

CRONIN SUTTON
COTTER

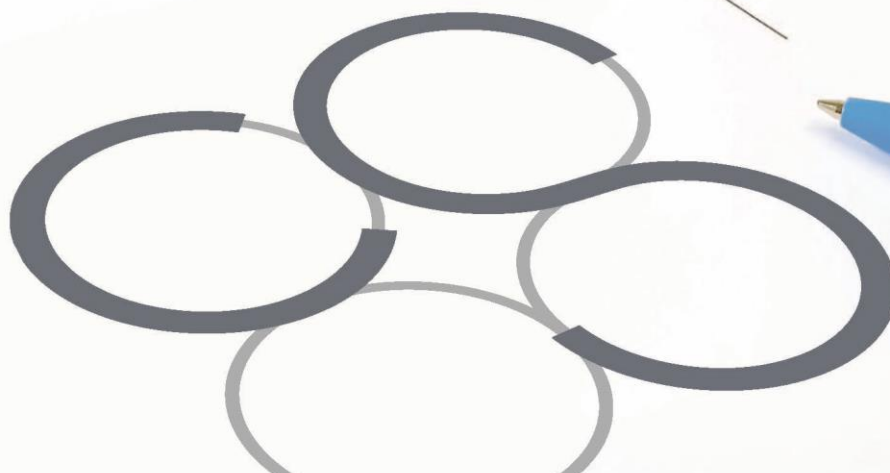
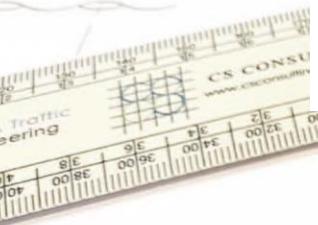
LIMERICK
LONDON
DUBLIN

Outline Construction Management Plan Proposed Residential Development Bruff, Co. Limerick

Client: Limerick City and County Council

Job No. L105L

May 2023



OUTLINE CONSTRUCTION MANAGEMENT PLAN

PROPOSED RESIDENTIAL DEVELOPMENT, BRUFF, CO. LIMERICK

CONTENTS

1.0	INTRODUCTION	1
2.0	SITE LOCATION AND PROPOSED DEVELOPMENT	4
3.0	LOGISTICS	5
4.0	GENERAL ENVIRONMENTAL PROTECTION MEASURES	11
5.0	TRAFFIC MANAGEMENT	16
6.0	PROVISIONS FOR CONSTRUCTION	19

This Report has been prepared by CS Consulting for the benefit of its Client only. The contents of this Report are shared with interested parties for information only and without any warranty or guarantee, express or implied, as to their accuracy, reliability or completeness. This Report cannot be relied on by any party other than the party who commissioned it.

File Location: Job-L105L\L105L LCCC Bruff Housing\B_DOCUMENTS\1.0 Planning\OCMP

BS 1192 FIELD **BRUF-CSC-ZZ-XX-RP-C-0003-P1**

Job Ref.	Author	Reviewed By	Authorised By	Issue Date	Rev. No.
L105L	FB	NB	NB	10.05.2023	P1
L105L	LJ	FB	NB	20.03.2023	P0

1.0 INTRODUCTION

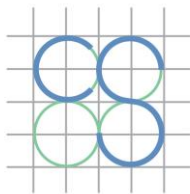
Cronin and Sutton Consulting Engineers (CS Consulting) have been commissioned by Limerick City and County Council to prepare an Outline Construction Management Plan (OCMP) to accompany a planning application for a proposed residential development at Bruff, Co. Limerick.

The OCMP is a preliminary plan. This provides a framework within which all final construction processes, site management arrangements, and environmental protection measures employed during construction are to be specified. Construction of the proposed development will be under the control of a lead contractor, who will be appointed following a grant of planning permission. Upon appointment, once familiar with the site and having developed a final detailed methodology for construction, the lead contractor will expand upon the OCMP to produce a detailed Construction and Environmental Management Plan (CEMP). The content of the contractor's CEMP will be agreed with Limerick City and County Council (LCCC) prior to commencement of works.

The contractor's detailed Construction and Environmental Management Plan will give greater detail of construction management arrangements and processes, while adhering to the stipulations of this OCMP. It will also incorporate the following:

- an Operational Health & Safety (OH&S) Management Plan;
- an Environmental Management Plan (including a Waste Management Plan); and
- a Construction Traffic Management Plan (including a Pedestrian Management Plan).

The contractor's Construction Management Plan will be strictly adhered to throughout the development's construction stage, to ensure the following:



- That all site activities are effectively managed to minimise the generation of waste and to maximise the opportunities for on-site reuse and recycling of waste materials.
- To ensure that all waste materials generated by site activities, which cannot be reused on site, are removed from site by appropriately permitted waste haulage contractors and that all wastes are disposed of at approved licensed facilities in compliance with the Waste Management Act 1996, the Waste Management (Amendment) Act 2001, and the Protection of the Environment Act 2003.
- To manage and control any environmental impacts (noise, vibration, dust, water) that construction activities may have on the local receiving environment, in particular on receptors and properties adjacent to the construction site.
- To comply with all planning conditions and requirements imposed in relation to waste management.

The OCMP demonstrates how the appointed contractor, and the appointed Project Supervisors (Site Manager, Health & Safety Officer, and Project Ecologist) will comply with the following relevant legislation and best practice guidelines:

- Integrated Pollution Prevention and Control Directive (1996/61/EC)
- The Waste Framework Directive (Directive 2008/98/EC)
- Environmental Protection Agency Act 1992
- Waste Management Act 1996, the Waste Management (Amendment) Act 2001 and the Protection of the Environment Act 2003
- Waste Management (Collection Permit) (Amendment)(No.2) Regulations 2016
- Waste Management (Permit) Regulations 1998 (SI No. 165 of 1998)

- Department of the Environment, Heritage and Local Government – Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects – June 2006
- Local Government Water Pollution Act 1977
- Wildlife Act 1976 (as amended by the Wildlife (Amendment) Acts 2000 to 2012)
- Environmental Protection Agency (EPA) –Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects – April 2021.

2.0 SITE LOCATION AND PROPOSED DEVELOPMENT

2.1 Site Location

The proposed development site is located in Ardykeohane, Bruff, Co Limerick. The site is in the administrative jurisdiction of Limerick City and County Council (LCCC) and has a total area of circa 0.82ha.

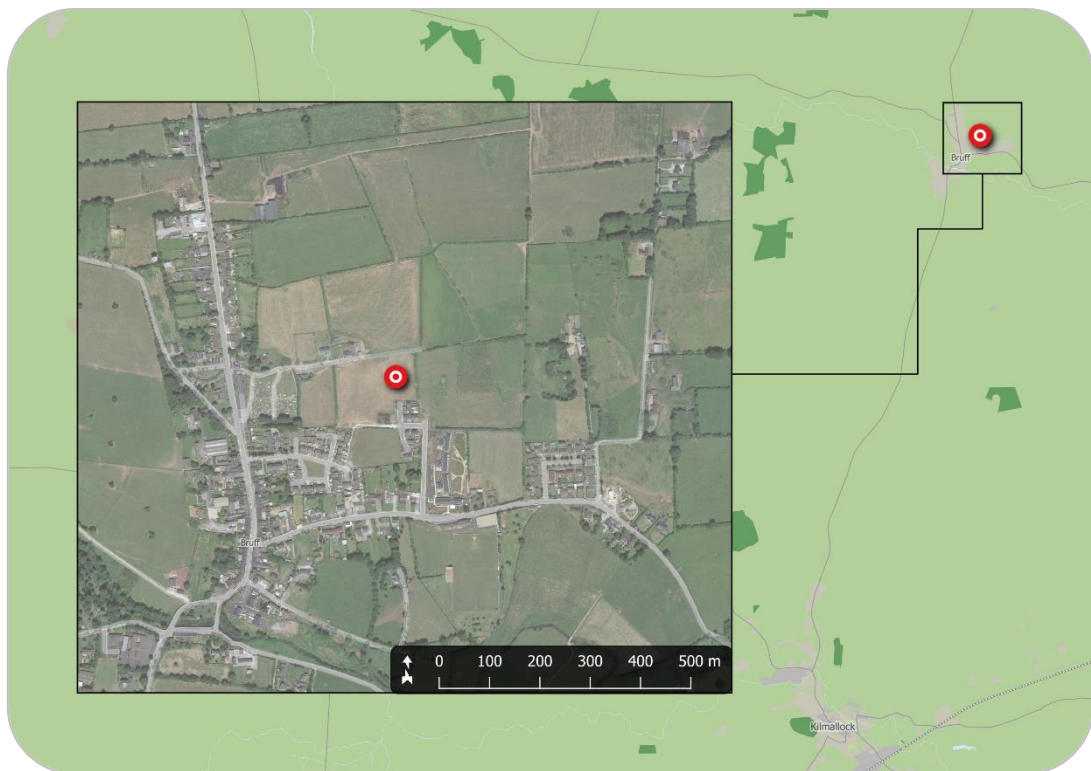


Figure 1 – Location of proposed development site
(map data & imagery: EPA, OSi, OSM Contributors, Google)

The location of the proposed development site is shown in Figure 1 above; the indicative extents of the development site, as well as relevant elements of the surrounding road network, are shown in more detail in Figure 2.



Figure 2 – Indicative site extents
(map data & imagery: OSM Contributors, Google)

The proposed development site is bound by existing single dwelling residential property to the north-west, existing residential buildings to the south-east, and on all other sides by greenfield.

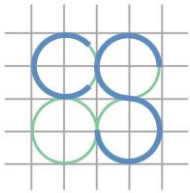
In the Limerick Development Plan 2022-2028, the development site is zones as 'New Residential Zone'.

2.2 Existing Site Condition

The subject development site is currently greenfield. River Morningstar is located approx. 580m to the south of the development site.

2.3 Description of the Proposed Development

The proposed development primarily consists of:



CS CONSULTING
GROUP

The construction of 18no. dwellings, provision of an access road connecting to Brugh na nDeise, 30no. car parking spaces, bicycle parking, infrastructural works, hard and soft landscaping and ancillary works.

3.0 LOGISTICS

3.1 Construction Programme and Phasing

Subject to a successful grant of planning, it is intended for the works to commence in Q4 2023. The proposed development is anticipated to be constructed over 12-month period.

The development is proposed to be constructed on the following basis:

- Set up site perimeter hoarding, maintaining existing pedestrian and traffic routes around the site
- Site clearance
- Reduced level excavations and foundation construction
- Site services installations (drainage, power, water)
- Building superstructure and roof construction
- Finish interior and exterior landscaping

3.2 Vehicular Access to Site

The subject site shall be accessed via Brugh na Deise off Crawford's Street (R516), at its southern boundary. It is anticipated that for all the duration of the works all access and egress for deliveries shall be via Brugh na Deise. In addition, it may also be beneficial to install a pedestrian only entrance to the site to segregate vehicular and pedestrian movements to and from site.

Security personnel will be present at the entrance/exit of the site to ensure all egressing traffic will do so safely. A wheel wash will be installed at the exit from the site to prevent any dirt being carried out into the public road. A road sweeper will be employed as required to keep the public road around the site clean.



3.3 Protection of Public Areas from Construction Activity

Perimeter hoarding will be provided around the site to provide a barrier against unauthorized access from the public areas. Controlled access points to the site, in the form of gates or doors, will be kept locked at any time that these areas are not monitored (e.g., outside working hours).

The hoarding will be well-maintained and will be painted. Any hoardings may contain graphics portraying project information.

3.4 Site Security

The site will be secured with a hoarding. This will be branded using the appointed Contractors' logos. Some marketing images or information boards may also be placed on the hoarding. Access to site will be controlled and monitored outside of site working hours.

All personnel working on site must have a valid Safe Pass card.

3.5 Material Hoisting and Movement Throughout the Site

Hoists and teleporters may be utilised as required during the project to facilitate material movement into the structures and waste movements out. Hoists and teleporters will be used in order to minimise the use of cranes, which would be more affected by inclement weather conditions. With the commencement of the fit-out activities, hoists strategically positioned will play a key role for successful project delivery.

3.6 Deliveries and Storage Facilities

It is proposed that unloading bays are provided for deliveries to the site within the hoarding perimeter. They should be accessible by forklifts. Appropriately demarcated storage zones will be used to separate and segregate materials.

All deliveries to site will be scheduled to ensure their timely arrival and avoid need for storing large quantities of materials on site. Deliveries will be scheduled outside of background peak traffic hours (within the permitted site working hours) to avoid disturbance to pedestrian and vehicular traffic in the vicinity of the site.

3.7 Site Accommodation

On-site facilities will consist of:

- Materials storage area
- Site office & meeting room
- Staff welfare facilities including but not limited to toilets, drying room, canteen.

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

Water supply to the site will be provided by means of a temporary connection to the public watermain. The location and size of the temporary connection will be determined through consultation with Irish Water and Limerick City and County Council and shall be subject to any restrictions and requirements they may impose.

3.8 Site Parking

There will be limited car parking for staff and visitors in and around the subject site. Car sharing among construction personnel will be encouraged, especially from areas where construction personnel may be clustered in order to reduce the proportion of construction personnel driving to the site and minimise the potential traffic impact on the surrounding road network.



3.9 Site Working Hours

Construction operations on site will generally be subject to a planning permission and conditions. However, it may be necessary for some construction operations to be undertaken outside these times, for example, service diversions and connections, concrete finishing and fit-out works.

Deliveries of materials to site will generally be between the hours of 07:00 and 19:00, Monday to Friday, and 08:00 to 14:00 on Saturdays (subject to planning conditions by LCCC). There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times. Any such deliveries will be made with the advance agreement of Limerick City and County Council.

4.0 GENERAL ENVIRONMENTAL PROTECTION MEASURES

4.1 Surface Water and Wastewater Management

The contractor shall ensure that storm water and wastewater runoff is managed and that there is no off-site environment impact caused by overland storm water flows.

The project environmental management plan will be developed in detail to include:

- Silt control on the roads
- Discharge water from dewatering systems
- Diversion of clean water
- Treatment and disposal of wastewater from general clean-up of tools and equipment
- Spills control
- Refuelling of machinery off-site or at a designated bunded refuelling area.

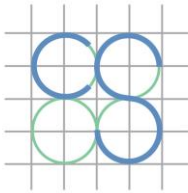
4.2 Noise

The Contractor will implement measures to eliminate where possible and reduce noise levels where not.

All construction activities will be carried out in compliance with the recommendations of BS 5228, Noise Control on Construction and open sites part 1 and comply with BS 6187 Code of Practice for Demolition.

Potential sources of noise impact include construction activities on site which may involve the use of heavy machinery.

All works on site will comply with BS 5228 2009 which gives detailed guidance on the control of noise and vibration from construction activities. In general,



the contractor will implement the following mitigation measures during the proposed infrastructure works:

- Avoid unnecessary revving of engines and switch off equipment when not required.
- Minimise drop height of materials.
- Start-up plant sequentially rather than all together.

More specifically the Contractor will ensure that:

- In accordance with Best Practicable Means, plant and activities to be employed on site are reviewed to ensure that they are the quietest available for the required purpose.
- Hoarding and sound barriers are provided and, where required, improved sound reduction methods are used (e.g., enclosures).
- Site equipment is located away from noise sensitive areas.
- Loading and unloading will occur within designated loading areas as far from noise receptors as possible.
- Equipment will be fitted with appropriate silencers where possible.
- Regular and effective maintenance by trained personnel is carried out to reduce noise and / or vibration from plant and machinery.
- Hours are limited during which site activities likely to create high levels of noise and vibration are carried out – no noisy activities will be carried out outside of the permitted construction hours.

A site representative responsible for matters relating to noise and vibration will be appointed prior to construction on site. This individual will be responsible for engagement with local residents, advance notice for noisy activities and the maintenance of a complaints register/record.

A noise and vibration monitoring specialist will be appointed to carry out independent monitoring of noise and vibration during critical periods at sensitive locations.

4.3 Air Quality and Dust Monitoring

Dust prevention measures will be included for control of any site airborne particulate pollution. The Contractor will monitor dust levels in the vicinity of the site in accordance with planning conditions. Records will be kept of such monitoring for review by the Planning Authority. There are currently no national or European Union standards of air quality with which levels of dust deposition can be compared. The minimum criteria to be maintained will be in accordance with the *German Standard Method for determination of dust deposition rate (VDI 2119)*, which is a maximum deposition of 350mg/m²/day as measured using Bergerhoff type dust deposit gauges.

The Contractor will continuously monitor dust over the variation of weather and material disposal to ensure the limits are not breached throughout the project. Potential sources of dust impact are present due to construction activities on site.

4.4 Migrating Dust and Dirt Pollution

The Contractor will ensure that all construction vehicles that exit the site onto the public roads will not transport dust and dirt to pollute the external roadways. This will be achieved through a combination of the following measures:

- Ensuring construction vehicles have a clean surface to travel on within the site (i.e., haul road).
- Providing a "Full-Body Self Contained" wheel wash, constructed and located within the site confines.
- Ensuring an appropriate wheel or road washing facility is provided as and when required throughout the construction stage on site. If conditions require it then a manned power washer will be put in place to assist the wheel wash system.



The use of appropriate water-based dust suppression systems will greatly reduce the amount of dust and windborne particulates as a result of the construction process. This system will be closely monitored by site management personnel particularly during extended dry periods and in accordance with site management methods.

4.5 Harmful Materials

Harmful material will be stored on site for use in connection with the construction works only. These materials will be stored in a controlled manner. Where on-site facilities are used there will be a bunded filling area using double bunded steel tank at a minimum.

4.5.1 Potentially Hazardous Wastes to be Produced

Contaminated Soil

If any contaminated material is encountered, it will need to be segregated from clean/inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled 'Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous' using the HazWasteOnline application (or similar approved classification method). The material will then need to be classified as clean, inert, non-hazardous or hazardous in accordance with the EC Council Decision 2003/33/EC, which establishes the criteria for the acceptance of waste at landfills.

Fuel/Oils

As fuels and oils are classed as hazardous materials, any on-site storage of fuel/oil, all storage tanks and all draw-off points will be bunded and located in a dedicated, secure area of the site. Provided that these requirements are adhered to and site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site.

Other known Hazardous Substances

Paints, glues, adhesives and other known hazardous substances will be stored in designated areas. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum. Wastes will be stored in appropriate receptacles pending collection by an authorised waste contractor. In addition, WEEE (containing Construction and Demolition Waste Management Plan 11 hazardous components), printer toner/cartridges, batteries (Lead, Ni-Cd or Mercury) and/or fluorescent tubes and other mercury containing waste may be generated during construction activities. These wastes (if encountered) will be stored in appropriate receptacles in designated areas of the site pending collection by an authorised waste contractor.

4.6 Vibration

The Contractor will be required to carry out their works such that the effect of vibration on the adjacent buildings and surroundings is minimised, and that no damage to these results from construction activity on site. Potential sources of significant vibration include:

- Reduced level excavation and/or rock breaking.
- Other construction activities on site involving the use of heavy machinery.

The Contractor will be required to comply with any planning conditions relating to vibration limits and vibration monitoring.



5.0 TRAFFIC MANAGEMENT

5.1 Access to the Site

Construction traffic shall access the site from the adjoining street network. The proposed development site is connected to Crawford's Street (R516) via Brugh na Deise to the south which provides easy access to the N20 via L1414 for deliveries and extraction to and from the site. The precise designated route will be determined by the Contractor at a later stage and agreed with Limerick City and Council County Council as part of the final Construction Traffic Management Plan (CTMP).

Security personnel will be present at the entrance/exit of the site to ensure all exiting traffic will do so safely. A self-contained wheel wash system will be installed at the exit from the site, to minimise dirt being carried out into the public road, and a road sweeper will be employed as required to keep public roads around the site clean.

5.2 Site Traffic, Traffic and Pedestrian Management

The anticipated truck movements from and to the site in relation to preliminary programme for the works will be specified in the construction methodology by the main contractor.

The construction site will be delineated by means of hoardings and lockable gates with screened fencing at the entry and exit points. The Contractor will pay particular attention to pedestrian traffic and safety at the entrances.

Pedestrian will have right of way. If required, alternate pedestrian routes around the site will be created and clearly signed. Depending on the progress of the works and temporary constraints imposed by the construction methodology, the location of access and exit points may vary.

5.3 Minimising Construction Vehicle Movements

Construction vehicle movements will be minimised through:

- Consolidation of delivery loads to/from the site and manage large deliveries on site to occur outside of peak periods.
- Use of precast/prefabricated materials where possible.
- 'Cut' material generated by the construction works will be re-used on site where possible, through various accommodation works.
- Adequate storage space on site will be provided.
- A strategy will be developed to minimise construction material quantities as much as possible.
- Construction staff vehicle movements will also be minimised by promoting the use of public transport and or car share use.

5.3.1 Cycling

Cycle parking spaces will be provided on the site for construction personnel. In addition, lockers will be provided to allow cyclists to store their cycling clothes.

5.3.2 Car Share

Car sharing among construction personnel will be encouraged, especially from areas where construction personnel may be clustered. The contractor shall aim to organize shifts in accordance with personnel origins, hence enabling higher levels of car sharing. Such a measure offers a significant opportunity to reduce the proportion of construction personnel driving to the site and will minimise the potential traffic impact on the surrounding road network.



5.3.3 Protection of Public Roads

A Visual Condition Survey (VCS) will be carried out of all surrounding streets prior to any site works commencing. The Contractor will liaise with Limerick City and County Council Roads and Traffic Department to agree any changes to load restrictions and construction access routes for the site. Measures will be put in place as required to facilitate construction traffic whilst simultaneously protecting the built environment.

All entrances and temporary roads will be continuously maintained for emergency vehicle access.

The following measures will be taken to ensure that the site, public roads and surroundings are kept clean and tidy:

- A regular programme of site tidying will be established to ensure a safe and orderly site.
- Scaffolding will have debris netting attached to prevent materials and equipment being scattered by the wind.
- Food waste will be strictly controlled on all parts of the site.
- Mud spillages on roads and footpaths outside the site will be cleaned regularly and will not be allowed to accumulate.
- Wheel wash facilities will be provided for vehicles exiting the site.

6.0 PROVISIONS FOR CONSTRUCTION

6.1 Hoarding, Set-up of Site, and Access/Egress Points

The site area will be enclosed with hoarding details of which are to be agreed with LCCC. Hoarding panels will be maintained and kept clean for the duration of the project.

This will involve erecting the hoarding around the proposed site perimeter in line with the finished development description.

6.2 Removal of Services

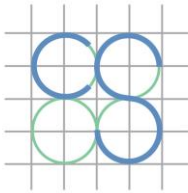
Prior to any works a utility survey will be carried out to identify existing services. All services on site will be disconnected, diverted or removed as agreed with service providers.

6.3 Excavation

This development will involve excavation and removal of material from site for foundations and regrading of the site profile.

It is not envisaged that rock will be encountered during the excavation works. The appointed contractor will engage with the project archaeologist prior to the commencement of excavation on site. Excavation will be carried out under the supervision of the project archaeologist.

The Contractor must prepare a Construction Waste Management Plan in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects" (Department of Environment, Heritage and Local Government, 2006) and ensure that all material is disposed of at an appropriately licensed land fill site. The Contractor must also outline detailed proposals within the Construction and Environmental Management Plan to accommodate construction traffic.



6.4 Site Service Installations

Drainage, power, water will be installed to serve the proposed development.

6.5 Housing Construction

The housing is proposed to be constructed on the following basis;

- Reduced level excavations;
- Drainage and site development works;
- Traditional strip foundations, ground floor slabs;
- Construct house frames and blockwork;
- Finish interior and exterior landscaping.

Please note the above shall be carried out in accordance with the particular construction phasing.