CONSTRUCTION STAGE HEALTH & SAFETY PLAN

For

Completion of Housing Development
at
Aderrig Phase 2 Adamstown SDZ
(Linear Park)

June 2022

		Index
1.0		Project Description
	1.1	Site Location
	1.2	Existing Environment
	1.3	Adjacent Lands
	1.4	Boundaries and Site Access
	1.5	Location of site Accommodation
	1.6	Timescale for Works
2.0		Project Directory
3.0		Duties of Parties
	3.1	Client
	3.2	Designers
	3.3	PSDP
	3.4	PSCS
4.0		Covid 19 Protection & Prevention and B & C Contractors Health & Safety Statement
5.0		B & C Contractors Monaghan Ltd Policy
	5.1	General Policy
	5.2	Environmental Policy
6.0		Site Restrictions
	6.1	Site Access Restrictions / Security
	6.2	Restrictions on Working Hours
	6.3	Traffic Management / Maintenance of Internal & External Roads and Walkways
	6.4	Site Security and Unauthorised Access to Site
	6.5	Welfare and Onsite Restrictions
	6.6	Permits to Work System
	6.7	Presence of Substances Harmful to Health
7.0		Existing Services
	7.1	Telecommunications
	7.2	Gas Distribution
	7.3	Electricity
	7.4	Water

Amendments

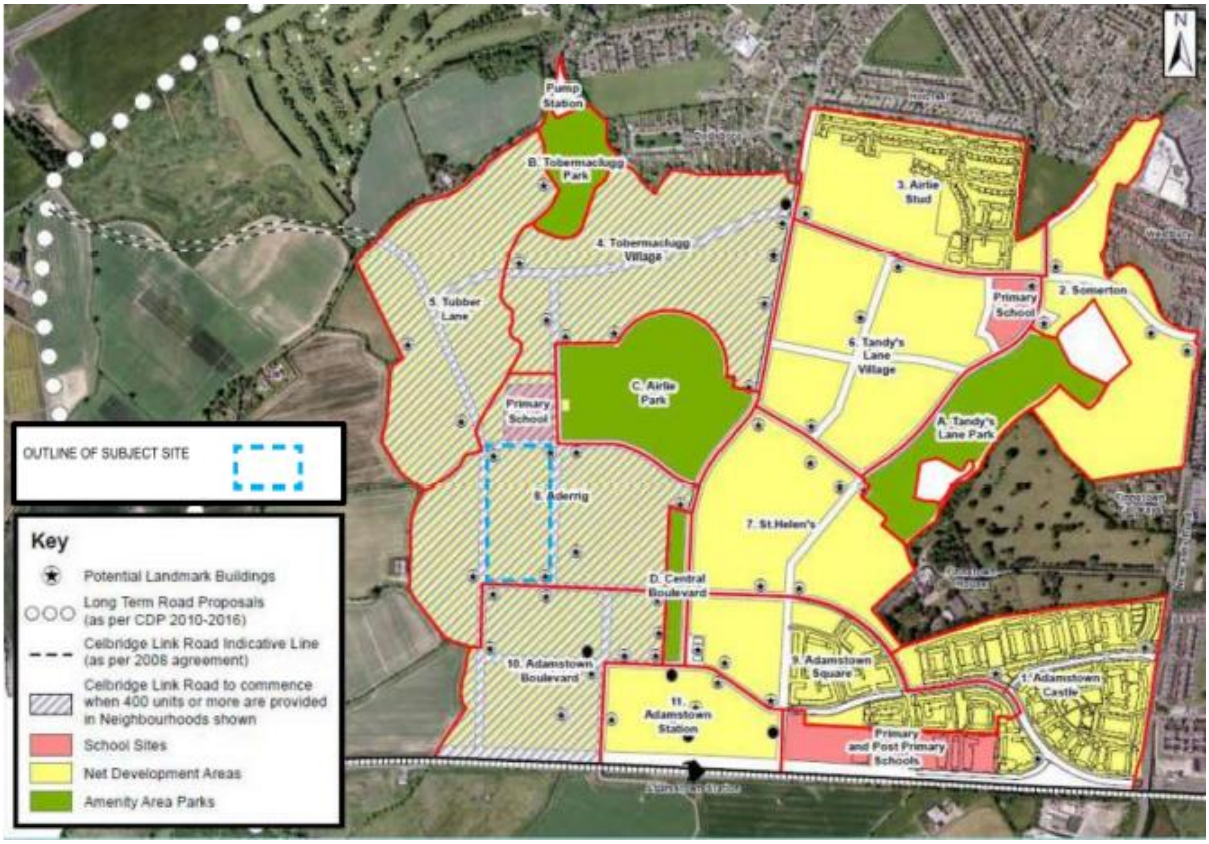
Issue No.	Date:	Page No.	Description of Amendments

1. GENERAL DESCRIPTION OF THE PROJECT

The works generally comprise of a new residential development of circa 227 dwellings (24,513.8sq.m gross floor area), consisting of 2 and 3 storey terraced houses, 3 storey buildings with 2 storey duplex over single level ground floor unit, 2 storey duplex apartments over 2 storey duplex apartments, associated site and development works including roads, central public open space (0.12ha), car parking, bicycle parking, bin storage areas and 2 ESB substations as Phase 2 of the Aderrig development at Adamstown. The Client has appointed a separate specialist contractor to stabilise the soil, prior to works commencing. Please refer to the Drawings, specification and all other documents for further information. The PSCS will be required to plan the works in advance of the project and put in place a safe system of works for all aspects of the project as appropriate in order to comply with requirements of the Construction Regulations. The PSCS will be required to coordinate on site the location of all underground access chambers with the utility service providers and associated service routing.

1.1 **Site Location**.

The site is situated c.16 km east of Dublin City Centre and c.2 km east of Junction 4 of the M4, at Lucan. Below image showing the general location of the site within its wider environs.



1.2 **Existing Environment:**

The Client's lands are in the Adamstown SDZ, South County Dublin. The proposed development is on lands bounded generally to the east by St Helens & Aderrig Phase 1. The site is bounded to the north and west by an undeveloped lands, and to the

south a future town centre with the Irish Rail line and Adamstown station further to the south.

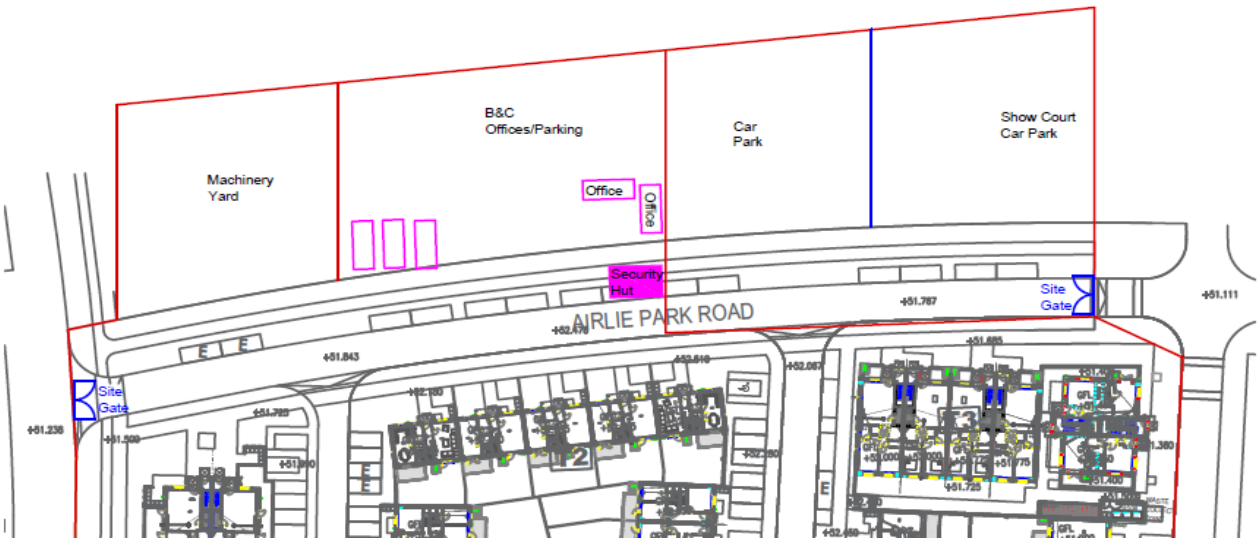
1.3 Adjacent Land Uses

The subject site is situated in the central western area of Adamstown SDZ, within Development Area 8- 'Aderrig' under the Adamstown SDZ Planning Scheme Area. The overall Aderrig lands are bounded by agricultural lands to the west which are not included as part of the SDZ Planning Scheme. The subject site forms Phase 2 and is bound to the north by a proposed school site (within Aderrig), to the south by vacant lands within Development Area 10- Adamstown Boulevard. Aderrig Phase 1 and St Helen's Phase 2 are situated under construction to the east and future undeveloped lands of Aderrig lies to the west. Also, there are the proposed construction of developments to the south which may overlap with this project when Aderrig phase 2 is under construction.

1.4 Boundaries and Site Access

Site access routes for construction related traffic and deliveries can be via Adamstown Avenue / Adamstown Park / Adamstown Boulevard / Celbridge Link Road. Access is also possible via Station Road. Works are continuing on the Celbridge Link road till later in the year and to facilitate that, the Client has granted SDCC a working area in the Aderrig 2 site

1.5 Location of site accommodation



The temporary construction compound shall be as indicated above. The layout of the site compound including site access and egress points, location of temporary site accommodation, location of unloading and storage areas, traffic and pedestrian

routes etc. will be detailed by B&C Contractors and agreed prior to commencement of the works.

1.6 Timescale for the Works

Phase 2 intended date for commencement of construction work is Q2, 2022. The estimated construction duration from mobilisation to the completion is 28 months. A fully detailed project programme is to be determined by the Main Contractor including the application of appropriate licences and permits. The programme should be included in the Health and Safety Plan for the Construction Stage and updated as occasion demands.
Where acceleration of a programme is requested, there is an increased health & safety risk. The PSCS is advised to apply the Lean Construction technique of "Last Planner" to identify and address safety risks (as a constraint) and remove these constraints in advance of commencing work elements. The PSDP should be kept informed of any significant changes to the programme for the construction works. If during the course of the works it becomes necessary to develop detailed schedules for individual activities this will be agreed with the Client or the Clients Representative prior to commencement of that activity.

2. Project Directory

Project Team:

Client:
Quintain Developments Ireland Limited
Sixth Floor, Fitzwilliam court, Leeson Close, Dublin 2, D02-YW24

Contact:	Niall O Boyle	(Noboyle@quintain.ie
Phone:	01-6181800	

Architect
BKD Architects.
6-7 Harcourt Terrace, Dublin 2

Contact:	Jacques Darcy	jdarcy@bkd.ie
	Victor Beniet	vbendit@bkd.ie
	Susan Hendrick	shendrick@bkd.ie
	Ronan Curran	rcurran@bkd.ie
	Alan Shine	ashine@bkd.ie
Phone:	01-6182400	

Civil/ Structural Designer
Waterman Moylan Consulting Engineers.
Block S, East Point Business park, Alfie Byrne Rd, D3, D03-H3F4

Contact:	Civil.	Emma Caulwell	(e.caulwell@waterman-moylan.ie)
	Structural	Bart Borowiak	(b.borowiak@waterman-moylan.ie)
Phone:	01-6648900		

Mechanical / Electrical Designer
Waterman Moylan Consulting Engineers.
Block S, East Point Business park, Alfie Byrne Rd, D3, D03-H3F4

Contact:	Mech	Niall Coughlan	(n.coughlan@waterman-moylan.ie)
	Elec	Adrew Cruise	(a.cruise@waterman-moulan.ie)
Phone:	01-6648900		

Public Lighting Designer
Sabre Electrical Services Ltd.
Unit 11, Bellevue Ind Est, Finglas, Dublin 11

Contact:	Graham Sheehan	(graham@sabrelighting.ie)
Phone:	01-8110875	

Landscape Architect.
O' Troithigh Doyle Landscape Architects
Pembroke House, 28-32 upper Pembroke Street, D2

Contact:	Daithi O' Troithigh	(daithi@doyle-otroithigh.com)
	Linda Doyle	(linda@ doyle-otroithigh.com)

Timber Frame Structure Designer
T.B.D.

Contact:
Phone:

PSDP
Waterman Moylan Consulting Engineers.
Block S, East Point Business park, Alfie Byrne Rd, D3, D03-H3F4

Contact:	Kieran O'Neill	(k.oneill@waterman-moylan.ie)
Phone:	01-6648900	

PSCS:
B&C Contractors Monaghan Ltd,
Church Street, Carrickmacross, Co. Monaghan.

Contact:	Colm McBride	(colm@bandccontractors.ie)
Phone:	0872644068	

Project Management:
KSN Project Management
Beech House, Beech Hill Road, Clonskeagh Bridge, Belfield, Dublin 4, D04-V5N2.

Contact:	Michael King	(mking@ksnpm.ie)
Phone:	0868640555	

Site Safety Advisor
B&C Contractors Monaghan Ltd,
Church Street, Carrickmacross, Co. Monaghan.

Contact: Peter Sharpe (peter.sharpe@bandccontractors.ie)
Phone: 085-7340847

Health & safety Authority
The Metropolitan Building, James Joyce Street, D1

Contact: (wcu@hsa.ie)

Phone: 1890-289389

B & C Contractors

Contracts Manager:	Colm McBride	087 2644068	colm@bandccontractors.ie
Site Manager	Paul Babington	087 6599687	paul@bandccontractors.ie
Site Engineer	Paul Gribbin	087 9416015	paulg@bandccontractors.ie
Site Safety	Peter Sharpe	085 7340847	peter.sharpe@bandccontractors.ie
Quantity Surveyor: Civil & Structural	Darren Jackson	087 9948564	darren@bandccontractors.ie
Junior QS	Ciaron Mc Mullan	042 9661124	ciaron@bandccontractors.ie
Accounts:	Shirley Marron	042 9661124	shirley@bandccontractors.ie
Administration:	Fiona Byrne	042 9661124	fiona@bandccontractors.ie

3. DUTIES OF PARTIES

SUMMARY OF RESPONSABILITIES

Safety, Health and Welfare at Work (Construction) Regulations 2013 define the key players in this project. These are: -

- The client
- Project supervisor design process (PSDP)
- Designer
- Project supervisor construction stage (PSCS)

3.1 Client Duties

The Client must, for every project appoint a project supervisor for 2 stages of the project, firstly the Design stage and secondly the Construction stage. In practice the two stages may overlap.

- ✓ Appoint, in writing before design work starts, a project supervisor for the design process (PSDP) who has adequate training, knowledge, experience and resources

- ✓ Appoint, in writing before construction begins, a project supervisor for the construction stage (PSCS) who has adequate training, knowledge, experience and resources
- ✓ Be satisfied that each designer and contractor appointed has adequate training, knowledge, experience and resources for the work to be performed
- ✓ Co-operate with the project supervisor and supply necessary information
- ✓ Retain and make available the Safety File for the completed structure. The Safety File contains information on the completed structure that will be required for future maintenance or renovation
- ✓ Provide a copy of the safety and health plan prepared by the PSDP to every person tendering for the project. The Safety Plan documents how health and safety on the project will be managed up to project completion.
- ✓ Notify the Authority of the appointment of the PSDP where construction is likely to take more than 500 person days or 30 working days. The AF1 and AF2 forms are in the appendix.

3.2 Designers

Principal duties are:

- ✓ Apply the principals of accident prevention and avoidance of occupational ill health to the design, taking account of the safety and health plan and safety file.
- ✓ Co-operate with the project supervisors for the design process and construction stage of the project.
- ✓ Co-operate with other designers.
- ✓ Provide the project supervisors, design and construction, with information regarding certain specific risks
- ✓ Provide the project supervisors, design and construction, with information about the nature and scope of the project so that the project supervisors can carry out their tasks.
- ✓ Take into account, directions from the project supervisors.
- ✓ Advise the client of his duties promptly if no PSDP is appointed

3.3 Duties of PSDP

The primary function of the Project Supervisor for the Design Process (PSDP) is to coordinate the elimination, or if this not possible the reduction, of health and safety risks at the design stage. He must take account of a number of general principles of prevention, detailed in schedule 1 of the Safety Health & Welfare at Work Act 2005. In addition; he must co-ordinate the other designer's activities and consider the impact of programming on health and safety issues,

The Project Supervisor Design Process must:

- ✓ Identify hazards arising from the design or from the technical, organizational, planning, or time related aspects of the project;
- ✓ Where possible, eliminate the hazards or reduce the risk; in accordance with the general principles of prevention.
- ✓ Communicate necessary control measures, design assumptions, or remaining risks to the PSCS so they can be dealt with in the Safety and Health Plan;
- ✓ Ensure that the work of designers is coordinated to ensure safety;
- ✓ Organise co-operation between designers;

- ✓ Prepare a written safety and health plan for any project where construction will take more than 500 person days or 30 working days or there is a Particular Risk and deliver it to the client prior to tender.
- ✓ Prepare a safety file for the completed structure and give it to the client;
- ✓ Notify the Authority and client of non-compliance with any written directions issued;
- ✓ The PSDP may issue directions to designers or contractors or others.

Safety and Health Plans

The preliminary safety and health plan are initiated by the **PSDP**. It contains information in relation to the project including:

1. A general description of the project;
2. Any other work activities taking place on site;
3. Work involving particular risks;
4. The timescale for the project and the basis on which the time frame was established;
5. Conclusions drawn by designers and the PSDP having carried out design risk assessments and any existing Safety and Health Plan or Safety File;
6. The location of electricity water and sewage connections so as to facilitate early establishment of welfare facilities.

The purpose of this is to "flag-up", at a relatively early stage, any residual safety and health issues specific to that project that the PSCS will have to take account of during construction. The PSCS will then using the preliminary safety and health plan, prepare the Construction Stage safety and health plan.

3.4 Duties of the Project Supervisor Construction Stage (PSCS)

The Project Supervisor Construction Stage is responsible for managing and coordinating the construction phase safety and health issues on site. The Construction Regulations 2013 provide a framework for this process, with the requirement that the key risk management issues be set out in writing in the construction phase Safety and Health Plan. It is important to note that the presence of a Project Supervisor Construction Stage (PSCS) does not relieve other contractors/employers of their obligation to comply with their statutory safety and health obligations. The Project Supervisor Construction Stage must:

- ✓ Co-ordinate the implementation of the construction regulations by contractors;
- ✓ Organise co-operation between contractors and the provision of information;
- ✓ Co-ordinate the reporting of accidents to the Authority;
- ✓ Notify the Authority before construction commences where construction is likely to take more than 500 person days or 30 working days;
- ✓ Provide information to the site safety representative;
- ✓ Co-ordinate the checking of safe working procedures;
- ✓ Co-ordinate measures to restrict entry on to the site;
- ✓ Co-ordinate the provision and maintenance of welfare facilities;

- ✓ Co-ordinate arrangements to ensure that craft, general construction workers, and security workers have a Safety Awareness card, e.g. Safe Pass and a Construction Skills card where required;
- ✓ Co-ordinate the appointment of a site safety representative where there are more than 20 persons on site;
- ✓ Appoint a safety adviser where there are more than 100 on site;
- ✓ Provide all necessary safety file information to the PSDP;
- ✓ Monitor the compliance of contractors and others and take corrective action where necessary;
- ✓ Notify the Authority and the client of non-compliance with any written directions issued;
- ✓ The PSCS may issue directions to designers or contractors.

Legislation

As in the case of the Client, anyone who exerts control to any extent over a place of work must exert that control in such a fashion as to ensure, so far as is reasonably practicable, the safety, health and welfare of workers at the place of work and those affected by the work being carried out at the place of work. A PSDP may exert such control, particularly if acting in the capacity of a designer. A PSDP is bound by the requirements of the Safety, Health and Welfare at Work Act 2005 and Safety, Health and Welfare at Work (Construction) Regulations 2013, in so far as its provisions apply to him or her.

4. COVID 19 Coronavirus Protection and Prevention

Summary: COVID-19 is an illness that can affect your lungs and airways. It's caused by a virus called coronavirus. As more information and updates are realised by the HSA & CIF B&C will periodically review our policies and procedures in relation to Covid.

The (COVID-19) coronavirus pandemic is caused by severe acute respiratory syndrome coronavirus. The virus is mainly spread during close contact and by small droplets produced when those infected coughs, sneeze or talk. These droplets rapidly fall to the ground or surfaces and are not generally spread through the air over large distances. People may also become infected by touching a contaminated surface and then their face. The virus can survive on surfaces for up to 72 hours. Effects of the virus can range from mild flu like symptoms to respiratory failure and death.

Infected people may be asymptomatic and unknowingly infect others. Irish government response is evolving and has resulted in the closure of construction sites and other workplaces to control this highly infectious disease. The PSCS willl monitor and appropriately respond to health advice from the Irish Government, HSE and HSA, including the COVID-19 Specific National Protocol for Employers and Workers published by Irish Government Department of Business, Enterprise and Innovation and the Department of Health, March 7th 2022 and any subsequent revisions. Attention is drawn to the non-statuary Construction Sector C-19 Pandemic Standard Operating Procedure produced by the Construction Industry Federation. This document has been developed by the CIF Safety and Health Subcommittee mindful of the best available guidance, nationally and internationally, and serves as a guide for the management of

COVID-19 on a construction site for the duration of the pandemic. This document will be periodically revised as health advice from the Irish Government, HSE and HSA evolves, the PSCS is advised to monitor and update the Health & Safety plan as appropriate.

This Safety and Health Plan has been prepared on the basis of our interpretation of the Safety, Health and Welfare at Work (Construction) Regulations 2013.

5. Policies

5.1 GENERAL STATEMENT POLICY

Under the Safety, Health and Welfare at Work Act 2005 every employer is required to prepare a Safety Statement.

This Safety Statement outlines safe systems of work and workplace & site hazards in order to outline any duties/procedures for B&C Contractors Monaghan Ltd to followed so as to comply with any relevant legislation, in particular;

- *The Safety, Health & Welfare at Work Act, 2005*
- *Safety, Health and Welfare at Work Construction Regulations 2013*
- The *Safety, Health and Welfare at Work (General Application) (Amended) Regulations 2016.*

It is the intention of B&C Contractors Monaghan Ltd to comply with relevant legislation and provide employees, contractors and other parties with a safe working environment and also to protect those who may be affected by our activities. All interested persons will be expected to comply with policies and procedures as detailed in this Safety Statement.

This Safety Statement will be reviewed on an ongoing basis to take account of changes in work practices and legislation or standards, work, organisational structure, equipment or substances used and technical knowledge, all changes to the company safety statement will be brought to the attention of all staff and effected persons.

All employees have the responsibility to co-operate with Supervisors and Managers to achieve a healthy and safe work place and to take reasonable care of themselves and others. It is the responsibility and duty of all employees to comply with the Safety Policy by exercising due caution and care.

It is the policy of this Company to consult all staff and employees on matters of Health and Safety. All employees are hereby notified of the Company policy and are encouraged to comply with their duties under the 2005 Act to notify the Company management of identified hazards in the work place.

The allocation of duties for safety matters and arrangements to implement the policy are set out in the attached documentation.

This safety and health policy will take account of the general employer duties as set out in the 2005 Act and all other legislation that applies to the workplace. B&C Contractors Monaghan Ltd will ensure, as reasonably practicable that they:

- Manage and conduct work activities so as to ensure the safety and health of employees.
- Prevent improper conduct likely to put an employee's safety and health at risk
- Provide a safe place of work which is adequately designated and maintained
- Provide safe plant, equipment and machinery
- Provide safe means of access and egress.
- Provide safe systems of work, e.g. operating procedures.
- Prevent risk to health from articles or substance (including plant, tools, machinery, chemical substance and equipment)
- Provide appropriate information, instruction, training and supervision, taking account of the employee's capabilities, when an employee begins work or is transferred to new task, and when technology is introduced.
- Provide suitable protective clothing and equipment where hazards cannot be eliminated.
- Prepare and revise emergency plans
- Designated staff to take on emergency duties.
- Provide and maintain welfare facilities.
- Provide, where necessary, a competent person to advise and assist in securing the safety, health and welfare of employees.

Signed_____ Date_____
Colm McBride (Managing Director)

5.2 B&C Contractor Monaghan Ltd Environnemental Policy

It is in Company's interest to have planned approach towards Prevention and reduction of waste and pollution leading to a long-term Reduction of costs, as prevention and reduction are more desirable and Economical than damage repair after the event.

The Company will control its activities to avoid causing unnecessary and unacceptable risks or adverse effects on the environment in line with the requirements of the Protection of the Environment Act, 2003, Waste Management (WEEE) (Amendment) Regulations, 2008 (S.I. No. 375 of 2008), as far as is reasonably practicable.

Responsibility for the environment is ranked equally with that for the health and safety of employees, the general public and others. Environmental awareness and individual responsibility will be developed amongst employees at all level with full and effective consultation being encouraged.

The Company will continue to develop and improve standards by making use of available technology and developments, together with a waste Recovery and recycling approach. Plant, vehicles and equipment will be maintained and operated to provide the maximum environmental protection as far as practicable.

Local community interests will be taken into account and positive communication with the community entered into where appropriate. Clients, employees, the general public and all other person who may be affected will be made aware of any company activity which may affect the environment.

Natural habitats and wildlife will be respected and where appropriate within the control of the company, maintenance, restoration or creation of habitats will be encouraged

Signed_____ Date_____
Colm McBride (Managing Director)

6. Site Restrictions:

6.1 Site Access Restrictions/Security:

- All workers must be site safety inducted.
- All Visitors to site must sign in.
- All Visitors to site must be escorted by a fully inducted member of staff.
- Induction and access are for B & C Contractors site only.
- Only construction workers and project team permitted on site, work must cease if unauthorised personal enter the site.

6.2 Restrictions on Working Hours:

Working Hours will be
7.00am to 7.00pm Monday – Friday.
9.00am to 1.00pm Saturday
No work to take place on Sundays or on bank holidays.

Any construction work outside these hours that could give rise to unacceptable levels of noise pollution shall only be permitted following a written request to the Planning Authority and the subsequent receipt of the written consent of the Planning Authority, having regard to the reasonable justification and circumstances and a commitment to minimise as far as practicable any unacceptable noise outside the hours stated above.

6.3 Traffic Management / Maintenance of Internal Roads and External Public Roadways and Walkways:

Machinery/plant and vehicles will be in kept in good order, will be fitted with safety devices e.g. reversing beepers, mirrors, cameras etc. All construction related traffic are to maintain a speed as low as possible but must not exceed a speed of 15km.

Special care must be taken when reversing and when required a designated banksman will be used.

Deliveries to site shall be strictly controlled to a point that minimises disturbances to the adjoining properties and for the safety of those using the footpaths and roadways outside. Where possible trucks delivering or removing bulk materials will be fitted with easy over nets to prevent the accidental dislodgment of material. Trucks & other vehicles leaving site will be inspected by security at the security barrier to ensure that no excessive debris are attached to the vehicle, if debris are found, the vehicles wheels will be cleaned by way of truck wheel wash.
In the unlikely event that dirt and or debris is carried on to external roadways corrective action will be taken by way of mechanical road sweep. In the event that the use of the road sweep is delayed the road will be cleaned by hydraulically powered road brush fitted to teleporter until such time as the road sweep arrives. Any damage to the existing road or pathways will be repaired as soon as possible.

During extended periods of warm dry weather or as required, the internal site roads will be wet down by use of tractor and water bowser to minimise the potential of dust being generated.

All plant Fuel will be stored at the plant and machinery yard located beside the main compound. All fuel must be stored in a bunded tank (double walled tank). The Bunded portion of the tank must have the capacity to contain 110% of the main tank and must be enclosed and protected from rainwater. All other fuels and lubricants must be kept in drip trays and within the storage container located outside the main compound.

6.4 Site Security and Unauthorised Site Access:

The site works areas will be secured around the perimeter by security fencing, with a security guard controlling access to site during the day. Netwatch will remotely monitor the site at night times and weekends. Any unauthorised site accesses will result in all activities on site being suspended until such time as the unauthorised person is removed.

6.5 Welfare and Onsite Restrictions:

Adequate toilet, canteen and drying room facilities will be provided and maintained for the duration of the project – see compound layout drawing.
Materials must only be brought on site as required. Under no circumstances will materials be allowed to be stored outside the site perimeter; all materials must be stored in the site material laydown areas.
All contractor Vehicles must park in the contractor's carpark located beside the main site compound. Contractors may obtain a daily permit to bring their vans on site to their work areas to unload materials.

6.6 Permit to Work System:

Permits will be issued if required and signed by the relevant Site Manager and all permits will be returned to the issuer at the end of its cover period.

6.7 Presence of Substances, Harmful to Health:

In general, if it is necessary to disturb an asbestos product the work will be carried out by a competent workers/contractor who has the appropriate training and insurances and the programming of the works must allow for this.

Contractor to ensure that the requirements as listed in H.S.A. information sheet "Safety with Asbestos" note; Guidelines on working with material containing asbestos cement published by H.S.A. including any labelling of waste are complied with.

Precautions will be taken to prevent Weil's disease and similar illness. This will be done by:

1. Informing the workers of these dangers at the induction when they first arrive on site
2. Follow up training will be provided in the form of toolbox talks
3. All workers must wear gloves, suitable PPE must be worn and in good condition e.g. rubber boots

4. All cuts etc will receive suitable medical attention

7.0 Existing Services:

Current services drawings, consultation with utility companies and the Local Authority, services detection equipment and hand digging of trial holes will be used to identify what, if any, services are buried in the area to be worked in.
Live services will be relocated or adequately protected and labelled or marked above ground, and if possible disconnected for the duration of work.
If services are exposed or damaged during construction work, they must be adequately protected prior to reenergising.

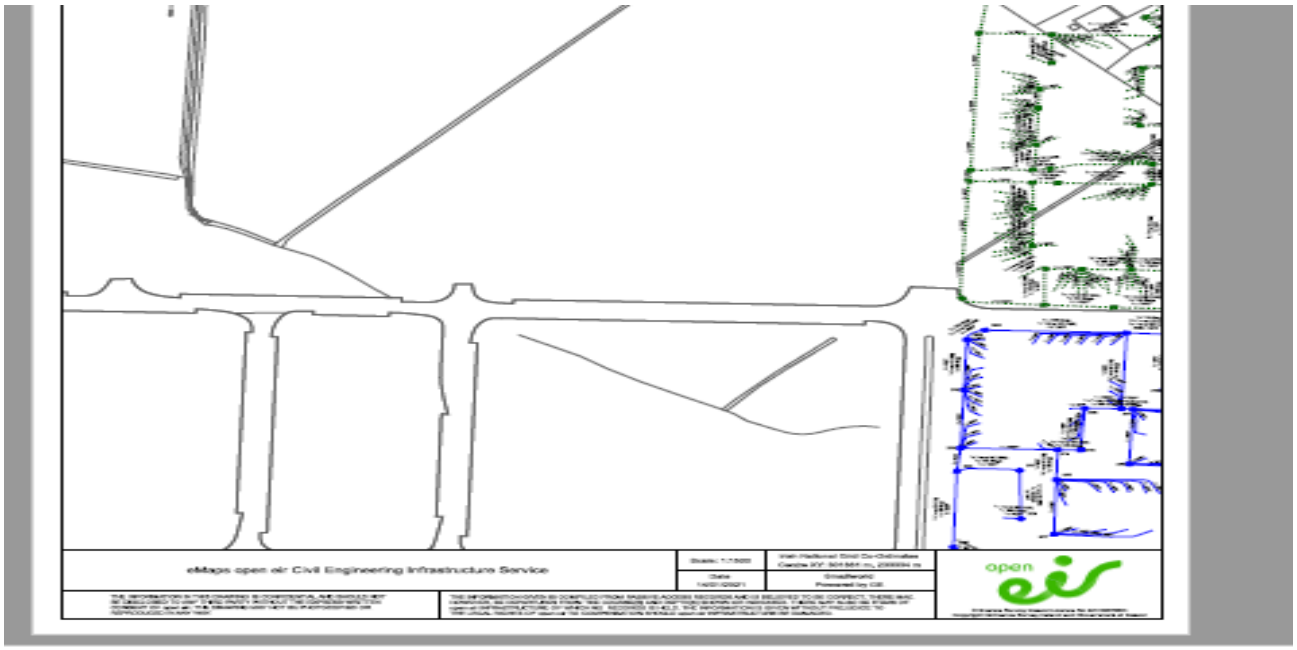
What is known at present is as follows:

Known Existing Services:

Attention is drawn to the fact that live services including power, gas, water, telecommunications, and foul/storm/combined sewers exist in the area. Adamstown Way road bounds Phase 2 Aderrig site on the south and contains existing gas, electrical, stormwater, foul water and watermain network infrastructure within the road corridor. A new road (Linear Road) complete with services has been completed between Phase 1 & Phase 2.

7.1 Telecommunications

Services to St Helens Phase 1 and the general area are fed from ducts under Adamstown Park link road.
The closest services run along Adamstown Boulevard.

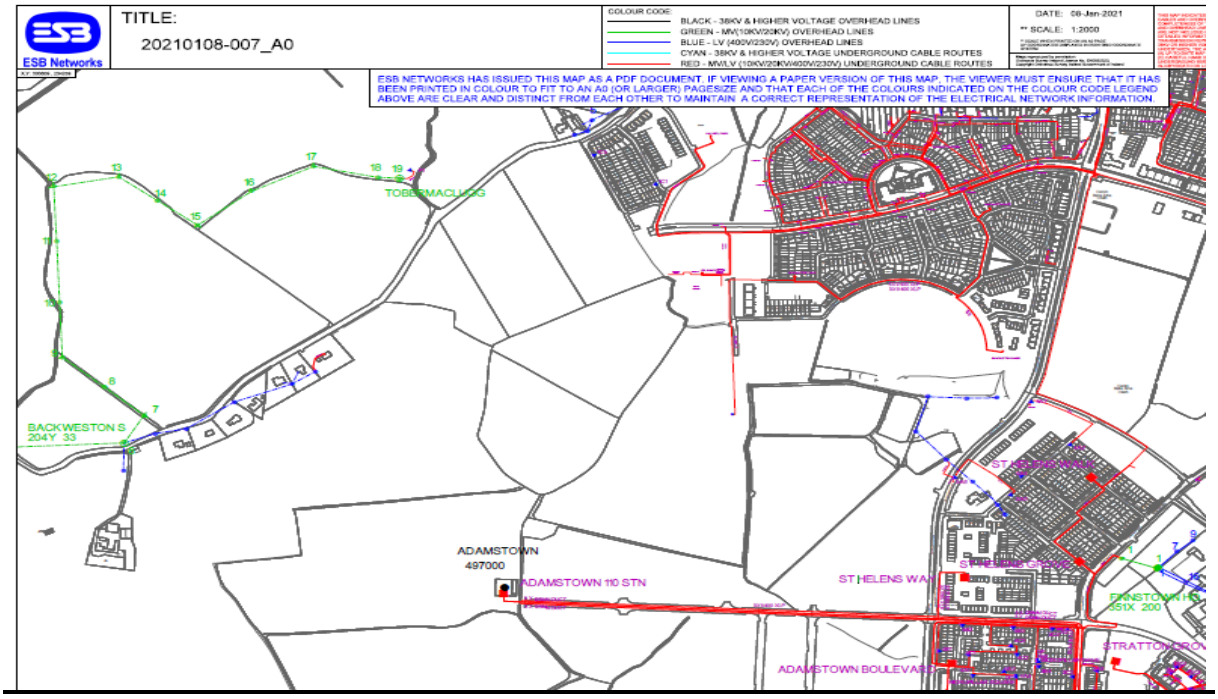


7.2 Gas distribution

The records indicate existing 4 bar natural gas distribution infrastructure under Adamstown Way. Work adjacent to live service is a particular risk.

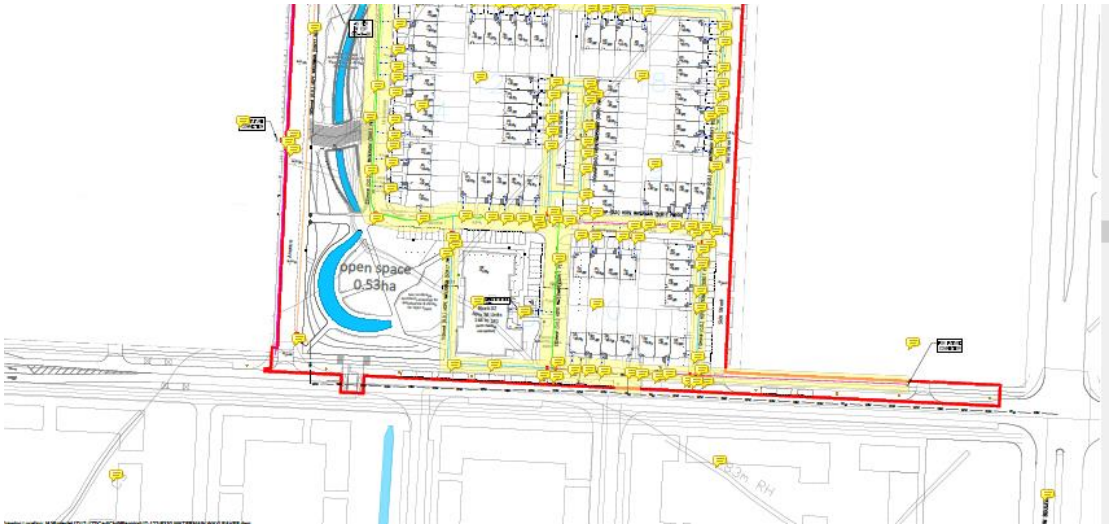
7.3 Electrical power

Underground medium voltage (10/20 kV) and low voltage (230/400 V) run underneath Adamstown Way. See tender drawings and record drawings. There are some legacy overhead low voltage electrical services (230/400 V) to the north, on the site reserved for Airlie Park public open space (feeding Airlie House). Work adjacent to electrical services is a particular risk.



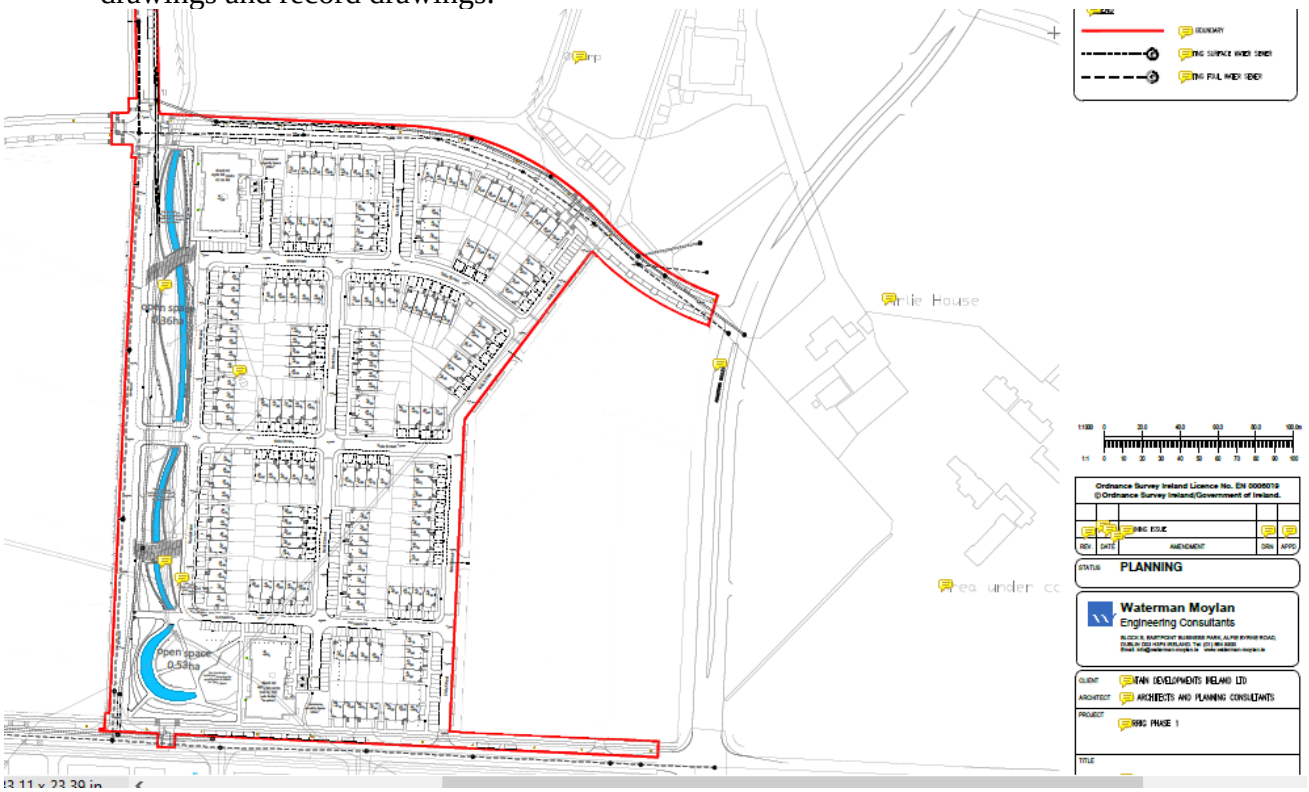
7.4 Water supply.

An existing water main runs underneath the Adamstown Way. See tender drawings and record drawings.



7.5 Drainage

An existing foul and storm mains runs underneath the Adamstown Way. See tender drawings and record drawings.



The Contractor shall take all measures necessary to ensure the safety of all personnel in the vicinity while working on or adjacent to any live services. Prior to commencement of the main works on site, the Main Contractor shall satisfy himself that all services on site including all

underground / above ground, live / dead utility Services have been identified. The works shall include disconnection and diversion as required to maintain utility supply to residents and businesses on or supplied from the Adamstown infrastructure must remain live. Temporary supply will be required for all utilities (commissioned & tested) prior to any disconnection of utilities. Where tying into drains, "work around" temporary facilities shall be designed and agreed with the client's engineer and the utility provider. The PSCS shall ensure that this process has been carried out. The Contractor to comply with all guidance contained within HSA Publication Code of Practice for Avoiding Danger from Underground Services. The Contractor shall comply with the requirements of the relevant service provider, when working on or adjacent to an existing service.

Note: Information regarding the location of underground services given on the record drawings is the best available information and should be treated as a guide only. It is the responsibility of the persons carrying out the excavations to take the necessary precautions to avoid danger.

8.0 Hazards and Particular Risks:

All tasks will be assessed, and the required control measures will be put in place to remove or reduce the risk. Site specific method statements will be developed as required and the contents of each method statement will be brought to the attention of all persons involved in the works and those affected by the work/task. Work areas are to be securely fenced off including excavations. No materials will be left in public areas. Areas to remain clear at all times.

Where work is being carried out by a Subcontractor:

All subcontractors will be required to prepare a site-specific method statement and provide a signed copy of their safety statement two weeks in advance of any work commencing on site.

Method Statements

The method statement draws together the information compiled about the various hazards and the ways in which they are to be controlled for any particular job. It sets out how a job or process will be carried out, including all the control measures which will be applied. This will help in planning the job and identifying the health and safety resources needed for it.
The method statement is an effective way of providing information to employees about how the work is expected to be done and the precautions that should be taken.

They must –

- Specific reference to this site, including scope of work.
- Prerequisites i.e. agreed action to be taken by B & C Contractors Monaghan Ltd prior to the subcontractor commencing work on site i.e. areas to be cleared, services to be provided etc.
- Sequence of work i.e. step by step methodology outlining how the work will be carried out with reference to site specific hazards and their proposed control measures.

- Specific reference to the hazards inherent in the work to be carried out e.g. confine spaces
- Clearly outlined control measures to eliminate or reduce the risk associated with the identified hazards.
- To be signed by the subcontractor and all of the subcontractor's workers once they have been briefed by way of a toolbox talk on the method statement. A template is available in the safety file.

The HSA SSWP will also be used on occasion.

Safety Statements must be/detail the following:

- Signed by company director/owner.
- Set out arrangements for managing safety
- Name of person who has been appointed as a supervisor/foreman with responsibility for safety on site.
- Training such as safe pass or and CSCS
- First aid
- Manual Handling
- Abrasive Wheels
- PPE
- Accident reporting to the main contractor and to the HSA
- A general construction orientated hazard identification and risk assessment section with appropriate control measures listed.

Significant Construction Hazards and Proposed Control Measures:

8.1 Work in Excavations:

Identified Hazards:

- Collapse of trench sides or neighbouring walls.
- Striking underground services.
- Flooding of trenches
- Persons falling into excavations.
- Falling materials strike persons.
- Dangerous gases within excavations (gas leaks or products of combustion).
- Plant running into excavations.
- Undermining structures as a result of excavations
- Work in tree pits

Associated Risks:

- Burial under earth falls.
- Services in addition to those shown on Utility records.
- Drainage depths vary with the deepest drainage approx. 4.75m depth. Associated risk of drowning or burial under earthfalls as a result of collapse of excavation.
- As far as possible sewers have been designed to minimise the depth of excavation while being bound by constraints of existing topography and existing drainage invert levels into which the designed drainage must connect.

- Asphyxiation due to seepage of sewer gases, natural gas or products of combustion from plant, into trench
- Seepage of underground water, surface water or rain water into excavation resulting in drowning

Control Measures:

- De-watering of trenches may be required, filters are required as part of the de-watering system to prevent contamination of storm water drainage system. See section 7.5 Waste management: for discharge requirements.
- An investigation of possible services should be undertaken prior to digging to ascertain the presence of any existing buried services in the location, this is expected to include CAT scan per Code of Practice for Avoiding Danger from Underground Services
- Great care will be required to carry out the excavations and the information obtained by surveys should clearly be marked on the ground prior to commencement, appropriate working areas are clearly demarked and method statements are completed and issued prior to work.
- Contractors shall ensure that a Method Statement is prepared for these activities on site. The method statement should include the proposals for temporary support structures of the excavations / confined spaces. In the case where fumes may be evolved during any process / activity a risk assessment must be completed and the control measures identified.
- Works Supervisor and site management to ensure excavated material is stored away from edge of excavation
- Insulated spade or shovels to be used as appropriate.
- A rescue plan must be developed and approved in case of emergency within the trench.
- Provide guard rails and appropriate barriers around the top of the trench as required to prevent construction personal or vehicles falling into the trench or exerting excessive loads on the ground adjacent to the excavations.
- B&C Contractors to ensure toxic gas monitoring are used where a risk assessment indicates hazardous gases may be present in trench.
- Retaining walls are part of permanent works, contractor to consider timing of retaining works to mitigate risk.
- Site Manager and Security to ensure no public access to the site or open excavations at all times.

8.2 Work at risk of drowning, engulfment in swampland.

Identified Hazards:

- Excavation of trench and seepage of ground/rain water.
- The requirement under the Adamstown SDZ to retain the existing stream through the Aderrig Phase 1 Linear Park results in the design inclusion of the stream to the Aderrig Phase 1 development.

Associated Risks:

- Drowning in deep water

- Drowning in shallow water, being incapacitated.
- Falling into ditches (which have a potential to hold bodies of water) / existing stream running through the site.

Control Measures

- The Contractors shall ensure that a Method Statement is prepared for these activities on site. The method statement should include the proposals for temporary support structures.
- Risk Assessment to determine PPE requirements for workers at risk of drowning. Consider provision of lifebuoys next to the stream during construction, upon completion of the earthworks associated with the stream ensure appropriate protective barrier to the edge of the stream to restrict access during the construction works.
- Sequencing the work to prioritise drainage of land at risk of becoming swampland.

8.3 Work at Height:

Identified Hazards:

- Falling from height due to works adjacent to deep excavations or open trenches.
- Falling from height where working at elevated position.
- Falling from height where exposed service chambers are unprotected, tripping over exposed services.
- Working on roofs, including PV installation.
- Working on surfaces with unprotected edges.
- Working at heights where access from MWWP is required.
- Falling into utility chamber, or protruding utility sleeve, tripping on uneven Surface
- Falling objects
- Landscape works – tree and hedge row removal / pruning.

Associated Risks:

- Falls, slips and trips (including into excavations).
- Stepping into a public lighting column sleeve or open service chamber.
- Falling material or equipment overhead.
- Falling from MEWP, scaffold or unprotected edge.
- Overturning of MEWP.

Control Measures

- Ensure that all works at height are planned in advance of the works commencing and ensure safe access / egress and suitable working platforms and barriers are provided for the operatives to work.
- Provide robust barriers to open trenches and unprotected edges. Ensure appropriate edge protection, particularly at upper floors.
- Work areas should be well lit by artificial light during hours of dusk/night, to ensure visual awareness of edges and surroundings.
- Minimise risk of tools, materials and any object at risk of falling through negligence or weather through “stop the drop” toolbox talks, lanyards, housekeeping and appropriate storage of tools, plant & materials.

- Provide appropriate barriers to prevent personnel, vehicles or material from vehicles falling into excavations or open service chamber.
- Place a protective cover over all exposed column sleeves, service inspection chamber or service openings and secure in place. Where not covered ensure barrier fitted to prevent fall.
- Ensure RAMS identifies correct procedures to be followed when working at heights, ensure compliance with Fall Protection as documented in RAMS.
- Ensure that only trained personnel are permitted to operate the MEWP. Ensure that the MEWP will be checked prior to use and only be set up on even ground suitable for the MEWP utilised. Inspect ground prior to works to ensure MEWP is suitable for task.
- Ensure a quality assurance procedure is in place to ensure materials and equipment are correctly installed to the required sequence and torque to minimize risk of falling material.
- Tree surgeons to conform relevant NPTC Codes particular to felling of trees. Inspect trees after heavy winds and seek advice from qualified Arborist.

Use of ladders / stepladders:

- Ladders should generally only be used for access purposes, e.g. from one level to another. No access ladder shall rise a distance of 9m (or more) unless suitable, and safe & intermediate platforms are provided.
- The use of ladders / stepladders as a work platform is restricted to where:-
  a. A Method Statement has been drawn up and issued to the Site EHS Manager
  b. The work is of short duration, i.e. ½ hour or less.

Use of Trestles:

The use of trestles as a work platform are restricted to where:-

a. A Method Statement has been drawn up and issued to the Site EHS Manager.
b. The work is of short duration, i.e. ½ hour or less.
c. A suitable system (guardrails, toe-boards, brick guards and ladder access point) has been sourced e.g. Safe Stand, or the workplace does lend itself to another type of safe work platform, e.g. a restricted area

Use of Harnesses:

Safety harnesses will only be used if there is no other safe means of providing access. Where the provision of adequate edge protection is not practicable, i.e. the erection of edge protection, erection of scaffolding, short duration work, safety harnesses MUST BE worn by operatives (with a fall arrest system).

The stie manager and site EHS manager must ensure that safety method statement and risk assessments are prepared for all such work on site, rescue procedures (that do not rely on emergency services) must be detailed in the Method Statement.

When the use of harnesses is required then adequate anchorage points must be provided. Anchorage points must be capable of taking a load of at least 1500kg per person attached to that anchor point,

should a person fall whilst wearing a harness it must not be possible to strike the ground / floor immediately below.

- Personnel required to wear / use harnesses must receive instruction on their proper use, maintenance, and emergency rescue procedures.
- All work equipment ladders etc. (for working at heights) must be inspected every 7 days, and a written report (GA 3) prepared.

Use of Scaffoldings:

- Site manager and Site EHS Manager to ensure that all scaffolding works are carried out by qualified and competent persons.
- Site specific safety method statement and risk assessment for all scaffolding works are to be prepared for this project and brought to attention of the relevant operatives prior to commencement of the works as appropriate.
- All scaffolding erectors to wear safety harness and all other suitable PPEs.
- No persons other than authorized scaffolding personnel to use the scaffold until it has been fully erected, tied and certified.
- Scaffolding erector to have health and safety procedures and risk assessment in place.
- Scaffolders to be aware of the weight of scaffolding materials.
- No person should remove any element of the scaffold or ties. Only authorized and suitably qualified scaffolder to amend the scaffold.
- 'It is an offence to tamper with a scaffold' signs to be erected on the scaffold.
- The loading on the scaffold should be limited to that specified by the scaffolding designer.
- B&C Contractors have a scaffold management plan in place to ensure all scaffold users are trained in the safe use of the scaffold and the loading criteria is adhered to as per code of practice for access and working scaffold 2009.
- Allowable loading signage to be on the scaffold and scaffold tag.
- After high winds the scaffold should be inspected by a suitably qualified person before being placed back into use.

8.4 Work to underground or high-level services

Identified Hazards:

- Contact with live underground services.
- Contact with live services while tying into existing services
- Coordination of underground service chambers and ducts.
- Contact with legacy undocumented services.

Associated Risks:

- ESB network and site record drawings show underground supply. There may also be other legacy services.
- Services within the Client's lands will be progressively made live, services once commissioned, will remain live throughout the construction period.
- Risk to site personnel relating to collapse of existing services, flying debris, work on live services, work in confined spaces, falling from height and disease.
- Biological hazards including Weil's disease.
- Heavy components including new manholes.

Control measures

- Site management will take adequate safety measures to ensure all services above and below ground are located prior to any works commencing. Utility providers must be contacted to review proposed method statements and an appropriate supervision of work to or adjacent existing services agreed.

  Electric Power
  - Site infrastructure project utilities installed as part of road network.
  - Legacy overhead services to north of site.

  Gas
  - Site infrastructure utilities installed as part of road network.

  Eir & Virgin Media
  - Legacy broadband and telecoms to adjacent residential areas

  Water and drainage
  - Site infrastructure project installed as part of road network.

- B&C shall agree with the utility providers, the extent of site supervision (by the utility providers) required at various stages of construction and to make the necessary arrangements to coordinate and ensure site attendance and supervision is in place. PSCS shall organise field coordination of underground chambers and service routing. Works must avoid unplanned disruption to services.

- B&C shall agree with subcontractors and utility providers; lock-out/tag-out (LOTO) procedures to ensure services within the Client's lands can be progressively made live. PSCS shall ensure workers are protected from live services by appropriate education, training, procedures and communications.

- Before commencing work in the vicinity of overhead cables the PSCS should consult with the ESB regarding the protection that must be provided on site. Where appropriate, goal-post markers shall be erected in vicinity of overhead lines.

- B&C to implement a safe system of works around all buried and above ground services.

The location of the existing services should be established on site by appropriate means including consulting latest Dial Before You Dig drawings from the utility companies, measurement including CAT scans and slit trenches. Ensure that all services are physically located and marked before work commences.

Always assume that there are live services present on site, even if existing drawings / information indicates that none are present.

- B&C to ensure all site operatives adequately trained and qualified in relation to the type of working environments where such dangers arise using suitable PPE and equipment.
- Method statement to identify safe systems for working with live services.

- If entry is required assessment should be made to determine if the works are defined as “Confined Space” In such circumstances strict compliance with the Safety, Health and Welfare at Work (Confined Space) Regulations is essential.
- Job Site Safety Plan is ESB Network’s identification and recording of any work site hazards undertaken by the crew prior to commencement of work on site.

- Plan work to minimise entry to confined spaces i.e.- consider precast units where possible in the construction of deep manholes in order to limit manual working or entry therein.
- Only fully trained and competent Electricians shall install the public lighting equipment. All tasks undertaken while installing the public lighting system shall be in accordance with the relevant method statement for the works. All works to be in accordance with ETCI, ESB Networks and Electrical Safety Supervisory Body (RECI) regulations for public lighting installation works. Contact the PL Section of the Council to arrange access. Ensure that the existing electrical supply is switched off prior to access.
- Only fully trained and competent ESB Network staff shall work on the ESB Network infrastructure in accordance with ESB Network’s Construction Stage, Safety and Health Plan **Regular Routine Works** (DOC-060117-CMI dated 01-02-2018). B&C shall review the ESB Network crew’s Job Site Safety Plan (JSSP) and communicate relevant elements of the JSSP to other construction workers.
- All construction activity to be carried out in accordance with Gas Networks Ireland safety guide document "Safety Advice for Working in the Vicinity of Natural Gas Pipes" and also in accordance with the HSA publication "Code of Practice for Avoiding Danger from Underground Services".

8.5 Mechanical & Electrical Services:

Identified Hazards:

- Mechanical & Electrical Installations
- Installation of plant & equipment.
- Photovoltaic Panels generating power when exposed to sunlight.
- Live services during commissioning and snagging works.
- Live services to completed units.

Associated Risks:

- Personal injuries, manual handling, poor house keeping
- Electrocution,
- Unauthorized access to live electrical circuits during the construction phase.
- Working on electrical circuits during commissioning phase
- Contact with moving parts during commissioning

Control measures

- Permit to Work system is required for all electrical work, once power is energised to the building.

- All live panels / plant should be marked as being live with a prominent sign.

- Circuits must be isolated by lock out and tagged, proved isolated by testing and identified as isolated prior to carrying out any works. All personnel working on circuit should retain key to individual lock, provide multiple lock out device as appropriate to ensure all locks removed prior to re-energising. Lock-out keys shall be individual to each worker.

- Where live working is unavoidable a detailed Method Statement (prepared by a competent person) is required to include:-

- An arc flash analysis which identifies the Personal Protective Equipment required,
- the precautions to be taken
- precaution taken to limit access to the area,
- the required space / lighting / access to ensure safe working,
- the emergency procedures and
- details of the person who shall accompany the main worker who will implement emergency procedures in the event of an accident.
- Care is to be taken when working on electrical switchgear. Ensure that all personnel fully understand the configuration of the switchgear, method statements and permits to work.
- Ensure that electrical boards, electrical panels, plant and equipment have adequate maintenance clearance, particularly where live maintenance work is anticipated.
- Damage/interrupt any existing services - ensure all personnel are fully aware of the configuration of the system they are working on and any other system they are likely to come into contact with.
- Only fully trained and competent Electrician(s) shall install the public lighting equipment. All tasks undertaken while installing the public lighting system shall be in accordance with the relevant method statement for the works. All works to be in accordance with ETCI, ESB Networks and RECI regulations for public lighting installation works. Contact the Public Lighting Section of the Local Authority to arrange access. Ensure that the existing electrical supply is switched off prior to access existing micro pillar.
- Contractors involved in commissioning / decommissioning work must be required to submit a detailed Method Statement to the PSCS prior to commencing works on site.
- Access to the areas where commissioned plant has been installed must be controlled to ensure that there is no unauthorized access.
- Ensure method statement in place prior to any cleaning & sterilization of services.

8.6 Work involving assembly/dismantling of heavy prefabricated components:

Identified Hazards:

- Lifting/craning of structural elements, heavy prefabricated components i.e. manhole sections, pre cast concrete or structural steel elements.
- Work involving the assembly or dismantling of prefabricated street lighting components.
- Work installing plant & equipment including PV.

Associated Risks:

- Risk to site personnel and persons around site of crushing / falling from height, dangers associated with the mobile operation of lifting plant, vibration/noise in operation, structural failure of loading items onto existing surfaces, structural failure of loading onto temporary scaffolding platform.
- Assemble of columns, brackets, lanterns, micro pillar and column door fit outs at all public lighting locations throughout the site.
- Risks to members of the public.

Control measures

- Pre-fabricated elements are selected to minimise exposure to manual handling risks. Select appropriate lifting arrangements and sequencing to minimise risk of collapse
- B&C & Site management will determine suitable lifting/craning equipment and locations for lifting/access.
- Attention is drawn to overhead power lines, existing street lighting and domestic power supply. Warning measures including barriers will be in place prior to the use of cranes or mobile plant at risk of collision with overhead power lines.
- Loading cranes onto existing ground finishes to be assessed by the B&C prior to commencement of lifting operations.
- Banksmen for all lifts of heavy prefabricated components.
- The appointed Contractor shall produce a method statement for the transportation of heavy items including the uncontrolled release of materials.
- Exclusion zones must be formed, and policed, during heavy lifting operations.
- Lifting appliances / gear used in these operations must be supplied with current test / thorough examination certificates. Persons involved shall be competent, certified and experienced.
- Suppliers of Heavy components (i.e. those heavier than 1 tonne) must be asked to supply information on the weight of the components, and safe lifting points / procedures.
- Some heavy prefabricated components may be fragile – e.g. Glazing, PV.
- All works must be carried out in accordance with IS 360:2004 Code of Practice for Safe Use of Cranes.

8.7 Work involving exposure to chemical or biological substances

Identified Hazards:

- Inhalation of Respirable Crystalline Silica (RCS) dust
- Inhalation of wood dust
- Exposure to material contaminated by animal urine or decaying organic matter.

- Exposure to material containing Asbestos (ACM's) - legacy underground services or illegal dumping
- Exposure to chemicals, cementious substances and other irritants
- Exposure to chemicals, compost and insecticides used during landscaping works.
- Exposure to chemicals used during sanitizing water systems.

Associated Risks:

- Risks to health from noise, dust and vibrations in particular silica dust generated from general demolition/construction works.
- Inhalation of wood dust when constructing temporary works.
- Inhalation, ingestion or absorption of chemical or biological substances.
- Excavation in ground with unknown fill to be safely removed and disposed of appropriately, where disturbed. - Any hazardous waste disposed of appropriately.
- Possible presence of Asbestos.

Control measures

- Refer to section Health Hazards:5.2 for suggested controls.
- Water may be used to reduce dust generation during cutting and breaking. Where water suppression is used filters are required to prevent contamination of storm water drainage system.
- All site personal to report incidents of contact with rats to PSCS, specialist supplier to eliminate vermin from the works area before continuing with the required works.
- B&C Site management will ensure method statement are developed for handling chemicals when used during construction.
- All landscape workers shall supply and spread fertilizers in accordance with manufacturers instructions. Any persons administering chemicals (fertilisers / pesticides) shall be in receipt of the NPTC Safe Use of Pesticides Hand-Held Applicator PA6 qualification and the NPTC Safe Use of Pesticides Foundation Module PA1 qualification.
- All tree surgeons shall be mindful of using all other chemicals on site including the use of engine oil and fuel in chainsaws and all other machinery used on site..

8.8 Traffic movement

Identified Hazards:

- Site is accessed via a road network serving a residential area.
- Putting third parties at risk from construction activities / being struck by site vehicles.
- Deliveries and storage of building materials
- Waste material excavation, storage / removal from building
- Contractors compound is separated from the site with work expected to the surface of Adamstown Way, construction workers may have to cross the site of another project.

Associated Risks:

- Interface between construction work and general public vehicles.
- Person being struck by vehicles / reversing vehicle.
- Personnel not visible to drivers

- Inadequate traffic control.
- Drivers / pedestrians unaware of works.
- Operatives, plant, transport outside working areas, safety zones or signed areas.
- Unsafe access for pedestrians.
- Debris on the roads / footpaths.
- Access from a secure compound to and from the works.
- Roads that members of the public have access to, are safe for all users after work hours.
- Vandalism of any “after work hours” lighting or signage
- Unsafe access for contractors personnel crossing from compound to site.

Control measures

- B&C site managenent to periodically review material routes and walkways as works progress. In particular, when the works progress to the stage where there is co-occupancy between residents and construction operatives, B&C will ensure segregation between residential traffic and construction traffic.
- B&C will ensure all contractors cooperate with site EHS for any road surfacing works to Adamstown Way. Agreed measures to protect construction personnel crossing from compound to project site.
- Where site works are to be carried out outside the designated site boundary, all necessary precautions must be taken to ensure the Health & Safety of the public / third parties, in addition disruption to existing circulation routes are to be kept to an absolute minimum.
- B&C will ensure road and footpath cleaning arrangements are in place to prevent slips or skids due to debris on roads cycleways and footpaths.

8.9 Ambient and artificial lighting

Identified Hazards:

- Working at times of low ambient lighting
- Construction workers dazzled by vehicle lights.

Associated Risks:

- Construction personnel injured by collision with traffic.
- Trip and fall injuries where lighting is inadequate.

Control measures

- Temporary task lighting should be placed so as to avoid dazzling oncoming vehicles.
- A risk assessment shall identify activities where construction workers are at risk of being dazzled by vehicle lights. Suitable screening, of adequate strength to prevent windblown damage, shall be installed.
- Works sequenced and/or augmented with temporary lighting.

8.10 Manual Handling:

Identified Hazards:

- Lifting, pushing and pulling of tools, equipment and materials

- Lifting of precast manhole units, cover slabs, precast headwalls, large diameter concrete pipes
- Site mobilization and demobilization
- Excavation works

Associated Risks:

- Personal injury,
- Back strain,
- Overexertion

Control measures

- B&C will identify all works that involved manual handling and put in place a safe system of work to carry out above works as appropriate.
- Manual handling should be avoided as far as possible and mechanical lift should be considered as appropriate.
- B&C will ensure that detailed method statements and risk assessments are prepared for all works involving Manual Handling. Attention is drawn to the manual handling assessment charts (the MAC tool) published by HSE (UK) to augment risk assessments. The MAC tool was developed to help the user identify high-risk workplace manual handling activities and can be used to assess the risks posed by lifting, carrying and team manual handling activities. Safety Method Statements should be brought to attention of all operatives prior to commencement of their works.
- B&C will put in place measure to ensure only trained operatives are assigned to carry out manual handling works. Measures to include:

  - Wear gloves sufficient to the task.

  - Check weight & size of the load.

  - Ensure that no other viable method of lifting is available before attempting to lift manually

  - Have sufficient personnel available to carry out lifting/ manual handling.

  - Provide for lifting method statements for all heavy items, addressing swing arcs and noting adjacent trees or other obstacles.

- B&C will make arrangements for regular tool box talks to be carried out for all operatives and Manual Handling rules as well as protective measure are discussed as part of the tool box talks.

8.11 Noise & Vibration:

Identified Hazards:

- Chasing walls to facilitate services
- Coring through structural elements.
- Intrinsically noisy construction activities

Associated Risks:

- Hearing loss.
- Exceeding permissible noise levels
- White finger and carpel tunnel damage

Control measures

- Monitor noise levels where significant noise generating activities take place.
- Ensure PPE appropriate to the task and noise level is available and it is used.

8.12 Fire:

Identified Hazards:

- Combustible material on site.
- Hot work

Associated Risks:

- Fire.

Control measures

- Emergency Evacuation plan prepared and updated taking into account the progress of construction works.
- Included fire access drawings in Safety & Health Plan.
- B&C will ensure that a Fire Strategy is developed, and implemented, to include:-
  - Checking of escape routes, and of fire points

- Evacuating the building, in the event of a fire

- Fire prevention measures

- Ensuring NO SMOKING is permitted on site

- Monitoring housekeeping on an on-going basis to ensure that combustible materials do not accumulate on site, NB along escape routes.

- Waste removal on an on-going basis.

- Hot Work Permits for ALL Hot Works on site, i.e. welding, grinding, naked flames, there must be a Hot Work Permit system in operation.

- Welding to be carried out behind protective screens, in well-ventilated area. Avoid welding in enclosed spaces or where welding operation will present a fire hazard.

- Store welding gas bottles in secure area when not in use, avoid stockpiling of bottles on site.

- Take every care not to damage/interrupt any existing services, ensure that all personnel are fully aware of the configuration of the system they are working on and any other system they are likely to come into contact with.

Emergency Evacuation Plan:

- B&C will ensure all personnel are trained in the Fire Evacuation Plan / Fire Prevention Measures.
- Designated Fire Escape Routes to be set up

- Corridors / access routes / stairwells to be designated as fire escape routes, and arrangements must be made to keep these routes clear, of impediments at all times.
- Emergency Exit Signage (i.e. Green Background, with directional arrows, and person running) to be erected along designated escape routes / stairwells (as required).

Fire Fighting Equipment:

- Fire Points are to be set up within the building. At least one per 200m2 (plan area), and at least one at every story exit (i.e. stairs) from a floor / area.
- Fire Points to be clearly marked with signage and kept clear.
- Where Hot Works are required separate Fire Extinguishers shall be required in these areas (normally to be supplied by the contractor concerned)

8.13 Security:

Identified Hazards:

- Unauthorised access.
- Theft of equipment including safety equipment.
- Aggressive trespassers confronting lone workers or small groups of workers.

Associated Risks:

- Unauthorised access to site during construction phase may expose a person to construction hazards that they are not familiar with.
- Assault by aggressive trespassers.
- Theft of safety equipment including signage may expose a person to construction hazards.

Control measures

- B&C will ensure that there are adequate security precautions in place for the project to prevent the unauthorised entry of persons, with designated access points and appropriate signage put in place
- B&C will ensure that all works, materials etc. forming part of this project must be confined to the designated areas on site.
- B&C will ensure adequate site security and develop an emergency response to incidents of harassment, intimidation or assault on construction workers. Lone working risk assessment to identify an appropriate response to aggressive trespassers.
- B&C will ensure that adequate measures are in place to prevent theft of safety equipment including signage and barriers with the immediate replacement of safety equipment including signage.

8.14 Confined Spaces:

Identified Hazards:

- Working below ground.
- Inert atmosphere.

- Toxic gases – Sewer gases may include hydrogen sulfide, ammonia, methane, esters, carbon monoxide, sulfur dioxide and nitrogen oxides.
- Restricted space. Associated Risks:
- Risk to site personnel of asphyxiation, musculoskeletal injury.
- Sewer gas with a distinct "rotten egg" smell, may be due to hydrogen sulfide content, which can be detected by human olfactory senses in concentrations as low as parts per billion.
- Exposure to low levels of this chemical can irritate the eyes, cause a cough or sore throat, shortness of breath, and fluid accumulation in the lungs.
- High concentrations of hydrogen sulfide (>150 ppm) can produce olfactory fatigue, whereby the scent becomes undetectable.
- At higher concentrations (>300 ppm), hydrogen sulfide can cause loss of consciousness and death.
- Very high concentrations (>1000 ppm) can result in immediate collapse, occurring after a single breath.
- Risk to site personnel of musculoskeletal injury when retrieving an unconscious or semi-unconscious person.

Control measures to be put in place by the PSCS in order to eliminate / reduce / manage risks (as far as reasonably practicable) during this construction stage. Compliance with the current Safety, Health and Welfare at Work (Confined Space) Regulations is essential. Individual tasks will be risk assessed

- PSCS will monitor the works for the presence of hazardous vapors, including sewer gas. Where hazardous conditions are reasonably foreseeable; identify zones which will be managed as a confined space.
- Plan work to minimize entry to confined spaces. Where access to confined spaces is necessary PSCS may implement a Confined Spaces Permit system.
- Ensure only trained operatives undertake such works, and all PPE (including breathing apparatus) is made available as necessary.
- Non-entry rescue harness and tri-pod with buddy provided for rescue in the case of an emergency required for all operatives accessing a confined space.

8.15 Storage of Fuels & Hazardous Materials

All plant Fuel will be stored at the plant and machinery yard located beside the main compound. All fuel must be stored in a bunded tank (double walled tank). The Bunded portion of the tank must have the capacity to contain 110% of the main tank and must be enclosed and protected from rainwater. All other fuels and lubricants must be kept in drip trays and within the storage container located outside the main compound.

General Construction Risk Assessments

The B&C Contractors Monaghan Ltd Company Safety Statement contains a section that deals with an Identification of the main hazards in the construction industry and lists the control measures to be implemented to deal with the associated risk. The Company Safety Statement will be kept in the safety file on site

9. Subcontractor and others employed by the Client:

Minimum safety Requirements:

- This Construction Stage, *Health and Safety Plan* will be brought to the attention of all Subcontractors at the pre commencement meeting or shortly thereafter.
- All sub-contractors must comply with the terms of this document.
- All Subcontractors must submit a copy of their company Safety Statement and a Site-Specific Method Statements before starting work on site.
- All Subcontractors' "*responsible person*" is required to attend a Site Safety Meeting when required.
- All sub-contractors must ensure that their employees are adequately trained for the duties assigned to them.
- All personnel on site will receive Site Safety Induction. Each person attending the induction training must sign the attendance sheet at the end of the induction course.
- All Contractors must carry out Toolbox Talks regularly. Records must be returned to Site Manager or the Site Safety Officer.
- Appropriate PPE must be worn by all Workers, Managers, Directors, Supervisors and Visitors on site. Sub-Contract supervision must ensure that this requirement is monitored and enforced.
- All sub-contractors must comply fully with the Safety, Health and Welfare at Work Act 2005 and all other relevant legislation relevant to their operations.

All workers are to be formally inducted onto site, only after this induction is persons authorised to enter the site.

All persons entering site must have the relevant safety training completed as per Safety, Health and Welfare at Work (Construction) Regulations 2013. Under these Regulations the Safe Pass / Safety Awareness Programmes applies to -
(a) Craft and general construction workers,
(b) Persons undertaking on-site security work, and
(c) Persons or classes of persons as may be prescribed by the Minister.
The Health and Safety Authority in conjunction with the Construction Advisory committee have produced a summary of the Categories of persons to whom Safe Pass does and does not apply.

Summary checklist for Safe Pass

Category of personnel involved in Construction Projects	Is Safe Pass or equivalent mandatory	Category of personnel involved in Construction Projects	Is Safe Pass or equivalent mandatory
Craft Workers	Yes	Project Managers/Site Agents not involved in construction activities	No
Apprentices	Yes	Site Managers not involved in construction activities	No

General Construction Workers	Yes	Safety Advisors or Safety Officers not involved in construction work	No
Working Charge hands	Yes		
On-site Security Workers	Yes	PSDP/PSCS	No
Contractors Drivers On-site	Yes	Inspectors/Consultants	No
Delivery Drivers On-site e.g. concrete trucks	Yes	Clients & Client Reps	No
Students on Placement on site	Yes	Supervised Visitors	No
Delivery Drivers Not On-site e.g. delivering to compounds, canteens, offices	No	Archaeologists	No
Canteen Staff	No	Sales Representatives	No
Site Office Staff	No	Visitors to Show Houses	No
Architects, Surveyors, Engineers	No		

It should be noted that the regulations relate to minimum requirements and a Client, PSCS, PSDP or a Contractor may require that all personnel entering their construction site have Safe Pass.
Where Safe Pass is not specifically required, employers should note that there is a General Duty on Employers under the Safety, Health and Welfare at Work Act 2005 for the provision of such information, instruction, training and supervision as is necessary to ensure so far as is reasonably practicable, the safety and health at work of his employees.
The Safe Pass Programme is aimed at all construction site personnel, including new entrants, to ensure that they have a basic awareness of health and safety.

Training:

Note: All site personnel shall furnish B&C Contractors Monaghan Ltd with adequate proof Safe Pass, manual handling and CSCS training. Any person, who does not have a safe pass card, or formal confirmation from FAS that he/she has completed safe pass training or the relevant CSCS must not be allowed to enter the site.

All direct employees will complete a questionnaire addressing training regarding machinery, plant, tools, etc. All subcontractors will be asked to provide satisfactory guarantees that their employees are properly trained (safe pass, CSCS) and suitably skilled to carry out their prescribed works. Notices regarding information on the project and relevant parts of the Health and Safety Plan will be posed around the site.

All site personnel will undergo an initial induction talk and thereafter participate in Toolbox Talks taking place at least once per month carried out by site management or the subcontractor, dealing with specific areas in the building process. All employees will sign the necessary sheets for confirmation of attendance at these talks.

Insurances

The Sub-contractor insurance cover must be checked prior to commencement of work on site, i.e., Employer's Liability, Public Liability and All Risk. As each subcontractor is appointed their insurance details are placed on the central database at B&C Contractors Monaghan Ltd head office. The expiry date of the Subcontractors insurance will be recorded on the subcontractor register and any subcontractor whose insurance details has not been confirmed or has expired must be removed from site.

Safety Statements:

Every Subcontractor, employer and self-employed person carrying out work on this project must have a safety statement.

Safety Statement may require revision during the course of the contract works relative to any new hazards/risks, which may arise.

10. First Aid Arrangements:

There will be a first aid box with adequate supplies and an AED Located in the site office. An emergency response plan is in place for the site which is contained in the safety file and will be displayed on site. The names of the 1st Aiders will be displayed on site

11. Procedures in the event of an accident:

- In the event of a serious accident on site the injured person will not be moved unless their life is endangered by the environment, they are in to prevent spinal injury or worsening their condition.
- An ambulance will be summoned immediately by the Site Manager.
- The Site Manager will instruct a person to meet the ambulance at the site entrance.
- The Site Manager will make the necessary arrangements to allow the ambulance gain access to the site.
- The Site Manager will ensure that the injured persons family, the Contracts Manager, Safety Officer / Manager is informed as soon as possible.
- A full set of photographs must be taken with a disposable camera. Digital photographs should also be taken. Photographs of the work area, equipment being used and any other relevant images that are available should be taken.
- Item of equipment or tools associated with the accident must be retained in a safe location on site pending a full investigation.

- All accidents/incidents, however small, must be reported immediately to the Site Manager Safety Officer.
- All dangerous occurrences or near misses, however small, must be reported immediately to the Site Manager/Safety Officer.

12. Emergency Procedures:

Firefighting equipment will be maintained and regularly serviced. The company will provide instruction on the use of equipment. However, the primary objective of staff in the event of a fire must be to preserve life and with that in mind, no employee is to take unnecessary risks to extinguish a fire. Call the emergency services at 999 or 112.

All employees must ensure that fire escape routes and fire exits be maintained and kept clear at all times. In the event of an emergency e.g. fire, gas leaks, collapse of a structure etc, employees are advised to make their way to the nearest assembly point, if access is clear and safe. At the assembly point they must ensure that they don't impede the passage of emergency vehicles. The supervisor on site will inform the emergency services if any employee is missing. On no account will any employee return to a hazardous area without the consent of the emergency services, or senior site management working in conjunction with the emergency services.

13. Welfare Facilities on Site:

- **Toilets:**
  The site will have adequate toilet facilities. The Site Manager will ensure that these facilities are kept in a clean and hygienic condition at all times.

- **Canteen Facilities:**
  A clean and dry environment for workers to eat and rest in during lunch and tea/coffee breaks will be provided in the canteen area of the compound. There will be an adequate number of seats and tables provided. Workers are asked to respect these and keep them clean.

- **Drying Room Facilities:**
  A clean and dry environment for workers to store and dry clothes will be available in the site compound. Workers are asked to respect these and keep them clean.

14. Safety Consultation on Site:

B&C Contractors Monaghan Ltd recognises employee's rights to be consulted on all Health & Safety matters on site and see it as an opportunity to further improve the Health & Safety standards for all workers, visitors and members of the public.

- **The Construction Stage Health and Safety Plan**

The safety health and welfare arrangements set out in this health and safety plan for the project will be communicated to all employees and others who may be involved as set out in the distribution list.

- **Safety Representation:**
  Safety Representative:
  Once there are 20 workers on site, Site Management will facilitate the selection of a Safety Representative for the site. If the workers fail to select a Safety Representative from their numbers, Site Management will appoint a non-management person that is agreeable to carry out the role of Site Safety Representative.
  Site Management will make arrangements to have the Safety Representative trained and will invite the Safety Representative to all Site Safety Committee meetings. The Site Safety Representative will be requested to carry out one written observation report every week at a time agreed with the Site Manager and bring to the attention of Site Management any dangerous situation or work activity that the Safety Representative becomes aware of in a prompt and appropriate manner.

  Safety officer:
  Every contractor who normally has under his/her direct control at any one time more than 20 persons on a construction site, or 30 persons engaged in construction work, shall appoint in writing a safety officer. The safety officer's role is to advise and exercise general supervision in relation to statutory provisions and the promotion of safe conduct. Though a safety adviser and a safety officer could be one and the same person, advising both the PSCS and the contractor, if they are separate persons, the safety officer must co-operate with the safety adviser.
- **Safety Committee Meetings:**
  It is the policy of B&C Contractors Monaghan Ltd to facilitate a regular Safety Committee Meeting on every site. Safety Committee Meetings will take place, depending on compliance with safety inspections and safety audits by the company Safety Consultant. The Safety Committee Meeting must be chaired by the Safety Consultant/Site Manager and attended by the Site Safety Representative, the Site Foreman for each Subcontractor on site and by the site-based Safety Officer where appointed.

- **Toolbox Talks:**
  Toolbox talk topics will be issued to Subcontractors Foremen at the Site Safety Committee Meetings. The first topic for the Subcontractors to discuss with their workers is their method statement for the work they are to carry out on site. All subsequent toolbox talks must be relevant and particular to the type of work that the Subcontractor is carrying out on site. The Subcontractors Foreman must return the completed sign in sheet before or at the next Safety Committee Meeting. The Site Manager must ensure that Clarinda workers receive toolbox talks.

15. Information / Instruction / Training and Supervision for Site Personnel:

All operatives will receive information, instruction, training and supervision as appropriate to their work activities and in compliance with the Safety, Health and Welfare at Work Act 2005, the

Safety Health and Welfare at Work (General Application) (Amended) Regulations 2016, Safety, Health and Welfare at Work (Construction) Regulations 2013 and any other relevant legislation.

16. Company Safety Rules:

- All control measures set out in the company safety statement, and any method statement or safe plan of work prepared by B&C Contractors Monaghan Ltd constitute safety rules
    - All control measures set out in a Subcontractor's company safety statement, and the method statement particular work to be carried out, constitute safety rules.
- All workers must be site safety inducted and provide evidence of having received Safe Pass training prior to commencing work on site. No proof of Safe Pass no entry to site
- As a minimum all persons on site must wear the following personal protective equipment at all times
    - Safety Helmet
    - High visibility vest or coat
    - Safety boots
- All persons who perform the following tasks must have received Construction Skills Certificate Scheme (CSCS) training:
    - Scaffolding – Basic
    - Scaffolding – Advanced
    - Tower Crane Operation, Self-Erecting Crane Operations, Mobile Crane Operations, Crawler Crane Operations
    - Slinging/Signalling
    - Telescopic Handler Operations, Tractor/Dozer Operations
    - Articulated Dumper Operations
    - Site Dumper Operations
    - 180˚ Excavator Operations and 360˚ Excavator Operations
    - Roof and Wall Cladding/Sheeting and Built up Roof Felting
    - SLG at Road works
    - CAT scanner

Mandatory Non CSCS Tickets:

- Mobile Elevating Working Platform Operators (Scissor lifts and Cherry Pickers)
- Fall Arrest Net Erectors
- Abrasive Wheel (changing)
- Manual Handling

- The use of any radio (for entertainment) and mobile phones is prohibited on all B&C Contractors Monaghan Ltd sites.
- Smoking is prohibited in all enclosed areas as required by our company policy and legislation.
- No alcohol or illegal substances or persons under the influence of either will be permitted on site.
- Defects in plant, equipment or unsafe systems of work must be reported immediately to the Site Manager for corrective action.
- Each Individual worker is responsible for ensuring his/her work area is tidy at all times.

- Any form of bullying or harassment as set out in the B&C Contractors Monaghan Ltd Anti Bullying and Harassment Policy (in Company Safety Statement) is Strictly Prohibited.
- Any form of horseplay, pranks/practical jokes that may cause injury or constitute harassment is strictly prohibited.

17. B & C Contractors Monaghan Ltd Disciplinary Procedure

In cases of unsatisfactory conduct or for the non-compliance with the company safety rules, the following steps will be taken: -

(a) Verbal warning (recorded in the Site Managers Diary)
(b) Written warning (final or otherwise)
(c) Final written warning/or suspension with or without pay for varying periods.
(d) Dismissal.

Note: Gross misconduct may lead to instant dismissal, without notice and/or prior verbal or written warnings.

A Site Manager may instruct a Subcontractor to remove an employee from site for a breach of B & C Contractors Monaghan Ltd safety rules without any prior warning.

18. Safety Inspections / Audits:

To ensure that all B & C Contractors Monaghan Ltd sites are complying with the company Safety Management System, a programme of safety inspections are carried out as follows:

- Site Managers weekly hazard observation.
- Site Safety Officers safety audit.
- Safety consultant site audits which will be carried out on a at least a monthly basis for the duration of project.

19. Monitoring and Review of the Construction Stage Safety Plan:

Adjustments to the Safety/Health Plan will be made where required to take account of the progress of the work and any changes which occur.

20. Safety File:

Under Regulation 13 of the Safety, Health and Welfare at Work (Construction) Regulations 2013, the PSDP is now responsible for preparation of a Safety File for the project and presenting it to the Client when the project is complete. The Safety File is a record of information for the end user, which focuses on safety and health. The information it contains will alert those who are responsible for the structure and services in it of the significant safety and health risks that will need to be addressed during subsequent maintenance, repair or refurbishment, extension or other construction work or, indeed, its demolition. In order to prepare the Safety File, the PSDP should receive appropriate information from designers, the PSCS and other duty-holders. This will require co-operation and co-ordination right from the start. Information required for the Safety File includes the following:

- Construction drawings, specifications and information, used and produced throughout the construction process;

- The general design criteria adopted, and details of the equipment and maintenance facilities within the road and associated structures.
- Maintenance procedures;
- Manuals, and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically cleaning of drains);
- Details of the location and nature of utilities and services, including emergency systems; Information supplied to the PSDP should include some, or all of the elements listed below:
- Detailed drawings and details of design criteria i.e. design loadings; Details of materials used;
- Details of maintenance i.e. painting of exposed steelwork, access to and cleaning of gutters or other features;
- Details of fragile materials.

A safety file will be prepared as the project progresses to comply with the *Safety, Health and Welfare at Work (Construction) Regulations 2013* and will be completed as soon as is practicable after the completion of the project and delivered to the Client.

It is, at this stage, envisaged that the safety file would contain the following: -

List of information to be provide for inclusion of the **Safety File**

Item	Description	Responsible Party
1.0	**Section 1.0 : General Information**	
1.1	General Description, overview and scope of the Project.	Architect
1.2	Brief description of the work carried out.	PSCS
1.3	Details of consultants and designers involved in the project.	PSDP
1.4	Full Contact Details of the Contractor and Sub-Contractors, suppliers and manufacturers (where relevant). Names, addresses, telephone nos.	PSCS
1.5	BCaR certificate	Assigned Certifier
2.0	**Section 2.0 : Construction Materials**	
2.1	Materials: Full list of materials used in the project along with information regarding locations of same.	PSCS / Main Contractor
2.2	Suppliers and Manufacturers: List of principle suppliers, manufactures used for this project along full contacts details.	PSCS / Main Contractor
2.3	Data Sheets: Manufacturer's product information including data sheets and manufactures recommendations for cleaning/repairing and maintenance. Originals of product brochures required.	PSCS / Main Contractor
2.4	Final Bills of Quantities (summaries)	QS
2.5	Contractor Completion statement: Confirmation that works completed as per final drawings	PSCS
3.0	**Section 3.0 : As Built Drawings**	
3.1	Schedule of Drawings	All Designers
3.2	Site details and drawings that are relevant to the management of health and safety during the operation and maintenance of the structure.	All Designers
3.3	Construction drawings and specifications used and produced throughout the construction process.	
3.3.1	A complete set of Final Construction Stage Drawings	All Designers
3.3.2	A complete set of as built drawings	PSCS / Contractors
3.3.3	Complete Fire Cert & DAC application	Arch.
4.0	**Section 4.0 : Design Information**	
4.1	General design criteria/plans adopted.	All Designers
4.2	Specific design criteria/plans such as design loading of roofs, floors, cranes, hoists, etc. key structural principles (for example, bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there.	All Designers
4.3	General Design Criteria - Engineering Specifications	All Designers
5.0	**Section 5.0 : Underground Services and Other Utilities**	
5.1	Details of the location and nature of utilities and services, including emergency and fire-fighting systems.	PSCS / Contractors
5.2	Details of any underground services encountered, not included in original information provided	PSCS / Contractors
5.3	Information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc).	PSCS / Contractors
5.4	CCTV survey of all drainage within the development when laid and also within six months before taking in charge	PSCS / Contractors
6.0	**Section 6.0 : Construction Photographs**	
6.1	Include any construction photos/recordings where these can assist operation, maintenance, and future construction or in the management of Safety of the structure.	

7.0	**Section 7.0 : Plant and Equipment**	
7.1	Schedules of all plant, equipment, provided.	PSCS / Contractors
7.2	name, address and telephone details of the manufacturer of items of plant and equipment.	PSCS / Contractors
7.3	Manufacturers' technical literature for all plant and equipment together with catalogue list numbers.	PSCS / Contractors
7.4	A copy of all test certificates.	PSCS / Contractors
7.5	A copy of all manufacturers' guarantees. warranties and maintenance agreements offered by subcontractors and manufacturers.	PSCS / Contractors
7.6	Starting up, operating and shutting down instructions for all equipment and systems installed. Normal operation and emergency operation.	PSCS / Contractors
7.7	Control Sequences for all systems installed in normal operation and in emergency situations.	PSCS / Contractors
7.8	Maintenance procedures and requirements for the structure.	PSCS / Contractors
7.9	Recommendations as to the preventative maintenance frequency and procedures to be adopted to ensure the most efficient operation of the systems.	PSCS / Main Contractor
7.10	Details of maintenance such as painting to exposed steelwork, access to and cleaning of gutters and other features.	PSCS / Main Contractor
7.11	Manuals, and where appropriate certificates, produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for plant and equipment installed as part of the structure (typically lifts, electrical and mechanical installations, pressure vessels, control and instrumentation systems, window cleaning facilities).	PSCS / Main Contractor
7.12	Health and Safety information about equipment provided for cleaning or maintaining the structure.	PSCS / Main Contractor
8.0	**Section 8.0 : Contaminated Land if Present**	
8.1	Locations of any significant contamination encountered during excavation works.	PSCS / Main Contractor
8.2	Waste Disposal Certificates	PSCS / Main Contractor
9.0	**Section 10.0 : Future Demolition**	
9.1	Information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc.)	PSCS / Main Contractor
10.0	**Section 11.0 : Residual Risks**	
10.1	Details of fragile materials and any incorporated facility to protect those working in close proximity, such as anchor points.	PSCS / Main Contractor
10.2	Any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos contaminated land water bearing strata buried services etc).	All Designers PCSC
10.3	Hazardous materials used (for example lead paint pesticides special coatings which should not be burnt off etc).	PSCS / Main Contractor

Supplementary information to be provide for the occupiers **Safety File** (1 bound hard copy per unit)		
Item	**Description**	**Responsible Party**
1.0	**Section 1.0 : Occupiers safety file**	
1.1	Schedules of all equipment and appliances provided in the unit.	PSCS / Contractors
1.2	Starting up, operating and shutting down instructions for all equipment and systems installed. Normal operation and emergency operation.	PSCS / Contractors
1.3	Manufacturers' technical literature for all plant and equipment together with catalogue list numbers. Original brochures required.	PSCS / Contractors
1.4	Data Sheets: Manufacturer's product information including data sheets and manufactures recommendations for cleaning/repairing and maintenance. Originals of product brochures required.	PSCS / Contractors
1.5	A copy of all manufacturers' guarantees and warranties.	PSCS / Contractors
1.6	A copy of electrical and RGI test certificates.	PSCS / Contractors

21. The General Principles of Prevention

The General Principles of Prevention,

a) The avoidance of risks.

b) The evaluation of unavoidable risks.

c) The combating of risks at source.

d) The adaptation of work to the individual, especially as regards the design of places of work, the choice of work equipment and the choice of systems of work, with a view, in particular, to alleviating monotonous work and work at a predetermined work rate and to reducing their effect on health.

e) The adaptation of the place of work to technical progress.

f) The replacement of dangerous articles, substances or systems of work by non-dangerous or less dangerous articles, substances or systems of work.

g) The development of an adequate prevention policy in relation to safety, health and welfare at work, which takes account of technology, organisation of work, working conditions, social factors and the influence of factors related to the working environment.

h) The giving to collective protective measures of priority over individual protective measures.

i) The giving of appropriate training and instructions to employees.

21. Third Schedule - Construction Regulations

Requirements to Be Applied Regarding the General Principles of Prevention

(a) Keeping the construction site in good order and in a satisfactory state of cleanliness.

(b) Choosing the location of workstations bearing in mind how access to these workplaces is obtained and determining routes or areas for the passage and movement of equipment.

(c) The conditions under which various materials are handled.

(d) Technical maintenance, pre-commissioning checks and regular checks on installations and equipment with a view to correcting any faults which might affect the safety and health of persons at work.

(e) The demarcation and laying out of areas for the storage of various materials, in particular where dangerous materials or substances are concerned.

(f) The conditions under which the dangerous materials are removed.

(g) The storage and disposal or removal of waste and debris.

(h) The adaptation, based on progress made with the site, of the actual period to be allocated for the various types of work or work stages.

(i) Co-operation between employers and self-employed persons.

(j) Interaction with industrial activities at the place within which or in the vicinity of which the construction site is located.

22. Risk Assessments and Controls

(Note: these Company Risk Assessments will be further developed as site specific documents in line with PSDP / Designer`s Design Risk Assessments as works require for the duration of the Project).

Purpose

To describe the measures to be implemented within. For the identification of hazards, and for the assessment and control of health and safety risks.

Scope

The following procedures particularly apply to:

- Planned workplace changes that may affect the health or safety of employees, contractors, visitors or customers of prior to their implementation; and
- Existing activities, work practices, equipment, items of plant, materials, substances, facilities, premises, buildings areas, etc.

Conducting a 'general' risk assessment: the key stages

When conducting a risk assessment, you will need to:

1. Use the Risk Assessment Form
2. Follow the sequence outlined in the form
3. State precisely what the hazard or hazards are – this will help you to keep focused on the risk's issues and, later, how they are to be controlled
4. Assess the extent of risk, considering the likely level under one of the following categories 'Low' 'Medium' or 'High'

5. Identify whether existing precautions are adequate or whether more should be done
6. Identify what further action may be necessary to control the risk and the controls taken
7. Record all your findings and review your assessment at appropriate intervals

Step 1 Hazard Identification

Hazard - The intrinsic property or ability of something e.g. work material, equipment, methods and practices etc., with the potential to cause harm

To ensure you identify what could reasonably be expected to cause harm, you may find it helpful to use one or more of the following methods:

Activities - Look at each activities that may cause injury or ill health e.g. maintenance work, people working on their own, after work hours

Equipment - Look at hazards and risks of using equipment e.g. forklift trucks, powered tools, lifting equipment, ladders, etc.

Work Areas - Look at each section / department e.g. offices, switch rooms, areas outside of buildings, storage areas, activities conducted on customers sites, etc.

Substances - Look for substance in use, reviewing manufacturers' information/ instructions or safety data sheets will help you identify hazards and place risks in their true perspective

Interpersonal - Personnel issues, which, if not addressed, are likely to result in harm to one or more individuals e.g. bullying

Other - Any other areas or activities in which hazards and risks may be present

Where you have identified hazards, you should carry out a risk assessment, i.e. assess the risk of hazard occurring.

Step 2 – Risk Assessment

Risk – The likelihood that the potential for harm will be attained under the conditions of use and/or exposure, and the possible extent of the harm.

You should now investigate and assess the probability or likelihood of injury or ill health occurring as a result of inadequately managed or controlled hazards, based on the worst-case likely outcome.

To establish the level of risk (Low, Medium, High,) associated with each hazard, you assess the frequency (probability with which the harm may occur, and the likely severity of the consequences. You should also take into account in your assessment, the number of people who may be involved, i.e. a hazard that affects just one person, would be given less priority than a similar hazard which affected 20 people.

RISK LEVEL	ACTION AND TIME SCALE
Low	No additional controls required; monitoring is required to ensure controls are maintained.
Medium	Efforts should be made to reduce risks and the costs measured. Risk reduction measures should be implemented within a defined time period.
High	No work until risk is reduced. If work is in progress, then urgent action should be taken

Risk Control – Hierarchy of Controls & Principals Of Prevention

For each of the identified hazards that are identified as high or medium risks a corrective action / continuous improvement plan should be developed and reviewed as required. When assessing possible control measures, keep in mind the hierarchy of control, which ranks risk control measures in decreasing order of effectiveness. Risk control measures should always aim as high in the list as practicable. Control of any given risk generally involves a number of measures drawn from the various options (except if option 1 is selected)