Sure Partners Limited

ARKLOW BANK WIND PARK PHASE 2
ONSHORE GRID INFRASTRUCTURE

VOLUME III
Chapter 6 APPENDICES

Appendix 6.1C Construction Waste Management Plan

ARUP

sse Renewables

Appendix 6.1C

Construction Waste Management Plan

Contents

1 Introduction

This Construction Waste Management Plan (CWMP) has been prepared having regard to the Department of Environment, Heritage & Local Government *Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects* (2006) and National Roads Authority *Guidelines on the Management of Waste from National Road Construction Projects, Revision 1* (2014).

The Contractor will further develop, implement and maintain the CWMP during the construction phase. The CWMP addresses:

- Waste management
- Waste minimisation
- Tracking and documentation procedures for off-site waste.

1.1 Construction Phase

The key principles underlying the plan are to minimise waste generation and to segregate waste at source, in accordance with the waste hierarchy. Prevention and minimisation are inherent in the design of the proposed development.

1.1.1 Site Clearance and Earthworks

During site clearance, organic waste (such as trees and vegetation) will be removed from site by a waste collection permit holder and delivered to an authorised composting or organic waste facility. The extent of vegetation clearance will not be significant based on site and route selection.

Excavation will be required at the landfall, cable route, substation site and connection to the NETN. The most environmentally sustainable means of managing excavated material is its prevention and minimisation. Excavated material as part of the construction works will generally consist of:

- Rock, at the landfall compound;
- Topsoil and subsoil; and
- Made ground.

A significant proportion of the surplus excavation material from the landfall site and cable route will consist of uncontaminated soil, stone and naturally occurring material which may be reused in its natural state within the site.

Natural ground, where it can be shown to fulfil the requirements of the project Earthworks Specification, will be reused within the site. The excavated material will be tested to ensure compliance with the requirements of Class 1 or Class 2 general fill as defined in Transport Infrastructure Ireland (TII) publication titled ‘Specification for Road Works Series 600 - Earthworks (including Erratum No. 1, dated June 2013)’.

Off-site re-use options for surplus clean and inert excavated material include reuse as a by-product on other construction sites subject to Article 27 notification to the EPA, or recovery at suitable authorised waste facilities i.e. facilities which have been granted a Certificate of Registration, Waste Facility Permit or EPA licensed soil recovery facilities in accordance with the *Waste Management Acts 1996-2016.*

Potential recycling/recovery activities include processing of stone to produce construction aggregate, infilling of quarries, raising land for site improvement or development.

A small volume of soil and bentonite will be generated during HDD activities but this will be minimal (i.e. a few cubic metres of soil plus a small volume of bentonite). Bentonite containing wastes will be removed from site by a waste collector authorised to transport this waste and delivered it to a waste facility authorised to accept it.

Any excavated contaminated material will be removed and disposed of or recovered at a suitably licensed or permitted site in accordance with the current Irish waste management legislation.

The following is a summary of material likely to require removal from site.

Table 1 Summary of Material Likely to Require Removal from Site

Material	**Estimate Quantity (tonnes)**	**Classification**
HDD Bore Material	3,600	Non-hazardous waste LoW Code – 01 05 04
Crushed stone	49,000	TII Series 600 Class 1
Asphalt/pavements build up	1,530	Where feasible this will be reused as a by-product. Where this is not possible it will be delivered as a waste to an authorised waste facility.
Haul Roads build up*	22,000	TII Series 600 Class 1
Flood defence embankment material	600	The flood defence embankment contains Japanese Knotweed and will be delivered to a waste facility authorised to accept these invasive species.

Material	Estimate Quantity (tonnes)	Classification
Tower foundation excavation	400	TII Series 600 Class 1 or Class 2
Substation site excavation material	23,000	Disposed of or recovered at an authorised waste facility
Hazardous material from substation site	2,000	Delivered to an authorised hazardous waste facility

* Reuse of haul road material subject to the routes being adequately maintained and not suspected to contain any suspected contamination.

It is considered that the predicted quantities of waste streams generated by the proposed development are small in the wider context of the national generation of waste materials.

1.1.2 Construction Waste

In the case of the proposed development, the most likely type of construction waste will be bituminous material from excavation, surplus concrete and unusable or damaged ducting segments which will arise on site.

Other than the waste generated from the earthworks, it is not expected there would be significant volumes of wastes sent for recovery or disposal at authorised waste facilities. There are a number of authorised waste facilities in the region suitable for recovery or disposal of wastes from the proposed development.

Liquid wastes (such as contained wheel-wash runoff, and sanitary waste) will be contained and dispatched off-site for disposal at appropriately licensed or permitted facilities.

Transport of material to and from the works areas will be managed in accordance with the Construction Traffic Management Plan in this CEMP, to ensure that there will be no queuing of trucks on public roadways around the works areas.

1.1.3 Measures to Achieve CWMP Aims

The measures to achieve the aims of waste prevention and minimisation include:

- Where possible recyclable material will be segregated and removed off site to a permitted/licensed facility for recycling. Waste stream colour coding and photographs will be used to facilitate segregation.
- Office and food waste arising on the construction compounds will be source-separated at least into dry mixed recyclables, biodegradable and residual wastes.

- Waste bins, containers, skip containers and storage areas will be clearly labelled with the waste types which they should contain, including photographs as appropriate.
- The site will be maintained to prevent litter and regular litter picking will take place throughout the site.
- Material management 'just in time' delivery will be used so far as is reasonably practicable to minimise material wastage.
- The Contractor will ensure that the material transported off site will go to an appropriately licensed/permitted facility.
- The Contractor will record the quantity in tonnes and types of waste and materials leaving the site. The name, address and authorisation details of all facilities and locations to which waste and materials are delivered will be recorded along with the quantity of waste in tonnes delivered to each facility. Records will show material which is recovered and disposed of.
- Paints, sealants and hazardous chemicals etc. will be stored in secure, bunded locations.
- All hazardous waste will be separately stored and labelled, in appropriate lockable containers, prior to removal from site by an appropriate waste collection holder.
- Waste generated on site will be removed as soon as practicable following generation for delivery to an authorised waste facility. In the unlikely event that asbestos is uncovered, the asbestos containing material will be double-bagged, stored, collected and removed from site by a competent Contractor and disposed of in accordance with the relevant procedures and legislation.

In addition to the measures inherent in the design of the proposed development, which will be implemented during the construction phase, the following mitigation measures will be implemented:

- The Contractor will minimise waste disposal so far as is reasonably practicable;
- 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, segregation 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 effect;
- 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 Contractor will record the quantity in tonnes and types of waste and materials leaving site during the construction phase;

- Waste fuels/oils will be generated from equipment used on-site during construction and will be classified as hazardous waste. Such wastes will be stored in a secure, bunded area on-site prior to collection by a haulier who holds the appropriate waste collection permit;
- Possibilities for re-use of clean non-hazardous excavation material as fill on the site or in landscaping works will be considered following appropriate testing to ensure material is suitable for its proposed end use. Where excavation material cannot be re-used within the proposed works the Contractor will endeavour to send material for re-use as a by-product, recovery or recycling so far as is reasonably practicable. Re-use as a by-product can be done under an Article 27 notification once the established EPA criteria for such re-use are met;
- Excavated material will be stored onsite within the planning (red line) boundary prior to re-use;
- The name, address and authorisation details of all facilities and locations to which waste and materials are delivered will be recorded along with the quantity of waste in tonnes delivered to each facility. Records will show material, which is recovered, and which is disposed of; and
- The Contractor will ensure that any off-site interim storage or waste management facility for excavated material will have the appropriate waste licences or waste facility permits in place.

Export of hazardous waste from the proposed development outside of the State is subject to a Europe-wide control system founded on EU Regulation 1013/2006 on the Shipments of Waste (known as the Transfrontier Shipment Regulations), as amended (including Commission Delegated Regulation (EU) 2020/2174 of 19 October 2020). This legislation is supplemented by the Waste Management (Shipments of Waste) Regulations 2007, as amended, which makes Dublin City Council responsible for the enforcement of this regulatory system throughout Ireland. Export of hazardous waste from site outside the state will comply with the procedures set out in this legislation.

The quantities of hazardous waste generated during the construction phase are expected to be small and not of significance.

1.2 Monitoring

The Contractor's waste manager will monitor the implementation of this CWMP. The employer's representative will audit the waste segregation arrangements and the records of waste removed from site, haulier permits and the licences or permits of the waste management facilities to which the waste was sent.

1.3 References

Department of Environment Community and Local Government (2006) *Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects. DoECLG, Dublin, Ireland.*

EU Regulation 1013/2006 of the *Shipments of Waste*

Commission Delegated Regulation (EU) 2020/2174 of 19 October 2020 *amending Annexes IC, III, IIIA, IV, V, VII and VIII to Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste*