

Comhairle Contae Thiobraid Árann
Tipperary County Council

CAHIR TOWN CENTRE CAR PARK

PRELIMINARY CONSTRUCTION MANAGEMENT PLAN



CAHIR TOWN CENTRE CAR PARK

PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

Document Control Sheet	
Document Reference	11080-CMP-001
Report Status	Planning Issue
Report Date	August 2021
Current Revision	P0
Client:	Tipperary County Council
Client Address:	Tipperary County Council Civic Offices Emmet Street, Clonmel Co. Tipperary
Project Number:	11170

Galway Office Fairgreen House, Fairgreen Road, Galway, H91 AXK8, Ireland. Tel: +353 (0)91 565 211	Dublin Office Block 10-4, Blanchardstown Corporate Park, Dublin 15, D15 X98N, Ireland. Tel: +353 (0)1 803 0406	Castlebar Office Market Square, Castlebar, Mayo, F23 Y427, Ireland. Tel: +353 (0)94 902 1401
---	--	--

Revision	Description	Author:	Date	Reviewed By:	Date	Authorised by:	Date
P0	Planning Issue	JQ	30/09/2021	MG	30/09/2021	TM	30/09/2021

TOBIN Consulting Engineers

Disclaimer

This Document is Copyright of TOBIN Consulting Engineers Limited. This document and its contents have been prepared for the sole use of our Client. No liability is accepted by TOBIN Consulting Engineers Limited for the use of this report, or its contents for any other use than for which it was prepared.



Table of Contents

1.0	Introduction.....	1
1.1	Purpose.....	1
2.0	Site Location and Access.....	2
3.0	Construction Works.....	3
3.1	Indicative Construction Programme	3
3.2	Working Hours.....	3
3.3	Preliminary Schedule of Works	3
3.3.1	<i>Site Establishment and Set-Up.....</i>	<i>3</i>
3.3.2	<i>Enabling Works.....</i>	<i>4</i>
3.3.3	<i>Site Clearance and demolition</i>	<i>4</i>
3.3.4	<i>Bulk Earthworks & Construction of Underground Services</i>	<i>4</i>
3.3.5	<i>Construction of Buildings.....</i>	<i>4</i>
3.3.6	<i>External Works And Landscaping.....</i>	<i>4</i>
3.4	Construction Compound and Storage Areas	4
3.5	Site Access and Site Security	5
3.6	Pre-Construction Surveys.....	5
3.7	Oil and Fuel Storage	6
3.8	ENVIRONMENTAL Response Procedures.....	6
3.9	Training and Awareness.....	7
4.0	Health and Safety.....	7
5.0	Construction Traffic Management	8
6.0	Statutory Requirements of the Main Contractor	9
6.1	Health and Safety	9
6.2	Project Supervisor Construction Stage.....	9
6.3	Project Supervisor Design Process.....	11
6.4	Certificates.....	12
6.5	Duties of the Contractor	12
7.0	Environmental Management.....	12
7.1	Air Quality	12
7.2	Noise & Vibration	13
7.3	Soil & Groundwater	14
7.4	Surface Water	14
7.5	Ecology.....	15
7.6	Waste Management.....	15



8.0 Record Keeping..... 15



Table of Inserts

Figure 1.1 - Site Location Plan	1
Figure 3.1 - Typical mobile fuel bowser (Source: Clarke Machinery Group).....	6
Insert 4.1 – Example of Site Safety Signage	8



1.0 INTRODUCTION

Tipperary County Council propose to develop a car park in the Cahir town centre that will add vital parking capacity to the town. The proposed Development is to be accessed off Church Street (R670) (refer to Figure 1-1 below). The proposed Development site is approx. 1 acre in area and is made up of a green field site and a brown field site.

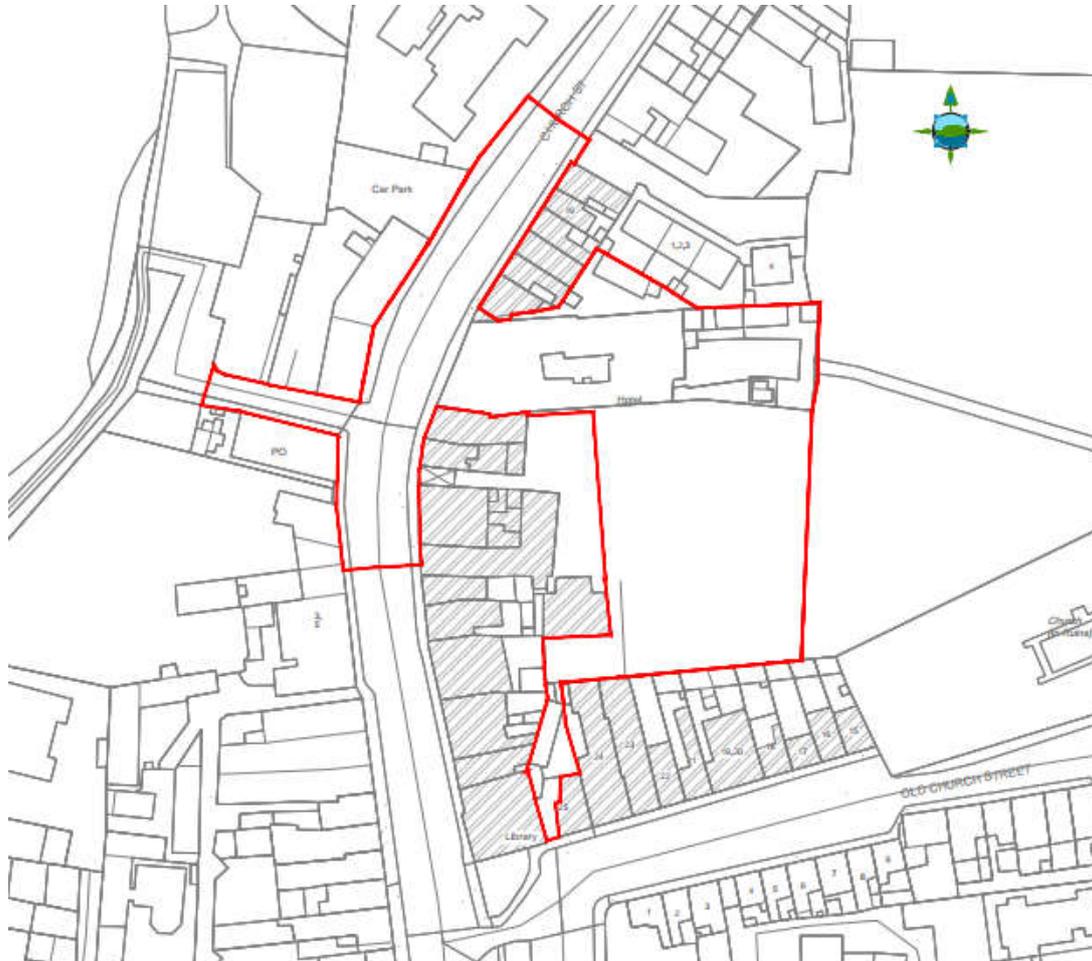


Figure 1.1 - Site Location Plan

The proposed project is one aspect of the overall “Pathway to the Regeneration of Cahir Town Centre” project which will propose regeneration works for the town centre.

To facilitate the proposed works, Tipperary County Council are applying for Planning Permission in accordance with Part 8 of the Planning and Development Regulations 2001, as amended, for the proposed Development and this Preliminary Construction Management Plan (CMP) provides a synopsis of the methodologies to be employed in the construction of the carpark.

1.1 PURPOSE

The purpose of this preliminary CMP is to outline the general activities required for the construction of the proposed carpark.

A Main Contractor has not yet been appointed to carry out the proposed works. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed Construction Management Plan for submission to the Local Authority for approval.

The Main Contractor's Construction Management Plan will be a live document to be continuously updated by the Main Contractor throughout the project as required.

2.0 SITE LOCATION AND ACCESS

The proposed development is located on a green field / brownfield site off Church Street within the town of Cahir. The existing site currently houses a derelict hotel building, ancillary buildings, and boundary walls which are to be demolished as part of the works.

A new access onto Church Street is proposed as part of the construction works to provide vehicular and pedestrian access to the development (Refer to Figure below).



Figure 2-1 - Proposed Site Layout

A separate pedestrian access is proposed through the Market House site onto Old Church Street.

3.0 CONSTRUCTION WORKS

3.1 INDICATIVE CONSTRUCTION PROGRAMME

The construction works associated with the proposed development are expected to be undertaken in one single phase. It is anticipated that the construction works will be completed within 6 months of commencement. This will be confirmed upon appointment of a Main Contractor.

Insofar as is possible, ground excavation works will be scheduled during periods of dry weather to minimise potential for silt laden run-off from the works.

3.2 WORKING HOURS

It is proposed that construction works will be undertaken between the hours of 08:00 and 18:00 from Monday to Friday and 08:00 and 14:00 on Saturdays.

No construction works will be carried out on Sundays or Bank Holidays, without the specific agreement of Tipperary County Council.

Workings hours will be confirmed by Tipperary County Council.

Construction works will be coordinated to ensure construction traffic will have limited impact on the surrounding road network and to have minimum impact on peak morning and evening traffic periods.

3.3 PRELIMINARY SCHEDULE OF WORKS

The schedule of works described below is an outline of the construction activities which will be required to deliver the proposed residential development. The schedule is a high-level summary and should not be viewed as an exhaustive list of construction activities. The Main Contractor will be required to submit a detailed construction programme as part of their tender proposal.

- Site establishment and set-up:
- Enabling works
- Demolition of existing structure, site clearance
- Bulk earthworks & construction of underground services
- Construction of carpark and external works
- Works to Church Street including the provision of a raised table in the vicinity of the proposed carpark access.

The above programme shall be considered as indicative. The final construction programme and schedule of works may also be dependent on technical, legal, or financial impacts outside of the construction works. The Main Contractor, upon appointment, will be required to provide a detailed programme of works for the completion of the works.

3.3.1 SITE ESTABLISHMENT AND SET-UP

Adequate hoarding or fencing will be erected to establish a secure site boundary in agreement with the Tipperary County Council. The hoarding or fencing will be maintained and kept clean for the duration of the works. A temporary site construction compound and material storage areas will be established.

3.3.2 ENABLING WORKS

Enabling works such as the removal of hazardous substances (asbestos roof sheeting, etc) and diversion of live services will be carried out prior to the commencement of the main construction works. Temporary service connections for the site compound will be installed via existing permanent services in the vicinity of the site. Any necessary signage will be erected at site entrances. Retaining structures will be constructed at boundaries where necessary.

3.3.3 SITE CLEARANCE AND DEMOLITION

The demolition of existing structures onsite will be undertaken by a competent Contractor.

The site is a green field / brownfield site requiring site clearance including the removal of the existing structures, removal of the hardstanding areas and the boundary walls. Any excess topsoil will be stockpiled to be recycled and reused within landscaped areas of the proposed development in accordance with the Construction and Demolition Waste Management Plan.

3.3.4 BULK EARTHWORKS & CONSTRUCTION OF UNDERGROUND SERVICES

The site will be regraded to formation level through an exercise of local excavation and filling as required by the design. Any excess material will be exported to a suitable waste handling facility where it will be disposed of responsibly. Sedimentation and erosion control measures will be employed to prevent silt laden surface water runoff from flowing through the construction site and to ensure that surface water runoff is managed in an effective manner.

Sub-base material for under roads or foundations will be installed and compacted during this project stage.

Underground services such as surface water networks and electricity cables will be laid. Internal site roads / car park will be constructed to base level to form haul routes within the site.

3.3.5 CONSTRUCTION OF BUILDINGS

Not Applicable

3.3.6 EXTERNAL WORKS AND LANDSCAPING

Completion of all site services including attenuation tanks and permanent connection of the development to the utilities such as the Surface Water infrastructure networks. Completion of all roads, private side SuDS elements, footpaths, and landscape features such as bicycle parking.

3.4 CONSTRUCTION COMPOUND AND STORAGE AREAS

The Main Contractor will be required to submit a site layout plan indicating the proposed location for the construction site compound. The compound will consist of a hardstanding area housing all necessary site offices, site reception, spill kits, canteen, drying room and welfare facilities for construction workers. Covid 19 prevention measures required (such as hand wash stations, sign in areas, temperature check areas, etc) will also be identified within the submission.

Portaloos will be provided in the compound initially with a dedicated toilet block installed at a later date and connected to the existing foul drainage network. Electrical and potable water supply will be provided via temporary connections to the existing services located near the site in agreement with the service providers. Car parking for construction workers and visitors will

be located within the construction compound. Waste facilities will be located within the site compound as necessary. Containers and skips intended for construction waste will be located close to works areas as required.

The construction site compound will include provision for dust control, surface water control and wheel washing facilities.

Incoming construction materials will be offloaded and stored within a materials compound.

3.5 SITE ACCESS AND SITE SECURITY

Access to and egress from the construction site will be through the lands accessed off Old Church Street.

The site entrances will be sufficiently wide for HGVs and construction vehicles to enter the site without causing an obstruction on the road network. Provision will be made to ensure there is sufficient space within the site for HGVs to turn before joining the public road network.

Signage will be erected on all approaches to the site to notify motorists of the construction works ahead. Signage at the site entrances will be provided to ensure members of the public do not enter the site road mistakenly.

The site will be secured using temporary fencing or hoarding at all times to ensure that the ongoing works are separated from the public. Netting will be erected on any fencing used, where required, to prevent debris and dust release from the site and provide screening of the construction and demolition works. A secure lockable gate will be erected at the site entrance and visitors to the site will be directed to the adjacent site office. The Site management team will carry out regular inspections and maintenance of the security fencing/ hoarding while also ensuring areas are kept clean.

Deliveries of materials, plant or machinery to site will be restricted to the working hours identified above. Deliveries will be scheduled as “just-in-time” to ensure the arrival and departure of vehicles will have minimal interference with local residents and other road users. Just-in-time deliveries will also reduce the quantity of materials stockpiled within the site. Deliveries will not be allowed to queue on public roadways.

The Main Contractor will be responsible for ensuring the site compound and site as a whole are adequately secured at all times. The contractor will be required to:

- Operate a Site Induction Process for all staff
- Ensure all staff hold a current “Safe Pass” card and have appropriate PPE at all times
- Install adequate site hoarding to the site boundary
- Maintain security at all times

3.6 PRE-CONSTRUCTION SURVEYS

Topographical surveys have been carried out for the site and are available to Contractor.

The Contractor will be required to carry out pre-construction condition photo survey of the site which will include all perimeter boundaries, footways, existing carriageways on approach to the site. Any damage caused to existing boundaries or elements to be retained will be rectified by the Contractor in accordance with relevant standards. Prior to any excavation or groundworks, the main contractor is required to perform “dial-before-you-dig” assessments of the site and where necessary, commission ground penetrating radar surveys to identify buried services.

The main contractor is to liaise with service providers to manage any buried services identified prior to works being undertaken in the vicinity of the buried service.

3.7 OIL AND FUEL STORAGE

Where possible, refuelling of vehicles and equipment will not be carried out on site to minimise the potential for spills or leaks to occur. However, some fuel, lubricants and hydraulic fluids will need to be stored on site during construction works for equipment such as excavators and generators.

Fuelling and lubrication of equipment will only be carried out in a designated area of the site away from any existing manholes or gulleys. At present, it is proposed that fuel and lubricants will be stored adjacent to the materials compound. Fuels and oils will be contained within a bunded structure with capacity for 110% of the storage capacity of the largest container/tank. This bunded area will be roofed appropriately to exclude rainwater.

The fuel storage area will be properly secured to prevent unauthorised access or vandalism and all triggers will be locked when not in use. Spill kits and drip trays will be used during refuelling to collect any potential spills or overfills. No vehicles or containers will be left unattended during refuelling.

Mobile fuel bowzers may be used for refuelling heavy equipment. Bowzers used will be double skinned and spill kit/drip tray equipment will be used during refuelling which will take place away from any nearby drains or watercourses and from any surface water drainage gully's.



Figure 3.1 - Typical mobile fuel bowser (Source: Clarke Machinery Group)

3.8 ENVIRONMENTAL RESPONSE PROCEDURES

Spill kits will be made available on site and identified with signage for use in the event of an environmental spill or leak. A spill kit will be kept in close proximity to the fuel storage area for use in the event of any incident during refuelling or maintenance works. Heavy machinery used on the site will also be equipped with its own spill kit.

In the event of an environmental incident, the appointed Project Environmental Manager will be notified immediately, and absorbent materials used to prevent the spread of the spill/leak. The contaminated materials will be transferred to leak-proof storage containers and any contaminated soils or gravels excavated and removed off-site. A record of the incident will be kept, and Tipperary County Council will be notified.

3.9 TRAINING AND AWARENESS

All site staff will be required to complete an induction prior to commencement of works on the site. The details of the site induction will be provided by the main contractor in the *Construction Health & Safety Plan*.

If necessary, as part of the site induction, all site staff will be made aware of the presence of any potentially sensitive ecological areas in the vicinity of the site.

During the project works, the Site Manager or Project Environmental Manager will deliver strategic toolbox talks focused on potential environmental and safety risks associated with the works being carried out at that stage of the project.

4.0 HEALTH AND SAFETY

The Main Contractor is required to provide a best practice working environments for all employees involved in the construction of the proposed development. This includes a responsibility to take into account all relevant statutory laws and guidelines.

All construction activity will be carried out in accordance with the requirements of the *Safety, Health and Welfare at Work (Construction) Regulations 2013*. The main contractor will be required to prepare a *Construction Health & Safety Plan* prior to commencement of construction activities.

At the time of preparation of this report, the construction industry is currently working under strict H&S protocols as a result of the COVID-19 virus pandemic. The site will be required to operate in accordance with any government directives as a result of this pandemic still being an issue during the proposed construction stage.

In the case of an emergency at the site, the following procedures shall be followed:

- Emergency services will be contacted immediately by dialling 112 or 999;
- Exact details of the emergency/incident will be given by the caller to the emergency line operator to allow them to assess the situation and respond in an adequate manner;
- The emergency will then be reported to the Site Manager;
- Where available, trained site first aiders will attend the incident; and
- The Site Manager will maintain contact with the emergency services to ensure they have directions to the site.

In the case of an incident where the emergency services are not required, any persons injured will be taken to the nearest hospital by the Site Manager or other appointed person. The nearest hospital to the site is:

South Tipperary General Hospital – located c. 16km to the east of the site via the N24

Phone No. – (00353) 526177000

Driving Time – c. 15 minutes

Minimum PPE required during the construction works will include protective footwear, high visibility vests, gloves, safety glasses and hard hats. Ear defenders will be used during noise works, as required.

Further details will be set out in the *Construction Health & Safety Plan* to be prepared by the appointed Contractor.

Signage will be erected at the site entrance to warn the public of the ongoing construction works. The signage used will be similar to that shown in Insert 4.1.



Insert 4.1 – Example of Site Safety Signage

5.0 CONSTRUCTION TRAFFIC MANAGEMENT

The majority of construction traffic coming to and leaving the site will use the R640 and R670. There are a number of quarries located to the east of the site which may be selected to provide construction materials which will comprise the majority of HGV traffic movements during the construction works. Similarly, the Contractor will be required to use licenced and permitted waste management facilities within the Southern Waste Region (SWR) which can accept C&D waste which will be generated from the site.

The appointed Contractor will determine which facilities will provide construction materials and collect waste from the site. Suitably permitted waste contractors will be appointed to transport any waste off-site.

Construction traffic delivering to or collecting from the site will be able to drive into the site from Church Street and will be able to turn within the site such that there will be no queuing of traffic on the adjacent road network. Drivers coming to site will be informed of the site working hours and suppliers will not be permitted to park at the site entrance awaiting the gates to open.

There will be a noticeable increase in HGV traffic on the road network during the construction stage works as waste materials are removed from site and deliveries brought to site, however this activity will be of short duration.

Parking will be provided within the site boundary for construction staff and no car parking will be permitted outside of the site boundary.

Visual surveys of the road network approaching the site will be carried out on a regular basis. The main contractor will carry out road sweeping operations, employing a suction sweeper or similar appropriate method, to remove any project related dirt and/or material deposited on the road network by construction/delivery vehicles. The contractor will be required to provide suitable hard standing directly within the site boundary at the site entrances to minimize spoil being transferred onto the public road. Nonetheless, a wheel wash system will be set up in the event there is a risk of debris deposit on the road.

Waste collection vehicles leaving the site will be required to cover their loads with a canvas to prevent waste or dust emissions from the vehicle on the road network.

6.0 STATUTORY REQUIREMENTS OF THE MAIN CONTRACTOR

The Main Contractor will be required comply with any and all statutory requirements and to obtain licences and consents required to carry out the works such as but not limited to:

- Temporary Road Closure Licence
- Road Opening Licences
- Waste Management Licence
- Work Permits

The Main Contractor will be required to carry out the Works in accordance with the provisions of the current Building Regulations.

The Main Contractor will be responsible for the serving of and compliance with all notices and the like required under the Building Control Act 1990 and the current Building Regulations in connection with the execution of the works.

6.1 HEALTH AND SAFETY

A Project Supervisor Construction Stage (PSCS) will be appointed by Cairn homes Properties Ltd in accordance with the provision of Safety, Health and Welfare at Work (Construction) Regulations, 2013.

The nominated PSCS shall prepare and lodge the relevant notices for the Works with the various statutory authorities including, but not limited to the AF2 notifications to the Health & Safety Authority.

The Main Contractor will be required to appoint a competent Temporary Works Designer and a suitably qualified engineer to coordinate the design of the temporary works.

6.2 PROJECT SUPERVISOR CONSTRUCTION STAGE

The appointed PSCS will be required to comply with the 2013 Regulations. A non-exhaustive list of the duties of the PSCS are as follows:

- i. Upon appointment, the PSCS will develop the Safety & Health Plan, including updating it with new/revised design information passed on by the PSDP. Following this the Contractor's designers' information will be coordinated with all other designers' information and any new information will be passed onto the PSCS for inclusion in the Safety and Health Plan.
- ii. The PSCS will be obliged to advise the PSDP, as soon as is practical, of any changes arising from unforeseen conditions or eventualities which may affect design. This must be done in order to permit the PSDP to pass this information to

all designers so that they can coordinate their designs and include the changes in their designs.

- iii. The PSCS will ensure that at all times all personnel onsite will have completed appropriate training including Safe Pass and CSCS where necessary. The PSCS will ensure that records of the training, including copies of certificates/cards, shall be kept on a readily accessible file for inspection. Copies of the same shall be provided to the Resident Engineering Staff or other designated Representatives of the Local Authority.
- iv. The PSCS and the Main Contractor will assist the PSDP where required, to allow the PSDP comply with the Regulations. This extends to ensuring that all of the Contractor's designers and any specialist/ proprietary designers cooperate with the PSDP.
- v. The PSCS will be required to coordinate the contractors who will be providing information for the Safety File and presented to the PSDP for review.
- vi. The PSCS must gather all relevant information, from all designers, specialist designers, and contractors, including relevant information from the final version of the Safety & Health Plan, and delivery to the PSDP for inclusion in the Safety File.

The following is a high-level summary of the information, which the PSCS must provide to the PSDP for inclusion in the safety file:

- Construction Programme
- All As-Constructed Drawings
- All design information and general design criteria
- Documentation on maintenance procedures and requirements
- Details of equipment and maintenance facilities
- All manuals, certificates
- All procedures, requirements and schedules
- Details of location and nature of all utilities and services
- Fire Fighting and emergency systems (including security systems)
- Site records – example logs of difficulties encountered on site
- Copies of relevant photographic and video material of construction
- Other relevant information, which in the opinion of the PSCS should be included in the safety file.
- Any further information, requested by the PSDP, which is deemed necessary to complete the role of PSDP and to prepare the Safety File.

The PSCS will coordinate all contractors' arrangements for constructing the works so as to protect the Safety Health and Welfare of all persons (including employees, visitors and the general public) affected by the construction of the works.

It will be the duty of all contractors to implement these arrangements to protect, as far as reasonably practicable, the Safety Health and Welfare of all persons affected by the construction of the works.

The PSCS will monitor all of these arrangements and shall take appropriate steps, where necessary, to ensure that they are implemented and effective in accordance with S.I. 504 of 2006.

The Main Contractor will be required to, in respect of all persons' and sites' activities, provide for, and ensure compliance with, all Health, Welfare and Safety Standards and Regulations whatsoever arising in connection with the works.

The Main Contractor shall ensure that safe practices and methods of work are adopted at all times.

The Main Contractor will ensure that all safety, health and welfare measures required under or by virtue of the provisions of any enactment or regulations or working rules of any industry are strictly complied with.

The Main Contractor will comply with the Safety Health and Welfare at Work Act, 2005. All work shall be subject to S.I. No. 44 of 1993 Safety Health and Welfare at Work (General Application) Regulations as amended from time to time. The Contractor must comply with the current metric edition of the IEE Regulations and the requirements of the Electricity Supply Board. Works on roads, footpaths and cycle tracks shall be carried out in compliance with Part 13 of the Safety, Health and Welfare at Work (Construction) Regulations, 2006. All works shall be subject to the requirements of the following General Application Regulations:

- S.I. 371 of 2006 – SHWW Control of Noise at Work Regulations 2006
- S.I. 370 of 2006 – SHWW Control of Vibration at Work Regulations 2006
- S.I. 318 of 2006 – SHWW Work at Height Regulations 2006
- S.I. 386 of 2006 – SHWW Exposure to Asbestos Regulations 2006-2010

All works are required to comply with Local Authority bylaws and with all current legislation and Building Regulations.

- The Main Contractor must ensure that all vehicles delivering or transporting materials in connection with the Works shall be adequate sheeted to ensure that as far as practicable no materials can fall and no dust can be blown from the vehicle.

A Preliminary Safety and Health Plan will be prepared for the works. The Main Contractor will be required to familiarise itself with each item detailed in the Plan and to make any necessary amendment to their proposed Programmes of Work to reflect such.

6.3 PROJECT SUPERVISOR DESIGN PROCESS

A Project Supervisor for the Design Process (PSDP) will be appointed by the Client in accordance with the provision of Safety, Health and Welfare at Work (Construction) Regulations, 2013.

6.4 CERTIFICATES

The Main Contractor will provide, when requested, certificates in the form approved by the HSA and as set out in the HSA guidance document “Guidelines on the Procurement, Design and Management Requirements of the Safety Health and Welfare at Work (Construction) Regulations 2013” including the temporary works design certificate.

6.5 DUTIES OF THE CONTRACTOR

The Contractor will be required to execute and complete the Works:

- with proper skill and care;
- in a good and workmanlike manner in accordance with good building and engineering practice and all relevant building codes and standards;
- utilising good quality new materials and equipment fit for their respective purposes;
- in compliance with the Statutory Requirements; and
- in compliance with the Building Control Act 1990 (and any amendment or re-enactment of such Act) and all Regulations made thereunder.

7.0 ENVIRONMENTAL MANAGEMENT

7.1 AIR QUALITY

Dust will be generated mainly from earthworks activities at the early stage of the project and to a lesser extent from new construction and traffic movements. The closest human receptors are located in properties along the north-eastern, eastern and southern boundaries at a distance of approximately 15m from the site boundary.

Measures will be put in place to minimise the impact of dust generated from the works with reference to best practice guidance such as the *Control of Dust from Construction and Demolition Activities* document¹. These measures will include:

- During periods of dry weather, the site access routes will be kept damp to minimise dust generation from construction traffic;
- Street sweepers will be employed to ensure the adjacent roads are maintained free of dust;
- Establishing a 10 km/hr speed limit for vehicles on site;
- Minimisation of extent of working areas at any one time;
- Netting and/or hard surface hoarding around the perimeter of the site will minimise dust migration from the site at low levels;
- Stockpiling of imported materials will be limited to the volumes required to practically meet the construction schedule;
- Excavated materials will be removed from site as soon as possible to minimise potential for stockpiles to create windblown dust; and

¹ BRE/DTI, *Control of Dust from Construction and Demolition Activities* (2003)

- Daily inspections by the main contractor will be carried out to identify potential sources of dust generation along with implementation measures to remove causes where found.

It is not proposed to carry out dust deposition monitoring as it is considered that the above measures will be sufficient to ensure that there is no dust impact on local human or ecological receptors.

Contact details for the site manager as outlined in Section 3.1 will be provided at the entrance to the site and local residents/public will be encouraged to report any off-site dust deposition issues. Any air quality complaints made during the works will be logged, investigated and followed up with measures to limit emissions, where appropriate.

There will also be some exhaust emissions generated from use of excavators, HGVs and vibrating rollers during the demolition and construction phase. These impacts will be temporary in duration and are not considered likely to give rise to significant air quality impacts following the implementation of the following measures:

- All machinery will be suitably maintained to ensure that emissions of engine-generated pollutants shall be kept to a minimum in accordance with Measures Against the Emission of Gaseous and Particulate Pollutants from Internal Combustion Engines to be Installed in Non-Road Mobile Machinery (2002/88/EC) and Emissions of Pollutants from Diesel Engines (2005/21/EC);
- Vehicles will not be left unnecessarily idling on the site and trucks removing demolition waste from the site will turn off engines during loading;
- Pre-start checks on all machinery will be conducted on a daily basis prior to commencement of activities;
- Low emission fuels will be used insofar as possible; and
- Mains power will be used for small plant and equipment, where possible, in preference to generators.

7.2 NOISE & VIBRATION

All works will be carried out being mindful of potential noise impacts from construction activities. Plant and machinery operating on the site will be the main source of noise during the works most notably during any earthworks, rock breaking etc. The works will be carried out in accordance with the requirements of *BS5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites*.

The primary measure to limit the potential impact of noise from the works will be to limit working hours to the suitable daytime hours outlined in Section 3.5. This will reduce the potential noise impact on the local human receptors by avoiding early morning noise generating activities.

Other measures to control noise emissions from the works will include:

- Ensuring that HGV drivers turn off engines when parked for prolonged periods on the site and turning off engines during loading of demolition waste materials;
- Using minimal impact reversing alerts and avoiding the use of horns, where possible. These alerts, however, are essential safety measures for busy construction sites and cannot be avoided;
- Choosing equipment with reduced noise output and silencers/dampeners;
- Using radio contact across the site to avoid workers shouting or whistling;
- Maintaining plant and equipment in good condition to ensure noise emissions are as per plant specifications and that all noise attenuation features are in good working order; and
- Use of mains power supply instead of generators insofar as is possible.

Contact details for the site manager as outlined in Section 3.1 will be provided at the entrance to the site and local residents/public will be encouraged to report any noise issues. Any noise complaints made during the works will be logged, investigated and followed up with measures to limit noise emissions, where appropriate.

It is not anticipated that there will be any significant vibration impacts from the proposed works. Some minor vibrations will be generated from heavy plant and machinery but it is anticipated that there will be no piling or significant percussion plant required which could have the potential cause vibration effects or damage.

7.3 SOIL & GROUNDWATER

The proposed development works will require stripping of surface covering for the new development. The design of the development has endeavoured to maintain proposed ground level to match the existing levels where possible to minimise cut and fill across the site. Excavations to suitable formations for building and roads will be required. It is intended that any excavated soil and stones materials will be reused within the site boundary insofar as possible to minimise the quantity of materials to be removed from site.

Any material that is intended for retention on site for re-use within the site boundary in landscaping will be relocated to this area as soon as possible. The Main Contractor will minimise the extent of areas of exposed soil at any one time to reduce potential for generation of dust during dry periods or creation of sediment laden run-off during wet periods. Where possible, works will be carried out during dry weather periods.

7.4 SURFACE WATER

There are no open surface water conduits located on the proposed development site. There is an existing public combined main drainage sewer located on Church Street with connections already in place for the existing buildings onsite. The proposed onsite stormwater drainage system will discharge at a controlled rate to the main storm sewer at 1 No. location as indicated by the engineering design.

Construction site management measures will be put in place to avoid release of potential pollutants into this network or groundwaters at the site. The management of surface water run-off during the construction phase will also be carried out in accordance with the CIRIA C698 publication *Site Handbook for the Construction of SUDS*².

Material stockpiles will be kept at least 10m from any watercourses or manholes and silt fences will be erected at the toe of stockpiles to prevent run-off into watercourses. The silt fences will be monitored on a daily basis by the main contractor and silt removed where required. Damaged fences will be repaired immediately.

Tarpaulins or polythene sheets will be used to cover stockpiles of material during heavy rainfall to avoid sediment release.

Washout from concrete delivery vehicles will be required on site and will only occur at designated concrete washout areas. This will be allocated by the site manager at the start of the works and relayed to all concrete delivery drivers upon arrival on site. The washout area will not be permitted within areas close to sewers or ground.

² CIRIA, *Site Handbook for the Construction of SUDS* (2007)

No liquids will be permitted to be discharged direct to ground and absorbent socks will be installed around surface water drains to prevent silt entering the drainage network.

Surface water monitoring comprising visual inspections and in-situ testing will be carried out on a regular basis throughout the project to monitor for any changes in water quality of these open water streams. The results of surface water monitoring will be retained on site for inspection.

7.5 ECOLOGY

The following measures will be put in place to prevent disturbance of fauna during the construction works:

- Noise control measures such as limited working hours and minimising noise emissions will assist in reducing the disturbance of animals; dusk and dawn is high faunal activity time;
- Plant machinery will be turned off when not in use to reduce noise emissions;
- Illumination of the site will be kept to the minimal required for health and safety purposes and established on a task specific basis to prevent disturbance to local fauna that may occur in the wider area;
- Light spill will be minimised where possible; and
- Operating equipment and machinery will be restricted to the site boundary.

7.6 WASTE MANAGEMENT

On-site segregation of materials will be carried out where possible to maximise off-site reuse potential. Skips and haulage trucks will be temporarily stored close to the work areas to facilitate storage prior to moving off-site.

Suitably sized skips will be provided adjacent to the construction compound and also located near the site entrances for general construction wastes and wood/metal/plastic as appropriate. Smaller wheelie bins will be provided for recyclable cardboard and paper waste generated in the site offices and food waste from the canteen. A leak proof container will be made available for storage of contaminated spill kit absorbents.

All non-hazardous and hazardous waste materials will be collected from the site by appropriately permitted waste contractors in accordance with the requirements of the *Waste Management (Collection Permit) Regulations 2007* as amended. Waste will be taken to suitably permitted or licensed waste facilities for recovery or disposal as appropriate.

Hard copies of waste collection permits and waste facility licenses/permits for all the appointed waste hauliers and facilities will be held by the main contractor on site and records of each waste movement off-site will be maintained. Authorised persons in Tipperary County Council will be provided access to inspect and review all waste records at any time.

The Project Environmental Manager will have responsibility for waste management and will ensure maximum segregation of waste materials on-site. The Project Environmental Manager will ensure signage is erected on skips to show what waste types can be placed within and will maintain waste records.

8.0 RECORD KEEPING

The Site Manager will appoint a competent person(s) to act as Project Environmental Manager and carry out environmental monitoring and maintain records for the duration of the works. The appointed person(s) will be familiar with the environmental mitigation and monitoring measures

outlined in this CMP and will carry out the relevant inspections and assessments on a regular basis. The Project Environmental Manager will report to the Site Manager.

Daily inspections will be logged and recorded in a site folder. Any water sampling results from field testing and laboratory testing will also be maintained in the site folder.

A record of all waste movements from the site will also be maintained and copies of the waste transfer dockets will be held on site. The Project Environmental Manager will ensure that all waste haulage vehicles are identified on the waste collection permit and that the waste description and associated List of Waste code stated on the waste transfer docket are correct.

Any incidents resulting in a potential negative impact on soils or groundwater will be notified immediately to the Project Environmental Manager and the Site Manager. Spill kits will be used where possible to clean up any release and measures taken to ensure that any release does not reach a watercourse or surface water drain. Tipperary County Council will be notified of any such incident which has the potential to cause a negative impact.

A record of any complaints received in relation to construction works will also be maintained and categorised (e.g. noise, property damage, traffic, dust etc.) within a central Site Complaints Log. The log will include the following key details:

- Name, address and contact details of the complainant (with the complainant's permission);
- Brief outline of the complaint;
- Date of complaint;
- Name of person receiving complaint details; and
- Agreed timeline for response to the complaint.

Any complaints made will be notified to the Site Manager and the Project Environmental Manager immediately and a plan put in place to investigate and seek to resolve the complaint. The Site Manager will also notify the Developer of complaints received. The complainant, Developer and other stakeholders will be kept informed of the progress in resolving the issue.

Hard copy folders will be maintained on site for inspection by the Planning Authority at any time.

www.tobin.ie



TOBIN Consulting Engineers



@tobinengineers

Galway

Fairgreen House,
Fairgreen Road,
Galway,
H91 AXK8,
Ireland.
Tel: +353 (0)91 565 211

Dublin

Block 10-4,
Blanchardstown Corporate Park,
Dublin 15,
D15 X98N,
Ireland.
Tel: +353 (0)1 803 0406

Castlebar

Market Square,
Castlebar,
Mayo,
F23 Y427,
Ireland.
Tel: +353 (0)94 902 1401