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Proposed Social Housing Development and Associated Site Works (including widening of the adjacent public road) at Ladyswell, Thomastown, Co. Kilkenny for Kilkenny County Council

OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

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1.0 Background Information

This Outline Construction Environmental Management Plan (OCEMP) sets out the requirements for the development of 25no single and two storey housing units and associated site works at Ladyswell, Thomastown, Co. Kilkenny.

1.1 Introduction

This document has been prepared to support the main project specification. It addresses particular environmental management issues which are to be coordinated, carried out, supervised and monitored on a daily basis on site.

The Main Contractor will be responsible for ensuring that all works are carried out in accordance with the procedures outlined in this document and as directed by the Environment Management Consultants for the project.

The Main Contractor will ensure that appropriately skilled site supervisors and operatives are assigned to this project.

The Main Contractor shall be committed to maximising sustainable construction and minimising the environmental effect of projects on society. This approach will be rooted in the recognition that active engagement in environmental protection and economic balance is necessary for long term development. The Main Contractor's environmental policy shall be communicated, implemented and reviewed in line with the 14001 Environmental Quality Certified Management Systems.

1.2 Description of Works

The works consist of the construction of a development of 25no single and two storey housing units and associated site works at Ladyswell, Thomastown, Co. Kilkenny.

The works include the demolition of an existing derelict stone dwelling house and outbuilding at the east side of the site.

The works also include for the widening a section of the existing public road (L8300) from the development entrance as far as the junction with the nearby main public road (R448). The roadside boundary wall in the area of the road widening will be demolished and re-built as part of the road widening works.

Some bulk excavation works will need to be undertaken as part of these works to facilitate the construction of the estate road and housing units. All waste materials that will be removed offsite in accordance with all relevant regulations.

The site of the proposed housing development is mostly located on a green field site with the derelict house ruin and shed located just inside the eastern road side boundary of the development site.

The site is located on the outskirts of the built-up area of Thomastown. There are private residential properties to the northeast corner of the development site, a secondary school to the south, school playing pitch to the west, farmland to the northwest and the L8300 public road to the north.

There is a small field drain running adjacent to the roadside boundary wall at the north side of the road to be widened which connects to a small stream which ultimately flows into the River Nore.

Figure 1 Proposed Site Layout Plan

The schedule of construction works is expected to be as follows:

- Site establishment to establish site access and create a site compound;
- Carry out condition surveys as required to record the conditions on site prior to commencing works;
- Install temporary works, if required, to boundary walls and any other structures to be retained;
- Carefully demolish structures to be removed;
- Diversion of existing overhead and underground services, as necessary to facilitate the construction works;
- Construction of site access roads;
- Bulk excavation and filling works to establish formation levels for the construction of the proposed works;
- Construct of the proposed building works;
- Construction of the public road widening works (to be scheduled for summer months when there is no floe in the adjacent field drain);
- Construction of the site services and infrastructure works; and
- Completion of landscaping.

Key construction project elements may be summarised as follows:

1. Demolition and enabling works, including the setting up of a site compound.

2. Excavation of ground to formation level for the proposed buildings and infrastructure;
3. Construction of the single and two storey residential buildings and associated services;
4. Construction of the road widening and associated boundary wall demolition and re-building and field drain re-location;
5. Construction of a site infrastructure and associated landscaping.

1.3 Reference Documentation and websites

The following reference documents have been used in the compilation of this Construction Environmental Management Plan CEMP:-
CIRIA C692 Environmental Good Practice On Site (3rd Edition);
CIRIA (2001) Control of water pollution from construction sites: guidance for consultants and contractors.
Habitats Directive Screening Report
Requirements for the Protection of Fisheries During Construction Works in and Adjacent to Waters (2016), Inland Fisheries Ireland
Best Guidance on the Preparation of Waste Management Plans for Construction and Demolition Projects
Construction Industry, Task Force B4 Report Recycling of construction & demolition waste (2001)
National Construction and Demolition Waste Council - Annual Report 2002/2003 and Annual Report 2004/2005
A FÁS & Construction Industry Federation Initiative Construction and Demolition Waste Management – A Handbook for Contractors & Site Managers (2002)
Dublin City Council - Built to Last: The Sustainable Reuse of Buildings (2004)
Department of Environment, Heritage & Local Government:
Waste Management: Changing Our Ways (1998)
Preventing and Recycling Waste - Delivering Change (2002)
Waste Management -Taking Stock and Moving Forward (2004)
Architectural Heritage Protection Guidelines for Planning Authorities (2011)
Environmental Protection Agency:
National Waste Report (1995, 1998, 2001 and 2004)
National Waste Database Fact Sheet on Construction and Demolition Waste 2001
National Waste Prevention Programme 2004-2008
Skoyles E.R. and Skoyles J. R., Waste Prevention on Site; London: Mitchell, 1987.
Upstream, Investing in Sustainability- – Report carried out on behalf of WWF and Insight Investment, London, 2005.
Relevant Websites:
National Parks and Wildlife Service, www.npws.ie
Heritage and Local Government:
Environmental Protection Agency www.epa.ie
Construction Industry Federation www.cif.ie
CIRIA (a UK based Research www.ciria.org.uk
Recycling Directory of Ireland www.irelandrecycling.ie
National Construction and Demolition Waste Council (NCDWC)

1.4 ENVIRONMENTAL POLICY OF MAIN CONTRACTOR

To be confirmed on appointment of the Main Contractor

2.0 PROJECT SPECIFIC DETAILS

2.1 SITE LAYOUT

The proposed works consist of the construction of a development of 25no single and two storey housing units and associated site works at Ladyswell, Thomastown, Co. Kilkenny.

The works include the demolition of an existing derelict stone dwelling house and outbuilding at the east side of the site.

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Some bulk excavation works will need to be undertaken as part of these works to facilitate the construction of the estate road and housing units. All waste materials that will be removed offsite in accordance with all relevant regulations.

The site of the proposed housing development is mostly located on a green field site with the derelict house ruin and shed located just inside the eastern road side boundary of the development site.

The site is located on the outskirts of the built-up area of Thomastown. There are private residential properties to the northeast corner of the development site, a secondary school to the south, school playing pitch to the west, farmland to the northwest and the L8300 public road to the north.

The main site entrance will be from the existing public road L8300 at the north of the site with a secondary entrance to the lower section of the site from the R448.

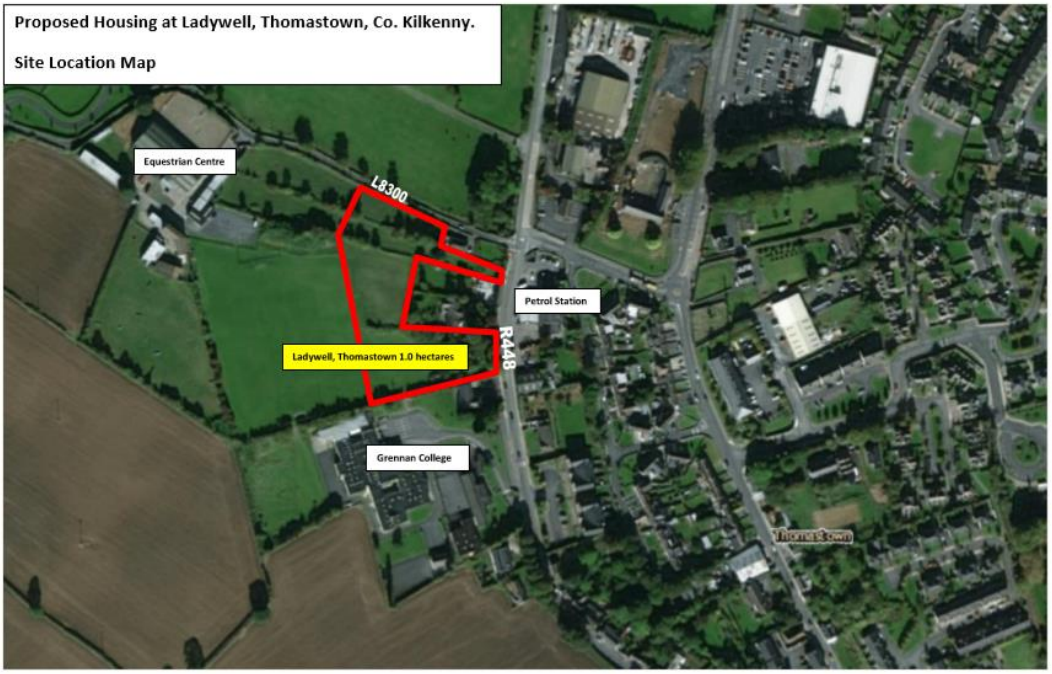

Figure 2 Site Location Map

2.2 TRANSPORTATION ROUTE

Transportation routes shall be confirmed on appointment of the Main Contractor. It is assumed that the R448 approach roads to the site and the L8300 local access road shall be used as transportation routes for the site.

Figure 3 Transportation Route (to be confirmed)

2.3 Road Maintenance

All approach roads to the site will be kept free from any deposits as a result of site works.

Any material deposited on the road will be cleaned immediately. All vehicles leaving the site will be free of loose material on the wheels and undercarriage. The main contractor is fully responsible for keeping the roads clean at all times.

The roadway outside the site will be monitored throughout the life of the project.

The site shall be kept stoned up at all times to ensure the loading and unloading of Trucks will be maintained on stone hardcore within the site boundary at all times.

A Road sweeper will be utilised when required.

2.4 Site Compound Area

The Storage of construction materials will be within a compound area the location of which will be agreed with the Main Contractor following appointment. This will include the main contractor offices/welfare facilities area which shall house the site accommodation (i.e. site offices, canteen, and welfare facilities) and an area for appropriate storage of waste materials for offsite disposal (e.g. canteen and office waste). In addition to the main contractor welfare facilities, a welfare cabin will be located at the pedestrian entrance to the work area which will include appropriate facilities for any specific PPE required (e.g. disposable gloves and coveralls). The main contractor Spotter will coordinate all movement of trucks in and out of the site compound.

Harris fencing will be manually handled off the truck and erected, bespoke pads will be used to support fences which will also be clamped. On site excavated Stone will be utilised within the compound.

Roads surfaces will be kept clean by the main contractor site operatives on a daily basis and when required a road sweeper will be employed to clean road surfaces affected by dirt generated by site activities. Stone will be levelled and spread using an excavator.

Prior to positioning of any welfare facilities such as Offices, Canteen, Drying Rooms, the area must have a suitable hard standing and a level base in place, the site compound location is indicated in the drawing below in the box highlighted in red;

Figure 4 Location of Welfare Facilities (to be confirmed)

2.5 BUND OF MATERIAL STORAGE

Fuels, oils, grease and hydraulic fluids will be stored in bunded compounds well away from drains leading to watercourses as indicated in the area highlighted in red below;

Figure 5 Location of Bunded Area (to be confirmed)

Refuelling of machinery will be carried out utilising a Bunded Storage Tank confirming to EEC Directives 98/37.

Figure 6 Refuelling

A spill control area for refuelling will be set up. The main contractor will have a 110% bunded container for storage of fuels also set up. The main contractor will provide a dedicated area for storage of all fuels on site within the Site Compound. All Sub-Contractors shall store fuel in bunded storage within this area.

The fuel storage area will be kept a clear distance from any source of ignition or impact. Where refuelling is required facilities provided shall be adequately covered by Fire Extinguishers, warning signs, bunding and proper bunded fuel dispensers. Emergency spill kits shall be available at all refuelling points and fuel storage locations. All spills shall be contained, spill kits deployed. The site manager will maintain a daily record of inspections to ensure the correct storage of dangerous substances, the investigation of any spills or other incidents, and the emptying of bunds, bunds will be emptied into a specific IBC tank and removed off site by an appropriately licenced provider.

2.6 SURFACE WATER MANAGEMENT

The subsoil is generally free draining, therefore little, if any, surface water run-off is anticipated from exposed soil during construction.

The proposed works are located on the elevated west side of the site. The water course is located at the northern side of the L8300 local road and away from the main site of the proposed works. The water course is adjacent to the area of proposed road widening works required to facilitate the proposed development works.

An exclusion zone will be created with a watertight bund at the perimeter of works area to prevent surface water run-off form the site entering the surface water drainage system. A sump and a silt trap will be formed within the works area to allow controlled discharge of clean surface water run-off only to a soakaway on site with a high level overflow to the public sewer to ensure that silt -laden surface water cannot enter the existing surface water drainage system.

The permanent drainage for the road works shall also be laid at an early stage in the development of the works and will convey run-off from constructed hardstanding to the proposed surface water drainage system.

The main contractor will be responsible for temporary maintenance of the existing onsite surface water drainage at the site and the associated discharge to the public surface drainage system.

Figure 7 Surface Water Management Layout Plan (to be confirmed).

2.7 JAPANESE KNOTWEED – CONTROL MEASURES

None present on site.

2.8 CONCRETE MIXING AND CONCRETE WASH-WATER CONTROL MEASURES

After concrete is poured at the site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. In accordance with Best Practice the main contractor will collect and retain all the concrete washout water and solids in leak proof containers, so that this caustic material does not reach the soil surface and then migrate to surface waters or into the ground water, and this material will be removed to a licence facility.

2.9 WASH OUT PIT

An area will be identified on site for washout, the washout pit will be created on site for the wash out area in a suitable location that provides convenient access to concrete trucks. The Wash Out location will not be placed within 50 feet of storm drains, open ditches or waterbodies. Appropriate gravel or rock will cover approaches to concrete washout facilities.

2.10 SITE CLEARANCE AND PROTECTION OF HABITATS

Vegetation (e.g. brambles, shrubs etc.) will not be removed between the months of March to August as per provisions of the Wildlife Act. Where this is not possible vegetation will first be inspected by a suitably qualified ecologist for the presence of nesting birds. If no nesting is taking place in the affected area vegetation will be removed within 48 hours. Where nesting is taking place, vegetation will not be removed until such time that it has been confirmed that the nest is no longer in use.

3.0 WASTE MANAGEMENT

Non-recyclable concrete waste shall be transferred to licensed landfill to be confirmed by the Main Contractor. Similarly, inert sub-soil shall be transferred to the nearest licensed waste facility (see Waste Plan for further details).

4.0 ENVIRONMENTAL MANAGEMENT

This OCEMP will be implemented for the duration of the works to protect the receiving environment from potential impacts arising due to site activities.

4.1 VEHICLES, PLANT AND EQUIPMENT

All authorized vehicles entering the site, with the exception of plant, will be parked in the specified location. Vehicles will not be parked at any of the adjoining properties or roadways.

During the excavation of material only specified plant and equipment will be permitted into the work areas. The main contractor will be responsible for all traffic management issues for the duration of the works.

4.2 SITE OFFICE AND WELFARE FACILITIES

The main contractor will be responsible for the provision and maintenance of the necessary site accommodation including accommodation for the main contractor's personnel which must be put in place prior to the commencement of the works. Welfare facilities will be established within the site compound.

All waste generated from the canteen will be placed in appropriate containers until removed off-site for disposal by an approved contractor in accordance with waste management Regulations.

4.3 FUEL STORAGE ARRANGEMENTS

The site compound will be managed by the main contractor to ensure adequate controlled measures for oil and fuel storage. In particular, bulk storage of all fuels, where applicable (as in the case of back-up fuels for generators in day tanks), will be properly stored in bunded above-ground tanks. This will be monitored on an on-going basis during fuel deliveries to the site, as well as for the assessment of the integrity of the storage area over time. Spill kits will be available on site to clean up affected areas should a spill occur. The main contractor shall:

- Identify designated locations for the storage of flammable liquids.
- Bulk containers will be stored away from the work area in a store or Cupboard of fire resisting material. It shall have some natural ventilation or air flow present at high and low level to allow any vapours that may be present to be diluted and dispersed.
- Only allow quantities equivalent to half a day's supply to be present in the working area. A fire resisting container will be provided for this purpose.
- All containers will be properly labelled and must be kept with their lids on when not in use.

- No sources of ignition shall be present where flammable liquids are stored, handled, dispensed or used.
- A spill control kit shall also be available to deal with any spillages and prevent any contamination of surface water drains.
- In the event of a fire, emergency fire procedures will be implemented.
- The main contractor will employ the use of drip trays for all chemicals and fuels where there is a potential for a minor spills.

4.4 STOCKPILES

Stockpile areas for stone subsoil and topsoil will be kept to minimum size, well away from drains leading to the watercourse. Bare soil will not be stored adjacent to drains or on sloping ground where there is a risk to water quality. The stockpiles will be maintained to prevent nuisance emissions including dust. Stockpiles will be located with regard to wind direction to minimize dust generation and dispersion off-site.

5.0 NUISANCE CONTROL

5.1 ODOUR

It is not expected that significant quantities of material with the potential to generate odours will be encountered during excavation works however; general odour control measures will be implemented during the works. The expected nature and volumes of odour generating material does not warrant an odour suppression unit on-site.

5.2 NOISE

While increased levels of background noise are unavoidable during any construction works project, measures will be implemented to reduce the number of noise generating activities occurring concurrently. The erection of fencing physical barriers will be implemented.

5.3 DUST

Control measures will be implemented to minimize dust generation and dispersion to ensure dust deposition does not occur beyond the site boundary. Stockpiles will be managed as outlined above to prevent any dust generation. Temporary fencing will be erected where required to minimize offsite dispersion.

Road maintenance will also be carried out to minimize dust generation associated with site operations.

5.4 TRAFFIC

The main contractor will manage all site traffic for the duration of the works and in particular during the transport of material for disposal offsite and transport onsite of materials.

5.5 LITTER

Waste generated at the site will be placed in appropriate receptacles which will be covered to prevent dispersion of material and littering. Regular walkovers of the site will be completed and any litter found will be immediately collected and placed in the appropriate containers.

5.6 ENVIRONMENTAL MANAGEMENT AUDITS

Environmental site management audits will be undertaken by the main contractor to ensure that all procedures outlined in the Environmental Management Plan are being strictly implemented and in particular the waste management procedures. A schedule of internal audits will be carried out at predetermined milestones throughout the project to coincide with the offsite removal of waste materials. Site audits will be completed weekly including a review of all documentation in the environmental management file and waste management file.

The purpose of these audits will be as a cross check on the quantification and classification of materials removed for offsite disposal and to ensure that accurate records of the materials disposed offsite are maintained and tracked. In addition, external audits will be completed to monitor the transfer of waste materials from the site gate to the identified disposal facility. Records of all audits will be maintained in the site file and will be made available to Local Authorities if requested.

6.0 Project Roles and Responsibilities

6.1 Construction Director

The Construction Director will have an overall responsibility for the organisation and execution of all related environmental activities as appropriate, in accordance with regulatory and project environmental requirements. The principal duties and responsibilities include:

Overall responsibility for the development and implementation of the CEMP and allocating resources to ensure the implementation of the CEMP

6.2 Construction Manager

The Construction Manager is directly responsible to the Construction Director for the successful execution of the project. The principal duties and responsibilities include:

To support and augment the CMT and the Environmental Officer through the provision of adequate resources and facilities in the implementation of the CEMP.

6.3 EHS Officer

The CMT Environmental Officer will be responsible for, but not limited to, the following activities:

Ensuring that the requirements of the CEMP are developed and environmental system elements (including procedures, method statements and work instructions) are implemented and adhered to with respect to environmental requirements;

6.4 Project Ecologist

The Project Ecologist is responsible for the protection of sensitive habitats and species encountered during the construction phase of the project. The responsibilities and duties include;

Provision of specialist input and supervision, where necessary, of construction activities in relation to habitats and species; Provision of specialist advice on ecological monitoring, and conduct surveys, monitoring and site inspections.

6.5 Project Communication Officer

The Project Communications Officer is responsible for conducting all public liaison associated with the construction phase of the project. The responsibilities and duties include;

Responding to any concerns or complaints raised by the public in relation to the construction phase of the project; To liaise with the Environmental Officer on community concerns relating to the environment; Ensure the Environmental Officer is informed of any complaints relating to the environment; and keep the public informed of project progress and any construction activities that may cause inconvenience to the local community.

6.6 Site Manager

CMT Site Supervisors are required to:

- Read, understand and implement the CEMP;
- Know the broad requirements of the relevant law in environmental matters and take whatever action is necessary to achieve compliance. Where necessary seek the advice of the CMT Environmental Officer;
- Ensure that environmental matters are taken into account when considering Contractors' construction methods and materials at all stages.

6.7 Site Personnel

All Contractors, and other site personnel must adhere to the following principal duties and responsibilities:

To co-operate fully with the CMT and the Environmental Officer in the implementation and development of the CEMP at the site;

To conduct all their activities in a manner consistent with regulatory and best environmental practice;

Adhere fully to the requirements of the site environmental rules.