this document. The following records will be maintained:

- Minutes and attendance records of start-up meetings (onsite meeting prior to commencement of construction works). Attendance required by DCC, Contractor and all other relevant personnel responsible for environmental management during the Proposed Development (as required);
- Weekly rolling Environmental Risk Log – including look ahead activities with required mitigation (including weather forecasts), discussed and recorded at scheduled weekly construction meetings. This will cover all environmental sensitivities, including ecology, archaeology, and water quality/drainage mitigation locations/measures.
- Contractor Audit Reports (according to respective corporate procedures);
- Licences and Consents - copies of all permissions, consents, licenses, and permits, including related correspondence;
- Waste Management Records; and

- General Correspondence - all other relevant internal and external communication records relating to environmental management issues and implementation of the CEMP.

4.7 Risk Assessment and Method Statements

The Contractor will undertake Risk Assessments and Method Statements (RAMS) for all works and tasks prior to these being undertaken.

5 Environmental Awareness Training

All site personnel will have appropriate knowledge for successful implementation of the CEMP and environmental awareness training is therefore essential and will be provided.

5.1 Briefing on CEMP and Contractual Requirements

The Contractor's Environmental Manager will provide a briefing on the CEMP and the mitigation measures to the Contractor's senior personnel, namely the Project Manager, Site Manager, Contractor Ecologist and any other key personnel.

5.2 Environmental Induction Training

Environmental induction training will be provided to all categories of personnel working and visiting the site. This can take place in conjunction with the health and safety induction. More detailed training will be carried out with staff or subcontractors with specific environmental responsibilities.

As a minimum, the following information will be provided to all inductees:

- Identification of specific environmental risks associated with the work to be undertaken onsite by the inductee;
- Summary of the main environmental aspects of concern and mandatory mitigation measures:
  - Nearby sensitive receptors;
  - Species and/or habitat protection requirements;
  - Archaeological features for protection;
  - Pollution prevention and protection of the water environment (e.g., silt mitigation measures and refuelling);
  - Measures to minimise impacts on air quality and noise:
  - Waste management e.g. requirements for storage and removal or hazardous materials;
  - Construction traffic management; and
  - Plant service and repair procedures, specifically service location and the disposal of waste oils and service component.
- Environmental Incident and Emergency Response Plan; and
- Contact details for the Environmental Manager.

5.3 Toolbox Talks

During construction, to provide on-going reinforcement and awareness training, tool box talks will be carried out to ensure environmental issues and required mitigation measures specific to the work being performed are being addressed and implemented.

The tool box talks will be delivered by designated personnel onsite (e.g. Environmental Manager) as required and will also cover environmental issues particular to the Development and any other environmental issues which arise onsite including but not limited to:

- Oil/Diesel spill prevention and safe refuelling practice and fuel handling procedures;
- Storage of materials including oil/diesels and cement;

- Materials handling, including excavation, segregation, storage, and reuse/disposal of excavated materials;
- Waste management, including waste storage, waste segregation and littering;
- Emergency response procedures used to deal with spills including training on use of spill kits; and
- Emergency response protocols.

The Contractor will maintain a record of all toolbox talks and training and make these records available to the Employer if requested.

5.4 Notice Boards

The Contractor will provide and maintain project environmental notice board(s) which are to be positioned to ensure that all construction employees including sub-contractors can review the notice board daily. As a minimum, this is to include one notice board at the site compound.

Environmental labelling and signage are to be used onsite to inform project personnel of key environmental requirements or restrictions, including information to assist good environmental practice across the site.

The environmental notice boards are maintained by the Contractor and will be reviewed, and updated as required, at least weekly. As a minimum, the notice boards will contain:

- A description of the key environmental risks and mandatory mitigation measures,
- Environmental Risk Map illustrating the location of the key risks and required exclusion zones / buffer zones and location of emergency response equipment, and
- Key contact numbers and responsible personnel identified within the Environmental Incident and Emergency Response Plan (see **Section 3**).

6 COMMUNICATION

A communication strategy for both internal and external communications to promote awareness, education and sharing of information on the progress of the Proposed Development will be prepared by the Contractor.

6.1 Internal

The CEMP will be distributed to the project team, including sub-contractors, to ensure that the environmental requirements are communicated effectively. Key activities and environmentally sensitive operations shall also be briefed to staff and Contractors. Project, client and company environmental policies, where available, will be displayed on site.

During the construction phase, internal communication will include regular progress meetings, which shall cover:

- Training undertaken;
- Progress report;
- Inspections, audits and non-conformance;
- Complaints received;
- Visits by external bodies and the outcome or feedback from such visits;
- Objective / target achievement, including reporting on environmental performance.

6.2 External

The Contractor will provide details on the available communication channels and designated points of contact for members of the public or key stakeholders to contact during construction. The details on how those who may be affected by the works (local community, road users, affected residents) will be notified will be required to be established in advance of the works.

6.2.1 Community Liaison

The Contractor shall appoint a key contact person during the construction phase to facilitate communications between the contractor, key stakeholders and members of the public.

Contact details (email, phone) for the CLO will be included in the CEMP for the Proposed Development. The CLO will be involved throughout construction on all aspects of community engagement. Where communications are related to environmental issues, the Environmental Manager/ Environmental Clerk of Works will be involved, if appropriate.

6.2.2 Enquiries and Complaints

The Contractor will establish a process for handling all enquires including complaints which will be agreed with the Employer/ Employer's Representative. All enquiries will be recorded, and a log will be maintained to include details of the response and action taken. The log will be available for inspection if requested. All observations, queries and complaints will be dealt with in a timely manner.

The Employer will be immediately informed of any environmental-related issues that have been raised. The Contractors' Environmental Manager will be responsible for informing relevant stakeholders, and statutory bodies, as appropriate, about such issues.

7 INSPECTIONS, AUDITING AND MONITORING AND COMPLIANCE

7.1 Inspections

The Contractor's Environmental Manager will undertake environmental inspections on a weekly basis and will provide relevant records to the Project Manager when and as requested. The Contractor's Environmental Manager will be accompanied by qualified and accredited environmental specialists (e.g ecologists, landscape architects, noise specialists, etc) when appropriate and where required during inspections.

A digital log of all reports from environmental inspections will be kept and will be available for inspection at all times.

7.2 Monitoring

The Proposed Development may require certain types of monitoring during construction e.g. noise and vibration monitoring, archaeological monitoring etc. The Contractor will carry out the required monitoring as specified in the relevant environmental assessment reports submitted as part of this SID application. The Contractor shall ensure that all the monitoring is carried out by appropriately qualified and competent environmental personnel.

7.3 Audit

For successful implementation of the CEMP by the Contractor, the Contractor's Environmental Manager will carry out monthly audits. The audit reports will be submitted to the Employers Representative for review and comment within two weeks of the audit being undertaken. The Contractor's Environmental Manager will update the CEMP as necessary and advise site personnel accordingly based on the results of these audits. A digital log of all audits will be kept and will be available for inspection at all times.

This CEMP shall also be revised between audits as deemed appropriate, particularly with an update of environmental control measures or environmental legislation.

Environmental audits may be completed at any time by the Employer, but at least at quarterly intervals to ensure the Contractor is complying with the environmental provisions of the contract.

7.4 Non-Conformance, Corrective and Prevention Action Plan

Non-conformances are generally issued in a situation where legal or contractual limits associated with activities on the project are exceeded, or there is an internal/external complaint associated with environmental performance.

Non-conformance occurs where there is insufficient control of the activities and processes to the extent that the functionality of the CEMP (i.e., in terms of the policy, objectives and management programmes) is compromised.

Correction is the act of developing or improving where non-conformances have been identified. Prevention is the act of ensuring that non-conformance does not (re)occur.

In the event of non-conformance with any of the above, the following must be investigated:

- Cause of the non-compliance: a Non-Conformance Report (NCR) will be prepared to record any environmental incident and work that has not been carried out in accordance with the CEMP or Method Statement(s);

- Develop a plan for correction of the non-compliance: a Corrective Action Report (CAR) will be prepared where a non-conformance is identified as a result of monitoring, inspection, surveillance and valid complaints;
- Determine preventive measures and ensure they are effective: any actions identified shall nominate an owner to follow through the action to be taken, along with a specified timescale for it to be closed out;
- Verify the effectiveness of the correction of the non-compliance; and
- Ensure that any procedures affected by the corrective action taken are revised accordingly.

Responsibility must be designated for the investigation, correction, mitigation and prevention of nonconformance. The contractor and the Employer's Representative teams will monitor and investigate nonconformances relating to environmental issues.

8 ENVIRONMENTAL INCIDENT AND EMERGENCY RESPONSE

8.1 General Requirements

The Contractor is responsible for reporting, recording and investigating environmental incidents for the duration of the contract and to ensure that in the unlikely event of an incident, response efforts are prompt, efficient, and suitable for the particular circumstances.

The Contractor will prepare a detailed Environmental Incident and Emergency Response Plan. The plan will contain the details of emergency scenarios and relevant procedures and actions that will apply. The Contractor will communicate the plan as part of the site induction to all staff and visitors.

The Contractor will ensure that the Environmental Incident and Emergency Response Plan contains details of relevant staff/ external authorities such as:

- Environmental Protection Agency and EPA 24-hour emergency incident line 0818 33 55 99;
- Specialist clean-up contractor;
- Emergency Services;
- Inland Fisheries Ireland;
- Local Authority Environmental Officers;
- An Garda Síochána; and
- National Parks and Wildlife Services.

In the event of spillage of any polluting substance and/or pollution of a watercourse, the relevant local authority, Inland Fisheries Ireland, and the NPWS are to be notified by the Contractor. A set of standardised emergency response procedures will govern the management of emergency incidents.

8.2 Safety and Environmental Awareness Reports and Environmental Auditing

The Contractor will complete a Safety and Environmental Awareness Report for all potential (near miss) or actual environmental incident or emergency which occur on site.

8.3 Pollution / Spill Incident

An emergency-operating plan will be established to deal with incidents or accidents. This will include means of containment in the event of accidental spillage of hydrocarbons or other pollutants (e.g. oil booms, soakage pads). The Contractor will provide a one-page summary sheet containing the key information for incidents response to be used as a quick reference for any on-site personnel witnessing an incident. A laminate copy of this summary sheet will be located with all plant / machinery / on-site vehicles.

Key information to be provided to the Contractor Project Manager and the ECoW within 30 minutes of an incident (irrespective of the scale / severity of the incident) will include:

- What substance was spilled (Material Data Safety Sheet);
- Approximate volume and time of spillage;
- Accurate location of spill (GPS/grid reference or ID/number referenced on map etc.);
- All measures taken to clean up the spill;

- Help required, i.e., manpower, machinery, expert advice, disposal, etc.; and
- Whether the spill has reached a watercourse or the marine environment.
- The Contractor in updating the Environmental Incident and Emergency Response Plan, will consider the impacts of pollution/spill incidents during construction and will note the actions to be taken in the event of a pollution incident, including 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 relevant environmental protection authority;
- Audit and review schedule;
- Telephone numbers of statutory water undertakers and local water company; and
- List of specialist pollution clean-up companies and their telephone numbers.

The Contractor will ensure that adequate means to absorb or contain any spillages of chemicals, pollutants are always available.

8.3.1 Emergency Access

The Contractor will maintain access routes for the emergency services in all work areas for the duration of the construction phase and to identify the emergency site access points to each work area.

These will be developed in consultation with the emergency services and documented by the Contractor in the updated CEMP prior to construction commencing, as well as being identified in the updated Environmental Incident and Emergency Response Plan.

8.3.2 Extreme Weather Events and Flood Risk

The Contractor will consider the impacts of extreme weather events, flood risk and related conditions during construction. The Contractor will use the short to medium range weather forecasting service from Met Éireann, or other approved meteorological data and weather forecast provider, to inform short to medium term scheduling of the works, environmental controls, and mitigation measures.

The updated CEMP will include appropriate contingency measures to manage extreme weather events (red weather warnings from Met Éireann), including the suspension of work, where required. The measures will include training of personnel and prevention and monitoring arrangements for weather events. Where relevant risks have been identified, the detailed construction method statements will consider extreme weather events.

8.3.3 Fire and Explosion Risk

Even though the fire and explosion risks during construction are very low, the updated CEMP will include appropriate contingency measures to manage such risks. The measures will include training of personnel in fire and explosion risk awareness, risk prevention and risk monitoring.

Portable fire extinguishers, suitable for the activities at the working area, checked and maintained in working order, will be available for use at each of the working areas.

Potentially flammable or hazardous substances will be stored appropriately, and quantities stored will be limited to the minimum volume required to meet the immediate requirements.

Appropriate site personnel will be trained as first aiders and fire marshals. Monitoring of site activities to minimise fire and explosion risk will be a key part of the duties of the site safety officer and fire marshals.

9 General Site Management and Pollution Prevention

The Contractor will be responsible for the implementation of the following environmental management requirements to prevent, manage and/or minimise potential significant environmental effects during the construction phase.

9.1 General Site Management and Pollution Prevention

9.1.1 Responsibility

The Contractor is responsible for pollution prevention for the duration of the contract and until such time as permanent measures, such as permanent drainage and silt mitigation controls, are deemed to be adequate and appropriately constructed.

The Contractor ensures that all staff and subcontractors working on site will be familiar with pollution prevention and mitigation measures as detailed in this document. This includes subcontractors, Employer's direct contractors and other Employer's representatives working on the site.

It is the responsibility of the Contractor to contact the relevant statutory and non-statutory bodies and stakeholders in the vicinity of the Project, so that the requirements and interests of these parties are adhered to and protected throughout the duration of the Contract.

Prior to works commencing on site, the Contractor will prepare a Pollution Prevention Plan (PPP) in line with the below requirements (as a minimum) and will communicate the contents to all staff (induction / toolbox talks). The PPP covers all potentially polluting activities, considering good practice standards. The Contractor provides the PPP to the Employer prior to start of works on site.

The Contractor monitors, and records in an onsite log, adherence to the PPP throughout the works. The Contractor communicates the PPP and any changes/updates of the PPP to all personnel on site.

9.1.2 Good Housekeeping and General Pollution Prevention Measures

Proper site management during construction must be carried out to ensure that all necessary measures are taken to prevent silt-laden run-off and pollutants from entering any watercourse, with cognisance of the proximity of the proposed works to the River Tolka and Estuary and the River Liffey.

The Contractor will ensure "good housekeeping" at all times. The following points (not exhaustive) indicate general pollution prevention measures in accordance with published guidance and project commitments. Pollution prevention measures relating to specific tasks are also detailed in the respective sections of this document. This will comprise of the following measures:

- 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, spill kits, material and waste storage and welfare facilities;
- Maintaining all plant, material and equipment required to complete the construction work in good order, clean, and tidy;
- Keeping construction compounds, access routes and designated parking areas free and clear of excess dirt, rubbish piles, scrap wood, etc. and maintaining dust suppression always;
- Provision of signs giving details of site management contact numbers, including out of hours, and public information at the boundaries of the working areas;
- Provision of adequate welfare facilities for site personnel;

- Installation of appropriate security, lighting, fencing, and hoarding at each working area;
- Maintenance of site hoarding, repairing when necessary, removal of any fly posting or graffiti;
- Effective prevention of oil, grease or other objectionable matter being discharged from any working area;
- Provision of appropriate waste management at each working area and regular collections to be arranged;
- Prevention of infestation from pests or vermin including arrangements for regular disposal of food and material attractive to pests. If infestation occurs the Contractor will take appropriate action to eliminate and prevent further occurrence;
- Maintenance of wheel washing or other similar systems and other contaminant measures as required in each working area;
- No discharge of site runoff or water discharge without agreement of the relevant authorities;
- Prohibition of open fires always;
- 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 pedestrians and cyclists where practicable and to achieve inclusive access;
- All loading and unloading of vehicles will take place off the public network wherever this is practicable; and
- Material handling and/or stockpiling of materials, where permitted, will be appropriately located to minimise exposure to wind. Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods.
- On completion of the works, all plant, tools, offices, storage containers, surplus materials, waste and temporary welfare facilities will be removed from the site by the Contractor.

9.1.3 Management of Chemicals, Fuels and Oils

The Contractor will prepare and adhere to a Fuel Management Protocol in line with the below requirements (as a minimum) and communicate the contents to all staff (via induction / toolbox talks). The following measures are to be adhered to with respect to the management of chemicals, fuels and oils:

- The Contractor will provide secure oil, fuel, and chemical storage in over-ground bunded areas, limited to the minimum volume required to serve immediate needs with specified delivery and refuelling areas;
- Stockpiling of construction materials shall be strictly prohibited within 15 m of any ditch or water-laden channel;
- The Contractor will ensure protection measures will be put in place to ensure that all hydrocarbons used are appropriately handled, stored and disposed of in accordance with the TII/NRA document “CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites (CIRIA, 2001) and Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016).

- Fuel and oil containers are stored within a secondary containment system (e.g., bund to 110% of volume for static tanks or a drip tray for mobile stores);
- Fuel and oil stores including tanks and drums are regularly inspected for leaks and signs of damage;
- Ancillary equipment such as hoses or pipes are to be contained within the bund;
- All ancillary fuel pipes on plant, outlets at fuel tanks etc. will be regularly checked and maintained to ensure their good state-of-repair and that no drips or leaks to ground occur;
- Only designated trained operators are authorised to refuel plant on site;
- Procedures and contingency plans are set up to deal with emergency accidents or spills;
- Plant and site vehicles are to be well maintained and any vehicles leaking fluids must be repaired or removed from site immediately. Any servicing operations will take place over drip trays.
- All machinery including hydraulic hoses and fittings will be inspected and cleaned in advance of works and routinely checked and maintained to ensure no leakage of oils or lubricants occurs during the works. Any machinery leaking fluids must be repaired or removed from site immediately;
- Any servicing operations will take place over interceptor drip trays;
- Refuelling of construction equipment and the addition of hydraulic oil or lubricants to vehicles/equipment will take place on sealed surfaces only, in designated bunded areas (ideally located at the temporary construction compound), using an appropriate fuel dispenser away from drains and other watercourses;
- Interceptor drip trays will be positioned under any stationary mobile plant to prevent oil contamination of the ground surface or water.
- Re-fuelling of plant shall only take place on hardstand and not within 1 m of any watercourse or surface water feature. Spill containment (i.e. drip trays) shall be used, and spill kits shall be kept available and used if necessary;
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained, and the contaminated soil removed from the site and properly disposed of;
- Oil booms and oil soakage pads will be kept on site to deal with any accidental spillage;
- Fuels and oils shall be stored in a bunded cabinet and a spill kit containing oil absorbent materials will be available on site;
- Spill-kits and hydrocarbon absorbent packs will be stored in the cabin of vehicles working near watercourse and operators must be fully trained in the use of this equipment; and
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained, and the contaminated soil removed from the site and properly disposed of.
- The Contractor identifies a specialist clean-up specialist emergency contractor to engage with in the case of a significant pollution event on site. Details of the specialist contractor will be provided to the Employer prior to works commencing on site. Details of the specialist contractor will be included in the Environmental Incident and Emergency Response Plan (refer to **Section 8.3**).

9.1.4 Temporary Construction Compound

As outlined in **Section 2.3**, the temporary construction compound will be located within the Proposed Development site. No additional areas outside of the site have been identified for use as a temporary compound.

The Contractor shall be responsible for the provision of services, including electric power, water, lighting and heating.

Welfare Facilities - welfare facilities will be provided, as appropriate, for all construction staff and site personnel including locker rooms, drying rooms, toilets, and showers. The welfare facilities will be located at the temporary construction compounds and works areas.

Drinking Water - potable water will be supplied from Irish Water mains where available. The Contractor shall contact Irish Water in relation to the provision of a service connection. If not, potable water will be either transported via tanker to site or via large bottles.

Grey Water - grey water for non-drinking purposes (construction and toilets) will be sourced via rainfall collection or transported via tanker to site.

Wastewater – Sanitary wastewater will be collected and stored in an on-site wastewater treatment unit system, which will be emptied on a regular basis by licensed contractors and disposed of appropriately.

Wheel wash or similar- where a wheel wash is installed, this will be located on impermeable surface, and water will be passed through a silt buster or other appropriate surface water management mechanism.

Deliveries to site - deliveries of materials will be planned and programmed to ensure that the materials are delivered only as they are required at the working areas. Storage of material will be at the supplier premises or at the temporary construction compound, depending on the type of material.

Works requiring multiple vehicle deliveries will be planned to ensure queuing on the public roads around the working areas will be avoided as far as is practical.

9.1.5 Hours of Work

It is proposed that core working hours will apply as follows, with deviation from these times only allowed in exceptional circumstances where prior written approval has been received from the local authority:

- Monday to Friday: 07:00 to 19:00;
- Saturdays: 08:00 to 16:30; and
- Sundays and Bank Holidays: no activities will take place on site.

There are certain works that may benefit from being undertaken outside of normal working hours e.g. to avoid additional traffic impacts. In these circumstances, works outside the above hours will only be undertaken with prior agreement with DCC’s Traffic Department in accordance with relevant procedures.

The removal of waste material off site by road and regular deliveries to site will, where appropriate, be generally confined to outside of peak traffic hours, and will only be undertaken by appropriately permitted hauliers and disposed of in appropriately permitted facilities.

The Contractor may require a period of up to one hour before and one hour after core working hours for start-up and shut down activities in working areas. Activities permitted may include deliveries and unloading of materials, movement of staff to their place of work, maintenance and general preparation works. Except as noted above, the use of plant or machinery likely to cause disturbance will not be permitted outside of the core working hours.

It may be necessary, for example, due to weather constraints, specialist subcontractor availability or the nature of the activity, to undertake certain activities outside of the core working hours. Any construction outside of the core working hours will be agreed by the Contractor in advance with DCC and scheduling of such works will have regard to nearby sensitive receptors, who will be notified in advance.

In the case of work outside of the core working hours required in an emergency or which if not completed would result in an unsafe or harmful situation for workers, the public or local environment, DCC will be informed as soon as reasonably practicable of the reasons and likely duration and timing.

9.1.6 Site Security

The security of the works areas will be the responsibility of the Contractor who will provide adequate security to prevent unauthorised entry to or exit from any working areas. The following measures will be used to prevent unauthorised access.

- Installation 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;
- When there is no activity on site, site gates will be closed and locked and appropriate site security provisions will be undertaken; and
- Consultation with neighbouring properties and local crime prevention officers including DCC and An Garda Síochána on site security matters as required.

9.1.7 Hoarding and Fencing

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

- Construction compounds will be secured by fencing and provided with lockable gates to prevent unwanted access to temporary compounds and working areas.
- Appropriate sight lines/visibility splays will be maintained around accesses to the temporary compound and working areas from the public road to ensure safety of both vehicles and pedestrians is preserved;
- Temporary Heras fencing will be used in certain areas, such as for short term occupation of working areas;
- Display information boards will be provided with out of hours contact details, a telephone helpline number for comments/complaints and information on the works; and
- Notices to warn of hazards on site, construction access will be installed on site boundaries.

9.1.8 Services and Lighting

Working areas will be powered preferably by mains supplies and by diesel generators where an electrical supply is not available.

The Employer will require the Contractor to put measures in place to ensure that there are no interruptions to existing services unless this has been agreed in advance with the relevant service provider These measures will include collaboration with each utility provider and having agreements in place with utility providers in order to maintain services or at least minimise downtimes during construction.

Lighting – site lighting will be provided by tower mounted temporary portable construction floodlights. The floodlights will be cowled and angled downwards to minimise spillage to surrounding properties. The following measures will be applied in relation to site lighting:

- 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 so that it does not unnecessarily intrude on adjacent buildings and land uses, ecological receptors and structures used by protected species, nor cause distraction or confusion to motorists.

10 Mitigation Measures

The Schedule of Mitigation Measures will comprise the following:

- The construction phase mitigation and monitoring measures as outlined in the Planning and Environmental Considerations Report (PECR); and
- Any commitments arising from the planning conditions imposed by the Competent Authority, An Coimisiún Pleanála.

The appointed contractor will comply with all Mitigation Measures, and all applicable legislation, including relevant standards, codes of best practice and guidelines.

10.1 Schedule of Mitigation Measures

Table 10.1 summaries the construction phase mitigation (i.e. which the appointed contractor will implement) outlined in the PECR. The table should be read in conjunction with the relevant technical assessment section of this the PECR document.

Table 10.2 summaries the construction phase monitoring (i.e. which the appointed contractor will implement) outlined in the PECR. The table should be read in conjunction with the relevant technical assessment section of this the PECR document.

Table 10.1: Mitigation Measures outlined in the Planning and Environmental Considerations Report

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
Traffic & Transport (Chapter 8)	8.5.1	The appointed contractor will be required to prepare and implement a Construction Traffic Management Plan (CTMP) prior to the commencement of the development, which will outline local safety measures and be subject to agreement with Dublin City Council. The CTMP will be prepared in accordance with the following guidance documents: • Chapter 8 of the Traffic Signs Manual (Department of Transport, 2021); • Temporary Traffic Management Design Guidance (DoT, 2019); and • Temporary Traffic Management Operations Guidance (DoT, 2019). These three documents must be read and understood as a comprehensive set. The CTMP will be a “live” document which will be reviewed prior to and updated during construction according to site specific conditions on the project and to reflect current construction activities. These three documents must be read and understood as a comprehensive set. The CTMP will be a “live” document which will be reviewed prior to and updated during construction according to site specific conditions on the project and to reflect current construction activities. The following mitigation will also be implemented: • Roads with existing weight restrictions will be identified in advance and avoided for transporting oversized loads • During the construction phase, signage will be installed to warn road and recreational route users to the presence of the proposed

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		construction compound access and the associated likely presence of large or slow-moving construction traffic; • To minimise inconvenience to the local community in terms of obstructive parking, car parking will not be permitted on any public road network adjacent to the site, to maintain sight lines and minimise the potential for obstruction and delay for other road users; • The appointed contractor will nominate a person to be responsible for the coordination of all elements of traffic and transport during the construction process (liaison officer). This person will liaise with the local community, and be a direct point of contact within the contractor organisation for the community to contact for information or to discuss the traffic management; • To minimise disruption, deliveries will be scheduled during off-peak hours, avoiding sensitive periods such as school drop-off and collection times, church services, and peak commuting hours; • To mitigate impacts on St. Joseph's Co-educational Primary School on East Wall Road, heavy goods vehicle (HGV) movements will be timed to avoid early morning and afternoon school traffic and pedestrians; Construction traffic management measures will be monitored throughout the construction phase by the appointed contractor to respond to dynamic conditions and measures will be adjusted to match construction sequencing where appropriate and necessary.
		Abnormal loads During the electrical installation phase three 220 kV transformers, each a large and heavy component requiring specialist handling, will be delivered to the site. As abnormal loads, these deliveries will comply with the Road Traffic (Construction and Use of Vehicles) Regulations 2003 (S.I. No. 5 of 2003) and the maximum height restrictions outlined in S.I. No. 366 of 2008.
Population and Human Health (Chapter 9)	9.5.1	**Construction Phase** During the construction phase, the legal duties under the Construction Regulations (*Safety, Health and Welfare at Work (Construction) Regulations 2013*) will be adhered to. In accordance with these duties, a Project Supervisor Design Process (PSDP) will be appointed by the relevant contractor to coordinate the design effort and minimise the construction risks during the design period. In addition, a Project Supervisor - Construction Stage (PSCS) will be appointed to coordinate and supervise all safety aspects of the project. The Outline Construction Environmental Management Plan (OCEMP) for the project, prepared by RPS and submitted with the planning application, sets out the basic measures and provides a mechanism for implementation of the various mitigation measures which are described in this PECR to be employed in order to mitigate potential negative effects during construction. The OCEMP will be a key contract document that the the appointed contractor will be required to implement in full. It will be updated by the appointed contractor in

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		consultation with the local authority as required. The appointed contractor will be responsible for ensuring that all sub-contractors adhere to and implement the procedures and measures included in the CEMP. All personnel will be required to understand and implement the requirements of the CEMP and shall be required to comply with all legal requirements and best practice guidance for construction sites.
Air Quality (Chapter 10)	10.5.1	The IAQM Guidance relevant to the construction dust assessment lists measures that will be applied, relative to the risk identified. In this instance, a Medium risk of dust impacts was identified due to the potential dust emission magnitude and sensitivity of the area. Therefore the list of IAQM recommended mitigation measures is proportionate to the risk identified. The appointed contractor will prepare and implement a Construction Environmental Management Plan prior to the commencement of the development. The CEMP will be a "live" document which will be reviewed prior to and updated during construction according to site specific conditions on the project and to reflect current construction activities. IAQM recommended dust mitigation measures for Medium risk sites are as follows: • Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner and record the measures taken. • Record any exceptional incidents that cause dust and / or air emissions, either on-site or off-site and the action taken to resolve the situation in the logbook. • Plan site layout so that machinery and dust-causing activities are located away from receptors, as far as is possible. • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site. • Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period. • Keep the site fencing, barriers and scaffolding clean using wet methods. • Remove materials that have a potential to produce dust from the site as soon as possible, unless being re-used on-site. If they are being re-used on-site, cover as described below. • Ensure all vehicles switch off engines when stationary- no idling vehicles. • Avoid the use of diesel or petrol-powered generators and use mains electricity or battery powered equipment where practicable. • Impose and signpost a maximum speed limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation

agreement of the nominated undertaker and with the agreement of the Local Authority, where appropriate).

- The Contractor is required to produce a Construction Traffic Management Plan and a Construction Logistics Plan to manage the sustainable delivery of goods and materials as appropriate.
- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Avoid scabbing (roughening of concrete surfaces) where possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.

Measures Specific to Track-out

- Use water-assisted dust sweeper(s) on the access and local roads to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving the site are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate any necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

A pre-construction dilapidation survey of all buildings/structures to be demolished will be carried out prior to commencement of any demolition works. If asbestos potential is indicated in the pre-construction dilapidation survey, a fully intrusive asbestos-containing materials survey will be completed. Prior to commencement of the demolition works, all asbestos containing materials identified by the survey will be removed by a suitably trained and competent person. Asbestos-containing materials will only be removed from site by a suitably permitted/licensed waste contractor and will be brought to a suitably licensed facility.

The Health and Safety Authority will be contacted where needed in relation to the handling of asbestos and material will be dealt with in

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		accordance with the Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006, as amended and associated approved Codes of Practice.
Climate (Chapter 11)	11.1	An embodied carbon assessment will be completed at detailed design stage when the exact materials and specifications are known. EirGrid/ESB will, where possible and appropriate, promote the use of sustainable materials, adopt circular economy principles and promote supplier innovation in the delivery of works and services. A Project Carbon Management Plan (PCMP) will be prepared in accordance with PAS 2080 (Carbon Management in Infrastructure) and low-carbon materials will be maximised where they meet EirGrid / ESB's technical requirements.

Noise and Vibration (Chapter 12)	12.5.1	Implementation of Best Practice Measures (BPM) will be carried out to ensure that construction noise levels are properly controlled. In addition to BPM, a range of measures will be implemented during construction works to mitigate the noise impacts where possible.
		
		Specific Mitigation
		
		The following specific mitigation measures will be implemented during the construction works:
		• There are existing lean-to-sheds along the site boundary. Following the removal of these structures, a 3.6 m hoarding will be installed along the site boundary along the East Wall Road. Hoarding/ noise barriers will be constructed as early as practicable during the construction phase.
		• When undertaking vegetation clearance and processing during site clearance works, the distance between vegetation clearance and processing plant required for site clearance and the nearest NSLs shall be maximised. Where this is not practical, the use of temporary noise barriers will be used adjacent to chipper to mitigate the noise impacts.
		• The noisiest individual item of plant associated with the demolition works is the backhoe mounted hydraulic breaker, which has the potential to generate high levels of noise. Where a hydraulic breaker is required, the following measures shall be implemented:
		  ○ Fit suitably designed muffler or sound reduction equipment to reduce noise without impairing machine efficiency.
		  ○ Use dampened bit to eliminate ringing.
		
		General Mitigation
		
		The following general mitigation applies across all aspects of the construction phase:
		• Works shall, as a minimum, include the measures set out in this assessment and these measures will be documented in the Construction Environmental Management Plan (CEMP).
		• Works will be carried out using Best Practicable Means (BPM) to minimise noise and vibration, such measures will comprise of:

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		○ Limiting the hours of construction to daytime only unless absolutely necessary. ○ Work practices, equipment noise control and screening shall be in compliance with BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, and BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration (together referred to as BS 5228). Standard work practices include: ○ Scheduling of noisy works to normal working hours. ○ Adopting quiet working methods, using plant with lower noise emission levels. ○ Adopting working methods that minimise vibration generation particularly with regard to demolition. ○ Plant such as pumps and generators used on or near sensitive locations will be contained within an acoustic enclosure. ○ Plant and machinery used on-site will comply with the European Commission (EC) (Construction Plant and Equipment) Permissible, Noise Levels Regulations, 1988 (S.I. No. 320 of 1988). ○ All noise producing equipment will comply with S.I. No 632 of 2001 European Communities (Noise Emission by Equipment for Use Outdoors) Regulations 2001. ○ Ensuring that all plant is properly maintained, (mechanisms properly lubricated, faulty silencers replaced, worn bearings replaced, cutting tools sharpened etc.). ○ Closing acoustic covers to engines when in use or idling. ○ Use of electrically powered equipment in preference to internal combustion powered equipment. ○ Use of hydraulic equipment in preference to pneumatic equipment. ○ Use of wheeled plant in preference to tracked plant. ○ Locating plant as far away from noise and vibration sensitive receptors as practicable. ○ Use of temporary acoustic enclosures or screens around specific noisy static plant. ○ Avoiding the unnecessary revving of engines and switch off equipment when not in use. ○ Starting-up plant and vehicles sequentially rather than at the same time. ○ Keeping internal haul routes well maintained to minimise impulsive noise and vibration from vehicles running over discontinuities in the running surfaces. ○ Fitting rubber linings to chutes, hoppers and dumper vehicles to reduce impact noise from material transfer.

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		○ Minimising drop heights of materials. ○ Carrying out regular inspections of mitigation measures (BPM audits) to ensure compliance with noise and vibration commitments. ○ Providing regular briefings for all site-based personnel so that noise and vibration issues (including the requirement to employ BPM at all locations at all times) are understood and that generic and site-specific mitigation measures are explained and adhered to. ○ Ensuring that unloading is carried out within the work site rather than on adjacent roads or laybys. ○ Phasing of materials deliveries to be controlled on a 'just in time' basis to minimise noise and congestion on roads around the site. ○ A formal stakeholder engagement process shall be put in place for the duration of the construction phase, including the provision of information to local residents about noise and vibration monitoring results, works likely to cause significant noise or vibration and/or works planned to take place outside of core working hours. ○ Channels of communication between the Contractor, the relevant Planning Section (Local Authority) and residents will be established at project commencement. ○ Records of any noise complaints relating to the construction operations will be investigated as soon as possible and reported to the Local Authority. • Where works need to be completed outside normal working hours or where proposed works indicate that the noise or vibration levels set out in **Section 12.2.5.1** or **Section 12.2.5.3** may be exceeded, permission for these works must be sought from the Local Authority in advance of any works taking place. The application for such works will require a detailed noise control plan which should be prepared by the appointed contractor as part of the CEMP and follow up report to be prepared. This plan will include (i) a justification for the works being carried out in the manner proposed, (ii) an assessment indicating what alternatives have been considered, (iii) a statement of the noise control measures from BS 5228 to be adopted and how Best Practicable Means will be used to control noise, (iv) an activity specific noise monitoring programme including contact details for persons with the authority to cease working if required by the Local Authority. Each follow up report will include details of any complaints received and the action taken to address such complaints.
Landscape and Visual Amenity (Chapter 13)	13.5.1	• In regard to the site for the Proposed Development on East Wall Road, a Construction Environmental Management Plan (CEMP) will be developed prior to the commencement of construction activities, in order to minimise the effects on the environment, including landscape and visual amenity, during construction.

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		• In regard to the Grid Connection works (not part of the subject planning application), the layout of the works area within the East Point Business Park will be designed to minimise impacts on existing trees and ornamental vegetation. An arboricultural survey, impact assessment and tree constraints plan will be prepared and will be made available in advance of construction in order that the necessary tree protection measures can be implemented. The tree survey will be fully updated at the end of the construction phase, with any recommendations for on-going monitoring of retained trees during the operational phase. All trees and vegetation to be retained within and adjoining the grid connection works area will be protected in accordance with the British Standard Institution (BSI) British Standard (BS) 5837:2012 'Trees in relation to design, demolition and construction - Recommendations' (BSI 2012). Where available, the updated version of this British Standard will be used to inform the works. Works required within the root protection area (RPA) of existing trees to be retained will follow a project specific method statement for such works, which will be prepared by a professional qualified arborist
Archaeology, Architecture and Cultural Heritage (Chapter 14)	14.5.1	It is recommended that archaeological monitoring by a suitably qualified archaeologist be undertaken of all excavations and earth moving activities associated with the proposed electricity substation. This will include topsoil stripping, foundation excavations, any trenching which may be necessary for underground ducting and any other excavation which may be required. All archaeological monitoring will be carried out under licence to the DHLGH and will ensure the full recognition of, and – if required – the proper excavating and recording of all archaeological features, finds or deposits which may lie undisturbed beneath the ground surface. In the event that archaeological remains are discovered, the National Monuments Service of the DHLGH and the National Museum of Ireland will be informed and all construction works will cease in the vicinity of the remains and the area fenced off until a licensed archaeologist has resolved the archaeological issues in consultation with the authorities, who will advise on the most appropriate remedial action (such as preservation by record through excavation or preservation in-situ through redesign). It is acknowledged, however, that the depths of 20th century land reclamation deposits may exceed any excavations required as part of the construction phase. Should it be found through the archaeologically monitored geotechnical investigations that land reclamation levels across the site are of sufficient depth that there will be no potential impact to underlying archaeology (including the East Wall), then it may be possible, with written agreement from the National Monuments Service and DCC, that further archaeological monitoring will not be required. All recommendations are subject to the approval of DCC and the National Monuments Service of the DHLGH. This suggested strategy

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		does not prejudice recommendations made by DCC and the National Monuments Service. Grid Connection (not part of the subject planning application) Archaeological monitoring under licence from the National Monuments Service of the DHLGH will be undertaken in the course of ground reduction for the working areas and receiving pits for the directional drilling. The monitoring archaeologist will monitor and make a visual inspection of the arisings from the HDD in order to retrieve any potential artefacts and to record the presence of environmental material etc..

Biodiversity (Chapter 15)	15.4.1	The following measures will be adhered to:
		• Prior to the commencement of works, a suitable qualified and experienced ecologist will
		  ○ reassess all buildings on site for the potential for roosting bats and/or nesting birds;
		  ○ reassess the Proposed Development for invasive alien species; and
		  ○ outline and incorporate any additional mitigation measures required as a result of the reassessments.
		• Any vegetation clearance or structure demolitions on site will be carried out outside of the breeding bird season (i.e. no removal between March and August, inclusive), unless a suitably qualified and experienced ecologist completes a pre-removal assessment for nesting bird and deems the proposed removal areas to be unused by nesting birds.

Soils, Geology and Hydrogeology (Chapter 16)	16.5.1	The following mitigation measures will be implemented during the construction phase to manage impacts from erosion of exposed soils: • Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to wind; • Stockpiles will be fully managed through height restrictions stockpiles and shall be limited to heights not exceeding three metres; • Excavated materials will be repurposed within the Proposed Development whenever feasible. • In cases where surplus material cannot be reused on-site, opportunities for its use as a by-product off-site will be explored, subject to appropriate testing in accordance with Article 27 of the Waste Directive Regulations. If excavated material is found unsuitable for reuse, it will be transported off-site to a licensed facility. • Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods; • All vehicles which present a risk of spillage of materials, while either delivering or removing materials, will be loaded in such a way as to prevent spillage on to the public road.

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		The following mitigation measures will be implemented during the construction phase to manage accidental emissions and release of potentially hazardous substances: • Imported materials to the site will be sourced from a reputable supplier (who will provide certification of materials where required) to ensure that only clean material is brought to site; • The storage and handling of oils, fuel, chemicals and hydraulic fluids will be in secure areas within the site compound and will be away from surface water gullies or drains; • Storage of fuels, chemicals and lubricants at the site compound must be fenced off and have a lockable gate to prevent unauthorised access or vandalism; • Fuel and oil containers shall be stored within a secondary containment system e.g. bund to 110% of volume for static tanks or a drip tray for mobile stores. All ancillary equipment such as hoses, pipes are contained within the bund; • Fuel and oil stores including tanks and drums shall be regularly inspected for leaks and signs of damage; • Only designated trained operators are authorised to refuel plant on site; • Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place in designated impermeable refuelling areas isolated from surface water drains; • Where mobile fuel bowsers are used on the site, in the event of a machine requiring refuelling outside of the designated area, fuel will be transported in a mobile double skinned tank; • Interceptor drip trays will be used during all refuelling operations and for stationary mobile plant; • Adequate stocks of hydrocarbon absorbent materials (e.g., spill-kits and/or booms) shall be held onsite in order to facilitate response to accidental spills. Spill response materials shall also be stored on all construction vehicles. • An Emergency Response Plan detailing the procedures to be undertaken in the event of a spillage of chemical, fuel or other hazardous wastes (e.g. concrete) to be in place prior to commencement of construction works. The following mitigation measures will be implemented during the construction phase in the event that contaminated land is encountered: • Prior to construction, a ground investigation will be conducted to verify in-situ conditions and assess any potential for ground and/or groundwater contamination. • Should unknown contamination be encountered during construction, material will be considered as potentially hazardous and further testing will be required to confirm waste classification of suitability for re-use / retention on-site or disposal off site.

PECR Chapter Reference	Section Reference	Description of Mitigation Measure for Implementation
		• Where material is confirmed to be hazardous it will be removed to a suitably licenced facility. • Any dewatering in areas of contaminated ground shall be designed by the appointed contractor to minimise the mobilisation of contaminants into the surrounding environment. Where dewatering, pump-out water and over-pumping occurs the following will be carried out: • Pump-out water will be pumped out via a bowser and taken off-site to a suitably licensed facility for treatment/ disposal or alternatively treated on-site via portable on-site settlement tank for treatment (sediment settlement and pH monitored) and where required, will be removed off-site for disposal at a licenced treatment facility; • On-site storage facilities for pump-out water (e.g., proprietary sedimentation tanks) will be of sufficient volume to hold the volumes of pump-out water encountered, and tank volume should be overcompensated by 10% so as to ensure adequate containment capacity; • No extracted or pumped groundwater will be discharged directly to surface water bodies such as rivers, streams or to any adjoining drainage channel. • Dewatering works will be overseen and monitored by a designated competent member of the construction team on a regular basis to ensure that they are working effectively.
		Grid Connection (not part of the subject planning application) The following mitigation measures will be implemented during the construction phase of the grid connection: • HDD will be a closed system, with drilling fluid recirculated, the drill cuttings recovered, and drilling fluid reused. Pneumatic leak testing shall be carried out to confirm the integrity of the return line; • Spent drilling fluids including separated drill materials shall be contained in secure bunded areas for offsite disposal at a licensed disposal facility.

Table 10.2: Monitoring Measures outlined in the Planning and Environmental Considerations Report

PECR Chapter Reference	Section Reference	Description of Monitoring Measure for Implementation
Traffic & Transport Assessment (Chapter 8)	8.5.1	Construction traffic management measures will be monitored throughout the construction phase by the appointed contractor to respond to dynamic conditions in the receiving environment and measures will be adjusted

PECR Chapter Reference	Section Reference	Description of Monitoring Measure for Implementation
		to match construction sequencing where appropriate and necessary.
Noise and Vibration (Chapter 12)	12.5.1	• Prior to the commencement of construction, the contractor will set out and agree a schedule of noise monitoring with the Local Authority to include the number and locations at which noise monitoring will be carried out, the frequency and duration of the monitoring and the reporting of results. The Local Authority shall have discretion to vary the monitoring requirements and publication of results during the course of construction. • No specific requirements for vibration monitoring have been identified, however should this be required a similar process to the above for noise will be followed by the contractor.
Archaeology, Architecture and Cultural Heritage (Chapter 14)	14.5.1.1	It is recommended that archaeological monitoring by a suitably qualified archaeologist by undertaken of all excavations and earth moving activities associated with the construction of the proposed electricity substation, under licence to the DHLGH. All archaeological monitoring will be carried out under licence to the DHLGH and will ensure the full recognition of, and – if required – the proper excavating and recording of all archaeological features, finds or deposits which may lie undisturbed beneath the ground surface. The depths of 20th century land reclamation deposits may exceed any excavations required as part of the construction phase. Should it be found through the archaeologically monitored geotechnical investigations that land reclamation levels across the site are of sufficient depth that there will be no potential impact to underlying archaeology (including the East Wall), then it may be possible, with written agreement from the National Monuments Service and DCC, that further archaeological monitoring will not be required.
	15.5.1.2	Grid Connection (not part of the subject planning application) Archaeological monitoring under license from the National Monuments Service of the DHLGH will be undertaken in the course of ground reduction for the working areas and receiving pits for the directional drilling. The ability to monitor the risings of the HDD will depend on the type of rig used. A strategy will be devised in order to undertake the works in a manner which facilitates the archaeological monitoring of the risings.

11 Required Contractor's Information

The information listed in the table below will be provided by the Contractor to the *Employer* according to the provisions of the contract, as indicated.

Table 11.1: Required Contractor's Information

Documents / Information (and updates thereof) required	Pre-construction	During and after construction
Consents, licences, and permissions for activities as required by current legislation governing the protection of the environment		
Completed / updated contacts sheet		
Pollution Prevention Plan		
Fuel Management Plan		
Weekly Environmental Risk Log		
Environmental Risk Map		
Toolbox Talk Schedule		
Environmental Inspection Schedule		
Risk Assessment & Method Statements		
Construction Waste Management records and related information		
Inspection and Audit Reports		
Environmental Incident and Emergency Response Plan		

Note: The above list only relates to requirements of this CEMP and is not exhaustive. As part of the Contract, other information provisions will also be required from the Contractor.